

I hereby give notice that a hearing by commissioners will be held on:

Date: Wednesday 25 - Tuesday 31 August 2021
Time: 9.30AM
Meeting room: Manukau Room
Venue: Ground Floor, Civic Annex
31-33 Manukau Station Road, Manukau

PRIVATE PLAN MODIFICATION 50
HEARING REPORT
VOLUME 1
WAIHOEHOE PRECINCT
OYSTER CAPITAL

COMMISSIONERS

Chairperson Greg Hill
Commissioners Karyn Kurzeja
Mark Farnsworth

Sam Otter
SENIOR HEARINGS ADVISOR

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WHAT HAPPENS AT A HEARING

Te Reo Māori and Sign Language Interpretation

Any party intending to give evidence in Māori or NZ sign language should advise the hearings advisor at least ten working days before the hearing so a qualified interpreter can be arranged.

Hearing Schedule

If you would like to appear at the hearing please return the appearance form to the hearings advisor by the date requested. A schedule will be prepared approximately one week before the hearing with speaking slots for those who have returned the appearance form. If changes need to be made to the schedule the hearings advisor will advise you of the changes.

Please note: during the course of the hearing changing circumstances may mean the proposed schedule may run ahead or behind time.

Cross Examination

No cross examination by the applicant or submitters is allowed at the hearing. Only the hearing commissioners are able to ask questions of the applicant or submitters. Attendees may suggest questions to the commissioners and they will decide whether or not to ask them.

The Hearing Procedure

The usual hearing procedure is:

- **the chairperson** will introduce the commissioners and will briefly outline the hearing procedure. The Chairperson may then call upon the parties present to introduce themselves. The Chairperson is addressed as Madam Chair or Mr Chairman.
- **The applicant** will be called upon to present their case. The applicant may be represented by legal counsel or consultants and may call witnesses in support of the application. After the applicant has presented his/her case, members of the hearing panel may ask questions to clarify the information presented.
- **Submitters** (for and against the application) are then called upon to speak. Submitters' active participation in the hearing process is completed after the presentation of their evidence so ensure you tell the hearing panel everything you want them to know during your presentation time. Submitters may be represented by legal counsel or consultants and may call witnesses on their behalf. The hearing panel may then question each speaker.
 - Late submissions: The council officer's report will identify submissions received outside of the submission period. At the hearing, late submitters may be asked to address the panel on why their submission should be accepted. Late submitters can speak only if the hearing panel accepts the late submission.
 - Should you wish to present written evidence in support of your submission please ensure you provide the number of copies indicated in the notification letter.
- **Council Officers** will then have the opportunity to clarify their position and provide any comments based on what they have heard at the hearing.
- the applicant or their representative has the right to summarise the application and reply to matters raised by submitters. Hearing panel members may further question the applicant at this stage. The applicants reply may be provided in writing after the hearing has adjourned.
- **The chair** will outline the next steps in the process and adjourn or close the hearing.
- If adjourned the hearing panel will decide when they have enough information to make a decision and close the hearing. The hearings advisor will contact you once the hearing is closed.

Please note

- that the hearing will be audio recorded and this will be publicly available after the hearing
- catering is not provided at the hearing.

A NOTIFIED PRIVATE PLAN MODIFICATION TO THE AUCKLAND UNITARY PLAN BY OYSTER CAPITAL

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Reporting officer, David Mead, Planner

Reporting on a proposed private plan modification to rezone 48.9 hectares of land located to the north of Waihoehoe Road and east of the North Island Main Trunk Railway, from Future Urban to Residential: Terrace Housing and Apartment Buildings zone. at Waihoehoe Precinct

APPLICANT: OYSTER CAPITAL

SUBMITTERS:	
Page 365	Dannielle Haerewa
Page 367	Douglas Signal
Page 369	Dodd Civil Consultants <ul style="list-style-type: none"> • Peter David Dodd
Page 372	Fire and Emergency New Zealand
Page 376	Wendy Hannah
Page 379	Brookfield Road Limited
Page 381	Oyster Capital
Page 419	Dong Leng
Page 424	Kenneth Giffney
Page 427	Chunfeng Wang and Xiaoling Liu
Page 430	Tony Chien and Zhenhao Tang
Page 432	Kiwi Property Holdings No.2 Limited
Page 434	Fulton Hogan Land Development Ltd
Page 439	Spark New Zealand Trading Limited
Page 451	Fletcher Residential Limited
Page 455	Britmatt Holdings Ltd
Page 458	Josephine Kleinsman
Page 473	Lomai Properties Limited
Page 477	The Ministry of Housing and Urban Development (HUD), Te Puni Kōkiri and the Department of Corrections
Page 483	Ngāti Te Ata Waiohua
Page 487	Auckland Council
Page 508	Auckland Transport
Page 549	Counties Power Limited
Page 564	Ministry of Education
Page 569	Leith McFadden
Page 571	Heritage New Zealand Pouhere Taonga
Page 577	Matthew Royston Kerr
Page 579	Drury South Limited
Page 582	Waka Kotahi - The New Zealand Transport Agency
Page 593	KiwiRail Holdings Limited
Page 604	Karaka and Drury Limited
Page 607	Kāinga Ora

Page 623	Watercare
Page 629	Ngāti Tamaoho
Page 633	Tim John MacWhinney

FURTHER SUBMITTERS:

Page 637	Britmatt Holdings Ltd
Page 639	NZ Transport Agency
Page 643	Auckland Council
Page 649	Drury South Limited
Page 653	Auckland Transport
Page 673	Kāinga Ora
Page 699	Watercare
Page 703	Counties Power Ltd
Page 721	Heritage New Zealand Pouhere Taonga
Page 731	Josephine Kleinsman



Hearing Report for Proposed Plan Change 50: Waihoehoe Precinct to the Auckland Unitary Plan (Operative in part)

Section 42A Hearing Report under the Resource Management Act 1991

Report to:	Hearing Commissioners
Hearing Date/s:	25-27; 30-31 August 2021
File Reference	Sec 42A report – PPC 50
Report Author	David Mead, Consultant Planner
Report Approvers	Craig Cairncross, Team Leader Central South Plans and Places
Report produced	1 July 2021

Summary of Proposed Plan Change 50 (Waihoehoe Precinct):

Plan subject to change	Auckland Unitary Plan (Operative in part), 2016
Number and name of change	Proposed Plan Change 50 – (Waihoehoe Precinct) to the Auckland Unitary Plan
Status of Plan	Operative in part
Type of change	Private plan change
Committee date of approval (or adoption) for notification	2 July 2020
Parts of the Auckland Unitary Plan affected by the proposed plan change	<ul style="list-style-type: none"> • Chapter I Precincts – new precinct added • Planning maps – zones, precinct boundary, Stormwater Management Area Flow 1 Control
Date draft proposed plan change was sent to iwi for feedback	Specialist reports sent by requestor in July 2019. Precinct provisions were sent by the requestor pre-notification
Date of notification of the proposed plan change and whether it was publicly notified or limited notified	27 August 2020, publicly notified
Plan development process used – collaborative, streamlined or normal	Normal
Submissions received (excluding withdrawals)	35
Date summary of submissions notified	11 December 2020
Number of further submissions received (numbers)	10
Legal Effect at Notification	No
Main issues or topics emerging from all submissions	<ul style="list-style-type: none"> • Funding and timing of infrastructure upgrades required to support urbanisation of the site, particularly transport • Consistency with the NPS-UD – building heights • Workability of provisions linking development trip generation to trigger transport upgrades • Location/amount of open space, and width/planting of riparian margins • Ensuring servicing of area with utilities, and protection of network utility operator interests

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Abbreviations

Abbreviations in this report include:

Abbreviation	Meaning
AEP	Annual Exceedance Probability
AT	Auckland Transport
AUP	Auckland Unitary Plan (Operative in Part)
CVA	Cultural Values Assessment
DTIP	Drury Transport Investment Programme
FTN	Frequent Transit Network
FULSS	Auckland Council Future Urban Land Supply Strategy 2017
FUZ	Future Urban Zone
GFA	Gross Floor Area
ITA	Integrated Transport Assessment
LTP	Auckland Council Long Term Plan (10 Year Budget)
MHS	Residential - Mixed Housing Suburban zone
MHU	Residential - Mixed Housing Urban zone
NDC	Auckland Council Stormwater Network Discharge Consent
NES-CS	National Environmental Standard on assessing and managing contaminants into soil to protect human health
NoR	Notice of Requirement
NPS-FM	National Policy Statement on Freshwater Management 2020
NPS-UD	National Policy Statement for Urban Development 2020
NZTA	Waka Kotahi NZ Transport Agency
NZUP	New Zealand Upgrade Programme
PPC50	Proposed Plan Change 50
RLTP	Regional Land Transport Plan 2018
RMA	Resource Management Act 1991
RPS	Regional Policy Statement (of the AUP)
SEA	Significant Ecological Area
SGA	Te Tupu Ngātahi / Supporting Growth Alliance

SH1	State Highway 1
SMAF1	Stormwater Management Area Control – Flow 1
SMP	Stormwater Management Plan
THAB	Residential - Terrace Housing and Apartment Buildings zone
WK / NZTA	Waka Kotahi NZ Transport Agency

EXECUTIVE SUMMARY

1. Proposed Private Plan Change 50 (PPC50) to the Auckland Unitary Plan is a private plan change request from Oyster Capital Limited which seeks to rezone 49 hectares of land located to the north of Waihoehoe Road and east of the North Island Main Trunk Railway, from Future Urban zone to Residential: Terrace Housing and Apartment Buildings zone. The plan change request also seeks to introduce a new Waihoehoe Precinct. 1,130 dwellings may be accommodated, depending upon the density of development.
2. The normal plan change process set out in Schedule 1 of the Resource Management Act 1991 ('RMA') was adhered to in the processing of PPC50. The Plan Change request was notified for public submissions on 27 August 2020 with 35 submissions received. The Summary of Decisions Requested was notified for further submissions on 11 December 2020. 10 further submissions were received before the closing date of 29 January 2021. There were no late submissions. Two submission points have been withdrawn in part.
3. The discussion and draft recommendations in this report are intended to assist the Hearing Commissioners, the requestor and those persons or organisations that lodged submissions on PPC50. The recommendations contained within this report are not the decisions of the Hearing Commissioners.
4. **Note:** This report was prepared on the basis of the proposed plan change as notified and taking into account resulting submissions. As discussed in this report, the notified plan change request assumed that the Mill Road extension would be in place by 2028, based on the timing set out in the 2020 NZ Upgrade Programme (NZUP). On the 4 June 2021 the Government announced a review of the NZUP programme which involved a downgrading of the Mill Road project. It has not been possible in the time available to understand the substantial implications for the plan change request of this reprioritisation of the Mill Road project to a focus on safety issues. This is a matter that the requestor needs to address and it is possible that substantial revisions will be needed, which if not clarified, would lead to substantial uncertainty over the likely effects of the plan change request, which could be sufficient to justify declining the request. The following assessment should be considered in this context.
5. It is my assessment that at a strategic level, the plan change will assist with meeting regional housing demands. The development, however, is dependent upon the proposed new Drury Centre and train station that will be situated to the immediate south of the plan change area. Successful achievement of regional and national policy seeking integration of development with infrastructure is dependent upon the development being co-ordinated with access to public transport services (including easy and direct access to the train station and future bus services that can connect into the regional network along Great South Road). The means to ensure such integration has elicited a wide range of submissions from local and central government agencies. Auckland Council and Auckland Transport have also expressed significant concern over the funding and delivery of a number of roading projects that will be important to transport outcomes.
6. These concerns are understandable, but since the plan change request was lodged, recent Council planning documents like the draft Long Term Plan and draft Regional Land Transport Plan 2021-31 identify the wider Drury area as being an important focus area for investment. In my opinion, the uncertainties over the delivery of roading projects (including Mill Road extension) can be mitigated to a degree by a strong focus on development supporting the use of public transport (given that the NZUP and Auckland Transport Alignment Project Update both commit substantial sums to expanding rail services between Papakura and Pukekohe).

7. In conjunction with improved access to public transport, the quality of the public realm will be important in delivering on objectives relating to a quality, compact urban environment. The position of the precinct adjacent to a new Metropolitan Centre and near the new rail station mean that the density of development is appropriate in terms of the expectations of the AUP RPS and National Policy Statement on Urban Development. Building heights should be increased to provide for 6 storey development. Hand-in-hand with higher density needs to come a step up in the extent and quality of the public realm. This can be achieved through retention of stream corridors, more detail on future open spaces and attention to road design that reflects the various urban contexts that will be present.
8. Provided that amendments are made to the Precinct provisions to address the issues outlined above (and as more fully detailed in section 10), then it is my recommendation that the private plan change request be approved with modifications under clause 29(4)(a) of Schedule 1 of the RMA. However, should the above matters not be resolved in an appropriate manner (that is in a way that the plan change does not give effect to national and regional policy), then I would recommend that the plan change request be declined under clause 29(4)(a) of Schedule 1 of the RMA.

1. BACKGROUND

1.1. Plan Change Purpose

9. Proposed Private Plan Change 50 (PPC50) to the Auckland Unitary Plan Operative in Part (AUP) is a private plan change request from Oyster Capital Limited which seeks to rezone 49 hectares of land located to the north of Waihoehoe Road and east of the North Island Main Trunk Railway, from Future Urban Zone (FUZ) to Residential: Terrace Housing and Apartment Buildings (THAB) zone. It also seeks to introduce a new Waihoehoe Precinct. The proposed plan change provisions are attached to this report as Appendix 1.
10. The purpose of PPC50 as outlined in the s32 evaluation report is to provide for additional housing within Drury, consistent with the Council's draft Drury-Opāheke Structure Plan.¹

1.2. Associated Plan Changes

11. PPC50 is one of three private plan change requests to the AUP received simultaneously from Kiwi Property No 2 Ltd (PPC48), Fulton Hogan Land Development Ltd (PPC 49) and Oyster Capital Ltd (PPC50) that collectively seek to rezone 330 hectares of land in the Drury East area from Future Urban zone to a mix of residential, business and open space zones including a metropolitan centre. The overall zoning pattern sought is shown on Figure 1 below. The PPC50 area (Waihoehoe Precinct) is shown below, with the area coloured in orange indicating the proposed Terrace Housing and Apartment buildings zoning.

¹ Section 5.3 of the s32 report

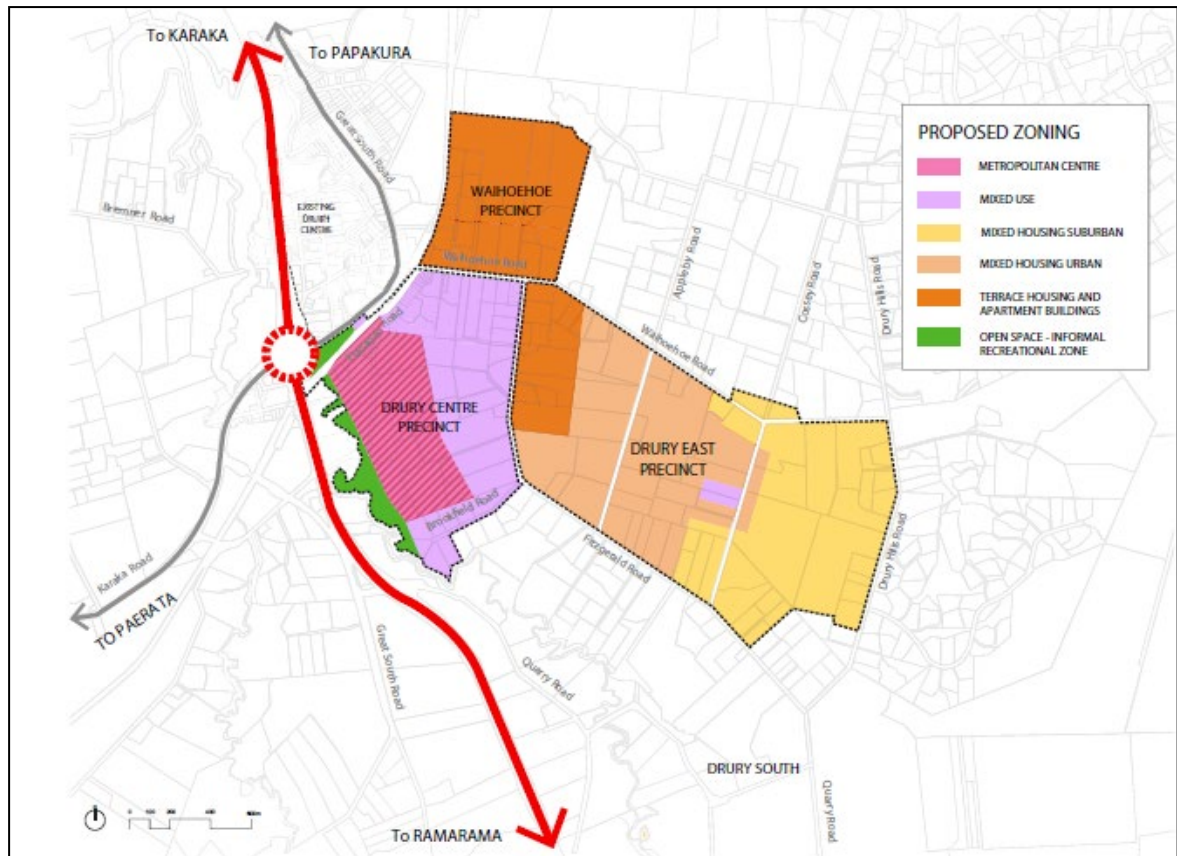


Figure 1: Proposed zoning pattern

1.3. Location and Land Ownership

12. A locality map is included as Figure 2 below (plan change area outlined in red). The requestor owns about 40% of the PPC land area (the eastern side), with the other properties on the western side in different private ownerships. Some of these landowners have submitted on PPC50, and matters raised in their submissions are addressed in section 9 of this report.



Figure 2: Locality Plan

1.3.1. Existing Environment

13. The land subject to the private plan change request is located in Drury East on the southern edge of the Auckland metropolitan area.
14. The overall topography of the PPC50 area is relatively flat with a gentle cross fall from Waihoehoe Road towards the northern boundary. There are modified watercourses that traverse the site and a short section of the main stem of the Waihoihoi Stream flows along the north-eastern boundary of the site.
15. Vegetation within the site is characterised by pasture used to graze sheep and cattle. There are some areas of existing native vegetation found within the site, although these are generally limited given the predominant farming use. Riparian vegetation along the watercourses is dominated by exotic trees and shrubs.
16. The plan change area is currently used primarily for farming activities and a small number of dwellings and accessory buildings.
17. To the west of the plan change area lies the existing Drury township and business area, while further to the south is the developing Drury South industrial area. The plan change area sits immediately to the north of PPC48 (Drury Centre).
18. The Waihoihoi Stream discharges into the Pahurehure Inlet, within the eastern Manukau harbour. The Pahurehure Inlet is classified as a Significant Ecological Area (SEA) – Marine 1, under the AUP (identified as SEA-M1-29b) due to the presence of marsh land. The classification also recognises the area as a migration path between the marine and

freshwater habitats for a number of native freshwater fish. A terrestrial ecology SEA applies to the fringes of the SEA (SEA_T_530).

19. Relevant features of the plan change area are shown in Figure 3, based on Council's GIS information. Shown are streams and estimated flood plains, as well as KiwiRail designation 6302 for the NIMT rail line along the western boundary.

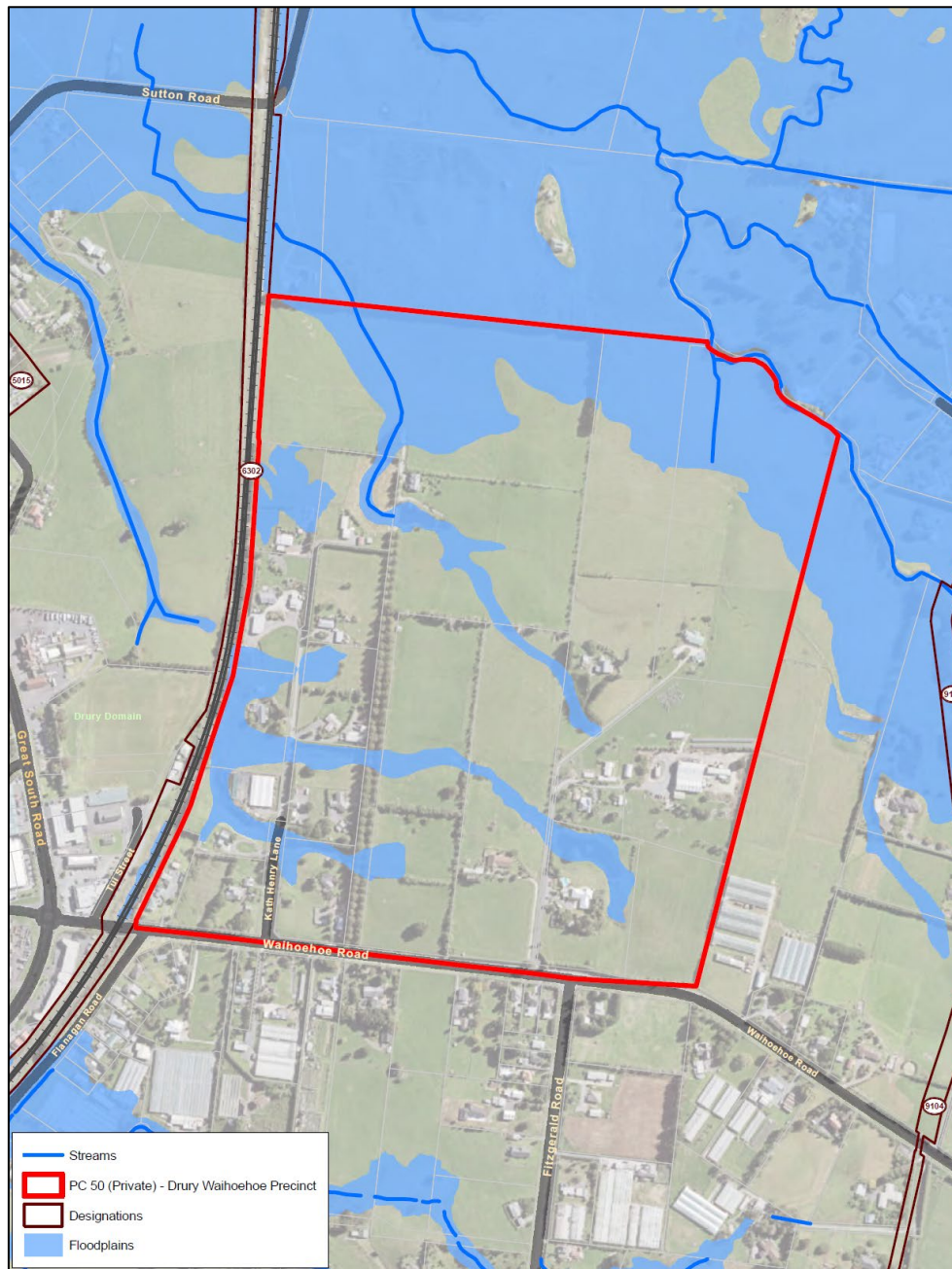


Figure 3: Plan Change area features

1.4. Notices of Requirements and Drury Central Station

20. Auckland Transport (AT) and Waka Kotahi / NZ Transport Agency (Waka Kotahi), as requiring authorities under the RMA, issued Notices of Requirements (NoRs) in January 2021 for a number of new designations for future strategic transport corridors in the area.

These designations are to support the planned urban growth in the Drury-Opāheke area. Of relevance to PPC50 are the following three NoRs:

D2 Jesmond to Waihoehoe West Frequent Transit Network (FTN) Upgrade

Widening of Waihoehoe Road from the Norrie Road/Great South Road intersection to Fitzgerald Road to a four-lane FTN urban arterial with separated active transport facilities.

D3 Waihoehoe Road East Upgrade

Widening of Waihoehoe Road east of Fitzgerald Road to Drury Hills Road to a two-lane urban arterial with separated active transport facilities.

D4 Opāheke NorthSouth FTN Arterial

A new four-lane FTN urban arterial with separated active transport facilities from Hunua Road in the north to Waihoehoe Road in the south.

21. These routes are shown in Figure 4 (sourced from the NoR documents)

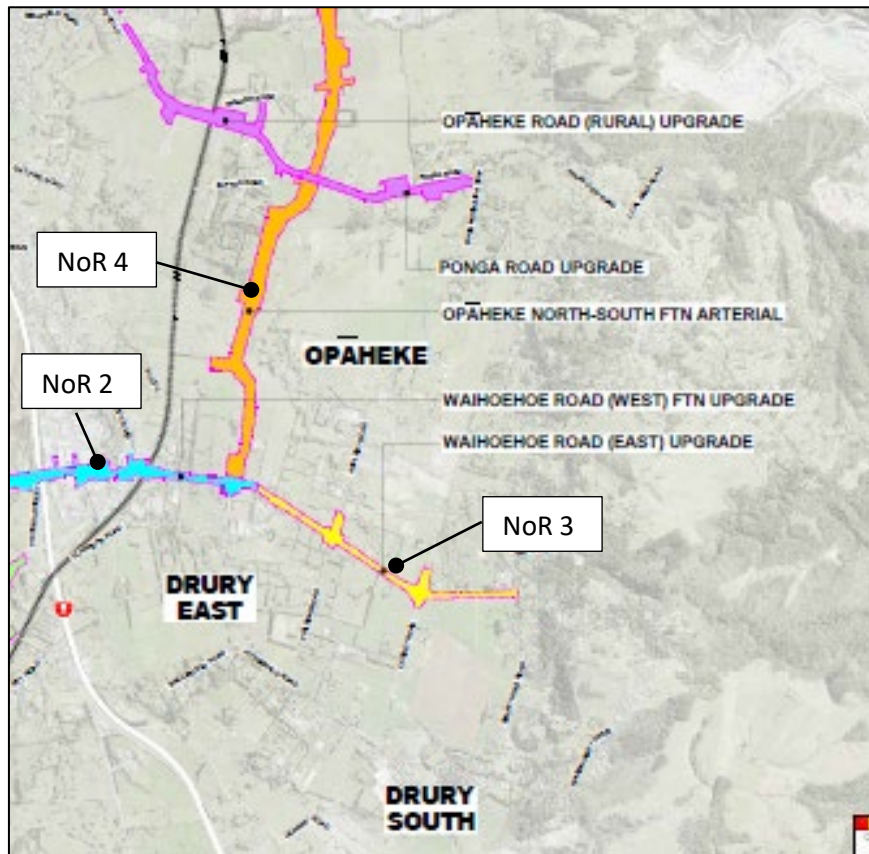


Figure 4: Notices of Requirements

22. As described in the NoR documents, the purpose of the NoRs is to reserve land for future implementation of the strategic transport corridors needed to support urban development in the area. The NoRs note that although developer plans aim to accelerate growth in Drury, funding of the Drury Arterial Network is currently uncertain and construction staging and timing has yet to be confirmed. As such the proposed transport corridors need to be protected so that they can be implemented in the future when required. A lapse period of 15 years is proposed for NoR D2 and D3 as they are

predicted to be implemented by 2028. A lapse period of 20 years is proposed for NoR D4 as this is predicted to be implemented after 2028.²

23. Submissions on the NoRs closed on 21 May 2021.
24. KiwiRail is progressing plans for a new Drury Central train station. This station would be located south of Waihoehoe Road, within the area covered by Kiwi Property's plan change request (PPC48). The RMA processes associated with authorising the works to establish the station are in progress. I understand that KiwiRail is seeking to have the station operational in 2025.

1.5. Lodged Documents

25. The requestor has provided the following reports and documents to support its request:

Section 32 assessment report – Waihoehoe Private Plan Change Request, prepared by Barker & Associates, dated May 2020

Appendix 1: Waihoehoe Plan Change

Appendix 2: List of Properties within the Plan Change Area

Appendix 3: Drury-Opāheke Structure Plan

Appendix 4: Analysis of Alternative Staging

Appendix 5: Auckland Unitary Plan Objectives and Policies Table RFI

Appendix 6: Urban Design Statement and Masterplan, prepared by Holistic Urban Environments, dated 2 April 2020

Appendix 7: Landscape and Visual Assessment, prepared by LA4 Landscape Architects, dated 2 September 2019

Appendix 8: Integrated Transport Assessment, prepared by Stantec, dated 30 March 2020

Appendix 9: Stormwater Management Plan, prepared by Tonkin + Taylor, dated June 2020

Appendix 10: Ecological Report, prepared by Freshwater Solutions, dated 21 August 2019

Appendix 11: Engineering and Infrastructure Report, prepared by Crang Consulting Ltd, dated May 2019

Appendix 12: Geotechnical Report, prepared by Lander Geotechnical, dated 18 March 2020

Appendix 13: Preliminary Site Investigation Report, prepared by Focus Environmental Services Ltd, dated August 2019

Appendix 14: Archaeological Assessment, prepared by Clough & Associates Ltd, dated March 2019

Appendix 15: Consultation Report

Appendices 16-19: Cultural Value Assessments prepared by Ngāti Te Ata, Ngāi Tai ki Tāmaki, Te Ākitai Waiohua, and Ngāti Tamaoho respectively

Appendix 20: National Policy Statement for Freshwater Management and Auckland Unitary Plan Comparative Analysis

Appendix 21: Comparison of Auckland-wide and Precinct Provisions

26. These reports can be found in Appendix 2 to this report.

² Drury Arterial Network, Assessment of Effects on the Environment, page 17.

1.6. Clause 23 Requests for Further Information

27. The private plan change request was lodged with the Council on Tuesday 22 December 2019. A Clause 23 Request for Further Information was sent to the requestor on 5 March 2020. The purpose of the request was to enable Council to better understand the effects of the plan change on the environment; the ways in which adverse effects may be mitigated; the benefits, costs, efficiency and effectiveness of the plan change and any possible alternatives to the request. The key information sought related to the following matters:
 - Transit-oriented development
 - Co-ordination / integration across the three plan changes
 - Urban form
 - AUP objectives and policies
 - Implementation methods
 - Section 32 assessment
 - Urban design
 - Streams and riparian margins
 - Stormwater and flooding
 - Ecological effects
 - Transportation effects.
28. A series of meetings and discussions were then held with the requestors to clarify various points and amended plan change provisions were supplied by the requestor, along with a range of additional information.
29. A second clause 23 request was sent to the requestor on 28 April 2020 in relation to stormwater/flood hazards and transport matters, and a response was received on 30 April 2020.
30. The requests for further information and responses are attached in full in Appendix 3 to this report.
31. The plan change request was accepted by the Council under clause 25(2)(b) of Schedule 1 of the RMA by Council's Planning Committee on 2 July 2020.

2. STRATEGIC CONTEXT

32. This section of the report sets out the strategic context to the plan change request. The section discusses non-statutory documents like the Auckland Plan, the Future Urban Land Supply Strategy (FULSS) and the Drury-Opāheke Structure Plan. The implications of the recently released 2020 National Policy Statement on Urban Development (NPS-UD) which is a statutory document, for strategic planning are also addressed at a high level.

2.1. Auckland Plan

33. The Auckland Plan 2050 is prepared in accordance with sections 79 and 80 of the Local Government (Auckland Council) Act 2009.
34. In terms of the form of development, the Auckland Plan takes a quality, compact approach to growth and development. The Auckland Plan defines quality as:

- most development occurs in areas that are easily accessible by public transport, walking and cycling;
 - most development is within reasonable walking distance of services and facilities including centres, community facilities, employment opportunities and open space;
 - future development maximises efficient use of land; and
 - delivery of necessary infrastructure is coordinated to support growth in the right place at the right time.
35. The compact aspect of this approach means that:
- future development will be focused within Auckland's urban footprint, with most of that growth occurring in existing urban areas;
 - by 2050, most growth will have occurred within this urban footprint, limiting both expansion into the rural hinterland and rural land fragmentation; and
 - this approach contributes to investment certainty by understanding where and when growth is likely to occur.
36. The Auckland Plan's Development Strategy shows a number of urban expansion areas in the southern sector, including Drury East (the location of the plan change request) – see Figure 5. Papakura is shown as a redevelopment area from 2028.

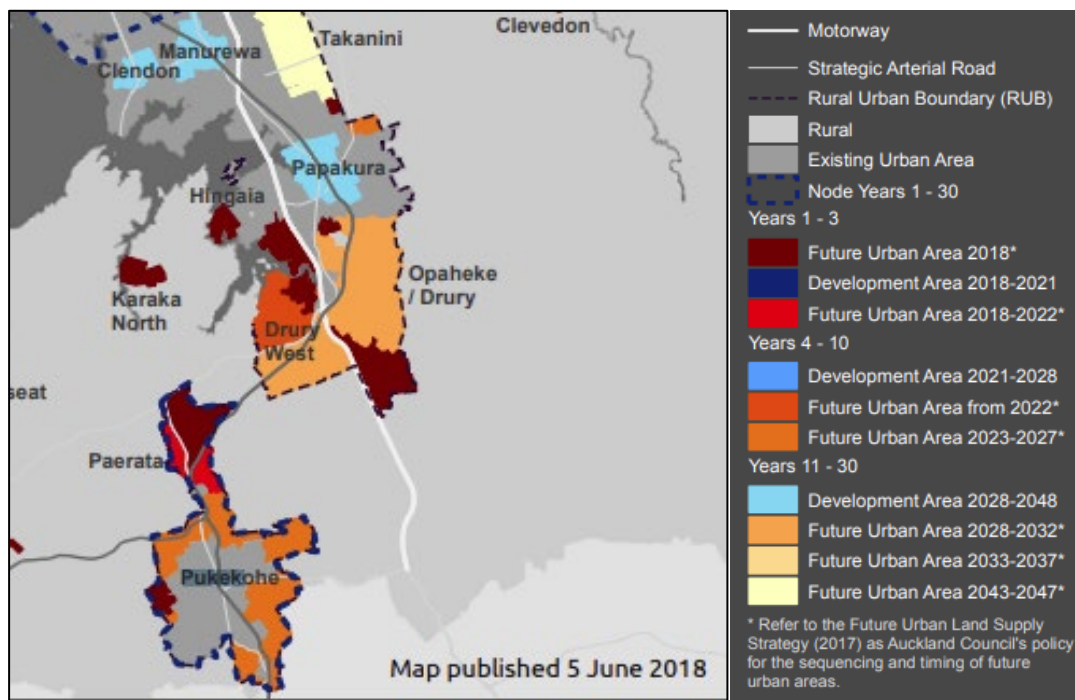


Figure 5: Auckland Plan Development Strategy Map

2.2. Drury-Opāheke Structure Plan

37. The Council's Drury-Opāheke Structure Plan (see Figure 6 below) was adopted in August 2019. It sets out a pattern of land use and a network of infrastructure for the FUZ land at Drury and Opāheke (1,921ha). The structure plan is intended to be the foundation to inform future plan changes to rezone the land as structure planning in accordance with the Appendix 1 Structure Plan guidelines is a requirement under the AUP before future urban areas can be urbanised and 'live' zoned.

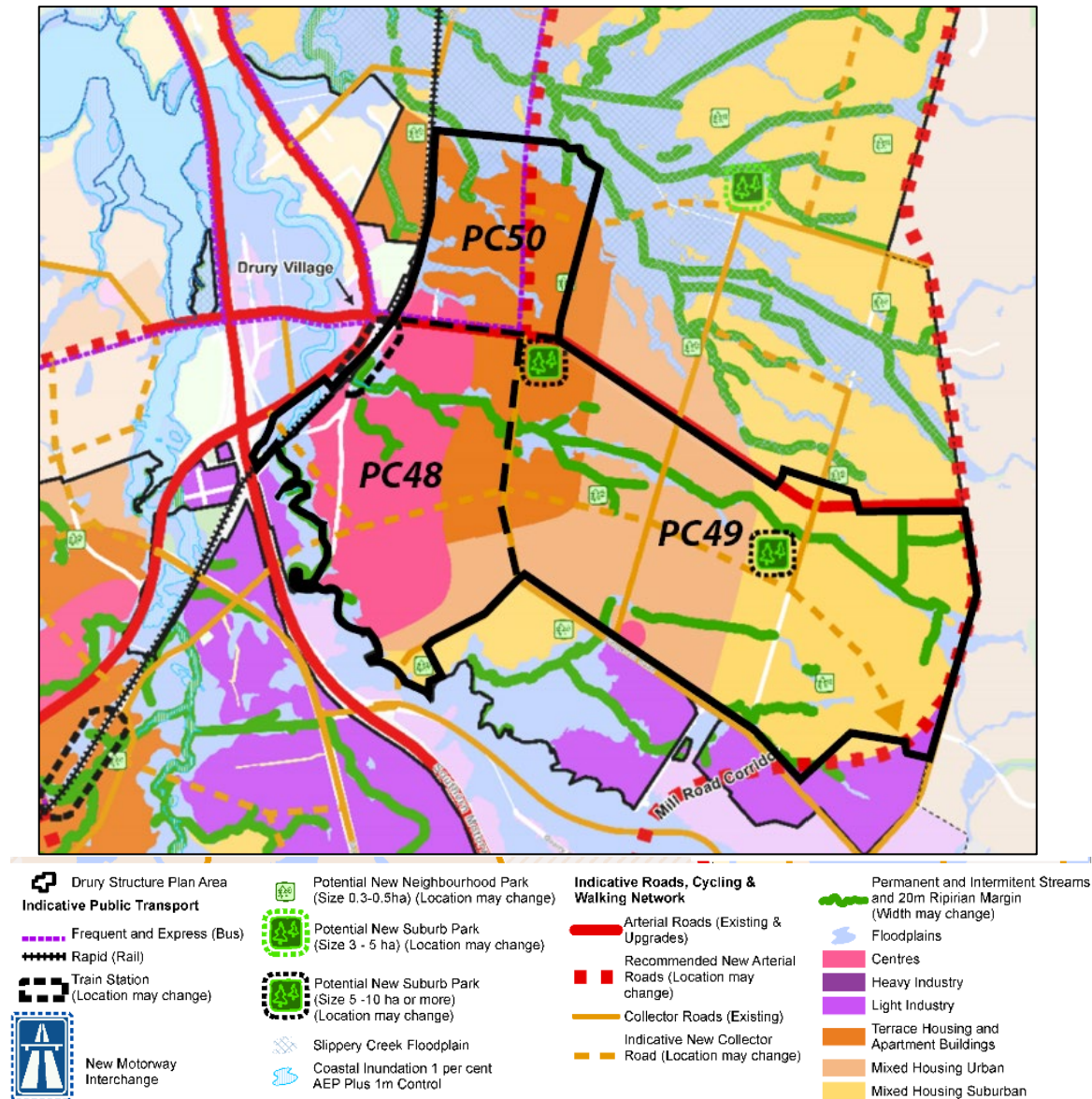


Figure 6: Drury-Opāheke Structure Plan excerpt

38. The structure plan indicates a substantial centre at Drury East and large areas of housing to the east and west of the motorway. Housing development that has commenced to the north-west of the motorway in the Bremner Road area is intended to be served by transport infrastructure that will be developed in the Drury East area, such as the proposed Drury Central train station. To the east and north-east of the combined plan change request areas lies further FUZ land which will be the subject of plan changes at some point and then developed for housing, with residents of these future housing areas also wishing to access the jobs and amenities to be developed in the combined plan change request areas.
39. Over 30 years the structure plan is estimated to provide room for about 22,000 houses and 12,000 jobs, with a build out population of about 60,000.
40. The land use zonings proposed in PPC50 are largely consistent with the land use pattern set out in Council's Drury-Opāheke Structure Plan.

41. The Drury-Opāheke Structure Plan does not make any specific comment on timing of development. The Structure Plan states that work is ongoing to develop a staging plan.

2.3. Future Urban Land Supply Strategy

42. The Council's Future Urban Land Supply Strategy 2017 (FULSS) sequences the release of future urban land with the supply of infrastructure over 30 years for the entire Auckland region. The FULSS has a regional focus and attempts to provide a sustainable path for greenfields expansion to the north, west and south of the Auckland urban area. The FULSS strategy sits alongside council's (and central government's) aspirations for considerable brownfields redevelopment.
43. The intended staging for growth in Drury-Opāheke set out in the FULSS is:
 - (a) Drury west of SH1 and north of State Highway 22 is to be development ready from 2022
 - (b) the remainder of the Drury-Opāheke structure plan area (including all three Drury East plan change areas – PPC48-50) is to be development ready by between 2028 and 2032.
44. In this context development ready means that urban zoning and bulk infrastructure is provided.
45. The FULSS (and the Structure Plan Guidelines of the Auckland Unitary Plan) seek that structure planning that occurs in accordance with the timing of the FULSS will be accompanied by a funding plan that is co-ordinated with the timing of rezonings. The funding plan will see funding commitments made in the Council's Long Term Plan, the Regional Land Transport Plan and where relevant, Development Contributions policy. This is to ensure infrastructure is co-ordinated with development.
46. The plan change request, if made operative, would likely result in development occurring earlier than the 2028 timing set out in the FULSS.
47. The FULSS timing for Drury East reflected a range of matters, including uncertainties as to infrastructure funding of upgrades of key regional transport networks (State Highway, Mill Road, rail network) when the strategy was prepared in 2017, as well as staging the release of greenfields land in a manner that enables efficient provision and funding of network infrastructure (which is financed and funded by public agencies).
48. The Drury area is one part of a wider programme facilitating managed urban expansion. In the first decade of the Auckland Plan's 30-year time horizon, the FULSS identifies a capacity of 22,000 dwellings in greenfields growth areas of Warkworth North, Paerata, Whenuapai Stage 1, Drury West Stage 1, Pukekohe and Cosgrave Road Takanini.
49. The 22,000 dwellings to be enabled in decade one comes on top of capacity which is already live zoned. For example, in the south this includes the Bremner Road Special Housing Area (1,350 dwellings); Wesley (Paerata) (4,550 dwellings); and Belmont (800 dwellings) areas. Large areas are also being urbanised in Redhills and Wainui in the north-west and north of the region (areas that were live zoned during the AUP development process).
50. In the Drury West area, in 2016 the Council approved a plan change request by Karaka and Drury Limited to rezone 84.6 hectares of land in the Special Housing Area at Bremner Road (Auranga A). In 2018 a plan change request by Karaka and Drury Limited to rezone an additional 83 hectares of land adjacent to Auranga A was approved. A

further private plan change request (PPC51) was notified at the same time as PPC50 (August 2020), seeking to further extend the Drury West development area by creating a town centre (north of State Highway 22). The centre is intended to serve the growing Auranga community. Overall, the Drury West area north of SH22 could have capacity for up to 7,500 dwellings (more than the 5,500 anticipated by the FULSS and existing zonings).

2.4. Infrastructure

51. The urbanisation of the Drury-Opāheke area requires a number of transport infrastructure upgrades to support the planned growth. This is in terms of infrastructure needed to mitigate direct effects of the new housing and businesses on the local transport network, as well as the cumulative impact on the strategic network.
52. Te Tupu Ngātahi / Supporting Growth Alliance (SGA) has identified a range of public transport and arterial roading projects for the wider Drury area, with work progressing on business cases and designations for these projects, but not all of the projects have secured funding. The SGA work has identified the importance of a 'public transport first' approach to transport investments. A transit-oriented form of growth is needed to address the limited capacity of the strategic road network.
53. SGA modelling assumes very high uptake of public transport use by future workers and residents in the Drury East area. For example, for high density residential development, modelling assumes a starting value of 23% of trips by public transport, increasing by 100% of that by full development (i.e. 23% point increase over 40 years) resulting in upwards of 40 to 50% of trips by 2048 by public transport and active modes.
54. The 2018 Regional Land Transport Plan makes no specific provision for transport investment in the Drury East area, reflecting the FULSS timing of urbanisation of Drury East in the 2nd decade of the strategy (2028 to 2038). The 2018 RLTP has committed most funds to works in the north and north-west of the Region.
55. In January 2020, central government announced the New Zealand Upgrade Programme (NZUP) package of investments. This covered core transport infrastructure in the Drury area. The following infrastructure was proposed:
 - Upgrading Mill Road to four lanes and connecting Manukau to Drury. Construction on the first stages was expected to start in late 2022 with the full project to be completed in 2027/28.
 - Widening SH1 from Papakura to Drury and building a cycleway alongside it. Construction is expected to start later this year and take until late 2025 to complete.
 - Electrifying the railway track between Papakura to Pukekohe with space for additional lines for future growth.
 - Two new railway stations in Drury Central and Drury West, along with 'park and ride' facilities. Construction of these is expected to start in 2023 and be completed by late 2025.
56. In June 2021, the Government announced a reset of the NZUP programme. In particular Mill Road extension was downgraded to safety improvements, and the new motorway interchange at Drury South was removed from the package of works.
57. The NZUP package does not address all transport needs in the Drury area, although central government funding of some of the projects (like safety improvements to Mill Road) may release funds for other projects.

58. Projects identified by SGA not covered by the NZUP package (discussed later in sections 8.2 and 8.4) include:
- A new north-south arterial road connection from Hunua Road in the north to Waihoehoe Road in the south, which will provide a link between the Opāheke industrial area and Drury East (Opāheke north-south connection). PPC 50 provisions only provide for a ‘collector’ type road.
 - An upgrade to the section of Waihoehoe Road between the proposed Opāheke north-south connection and Mill Road extension (Waihoehoe Road south upgrade).
 - Bus priority measures on Waihoehoe Road west of the Opaheke north-south connection, along with likely replacement of the Waihoehoe Road overbridge
 - Pitt Street extension involving a bridge over the southern motorway, providing for an alternative east-west link
 - Upgrade of Great South Road to a Frequent Transit Network (FTN) Standard
 - Walking and cycling links between east and west Drury.
59. Some of these projects (e.g. Waihoehoe Road and Opāheke North-South route) are the subject of the Notices of Requirement recently issued by SGA agencies (Auckland Transport and Waka Kotahi).
60. Two of the SGA projects are longer term projects (Great South Road FTN) and/or may not be justified upon detailed examination (Pitt Street connection). Completion of the Opāheke North-South Road is dependent upon urban development to the north of the plan change request areas, which may not occur until 2038+.
61. The SGA projects are important to local connectivity, safe walking and cycling, bus priority and access to local employment and amenities within Drury East and to access facilities in the developing Drury West area.
62. Since the FULSS and Drury-Opāheke Structure Plan was prepared, Council, Central Government and key parties have been working on a Drury Transport Investment Programme (DTIP)³ to identify required funding and financing of necessary ‘network’ transport infrastructure in the wider Drury area.
63. In addition to transport, there is other infrastructure that requires funding for the three Drury East plan change areas (PPC48-50), including stormwater upgrade to culverts under the rail line and Great South Road. Extensive restoration works may be needed in the main stream corridors to address stream bank erosion.
64. The Drury infrastructure requirements sits alongside other region wide funding commitments associated with urban development to the north and west, as well as the Auckland Housing Programme.
65. The Auckland Transport Alignment Project (ATAP 2021 to 2031) was released in April 2021. This is an agreement between central government and Auckland Council over transport projects. The investment programme has provided some further detail of funding for supporting growth projects. Along with the NZUP projects, ATAP provides for the following:

³ I understand that this project is also known as the ‘DiFF work’ – Drury Infrastructure Funding Framework.

“Drury & Paerata Growth Area Funding for transport infrastructure in the Drury area to support the NZUP investment. \$243m”.

66. However, actual funding commitments will need to be made in the next iteration of the Regional Land Transport Plan. The Draft 2021-2031 Auckland Regional Land Transport Plan (RLTP) states that almost \$250 million is proposed to support the accelerated development of the Drury growth area through public transport links, including to the new Drury rail stations. This is in addition to the new stations themselves, the Mill Road Corridor, SH1 widening to Drury South, and new SH1 Drury South Interchange funded through NZUP.⁴
67. The draft RLTP notes that with limited funding available, the priority is route protection, property purchase and infrastructure to support the effective operation of rapid transit and bus links for these areas, rather than additional road capacity.
68. Council’s draft 2021 Long Term Plan (LTP) identifies that the Council is investigating additional infrastructure requirements to support a large number of growth areas across Auckland. However, funding and financing new infrastructure in all of those areas is a major challenge. The LTP states that the focus of limited infrastructure investment capacity will be in a few key areas:
 - areas agreed with the government as part of the Auckland Housing Programme, including Mt Roskill, Māngere, Tāmaki, Oranga and Northcote
 - where significant government investment has been made, such as Drury in Auckland’s south, and areas in Auckland’s north-west
 - where investment in significant projects, such as the City Rail Link, is being made.
69. The draft LTP states that the Council is not in a position to cover all the potential costs in the focused areas, and there will need to be prioritisation of projects within these areas. This focused approach will mean that the Council will not be heavily investing in infrastructure to support other growth areas in the short to medium term beyond that which is already committed. The plan notes that the Council will continue to work with central government and private sector developers to explore alternative ways to progress development. This would include using the new Infrastructure Funding and Financing Act 2020.⁵

2.5. National Policy Statement on Urban Development

70. The National Policy Statement on Urban Development (NPS-UD) came into force on the 20 August 2020, after PPC50 was accepted by the Council, and post the Auckland Plan and FULSS being prepared. At a strategic level, the NPS-UD reinforces the need for RMA plans to provide sufficient capacity to accommodate the next 10 years’ growth, taking into account what is feasible and likely to occur. Infrastructure must be co-ordinated with this capacity, with ‘infrastructure-ready’ land being land where there is funding in place to provide for the anticipated growth.
71. The NPS-UD (Objective 3) expects that Regional Policy Statements and district plans will be amended to enable more people to live in, and more businesses and community services to be located in or near a centre zone or other area with many employment

⁴ DRAFT Auckland Regional Land Transport Plan 2021–2031, page 58.

⁵<https://www.aucklandcouncil.govt.nz/have-your-say/topics-you-can-have-your-say-on/the-10-year-budget-2021-2031-long-term-plan-consultation/Documents/10-year-budget-2021-2031-consultation-document.pdf>. Page 32

opportunities that is well-served by existing or planned public transport and there is high demand for housing or for business land in the area, relative to other areas within the urban environment, subject to assessment of various 'qualifying matters'. Council has begun work on how it will take forward the outcomes set out in Objective 3 and Policy 3.⁶

3. EXISTING PLAN PROVISIONS

72. The land subject to the plan change is zoned Future Urban Zone (FUZ) under the AUP (see Figure 7 below). The FUZ is a transitional zone applied to greenfield land, within the Rural Urban Boundary, that has been identified as suitable for urbanisation in the future. In the interim, land in the FUZ may be used for a range of general rural activities, with urban activities either enabled by a plan change that rezones the land for urban purposes, or which are authorised by resource consent.

⁶ The recent Environment Court decision *Eden Epsom Residential Protection Society Incorporated v Auckland Council* [2021] NZEnvC 082, held that NPS-UD objectives and policies that are not requiring 'planning decisions' (including objective 3 and policy 3) do not need to be given effect to by decisions on private plan changes. Rather, Councils need to implement these via Schedule 1 processes by August 2022. Nevertheless, I consider it appropriate for the intensification direction of the NPS-UD to be taken into account when assessing PPC50.

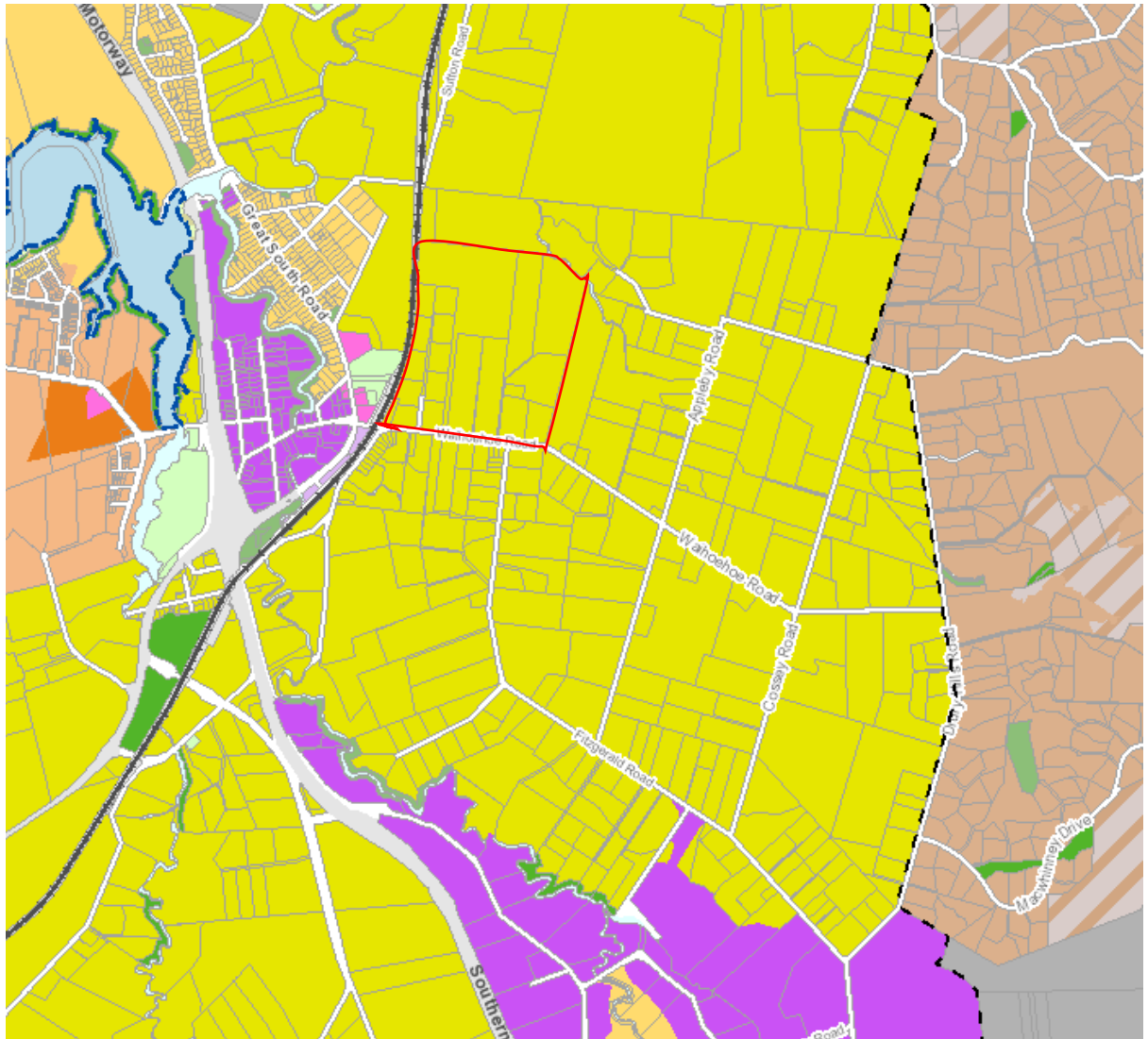


Figure 7: Operative AUP zonings

73. The area surrounding PPC50 is also mainly zoned FUZ, with the nearest urban zones being on the western side of the railway corridor (Open Space - Sport and Active Recreation Zone, and Residential - Mixed Housing Suburban zone over 100m away). The land is also subject to the following AUP overlays and controls:
- High-Use & Quality-Sensitive Aquifer Management Area – Drury Sand Aquifer
 - Macroinvertebrate Community Index – Rural

4. PROPOSED PLAN CHANGE PROVISIONS

74. The approach of the proposed plan change is to rely largely on standard zones and Auckland-wide provisions to manage the way in which the plan change area is used and developed. The plan change seeks to introduce a precinct to “enable local differences to be recognised by providing detailed place-based provisions which can vary the outcomes sought by the zone or Auckland-wide provisions and can be more restrictive or more enabling” as per A1.6.5 of the AUP.

4.1. Proposed Zones and Overlays

75. The proposed zoning layout is shown on Figure 8 below. PPC50 seeks to rezone 49 hectares of land of Future Urban zoned land to Residential: Terrace Housing and Apartment Buildings (THAB) zone. It is estimated that approximately 1,130 dwellings could be accommodated within this zoning.

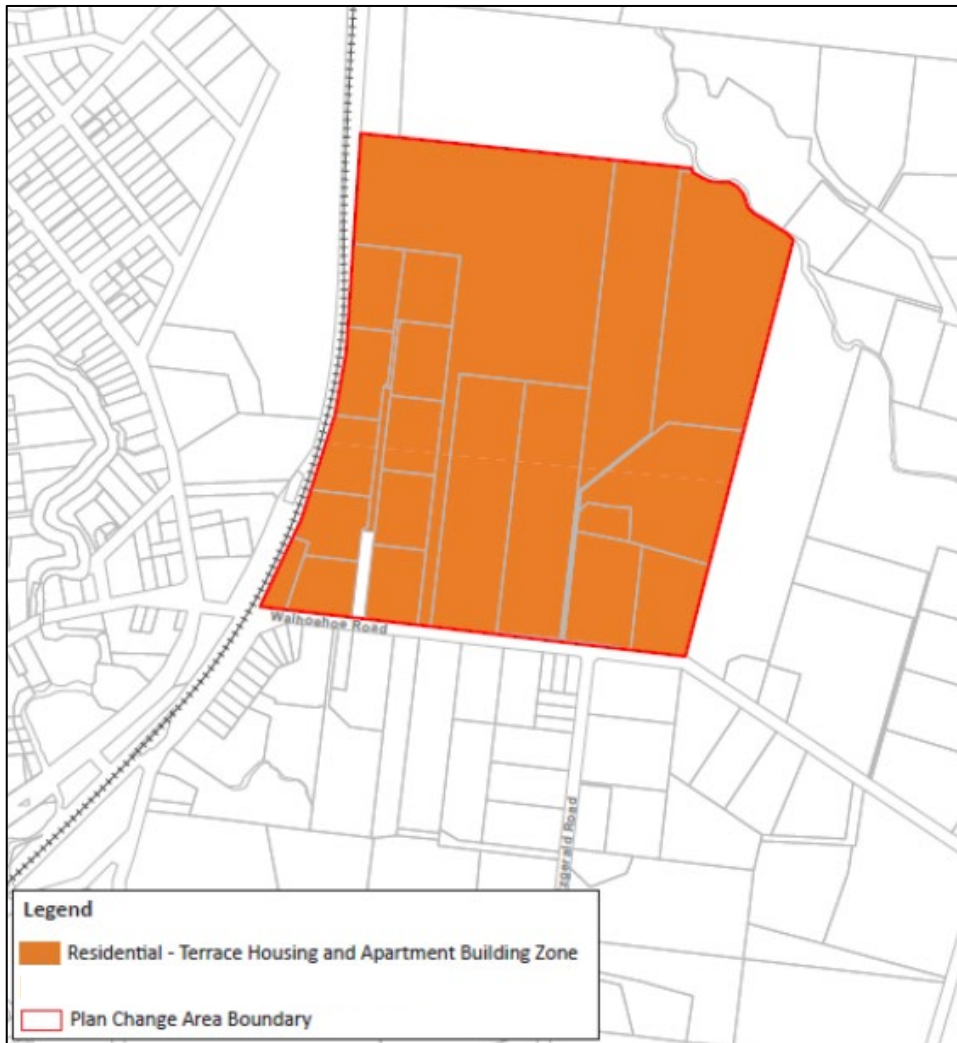


Figure 8: Proposed Zoning Plan

76. The THAB zone is a high-intensity zone providing for urban residential living in the form of terrace housing and apartments, predominantly located around centres and the public transport network. Buildings are enabled up to 5 storeys (18 metres in height). The THAB zone is proposed as the land is in close proximity to the proposed Metropolitan Centre in the neighbouring proposed Drury Centre precinct and the proposed Drury train station.
77. In addition, it is proposed to apply the Stormwater Management Area Control – Flow 1 (SMAF1) overlay to the entire plan change area. All other existing controls and overlays identified in section 3 above will continue to apply to the plan change area.

4.2. Precinct Provisions

78. A new 'Waihoehoe Precinct' is proposed to be applied to the plan change area, with corresponding plan provisions added to Chapter I of the AUP, as set out in Appendix 1

to the plan change documentation. The precinct provisions are described in section 5.1.2 of the section 32 evaluation report. Two precinct plans are included titled 'Road Network' and 'Transport Staging Boundary'.

79. The precinct is described as seeking to create a unique sense of place for Drury, by integrating existing natural features, responding to landform, and respecting Mana Whenua values. The precinct seeks to maintain and enhance waterways and integrate them with the open space network as a key feature. It also seeks to ensure that the development of land for housing is coordinated with the construction of the transport network upgrades necessary to support it.
80. Two sub-precincts are proposed being Sub-precinct A, covering the southern part of the precinct (closer to the proposed Drury Centre), and Sub-precinct B, covering the northern part of the precinct. The sub-precincts differ in relation to building coverage.
81. Four precinct-specific objectives and eleven precinct-specific policies are proposed relating to precinct access; street layout connectivity and design; public transport; Mana Whenua values; provision of public open spaces; integration with the stream network, stream health/water quality, riparian planting and stream reclamation; coordination with transport infrastructure upgrades; and impervious area controls.
82. Key differences introduced by the precinct rules in comparison to the standard Auckland-wide and zone rules include:
 - The precinct includes staging provisions for development and subdivision to coordinate these with required transport infrastructure upgrades. The precinct rules replace the Auckland-wide trip generation rule (E27.6.1) with customised thresholds linked to required transport upgrades, and also link those upgrades to number of dwellings and commercial/retail Gross Floor Area. A discretionary activity status applies to non-compliant (out-of-stage) development and subdivision.
 - The precinct rules replace the maximum impervious area rule for sub-precinct B with 60%. The standard zone rule (H6.6.10) still applies to sub-precinct A (70%).
 - Stormwater quality rules from Chapter E9 apply, but all roads need to meet the standards, rather than just high use roads.
 - A standard is included requiring riparian margin planting of 10m width on all permanent and intermittent streams, and a 20m building setback from any stream of 3m or more in width.
 - Urban subdivision rules from Chapter E38 are applied, however the Mixed Housing Urban subdivision rules are applied rather than those for the THAB zone.
 - Restricted discretionary activity status applies to all new public or private roads, with discretion over location, design, cycling and pedestrian networks. Appendix 1 to the precinct provisions contains customised cross sections for the roads within the precinct.
 - A 7.5m building line restriction applies along Waihoehoe Road to allow for future road widening.
83. The THAB zone's standard building height of 16m is maintained, with no Height Variation Control applied via the Precinct. 16m would allow for a 4 to 5 storey building.

5. CONSULTATION

84. A Consultation Report is attached to the plan change request as Appendix 15, and outlines consultation undertaken with Mana Whenua. No specific consultation was undertaken with landowners or other interest groups on this plan change. It is understood that the requestor has relied upon the consultation undertaken by Council as part of developing the Drury-Opāheke Structure Plan between 2017 and 2019.

5.1. Mana Whenua

85. The Mana Whenua groups identified by Auckland Council whose rohe covers the plan change area include:
- Ngāti Te Ata
 - Ngāi Tai ki Tāmaki
 - Te Ākitai Waiohua
 - Ngāti Tamaoho (also with Statutory Acknowledgement across the area)
 - Ngaati Whanaunga
 - Waikato – Tainui
 - Ngāti Maru
 - Te Ahiwaru – Waiohua
86. The consultation report documents the meetings, correspondence and site visits carried out with Mana Whenua. The first five Mana Whenua groups listed have attended a number of hui to discuss the plan change. These have been to introduce the plan change / structure plan, visit the site, and discuss key elements such as transport, cultural heritage, stormwater, streams and ecology.
87. Waikato Tainui has not attended any hui on this plan change, but has been sent draft specialist reports. It is understood from the Consultation Report attached to PPC49 that Ngāti Maru had verbally advised that they did not intend to engage on that plan change. Te Ahiwaru – Waiohua had also advised that they would not engage. However, no advice has been documented from these two Mana Whenua groups that relates specifically to this plan change and whether or not they wish to engage.
88. CVAs were prepared in April 2019 by the first four Mana Whenua groups listed.
89. The first six Mana Whenua groups listed were sent final draft specialist reports to review in July 2019.
90. A pre-lodgement hui was held in November 2019. While many issues were still under discussion, and the engagement will be ongoing as future applications are made for the plan change area, it appears from the meeting minutes that the iwi in attendance generally supported the plan change in principle.
91. Although not documented in the consultation report, the requestor agreed that the proposed precinct provisions would also be sent to the interested iwi for review and input before notification. I understand that no feedback was received.

5.2. Local Boards

92. A briefing by Auckland Council staff on the three private plan changes occurred with the Papakura Local Board (due to close proximity to the sites) on 14 May 2020 and the Franklin Local Board on 26 May 2020.

93. Following notification, Auckland Council Plans and Places met with Franklin and Papakura Local Boards again in September/October 2020.
94. Franklin Local Board's finalised views on PPC50 were set out in a memo dated 29 April 2021. The Local Board:
- note that the majority of public submissions (26) support this plan change or support with amendments
 - acknowledge public concern around the funding and timing of infrastructure upgrades required to support urbanisation of these sites, particularly transport and note that these concerns reflect concerns consistently raised by communities within the Franklin Local Board area regarding green-field development
 - note that fit for purpose roading design, integrated public transport options and active transport options will be critical to successful development and community well-being
 - support iwi submissions seeking ongoing iwi participation, consultation and engagement in the project, mauri of wai in the area, use of native trees, incorporation of Te Aranga design principles, riparian margin width, stormwater treatment and capture, accounting for natural and cultural landscaping.
95. Papakura Local Board's finalised views on PPC50 were set out in meeting minutes dated 5 May 2021. In summary, the Local Board:
- believe the plan change land should be released in line with FULSS timing to ensure the council can manage the infrastructure costs
 - considers that the plan change must align with the already consulted on Drury-Opāheke Structure Plan
 - considers green space provision is imperative for both passive and active recreation and needs to take into account the wider parks and reserve network. The plan change appears to have very limited green space. Suitable types of open space need to be ensured (e.g. informal recreation). Connected path/cycle ways linking to reserves and key infrastructure need to be planned for
 - would like to see significant planting of trees to increase canopy coverage in the area
 - is concerned about lack of off-street parking and considers two onsite car parks for every unit should be required and on street visitor parking should also be made available. Roads should be wide enough for emergency service vehicles and rubbish trucks
 - notes that public transport does not work for everyone and there is a need to cater for cars as well
 - encourages consultation with Mana Whenua and implementing recommendations into the design of the development
 - recommends appropriate stormwater treatment to ensure the optimum to the receiving environment, and rain harvesting/stormwater recycling.

6. HEARINGS AND DECISION-MAKING CONSIDERATIONS

96. Clause 8B (read together with Clause 29) of Schedule 1 of RMA requires that a local authority shall hold hearings into submissions on a proposed private plan change.
97. The Regulatory Committee has delegated to the Hearings Commissioners authority to determine Council's decisions on submissions on PPC50, under section 34 of the RMA.

Hearing Commissioners will not be recommending a decision to the Council, but will be issuing the decision directly.

98. This report summarises and discusses the likely effects of PPC50 and the submissions received on the plan change. It identifies what amendments, if any, are recommended to be made to address matters raised in the review of the plan change request and as raised in submissions. It makes recommendations on whether to accept, in full or in part; or reject, in full or in part; each submission. Any conclusions or recommendations in this report are not binding on the Hearing Commissioners.
99. In accordance with Clause 10 of Schedule 1 of the RMA, the Commissioner's decision must
(a) include the reasons for accepting or rejecting the submissions and, for that purpose, may address the submissions by grouping them according to—
(i) the provisions of the proposed statement or plan to which they relate; or
(ii) the matters to which they relate; and
(ab) must include a further evaluation of the proposed policy statement or plan undertaken in accordance with section 32AA; and
(b) may include—
(i) matters relating to any consequential alterations necessary to the proposed statement or plan arising from the submissions; and
(ii) any other matter relevant to the proposed statement or plan arising from the submissions.
100. Clause 10(3) clarifies that to avoid doubt, a decision that addresses each submission individually is not required.
101. This report relies on the reviews and advice from the following experts on behalf of the council and specialist Auckland Council officers. These assessments are attached in Appendix 4 to this report.

Matter	Reviewing specialist
Transportation	Terry Church, Flow Transportation Specialists
Urban Design and Landscape	Rebecca Skidmore, R.A. Skidmore Urban Design Ltd
Stormwater	Trent Sunich, 4sight Consulting
Ecology	Jason Smith, Morphem Environmental
Heritage	Robert Brassey, Principal Specialist Cultural Heritage, Auckland Council
Geotechnical	Claudia Harford, Senior Geotechnical & Natural Hazards Engineer, Auckland Council
Contamination	Andrew Kalbarczyk, Senior Specialist – Contaminated Land, Auckland Council

102. Preparation of this report has also involved attendance at three facilitated conferencing sessions covering stormwater, transport and planning matters. I refer to the outcomes of these sessions where relevant. Joint Witness Statements are attached in Appendix 5 of this report.

7. STATUTORY AND POLICY FRAMEWORK

103. Private plan change requests can be made to the Council under Clause 21 of Schedule 1 of the RMA. The provisions of a private plan change request must comply with the same mandatory requirements as Council initiated plan changes, and the private plan change request must contain an evaluation report in accordance with section 32 of the RMA (clause 22(1), Schedule 1, RMA). Clause 29(1) of Schedule 1 provides “*except as provided in subclauses (1A) to (9), Part 1, with all necessary modifications, shall apply to any plan or change requested under this Part and accepted under clause 25(2)(b)*”.
104. The RMA requires territorial authorities to consider a number of statutory and policy matters when developing proposed plan changes.
105. The key directions of the RMA with regard to consideration of private plan changes are set out in Table 1 below.

Table 1 Sections of the RMA relevant to private plan change decision making

RMA Section	Matters
Part 2	Purpose and principles of the RMA
Section 31	Sets out the functions that territorial authorities shall have for the purpose of giving effect to the RMA in the territorial authority district
Section 32	Sets out the requirements for preparing and publishing evaluation reports
Section 72	Sets out that the purpose of the preparation, implementation and administration of district plans is to assist territorial authorities to carry out their functions in order to achieve the purpose of the RMA
Section 73	Provides that there must at all times be a district plan for the district prepared in the manner set out in the relevant Part of Schedule 1. Sets out the manner in which the district plan can be changed, and when it must be changed.
Section 74	Sets out the matters that must be considered by a territorial authority when preparing and changing its district plan. This includes its functions under section 31, the provisions of Part 2 of the RMA, a direction given under s25A(2), its obligation (if any) to prepare an evaluation report in accordance with s32, its obligation to have particular regard to an evaluation report prepared in accordance with s32, a national policy statement, a New Zealand coastal policy statement, a national planning standard, and any regulations. It also sets out the documents that a territorial authority shall have regard to (which are in addition to the requirements of s75(3) and (4)).
Section 75	Outlines the mandatory and optional requirements for the contents of a district plan, specifies which documents a district plan must give effect to, and specifies which documents a district plan must not be inconsistent with.
Section 76	Provides that a territorial authority may include rules in a district plan for the purpose of – (a) carrying out its functions under the RMA; and (b) achieving the objectives and policies set out in the district plan.
Schedule 1	Sets out the process for preparation and change of policy statements and plans by local authorities and private plan change applications

106. The mandatory requirements for plan preparation were comprehensively summarised by the Environment Court in its decision on *Long Bay-Okura Great Park Society Incorporated and Others v North Shore City Council* (Decision A078/2008). Subsequent cases have updated the *Long Bay* summary, including *Colonial Vineyard v Marlborough District Council* [2014] NZEnvC 55, reflecting amendments to the RMA since the Long Bay decision. This is outlined in Box 1.

Box 1

A. General requirements

1. *A district plan (change) should be designed to accord with, and assist the territorial authority to carry out its functions so as to achieve, the purpose of the Act.*
2. *When preparing its district plan (change) the territorial authority must give effect to any national policy statement or New Zealand Coastal Policy Statement.*
3. *When preparing its district plan (change) the territorial authority shall:*
 - (a) *have regard to any proposed regional policy statement;*
 - (b) *give effect to any operative regional policy statement.*
4. *In relation to regional plans:*
 - (a) *the district plan (change) must not be inconsistent with an operative regional plan for any matter specified in section 30(1) [for a water conservation order]; and*
 - (b) *must have regard to any proposed regional plan on any matter of regional significance etc.;*
5. *When preparing its district plan (change) the territorial authority must also:*
 - *have regard to any relevant management plans and strategies under other Acts, and to any relevant entry in the Historic Places Register and to various fisheries regulations; and to consistency with plans and proposed plans of adjacent territorial authorities;*
 - *take into account any relevant planning document recognised by an iwi authority; and*
 - *not have regard to trade competition;*
6. *The district plan (change) must be prepared in accordance with any regulation (there are none at present);*
7. *The formal requirement that a district plan (change) must also state its objectives, policies and the rules (if any) and may state other matters.*

B. Objectives [the section 32 test for objectives]

8. *Each proposed objective in a district plan (change) is to be evaluated by the extent to which it is the most appropriate way to achieve the purpose of the Act.*

C. Policies and methods (including rules) [the section 32 test for policies and rules]

9. *The policies are to implement the objectives, and the rules (if any) are to implement the policies;*
10. *Each proposed policy or method (including each rule) is to be examined, having regard to its efficiency and effectiveness, as to whether it is the most appropriate method for achieving the objectives of the district plan taking into account:*
 - a) *the benefits and costs of the proposed policies and methods (including rules); and*
 - b) *the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods.*

D. Rules

11. *In making a rule the territorial authority must have regard to the actual or potential effect of activities on the environment.*

E. Other statutes:

12. Finally territorial authorities may be required to comply with other statutes. Within the Auckland Region they are subject to:

- the Hauraki Gulf Maritime Park Act 2000;
- the Local Government (Auckland) Amendment Act 2004.

107. Appendix 6 provides a full list of relevant RMA matters that need to be taken into account in decision making.

8. ASSESSMENT OF EFFECTS ON THE ENVIRONMENT

108. Clause 22 of Schedule 1 to the RMA requires private plan changes to include an assessment of environmental effects that are anticipated by the plan change, taking into account clauses 6 and 7 of Schedule 4 of the RMA.

109. An assessment of actual and potential effects on the environment (“AEE”) is included in the Plan Change request and supporting documents. The submitted Plan Change request identifies and evaluates the following actual and potential effects:

- Urban form
- Quality of built environment effects
- Transport effects
- Vegetation and ecological effects
- Flooding and stormwater management effects
- Engineering and infrastructure / servicing effects
- Open space and community facilities effects
- Heritage and archaeological effects
- Effects on Mana Whenua values
- Land contamination effects
- Landscape and visual effects.

110. A review of the AEE and supporting documents, taking into account further information provided pursuant to Clause 23 to Schedule 1 RMA, is provided below. In addition to the topics addressed in the AEE, I consider it also necessary to review strategic planning issues associated with capacity for development and funding and delivery of core infrastructure.

8.1. Strategic Planning: Capacity

111. The proposed rezoning is estimated to provide capacity for up to 1,130 dwellings.

112. Policy B2.2.2 (1) of the AUP RPS requires there be sufficient land within the Rural Urban Boundary that is appropriately zoned to accommodate at any one time a minimum of seven years’ projected growth in terms of residential, commercial and industrial demand and corresponding requirements for social facilities, after allowing for any constraints on subdivision, use and development of land. In a similar vein, the NPS-UD requires that there be sufficient land zoned to accommodate the next 10 years’ growth.

113. Both the NPS-UD and RPS require this capacity to be integrated with infrastructure capacity.

114. On the housing capacity to be provided at a region-wide level, Council's overall forecast of population growth and related housing demand (as of 2017)⁷ is between 239,000 (low scenario) and 397,000 (high) additional dwellings over the period 2016 to 2046. Under a medium growth scenario, additional demand is projected to be 319,000 dwellings. In addition to population driven demand, a shortfall of 35,000 dwellings has been added. These projections are pre Covid-19 and it is likely that, in the short term at least, population growth will be slower than forecast due to reduced inward migration.
115. Estimated feasible dwelling development capacity in the existing Auckland urban area (business and residential zones) is 140,000 residential dwellings. Additional feasible capacity of 15,000 dwellings in the rural areas is assumed. Feasible capacity for 25,000 dwellings from Kāinga Ora has been assumed. Feasible dwelling development capacity in the future urban areas is 146,000 residential dwellings, assuming a Mixed Housing Suburban zoning on all non-business areas. This is a total of 300,000 dwellings.
116. Overall, currently feasible supply is expected to be sufficient to meet forecasted demand for the short and medium terms (next 10 years). In the longer term, currently feasible supply is less than demand. Council has a number of options to address the long-term demand. In particular it is anticipated that redevelopment will become more prevalent as the up zoning undertaken by the AUP takes effect.
117. The Drury area is one part of a wider programme of facilitating managed urban expansion. In terms of the share of growth to be accommodated by the future urban area, over the 30 years 2018 to 2048, the Auckland Future Development Strategy (developed under the National Policy Statement on Urban Development Capacity 2016) anticipates the following level of housing development in future urban areas:
- Decade One: 2018-2028: 29,150 dwellings
 - Decade Two: 2028-2038: 42,800 dwellings
 - Decade Three: 2038-2048: 27,020 dwellings.
118. In the first decade of the Auckland Plan's 30-year time horizon, the FULSS identifies the following greenfields growth areas:

Table 2: FULSS Capacities to be enabled 2018-2028⁸

FULSS Timing	Future Urban Area	Capacity (dwellings)	Notes
First half – Decade one (2018 to 2023)	Warkworth North	2,300	Warkworth Structure Plan adopted June 2019 Warkworth North PC25 (private, around 1000 dwellings) – decision appealed.

⁷ National Policy Statement on Urban Development Capacity 2016: Housing and business development capacity assessment for Auckland December 2017

⁸ Page 18. Development Strategy Monitoring Report (2019): <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/auckland-plan/about-the-auckland-plan/Documents/ap-ds-monitoring-report.pdf>

FULSS Timing	Future Urban Area	Capacity (dwellings)	Notes
			PC40 (private) – Clayden Rd, notified.
	Paerata (remainder)	1,800	Pukekohe-Paerata Structure Plan adopted August 2019. No Council PC proposed
	Whenuapai (Stage 1)	6,000	Variation notified in early 2021. Hearing to reconvene around end of year.
	Drury West Stage 1	4,200	Drury-Opāheke Structure Plan adopted August 2019. PC6 (Auranga B1) made operative in full 14 Feb 2020. Proposed Plan Change Request (Auranga B2) 33.6ha, lodged May 2020.
Second half Decade Two (2023 to 2028)	Pukekohe	7,000	Pukekohe-Paerata Structure Plan adopted August 2019. No plan changes lodged.
	Cosgrove Road, Takanini	500	No plan changes lodged.
Total		22,000	

119. In addition to the above, there are a number of live zoned future urban areas, such as Redhills and Wainui which, combined with the areas identified in the table above, meet the FULSS decade one target of just under 30,000 dwellings.

120. To date, there has been a low uptake of urbanisation and housing development within growth areas in southern sector of Auckland compared with the FULSS projections. Council estimates that:

- Between 2012-2017, 400 dwellings have been consented in Drury-Ōpāheke (15.1% of FULSS projections) and 899 dwellings consented in Pukekohe-Paerata (17.1% of FULSS projections). This reflects development in Stage 1 of Auranga/Drury West and the Wesley College area in Paerata, both identified as Special Housing areas.⁹
- For Decade 1 of the FULSS (1st half), 40 dwellings have been consented in Drury-Ōpāheke (1.0% of FULSS projections) and 27 dwellings consented in Pukekohe-Paerata (0.3% of FULSS projections).

121. There is a degree of uncertainty around the timing of plan changes relating to Pukekohe.

⁹ Through the Housing Accords and Special Housing Areas Act 2013

122. The requestor contends that if there is a concern over 'excessive' capacity and associated timing, then the rezoning of Waihoehoe Precinct could be advanced by deferring:
- development to the west of Jesmond Road to Decade 2 of the FULSS;
 - rezoning of land to the south, west and east of Pukekohe to Decade 2
 - rezoning of land within the major flood plains in the Slippery Creek catchment to Decade 3+.

Analysis

123. The NPS-UD provides that Auckland Council is a tier 1 local authority and requires that every tier 1 local authority must provide at least sufficient development capacity in its region or district to meet expected demand for housing in existing and new urban areas; and for both standalone dwellings and attached dwellings; and in the short term, medium term, and long term.
124. In order to be sufficient to meet expected demand for housing, the development capacity must be: plan-enabled (see clause 3.4(1)); infrastructure-ready (see clause 3.4(3)); feasible and reasonably expected to be realised (see clause 3.26); and for tier 1 local authorities only, meet the expected demand plus the appropriate competitiveness margin (see clause 3.22).
125. Sufficient development capacity must also be provided for business activities.
126. Development capacity is plan-enabled for housing or for business land if:
- (a) in relation to the short term, it is on land that is zoned for housing or for business use (as applicable) in an operative district plan*
 - (b) in relation to the medium term, either paragraph (a) applies, or it is on land that is zoned for housing or for business use (as applicable) in a proposed district plan*
 - (c) in relation to the long term, either paragraph (b) applies, or it is on land identified by the local authority for future urban use or urban intensification in an FDS or, if the local authority is not required to have an FDS, any other relevant plan or strategy.*
127. The NPS-UD notes the benefits of planning decisions that are responsive to unanticipated or out-of-sequence developments in clause 3.8:
- (1) This clause applies to a plan change that provides significant development capacity that is not otherwise enabled in a plan or is not in sequence with planned land release.*
 - (2) Every local authority must have particular regard to the development capacity provided by the plan change if that development capacity: would contribute to a well-functioning urban environment; and is well-connected along transport corridors; and meets the criteria set under subclause (3);*
 - (3) Every regional council must include criteria in its regional policy statement for determining how plan changes will be treated, for the purpose of implementing Policy 8, as adding significantly to development capacity.*

Note: the Auckland Council is yet to develop the criteria referred to in Clause (3).

128. The AUP RPS policies on development capacity and supply of land for urban development (B2.2.2) require sufficient land within the Rural Urban Boundary that is

appropriately zoned to accommodate at any one time a minimum of seven years' projected growth in terms of residential, commercial, and industrial demand and corresponding requirements for social facilities, after allowing for any constraints on subdivision, use and development of land.

129. There are a range of options for residential capacity in the Southern area. The housing capacity to be provided by PPC50 is helpful but may not be essential to meet requirements under the NPS-UD. The key benefit, if it can be realised, is in the density of development to be enabled and close relationship to public transport and employment.
130. The proposed THAB zoning could enable significant mid rise apartment development, however there is no mechanism to require this level of density, and there is a risk that land adjacent to a centre and rail station will be occupied by lower density development. This risk could be reduced to an extent by the early emphasis on public transport creating a different 'look and feel' to other fringe suburbs.

8.2. Strategic Planning: Infrastructure

131. Strategic planning for the Drury area, including the Auckland Plan's Future Development Strategy, work by SGA and NZUP all emphasise the need for development to be anchored on public transport (transit-oriented development) because of the limited capacity of key roading networks, as well as wider concerns over car dependent urban form and greenhouse gas emissions.
132. This emphasis is consistent with key policy documents, including:
 - The Auckland Plan
 - Supporting Growth Alliance
 - The Auckland Transport Alignment Project's Auckland mode shift plan: 'Better Travel Choices'
 - The New Zealand Transport Agency's plan – Keeping cities moving.
133. The revised NZUP programme announced in June 2021 for south Auckland identified the following 'benefits' of the package:
 - support housing by ensuring growing suburbs are well linked to public transport networks, including commuter rail, to better manage congestion and emissions
 - increase walking and cycling travel choices
 - address existing safety issues.
134. Common themes in the above documents cover investing early in public transport infrastructure to help shape urban form, making shared and active modes more attractive, and influencing travel demand and transport choices from the start.
135. A lack of integration between land use and transport can see:
 - development proceed ahead of transport upgrades, creating safety and congestion issues and residents with no options to utilise public transport alternatives (e.g. Kumeu/Huapai)
 - land use patterns that may not suit long term conditions, such as development based initially on car-based access, when long term, much greater use of public transport is needed (e.g. North-west / Addison)
 - confusion over timing and funding of infrastructure, and as a result delayed urbanisation (e.g. Whenuapai)

- inefficient urbanisation as infrastructure issues are addressed development-by-development (e.g. Redhills).
136. Lack of integration therefore sees long term, often cumulative impacts being felt across the region. These effects are significant and are of a large scale, but they cannot be easily quantified. They are effects that may be able to be borne or tolerated in the short term, but in the longer term, adverse effects mount on the efficiency of the urban area.
137. The two important RMA planning documents relevant to land use and infrastructure integration are the AUP RPS and the NPS-UD.
138. The RPS refers to land use and infrastructure integration in a number of objectives and policies. Objective B2.2.1. refers - amongst other aspects of a quality compact urban form - to:
- (c) better use of existing infrastructure and efficient provision of new infrastructure;*
(d) improved and more effective public transport;
139. This approach is reflected in policy B2.2.2(7)(c) of the RPS:
- Enable rezoning of land within the Rural Urban Boundary or other land zoned future urban to accommodate urban growth in ways thatintegrates with the provision of infrastructure*
140. Policy B4.2.4(6) is also relevant in relation to residential growth:
- Ensure development is adequately serviced by existing infrastructure or is provided with infrastructure prior to or at the same time as residential intensification*
141. The importance of transport infrastructure to land use integration is further reinforced by Policy B3.3.2(5) which seeks to improve the integration of land use and transport by:
- (a) ensuring transport infrastructure is planned, funded and staged to integrate with urban growth.*
142. As noted, the AUP was notified in September 2013 before the NPS-UD was in force (August 2020), and any plan changes to the AUP must give effect to those parts of the NPS dealing with 'planning decisions'. The NPS-UD seeks well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.
143. Objective 6 of the NPS-UD requires that local authority decisions on urban development that affect urban environments are:
- a. integrated with infrastructure planning and funding decisions; and*
b. strategic over the medium term and long term; and
c. responsive, particularly in relation to proposals that would supply significant development capacity.
144. Clause 3.2(2) of the NPS-UD provides that in order to be sufficient to meet expected demand for housing, development capacity must, among other things, be plan-enabled and infrastructure-ready. Clause 3.4(3) of the NPS-UD says that development capacity is infrastructure-ready if:

(a) in relation to the short term, there is adequate existing development infrastructure to support the development of the land

(b) in relation to the medium term, either paragraph (a) applies, or funding for adequate infrastructure to support development of the land is identified in a long-term plan

(c) in relation to the long term, either paragraph (b) applies, or the development infrastructure to support the development capacity is identified in the local authority's infrastructure strategy (as required as part of its long-term plan).

145. In addition to the above, clause 3.5(1) provides that local authorities must be satisfied that the additional infrastructure¹⁰ to service the development capacity is likely to be available.
146. The NPS-UD arguably imposes a higher standard than the AUP in relation to the link between funding of infrastructure and development of land. The NPS requires land use planning to be integrated with funding decisions, and for adequate infrastructure to be identified in Council's Long Term Plan for land to be considered 'development ready'.
147. As noted, policy 8 and clause 3.8 of the NPS-UD provides some support for plan changes that would add significantly to development capacity and contribute to well functioning urban environments, even if the development capacity is 'unanticipated by RMA planning documents' or 'out-of-sequence with planned land release'. While these clauses enable the benefits of out of sequence development to be considered, they do not override the injunctions under Objective 6 and Policy 3.4.3 for infrastructure to be 'funded' for land to be considered development ready.
148. In considering the benefits of the capacity to be provided by PPC50, I recognise that the NZUP commitment to extend electrification of the southern rail line from Papakura to Pukekohe, removing the need to transfer at Papakura, and the intention to develop a new station at Drury Central are new factors since the FULSS strategy was prepared. There is obvious benefit from capitalising on this investment by central government.
149. I also accept that under the NPS-UD, there are benefits from additional capacity over and above planned capacity, provided that the additional capacity does not come at the expense of realising the planned capacity.
150. Having said that, Council has not indicated any willingness to amend the timing of other greenfields areas in the southern sector of Auckland, as suggested by the requestors, and commitments to fund extensions of network infrastructure to these areas remain unclear. However, it is possible that early development of Waihoehoe Precinct will slow uptake of other development options and therefore may delay some investment demands, such as Pukekohe.
151. The wider infrastructure funding and delivery issues raised by the plan change fall under four headings:

1. What is adequate infrastructure?

¹⁰ Additional infrastructure is defined as public open space; community infrastructure as defined in section 197 of the Local Government Act 2002; land transport (as defined in the Land Transport Management Act 2003) that is not controlled by local authorities; social infrastructure, such as schools and healthcare facilities; a network operated for the purpose of telecommunications (as defined in section 5 of the Telecommunications Act 2001); a network operated for the purpose of transmitting or distributing electricity or gas

2. To what extent is agreement needed on the funding of this infrastructure for rezoning to proceed?
3. Can precinct based triggers and thresholds deal with uncertainties over funding and delivery, as well as fragmentation of the land?
4. Does the NPS-UD support for 'out of sequence development' change any of the above assessments?

Adequate infrastructure

152. While there is general agreement that provision of infrastructure is necessary to avoid or mitigate adverse effects of urban development and to enable well-functioning urban environments, the extent to which 'network' infrastructure upgrades needed to support particular developments should be in place before the development can proceed is unclear. In particular, what 'off-site' infrastructure is needed to serve the development (with infrastructure within the plan change area generally the responsibility of the subsequent developer), when that off-site infrastructure is also likely to serve the needs of a range of other developments, and as a result have a number of contributors to its funding.
153. The AUP does not stipulate 'how much' infrastructure is needed to ensure integrated outcomes, nor does it make a distinction between infrastructure to mitigate the direct effects of development versus cumulative effects on wider networks. The NPS-UD requires that district plans provide adequate development infrastructure-ready land to meet short to medium term demands, but the NPS does not define what it means by 'adequate'.
154. Under the NPS-UD, development infrastructure is defined under clause 1.4 and means network infrastructure for water supply, wastewater, stormwater and land transport as defined in section 5 of the Land Transport Management Act 2003 to the extent that they are controlled by local authorities or a council-controlled organisation. The Land Transport Management Act 2003 defines land transport as being transport on land by any means. This is wide ranging.
155. The definition of 'development infrastructure' is intentionally different from the definitions of 'infrastructure' in the RMA and the Local Government Act 2002 . The narrow definition of development infrastructure is limited to that which local authorities control and is used to ensure that local authorities can comply. For example, State Highways and rail are not controlled by local authorities, and so are not included in what may be considered adequate development infrastructure.
156. The NPS-UD also defines additional infrastructure, being public open space; community infrastructure as defined in section 197 of the Local Government Act 2002; land transport (as defined in the Land Transport Management Act 2003) that is not controlled by local authorities; social infrastructure, such as schools and healthcare facilities; a network operated for the purpose of telecommunications (as defined in section 5 of the Telecommunications Act 2001) a network operated for the purpose of transmitting or distributing electricity or gas.
157. As noted, the NPS-UD refers to 'adequate development infrastructure' without defining what it means by adequate. It is presumed that adequate means sufficient to meet needs (that is infrastructure ensures safety and efficiency) but not oversupplying infrastructure, or perhaps 'gold plating' what is to be provided. Infrastructure needs to be adequate for the long term, and address local and strategic needs.

158. In my opinion, what is adequate must also reflect the AUP's overt support for public transport, both bus and rail. In my assessment, there is a strategic need to ensure that public transport and active modes are supported by appropriate infrastructure early in the development process. The extent to which road-based infrastructure must be adequate to meet needs is more flexible. The term 'adequate' may imply that a degree of congestion and delay, commensurate with current conditions, could be tolerated. To an extent, some short term misalignment can be tolerated (e.g. infrastructure being provided 2 to 3 years after development proceeds). In contrast, other forms of infrastructure, such as train stations and associated connections and bus priority measures on arterials should be in place from day one due to their place and behaviour shaping properties.
159. Safety is likely to be considered by all parties as being a core requirement of what is considered adequate. Consideration of what is adequate should also take into account the nature of the land uses to be enabled. What is adequate for residents is likely to be different to what is adequate for retail or employment activities.
160. In my opinion, the SGA work has generally defined what is necessary (adequate) transport infrastructure to meet future needs. From a land use (zoning perspective), in my opinion the following 'off-site' infrastructure is required for there to be adequate infrastructure for PPC50:

NZUP

- Mill Road extended
- Widening SH1 from Papakura to Drury and building a cycleway alongside it.
- Electrifying the railway track between Papakura to Pukekohe
- New railway station in Drury Central.

SGA

- Waihoehoe Road upgrade to accommodate bus priority measures, including Great South Road intersection
- New Opāheke North-South arterial
- Walking and cycling links between Drury East and West.

161. In relation to the above projects, I note that there is no detail on walking and cycling links. In particular there is no detail of links to the existing Drury township and to Drury West, where schools are planned.
162. NZUP provides a strong signal that key public transport infrastructure will be in place early in the development phase, helping to shape people's and business's travel choices and as a consequence, wider urban form. However, there is still a question around the level of certainty for the provision of local transport infrastructure to support safe access to the train station by walking, cycle and bus.
163. The Mill Road extension has a range of uncertainties associated with it including when it will be built, noting the scale and complexity of the project.¹¹
164. The funding of the SGA projects (and the size of the associated funding gap) remains unclear at this stage. The NoRs issued by AT and Waka Kotahi are a further step forward in terms of the provision of adequate infrastructure for the area (while noting that the NoRs only seek to protect the routes).

¹¹ The June 2021 revision of the NZUP programme has created substantial further uncertainty over delivery and funding.

Nature and extent of agreement on funding

165. Current council policy is that Drury East is 'long term' capacity. In the normal course of events, development infrastructure would be identified via the Supporting Growth Alliance work. Once plans are settled, then the required infrastructure will be incorporated into the Infrastructure Strategy, and as time gets closer to the defined timeframe for development, allocations made in future LTPs. Funding of that allocation may take a variety of forms.
166. The plan change requestors seek to shift the status of the land from long term to short to medium-short term. Under the NPS-UD this can only be achieved if either the development infrastructure is provided, or funding is identified in the Council's LTP. In response to NZUP, the Council has identified a funding allocation for the wider Drury area that may meet some short to medium term needs, but not all.
167. The question here is what level of agreement is needed over infrastructure funding for live zoning to proceed?
168. In the strict terms of the NPS-UD, existing infrastructure is not adequate to meet short term needs, while not all medium term investment is identified in the Council's LTP. However, the intent that funding and development are broadly aligned is set out in two important strategies: NZUP and ATAP 2021-2031. Ideally, to address the funding shortfall of network infrastructure (where there are many beneficiaries) Council would use a number of tools to cover the capital costs of providing infrastructure including general or targeted rates, development contributions, network connection and service charges, user charges, central government funding and, potentially new tools like those enabled by the Infrastructure Funding and Financing Act 2020. These measures tend to push costs onto the users of the infrastructure, but still require council to borrow to fund necessary works and expose councils to risks that growth rates (and hence contributions) may not be at the level anticipated. The tools should be in place at the time of rezoning.
169. From the point of view of a rezoning decision, which always involves a degree of uncertainty over the nature and pace of subsequent development and associated demands, I consider that there is now sufficient certainty that adequate public transport related network infrastructure can and will be delivered over the medium term. There is a degree of risk that not all of the 'SGA level' DTIP projects may get funded in the shorter term. The NoRs issued by SGA further reduce this risk to an extent. Further bridging of the gap can involve an expanded set of expectations on the developers.
170. In short, my assessment is that the strategic land use benefits of the rezonings are likely to outweigh the risks flowing from the uncertainty over funding of planned roading projects. However, steps should be taken to further reduce these risks through a strong emphasis on transit-led development.

Thresholds, triggers and staging

171. In the absence of a firm commitment to funding in the Council's LTP (but within the context of increasing alignment of funding strategies), it is necessary to consider to what extent AUP provisions could be used to stage the development of the land to be rezoned so as to bridge the gap between live zoning and infrastructure funding.
172. Methods to address infrastructure integration include:

- Funding agreements
- District plan triggers
- Staging of growth
- Reliance upon subdivision provisions.

173. The requestors have indicated a desire to develop a funding agreement with Council, but as I understand it, they have not achieved agreement. Furthermore, they dispute that the development that will be enabled by PPC50 needs to contribute to wider upgrades. While funding agreements are helpful, there is a risk that the private parties to the agreement will not honour their commitments or may otherwise no longer be able to meet them (such as if they go into receivership).

174. Other plan changes have sought to address the gap between zoning coming on stream and funding of transport networks by reference to various plan-based standards, triggers or thresholds. These type of 'gap fillers' are proving to be complex and difficult to administer. This is particularly so where the triggers apply across many landholdings and require works to be in place that serve many activities.

175. Otherwise, regional and district policy also comes into play when assessing resource consents, and it is feasible that subdivision or development consents could be refused on the basis of insufficient infrastructure capacity. For example, Objective E38.2 (4) of the Subdivision - Urban chapter of the AUP states:

Infrastructure supporting subdivision and development is planned and provided for in an integrated and comprehensive manner and provided for to be in place at the time of the subdivision or development.

176. However, such a development-by-development appraisal of infrastructure demands is not always an efficient method of managing growth. In the case of Drury, and the large scale growth planned for, reliance upon subdivision consents to integrate infrastructure delivery is a piecemeal approach that is likely to frustrate subdividers and Council.

177. Other options include staging the implementation of the 'live zoning' sought by the plan change request. For example, only half the land could be rezoned to a residential zone, with the rest remaining future urban (and subject to subsequent plan change processes). Under this approach, PPC 48's emphasis on commercial and business development - which has wider benefits - could proceed, but the residentially-focused PPC 49 and 50 would be held back. However this could see residential growth pressures shift to less beneficial locations (e.g. land further from rail corridor).

178. To address potential integration issues the requestor has proposed a series of triggers or thresholds - development cannot exceed dwelling count and floorspace thresholds unless specified infrastructure is in place. In my opinion, the method presented by the requestors will be cumbersome to administer and implement and unlikely to achieve the outcomes sought.

179. Having said that, the concept of a series of 'thresholds or check points' is valid for a greenfields area where there is a degree of uncertainty over the actual timing of infrastructure versus growth.

180. I consider that there is justification to require development to be staged with the provision of key public transport infrastructure (for example the Drury Central rail station being operational and walking and cycling access to it being in place; and bus priority measures provided along Waihoehoe Road). I would support a series of 'prerequisite

standards' to be set out, the presence of which are needed before buildings can be occupied, for example. The emphasis on public transport (bus and rail) recognises the strategic drivers discussed above, as well as the greater funding certainty that is attached to these projects. Even if wider roading networks take time to be upgraded, visitors, workers and residents have the option of accessing public transport.

181. On the related issue of the uncertainty of the Mill Road extension, I consider that the risks around the delivery of this facility can be addressed by a modified trigger provision. Essentially, prior to this road-based facility being operational, larger activities (subdivision or development) would need to assess their impact on the local roading network (particularly the Great South Road / Waihoehoe Road intersection, but also Quarry Road / Great South Road) and whether measures need to be taken to mitigate potential effects, including those that support improved public transport accessibility (see transport assessment in section 8.4 for details).

Out of sequence development and infrastructure

182. It is acknowledged that Policy 8 of the NPS-UD provides some support for plan changes that would add significantly to development capacity and contribute to well functioning urban environments, even if the development capacity is 'unanticipated by RMA planning documents' or 'out-of-sequence with planned land release'. PPC50 is 'out of sequence' development in the context of the FULSS (as discussed in section 2.3) and in accordance with Policy 8 of the NPS-UD decision makers are required to be responsive to the significant development capacity provided.
183. The residential development capacity provided by the plan change is not required in order to meet the NPS-UD requirements at this time; there is capacity under current AUP zonings for almost 2 million dwellings and over time, a growing proportion of that capacity in brownfields areas will become feasible. In addition, the Council has a range of options in regard to further brownfields rezonings. Having said that, additional greenfields land supply enabled by the plan change requests delivered in a transit-oriented form, could assist with housing supply and managing land cost pressures through competitive land markets, provided that required infrastructure to and within the plan change area can be funded without drawing away funding from other, already committed projects.
184. Taking into account the issues of capacity and demand, as well as the outcomes of the Drury-Opāheke Structure Plan, I consider that there is merit in advancing the plan change request.

Summary

185. Slow delivery of transport infrastructure (public transport rail and road-based) relative to housing growth is being experienced in the north-west (Kumeu/Huapai). This slow delivery has seen congestion grow along with community frustration. In particular the slow rollout of public transport can see car dependent patterns get entrenched, creating long term costs.
186. The Auckland Unitary Plan Independent Hearings Panel, when discussing infrastructure stated that:

The Panel wishes to emphasise that notwithstanding any zoning that provides potential opportunities for development, such development should be restricted or deferred unless necessary infrastructure services are able to be provided before or contemporaneously with that development. To realise the opportunities provided in the

*Unitary Plan the Council, infrastructure providers and landowners/developers will need to work together constructively*¹².

187. In a similar vein, the Environment Court has clearly stated that rezoning land for urban activities, where there is no commitment or mechanism to fund necessary infrastructure can result in the absence of integrated management of resources.¹³ Councils cannot be placed in a position where they have to rejig priorities that have consequences for other parts of a district or community.
188. Having said that, through NZUP and the draft RLTP and LTP, Council and government have signalled significant investment in core public transport infrastructure in the south. Importantly, while there may be some uncertainty over the timing of projects like Mill Road extension, there is substantial certainty over the provision of rail-based services. This is a different context from North-West Auckland mentioned above, which involves both restricted public transport and road-based investment.
189. Taking into account the above points, in my opinion there is now sufficient certainty over funding of key public transport infrastructure in the south and to the Drury area to say that integration between land use and infrastructure can be achieved. However, modifications to the proposed precinct provisions are needed to strengthen the connections between land use and transit (this being the most certain of the transport investments signalled, and the mode of transport most important to long term sustainability outcomes). This point is discussed further below in relation to transport effects.

8.3. Urban Design Effects

Application

190. Urban design effects of PPC50 are summarised in section 10.1 of the s32 evaluation report and an Urban Design Statement has been prepared by HUE (Appendix 6 to the application). The Urban Design Statement has developed key elements to inform the zoning layout.
191. The Urban Design Statement assesses that the proposed layout:
- responds to the intrinsic qualities of the plan change area, including existing stream network;
 - encourages higher residential intensity in close proximity to the proposed Metropolitan Centre to support the centre;
 - contributes to a diverse mix of housing choice;
 - ensures efficient use of resources and infrastructure, including transport network, open space and site topography;
 - enhances site and neighbourhood safety through the consent requirements and assessment matters for multi-unit development;
 - delivers a roading pattern that creates a permeable, connected grid for movement and sets an appropriate block structure for the proposed zone; and

¹² IHP Panel report to AC Overview of recommendations 2016-07-22, page 61.

¹³ It is lawful to refuse a plan change on the grounds that it would cause unnecessary expense to ratepayers, for example through creating a need to provide additional infrastructure: *Norsho Bulc Ltd v Auckland Council* [2017] NZEnvC 109, (2017) 19 ELRNZ 774; *Prospectus Nominees v Queenstown Lakes DC* EnvC C074/97; *Bell v Central Otago DC* EnvC C004/97.

- results in a strong and logical movement network that offers multi-modal transport options and a connected pedestrian and cycle network.

192. An illustrative masterplan is provided in the Urban Design Statement (see Figure 9).



Figure 9: Illustrative masterplan

Peer Review

193. The Urban Design Statement has been peer reviewed by Rebecca Skidmore (Appendix 4).
194. Ms Skidmore agrees that the THAB zone is an appropriate zoning for the PPC50 land, in terms of urban design considerations. However, if development of this land precedes the delivery of the railway service and supporting amenities, it is likely that a lower density, private vehicle-oriented housing typology would be delivered which would not effectively support the objective of creating a quality, compact urban form. She recommends that a mechanism is explored to ensure that development of the land is co-ordinated with the provision of rail services and core amenities within the surrounding walkable catchment.
195. Ms Skidmore notes that the current pattern of land holding in the PPC50 area is quite fragmented. This creates a potential constraint on the co-ordination of development of the land and particularly the creation of a connected street and open space network. Development of the land is also considerably constrained by the pattern of streams and the location of floodplains.

196. While the Urban Design Statement has assessed the effects of the master plan prepared for the PPC50 area, few of these features are included in the proposed precinct plan. Precinct Plan 1 - Road Network only shows the alignment of the Fitzgerald Road extension¹⁴ and a connection to the east. In Ms Skidmore's opinion, a finer grain indicative arrangement of streets and the alignment of streams and indicative stormwater management areas should be included on the precinct plan. This would create greater certainty about the delivery of a co-ordinated network as the different land holdings are developed.
197. Ms Skidmore also considers that some additional precinct provisions are necessary to deliver suitable urban outcomes for the interface between development and the public realm, beyond what the underlying zone provisions require. This includes:
- Expand the Precinct policy framework, assessment matters and criteria for subdivision and development to emphasise the role of open space corridors (along stream alignments) as urban structuring elements, amenity spaces and contributing to neighbourhood sense of place;
 - Include provisions that require streets to be aligned to provide good physical and visual connections to open spaces, pedestrian and cycle routes co-ordinated with the corridors, and development sites configured to provide address to the corridors;
 - Expand the policy framework, assessment matters and criteria for new buildings to ensure a suitable interface is created with Waihoehoe Road;
 - Provide additional policy guidance to support Objective IX.2(1), describing how Mana Whenua values will be respected, including reference to the application of Te Aranga Māori design principles in the design of subdivision and development. Include additional assessment matter and criteria for subdivision and development in the Precinct.

Analysis

198. I generally agree with Ms Skidmore's analysis, and make the following comments.
199. The plan change contains some provisions that support access to the rail station by walking and cycling. An assessment matter under the heading 'design of roads' refers to whether safe and legible pedestrian and cycle connections to the train station are provided. In my view, there should be stronger direction given as to the importance of a public transport first approach. To this end, the station should be operational before development can be occupied, and a standard should require that a direct, safe and legible walking and cycling route to the station should be in place, from development, through the PPC48 plan change area to the station.
200. Inclusion of the watercourses on a Precinct Plan map will ensure that the 'urban structuring' element of these watercourses are recognised and addressed. I also agree that indicative suburban park locations should be shown the Precinct Plan map. To my mind, open space in the form of stream corridors, neighbourhood parks and well-designed streets take on added importance in higher density residential environments.
201. While I consider that the AUP subdivision provisions already contain general guidance over street alignments and design, in light of the transit-oriented context of the development (and the associated greater intensity of development), I would support a targeted policy that addresses the integration of stream corridors, open spaces, street

¹⁴ The future Opāheke north-south route.

alignments and design and retention of existing standards of trees into a co-ordinated approach to the provision of high quality public realm. I would suggest the following:

Ensure that subdivision and development contribute to a high quality public realm in the Precinct area by integrating the following elements into a comprehensive network:

- Enhanced stream corridors
- Accessible neighbourhood open spaces
- Street design and landscaping that reflects the urban context
- Stormwater management facilities.

202. The frontage condition along Waihoehoe Road is a specific matter that does need attention, given the proposed residential zoning. Auckland Transport seeks that there be no vehicle access from the road to adjoining sites, meaning that vehicle access to sites that front Waihoehoe Road must be by rear lane or a 'side street' that parallels Waihoehoe Road. This arrangement can see high front fences and / or rear elevations of buildings along the main road as lots and houses orientate themselves to the rear lane or parallel street. This is not a good urban condition for what will be an important public transport route, and a route that will have a major role in shaping the character of the area. Creating positive built form interface to Waihoehoe Road will require specific design responses. This could be achieved by an appropriate assessment matter that would apply to building design (that is, in addition to the matters specified in Chapters H4, H5 and H6). Currently in these Chapters, the following policy applies:

(3) Encourage development to achieve attractive and safe streets and public open spaces including by:

- (a) providing for passive surveillance*
- (b) optimising front yard landscaping*
- (c) minimising visual dominance of garage doors.*

203. Key to ensuring a positive interface with the street will be low front fencing, front doors visible from the street and where relevant, flexible spaces on the ground floor (such as live/work arrangements). I would recommend the following assessment matter be added to the Precinct:

Building and fence design should ensure a high quality frontage to Waihoehoe Road, including by providing sufficient set back from the street to provide a transitional space, avoiding high fences that block visual interaction with the street, maintaining pedestrian access from the street to buildings, and where practicable, elevating living areas above the street level and incorporating flexible spaces on the ground floor, such as live/work type arrangements.

204. Provision of additional policy guidance to support Objective IX.2(1), describing how Mana Whenua values will be respected, including reference to the application of Te Aranga Māori design principles in the design of subdivision and development could be achieved by a new policy (as is proposed for PPC48 and 49), namely:

In the development of Waihoehoe Precinct, Mana Whenua values are acknowledged and incorporated by:

- Retaining and enhancing streams and their margins
- The physical design of streets, open spaces and plazas incorporating Te Aranga Design principles.
- Encouraging applicants to seek input of Mana Whenua into the design of key buildings.

8.4. Transport Effects

Application

205. Transport effects of PPC50 are summarised in section 10.4 of the s32 evaluation report and discussed in more detail in the Integrated Transport Assessment (ITA) prepared by Stantec (Appendix 8 to the application). This ITA builds on an ITA prepared by the Strategic Growth Alliance in support of the Drury-Opāheke Structure Plan.
206. It is proposed to provide staged accesses to the plan change area in response to the level and rate of development and required roading infrastructure. For full development, in 2048+ it is anticipated that there will be multiple access options to/from the plan change area, including from the proposed Drury Metropolitan Centre. The arterial road network will connect to the collector network before entering the local road network, following the road hierarchy. There will be no direct access to individual properties from arterial roads.
207. Traffic modelling has been undertaken to assess the effects on the external transport network, taking into account all three private plan changes. The modelling has assumed several funded infrastructure upgrades will be delivered within the NZUP timeframes, including Mill Road sections, Drury central and west train stations, rail electrification, State Highway 1 widening and interchange works. With these delivered, the modelling found that the Drury East developments can be accommodated by the surrounding transport network, with several targeted local upgrades required within the first two decades (all relating to the Waihoehoe / Great South Road intersection, which is proposed to be upgraded in four stages). These local upgrades have been included as requirements in the staging provisions for the precinct, triggered by both dwelling numbers / retail and commercial GFA and trip generation.
208. Within the PPC50 area, the internal road network includes consideration of active transportation such as cycling and walking amenities. The indicative location of collector roads and where these will intersect with the existing and future road network is shown on proposed Precinct Plan 1 (Figure 10 below). The existing Fitzgerald Road to the south is proposed to be extended into the PPC50 area as a collector road. The plan change includes provisions to guide the location and layout of local roads and indicative road cross sections to ensure that the road network within the precinct integrates with the surrounding development within the neighbouring plan change areas.
209. The ITA identifies the Drury Central train station and public transport hub as the focus for the public transport network servicing the proposed precinct. The train station and public transport hub are to integrate multiple modes of transport that link the local network and the wider, regional network. The proposed bus network will utilise arterial and connector roads with access from local roads.

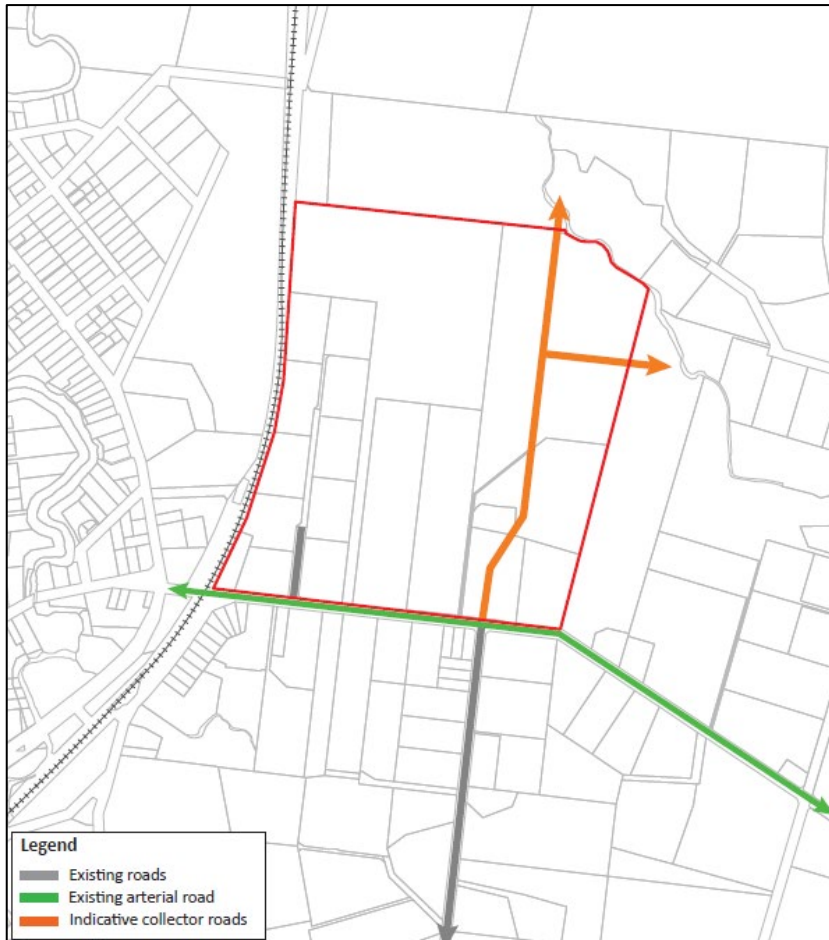


Figure 10: Proposed precinct plan of road network

Peer Review

210. A peer review undertaken by Terry Church of Flow Transportation Specialists (see Appendix 4) has raised a number of fundamental issues with the plan change request.
211. Mr Church supports the intensity and mix of land uses proposed by the plan change request, as the proximity of the Precinct to the proposed Drury Station presents a relatively unique opportunity to enable development consistent with Transit Oriented Development principles. However, his assessment is that unless amendments are made to the provisions, PPC50 is unlikely to result in integrated land use and transport outcomes as required by the AUP, and that development within PPC50 is unlikely to satisfactorily address safety and efficiency effects on the local transport network.
212. There is a sizeable risk that there will be consequential adverse outcomes for economic well-being (in terms of impaired transport network efficiency) and social well-being (including road user safety). This may result in Auckland Transport and Waka Kotahi NZTA (as road controlling authorities) being left to address substantial off-site, cumulative safety and efficiency effects on the transport network, beyond what would be expected from normal development or business as usual upgrades to the network, due to uncertainty around infrastructure scale, funding and timeframes.
213. Mr Church notes that the traffic modelling uses low traffic generation rate due to the Transit Oriented Development outcomes being sought. As such, the traffic modelling and mitigation projects identified inherently assume a high public transport mode share, either by train or bus. It is therefore essential that any mitigation measures or triggers

considered for the development connect people to public transport services and protect the performance of corridors in which public transport services operate. Not doing so will fundamentally alter the traffic outcomes assumed in the assessment and result in a car dependent suburb.

214. It is his view that the train station should be open and operating prior to any development being occupied. Supporting connections to PPC50 through the PPC48 land should be provided for from the outset. He suggests a range of standards be introduced that tie land use development to the train station being operational and satisfactory access to the station being available. The Precinct provisions should include Standards relating to the early provision of walking and cycling connectivity between development and the Drury Central train station, and a continuous collector road network to enable Auckland Transport to provide bus services as staged development occurs. With bus services operating on Waihoehoe Road, it is essential that priority measures are provided for buses so that reliability and service times are protected, noting the underlying reliance of high mode share and therefore use of public transport.
215. The review identifies substantial concern that 'other' transport infrastructure needed to support PPC50, such as the Waihoehoe Road upgrade to a 4 lane format and Mill Road extension (between Manukau and Drury South), may not be delivered in a manner that integrates with development in PPC50. Given the uncertain development programme for the PPC50 area, Mr Church is of the view that the prescriptive nature of the transport upgrade provisions in the proposed Precinct are not appropriate due to impracticalities of administering and monitoring the thresholds proposed by the applicant. Further, he has significant concerns about the assumptions and methodology used in the traffic modelling, which the applicant has relied upon in setting these thresholds. To address the uncertainty in development programmes and third party infrastructure provision (including that contained within ATAP 2021 – 2031), and concerns about the traffic modelling relied upon by the applicant, he considers that Standards IX.6.1 and IX.6.2 should be replaced in their entirety.
216. On a more detailed level:
 - Confirmation is needed as to whether the layouts proposed by the applicant for the Great South Road/Waihoehoe Road intersection allow for bus priority (as per the Auckland Transport Supporting Growth network), and provide the necessary facilities to ensure the corridor operates safely and efficiently for all transport modes.
 - The thresholds set out in the notified Provisions for upgrading the Great South Road/Waihoehoe Road intersection are not robust as he considers there are underlying flaws in the modelling assumptions used to set these thresholds. Further, the upgrades of this intersection as proposed in IX6.1 and IX6.2 have the potential to cause ongoing disruption to the transport network during works and will require the acquisition of third party land and widening/replacement of the Waihoehoe Road rail overbridge, which is not identified in the Precinct Provisions.
 - The notified provisions fail to address likely safety effects on existing rural roads. He considers that Waihoehoe Road should be upgraded to urban standard prior to experiencing an increase in traffic due to occupied development within PPC50.
 - He is concerned that the assumptions made as part of the applicant's traffic modelling have led to an underestimation of potential traffic effects, including:
 - an increase in the extent of THAB zoning since the modelling was undertaken
 - underestimation of vehicle trips through the Great South Road/Waihoehoe Road intersection, in the instance that Mill Road (between Waihoehoe Road and Manukau) is not in place
 - underestimation of the number of vehicle trips generated by PPC50, due to assumed high uptake of walking, cycling and public transport, although the

- o surety that infrastructure to support high non-car based travel will be delivered in conjunction with development is lacking in the precinct provisions
- o underestimation of effects on the Great South Road/Waihoehoe Road intersection prior to signalisation, due to underestimation of vehicle movement numbers and that it is modelled as a two lane roundabout whereas the provisions do not require the existing single lane roundabout to be upgraded.

217. Mr Church considers that the thresholds linked to transport infrastructure identified in the provisions lack robustness and will be unwieldy and impracticable to monitor. Further, the provisions lack sufficient evidence as to how thresholds have been determined and acknowledgement of safety effects on existing rural roads, and enablement of active modes and public transport (bus and rail).

218. In response to these concerns he recommends that:

- Standard IX.6.1 and Tables IX.6.1.1 and IX.6.1.2 are replaced, in their entirety, with thresholds to support transit oriented development outcomes (high public transport and active mode share and safety interventions on connecting roads).
- Standard IX.6.2 Trip Generation Limit and Tables IX.6.2.1 and IX.6.2.2 are replaced in their entirety with a Standard that adopts performance-based thresholds for key intersections, prior to Mill Road being connected and SGA's proposed upgrade of Waihoehoe Road.

Analysis

219. AUP RPS specific objectives for transport include:

B3.3.1. (1) Effective, efficient and safe transport that:

(a) supports the movement of people, goods and services;

(b) integrates with and supports a quality compact urban form;

(c) enables growth;

(d) avoids, remedies or mitigates adverse effects on the quality of the environment and amenity values and the health and safety of people and communities; and

(e) facilitates transport choices, recognises different trip characteristics and enables accessibility and mobility for all sectors of the community.

220. Under the heading Integration of subdivision, use and development with transport; Policy B3.3.2 (5) refers to:

Improve the integration of land use and transport by:

(a) ensuring transport infrastructure is planned, funded and staged to integrate with urban growth;

(b) encouraging land use development and patterns that reduce the rate of growth in demand for private vehicle trips, especially during peak periods;

(c) locating high trip-generating activities so that they can be efficiently served by key public transport services and routes and complement surrounding activities by supporting accessibility to a range of transport modes;

221. I concur with Mr Church's assessments that as presented, the plan change request may not give effect to key AUP RPS objectives and policies relating to land use and transport integration. I generally agree with the amendments proposed by Mr Church, but with some modifications to them to address compatibility with the AUP.

222. On the issue of transit-oriented development, I agree that while a substantial intensity of development is enabled by the proposed zoning, buildings should only be occupied once the Drury Central train station is operational and connections to the train station are provided to allow safe and convenient access for active modes of transport. As the train station is timed for construction over the next couple of years, this should not present a significant issue in terms of development timing and capacity.
223. Safe and direct walking and cycling access to the train station will be very important to outcomes, in particular safe crossing of Waihoehoe Road in the vicinity of the 'Boulevard' proposed in PPC48. Access to bus services along Waihoehoe Road is also important. In the case of Waihoehoe Road, this should include bus priority measures to ensure buses are not held up by queued traffic. A safe pedestrian access to the existing Drury Village is also important, given that a number of community facilities are located in the Village.
224. I generally agree with the approach set out by Mr Church. I have made some modifications to better align the standards with the outcomes sought.

Table IX.6.1: Threshold for development: Transit Oriented Infrastructure

<u>Threshold</u>	<u>Transport and Land use Required to Exceed the Thresholds</u>
<u>Prior to any new buildings being occupied</u>	<u>Drury Central train station is operational</u> <u>A legible, safe, direct and continuous walking and cycling route to Drury Centre train station that utilises roads is available</u> <u>Walking and cycling crossing facilities are provided on all arms of the Great South Road/Waihoehoe Road intersection</u> <u>Bus priority is provided on the Waihoehoe Road and Norrie Road arms of the Great South Road/Waihoehoe Road intersection.</u>
<u>Prior to any buildings being occupied, where located beyond a 1.5km radius from Drury Central Train Station</u>	<u>Development is located within 400m of, and occupiers can safely and conveniently access, a continuous road connection suitable for local bus movements to and from the Drury Centre train station concourse</u>

225. These standards may involve some implementation risks, for example if they require access over third party land. For example, development begins in the north-eastern corner of the precinct area, remote from the station. While I accept that there will be issues for development that wishes to proceed in this manner, I consider it very important to long term outcomes that effective linkages be provided. I also note that in the normal course of events (such as a Council-initiated plan change with funding attached), the Council may secure direct and safe links by way of precinct plan provisions and/or by way of acquisition. In the absence of such detail in the plan change request, I consider the standards to be justified, as well as the responsibility being placed on the developer if they wish to proceed early.

226. As noted by Mr Church, it is also important that the 'rural roads' in the area be upgraded to an urban standard early in the development process. This is to provide a safe environment, as well as to support walking, cycling and bus services. Development should not provide piecemeal upgrades of the main roads in the plan change area. I would support the following standards being introduced. These may be seen to 'front load' much investment in upgraded road environments, but given the proposed timing of development versus council resources, I consider it is necessary to set out a very clear standard to be achieved. The implication is that if one of the landowners in the precincts wishes to push ahead with development that triggers one of the thresholds, then they may be expected to fund the upgrade.

Table IX.6.2: Rural Road Upgrades

<u>Threshold</u>	<u>Upgrade</u>
<u>Prior to any development accessing Waihoehoe Road, or any new road connection to Waihoehoe Road</u>	<u>Waihoehoe Road is upgraded to an urban standard between Great South Road and Fitzgerald Road, including an upgrade of the Great South Road/Waihoehoe Road intersection to provide a safe and efficient intersection (and approaches) for all transport modes</u>

Note: The term 'urban standard' would need to be defined but would likely involve works within the current road reserve to incorporate walking and cycling facilities, kerb and channel, lighting, services, stormwater management and pavement improvements.

227. I would also agree that some form of assessment of the transport implications of larger subdivisions or developments is required in the absence of any certainty as to the timing of Mill Road extension, given that this road has a major influence on travel patterns, and prior to implementation of the NoRs issued by AT and Waka Kotahi. I agree with the proposal put forward by Mr Church, as follows:

IX.6.3 Transport network performance

Prior to Mill Road connecting to Waihoehoe Road and/or 4 Laning of Waihoehoe Road between Fitzgerald Road and Great South Road:

- (1) Any development of more than 50 dwellings or 1000 sqm of non-residential floorspace must meet the following standard:
- a. Waihoehoe Road / Great South Road intersection traffic performance:
 - i. 95th percentile queues (not average queues) for each movement at intersections do not
 - a. extend to and through upstream intersections
 - b. queues shall not extend beyond dedicated storage lanes
 - ii. no individual traffic movement shall have a level of service (LOS) worse than LOS E, or have a degree of saturation higher than 95%
 - iii. movements where buses operate shall have a LOS no worse than LOS D
 - iv. The overall intersection LOS shall be no worse than LOS D.
 - b. a safety review of the Great South Road / State Highway 22 Intersection, Great South Road/Pitt Road Intersection, and Great South Road/Quarry Road Intersection at that time and assessment of the predicted safety risk resulting from the development traffic

- c. identification of any necessary upgrade to the Great South Road / State Highway 22 Intersection, Great South Road/Pitt Road Intersection, and Great South Road/Quarry Road Intersection to accommodate development traffic, and timing of its implementation, to address any adverse effects on the safety and efficiency of the intersection.

A traffic assessment shall be prepared by a suitably qualified and experienced traffic engineer or transportation planner demonstrating compliance with the above must be submitted with any resource consent application for subdivision or development and must utilise traffic data no older than 6 months at the time that a resource consent application is lodged for the development proposal.

Note: Degree(s) of saturation is defined to be the proportion of actual traffic movements using the intersection to the theoretical maximum capacity of the intersection.

Level of Service (LOS) is defined by Auckland Transport guidance or, in its absence, by Austroads guidance.

Traffic generation from parallel, lodged, or consented stages that are not yet operational are to be included in the traffic assessment

Note: Standard iX6.1(1)(c) is not required once Drury South "link road" as shown on I410.10.2 Drury South Industrial Precinct plan 2, and SH1 Drury South Interchange is constructed.

228. While these standards cover access to the train station, safety of rural roads and Great South Road intersection performance, they do not address the upgrade/replacement of the Waihoehoe Road (including the rail overbridge) to provide for 4 lanes of traffic (incorporating bus priority and separated walking and cycling facilities) and the continuation of this format along Waihoehoe Road to Fitzgerald Road. In my view, there should be a date by which this work is in place, given its importance in linking the new suburbs to the existing Drury village (and associated community activities), as well as in providing for continuous bus priority. I suggest a date-based approach to its provisions, rather than a floorspace threshold, or number of dwellings.
229. I would suggest that this work be in place by 2028, giving time for the funding to be identified. For example:
- By 2028 the Waihoehoe rail overbridge and Waihoehoe Road to Fitzgerald Road shall be upgraded to a four lane format with separated walking and cycling facilities. If this upgrade is not in place by this date, no further subdivision or development shall occur until the upgrade is operational.
230. Such a standard may prompt a rush of consents prior to the date, but in my view, a date is a much more effective means of managing infrastructure co-ordination than reliance on floorspace thresholds or similar.
231. I would recommend that infringement of the above standards trigger a Discretionary resource consent application. This would allow for a full assessment of the relevant objectives and policies, the adverse effects and possible mitigations.
232. My assessment is that unless significant amendments are made to the plan change along the lines outlined, the plan change will not give effect to the NPS-UD or the RPS provisions of the AUP as they relate to promoting public transport use and active modes in tandem with, if not ahead of, development.

8.5. Vegetation and Ecological Effects

Application

233. Ecological effects of PPC50 are summarised in section 10.5 of the s32 evaluation report and discussed in more detail in the Ecological Assessment prepared by Freshwater Solutions Environmental Consultants (Appendix 10 to the application).
234. The key aquatic habitat feature in the PPC50 area is the Waihoihoi Stream, which has a good baseflow and is able to support aquatic habitat for shortfin eel, inanga and banded kokopu. Other permanent and intermittent streams within the site have low ecological values. The ponds and wetlands within the site were identified as highly modified and degraded, and also having low ecological value.
235. The s32 report states that the plan change presents an opportunity to restore and enhance the aquatic and freshwater quality values in the plan change area. It is intended that the Waihoihoi Stream and other intermittent streams and wetlands be retained and enhanced. However, some stream sections are likely to be culverted. The report states that the resource consenting process for stream modification will mitigate/offset the adverse effects. Additionally, the earthworks consenting process will manage the potential effects of sediment discharge on the water quality of watercourses. The urbanisation of the area will also change the type of contaminants entering the stream environment, and these effects are addressed in the stormwater assessment.
236. The terrestrial vegetation in the PPC50 area is stated to be of low ecological value. Bird species identified within the site and within the local area comprise of common species typical of rural and urban areas. Native tree dwelling gecko species are unlikely to be present within the site due to absences of suitable habitat, however native copper skink and ornate skink may be present in wood piles. The plan change will result in loss of vegetation to facilitate land development; however, the report states this will be kept to a minimum and will be avoided where possible.

Peer Review

237. Jason Smith, Morphum Environmental, has reviewed the freshwater and terrestrial ecological aspects of the proposal (Appendix 4). Generally, he considers the ecological effects are adequately assessed and the measures proposed to address those effects are appropriate. Notwithstanding this general assessment, he expresses concern over:
- streams not being shown on the precinct map.
 - 10m riparian restoration.
 - the uncertainty over the provision of the full Drury-Opāheke Structure Plan Blue-Green Network.
 - lack of protection of future riparian planting by a suitable legal mechanism.
 - the detail to be included within the riparian planting standard.
238. Mr Smith raises the point as to whether streams should be shown on the precinct plan, with a concern being that if there is incomplete information as to stream alignments and classification, then the absence of a stream on the precinct plan may be taken to mean that - at a policy level - the stream has been identified as one that can be reclaimed. Nevertheless, he supports their inclusion on the plan provided that it is clear that streams have been indicatively identified and that confirmation of streams will be needed through consent processes.

239. Mr Smith notes the ecological benefits of 20m wide margins. Riparian vegetation influences water quality and a range of ecological functions including: the filtration of contaminants, habitat provision, organic matter input and supports connectivity and buffering functions. These functions correspondingly increase with the width of the riparian vegetation. Furthermore, 20m riparian buffers are thought to be self-sustaining for indigenous vegetation, with buffers of lesser extent being subject to a greater degree of 'edge effects' leading to an increase prevalence of weed species and associated increase in maintenance activities required to establish and maintain a self-supporting system.
240. As for the nature and extent of riparian planting, Mr Smith suggests cross referencing to the AUP guidelines (Appendix 16 Guideline for native revegetation plantings). He suggests that the exclusive use of native trees and plants within the precinct, whilst generally preferred, may not always be the most practicable option. Exotic vegetation may be preferred, in specific circumstances such as in addressing the effects on natural heritage values; or to provide relatively more rapid canopy cover, bank stabilisation or erosion control.
241. As a related matter, these guidelines suggest a planting density of 1.4 metre centres (5,100 stems per hectare) in order for there to be rapid canopy closure; with greater density if kikuyu is present. In her assessment for open spaces, Ms Barrett suggests a density of 10,000 stems per hectare. This is a matter that can be addressed at the consent stage.

Analysis

242. I agree with Mr Smith that there may be a risk that some streams may not be marked on the precinct plan, but nevertheless exist. In my opinion the benefits of showing the streams on the precinct plan, based on the best available information, outweigh the risks. I agree that streams should be indicatively shown on the Precinct Plan, with a footnote that clarifies the level of assessment undertaken and the need for site-specific watercourse classification and delineation assessments to be undertaken and accompany any future resource consent application.
243. The appropriate width of riparian margins is a matter that involves a range of considerations, including ecological, amenity, natural hazard and infrastructure issues. I generally agree with Mr Smith that there are benefits to a 20m wide planted riparian area, but note that there are also outcomes associated with amenity (stream edge roads), active transport (walking and cycling), appropriate building setbacks and ownership and maintenance that come into play when determining the extent of riparian margins and how much of those margins should be planted.
244. As discussed in relation to submissions on riparian planting and riparian yards (building setbacks) set out below, my recommendation would be to maintain the requirement for a minimum 10m wide riparian margin, but note that along the key corridor of the main stem of the Waihoihoi stream, there should be a 20m setback of buildings to allow space for walkways, cycleways and in places, local streets and wider planting. It is likely that the area within 20m of the stream will be within a flood plain where development will need to be avoided in any case. Nevertheless, the 20m yard setback should be in place in case the flood plain is modified in some way.

8.6. Flooding and Stormwater Management Effects

Application

245. Flooding effects of PPC50 are summarised in section 10.6.1 of the s32 evaluation report and stormwater management effects in section 10.6.2. These are discussed in more detail in the Stormwater Management Plan (SMP) prepared by Tonkin & Taylor Ltd (Appendix 9 to the application).
246. The results of the flood modelling show that in the maximum probable development scenario, there would be an increase in flood levels within the site of up to 0.2m for a 1 in 100-year ARI storm event. In order to address increased peak flows and depth of flooding in the Plan Change area and the wider Slippery Creek floodplain, the following flood hazard management is proposed:
- The northern sub-catchment is in close proximity to the Waihoihoi Stream and therefore “pass forward peak flows” is proposed.
 - For the southern sub-catchment, it is proposed to attenuate peak flows and control discharge as the downstream properties and the railway culvert will be sensitive to changes in flow.
247. Drainage reserves are proposed on part of the land subject to floodplains to avoid future development in this area. The s32 report states that standard flooding provisions in Chapter E36 of the AUP would sufficiently manage the effects of development in identified flood plains and/or overland flowpaths.
248. In terms of stormwater management, the Stormwater Management Plan (SMP) prepared aims to align with the requirements of the AUP and be consistent with the requirements of Auckland Council’s Network Discharge Consent (NDC). The SMP will either be certified under the NDC and the discharges from the site authorised that way, or a separate stormwater discharge consent will need to be obtained.
249. A lower impervious area control on the northern catchment than for the southern catchment is included in the precinct provisions.
250. The SMP sets out that green infrastructure will be used to treat stormwater contaminants at source, including bio-retention devices, use of inert building materials and erosion protection at stormwater discharge points. Stormwater quality provisions in Chapter E9 of the AUP will apply across the plan change area (all roads, not just high use roads, and all contaminant generating surfaces, such as surface car parking areas, not just high contaminating surfaces).
251. The SMAF1 overlay to be applied across the plan change will require hydrological mitigation measures for the effects of stormwater runoff generated by increased impervious areas. Devices are likely to include three detention basins in the southern sub-catchment, rain tanks, bioretention devices and permeable pavement. The SMP considers that hydrological mitigation can be achieved consistent with AUP requirements, and that this will be sufficient to mitigate stormwater flow effects.
252. Stormwater is to be conveyed through a combination of piped networks (10 year Annual Recurrence Interval rain event capacity) and swales to discharge to streams. Excess or secondary flows will be conveyed using overland flow paths within roads and green spaces.

Peer Review

253. Trent Sunich, 4sight Consulting, has reviewed the stormwater and flooding effects of the proposal (Appendix 4).
254. His overall conclusion is that the proposed stormwater management methodology outlined in the SMP document and the objectives and policies in the proposed plan change, provide, at a high level, alignment with the AUP. In brief there are:
- Proposed integrated management of land use and freshwater systems by providing stormwater infrastructure implemented with assistance of catchment planning (B7.3);
 - Minimisation of the generation and discharge of contaminants in stormwater runoff through the proposed use of contaminant source control and water quality treatment devices (B7.4);
 - Implementation of hydrology mitigation to minimise or mitigate new adverse effects associated with stormwater running off impervious surfaces (E1(9)); and
 - Through catchment and development-based flood hazard modelling, adoption of the 'pass forward' option for management of flood flows for the Waihoihoi stream, thereby avoiding exacerbation of existing flood risk (E1(11)).
255. Notwithstanding this assessment, he identifies improvements that should be made to the precinct objective and policy framework as notified.
256. In terms of the stormwater management related objectives, policies and methods in the proposed precinct, given the role of the SMP in development of the catchment, it would be appropriate to include a reference to that document and compliance with the associated Auckland Stormwater NDC. This would be consistent with other precincts in the region and although adoption of SMPs and their implementation as development progresses is a function of Healthy Waters (as the holder of the NDC), this would nonetheless provide a helpful linkage to assist in achieving the specific outcomes sought by the proposed Precinct (or should the ultimate landowner/developer seek their own discharge consent).
257. Objective 4 reads as follows:
- Freshwater and sediment quality is progressively improved over time in the Waihoehoe Precinct.*
258. It is unclear why the term 'progressively improved' is used in this objective which in the context of Chapter E1 relates to existing stormwater discharges and brownfield redevelopment. Further, improvement to sediment quality is typically not an outcome which can be directly influenced by a change in land use. Therefore, Mr Sunich recommends the objective be replaced with:
- Freshwater quality is improved in the Waihoehoe Precinct.*
259. Mr Sunich also recommends a map be added to show the boundary of sub-precinct B relating to the southern sub-catchment in order to clarify Policy 9 referring to maximum impervious area within Sub-precinct B.
260. It is noted future stormwater diversions associated with the development would be permitted activities under Chapter E8 (A1) providing the development demonstrates compliance with the SMP document. Other land use stormwater rule chapters in the

AUP being E9 (Stormwater quality - High contaminant generating car parks and high use roads) and E10 (Stormwater management area - Flow 1 and Flow 2) any associated land use consent requirements will still apply.

Analysis

261. Based on Mr Sunich's assessment, I consider that the stormwater and flooding provisions can give effect to RPS Objectives B7.3.1(1)-(3), B7.4.1(2), (4) and (5), and be consistent with Auckland wide objectives and policies for stormwater, including Policies E1.3(8) and (11), provided some amendments are made.
262. Generally, I accept that the NDC process for adopting the SMP will be sufficient to ensure the stormwater and flooding effects of PPC50 are adequately avoided, remedied or mitigated, provided that some adjustments are made to the Precinct provisions to strengthen required outcomes.
263. I have concerns about the adequacy of standard Auckland wide AUP methods to address specific issues and effects relating to:
- stream retention and off setting
 - riparian margins
 - contaminant treatment.
264. In relation to possible stream reclamation, this is a matter that is addressed by the AUP and the NPS-FM as development proceeds. As notified, Policy IX.3(10) gives a degree of support to stream reclamation. I consider that the matters set out in the policy are adequately managed through current AUP policies and that there is no need for a specific policy as proposed. However, it could be clarified that if any reclamation is justified, then off-setting should result on no net loss on ecological function. For example, I would support the following wording being inserted into a relevant policy:
- Ensure that if stream reclamation occurs, then there is no net loss in ecological function and preferably a net gain.*
265. Planting of riparian margins is supported. I agree that it would be desirable to cross reference to AUP replanting guidelines in Appendix 16 and to clarify that infrastructure such as walking tracks should be located outside the minimum 10m planted width. Riparian yards are addressed in response to submissions.
266. Water quality is an important issue, given the quality of the receiving environment, and further detail is required around treatment of impervious surfaces (including buildings), and adopting a treatment train approach.
267. I agree a map is required showing sub-precinct B.
268. I note that provision for peak flow attenuation in the southern catchment to match predevelopment peak flows for the 100 year ARI rainfall event may involve areas of land on the western side of the Precinct being set aside as drainage reserves (for attenuation purposes). In this area there are a number of rural-residential lots not in control of the plan change requestor. As a result, it is not clear as to how attenuation basins will be formed.
269. These matters are addressed further in the section that responds to submissions on stormwater matters.

8.7. Servicing

Application

270. The proposed servicing of the plan change area is summarised in section 10.7 of the s32 evaluation report and discussed in more detail in the Infrastructure report prepared by Crang Civil Consulting Engineers (Appendix 11 to the application).
271. There is currently no water or wastewater reticulation to the plan change site. Watercare Services Limited has confirmed that the plan change area can be serviced in the future through planned upgrades. Two temporary pump stations are proposed as an interim solution for wastewater discharge. A permanent wastewater solution of gravity sewers is anticipated to be installed post 2028. A new watermain between Flanagan Road Bulk Supply Point and the plan change area is proposed and will be sufficiently sized to accommodate the required supply of potable water for domestic and firefighting purposes for the area.
272. In terms of power and telecommunications infrastructure, there are existing overhead lines on Waihoehoe Road, and there are no constraints or issues identified with undertaking network upgrades to service the plan change area progressively as development occurs.

Comments

273. No specific review of servicing issues has been undertaken. I accept Watercare's advice in its submission that water and wastewater servicing for the PPC area is technically feasible and the proposed servicing arrangements are acceptable in principle. I note that the cost of an interim wastewater solution is to be met by the developer, given the land is proposed to be released ahead of FULSS timing. I also accept Counties Power's submission that it is well positioned to deliver power to the area.

8.8. Open Space Effects

Application

274. Open space effects of PPC50 are described in section 10.2 of the s32 evaluation report. This outlines that within the PPC50 area the indicative open spaces proposed include drainage reserves along the streams, a larger drainage reserve to the north of the plan change area with potential to be converted to a neighbourhood park, and opportunities for playgrounds and pocket parks. The report states that the urban subdivision provisions in Chapter E38 of the AUP will ensure that suitable open spaces are provided consistent with Council's Open Space Provision Policy 2016.
275. In the Urban Design Statement prepared by HUE (Appendix 6 to the application) it refers to green links at stormwater treatment devices, however there is no mention of these providing a walking or cycling network.
276. Community facilities are expected to be provided within the proposed Business – Metropolitan Centre zone in the adjoining PPC48 area. The Ministry of Education will designate land for future schools as required.
277. The application concludes that the Auckland-wide provisions will ensure the adequate provision of accessible and quality open space. Surrounding existing and planned amenities and social facilities, are and will be accessible by active and public modes of

transport and are or will be of a sufficient size to cater for the social and cultural needs and well-being of future residents of the PPC50 area.

Peer Review

278. The plan change has been reviewed by Maylene Barrett, Principal Specialist – Parks Planning, Auckland Council with regards to open space (Appendix 4).
279. Ms Barrett notes that the Drury-Opāheke Structure Plan indicates a potential new neighbourhood park (0.3-0.5ha) within the plan change area which is not indicated in the proposed precinct plan, or referred to within the urban design report for PPC50. She assesses that the lack of open space indicated on the precinct plan means that there is the potential for an under provision of public recreational open space. She recommends that one new neighbourhood park in a central location is shown on the precinct plan.
280. Ms Barrett assesses that PPC50 does not contain sufficient provisions to deliver a network of walkways within the proposed drainage and riparian reserves. She recommends that the indicative locations of wetlands and streams to be retained, riparian areas to be enhanced and indicative greenways routes (walkways/cycleways) are shown on the precinct plan. This includes the drainage reserve / ecological corridor along the Waihoihoi Stream and indicative greenway routes along other streams and open space. The confirmed locations of the wetlands and streams can be identified through future consent applications.
281. Ms Barrett opposes any wording implying that any of the indicative open space shown on the precinct plan will be acquired by the Council. She also recommends a new standard for maximum fence height for sites adjoining public space.
282. Ms Barrett also recommends several additions and amendments to the proposed objectives and policies for the precinct to address the issues identified above, including provision of greenways networks and interfaces of sites/dwellings with open space. She also suggests amendments to the riparian margin standard to specify required widths and require walkways/cycle paths within greenways, with new assessment criteria for providing greenways.

Analysis

283. I agree with Ms Barrett's concerns that insufficient guidance is provided in the precinct provisions as to the overall approach to the 'blue and green' components of the future neighbourhood. This is a serious weakness in the context of the intensive urban form proposed.
284. I agree that the indicative location of a neighbourhood park should be shown on the precinct plan in order to better secure these being delivered through future subdivision and give effect to RPS Objective B2.7.1(1) - ensuring the recreational needs of the future residents are met.
285. I have already recommended that streams are shown on a precinct plan in relation to urban design and ecological effects. I agree that greenways along riparian margins and esplanade reserves need to be shown on the precinct plan to better secure this being delivered through future subdivision, helping give effect to RPS Policy B2.7.2(2) relating to physical connectivity of open spaces. In particular, the Waihoihoi stream corridor connects to FUZ land on either side where linkages are also expected to be provided. Suitable notation on the precinct plan should allow for adjustment of the locations of

possible open space areas through the development process once further detailed planning and stream surveys are completed. I support amendments to the precinct provisions to specify required locations of walkways/cycleways within these corridors in relating to riparian planting.

286. A more explicit policy would assist with implementation of the Precinct outcomes. As covered in the assessment of urban design effects, I have recommended a new policy that refers more generally to the quality of the public realm to be created, including open spaces.
287. I support provisions being amended / added to manage the quality of the interface between open space and built development. This gives effect to RPS Policy B2.7.2(7) addressing the adverse effects of land use and development on open space facilities. Relevant zone-based standards do not address the interface of properties with open spaces. I agree that the following standard should apply in the Precinct:

IX6.X Sites adjoining public open space

Purpose: To enable opportunities for passive surveillance of the open space.

(1) Where a site adjoins public open space, the following must apply:

(a) fences or walls or a combination of these structures within the yard adjoining the open space must not exceed either:

(i) 1.2m in height, measured from the ground level at the boundary; or

(ii) 1.8m in height provided that any fencing above 1.2m in height is at least 50% visually open.

288. The open space review also makes comment as to various matters relating to Auckland Council as future owner of open spaces (such as whether riparian areas are vested or not and open space acquisitions). I consider these matters are best managed through the negotiations that occur at the time of subdivision and development and do not need to be subject to specific policies or assessment matters in an RMA document.

8.9. Heritage and Archaeological Effects

Application

289. The archaeological and heritage values of the PPC50 area are summarised in section 10.8 of the s32 evaluation report and discussed in more detail in the Archaeology Assessment prepared by Clough & Associates (Appendix 14 to the application).
290. One archaeological site has been recorded within the plan change area, being a portion of the Drury Tramway/Mineral Railway running through the site. The report states that an evaluation by Auckland Council concluded that there is little physical evidence remaining and the site should not be scheduled, and that it is not considered practical to implement measures to completely avoid the site upon redevelopment of the PPC50 area. The archaeological report recommends that where development cannot avoid this archaeological site, recordings of any identifiable remains should be undertaken to mitigate any adverse effects on archaeological and historic heritage values.
291. The report states that the possibility of unidentified sites being present within the plan change area cannot be excluded, but that the potential is low. The requestor proposes

that standard accidental discovery protocols would be implemented in the event that additional unrecorded subsurface archaeological sites are found during future development.

Peer Review

292. The plan change has been reviewed by Robert Brassey, Principal Specialist Cultural Heritage, Auckland Council (Appendix 4).
293. Mr Brassey agrees that effects on the portion of the Drury tramway/mineral railway within the plan change area can be mitigated by archaeological investigation and recording of the remains. The part of the alignment that is present in the Waihoehoe plan change area is understood to be, substantially or entirely, a modification/extension that dates from the 1904-5 rebuild of the tramway route as a mineral railway, and thus to have limited value in relation to knowledge that can be gained using archaeological techniques.
294. Mr Brassey also agrees that the possibility of unidentified archaeological sites being present in the PPC50 area is low, commenting that much of the plan change area would have been unattractive for Māori settlement due to the low-lying and largely swampy nature of the land prior to drainage. He does recommend an amendment to the precinct provisions to require the identification of archaeological sites in the riparian margins of streams prior to riparian planting taking place. In Mr Brassey's view it would be appropriate to rely on the Heritage New Zealand Pouhere Taonga Act, and the AUP Accidental Discovery Rule to manage unidentified heritage across the remainder of the plan change area.
295. Mr Brassey notes that no assessment of notable trees was provided with the PPC50 request. He supports a notable tree assessment being undertaken and trees being scheduled where appropriate. With this implemented and the precinct provision amendment identified above, he is able to support the proposed plan change.

Analysis

296. In my assessment, given the values present, it is appropriate to rely on the Heritage New Zealand Pouhere Taonga Act, and the AUP Accidental Discovery Rule to manage unidentified heritage across the PPC50 area. However, I agree that an archaeological assessment of the stream margins should occur prior to riparian planting, in order to ensure that RPS Objective B5.2.1(1) and (2) are given effect to in regard to any significant historic heritage place being identified before it may be damaged by planting. I therefore support the archaeological assessment requirement Mr Brassey proposes be included as part of the special information requirements for riparian planting in IX.9.
297. I consider the requirement for a notable tree assessment is necessary to give effect to RPS Objective B4.5.1 Notable trees. In my view the notable tree assessment is best done at the plan change stage as this would allow for an associated amendment to AUP Schedule 10 Notable Trees if any notable trees are identified. However, in this case, I recommend a notable tree assessment be made a pre-requisite of any subdivision application, so that any notable trees can be retained as a condition of subdivision and development consents, and they can be included in AUP Schedule 10 in due course through a future Council plan change process.

8.10. Effects on Mana Whenua Values

Application

298. Cultural values of the plan change area have been assessed in the Cultural Values Assessments (CVA) prepared by four iwi groups being Ngāti Te Ata, Ngāi Tai ki Tāmaki, Te Ākitai Waiohua, and Ngāti Tamaoho (Appendices 16-19 to the application).
299. There are no known identified sites of Significance or Value to Mana Whenua within the Plan Change area.
300. Section 10.9 of the s32 report summarises that the CVAs highlighted the following areas of interest to the iwi groups:
- ongoing degradation of waterways through further development, loss of habitat and increased stormwater runoff;
 - loss of mature vegetation and natural habitats for native species;
 - extent of earthworks and potential to disturb kōiwi, Māori artefacts or archaeological features;
 - protection of streams including provision for stream management plans and special policy requirements (greenspace, infrastructure, wider riparian margins);
 - treatment of stormwater prior to discharge;
 - unforeseen adverse impacts to the environment;
 - sustainability;
 - ongoing engagement has been requested;
 - the application of Te Aranga Māori Design Principles; and
 - meaningful cultural interpretation occurs through incorporation of place names (e.g. streets and parks) and if and as appropriate cultural art and design elements to offset the impacts to the cultural and natural landscape.
301. Section 5.1.2.3 of the section 32 report sets out how outcomes sought by Mana Whenua have been considered when developing the plan change provisions.

Analysis

302. The RPS chapter B6 of the AUP has policies that support the input of Mana Whenua into identifying cultural values in areas subject to development. Schedule 1 of the RMA covers plan change preparation by Councils. The Schedule places an obligation on Councils to consult early on Mana Whenua values. While the same obligation does not apply to private plan change proposals, I understand that the requestor has consulted with Mana Whenua, and that the above list of matters represents an appropriate list of concerns raised by Mana Whenua.
303. As for how these matters are addressed in the plan change, this is a matter that is considered under a number of topic headings in this report.

8.11. Landscape and Visual Effects

Application

304. Landscape and visual effects of PPC50 are summarised in section 10.3 of the s32 evaluation report and discussed in more detail in the Landscape and Visual Effects

Assessment (LVEA) prepared by LA4 Landscape Architects (Appendix 7 to the application).

305. The landscape assessment identifies that any urban development of this area will alter the existing landscape, but the change is generally anticipated by the future urban zoning of the land and the Drury-Opāheke Structure Plan. Overall, the landscape assessment considered that there are relatively low landscape values and sensitivity associated with the site and the surrounding area. Although the proposal will result in a loss of semi-rural character, the proposed zoning will respond to the key landscape attributes of the PPC50 area as follows:
- as the topography of the site is relatively flat, it is considered that any future earthworks will have limited implications on the existing landform.
 - protection and enhancement of the natural waterways and drainage network.
 - the site will be comprehensively planted with street trees, rain gardens and extensive riparian planting which will enhance the overall amenity of the site and assist in integrating the site with the wider area as it becomes more urban over the next 30 years.
 - retention of at least one row of Oak trees, however, the extent of this retention will be confirmed as part of a future resource consent application.
306. The visual effects assessment finds that from some vantage points there will be a significant change from the existing view given that the area will change from an open semi-rural to urban activities. These effects will be mitigated as far as practicable through the extensive drainage reserve and planting proposed.

Peer Review

307. Ms Skidmore's review (Appendix 4) highlights two important issues that need to be addressed via specific precinct provisions.
308. She notes that the applicant's LVEA report highlights the role of the stream corridors through the plan change area in contributing to landscape character. The report notes that "the extensive planting and riparian restoration proposed as part of the site development would result in a substantial enhancement to the site and surrounding area. It would also contribute significantly in mitigating many of the negative effects of urbanisation by re-establishing a strong landscape framework, and thereby ensuring a suitable level of amenity, while assisting in integrating the built development into the setting and offsetting the loss of rural character that cannot be avoided when such a large change in land-use is proposed". As set out above in relation to urban design effects, I consider a more explicit policy is required that gives clear direction about the importance of the stream corridors as landscape features that function as structuring elements in the urban environment and create open space corridors that contribute to the amenity and character/sense of place for the neighbourhood. This would be further reinforced by spatially indicating these corridor alignments on the Precinct Plan.
309. The assessment of landscape effects contained in the LVEA report also notes the potential to retain a significant amount of at least one of the two rows of oak trees at 76A Waihoehoe Road, as the trees have both landscape and visual amenity values. Given the role of the trees in contributing to the area's landscape values and the resulting neighbourhood character, Ms Skidmore considers it would be appropriate to identify the location of these trees on the Precinct Plan and to include an assessment mater and criterion to consider their retention in the design of subdivision and development.

Analysis

310. AUP RPS policy B2.3.2. refers to managing the form and design of subdivision so it supports the planned future environment, including its shape, landform, outlook, location and relationship to its surroundings, including landscape and heritage.
311. I agree with Ms Skidmore's analysis and have recommended that the future 'public realm' aspects of the new urban environment be given more emphasis, including streams and existing vegetation. Based on my review of urban design effects, I have suggested a new policy, to this effect. In my view, the policy would better implement proposed Objective 1 which refers to the Waihoehoe development 'integrating the natural environment' into the new urban area.

8.12. Land Contamination Effects

Application

312. A preliminary site investigation has been carried out for the PPC50 area, as summarised in section 10.10 of the s32 evaluation report and attached in full as the Preliminary Site Investigation prepared by Focus Environmental Services Limited (Appendix 13 to the application).
313. The preliminary site investigation has not identified any potential soil contamination that makes the plan change land unsuitable for future residential development. However several possible contaminant sources were identified, and targeted remediation of some land is likely to be required. Further detailed investigations and resource consents will be required under the NES-CS for future development of this land, and this process is considered to adequately manage the effects.

Peer Review

314. The Preliminary Site Investigation report has been peer reviewed by Andrew Kalbarczyk, Senior Specialist – Contaminated Land, Auckland Council (Appendix 4).
315. Mr Kalbarczyk is satisfied with the methodology used in the requestor's report. He states that the PPC is generally consistent with the purpose of the NES-CS regulations and the contaminated land-related objectives and policies in the AUP RPS.
316. Mr Kalbarczyk concludes that the PPC50 land is generally suitable for the intended future residential development from a contamination perspective. Additional, site-specific investigations will be required at consenting stage for those properties identified to have potential localised contamination.

Analysis

317. I adopt the assessment of Mr Kalbarczyk and consider that no changes to PPC50 are required to address land contamination effects. These would be appropriately addressed at consenting stage through the NES-CS and existing AUP provisions.

8.13. Geotechnical Effects

318. Geotechnical effects of PPC50 are summarised in section 10.11 of the s32 evaluation report and discussed in more detail in the Geotechnical report prepared by Lander Geotechnical Consultants (Appendix 12 to the application).

319. The report concludes that the ground conditions are generally suitable for the type of development proposed, with no obvious significant geotechnical hazards observed. The report does however identify pockets of weaker ground and/or lenses of organics which will require specific foundation design for future building platforms. The report also confirms that liquefaction induced settlements are unlikely to occur. However, the potential for settlements will need to be designed with regards to the flooding hazard affecting the PPC50 area.
320. The requestor proposes that detailed geotechnical investigations will be required as part of future resource consent applications regarding management of groundwater, earthworks design and building foundation design within the PPC50 area.
321. Based on the findings of this analysis, the report considers that the land conditions are generally suitable for urban development and can be appropriately managed through the resource consent process.

Peer Review

322. Claudia Harford, Senior Geotechnical & Natural Hazards Engineer, Auckland Council has peer reviewed the Geotechnical report (Appendix 4). Her assessment notes that the applicant has not adequately addressed the potential impacts of ground related hazards (geohazards) on the proposed development. A high level assessment of liquefaction and consolidation risk that considered and discussed the constraints and opportunities associated with geohazards on the site was sought from the requestor in the clause 23 process (request for further information), but the requestor elected not to respond to this. They stated that they anticipate that any geotechnical issues can be addressed at the subdivision and development stage.

Analysis

323. Geotechnical issues were addressed at a high level in the identification of the land as Future Urban and through the development of the Drury-Opāheke Structure Plan. These high level investigations were considered by the Council to be sufficient to assess the land as meeting RPS Policy B2.2.2(2) relating to the identification of future urban land as being suitable for development (namely that areas with significant natural hazard risks are avoided).
324. In this context, the issue raised in the geotechnical review is more to do with what zoning should be applied to the land that has been identified as future urban and whether the relevant Auckland wide and zone-based provisions are adequate to manage subdivision and development.
325. Land instability is identified as a natural hazard under Chapter E36. Policies E36.3 (32) and (33) are relevant:

(32) Require risk assessment prior to subdivision, use and development of land subject to instability.

(33) Locate and design subdivision, use and development first to avoid potential adverse effects arising from risks due to land instability hazards, and, if avoidance is not practicably able to be totally achieved, otherwise to remedy or mitigate residual risks and effects to people, property and the environment resulting from those hazards

326. In my view, there is sufficient information to proceed with rezoning, but I recommend that a reference to a land instability risk assessment be added to the Information Requirements. For example:

In relation to the risk assessment required by Policy E36.3.32, complete a high-level (scoping) assessment of liquefaction and consolidation risks prior to the first subdivision that identifies the nature and magnitude for these constraints and implications for development.

9. NOTIFICATION AND SUBMISSIONS

9.1. Notification details

327. Details of the notification timeframes and number of submissions received is outlined below:

Date of public notification for submissions	27 August 2020
Closing date for submissions	22 October 2020
Number of submissions received	35
Date of public notification for further submissions	11 December 2020
Closing date for further submissions	29 January 2021
Number of further submissions received	10

328. Copies of the submissions and further submissions are attached as Appendix 7 to this report.
329. Two submission points have been withdrawn in part. On 11 June 2021, Kāinga Ora informed the Council that it was withdrawing in part submission points 32.1 and 32.2, as follows:

PC50 – Submission point 32.1 [**withdraw in part only**]
~~*Approve the plan change, subject to inclusion of sites at 1 and 1A East Street for rezoning (see Attachment Two to the submission). Zone 1 East Street as THAB and 1A East Street as LCZ.*~~

PC50 – Submissions point 32.2 [**withdraw in part only**]
~~*Approve the plan change, subject to:*~~

- ~~*• application of a 22.5m Height Variation Control across the proposed THAB zone (including 1 East St, Drury) (see Attachment Three to submission);*~~
- ~~*• application of a 27m Height Variation Control over the extent of the proposed LCZ (including 1A East St, Drury and 200-212 Great South Rd) (see Attachment Three to submission)*~~

9.2. Analysis of Submissions and Further Submissions

330. The following sections address the submissions received on PPC50. It discusses the relief sought in the submissions and makes recommendations to the Hearing Commissioners.
331. Submissions that address the same issues and seek the same relief have been grouped together in this report under the following topic headings:
- Submissions supporting PPC50 in its entirety
 - Submissions opposing PPC50 in its entirety
 - Submissions on Timing and Funding Issues
 - Submissions on Traffic and Transport Effects
 - Submissions on Urban Design Effects
 - Submissions on Ecological Effects
 - Submissions on Landscape Effects
 - Submissions on Stormwater and Flooding Effects
 - Submissions on Zoning and Plan Change Boundary
 - Submissions on Cultural Effects
 - Submissions on Archaeology and Heritage Effects
 - Submissions on Other Infrastructure and Servicing Matters
 - Submissions on Reverse Sensitivity
 - Submissions on Open Space Matters
 - Submissions on Sub-Precincts
 - Submissions on Notification Provisions
 - Submissions on Other / General Matters

9.2.1. Scope of submissions and extent of analysis

332. A submission must be within the scope of a plan change to be considered. The concept of scope derives from clause 6(1) of Schedule 1 of the RMA which allows a person to make a submission 'on the' plan change. In considering scope, the accepted practice is to consider the following two points:
- The submission must address the proposed plan change itself, that is it must address the extent of the alteration to the status quo which the change entails; and
 - The Council must consider whether there is a real risk that any person who may be directly affected by the decision sought in the submission has been denied an effective opportunity to respond to what the submission seeks.
333. In addition to the above, submissions that seek substantial changes to a plan change, even within scope, must be accompanied by sufficient information and analysis to support the requested modification. Section 32AA applies to submissions seeking modifications, and in considering submissions, the Hearings Panel must have regard to the adequacy of information provided.
334. I do not respond to every submission point raised. As noted in section 6 above, Clause 10(3) clarifies that a decision that addresses each submission individually is not required. Rather I address the submissions based on common themes and topics. Section 10 of this report brings together my recommendations as to possible modifications to the plan change.
335. Further submissions have generally not been directly addressed unless containing pertinent new information – recommendations on further submissions are made in

accordance with the recommendation on primary submission. Appendix 8 contains a full list of my recommendations to accept, accept in part or reject each submission point.

9.2.2. Submissions supporting PPC50 in its entirety

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
1.1	Dannielle Haerewa	Approve the plan change
6.1	Brookfield Road Limited	Approve the plan change
11.1	Tony Chien	Approve the plan change
12.1	Kiwi Property Holdings No.2 Limited	Approve the plan change
13.1	Fulton Hogan Land Development Ltd	Approve the plan change
15.1	Fletcher Residential Limited	Approve the plan change
31.1	Karaka and Drury Limited	Approve plan change

Discussion

336. The support of these submissions is noted. As covered in the above technical reviews and in response to other submissions (as addressed in the following sections), I consider that the plan change request requires modification to better accord with the objectives of the NPS-UD and AUP RPS. I therefore recommend accepting the submissions in part.

Recommendations on submissions

337. That submissions 1.1; 6.1; 11.1; 12.1; 13.1; 15.1 and 31.1 be accepted in part to the extent that I have recommended modifications to the plan change. The plan change will provide for the sustainable management of natural and physical resources provided that additional measures are added around the natural environment, urban design and transport infrastructure.

338. There are no specific amendments associated with this recommendation.

9.2.3. Submissions opposing PPC50 in its entirety

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
17.1	Josephine Kleinsman	Decline the plan change

Discussion

339. The opposition of this submission is noted. The submission states that the Proposed Plan Change includes the submitter's land and has been included by Oyster Capital without the submitters consent. The submitter has never been consulted by Oyster Capital on the form and content of the Proposed Private Plan Change.

340. I note that the matter raised by the submitter should be responded to by the requestor. As covered in the above technical reviews and in response to other submissions (as addressed in the following sections), I consider that the plan change request requires modification to better accord with the objectives of the NPS-UD and AUP RPS, otherwise the plan change request should be declined. I therefore recommend accepting the submission in part.

Recommendations on submissions

341. That submission 17.1 be accepted in part to the extent that I have recommended modifications to the plan change.
342. There are no specific amendments associated with this submission. Section 10 sets out my recommended changes.

9.2.4. Submissions on timing and funding Issues

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
2.1	Douglas Signal	Reject PC50 on the basis that all roads and intersections in the area need to be upgraded before zoning is granted, otherwise public local residents would be impacted with years of traffic problems
4.1	Fire and Emergency New Zealand	Approve the plan change, in particular proposed Policy 6 as currently worded
7.7	Oyster Capital	Amend Standard IX.6.2 Trip Generation Limit as follows: (1) Development within the area shown on IX.10.2 Waihoehoe: Precinct Plan 2 must not exceed the thresholds in Table IX.6.2.1 and Table IX6.2.2 until such time that the identified infrastructure upgrades are constructed and are operational. (2) For the purpose of this rule 'dwelling' and 'retail/commercial floorspace' means buildings for those activities that have a valid land use consent or a subdivision that has a 224c certificate for vacant lots less than 1200m². (3) Table IX.6.2.1 sets.... Note: Transport infrastructure projects for Drury included in the New Zealand Upgrade Programme <u>2020</u> Transport prepared by the New Zealand Transport Agency are not included in the development thresholds below.
7.8	Oyster Capital	Amend Table IX.6.2.2 to add in " <u>Prior to any new dwellings, retail or commercial development</u> " as shown in Appendix 1 to the submission
17.10	Josephine Kleinsman	Amend plan change policies to ensure appropriate funding arrangements are in place for development
18.1	Lomai Properties Limited	Decline PPC50, unless the matters relating to alternative staging of development, provision of all required infrastructure and traffic are adequately resolved.
21.1	Auckland Council	Ensure that the council's concerns about infrastructure: funding deficit, timing and location uncertainty are resolved by the following or other means: a. Evidence is presented at the hearing that a mechanism has been identified with the agreement of the council that unfunded infrastructure (as of October 2020) will be funded. b. Evidence is presented at the hearing that parts of the plan change area are not constrained by infrastructure funding, timing or location uncertainty and can proceed without significant adverse effects. c. Infrastructure development threshold or staging rules can be devised that are enforceable and effective, and supported by robust objective and policy provisions. This could for example include: • Threshold rules are not used for infrastructure works to be supplied by third party, e.g. Auckland Transport or NZTA, if these agencies do not have funds allocated for the works. • Threshold rules are not used for infrastructure works which are scheduled

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		<p>beyond the lifetime of the plan (2026).</p> <ul style="list-style-type: none"> • Threshold rules are not used for works to be funded privately but there is no funding agreement in place. • Threshold rules are not used for works which would require a funding contribution from multiple landowners or developers and there is no agreement to apportion costs and benefits in place. • Threshold rules do not use gross floor area as a metric (the council may not be able to track this with current data systems). • Threshold rules are not used in circumstances where the extent and location of works have not been determined yet. • Use of prohibited activity status for infringement could be considered. <p>d. Notices of requirement have been lodged for the relevant infrastructure by the time of the hearing.</p>
21.32	Auckland Council	Decline PC 50 in its entirety until there is a fully funded and appropriately staged solution for the integration of land use, infrastructure and development for the Precinct and Sub Region
22.1	Auckland Transport	Decline plan change unless submitter's concerns are addressed including about the funding, financing and delivery of required transport infrastructure and network improvements and services to support the 'out of sequence' development proposed
22.2	Auckland Transport	Decline plan change unless submitter's concerns are addressed, including about reliance on development triggers to stage transport infrastructure provision. In the alternative, amend the plan change to include alternative mechanisms/provisions, and/or include the amendments to provisions set out in AT's submission.
22.5	Auckland Transport	<p>Amend Objective IX.2(3) as follows:</p> <p>(3) Development is supported by appropriate infrastructure. Subdivision and development are supported by the timely and coordinated provision of robust and sustainable transport, stormwater, water, wastewater, energy and communications infrastructure networks.</p>
22.6	Auckland Transport	<p>Amend Policy IX.3 (5) as follows:</p> <p>(5) Ensure that the timing of <u>subdivision and development</u> in the <u>wider Drury area</u> Waihoehoe Precinct is coordinated with the <u>funding and delivery of</u> transport infrastructure upgrades necessary to <u>avoid, remedy and mitigate the</u> adverse effects of <u>urbanisation development</u> on the <u>safe and efficient operation effectiveness and safety</u> of the <u>immediately surrounding and wider</u> transport network.</p>
22.7	Auckland Transport	<p>Add new Infrastructure and Staging policy as follows:</p> <p><u>(x) Avoid any subdivision and development in the wider Drury area as defined on Precinct Plan 2 until the required transport infrastructure is in place.</u></p>
22.8	Auckland Transport	<p>Amend Rules IX.4.1 (A2), (A3), (A5) and (A6) to introduce more onerous activity status for any development and/or subdivision not complying with Standards IX6.1 Staging of Development and IX6.2 Trip Generation Limit (such as non-complying activity status).</p> <p>In the alternative, amend Rules IX.4.1 (A2) and (A3) as follows:</p> <p>(A2) Development <u>and/or subdivision</u> that does not comply with Standard IX6.1 Staging of Development with Transport Upgrades but complies with Standard IX6.2 Trip Generation Limit <u>as confirmed in the Transport Assessment submitted with application for consent - RD</u></p> <p>(A3) Development <u>and/or subdivision</u> that does not comply with Standard IX6.1 Staging of Development with Transport Upgrades <u>and</u> or Standard IX6.2 Trip Generation Limit <u>as confirmed in the Transport Assessment</u></p>

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		submitted with application for consent - NC-D As a consequential amendment, delete Rules IX.4.1 (A5) and (A6).
22.11	Auckland Transport	Amend Standards IX.6.1 (1) and (2) and delete Standard IX.6.1 (3) and the note as follows: IX.6.1 Staging of Development with Transport Upgrades (1) Development <u>and subdivision</u> within the area shown on IX.10.3 Precinct Plan 3 must not exceed the thresholds in Table IX.6.1.1 and Table IX.6.1.2 until such time that the identified infrastructure upgrades are constructed and are operational. (2) For the purpose of this rule 'dwelling' and 'retail/commercial floorspace' means buildings for those activities that have <u>are subject to</u> a valid land use <u>and/or building</u> consent or subdivision that <u>is subject to a subdivision consent</u> . that has a 224c certificate for vacant lots less than 1200m². (3) Table IX.6.1.1 sets out the development thresholds if 'Access A' is not constructed to provide direct access to the Drury Centre from State Highway 1, as shown on IX.10.2 Waihoehoe: Precinct Plan 2. Table IX.6.1.2 sets out the development thresholds if 'Access A' is constructed to provide direct access to the Drury Centre from State Highway 1 as shown on IX.10.2 Waihoehoe: Precinct Plan 2. Note: Transport infrastructure projects for Drury included in the New Zealand Upgrade Programme — Transport prepared by the New Zealand Transport Agency are not included in the development thresholds below
22.12	Auckland Transport	Amend Table IX.6.1.1 as set out in full in the submission, including to specify additional transport infrastructure upgrades and network improvements required to be completed
22.13	Auckland Transport	Delete Table IX.6.1.2.
22.14	Auckland Transport	Amend Standards IX.6.2 (1), delete Standard IX.6.2 (2) and (3), and add a new clause as follows: IX.6.2 Trip Generation Limit (1) Development <u>and subdivision</u> within the Drury area shown on IX.10.2 Waihoehoe: Precinct Plan 2 must not exceed the thresholds in Table IX.6.2.1 and Table IX.6.2.2 until such time that the identified infrastructure upgrades are constructed and are operational. (2) Table IX.6.2.1 sets out the development thresholds if 'Access A' is not constructed to provide direct access to the Drury Centre from State Highway 1, as shown on IX.10.2 Waihoehoe: Precinct Plan 2. Table IX.6.2.2 sets out the development thresholds if 'Access A' is constructed to provide direct access to the Drury Centre from State Highway 1 as shown on IX.10.2 Waihoehoe: Precinct Plan 2. (3) Note: Transport infrastructure projects for Drury included in the New Zealand Upgrade Programme 2020 — Transport prepared by the New Zealand Transport Agency are not included in the development thresholds below (x) <u>A Transport Assessment corresponding to the scale and significance of the proposed activity prepared by a suitably qualified expert must be provided in order to confirm compliance with this standard.</u>
22.15	Auckland Transport	Amend Table IX.6.2.1 as set out in full in the submission, including to specify additional transport infrastructure upgrades and network improvements required to be completed
22.16	Auckland Transport	Delete Table IX.6.2.2.

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
22.17	Auckland Transport	<p>Amend IX.8.1 (2) as follows:</p> <p>(2) Development <u>and/or subdivision</u> that does not comply with Standard IX.6.1 Staging of Development with Transport Upgrades but complies with Standard IX.6.2 Trip Generation Limit:</p> <p>(a) Effects on the transport network consistent with the trips generated by development specified in Table IX.6.2.1 or Table IX.6.2.2;</p> <p>(b) The rate of public transport uptake and travel management measures; and</p> <p>(c) The rate of coordination of retail, commercial and residential development in <u>the wider Drury East area shown on Precinct Plan 2</u>; <u>and</u></p> <p><u>(x) The degree of certainty around the provision of required infrastructure upgrades including confirmation of infrastructure funding or other such measures agreed; and</u></p> <p><u>(x) Any mitigation measures or review conditions required to address the effects from development occurring ahead of the required infrastructure upgrades.</u></p>
22.18	Auckland Transport	<p>Amend IX.8.2 (2) as follows:</p> <p>(2) Development <u>and/or subdivision</u> that does not comply with IX.6.1 Staging of Development with Transport Upgrades but complies with IX.6.2 Trip Generation Limit:</p> <p>(a) Whether the effects of the proposal on the transport network are consistent with the trips generated by development specified in Table IX.6.2.1 or Table IX.6.3.2;</p> <p>(b) Whether increased use of public transport provides additional capacity within the <u>local transport network included within the area shown on IX.10.2 Precinct Plan 2</u>; including by implementing travel demand management measures.</p> <p>(c) Whether residential development is coordinated with retail and commercial development within <u>the area shown on IX.10.2 Precinct Plan 2 Drury East</u> to minimise trips outside of the precinct providing additional capacity within the transport network;</p> <p>(d) The effect of the timing and development of any transport upgrades;</p> <p><u>(x) Where new, upgrades and/or extensions to transport infrastructure are required, whether infrastructure funding agreements or other agreements exist to ensure that the new, upgraded or extended infrastructure required to service the subdivision and/or development can be funded and delivered; and</u></p> <p><u>(x) Whether the effects of development proceeding ahead of the required transport upgrades are mitigated by any conditions of consent including those relating to the scale, staging or operation of an activity, review conditions or interim network improvements proposed by the applicant.</u></p>
22.22	Auckland Transport	<p>Include provisions in the plan change to ensure that funding for public transport services (i.e. bus services) is available to support and provide public transport connections between the developments and the Drury Central rail station upon its completion.</p>
22.35	Auckland Transport	<p>Amend Policy IX.3(7) as follows:</p> <p>(7) Provide for the staging of bus, pedestrian and cycling connections to the Drury Central train <u>rail station upon its completion</u> to encourage the <u>immediate</u> use of public and active modes of transport <u>as soon as practically possible</u>.</p>
24.8	Ministry of Education	<p>Retain Standard IX.6.1 Staging of Development with Transport Upgrades.</p>

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
25.2	Leith McFadden	Ensure infrastructure upgrades are tied to staging through precinct provisions
28.1	Drury South Limited	Consider amending trip generation rule framework (Activity table IX.4.1(A2), (A3), (A5) and (A6) and standard IX.6.2) to replace with a simplified approach using GFA triggers alone, given the potential challenges in monitoring trip generation levels for a development of this scale.
28.4	Drury South Limited	Amend Standard IX.6.1 / PC50 to ensure that: (a) adequate upgrading of the surrounding road network (for example Waihoehoe Road shown on Precinct Plan 1) is undertaken; and (b) any non-compliance with this standard is a discretionary activity.
29.14	NZTA	Amend Policy 7 as follows: (7) Provide for the staging of pedestrian and cycling connections to the Drury Central train station <u>and Drury Centre</u> to encourage the use of public and active modes of transport.
29.16	NZTA	Amend and/or delete Activities IX.4.1 (A2), (A3), (A5) and (A6) in a manner which responds to Waka Kotahi's submission in its entirety.
29.20	NZTA	Delete Standard IX.6.1(3) Staging of Development with Transport Upgrades.
29.21	NZTA	Delete italicised Note IX.6.1 (4).
29.22	NZTA	Amend title of Table IX.6.1.1 as follows: Table IX.6.1.1 Threshold for Development with 'Access A' as shown on IX.10.2 Drury East: Precinct Plan 2 not constructed.
29.23	NZTA	Amend Table IX.6.1.1 Threshold for Development to provide more specificity as to the details of works required in the right hand column by including upgrade details listed in Table 8.1 of the Integrated Transport Assessment supporting the proposal, column headed "Revised (2020) Modelling – Infrastructure Upgrades Required".
29.24	NZTA	Delete Table IX.6.1.2 Threshold for Development with 'Access A' as shown on IX.10.2 Drury East: Precinct Plan 2 constructed
29.25	NZTA	Delete IX.6.2 Trip Generation Limit including Tables IX.6.2.1 and IX.6.2.2, and replace with provisions which provide for operational requirements and more specific transport network responses. Potential wording is set out below, and could include a new permitted activity standard with non-compliance being a restricted discretionary activity (consequential changes to Activity Table IX.4 would be required). Restricted discretionary activity assessment criteria/matters of discretion could include transport network improvements. An alternative compliance pathway would be for an applicant to propose and undertake transport network improvements to maintain LOS E i.e. comply (noting that all development requires consent so compliance could be considered as part of this process). <u>IX.6.2 Transport Infrastructure</u> <u>Development and subdivision to comply with the following:</u> <u>(a) Great South Road/ Waihoehoe Road Intersection Operation:</u> <u>(i) Where the baseline intersection operation is at Level of Service E (LOS E) or better at the time of application, no subdivision or development shall generate traffic movements which result in:</u> <u>1) a Level of Service of less than LOS E; or</u> <u>2) have a degree of saturation higher than 95%.</u> <u>(ii) Where the baseline intersection operation is at Level of Service F (LOS F) at the time of application, no subdivision or development shall generate traffic movements which results in:</u>

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		1) <u>degrees of saturation of more than the base line scenario, or</u> 2) <u>delays of more than 10% greater than the baseline scenario.</u> Other relief would include additional provisions which outline transport upgrades to be considered (as listed in Table 8.1 of the Integrated Transport Assessment supporting the proposal).
29.26	NZTA	Amend Tables IX.6.2.1 and IX.6.2.2, if submission point 29.25 is not accepted, to provide more specificity as to the details of works required in the right hand columns of both Tables by including upgrade details listed in Table 8.1 of the Integrated Transport Assessment supporting the proposal, column headed Revised (2020) Modelling – Infrastructure Upgrades Required.
29.27	NZTA	Delete italicised Note IX.6.2 (4).
32.10	Kāinga Ora	Retain Standard IX.6.1 subject to clarification and / or amendment of policies and associated provisions and thresholds to account for public infrastructure upgrades.
32.11	Kāinga Ora	Retain Standard IX.6.2 subject to clarification and / or amendment of policies and associated provisions and thresholds to account for public infrastructure upgrades.
33.1	Watercare	Amend Policy 6 as follows: (6) Ensure that <u>subdivision and</u> development in Drury East Precinct is coordinated with <u>(and does not precede)</u> supporting stormwater, wastewater and water supply infrastructure <u>and manages adverse effects, including reverse sensitivity effects, which may compromise the operation or capacity of that infrastructure.</u>

Discussion

343. These submissions cover important strategic growth matters, many of which have been traversed in the review of capacity and infrastructure issues in sections 8.1 and 8.2.
344. The submissions generally seek that funding of wider (off-site) transport infrastructure upgrades be agreed prior to rezoning and development. The submissions identify substantial concerns over the use of some form of trigger/threshold provisions as a means to address uncertainty over funding of local infrastructure improvements.
345. For example, Auckland Transport **[22.6, 22.7]** states that the proposed precinct description, objectives and policies do not recognise the need for both subdivision and development to be coordinated with the provision (including funding and delivery) of the transport infrastructure and services that are required to support the precinct and connecting it to the wider network. In this respect, these provisions do not give effect to higher order NPS-UD and RPS provisions. In a similar vein, Auckland Council **[21.32]** seek that PPC50 be declined in its entirety until there is a fully funded and appropriately staged solution for the integration of land use, infrastructure and development for the Precinct and sub region. Submitters who are resident in the area express concerns over the impact of growth if transport infrastructure is not upgraded at the same time as development.
346. The submissions also raise significant issues over the method proposed by the requestor to address uncertainty over the funding and delivery of local road improvements (Staging of development with transport upgrades rules).
347. The requestor, as part of their submission, has provided additional assessments of transport effects, based on modelling to understand what upgrades to the local roading

network (such as the various projects identified by DTIP) are necessary to support development in the plan change area, and manage the effects of development on the transport network in accordance with proposed Policy 5. This assessment shows that the development enabled by the Drury East plan changes (PPC48-50) do not rely on the 'DTIP' transport upgrades until 2048. Through the conferencing sessions the requestor has indicated a willingness to consider funding some form of interim upgrade of Waihoehoe Road (to provide for walking and cycling), as well as the improvements to Great South Road and Waihoehoe Road intersection set out in the proposed Precinct provisions.

Analysis

348. In land use and transport terms, the proposed Waihoehoe Precinct has close connections to Drury Central and the associated train station and retail and employment services. It is important that connections to these places and activities are in place from 'day one' to help 'internalise' some trips, as well as support access to the regional public transport network.
349. I agree that there needs to be reasonable certainty over funding before rezoning should occur, such as commitments in Council's financial plans. However, I cannot find any support in the AUP (or NPS-UD) for the principle that all funding must be agreed before rezoning occurs. In my assessment there is now reasonable certainty over funding of the public transport network infrastructure for rezoning to proceed, given NZUP, ATAP, and the draft RLTP and Council's draft LTP.
350. I understand there is a risk that not all road projects will be funded and delivered ahead of development, and that some projects may lag behind development. In particular there is uncertainty around Mill Road, its form, alignment and timing.
351. In broad terms my recommendation to address the uncertainty over road improvements is that objectives and policies relating to land use and transport integration be strengthened, with a shift in emphasis to ensuring transit-oriented development occurs. I recommend this on the basis that a transit-oriented form of development seeks to reduce reliance on private trips and associated roading investment. Transit-oriented development also supports the intensity and mix proposed. In my view, so long as the train station and electrified network is in place, bus priority measures are installed on Waihoehoe Road, and people (residents, workers visitors) can access the train station 'from day one' then development should be able to proceed.
352. The extent to which other road-based infrastructure needs to be improved is a matter that can be, to an extent, addressed as development occurs. The NoRs issued by AT and Waka Kotahi are an important step in securing space for the necessary upgrades. A delay in the actual upgrading of road capacity due to funding issues may disadvantage some people and businesses, but so long as there is an alternative that is convenient and easy to use (for example the train and bus network), then residents and workers have options.
353. To help address the issue of uncertainty over the nature and extent of upgrades to existing roads as development progresses (and the potential for development to occur in a number of disjointed locations), I would recommend that the precinct contain clear standards that require that pedestrian and cycle links be provided to the Drury Central train station before development can be occupied. Furthermore, the standards should state that the existing section of Waihoehoe Road should be upgraded as development proceeds, with the requirement being that the upgrade should not be just to the frontage

of the subject application site, but the section between Fitzgerald Road and Waihoehoe Road rail overbridge.

354. In this context, I disagree that a fully funded and appropriately staged solution for the integration of land use, infrastructure and development for the Precinct and sub region is required before the rezoning can occur.
355. In terms of policies, I do agree that the Precinct policies should be strengthened as they relate to public transport access and safety. Auckland Transport [22.6] seeks to amend Policy IX.3(5) to read as follows:

Ensure that the timing of subdivision and development in the wider Drury area as defined is coordinated with the funding and delivery of transport infrastructure upgrades necessary to avoid, remedy and mitigate adverse effects of urbanisation on the safe and efficient operation of the surrounding and wider transport network.

356. I note that this would be a very hard policy to implement in practice, given the wider demands on the regional transport network. For example, my understanding from the SGA work is that even with the Mill Road extension in place, additional lanes to the motorway and other upgrades, the south will continue to face significant transport pressures (as will north and west Auckland).
357. In my view, a more effective response is to focus on the key public transport aspects of the development, these being the rail station, rail electrification and associated pedestrian, cycle and bus access. To this end I support proposals along the following lines as suggested by Auckland Transport [22.35]:

Provide for bus, pedestrian and cycling connections to the Drury Central rail station upon its completion to encourage the immediate use of public and active modes of transport as soon as practically possible.

358. Based on the above, I would support, in response to the submissions, a strongly worded policy that is directed at avoiding development occurring ahead of infrastructure necessary to support public transport use, such as:

Avoid subdivision and development in the Waihoehoe Precinct that precedes the delivery of public transport infrastructure necessary to enable travel patterns consistent with a transit-oriented form of development.

Ensure bus, pedestrian and cycling connections to the Drury Central rail station are progressively provided as development occurs so as to encourage the immediate use of public and active modes of transport.

359. In this respect I support the type of 'requirements' set out by Mr Church in his transport review and as set out in section 8.4. That is, buildings are occupied once the station is operational (timed for 2025-26), pedestrian and cycle connections to the station are in place, bus priority is provided for westbound on Waihoehoe Road, and Waihoehoe Road is brought up to an urban standard early in the development process.
360. I agree with submitters that the requestor's method of dealing with uncertainty over funding and delivery of local road improvements are unworkable in their current state. Auckland Council's submission notes that threshold rules should not be used for works which would require a funding contribution from multiple landowners or developers and there is no agreement to apportion costs and benefits in place. I agree with this position

and note that it essentially covers all of the PPC50 land. I do however suggest that it is appropriate to introduce a date-based standard in relation to the Waihoehoe Road rail overbridge being replaced.

361. Auckland Transport considers that failure to comply with transport threshold standards (i.e. allowing subdivision and development to advance before the required transport upgrades are implemented) will have the potential to result in significant adverse effects on the transport network. Auckland Transport therefore seeks a non-complying activity status for development and subdivision which fail to comply with both Standards IX.6.1 and IX.6.2. I consider that discretionary status is appropriate for developments that cannot meet the revised standards I have recommended.
362. As discussed in the expert transport review, Mr Church has proposed a similar method to that identified by Waka Kotahi in regards to the nature and extent of upgrades to Great South Road / Waihoehoe Road intersection. I agree that some form of performance-based rule could work. My understanding is that Mill Road extension has a significant effect on travel patterns. Prior to Mill Road extension being fully made operational, then assessment is needed of impacts on Waihoehoe Road and Great South Road intersection. Mr Church for Council has set out a possible performance-based approach in his Transport Assessment (as covered in section 8.4). Waka Kotahi has proposed a similar approach, as follows:

IX.6.2 Transport Infrastructure Development and subdivision to comply with the following:

(a) Great South Road/ Waihoehoe Road Intersection Operation:

(i) Where the baseline intersection operation is at Level of Service E (LOS E) or better at the time of application, no subdivision or development shall generate traffic movements which result in:

- 1) a Level of Service of less than LOS E; or
- 2) have a degree of saturation higher than 95%.

(ii) Where the baseline intersection operation is at Level of Service F (LOS F) at the time of application, no subdivision or development shall generate traffic movements which results in:

- 1) degrees of saturation of more than the base line scenario, or
- 2) delays of more than 10% greater than the baseline scenario.

363. I would support such a performance-based approach prior to Mill Road extension becoming operational. My assessment is that such a requirement would be a more effective method than the fixed floorspace / dwelling number threshold approach proposed by the requestors. The performance-based approach would recognise the wider factors influencing the performance of the key intersections involved.
364. As noted in many submissions, if Standards IX.6.1 and IX.6.2 were to be retained by the Panel (this would not be my recommendation), then there would be considerable work required. In my assessment this would need to cover:
- only one standard, rather than two. I would delete the trip generation limits as being unable to be implemented. In my view the trip generation rules would be impossible to comply with for smaller developments.
 - reference to both subdivision and development.
 - more specificity as to what upgrades are actually required.
 - clarification as to how the dwelling and floorspace thresholds are to be measured (given that Council will not record retail floorspace nor control conversions between retail and office floorspace in the business zones). Are

dwelling numbers based on consents issued or actual dwellings built, for example?

- expanded assessment matters.
- at least discretionary activity status for activities that seek to not meet the standards.

365. As for assessment matters, should consent be sought to infringe the (revised) transport infrastructure standards, I agree with submitters that an expanded list of matters is needed to those set out in IX8.2(2). Based on the submissions, I would recommend the following:

- whether the effects of development proceeding ahead of the required transport upgrades are mitigated by the scale, staging or operation of an activity,
- demonstrate the extent to which any staging of subdivision or development will be required due to the co-ordination of the provision of infrastructure;
- where roading infrastructure is required to be upgraded, agree an infrastructure funding agreement or other such measure to ensure that the infrastructure required to service the subdivision can be funded and provided in a timely manner.

Recommendations on submissions

366. That submissions 2.1; 4.1; 7.7; 7.8; 17.10; 18.1; 21.1; 21.32; 22.1; 22.2; 22.5; 22.6; 22.7; 22.8; 22.11; 22.12; 22.13; 22.14; 22.15; 22.16; 22.17; 22.18; 22.35; 25.2; 28.1; 28.4; 29.14; 29.16; 29.20; 29.21; 29.22; 29.23; 29.24; 29.25; 29.26; 29.27 and 33.1 be accepted in part to the extent that I have recommended an amended set of provisions.

367. That submissions 4.1; 22.22; 24.8; 32.10 and 32.11 be rejected on the basis that the submissions seek the retention of proposed provisions that I have recommended be substantially altered.

368. Recommended changes to the proposed provisions are set out in Section 10.

9.2.5. Submissions on traffic and transportation effects

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
7.11	Oyster Capital	Amend Standard IX.6.4 Building Setback along Waihoehoe Road as follows: Purpose: To enable the future required widening of Waihoehoe Road. (1) A building or parts of a building must be set back from the 2020 Waihoehoe Road boundary by a minimum depth of 7.5m <u>when measured from the legal road boundary that existed as at the year 2020.</u> (2) The building setback...
8.5	Dong Leng	Confirm that intersection access to 160 Waihoehoe Road from Waihoehoe Road will not be restricted once it has been upgraded to an Arterial Road as proposed
8.6	Dong Leng	Amend the locations of the proposed collector roads to be in accordance with the draft Drury-Opaheke Structure Plan and so as to properly service the land beyond, without conflicting with the streams to the north and east
9.2	Kenneth Giffney	Amend the locations of the proposed collector roads to be in accordance with the draft Drury-Opaheke Structure Plan and so as to properly service the land beyond, without conflicting with the streams to the north and east
17.4	Josephine Kleinsman	Reclassify Fitzgerald Road extension as an Arterial

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
17.8	Josephine Kleinsman	Amend the road cross sections to include the proposed locations of the underground services
21.28	Auckland Council	Review the need for IX.6.4 if a notice of requirement has been lodged for the upgrade of Waihoehoe Road.
22.4	Auckland Transport	Amend Objective IX.2(2) as follows: (2) Access to the precinct occurs in an effective, efficient and safe manner that manages effects on State Highway 1 and the effectiveness and safety of the surrounding road network. A transport network that facilitates the safe and efficient movement of people, goods and services and manages effects on the safe and efficient operation of the surrounding and wider transport network.
22.10	Auckland Transport	Delete Standard IX.6 (2) as follows: (2) The following zone standards do not apply to activities listed in Activity Table IX.4.1 above: • E27.6.1 Trip generation
22.19	Auckland Transport	Delete all reference to 'Access A' under Standards IX.6.1 and IX.6.2. Remove 'Access A' from Precinct Plan 2
22.20	Auckland Transport	Amend the precinct provisions to better address the following related matters: <ul style="list-style-type: none"> • Define the key transit-oriented development principles, characteristics and outcomes as they apply to the plan change area. • Ensure there is consistency through the suite of precinct provisions in regard to giving effect to the transit- oriented development related outcomes. • Applying appropriate mechanisms in the precinct provisions to support transit-oriented development related outcomes e.g. managing the provision of parking as part of the wider suite of travel demand management measures that are applied to transit- oriented development scenarios.
22.21	Auckland Transport	Provide further assessment of the impacts of the proposal on accessibility between the Waihoehoe Plan Change area and the Drury Central rail station for all modes including public transport and pedestrian access, focusing on safety, permeability and connectivity between the areas.
22.23	Auckland Transport	Amend IX.10.1 Waihoehoe: Precinct Plan 1 as follows: <ul style="list-style-type: none"> • Add to the legend and show the proposed Opāheke North-South arterial road as a future arterial road.
22.24	Auckland Transport	Add new policy as follows: <u>(x) Recognise and protect the route for the proposed Opāheke North-South arterial road as a future Frequent Transit Network arterial route which provides for the north-south movements between Papakura and Waihoehoe Road; and</u>
22.25	Auckland Transport	Add new policy as follows: <u>(x) Ensure that subdivision and development in Waihoehoe Precinct does not preclude the construction and operation of proposed Opāheke North-South arterial, as defined by:</u> <ul style="list-style-type: none"> • <u>The indicative Opāheke North-South arterial road alignment shown in IX.10.1 Waihoehoe: Precinct Plan 1; or</u> • <u>Relevant designations and resource consents for the proposed Opāheke North-South arterial road.</u>
22.26	Auckland Transport	Add a new rule to Table IX.4.1 Activity table as follows: <u>Subdivision and/or development of land including or adjacent to the proposed Opāheke North-South arterial road shown in IX.10.1 Waihoehoe: Precinct Plan 1 - RD</u>
22.27	Auckland Transport	Add a new matter of discretion to IX8.1 as follows: <u>(x) Subdivision and/or development of land including or adjacent to the</u>

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		proposed Opāheke North-South arterial road: <u>(a) Effects on the proposed Opāheke North-South arterial road.</u>
22.28	Auckland Transport	Add new assessment criteria to IX.8.2 as follows: <u>(x) Subdivision and/or development of land including or adjacent to the proposed Opāheke North-South arterial road:</u> <u>(a) Whether the subdivision and/or development preclude the construction and operation of the proposed Opāheke North-South arterial road; and</u> <u>(b) the extent to which the subdivision and/or development provide for the proposed Opāheke North-South arterial road to be developed in a cohesive manner.</u>
22.29	Auckland Transport	Add new policy as follows: <u>(x) Recognise and protect the route for Waihoehoe Road as a multi-modal arterial which provides for the east-west movements between Great South Road and Drury Hills Road intersection.</u>
22.30	Auckland Transport	Add new policy as follows: <u>(x) Restrict direct vehicle access onto Waihoehoe Road to support the safe and efficient operation of the transport network for walking, cycling and public transport.</u>
22.31	Auckland Transport	Amend the building line restrictions in Standard IX.6.4 to reflect the final alignment and width required and ensure any yard requirements that apply are considered in addition to the building setbacks. The need for IX.6.4 should be reviewed if a notice of requirement is lodged for the upgrade of Waihoehoe Road.
22.32	Auckland Transport	Retain the vehicle access restriction on Waihoehoe Road as per Rule E27.6.4.1 (3)(c) of the AUPOP.
22.33	Auckland Transport	Amend Objective IX.2 (1) as follows: (1) Waihoehoe Precinct is a comprehensively developed residential environment that integrates with the Drury Centre and the natural environment, supports public transport use, <u>walking and cycling,</u> and respects Mana Whenua values.
22.36	Auckland Transport	Retain Policy IX.3(1) correcting the cross reference as follows: (1) Require collector roads to be generally in the locations shown in IX.10.X1 Waihoehoe: Precinct Plan 1 while allowing for variation, where it would achieve a highly connected street layout that integrates with the surrounding transport network.
22.37	Auckland Transport	Amend Policy IX.3(2) as follows: (2) Ensure that <u>subdivision and</u> development provide a local road network that achieves a highly connected street layout and integrates with the collector road network within the precinct, and the surrounding transport network, and supports the safety and amenity of the open space and stream network.
22.38	Auckland Transport	Amend Rule IX.4.1 (A1) as follows: "Development of <u>new</u> public or private road (<u>this rule does not apply to Auckland Transport</u>)" As a consequential amendment, the same changes are sought to the heading of IX.8.1 (1) matters of discretion and IX.8.2 (1) assessment criteria.
22.39	Auckland Transport	Add a new standard to require the vesting of proposed public roads in all sub-precincts as follows: <u>IX.6.X Road Vesting</u> <u>Proposed public roads (including separated pedestrian and bicycle routes) must be constructed and vested in Council upon subdivision or development of the relevant area at no cost to the Council.</u> As a consequential amendment, add a new rule as follows:

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		<u>Development and/or subdivision that does not comply with IX.6.X Road Vesting - NC</u>
22.40	Auckland Transport	Amend matters of discretion IX.8.1 (1) as follows: (1) Development of <u>new</u> public and private roads: (a) Location and design of the collector street road , local streets roads and connections with neighbouring sites and to achieve an integrated street network; (b) Provision of <u>safe and efficient public transport</u> , cycling and pedestrian networks; (c) Location and design, <u>and sequencing</u> of connections to the Drury Central train rail station; and (d) Matters of discretion IX.8.1 (1)(a) - (b)(c) apply in addition to the matters of discretion in E38.12.1; <u>and</u> (x) <u>Location and design of intersections with existing roads.</u>
22.41	Auckland Transport	Amend Assessment criteria IX.8.2 (1)(a) as follows: (1) Development of <u>new</u> public and private roads: (a) Whether the collector roads are provided generally in the locations shown on IX.10.1 Waihoehoe: Precinct Plan 1 to achieve a highly connected street layout that integrates with the surrounding transport network. An alternative alignment that provides an equal or better degree of connectivity and amenity within and beyond the precinct may be appropriate, having regard to the following functional matters: (i) The presence of natural features, natural hazards or contours and how this impacts the placement of roads; (ii) The need to achieve <u>a permeable an efficient</u> block structure and layout within the precinct suitable to the proposed activities; and (iii) The constructability of roads and the ability for it to be delivered by a single landowner.
22.42	Auckland Transport	Amend Assessment criteria IX.8.2 (1)(b) as follows: (b) Whether a high quality and integrated network of local roads is provided within the precinct that provides a good degree of accessibility <u>and connectivity</u> , and supports <u>public and active modes of transport a walkable street network</u> . Whether roads are aligned with the stream network, or whether pedestrian and/or cycle paths are provided along one or both sides of the stream network, where they would logically form part of an integrated open space network;
22.43	Auckland Transport	Retain Assessment criteria IX.8.2 (1)(c) and (d) for location of roads
22.44	Auckland Transport	Amend Assessment criteria IX.8.2 (1)(e) as follows: (e) Whether subdivision and development provide for <u>arterial</u> , collector roads and local roads to the site boundaries to coordinate with neighbouring sites and support the integrated completion of the network within the precinct over time;
22.45	Auckland Transport	Amend Assessment criteria IX.8.2 (1)(g) for design of roads as follows: (g) Whether the design of collector and local roads are <u>generally</u> in accordance with the <u>minimum road reserve widths and key design elements road cross sections</u> provided in IX.10.1 Waihoehoe: Appendix 1;
22.46	Auckland Transport	Amend Assessment criteria IX.8.2 (1)(h) for design of roads as follows: (h) Whether the layout of the street network provides a good degree of accessibility <u>and connectivity</u> , and <u>supports the development of Waihoehoe Precinct as a walkable centre and community street network</u> . As a general principle, the length of a block should be no greater than 280m, and the perimeter of the block should be no greater than 600m;

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		(C) Within the walkable catchment of the Drury Central train station in the Terrace Housing and Apartment Buildings zone, whether the street network provides safe and legible pedestrian and cycle connections to the <u>Drury Central rail station as development occurs over time</u> . In particular, whether the following is provided, or an alternative is provided that achieves an equal or better degree of connectivity: (i) Development provides for a direct, legible and safe pedestrian and cycle connection to the Drury Central train <u>rail</u> station via connections through the Drury Centre precinct, or via Fitzgerald Road, Waihoehoe Road and Flanagan Road /Drury Boulevard.
22.47	Auckland Transport	Amend Assessment criteria IX.8.2 (1)(i) for design of roads as follows: (i) Whether safe and legible pedestrian and cycle connection to the Drury Central train <u>rail</u> station are provided, via facilities on Waihoehoe Road and Flanagan Road /Drury Boulevard, from the Fitzgerald Rd extension to the Drury Rail Station. Or an alternative is provided that achieves an equal or better degree of connectivity. Where development precedes the upgrade of Waihoehoe Road and connecting roads, interim pedestrian and cycle facilities <u>should</u> may be provided.
22.48	Auckland Transport	Add new assessment criteria to IX.8.2(1) as follows: <u>(x) Whether the layout of the street network supports the provision of a safe and efficient bus network;</u> <u>(x) Whether the design of collector and local roads include safe and efficient intersection treatments with existing roads; and</u> <u>(x) Where development is adjacent to a rural road, whether the road is to be upgraded to an urban standard.</u>
22.49	Auckland Transport	Delete IX.11 Appendix 1: Road Cross Section Details. Introduce provisions relating to the minimum road reserve widths and key design elements and functional requirements of new roads and roads which need to be upgraded to urban standards including but not limited to: <ul style="list-style-type: none"> • Carriageway • Footpaths • Cycleways • Public Transport • Ancillary Zone (parking, street trees etc.) • Berm • Frontage • Building Setback • Design Speed As part of new provisions, retain vehicle access restriction provisions, as addressed above.
22.50	Auckland Transport	Add layers to the AUPOP maps for Arterial roads within the Precinct area, including Waihoehoe Road and proposed Opāheke North-South
22.51	Auckland Transport	Show the purpose (role) of all roads on the precinct plans.
24.9	Ministry of Education	Retain objectives and policies relating to the provision of safe and legible walking and cycling connections through communities.
28.3	Drury South Limited	Amend IX.6(2) so that any exemption is clear as to the activities that it applies to, and that the effects of those activities have been assessed through an ITA.
29.1	NZTA	Provide information and suitable provisions through out the whole of the plan change to resolve the transport infrastructure issue.

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
29.2	NZTA	Amend the whole Plan Change to replace references to 'pedestrians and cyclists' with 'active transport' (as defined within the National Policy Statement on Urban Development 2020).
29.4	NZTA	Delete 'Access A' from Precinct Plan 2.
29.6	NZTA	Retain IX Precinct description as notified
29.7	NZTA	Amend Objective 1 as follows: (1) Waihoehoe Precinct is a comprehensively developed residential environment that integrates with the Drury Centre and the natural environment, supports <u>active and public transport use</u> , and respects Mana Whenua values.
29.8	NZTA	Retain Objective 2
29.9	NZTA	Retain Objective 3
29.10	NZTA	Retain IX.3 Policy 1 as notified
29.11	NZTA	Retain IX.3 Policy 2 as notified
29.12	NZTA	Retain IX.3 Policy 3 as notified
29.13	NZTA	Retain IX.3 Policy 5 as notified
29.15	NZTA	Retain Activity IX.4.1 (A1) as notified.
29.19	NZTA	Retain IX.6 Standard (2) as notified on the basis that transport, traffic or trip-generation provisions are retained in the precinct and that no permitted activities are enabled.
29.28	NZTA	Amend IX.8.1 Matters of discretion (1) as follows: (1) Development of public and private roads: (a)... (d)... <u>(e) the outcome of engagement with the relevant road controlling authority.</u>
29.29	NZTA	Amend IX.8.1 Matters of discretion (2) as follows: (2) Development or subdivision that does not comply with Standard IX.6.1 Staging of Development with Transport Upgrades but complies with Standard IX6.2 Trip Generation Limit: (a)... (b)... (c)... <u>(d) the outcome of engagement with the relevant road controlling authority.</u>
29.30	NZTA	Amend IX.8.2(1) Assessment criteria as follows: 1) Development of public and private roads: Location of roads (a) ... (b) Whether a high quality and integrated network of local roads is provided within the precinct that provides a good degree of accessibility and supports <u>an integrated active transport walkable street</u> network. [...] (c) ... (d) ... Design of roads (f) ... (g) ... (h) Whether the layout of the street network provides a good degree of accessibility and supports <u>an integrated active transport walkable street</u> network. [...] (i) Whether safe and legible <u>active transport pedestrian and cycle</u> connections to the Drury Central train station and Drury Centre are provided, via facilities on Waihoehoe Road and Flanagan Road/Drury Boulevard, from the Fitzgerald Rd extension to the Drury Rail Station. Or an alternative is provided that achieves an equal or better degree of connectivity. Where

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		development precedes the upgrade of Waihoehoe Road and connecting roads, interim pedestrian and cycle facilities <u>should</u> may be provided. Road Controlling Authority <u>(j) how the outcome of engagement with the relevant road controlling authority has been responded to.</u>
29.31	NZTA	Amend assessment criteria IX.8.2(2) as follows: (2) Development or subdivision that does not comply with IX.6.1 Staging of Development with Transport Upgrades but complies with IX.6.2 Trip Generation Limit: (a)... (b) Whether increased use of public <u>and active</u> transport provides additional capacity within the transport network including by implementing travel demand management measures. (d)... <u>(e) how the outcome of engagement with the relevant road controlling authority has been responded to.</u>
32.13	Kāinga Ora	Delete Assessment Criteria IX.8.2(1)(f)
35.2	Tim John Macwhinney	Provide finality to boundaries of property at 28 Waihoehoe Road for widening Waihoehoe Road

Discussion

369. This set of submissions deal with the more operational aspects of traffic and transport matters. Refer to section 9.2.4 on timing and sequencing for assessment of strategic level issues. Topics covered include:

- Objectives for the ‘internal transport’ network
- Road layout/ functions
- Local road design.

Objectives

370. I agree with both Waka Kotahi and Auckland Transport that the objectives need to be strengthened in relation to the primacy of public transport, walking and cycling. In this regard, Objective 2 as notified has an emphasis on road-based transport, when the Waihoehoe Precinct must have a strong connection to Drury Centre and associated public transport services. I would suggest that Objective 2 needs to be replaced with an emphasis on transit-oriented development. I note that Auckland Transport’s suggestion in submission [22.4] essentially replicates words in the AUP. In contrast, submission [22.20] from Auckland Transport seeks a more fundamental recasting of objectives and policies towards transit:

(x) The Waihoehoe precinct develops and functions in a way which:
a) promotes travel mode shifts to public and active modes of transport;

b) provides a well-connected and legible network of pedestrian and cycling linkages connecting the precinct to the Drury Central rail station; and

c) mitigates impacts on the safe and efficient functioning of roads within the Drury township (Great South Road), the existing and future arterial road network including Waihoehoe Road, and State Highway 1.

371. I would support such a re-orientation as being a more effective and efficient means of implementing NPS-UD and AUP RPS objectives relating to a public transport first approach, both as a means of mitigating impacts on the regional roading infrastructure, as well as concerns over climate change.

Road layout

372. Submissions raise a number of issues with regard to whether the Precinct provisions adequately recognise the particular functions of key roads. These include the importance of Waihoehoe Road as a future arterial road and its function as a multi-modal connection and the need for vehicle access restrictions on Waihoehoe Road.

373. AT's submissions **[22.29 and 30]** suggest two new policies, as follows:

- Recognise and protect the route for Waihoehoe Road as a multi-modal arterial which provides for the east-west movements between Great South Road and Drury Hills Road intersection.
- Restrict direct vehicle access onto Waihoehoe Road to support the safe and efficient operation of the transport network for walking, cycling and public transport.

374. I do not see the need to add policies in relation to Waihoehoe Road, given its arterial road status (and associated AUP policies). For example, Policy E27.3 (21) already refers to restricting or managing vehicle access to and from sites adjacent to intersections, adjacent motorway interchanges, and on arterial roads. How existing accesses onto Waihoehoe Road will be managed will be determined as subdivision and development proceeds (for example if alternative road access is provided)

375. Oyster Capital's **[7.11]** submission seeking an amended front yard control on Waihoehoe Road is supported, as it brings the front yard control into consistency with the same control in the PPC48 and 49 areas.

376. A number of submissions relate to the proposed Opāheke North-South route (indicated as a collector road on the Precinct map), wishing to ensure that the route is not compromised by development. I understand that the collector road shown is generally consistent with the Drury-Opāheke Structure Plan Integrated Transport Assessment, and note that the Structure Plan did not "lock in" the location of the road. The NoR recently lodged by Auckland Transport / Waka Kotahi for the road has now provided certainty over alignment and protection of the route.

Local road design

377. Turning to road design, Auckland Transport **[22.38]** seeks to amend Rule IX.4.1 (A1) - road design – so that it clearly excludes Auckland Transport. I agree that this exclusion should apply. The design of public roads to be vested will be considered by the asset owner during the subdivision process. Private roads should be subject to an appropriate level of assessment to ensure that they are safe and do not displace traffic or other road users.

378. Submissions from Waka Kotahi and Auckland Transport seek a wider set of matters of discretion and related assessment matters for alternative road designs. Further additional matters are proposed to ensure that:

- the relevant road controlling authority outcomes are considered.
- public transport is provided for, where necessary
- the location and design of intersections with existing roads is taken into account

- where development is adjacent to a rural road the road is to be upgraded to an urban standard.
379. I note that local and collector street design is subject to Policy E38.3(10) of Chapter E38 – Urban subdivision. This refers to a road network that achieves all of the following:
- (i) is easy and safe to use for pedestrians and cyclists;*
 - (ii) is connected with a variety of routes within the immediate neighbourhood and between adjacent land areas; and*
 - (iii) is connected to public transport, shops, schools, employment, open spaces and other amenities.*
380. Given this extent of discretion already exists, it is unclear to me what further or additional matters are needed. Having said that, I acknowledge that the upgrade of rural roads to an urban standard is an important matter, and one that is most appropriately managed by way of a standard.
381. Auckland Transport **[22.49]** requests that IX.11 Appendix 1: Road Cross Section Details be deleted. I agree. My experience is that road design is an evolving matter (for example the current trend towards low traffic neighbourhoods and tactical urbanism responses to road safety. In my experience road cross sections can quickly become out of date. The details covered are more appropriately determined as part of future resource consent and engineering plan approval applications, noting that these will be subject to Auckland Transport Standards and Guidelines. I note that Kāinga Ora as a further submitter states that setting minimum legal road widths may be appropriate to ensure necessary 'space' to provide for planned use of particular transport environments. However, the detailed design of streets should not be prescribed through standards - rather, be a matter for assessment through the resource consent process.
382. Auckland Transport **[22.39]** is concerned that the proposed rules and standards do not include any requirements in relation to road vesting. To provide clear direction, Auckland Transport seeks to include a new standard and rule about the requirement of road vesting. I disagree that a 'vesting' rule is required in an RMA document. The vesting or not of an asset is a matter for the ultimate asset owner to determine.
383. Auckland Transport **[22.10]** opposes the exclusion of the E27.6.1 Trip generation standard from within the Waihoehoe Precinct while Waka Kotahi **[29.19]** supports the exclusion if trip generation provisions are retained in some form in the precinct. E27.6.1 requires assessment of trip generation for larger developments as part of consent processes. Auckland Transport notes that the exclusion in Standard IX.6 (2)(b) is not required because it is explicitly stated under Rule E27.6.1 (2)(b) that Standard E27.6.1(1) does not apply where development is being undertaken in accordance with a consent or provisions approved on the basis of an Integrated Transport Assessment where the land use and the associated trip generation and transport effects are the same or similar in character, intensity and scale to those identified in the previous assessment.
384. The plan change request includes an ITA. However, it is unclear what method the Waihoehoe Precinct provisions employ to account for a situation where the land use and the associated trip generation and transport effects are not the same or similar in character, intensity and scale to those identified in the ITA assessment, and upon which the precinct provisions and various thresholds have been based. Retaining the application of E27.6.1 provides a 'back stop' to ensure that unforeseen (however unlikely) changes in the surrounding environment and transportation assumptions do not affect the planned outcomes of the Waihoehoe Precinct or the safety and efficiency of the wider transportation network.

385. Based on the above, I recommend that the reference to trip generation rules not being applicable, be removed.

Recommendations on Submissions

386. That submissions 7.11; 17.8; 21.28; 22.4; 22.20; 22.21; 22.30; 22.33; 22.36; 22.37; 22.38; 22.40; 22.41; 22.42; 22.44, 22.43; 22.46; 22.47; 22.48; 22.49; 22.50; 22.51; 24.9; 29.1; 29.2; 29.6; 29.7; 29.8; 29.9; 29.10; 29.11; 29.12; 29.13; 29.15; 29.28; 29.29; 29.30 and 29.31 be accepted in part, to the extent of the changes I have recommended to the transport provisions that I consider will better implement the AUP RPS objectives and policies relating to transport and urban growth.
387. That submissions 22.10 and 28.3 be accepted in part and 29.19 be rejected, to the extent that the trip generation exemption is recommended to be deleted.
388. That submissions 22.31 and 22.32 be accepted (Waihoehoe Road access).
389. That submissions 22.19 and 29.4 (deletion of Access A) and 22.49 (deletion of road cross sections) be accepted, and 17.8 be rejected, on the basis of conflict with the Transit-oriented objective for the precinct (in relation to Access A) and double up with AUP provisions relating to road design.
390. That submissions 8.5; 8.6 and 9.2 be rejected on the basis that the new collector roads are shown indicatively, with final alignment to be determined at the time of subdivision.
391. That submissions 17.4; 22.23 and 22.5 be accepted and that the AUP maps and Precinct Plans show the new north-south route and Waihoehoe Road as arterial roads.
392. That submissions 22.24; 22.25; 22.26; 22.27; 22.28; 22.29 and 22.30 be rejected on the basis that with the NoRs being issued for the Opāheke north-south route and Waihoehoe road there is no need for specific policies relating to the protection of this route.
393. That submission 22.39 be rejected on the basis that the AUP should not manage the vesting process.
394. That submission 32.13 be accepted, 22.45 be rejected, and Assessment Criteria IX.8.2(1)(f) and (g) both be deleted.
395. That submission 35.2 be rejected as this is an Auckland Transport matter.
396. Recommended changes to the proposed provisions are set out in Section 10 of this report.

9.2.6. Submissions on Urban Design Effects

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
19.1	The Ministry of Housing and Urban Development (HUD), Te Puni Kōkiri and the Department of Corrections	Revise the plan change to be consistent with the requirements of the NPS-UD including the intensification policies and removal of minimum car parking rates, and the investigation of a six storey height in the THAB zone within the walkable catchment of Drury East rail station

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
21.25	Auckland Council	Add a policy and standards to provide for increased density near RTN stations including: a. A policy to the effect of: <u>Ensure a built form and walkable environment that will provide for a high density of people living, working or visiting within an extended walkable radius of a rapid transit network station.</u> b. Building height standards enabling at least the Metropolitan Centre equivalent 22-23 storey building height in all zones within a short walkable radius of the RTN train station, and 7-8 storey building height within an extended walkable radius of the proposed RTN station; c. In areas of more than 7-8 storeys, providing tower dimension and spacing, wind, and building set back at upper floors standards if they do not exist in the underlying zone; d. Any alterations to other building standards to respond to increased building height; e. An information standard for subdivision, building and road resource consents requiring information to demonstrate how the development will contribute to implementing the above density policy and provide for a safe and attractive walkable environment.
21.26	Auckland Council	Delete standard IX.6(3) in its entirety
21.27	Auckland Council	Delete the last sentence of policy IX.3(9) as follows: Limit the maximum impervious area within Sub-precinct B to manage the stormwater runoff generated by a development to ensure that adverse flooding effects are avoided or mitigated. Provide opportunities to deliver a range of site sizes and densities in the Terrace Housing and Apartment Buildings zone.
22.34	Auckland Transport	Amend Policy IX.3 (3) as follows: (3) Require streets to be attractively designed and appropriately provide for all transport modes <u>by:</u> a) <u>providing a high standard of pedestrian amenity, safety and convenience; and</u> b) <u>providing for safe separated access for cyclists on arterial and collector roads that link key destinations; and</u> c) <u>providing a level of landscaping that is appropriate for the function of the street; and</u> d) <u>providing for the safe and efficient movement of public transport and private vehicles.</u>
29.3	The New Zealand Transport Agency	Review the proposed zoning and associated provisions in light of the NPSUD requirements.
29.18	The New Zealand Transport Agency	Delete Standard IX.6(3)

Discussion

397. The Ministry of Housing and Urban Development [19.1], Waka Kotahi [29.3] and Auckland Council [21.25] support amendments to better align with the requirements of the NPS-UD.
398. The majority of the PPC50 area is likely to be within the walkable catchment of the latest Drury Central rail station location and should have a minimum height of 6 storeys. Auckland Council supports 7-8 storeys within an extended walkable radius of the Drury Central rail station.

399. Ms Skidmore has reviewed PPC50 in light of the NPS-UD. She recommends that a height limit of 21m better provides for 6 storey buildings with space for design flexibility and roof forms. This is greater than the 16m height limit for the THAB zone. I agree that the height standard for the THAB zone should be modified for the precinct to be 24m so as to clearly enable 6 storey development. In my view a 6 storey height is conducive to creating a residential neighbourhood character, but I am unsure if height limits should be extended to 7 to 8 storeys as suggested by Auckland Council. In my experience at these heights, built form takes on more of a town centre type format, rather than a residential neighbourhood.
400. Auckland Council **[21.26]** and Waka Kotahi **[29.18]** seek to delete Standard IX.6(3) applying the Mixed Housing Urban subdivision standards to the THAB zone in the Waihoehoe Precinct. Auckland Council **[21.27]** also seeks to delete part of Policy 9 (which has been renumbered Policy 10 in Oyster's submission version). My understanding is that the requestor is concerned that the minimum vacant lot size for the THAB zone of 1,200m² may inhibit some types of housing developments. In a greenfields situation, I agree that there should be flexibility over vacant lot sizes, and therefore do not support the submissions. The height standard is the main means by which density is enabled. I note that tall, 'skinny' buildings of up to 6 storeys are possible on very small sites.
401. I agree with Auckland Transport's submission to expand the matters covered by Policy IX.3 (3) as it relates to the design of streets. I generally agree with the suggested wording provided. However, I would suggest that reference also needs to be made to the place making role of streets, as well as their movement function. For example, streets need to provide a level of landscaping and amenity that is appropriate to the urban context of the street. That is, streets in the THAB zone should respond to the context of multi storey apartment buildings which may have limited on site open space, limited on-site parking and high pedestrian counts. In my experience, street landscaping and wide footpaths are critical in these environments to overall amenity, along with ample kerb side parking.
402. E38 already contains policies relating to street design. I would suggest that the policy be amended so that matters in addition to E38.3.10 are listed, for example:

In addition to the matters set out in E38.3.10, street design should:

- a) *support the safety and amenity of the open space and stream network.*
- b) *provide for safe separated access for cyclists on arterial and collector roads that link key destinations;*
- c) *provide a level of landscaping that is appropriate for the function and urban context of the street; and*
- d) *provide on-street parking commensurate with anticipated surrounding land use mix and densities.*

Recommendations on Submissions

403. That submissions 19.1; 21.25; 21.26; 22.34; 29.3 be accepted in part, to the extent of the changes that I have recommended. These changes will improve alignment of the precinct with the NPS-UD and the AUP RPS objective of a quality, compact urban area.
404. That submissions 21.26; 21.27 and 29.18 be rejected.

405. Recommended changes to the proposed provisions are set out in Section 10.

9.2.7. Submissions on ecological effects

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
7.6	Oyster Capital	Delete Policy IX.3(11)
7.9	Oyster Capital	Add new Matter of Discretion to IX.8.1 as follows: ... <u>(5) Infringements to Standard IX.6.3 Riparian Margins</u> <u>(a) Effects on water quality and stream habitat.</u>
7.10	Oyster Capital	Add new Assessment Criteria to IX.8.2 as follows: ... <u>(5) Infringement to Standard IX.6.3 Riparian Margins</u> <u>(a) Whether the infringement is consistent with Policy IX 3(8).</u>
8.2	Dong Leng	Explain why the Stream Enhancement Map does not indicate the Waihoehoe Stream abutting the north eastern corner of the PPC50 site as an enhancement opportunity
17.2	Josephine Kleinsman	Remove the overland flow paths that have been incorrectly described as intermittent streams from the western sites which have not been visited as part of the Ecological reporting
20.6	Ngāti Te Ata Waiohua	Apply a minimum of 20 metre riparian margin for all waterways, especially those to contain walkways / cycleways
21.2	Auckland Council	Include more policies and rules to give full effect to the direction in the NPS-FM, including but not limited to Te mana o te wai.
21.10	Auckland Council	Replace standard IX.6.3(2) with a new standard and consequential amendments to effect that the riparian yards set for buildings in table H9.6.6.1 Yards read as follows: "Riparian - 40 <u>20</u> m from the edge of all permanent streams and <u>10m from the edge of all</u> intermittent streams" Other yards in these tables are not amended
21.11	Auckland Council	Add the following matters of discretion to IX.8.1: <u>(a) Effects on water quality and stream habitat.</u> <u>(b) Effects on floodplain management taking into account maximum probable development, climate change and the roughness coefficient of existing and planned planting.</u> <u>(c) Effects on stream bank stability taking into account the cohesiveness of the soil and steepness of the bank angle.</u> <u>(d) Effects on the ability to provide for any proposed paths, cycleways, infrastructure and facilities outside the 10m wide strip of riparian planting.</u> Add related assessment criteria at IX.8.2.
21.12	Auckland Council	Include indicative permanent and intermittent streams and wetlands on the precinct plan.
21.13	Auckland Council	Include the indicative blue-green corridor within the precinct plan based on the urban concept in the Urban Design Assessment.
21.14	Auckland Council	Amend policy IX.3(8) as follows: Support <u>Ensure</u> improvements to water quality, and <u>and</u> habitat <u>and</u> biodiversity, including by providing planting on the riparian margins of permanent and intermittent streams. And add a new policy as follows:

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		<p>Enable a network of open space, riparian corridors and park edge roads that provides for:</p> <ul style="list-style-type: none"> • potential ecological corridors along streams between Te-Manukanuka-O-Hoturoa (Manukau Harbour) and the Hunua; • improvement of freshwater and coastal water systems; and • a safe and attractive walking and cycling network.
21.16	Auckland Council	Retain policy IX.3(10).
21.17	Auckland Council	Delete policy IX.3(11).
21.18	Auckland Council	Amend Standard IX.6.3 (1) by including a cross reference to the matters in Appendix 15.6(3)(b-f) and (4) of the Auckland Unitary Plan.
32.5	Kāinga Ora	Retain Objective (4) as notified.
34.6	Ngāti Tamaoho	Apply a minimum of 20 metre riparian margin for all waterways especially those to contain walkways / cycleways

Discussion

406. Auckland Council **[21.2]** submits that the precinct is not fully consistent with the objectives and policies of the National Policy Statement for Freshwater Management 2020 (NPS-FM). The Council raises issues over:

- Amendments to proposed policy IX.3(8) to refer to biodiversity outcomes for riparian planting and recognition of the ecological corridor role of streams.
- Riparian planting. The submission supports cross-referencing the riparian planting standard (IX.6.3(1)) to Appendix 15 of the AUP to assist in ensuring good outcomes.
- Riparian yards. The Council seeks 20m wide riparian building setbacks from all permanent streams, rather than the 20m proposed by the plan change request on all streams wider than 3m.
- Additional matters of discretion are requested for assessing infringements of standard IX.6.4. (riparian margins). Additional matters cover
 - Flood plain management
 - Stream bank stability
 - Accommodation of paths, cycleways and infrastructure.

407. Auckland Council **[21.10]**, Ngāti Te Ata Waiohua **[20.6]** and Ngāti Tamaoho **[34.6]** seek that 20m riparian building setbacks are appropriate on all permanent streams. Points in support are listed as:

- 20m riparian margins are recommended in the Drury-Opāheke Stormwater Management Plan 2019
- Planted riparian margins assist with maintaining and enhancing freshwater quality, systems and processes.
- The wider set back allows stream meander paths and floodplains to evolve with less risk to property or intervention to protect property.
- Maintains mana whenua cultural values.
- It provides space for mature trees in the future surrounding high to medium density urban environment. 10m setbacks are required from all intermittent streams.

408. In contrast, Kāinga Ora as a further submitter, opposes the submission. They note that the Unitary Plan generally sets a consistent 10m riparian yard requirement for all

streams. Increasing this to 20m may have implications on development potential and would therefore need to be justified through a thorough section 32 RMA analysis.

409. In relation to riparian yards, for streams less than 3m wide the plan change request “falls back” to the 10m wide riparian yard in the THAB zone. While I generally agree with wider yards along permanent streams, I note that there are significant stretches of the streams in the plan change area that are well under 3m in width (the trigger point for esplanade reserve requirements). Public access along these streams will not be possible, unless land is acquired, which is unlikely in all cases.
410. In my view, given the importance of the Waihoihoi stream corridor in delivering on water quality, biodiversity and amenity outcomes, it is important that space is provided along both edges of the stream. I would support a 20m setback along the main stem of the stream, providing space for 10m of planting and 10m for infrastructure like walkways, streets, and additional planting if warranted. Flood plains and open space areas may create a wider corridor in any case. This 20m yard would only apply to a small area of land along the north-eastern corner of the site. The other watercourses in the plan change area are either artificial or are classed as intermittent streams (where a 10m yard would apply).
411. I agree that biodiversity outcomes should be recognised in the purpose of riparian planting. I also agree with the green corridor role of the main stem of the Waihoihoi Stream. Policy 8 could be expanded out to state:

Ensure improvements to water quality, habitat and biodiversity, including by

- planting of the riparian margins of all permanent and intermittent streams;
- creation of a green corridor following the full length of the permanent section of the Waihoihoi stream; and
- setting back buildings from stream banks to provide space for riparian planting, flood water conveyance, management of potential stream bank erosion and provision of infrastructure including walkways cycleways and local streets, where relevant.

412. To implement this policy, Standard H6.6.9. Yards in the THAB zone would need to be amended by the Precinct provisions, with reference to a 20m riparian yard along the main stem of the Waihoihoi Stream. This would also need to be depicted on the Precinct Plan. The current 10m planting requirement could be maintained. For other stream reaches, the standard 10m yard standard could continue to apply.
413. Assessment matters when a reduction in the yard is sought would need to be expanded to cover the matters included in the revised policy, and I agree with the matters set out in the submission by Auckland Council [21.11], namely:

(b) Effects on floodplain management taking into account maximum probable development, climate change and the roughness coefficient of existing and planned planting.

(c) Effects on stream bank stability taking into account the cohesiveness of the soil and steepness of the bank angle.

(d) Effects on the ability to provide for any proposed paths, cycleways, infrastructure and facilities outside the 10m wide strip of riparian planting.

414. The Council submits that it has found that maintenance and enhancement of permanent and intermittent streams is more likely to be achieved on development if indicative permanent and intermittent streams are shown on precinct plans. The Drury 1 precinct

is an example of this practice. This helps to implement the RPS B7.3 and 7.4 and other regional provisions of the AUP. These streams can easily be mapped from the information in the applicant's technical reports, or alternatively, the technical reports prepared for the Drury-Opāheke Structure Plan.

- 415. I agree that the permanent and intermittent streams should be included on the Precinct Plan (but noted as being indicative with final alignment and classification to be confirmed at the time of subdivision). Furthermore, including the proposed blue-green linkages as a key urban structuring concept will help to reinforce the importance of these corridors to the overall 'sense of place' of the future community.
- 416. Cross-referencing the planting standard IX.6.3 (1) to Appendix 16 of the AUP (instead of Appendix 15.6 as per Auckland Council [21.18]) will assist in ensuring good outcomes, along with the need for an archaeological assessment prior to planting plans being prepared.
- 417. With regard to Dong Leng [8.2] it is unclear what stream enhancement map is being referred to, but the north-eastern corner of the PPC50 site is proposed to be drainage reserve in the stormwater report, and enhancement planting is already proposed in this location in the riparian margin of Waihoihoi Stream.
- 418. Oyster Capital [7.6] and Auckland Council [21.17] seek to delete Policy IX.3(11). Mr Smith supports Policy IX.3(11) being deleted as the matter (stream reclamation for critical infrastructure) is already covered in Chapter E3 of the AUP.

Recommendations on Submissions

- 419. That submission 17.2 be rejected on the basis that the subdivision and development process will determine stream alignments and classifications, and based on this whether riparian planting is to occur. That submission 8.2 be rejected as the relief sought is unclear.
- 420. That submissions 7.6; 7.9; 7.10; 20.6; 21.2; 21.12; 21.13; 21.17; 21.10; 21.11; 21.14; 21.18; 32.5 and 34.6 be accepted in part, to the extent that precinct provisions are amended to better recognise streams, require a wider riparian yard on the main stem of Waihoihoi stream and clarify riparian planting measures. These additions will ensure that the provisions (in conjunction with the rest of the AUP), will appropriately manage ecological resources present.
- 421. That submissions 7.6; 7.9; 7.10; 21.12; 21.13; 21.16 and 21.17 be accepted.
- 422. Recommended changes to the proposed provisions are set out in Section 10.

9.2.8. Submissions on landscape effects

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
20.5	Ngāti Te Ata Waiohua	Account for natural and cultural landscaping in the project design, identify and preserve landscapes including view shafts, hilltops, tuff rings and ridge lines
20.9	Ngāti Te Ata Waiohua	Confirm park edge design adjacent to all waterways

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
20.10	Ngāti Te Ata Waiohū	Use native trees and plants only within the precinct
20.11	Ngāti Te Ata Waiohū	Protect ridgelines, hilltops and wetlands
34.5	Ngāti Tamaoho	Account for natural and cultural landscaping in the project design, identify and preserve landscapes including view shafts, hilltops, tuff rings and ridge lines
34.9	Ngāti Tamaoho	Confirm park edge design adjacent to all waterways
34.10	Ngāti Tamaoho	Use native trees and plants only within the precinct
35.1	Tim John Macwhinney	Amend plan change to protect significant landscape features at 28 Waihoehoe Road with 130 year old oaks and phoenix palms from Waihoehoe Road widening

Discussion

423. Ngāti Te Ata Waiohū **[20.9]** and Ngāti Tamaoho **[34.9]** have sought details of park edge road designs adjacent to all waterways. Ms Skidmore's landscape and urban design peer review notes that outcomes sought for stream edges and their integration with adjacent streets and land uses is important. I consider that this matter is covered by existing AUP assessment matters contained in Chapter E38. Park edge road design would therefore be considered for all applications, but a specific design does not need to be mandated through the plan change.
424. In relation to Ngāti Te Ata Waiohū **[20.5 and 20.11]** and Ngāti Tamaoho **[34.5]**, no particular ridgelines, hilltops, tuff rings or viewshafts have been identified in the submissions or in the landscape reporting that require preservation. Wetlands are already protected by the NES-Freshwater and AUP provisions.
425. In response to Ngāti Te Ata Waiohū **[20.10]** and Ngāti Tamaoho **[34.10]**, Mr Smith does not think the exclusive use of native vegetation should be specified, as exotic vegetation can be preferred in specific circumstances, but he considers that the use of 'plant species *should* be native' in the riparian planting requirements IX.9(1) as proposed is appropriate. Ms Skidmore in her peer review of landscape effects also agrees that native species are not always the most appropriate.
426. Tim John Macwhinney **[35.1]** seeks to protect oak trees and phoenix palms at 28 Waihoehoe Road. These trees are not identified as a significant landscape feature in the requestor's landscape report. I have recommended a notable trees assessment is undertaken in response to heritage submissions in section 9.2.12, and the subsequent protection of any trees meeting the relevant criteria. In the absence of confirmation that these trees meet the criteria, I do not recommend their protection.

Recommendations on Submissions

427. That submissions 20.5 and 34.5 be accepted in part, to the extent of modifications to the precinct provisions relating to a high quality public realm.
428. That submissions 20.9; 20.10; 20.11; 34.9; 34.10 and 35.1 be rejected on the basis that the matters raised are ones that can be appropriately addressed at the consent stage.
429. No changes to the provisions are recommended in this section.

9.2.9. Submissions on stormwater and flooding effects

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
3.1	Peter David Dodd	Provide further flooding information for the wider Slippery Creek Catchment, and include provisions for flooding and future land use for the flood prone area north of Waihoehoe Road - suggests large lots with elevated building platforms and onsite compensation for flooding.
7.1	Oyster Capital	Add new Policy 12 as follows: <u>Policy IX.3(12): Require subdivision and development to be consistent with any approved network discharge consent and supporting stormwater management plan including the application of water sensitive design to achieve water quality and hydrology mitigation.</u>
7.2	Oyster Capital	Amend Standard IX6.6 Stormwater Quality as follows: (1) The activity rules and standards in E9 apply to development in the Drury Centre precinct as if the reference to 'high use roads', was a reference to 'all roads'. (2) For all other impervious surfaces inert building materials should be used.
7.3	Oyster Capital	Add new Matter of Discretion to IX8.1 as follows: ... <u>(5) Infringements to standard IX6.6 Stormwater Quality</u> <u>(a) Matters of discretion E9.8.1(1) apply.</u>
7.4	Oyster Capital	Add new Assessment Criteria to IX.8.2 as follows: ... <u>(5) Infringement to IX.6.6 Stormwater Quality</u> <u>(a) Assessment criteria E9.8.2(1) apply.</u>
7.12	Oyster Capital	Add a purpose statement for Standard IX.6.5 Maximum Impervious Area within Sub-Precinct B as follows: <u>Purpose: To appropriately manage stormwater effects generated within Sub-Precinct B.</u>
8.3	Dong Leng	Provide further analysis of the effects of minor filling within the floodplains where there could be opportunities to create more usable land without affecting flood levels
8.4	Dong Leng	Assess if a drainage reserve will be required over the overland flow path running immediately adjacent to the eastern boundary of the PPC50 site and if the reserve would need to extend across the boundary into the PPC50 site
8.7	Dong Leng	Amend the stormwater management approach to manage the whole catchment as "passing flows forward"; retain the SMAF 1 retention and detention proposal although preferably implement this via common, publicly owned, attenuation basins; and remove the implementation of water quality treatment for "all roads".
9.1	Kenneth Giffney	Provide further analysis of the effects of minor filling within the floodplains where there could be opportunities to create more usable land without affecting flood levels
9.3	Kenneth Giffney	Amend the stormwater management approach to manage the whole catchment as "passing flows forward"; retain the SMAF 1 retention and detention proposal although preferably implement this via common, publicly owned, attenuation basins; and remove the implementation of water quality treatment for "all roads".
10.1	Chunfeng Wang and Xiaoling Liu	Absorb any adverse effects of the intensive development of the applicant's owned land within that land and do not direct these to the land of adjoining owners within the plan change area, such as 27 Kath Henry Lane, Drury

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
17.3	Josephine Kleinsman	Upgrade the 900mm culvert on the western edge of the structure plan area
17.6	Josephine Kleinsman	Add provisions to implement the two differing impermeable surface area limitations
20.7	Ngāti Te Ata Waiohua	Apply a minimum of a two-treatment train approach for all stormwater prior to discharge to a waterway
20.8	Ngāti Te Ata Waiohua	Require roof capture for reuse and groundwater recharge
21.3	Auckland Council	Amend precinct to include additional policies and rules to manage the effects of stormwater as described in the SMP. This includes: a. New policy: <u>Require subdivision and development to be assessed for consistency with any approved network discharge consent and supporting stormwater management plan including the application of water sensitive design to achieve water quality and hydrology mitigation.</u> b. Additional matters of discretion/assessment criteria that would apply to any restricted discretionary activity in the area of the precinct to ensure that new development and subdivision can be assessed for consistency with the NDC and SMP. Any other rules necessary to give specific effect to the SMP during development.
21.4	Auckland Council	Retain application of SMAF 1 to the plan change area.
21.6	Auckland Council	Add a new policy to the following effect: <u>Provide sufficient floodplain storage within the Waihoehoe precinct to avoid increasing flood risk upstream and downstream, and manage increased flood risk within the precinct unless downstream infrastructure capacity means this is not required. This is subject to the upgrade of the downstream culvert upgrade.</u> Insert rules to give effect to this.
21.7	Auckland Council	Add a new policy to the following effect: <u>Ensure that all impervious services are treated through a treatment train approach to enhance water quality and protect the health of stream and marine environments.</u>
21.8	Auckland Council	Amend standard IX6.6 (1) Stormwater Quality as follows (including a correction to the precinct reference): "The activity rules and standards in E9 apply to development in the Drury Centre <u>Waihoehoe</u> precinct as if the reference to 'high use roads', was were a reference to ' <u>all existing, new, upgraded or redeveloped roads, accessways and carparks</u> ', or other amendments that would achieve the same environmental outcome. Insert new matters of control and discretion, in addition to those in E9, to the effect of: • <u>How the location and design of stormwater treatment assets reduces their operating costs.</u> • <u>The consolidation and community scale of stormwater treatment assets.</u> • <u>The location of stormwater treatment assets where they will be most effective in reducing contaminants.</u>
21.9	Auckland Council	Include a new standard to the effect that: <u>Buildings cannot have exterior materials with exposed surfaces that are made from contaminants of concern to water quality including zinc, copper and lead.</u>

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
21.15	Auckland Council	Retain policy IX.3(9) and consider whether additional rules are necessary to give effect to this.
28.2	Drury South Limited	Amend Table IX.4.1 by introducing two new discretionary activities: (a) <u>Development that does not comply with Standard IX.6.5 (Stormwater Quality and Flooding); and</u> (b) <u>Subdivision that does not comply with Standard IX.6.5 (Stormwater Quality and Flooding).</u>
34.7	Ngāti Tamaoho	Apply a minimum of a two-treatment train approach for all stormwater prior to discharge to a waterway
34.8	Ngāti Tamaoho	Require roof capture for reuse and groundwater recharge

Discussion

430. Ngāti Te Ata Waiohua and Ngāti Tamaoho are concerned that the PPC50 request does not give effect to Te Mana o Te Wai and risks damaging mauri of wai. Te Mana o Te Wai is given recognition in the National Policy Statement on Freshwater Management. In particular Ngāti Te Ata Waiohua and Ngāti Tamaoho seek:
- A minimum of a two-treatment train approach for all stormwater prior to discharge to a waterway
 - Roof capture is required for reuse and groundwater recharge.
431. Treatment train approaches and reuse of roof water are two matters that are addressed in Auckland Council's submission.
432. Auckland Council's submission notes that the plan change should protect the receiving environment of the Te-Manukanuka-O-Hoturoa (Manukau Harbour). Stormwater Management Plans (SMPs) which sit outside the AUP are a key tool to achieve this outcome. SMPs identify effects of stormwater and how effects should be managed both to achieve the RPS, NPS-FM and regional plan and to be in accordance with the region-wide Network Discharge Consent (NDC) granted by the Environment Court on 30 October 2019. Without an SMP approved by the Network Utility Operator there is uncertainty if the SMP adequately manages effects and if there are sufficient provisions to enact the direction that the SMP would provide.
433. Implementation of an SMP raises a number of co-ordination issues with the AUP:
- Proposed policy IX.3(8) recognises that urban development fundamentally alters stream health including significant changes to hydrology and interventions other than hydrology mitigation may be needed to manage effects and protect the functioning of the stream.
 - It is important to focus on improving biodiversity as distinct from just planting. It is also important to provide for ecological corridors. A new policy and amendments to proposed policy IX.3(8) are proposed to address these matters (see submissions on ecology in section 9.2.7).
 - Policy and associated matters of discretion/assessment criteria are required to ensure that consenting of subdivision and land uses is consistent with the SMP in its final adopted form which may be included in the council's NDC. This link helps to

ensure effective and efficient processes associated with subdivision and development.

- The proposed SMAF1 identification should be retained. This overlay requires both retention and detention and the combination of these is intended to reduce erosive flows in streams, maintain stream baseflow and support the recharge of aquifers. It is the default minimum required under the region wide NDC, and based on current knowledge is the most practicable option.
- Proposed standard IX6.6 (1) Stormwater Quality is supported in principle but has cross references to the activity rules and standards in E9, including the parent rule 9.6.1.4 which has additional, and in some cases, confusing exemptions. These undermine its effectiveness because many roads, private roads and carparks may not be required to have stormwater treatment. Consequently, the standard AUP rules are not sufficient to protect the upper Te-Manukanuka-O-Hoturoa (Manukau Harbour) from contaminant accumulation from the combined contaminant discharges from all the new, existing or upgraded roads, access ways and parking areas.

434. Oyster Capital's submission seeks to clarify the approach to stormwater management within the plan change area, in accordance with the SMP prepared to be adopted under the NDC, and to align the stormwater management approach for the plan change area with the AUP requirements, recognising that a higher standard of stormwater treatment for roads and an additional requirement for inert building materials should apply.

435. I generally agree that the stormwater management provisions could be strengthened, given the value of the receiving environment, and consider that new policy 12 proposed by Oyster Capital should be extended, e.g.:

Require subdivision and development to be assessed for consistency with any approved network discharge consent and supporting stormwater management plan adopted by Council under that discharge consent including:

- application of water sensitive design to achieve water quality and hydrology mitigation.
- ensuring that all impervious surfaces are treated through a treatment train approach to enhance water quality and protect the health of stream and marine environments.
- seeking integrated improvements to water quality, habitat and biodiversity, including by providing planting on the riparian margins of permanent and intermittent streams.

436. In terms of water quality standards, I agree that cross-reference should be made to Standards in E9, but note that in accordance with the draft SMP, there should also be reference to appropriate treatment from impervious surfaces like driveways and small surface carparking areas (features not defined in E9 as high contaminant generating surfaces). I would suggest the following:

The activity rules and standards in E9 apply to development in Waihoehoe Precinct with the following amendments:

- Reference to high use roads is replaced with reference to all existing, new and upgraded or redeveloped roads;
- Development of surface car parking areas and accessways that are not defined as high contaminant generating car parking areas is a permitted activity provided water quality treatment of run off from impervious surfaces is installed, in accordance with an approved Stormwater Management Plan; and

- Buildings cannot have exterior materials with exposed surfaces made from zinc, copper and lead.
437. I also agree with adding associated new matters of control and discretion for applications that seek to depart from the standards, such as:
- How the location and design of stormwater treatment assets reduces their operating costs.
 - The consolidation and community scale of stormwater treatment assets.
 - The location of stormwater treatment assets where they will be most effective in reducing contaminants.
438. I do not agree with the submission from Drury South **[28.2]** that seeks to amend the activity classification for infringement of the water quality standard (that is Discretionary, rather than Restricted Discretionary). In my opinion, there is sufficient discretion under the current classification for the Council to assess all relevant effects.
439. Auckland Council wants to ensure that flood attenuation is provided until such time that infrastructure is upgraded to provide sufficient flood conveyance capacity and there is no downstream effect. The Council suggests the following policy be added:
- Provide sufficient floodplain storage within the Waihoehoe precinct to avoid increasing flood risk upstream and downstream, and manage increased flood risk within the precinct unless downstream infrastructure capacity means this is not required. This is subject to the upgrade of the downstream culvert upgrade.
440. In my opinion, the precinct provisions managing flood risks could be strengthened. While Chapter E36 deals with flooding and natural hazards (in conjunction with specific policies and standards in subdivision and zone-based chapters), there are sufficiently high local risks for specific measures to be identified. The above suggested policy needs to recognise the specific circumstances in the Precinct, with a 'pass forward' approach to Slippery Creek catchment, and an attenuation approach to land that drains to the west:
- Avoid increasing flood risk upstream and downstream from a 1% AEP event and minimise increased flood risk within the precinct, including through upgrades to downstream infrastructure capacity and providing sufficient floodplain storage, including attenuation storage, within the Waihoehoe Precinct.
441. Peter Dodd **[3.1]** seeks flooding information be provided for the wider catchment outside the PPC50 area. Mr Sunich responds that the modelling for the plan change has included development of the surrounding Future Urban Zoned land. Further assessments for other FUZ land will take place in due course.
442. Dong Leng **[8.3 and 8.7]** and Kenneth Giffney **[9.1 and 9.3]** seek to amend the stormwater management approach for the PPC50 area, and also seek further analysis of the effects of minor filling in floodplains. Mr Sunich (as set out in the stormwater effects section above) is generally comfortable with the approach to stormwater and flooding outlined by the requestor and the rules of AUP Chapter E36 applying in due course.
443. Dong Leng **[8.4]** and Chunfeng Wang and Xiaoling Liu **[10.1]** question the location of the proposed drainage reserve and its use to mitigate adverse stormwater effects from land in other ownership. Mr Sunich notes this is largely the existing location of the

floodplain, and that attenuation is proposed to minimise further exacerbation of flood risk.

444. Josephine Kleinsman [17.3] seeks the upgrade of the railway culvert that drains the southern sub-catchment. Mr Sunich is unable to assess whether this would be beneficial for flooding effects, as no modelling scenario has been provided. Nevertheless, he has generally assessed the flooding effects as acceptable.
445. Oyster Capital has proposed an amended precinct plan labelling the location of sub-precinct B and the addition of a purpose statement for the impervious area standard for sub-precinct B (through submission 7.12), which addresses the relief sought by Josephine Kleinsman [17.6].

Recommendations on Submissions

446. That submissions 7.1; 7.2; 20.7; 20.8; 21.3; 21.4; 21.6; 21.7; 21.8; 21.9; 21.15; 28.2; 34.7 and 34.8 be accepted in part, to the extent of the changes that I have recommended be made to the precinct provisions to better address flooding and water quality.
447. That submissions 7.3 and 7.4 be accepted in part to the extent that matters of discretion and assessment criteria need to be added but I have recommended these be expanded.
448. That submissions 7.12 and 17.6 be accepted.
449. That submissions 3.1; 8.3; 8.4; 8.7; 9.1; 9.3; 10.1 and 17.3 be rejected on the basis that the matters raised can be addressed at the subdivision and development stage through current AUP provisions.
450. Recommended changes to the proposed provisions are set out in Section 10.

9.2.10. Submissions on Zoning and Plan Change Boundary

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
16.1	Britmat Holdings Ltd	Include the property at 1A East Street Drury (currently zoned Future Urban Zone) within the plan change with a zoning of Business - Local Centre Zone to match that of the land adjoining at 200 - 212 Great South Road.
17.5	Josephine Kleinsman	Clarify conflict between the proposed THAB zone on the zoning plan and some of the technical reporting for the plan change being based on both THAB and MHU zones
21.24	Auckland Council	Amend the legend of the zoning plan to delete the reference to MHU zone.
32.1	Kāinga Ora	Approve the plan change, subject to inclusion of sites at 1 and 1A East Street for rezoning (see Attachment Two to the submission). Zone 1 East Street as THAB and 1A East Street as LCZ
32.2	Kāinga Ora	Approve the plan change, subject to: <ul style="list-style-type: none"> •application of a 22.5m Height Variation Control across the proposed THAB zone (including 1 East St, Drury) (see Attachment Three to submission); •application of a 27m Height Variation Control over the extent of the proposed LCZ (including 1A East St, Drury and 200-212 Great South Rd) (see Attachment Three to submission).

32.8	Kāinga Ora	Retain Standard IX.6 (3) with amendment to delete reference to MHU zone which is not identified within the precinct plans, or amend the proposed zonings to reflect MHU zone.
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Note: Kāinga Ora has withdrawn its submission relating to 1 East Street

Discussion

451. I consider that the submission from Britmat Holdings seeking rezoning of land in the existing Drury centre at 1A East Street is out of scope. The submission involves land that is physically separated from the proposed new development by major infrastructure (the rail line). While I agree that the plan change request has implications for the future intensity and mix of land uses in the existing Drury Centre, this is a matter that the Council will need to address through a review of the AUP.
452. Additionally, Ms Skidmore considers it appropriate for 1A East St to be considered in relation to structure planning for the existing settlement of Drury rather than as part of this plan change. The rail line forms a strong edge between the PPC50 area and the subject sites at East St. She does not agree that zoning the PPC50 land before the East Street properties will compromise options for connectivity between the two areas.
453. When it was being developed, the plan change previously contained a proposed Mixed Housing Urban zone. The plan change area is now proposed to be entirely THAB zone, however submitters have noted that some references to Mixed Housing Urban remain. I agree these should be deleted.
454. I agree with Kāinga Ora's submission requesting an increased height allowance. I would support a 24m height standard.

Recommendations on Submissions

455. That submissions 17.5 and 21.24 be accepted.
456. That submission 32.2 be accepted in part to the extent that a higher height limit for the THAB zone is recommended.
457. That submissions 16.1; 32.1 and 32.8 be rejected.
458. Recommended changes to the proposed provisions are set out in Section 10.

9.2.11. Submissions on cultural effects

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
20.1	Ngāti Te Ata Waiohua	Confirm ongoing iwi participation, consultation and engagement in the project
20.2	Ngāti Te Ata Waiohua	Acknowledge within the project design the history of Mana Whenua in the PPC50 area
20.3	Ngāti Te Ata Waiohua	Incorporate Te Aranga Principles in design concepts
20.4	Ngāti Te Ata Waiohua	Confirm iwi monitoring of the project
21.29	Auckland Council	Include provisions that require mana whenua culture and traditions to be explicitly incorporated into the new development taking into account the

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		recommendations in the cultural values assessments. This could include but is not limited to actively working with mana whenua on relevant and appropriate design principles and options.
21.30	Auckland Council	Enable and provide for accessible and affordable social housing for Māori.
26.3	HNZPT	Include appropriate provisions within the precinct plan to address any Māori cultural values identified
32.4	Kāinga Ora	Retain Objective (1) subject to clarification and amendment around the phrase '...respects Mana Whenua values', and whether a Cultural Values Assessment would be required for all applications within the precinct.
34.1	Ngāti Tamaoho	Confirm ongoing iwi participation, consultation and engagement in the project
34.2	Ngāti Tamaoho	Acknowledge within the project design the history of Mana Whenua in the PPC50 area
34.3	Ngāti Tamaoho	Incorporate Te Aranga Principles in design concepts
34.4	Ngāti Tamaoho	Confirm iwi monitoring of the project

Discussion

459. The nature and extent of ongoing involvement of Mana Whenua in the development of the Precinct is a matter for the requestors to address, beyond the involvement typically expected through consent processes.
460. Reflection and incorporation of cultural values into the development will likely involve a number of steps. At a precinct plan level, the recognition and enhancement of streams and their margins is important. In the detailed design of public places (such as streets, open spaces and plazas), there are opportunities to incorporate cultural references. Accidental discovery protocols apply to earthworks (with particular provisions relating to riparian margins to be added).
461. Many of the matters raised will be dependent upon the ultimate subdivider and developers building and maintaining relationships with Mana Whenua. The extent of involvement in individual consent applications will continue to be determined by normal AUP/Council consent processing practices.
462. As noted by Kāinga Ora, I agree that Objective 1 needs to be implemented by way of an appropriate policy. In response to the urban design review, I have suggested that the policy could cover:

In the development of Waihoehoe Precinct Mana Whenua values are acknowledged and incorporated by:

- *Retaining and enhancing streams, wetlands and their margins*
 - *The physical design of streets, open spaces and plazas incorporating Te Aranga Design principles*
 - *Encouraging applicants to seek input of Mana Whenua into the design of key buildings.*
463. The submission by Auckland Council [21.30] for the inclusion of social housing for Māori is a matter that lies outside the AUP (as presently constructed). This is a matter that would require direct investment by Council and/or Iwi authorities.

Recommendations on Submissions

464. That submissions 20.1; 20.2; 20.3; 20.4; 21.29; 26.3; 32.4; 34.1; 34.2; 34.3 and 34.4 be accepted in part, to the extent that a policy be added to clarify how Mana Whenua values are to be respected and incorporated into the development.
465. That submission 21.30 be rejected on the basis that the submission raises a matter that is outside the scope of the AUP.
466. Recommended changes to the proposed provisions are set out in Section 10.

9.2.12. Submissions on Archaeology and Heritage Effects

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
21.31	Auckland Council	Provide a notable tree assessment and schedule any notable trees identified in that assessment.
26.1	Heritage New Zealand Pouhere Taonga	Include provisions within the precinct plan to require that archaeological assessments of the area are undertaken by a suitable qualified professional during the subdivision process
26.2	Heritage New Zealand Pouhere Taonga	Amend the provisions requiring the riparian margins of permanent or intermittent streams to be planted to a minimum width of 10 metres to exclude archaeological site extents as assessed by a professionally qualified archaeologist and require the preparation of an archaeological assessment by a suitably qualified person to inform the planting plan
26.4	Heritage New Zealand Pouhere Taonga	Explore the potential of commissioning a heritage interpretation plan for the wider Drury area subject to the four jointly notified plan changes

Discussion

467. These submissions cover points raised by Mr Brassey in his review for the Council. Mr Brassey does not agree with HNZPT that a detailed archaeological assessment is required prior to any land disturbance in the precinct, with reliance instead to be placed on the AUP accidental discovery provisions and HNZPT approvals.
468. The submission by HNZPT **[26.2]** seeking an archaeological survey of the riparian margins of all permanent and intermittent streams prior to planting is prompted by a concern that the replanting process is unlikely to trigger the AUP accidental discovery process, as the replanting involves no or limited disturbance of the land. Given AUP RPS provisions relating to protection of historic heritage, I agree that such a survey is justified. Such a requirement will need to be added to the riparian planting standard.
469. Auckland Council's **[21.31]** request for a survey of potential notable trees and scheduling of any trees that meet the criteria is standard practice for a plan change to urbanise land. This does not appear to have been done. The survey could be addressed by requiring a survey to be completed as part of any subdivision or development application. This would allow for consent conditions to be applied to any notable trees. Scheduling of any trees identified would need separate plan change processes. In the specific case of this plan change, a stand of trees in the north-eastern corner have been identified as having some ecological and landscape qualities.

470. A special information requirement could be introduced, such as an assessment of whether any trees met the criteria for Notable Trees under B4.5 2(1).
471. Finally, with regards to HNZPT's submission [26.4], seeking a heritage interpretation plan for the wider Drury area be potentially commissioned, this is a matter that the Local Board may wish to implement.

Recommendations on submissions

472. That submission 21.31 be accepted in part to the extent that a notable tree assessment be required as part of a subdivision consent. This level of management is appropriate given the evidence is that few significant trees exist in the plan change area.
473. That submission 26.1 be rejected on the basis that there is insufficient evidence to support a detailed archaeological survey. Standard AUP provisions provide for incidental identification of archaeological resources at the time of development.
474. That submission 26.2 be accepted so as to ensure that possible archaeological resources are identified in riparian margins prior to planting.
475. That submission 26.4 be rejected as not being a matter that is managed by the AUP.
476. Recommended changes to the proposed provisions are set out in Section 10.

9.2.13. Submissions on other infrastructure and servicing matters

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
5.1	Wendy Hannah	Approve the plan change conditional on existing access rights to 228 Flanagan Road being maintained and access being provided to services and utilities to develop the property in future (note: property is outside PC50 area)
8.8	Dong Leng	Confirm that the water supply network will be extended up to the Waihoehoe Road frontage of 160 Waihoehoe Road and that the wastewater network will also be extended to service this site
14.1	Spark	Consult Spark and the other telecommunication network providers throughout the plan change process and any resource consents to enable development including infrastructure to ensure that telecommunications are recognised as essential infrastructure and additional infrastructure under the NPSUD
14.2	Spark	Consult Spark and the other telecommunication network providers to ensure that there is adequate infrastructure to support the demand for telecommunication services generated by the development proposed
14.3	Spark	Consult Spark and the other telecommunication network providers to ensure staging of infrastructure is appropriate and underground ducting, above ground mobile sites/facilities are provided for and designed into the development
14.4	Spark	Consult with Spark and the other telecommunication network providers to ensure funding is available through the infrastructure funding agreements
14.5	Spark	Include telecommunications infrastructure within the triggers for the staged release of development

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
17.9	Josephine Kleinsman	Reconsider interim wastewater solution as a single pump station with storage that could be upsized as demand increases with a single riser main following the NIMT Railway alignment
23.1	Counties Power Limited	Retain IX.2 Objective 2
23.2	Counties Power Limited	Retain IX.2 Objective 3
23.3	Counties Power Limited	If the proposed collector road shown in the appendices does not change, and if the existing 110kV line remains in-situ, amend plan provisions (including Policy IX.3(1)) to maintain suitable vehicular access to the line for maintenance purposes. Further, maintain appropriate setback for new buildings at all times in accordance with New Zealand Electrical Code of Practice for Electrical Safe Distances, NZECP 34:2001 and the Electricity (Hazards from Trees) Regulations 2003.
23.4	Counties Power Limited	Amend IX3 Policy 3 so that electrical infrastructure is taken into consideration when planning landscaping and planting of street trees; require consultation with Counties Power regarding species in the vicinity of overhead lines; and apply a typical road cross section for arterial roads to ensure that the berm is an acceptable width for the installation of underground electrical reticulation
23.5	Counties Power Limited	Retain Policy 5
23.6	Counties Power Limited	Amend Policy 6 to include reference to electrical, telecommunications and other infrastructure.
23.7	Counties Power Limited	Retain Policy 7
23.8	Counties Power Limited	Add new policy IX.3(12) as follows: <u>Provide for the inclusion of vehicle recharging areas within parking areas and for the ability to upgrade additional spaces for increased demand when required.</u>
23.9	Counties Power Limited	Add new policy IX.3.(13) as follows: <u>Enable the reduction of CO2 emissions by promoting the use of renewable energy in new subdivisions and development.</u>
23.10	Counties Power Limited	Amend matters of discretion in IX.8.1(1) to consider provision of suitable space for installation of electrical infrastructure to meet the needs of the area or building, as well as adequate separation between the different utilities, landscaping and other road users. Where electrical infrastructure is required, vehicular access of a suitable construction standard must be provided to allow access for maintenance of electrical infrastructure.
23.11	Counties Power Limited	Amend IX.8.2(1) assessment criteria to recognise the rights that the Electricity Act 1992, New Zealand Electrical Code of Practice for Electrical Safe Distances, NZECP 34:2001 and the Electricity (Hazards from Trees) Regulations 2003 offer in order to protect the lines from encroachment from vegetation/ trees to ensure their safe and reliable operation and ensure access for maintenance is not restricted; and provide a typical road cross-section with minimum 800mm allowance for berms to ensure that there is acceptable width for installation of underground electrical reticulation.
23.12	Counties Power Limited	Amend IX.10 Appendix 1 Road Cross Section Details to provide a minimum 800mm berm width if overhead lines are required to be undergrounded in the road

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
24.1	Ministry of Education	Amend Objective IX.2 (3) as follows: Development is supported by appropriate infrastructure (<u>including education infrastructure</u>).
24.2	Ministry of Education	Amend Policy IX.3 (6) as follows: Ensure that development in Drury East Precinct is coordinated with supporting <u>education infrastructure</u> , stormwater, wastewater and water supply infrastructure, having particular regard to the capacity of the Fitzgerald culvert and culverts under Great South Road.
24.3	Ministry of Education	Amend IX.8.1 Matter of discretion 1)(a) Development of public and private roads as follows: (a) Location and design of the collector streets, local streets and connections with neighbouring sites (<u>including schools</u>) to achieve an integrated street network.
24.4	Ministry of Education	Amend IX.8.2 Assessment criteria 1)(a)(ii) for Location of roads as follows: ii. The need to achieve an efficient block structure and layout within the precinct suitable to the proposed activities (<u>including provision of schools</u>); and
24.5	Ministry of Education	Amend IX.8.2 Assessment criteria 1)(d) for Location of roads as follows: d) Whether a high quality and integrated network of local roads is provided within the precinct that provides a good degree of accessibility and supports a walkable street network. Whether subdivision and development provides for collector roads and local roads to the site boundaries to coordinate with neighbouring sites (<u>including potential future school sites</u>) and support the integrated completion of the network within the precinct over time;
24.6	Ministry of Education	Amend IX.8.2 Assessment criteria 1)(h) for Design of Roads as follows: (h) Whether the layout of the street network provides a good degree of accessibility and supports a walkable street network, <u>including to existing schools or sites designated for this purpose</u> . As a general principle, the length of a block should be no greater than 280m, and the perimeter of the block should be no greater than 600m;

Discussion

477. In relation to the submissions from utility operators, if the plan change requests are approved and subdivision and development commences, then the above utility operators will likely need to be approached by the developer. There is no need to amend the proposed Precinct provisions to require this to happen.
478. Spark **[14.5]** has also sought telecommunications infrastructure be included within the triggers for development staging. I see no specific reason to do so.
479. The Ministry of Education **[24.1 to 6]** wishes to ensure the Precinct provisions specifically acknowledge and provide for schools. The Ministry is concerned that an absence of supportive provisions can place obstacles in the way of establishment of education facilities in future years. Counties Power **[23.4]** wishes to see explicit recognition of electrical infrastructure.
480. The NPS-UD does require consideration of what it terms 'additional infrastructure'. This includes public open space, community infrastructure, social infrastructure such as schools and healthcare facilities, networks operated for the purpose of telecommunications and for the purpose of transmitting or distributing electricity or gas.

This grouping of activities is different from 'development infrastructure'. The NPS-UD defines development infrastructure as network infrastructure for water supply, wastewater, or stormwater and land transport (as defined in section 5 of the Land Transport Management Act 2003).

481. Under the NPS-UD local authorities must be satisfied that the additional infrastructure to service the development capacity is likely to be available, while development infrastructure must be identified in Long Term Plans. Given that the AUP has yet to be amended to give effect to the NPS-UD, there would be some benefit in modifying the proposed policies to refer to additional infrastructure as defined by the NPS-UD, and to link the provisions of these types of activities with spatial patterns, such as follows:

Policy - Ensure that development in Waihoehoe Precinct is coordinated with the provision of additional infrastructure, having particular regard to:

- the likely location of educational facilities;
- the location and capacity of existing and planned gas, electricity and telecommunication networks
- future open space networks.

482. Counties Power **[23.8]** states that with electric vehicles becoming more the norm it is important that enough charging stations are provided for while also allowing for further charging stations without the need for significant upgrade when the demand inevitably increases. Private developments are likely to offer charging stations as part of their on-site parking arrangements. As for charging stations on public roads, this is an operational issue.
483. Counties Power **[23.11]** also seeks to amend IX.8.2(1) assessment criteria to recognise the rights that the Electricity Act 1992, New Zealand Electrical Code of Practice for Electrical Safe Distances, NZECP 34:2001 and the Electricity (Hazards from Trees) Regulations 2003 offer in order to protect the lines from encroachment from vegetation/trees.
484. I see no need to go to this level of detail in the assessment criteria. Council as asset owner is aware of the need to balance amenity and infrastructure operational needs in road design.
485. Regarding Josephine Kleinsman's **[17.9]** request to reconsider the interim wastewater solution, Watercare is satisfied with the developer's proposed interim wastewater solution in principle. This confirms wastewater servicing is feasible, however the exact details of the final solution are not for this plan change process to determine.
486. Dong Leng **[8.8]** seeks confirmation that the water and wastewater networks for the PPC area will be extended to service 160 Waihoehoe Road, while Wendy Hannah **[5.1]** also seeks access to services to develop 228 Flanagan Road in future. Watercare's further submission opposes these submissions as no assessment of capacity and servicing requirements has been carried out for land outside the PPC50 area. I agree with Watercare that the servicing of sites outside the PPC50 area is not required.

Recommendations on Submissions

487. That submissions 14.1; 14.2; 14.3; 14.4; 14.5; 23.1; 23.2; 23.3; 23.4; 23.5; 23.6; 23.7; 23.8; 23.9; 23.10; 23.11; 23.12; 24.1; 24.2; 24.3; 24.4; 24.5 and 24.6 be accepted in part, to the extent of the proposed policy dealing with 'additional infrastructure', as defined by the NPS-UD.

488. That submissions 5.1; 8.8 and 17.9 be rejected as being a matter that is between the submitters and Watercare.

489. Recommended changes to the proposed provisions are set out in Section 10.

9.2.14. Submissions on Reverse Sensitivity

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
8.1	Dong Leng	Undertake further consideration in regard to the interface between the land forming PPC50 and the property at 160 Waihoehoe Road to reduce any potential dominance that activities provided for by the PPC50 may have on the property should the zoning not be extended to cover this land. Undertake further assessment as to how to mitigate scale, form and character effects on this property.
22.53	Auckland Transport	Add a new policy as follows: Avoid the establishment of activities sensitive to noise adjacent to arterial roads, unless it can be demonstrated that potential adverse effects from and on the corridor can be appropriately mitigated.
22.54	Auckland Transport	Add a new standard to IX.6 to require that the assessed incident noise level to the façade of any building facing an arterial road that accommodates a noise-sensitive space is limited to a given level (Auckland Transport to confirm appropriate level). As a consequential amendment, add a new rule to Activity table IX.4.1 as follows: (X) Development that does not comply with IX.6.X Noise Mitigation - RD
22.55	Auckland Transport	Add a new assessment criterion to IX.8.2 as follows: The extent to which noise sensitive activities in proximity to arterial roads are managed.
27.1	Matthew Royston Kerr	Decline the plan change on the basis of reverse sensitivity effects of the THAB zone on adjacent FUZ land; increased traffic effects along Waihoehoe Road with insufficient provisions for the upgrade of the corridor; inefficiency and uncertainty with regard to the rezoning and urban development of the remaining FUZ land in the Opaheke Drury area.
30.1	KiwiRail	Amend IX.1 Precinct Description to add: <u>The North Island Main Trunk railway line, which runs the entire length of the Precinct's western boundary is protected from reverse sensitivity effects by ensuring that new buildings and activities will be designed and located to manage any adverse effects</u>
30.2	KiwiRail	Add new Objective IX.2(5) as follows: <u>(5) The NIMT is protected from adverse effects, including reverse sensitivity effects, of subdivision, use and development by,</u> <u>1. setbacks within which incompatible activities will be managed;</u> <u>2. standards designed to protect noise sensitive receiver's health and amenity.</u>
30.3	KiwiRail	Add new policy IX.3(12) as follows: <u>(12) Adverse effects on the operation of the regionally significant NIMT and on the health and safety of adjacent development and noise sensitive receivers are managed through setbacks and performance standards.</u>
30.4	KiwiRail	Insert new activity (A5) to Activity table IX.4.1 as set out below and renumber existing (A5) and (A6) to (A6) and (A7). (A5) Development that does not comply with IX.6.7 Setback from NIMT and

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
		IX6.8 Noise Sensitive Activities within 100m of a Rail Network Boundary - RD
30.5	KiwiRail	Add to IX.6 Standards a new standard IX.6.7 as follows: <u>IX.6.7 Setback from NIMT</u> <u>Buildings must be setback at least 5 metres from any boundary which adjoins the NIMT railway line.</u>
30.6	KiwiRail	Add to IX.6 Standards a new standard IX.6.8 to manage potential human health effects from rail noise and vibration where buildings containing noise sensitive activities are located adjacent to (within 100m of) the railway corridor. See submission for full proposed wording.
30.7	KiwiRail	Insert new matters of discretion in IX.8.1 as follows: (4) Setback from NIMT and Noise Sensitive Activities within 100m of a Rail Network Boundary Effects from non-compliance with Standards IX.6.7 and IX.6.8
30.8	KiwiRail	Insert new assessment criteria in IX.8.2 as follows: (4) Setback from NIMT (a) The size, nature and location of the buildings on the site. (b) The extent to which the safety and efficiency of railway operations will be adversely affected. (c) The outcome of any consultation with KiwiRail. (d) Any characteristics of the proposed use that will make compliance unnecessary. (5) Noise Sensitive Activities within 100m of a Rail Network Boundary (a) Whether the activity sensitive to noise could be located further from the railway corridor (b) The extent to which the noise and vibration criteria are achieved and the effects of any non-compliance (c) The character of and degree of amenity provided by the existing environment and proposed activity. (d) The reverse sensitivity effects on the railway corridor and the extent to which mitigation measures can enable their ongoing operation, maintenance and upgrade. (e) Special topographical, building features or ground conditions which will mitigate vibration impacts; (f) The outcome of any consultation with KiwiRail.

Discussion

490. KiwiRail's submission raises concerns over buildings being built close to the NIMT line rail and potential impacts of noise and vibration from the rail line on noise sensitive activities. Auckland Transport raises concerns over activities close to arterial roads.
491. KiwiRail's submission raises relevant issues over the management of the NIMT line. This line is designated in the AUP, but there are no specific corridor protection controls (such as for the National Grid). KiwiRail has sought a 5m set back of buildings and controls over noise sensitive activities within 100m of the rail corridor. KiwiRail have made the same submission on PPC 48.
492. While the issues raised apply across the whole of the Auckland Region and would benefit from a region-wide approach, I consider it is appropriate to introduce set back and noise insulation controls as rezoning occurs. The submission notes that providing a

physical setback for buildings adjoining the railway corridor boundary is a safety control which manages the interface between operations within the railway corridor and activities near the railway corridor i.e. it ensures that site occupants are able to carry out normal residential or business activities, including building maintenance with a reduced risk of coming into contact with the operational railway.

493. I recommend that, as suggested, a new standard be introduced as follows, but amended to allow for rail related buildings:

IX.6.X Setback from NIMT: Buildings (other than those associated with rail operations) must be setback at least 5 metres from any boundary which adjoins the NIMT railway line.

494. As a standard is introduced, then matters of discretion for when the standard is exceeded need to be stated. I would recommend the following:

IX.8.X Infringement to standard IX.6.X NIMT railway line building setback:

IX.8.1 Effects on the safe operation of the NIMT.

495. In relation to noise and vibration, KiwiRail proposes a series of standards that would apply to noise sensitive activities located within 100m of the rail line. These standards would apply to the following:

Activities sensitive to noise: Any dwelling, visitor accommodation, boarding house, marae, papakāinga, integrated residential development, retirement village, supported residential care, care centres, lecture theatres in tertiary education facilities, classrooms in education facilities and healthcare facilities with an overnight stay facility.

496. KiwiRail seeks that buildings accommodating these activities must be designed to achieve indoor noise levels not exceeding a range of set noise levels, depending upon the activity. In the alternative, if located more than 50m from the rail line, then they seek that line of sight to a point 3.8m above the railway tracks is blocked by a noise barrier.

497. In a similar vein, Auckland Transport **[22.54 and 55]** seeks to ensure that noise-sensitive activities in proximity to arterial roads are controlled to address potential health and reverse sensitivity effects.

498. KiwiRail and Auckland Transport's concerns over noise and vibration are understandable, but the environment within the proposed precinct will be an urban, built up environment, not a suburban residential, environment. There will be a variety of noise sources. The built form of taller buildings will also affect the extent to which noise is received in different areas. Whether all buildings within 100m of the rail corridor containing noise sensitive activities need to be insulated when large buildings up to 21m in height may be possible along the edge of the rail corridor, is unclear.

499. The THAB zoning proposed does not contain any standards relating to the internal noise environment for noise sensitive activities. The AUP (Chapter E25) controls internal noise levels for noise sensitive spaces in the Business zones, but no similar provision exists for noise sensitive activities in residential zones. Yet residential zones do often abut busy and noisy rail and road corridors. I also generally agree with the point that as roads get busier and busier, the effects of road noise of health and amenity increase; while the greenfields context provides the opportunity to 'future proof' new buildings (rather than retrofit noise insulation or roadside noise barriers at a later stage).

500. To address the concerns of KiwiRail and Auckland Transport, I would support a new standard that cross references to E25.6.10; that is new buildings must be built to the internal noise standards specified for noise sensitive activities in Business Zones. As for the area within which this control would apply (distance from the NIMT), this is a matter that the submitter and requestor may wish to address. My suggestion would be that the standard only apply to buildings that are adjacent to the arterial road or near to the rail corridor. There may be benefit from the noise and vibration standard applying to the NIMT covering the same area, e.g: 60m¹⁵. For example:

Any new buildings or alterations to existing buildings containing an activity sensitive to noise closer than 60m to the boundary of the NIMT or adjacent to an arterial road must be designed to achieve the noise standards in E25.6.10.

501. KiwiRail also seeks a standard relating to vibration. In this case the standard would apply to noise sensitive activities within 60m of the boundary of the railway network. Two standards are set out, one a performance standard, the other a design standard for single level dwellings. The following performance standard is proposed:

Any new buildings or alterations to existing buildings containing an activity sensitive to noise closer than 60m from the boundary of a railway network is designed, constructed and maintained to achieve rail vibration levels not exceeding 0.3mm/s.

502. As a method of compliance with the standard, KiwiRail suggests that a report by a suitable qualified expert would have to be provided to the Council demonstrating achievement of the standard prior to a building construction. I agree that a vibration standard is appropriate. My understanding is that Chapter E25 of the AUP controls vibration during construction, but not vibration from permanent infrastructure like rail lines.

503. A range of assessment matters are set out for assessment of consents that seek to modify the setback, noise and vibration standards. As noted, the AUP already controls internal noise environments in the business zones. Matters of discretion for the standard AUP controls in E25 cover (a) reverse sensitivity effects; and (b) alternative temperature control solutions. The following assessment matter is stated:

(3) for reverse sensitivity effects:

(a) whether the activity or infringement proposed will unduly constrain the operation of existing activities (excluding construction or demolition activities).

504. I would recommend the following matters for discretion be added, in addition to the matters set out in E25:

Noise sensitive activities:

Effects on the operation of the NIMT and arterial roads and the amenity of nearby noise sensitive activities.

Setback from NIMT:

(a) The size, nature and location of the buildings on the site.

¹⁵ Consistency would be required across the plan change areas. In this regard I note that Waka Kotahi submitted on PPC 49 in relation to the possible Mill Road extension, but not PPC 48 in relation to the State Highway.

(b) The extent to which the safety and efficiency of railway operations will be adversely affected.

505. Assessment matters would then cover the following for the NIMT:

(X) Noise Sensitive Activities within 60m of a Rail Network Boundary and Buildings within 5m of the boundary of the NIMT:

(a) The character of and degree of amenity provided by the existing environment and proposed activity.

(b) The reverse sensitivity effects on the railway corridor and the extent to which mitigation measures will not constrain their ongoing operation, maintenance and upgrade.

(c) Topographical, building features or ground conditions which will mitigate noise or vibration impacts;

506. In relation to road noise, Auckland Transport suggests the following additional assessment matter for noise sensitive activities:

The extent to which noise sensitive activities in proximity to arterial roads are managed.

507. To support the above, I agree with adding a new policy IX.3 as follows:

Potential adverse effects on the operation of the regionally significant NIMT rail line and regional road network and on the health and safety of nearby noise sensitive receivers are managed through building setbacks and building performance standards.

508. Dong Leng [8.1] and Matthew Kerr [27.1] are concerned about reverse sensitivity effects of the proposed intensive housing on adjacent FUZ land. Rural activities will continue to operate within the FUZ land until rezoning occurs, the timing of which is unknown. In the interim there is the potential for spill over effects like noise, odour and dust to be generated by the rural activities. While reverse sensitivity effects associated with rural production may occur, with the FUZ zoning of the adjacent land, such effects will be temporary. I also note that Ms Skidmore does not support any additional controls to limit the scale of development in the PPC50 area to provide a buffer to neighbouring properties as it would compromise the ultimate pattern of urban development.

509. I also note that a '3m plus 45 degree' height in relation to boundary control applies to the zone boundary between the THAB zone and the FUZ zone.

Recommendations on Submissions

510. That submissions 22.53; 22.54; 22.55; 30.1; 30.2, 30.3; 30.4; 30.5; 30.6; 30.7 and 30.8 be accepted in part, to the extent that the precinct introduce setbacks from the NIMT and vibration standards, while continuing to rely upon the rules relating to noise sensitive activities in the THAB zone (as contained in E25), with additional assessment matters to address potential impacts on the NIMT and arterials if noise insulation is not provided.

511. That submissions 8.1 and 27.1 be rejected on the basis that reverse sensitivity effects, if present, will be a temporary issue prior to urbanisation of the adjoining land.

512. Recommended changes to the proposed provisions are set out in Section 10.

9.2.15. Submissions on open space matters

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
19.2	The Ministry of Housing and Urban Development	Enable further open space through zoning (primarily refers to the PC49 area)
21.19	Auckland Council	Amend policy IX.3(4) to read as follows: (4) In addition to matters (a)-(c) of Policy E38.3.18, ensure that the location and design of publicly accessible open spaces contributes to a sense of place for Drury East, by incorporating any distinctive site features and integrating with the stream network. <u>Also, if Auckland Council ownership is proposed, the open spaces must be consistent with the council's open space and parks acquisition and provision policies.</u>
21.20	Auckland Council	Include indicative open spaces in the precinct plan as shown in Attachment 1 to the submission.
24.7	Ministry of Education	Amend plan change to ensure there is provision of appropriate public open space to support the surrounding community.
25.1	Leith McFadden	Zone areas for parks and public space

Discussion

513. The nature and extent of open space has been reviewed by Auckland Council's open space acquisition team, as set out in section 8.8 above.
514. The Ministry of Housing and Urban Development **[19.2]** notes that given the intensity of the collective zonings proposed across PPC48, 49 and 50, it is appropriate that an appropriate form of public open space is incorporated into the PPC49 area to support the urban and suburban environments sought to be established. This is a point strongly supported by the comments of the Papakura Local Board. Submitters L McFadden **[25.1]** and the Ministry of Education **[24.7]** also support appropriate open space provision.
515. As covered in section 8.8, Auckland Council has criteria for purchase or other acquisition of land for public open space. These are set out in policy documents. The council will not necessarily agree to purchase or receive proposed open space that does not meet these criteria. Council's funding via development contributions constrains the extent to which the Council can acquire land.
516. There are issues with planning for appropriate spaces in an environment that has significant potential development capacity. Land for open space will be determined at the subdivision stage, but actual development intensity and mix will occur subsequently, and it is possible that the amount of land identified will be inadequate to meet future needs. Open space is also a major urban form structuring element.
517. To provide a starting point for assessment it is recommended that indicative public open spaces are shown on the precinct plan. I do not support these being zoned as open space until after subdivision occurs and land is either vested or acquired, as the locations are indicative only and exact boundaries are yet to be determined.

518. In terms of PPC50 I consider the important open space elements that should be depicted on the Precinct Plans to be:

- Waihoihoi stream corridor
- Green corridors to follow Waihoihoi Stream and other streams
- Neighbourhood type park.

Recommendations on Submissions

519. That submissions 19.2 and 25.1 be rejected on the basis at the precinct plan should not zone as open space the land indicatively identified as possible park land.

520. That submission 21.19 be rejected on the basis that the AUP should not state a preference over ownership.

521. That submissions 21.20 and 24.7 be accepted, with recommendations that the precinct plan identify additional indicative open spaces.

522. Recommended changes to the proposed provisions are set out in Section 10.

9.2.16. Submissions on sub-precincts

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
7.5	Oyster Capital	Insert a precinct plan that shows the boundaries of Sub-Precinct A and Sub-Precinct B. Sub-Precinct B applies to the northern portion of the precinct and applies a lower impervious area to manage the volume of stormwater runoff.
21.23	Auckland Council	Amend the precinct plan to include the sub-precincts referred to in the text of the precinct. This includes any additional changes necessary to respond to the council's other submission points.
29.5	The New Zealand Transport Agency	Consider whether Figure A22 - Stormwater Management Plan for 116 Waihoehoe Road and surrounds, from Appendix A, Tonkin and Taylor report Proposed Stormwater Management Areas Drury East - Waihoehoe Precinct Plan Change Area, needs to be included to indicate the location of stormwater management sub-precincts A and B.
32.6	Kāinga Ora	Retain Policy (9) with amendment if necessary to clarify the reference made to sub-precinct B which is not identified on the precinct plans
32.9	Kāinga Ora	Retain Standard IX.6(4) with amendment if necessary to clarify the reference made to sub-precinct B which is not identified on the precinct plans
32.12	Kāinga Ora	Retain Standard IX.6.5 with amendment if necessary to clarify reference to Sub-precinct B which is not identified on the precinct plans
32.14	Kāinga Ora	Retain Assessment Criteria IX.8.2 (3) with amendment if necessary to clarify reference to Sub-precinct B which is not identified on the precinct plans

Discussion

523. The notified precinct plan did not show the boundaries of Sub-precinct A and B that are referred to in the precinct provisions, as noted by submissions **7.5, 21.23, 29.5, 32.6, 32.9, 32.12, 32.14.**

524. The requestor proposes a precinct plan be added to show these boundaries as per submission **7.5.** I support this proposal.

Recommendations on Submissions

525. That submissions 7.5; 21.23; 29.5; 32.6; 32.9; 32.12 and 32.14 be accepted and the precinct plan shows the location of sub-precinct B.

526. Recommended changes to the proposed provisions are set out in Section 10.

9.2.17. Submissions on notification provisions

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
17.7	Josephine Kleinsman	Amend the notification provisions so that there is no extension of non-notification presumption, particularly for restricted discretionary activities
21.21	Auckland Council	Amend the IX.5 Notification rules (1) to (3) which require non-notification to apply the normal tests for notification under the relevant sections of the RMA. Also correct the numbering to IX.5.
22.9	Auckland Transport	Amend the IX.5 Notification rules (1) to (3) which require non-notification to require the normal tests for notification under the relevant sections of the RMA.
29.17	NZTA	Either delete notification provision IX.5(3); or amend IX.5(3) to ensure that Activity E11.4.1(A1) (new public or private roads) and infringements to standards IX6.2 and 6.3 (transport upgrades and trip generation limits) are subject to normal notification tests.

Discussion

527. These submitters are concerned that the activities referenced in IX.5 Notification rules (1) to (3), which require non-notification of certain activities, may have significant adverse effects and it is more appropriate to rely on the standard notification provisions in the RMA.

528. The table below lists the 'non-notification' rules of IX.5 and my assessment of them.

Proposed Precinct non-notification	Scope of	Recommendation
Development of the indicative collector road in the location shown in IX.10.2 Waihoehoe Precinct Plan 2.	The indicative collector road will provide an important link into the adjoining PPC48 and PPC49 areas. The location of the link may affect other land and activities.	Do not amend. Apply current AUP notification tests.
Restricted discretionary activity listed in Table E11.4.1, Table E11.4.2 and Table 12.4.1* *Note, it is unclear whether this is reference to Table E12.4.1.	E11 and E12 set out various activity classifications based on quantities of earthworks. Earthworks that exceed these standards may raise issues for adjacent activities, such as dust, truck movements for district consents and discharge issues for regional consents	Do not amend. Apply current AUP notification tests.
Infringe E11.6.2 General Standards and E12.6.2 General Standards	E11 and E12 set out standards for earthworks. The standards cover a range of basic parameters, the infringement of which may generate adverse environment effects	Do not amend. Apply current AUP notification tests.

Recommendations on Submissions

529. That submissions 17.7; 21.21; 22.9 and 29.17 be accepted, and that the standard tests of the AUP and RMA, as relevant, apply.

530. Recommended changes to the proposed provisions are set out in Section 10.

9.2.18. Submissions on Other / General Matters

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
7.13	Oyster Capital	Amend a number of naming, spelling and other minor errors throughout the proposed Waihoehoe Precinct provisions as shown in track changes in Attachment 1 to the submission
7.14	Oyster Capital	Amend Policies 4 and 6 to replace "Drury East" with "Waihoehoe Precinct"
7.15	Oyster Capital	Amend IX.4 Activity table introduction as follows: <u>Activity Table IX.4.1 specifies the activity status of district land use activities and development in the Drury East Precinct pursuant to section(s) 9(3) of the Resource Management Act 1991 and the activity status for subdivision pursuant to section 11 of the Resource Management Act 1991.</u> Activity Table IX.4.1 specifies the activity status of district land use activities and development in the Waihoehoe Precinct pursuant to section(s) 9(2) / 9(3) / 11 / 12(1) / 12(2) / 12(3) / 13 / 14 / 15 of the Resource Management Act 1991.
20.12	Ngāti Te Ata Waiohua	Reflect sustainable development in the design and outcomes
21.5	Auckland Council	Retain policy IX.3(6), however amend the policy to refer to the Waihoehoe Precinct (rather than Drury East).
21.22	Auckland Council	Ensure that the consent categories in IX.4.1 Activity table, matters of discretion in IX.8.1, and assessment criteria in IX.8.2 are the most appropriate to give effect to: matters raised in this submission, the objectives and policies of the precinct, the RPS and any national policy statement.
22.3	Auckland Transport	Amend IX.1 Precinct Description as follows: The transport network in <u>the wider Drury East area as defined on Precinct Plan 2</u> will be progressively upgraded over time to support development in the wider area. The precinct includes provisions to ensure that <u>the any subdivision and development of land for business and housing is coordinated with the funding and construction of the transport network upgrades in order to avoid, remedy and mitigate adverse effects on the local and wider transport network necessary to support it.</u>
22.52	Auckland Transport	Make any necessary amendments to PPC 50 as required to achieve a consistency in approach, including in relation to objectives, policies, rules, methods and maps, across the private plan changes within the Drury growth area
31.2	Karaka and Drury Limited	Do not amend PPC 50 in any way that would impact on, impede or preclude: (i) The quality of planning outcomes that the submitter seeks to achieve for Drury West; or (ii) The timing in which those outcomes are delivered.

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter
32.3	Kāinga Ora	Retain the Waihoehoe Precinct description subject to: <ul style="list-style-type: none"> • clarification of the identified inconsistencies between the precinct plans and provisions; • any consequential changes resulting for Kāinga Ora's submission.
32.7	Kāinga Ora	Amend I1.1(1) Notification as follows: “...development of the indicative collective <u>collector</u> road...”
34.11	Ngāti Tamaoho	Reflect sustainable development in the design and outcomes

Discussion

531. Ngāti Tamaoho's **[34.11]** and Ngāti Te Ata Waiohua's **[20.12]** requests seeking incorporation of sustainable design outcomes into the development is addressed on a number of levels, including the overall approach of a transit oriented development and through design features such as water sensitive urban design. I support the overall intent of the submissions, but note that the RMA and AUP limits the ambit of sustainable outcomes to those associated with the management of natural and physical resources.
532. I agree with Auckland Transport **[22.3]** that the Precinct description should be amended, but based on the discussion of urban form and transport effects, I would support a stronger statement around transit-oriented development. In my view, this would bring the Precinct more in line with the NPS-UD. I would suggest the following:

The transport network in the wider Drury East area as defined on Precinct Plan 2 will be progressively upgraded over time to support development in the wider area. The precinct includes provisions to ensure that the subdivision and development of land for housing is coordinated with safe access to Drury train station and other public transport services in order to avoid, remedy and mitigate adverse effects on the local and wider transport network.

Recommendations on Submissions

533. That submissions 7.13; 7.14; 7.15; 21.5 and 32.7 be accepted in part to the extent that naming, spelling and other minor errors are corrected.
534. That submissions 20.12; 21.22; 22.52; 31.2; 32.3 and 34.11 be accepted in part, to the extent that I have recommended amendments to the plan change to better address sustainability matters (such as streams) and improve consistency of the precinct provisions, while still enabling rezoning
535. That submission 22.3 be accepted in part. Clarification of the Precinct description will assist in the interpretation of the provisions.
536. Recommended changes to the proposed provisions are set out in Section 10.

10. OVERALL ASSESSMENT

537. In this section of the report, I provide my assessment of the plan change request against the statutory tests set out in section 7 and taking into account the analysis in sections 8 and 9.

538. This assessment is in the context of the role of Precincts in the AUP. As noted in A1.6.5 of the AUP, precincts enable local differences to be recognised by providing detailed place-based provisions which can vary the outcomes sought by the zone or Auckland-wide provisions and can be more restrictive or more enabling. It is therefore important that Precinct provisions do not just replicate existing AUP provisions. Precinct provisions must also meet the statutory requirements in section 7.

539. I consider in order:

- Objectives
- Policies
- Activity Table
- Notification clauses
- Methods
- Zoning / Precinct Plan
- Special information requirements
- Other.

10.1. Objectives

540. The statutory test for objectives is whether the objectives are the most appropriate way to achieve the RMA, having considered a range of options.

541. In general, Precinct objectives should be specific to the Precinct and deal with outcomes that are relevant to the Precinct. Objectives that replicate other objectives are not the most appropriate way to implement the RMA.

542. To this end, the following wording should be inserted at the start of the Objectives set out in PPC50:

The zone, Auckland-wide and overlay objectives apply in this precinct in addition to those specified above.

543. The following table lists the objectives as notified and my assessment of their appropriateness.

Objectives	Comments
(1) Waihoehoe Precinct is a comprehensively developed residential environment that integrates with the Drury Centre and the natural environment, supports public transport use, and respects Mana Whenua values.	I agree that this objective is appropriate. It identifies relevant local features and elements.
(2) Access to the precinct occurs in an effective, efficient and safe manner and manages	I consider that this objective pays insufficient attention to public transport outcomes. The focus on 'access to the precinct' is out of step with the wider objectives in

Objectives	Comments
effects on State Highway 1 and the effectiveness and safety of the surrounding road network.	<p>the AUP RPS and NPS-UD to promote more sustainable patterns of transport in and out of the Precinct, as well as within it. I would recommend the following:</p> <p><u>(x) The Waihoehoe precinct develops and functions in a way which:</u></p> <p><u>a) promotes travel by public and active modes of transport;</u></p> <p><u>b) provides a well-connected and legible network of pedestrian and cycling linkages connecting the precinct to the Drury Central rail station, and</u></p> <p><u>c) mitigates impacts on the safe and efficient functioning of roads within Drury township (Great South Road), the existing and future arterial road network including Waihoehoe Road.</u></p>
(3) Development is supported by appropriate infrastructure.	This objective is very general in nature and does not add any detail to standard AUP objectives. It could be deleted.
(4) Freshwater and sediment quality is progressively improved over time in the Waihoehoe precinct.	<p>Chapter E1 contains objectives relating to the improvement of water quality. The need for Objective 4 is not clear (and furthermore is not tagged as being a regional plan matter). If to be retained, the objective should be:</p> <p><u>Freshwater quality and biodiversity are improved.</u></p> <p>Use of the word 'progressively' may imply acceptance of some form of staged approach to improving water quality.</p>

10.2. Policies

544. Turning to policies, in accordance with section 32, policies need to be tested as to their efficiency and effectiveness in implementing the objectives. This needs to include consideration of options and the likely costs and benefits of these options. The following table lists the proposed policies (as to be amended by the requestor's submission). I provide my comments on the policies, having regard to their effectiveness and efficiency in implementing the Precinct objectives, as well as relevant objectives of the AUP.

545. As with objectives, it should be clarified in the Precinct provisions that relevant AUP Overlay, Auckland wide and zone-based policies apply in addition to the Precinct policies.

Policies	Comments
(1) Require collector roads to be generally in the locations shown in IX.10.X Waihoehoe: Precinct Plan 1, while allowing for variation, where it would achieve a highly	I agree that the policy is appropriate.

Policies	Comments
connected street layout that integrates with the surrounding transport network.	
<p>(2) Ensure that development provides a local road network that achieves a highly connected street layout and integrates with the collector road network within the precinct, and the surrounding transport network, and supports the safety and amenity of the open space and stream network.</p>	<p>This policy is similar to policies in the subdivision section of the AUP (such as Policy E38.3.10).</p> <p>The policy could refer to the safety and amenity of the open space and stream network as matters that are in addition to the matters set out in E38.3.10. For example.</p> <p><u><i>In addition to Policy E38.3.10, ensure that the local roading supports the safety and amenity of the open space and stream network.</i></u></p> <p>Policy 2 could be combined with policy 3 (below).</p>
<p>(3) Require streets to be attractively designed to appropriately provide for all transport modes.</p>	<p>This policy is similar to the matters covered in E38.3.10. I would recommend that the policy be more focused on the particular qualities for streets sought in the Precinct. In this regard, I note that the extent of on-street parking is a particular design matter within high density residential areas. With the shift under the NPS-UD for removal of on-site parking requirements, street parking will come under greater demands. Furthermore, landscaping should reflect the urban context of the street, not just its transport function.</p> <p>I would suggest that the policy be amended so that matters in addition to E38.3.10 are listed, for example:</p> <p><u><i>In addition to the matters set out in E38.3.10, street design should:</i></u></p> <p><u><i>support the safety and amenity of the open space and stream network.</i></u></p> <p><u><i>provide for safe separated access for cyclists on arterial and collector roads that link key destinations;</i></u></p> <p><u><i>provide a level of landscaping that is appropriate for the function and urban context of the street; and</i></u></p>

Policies	Comments
	<u>provide on-street parking commensurate with anticipated surrounding land use mix and densities.</u>
(4) In addition to matters (a)-(c) of Policy E38.3.18, ensure that the location and design of publicly accessible open spaces contributes to a sense of place for Waihoehoe Precinct, by incorporating any distinctive site features and integrating with the stream network.	Policy E38.3.18 covers recreation and amenity spaces. As is discussed below, I consider that a more effective approach to developing a 'sense of place' would be to include in the policy a more explicit list of matters to be considered. This is addressed further below.
(5) Ensure that the timing of development in Waihoehoe Precinct is coordinated with the transport infrastructure upgrades necessary to mitigate the adverse effects of development on the effectiveness and safety of the immediately surrounding transport network.	This policy refers to the 'timing' of development, when the focus should be on the timely upgrade of infrastructure. In my opinion it would more appropriately refer to development contributing to the timely upgrade of infrastructure, such as the upgrade of rural roads to urban standard early in the development process. I would suggest the following: <u>Ensure that development in Waihoehoe Precinct contributes to the timely upgrade of transport infrastructure necessary to mitigate the adverse effects of development on the safety of the immediately surrounding transport network.</u>
(6) Ensure that development in Waihoehoe Precinct is coordinated with supporting stormwater, wastewater and water supply infrastructure.	This policy could be focused on the more specific issue of stormwater infrastructure, in particular infrastructure to manage flood risks. Standard AUP policies still apply to water and wastewater. For example: <u>Avoid increasing flood risk upstream and downstream from a 1% AEP event and minimise increased flood risk within the precinct, including through upgrades to downstream infrastructure capacity and providing sufficient floodplain storage, including attenuation storage, within the Waihoehoe Precinct.</u>
(7) Provide for the staging of pedestrian and cycling connections to the Drury Central train station to encourage the use of public and active modes of transport.	I consider that this policy needs to be made more directive, given the importance of public transport. <u>Avoid subdivision and development in the Waihoehoe Precinct that precedes the delivery of public transport infrastructure necessary to enable travel patterns</u>

Policies	Comments
	<p><u>consistent with a transit-oriented form of development.</u></p> <p><u>Ensure bus, pedestrian and cycling connections to the Drury Central rail station are progressively provided as development occurs so as to encourage the immediate use of public and active modes of transport.</u></p>
<p>(8) Support improvements to water quality and habitat, including by providing planting on the riparian margins of permanent and intermittent streams.</p>	<p>This policy is supported, but I would recommend that the focus of the policy be expanded to include a wider range of methods, such as:</p> <p><u>Ensure improvements to water quality, habitat and biodiversity, including by:</u></p> <ul style="list-style-type: none"> • <u>planting of the riparian margins of all permanent and intermittent streams, and</u> • <u>creation of a green corridor following the full length of the Waihoihoi stream;</u> • <u>setting back buildings from stream banks to provide space for riparian planting, flood water conveyance, management of potential stream bank erosion and provision of infrastructure including walkways cycleways and local streets, where relevant; and</u> • <u>ensuring that if stream reclamation occurs to accommodate infrastructure, then there is no net loss in ecological function and preferably a net gain.</u>
<p>(9) Limit the maximum impervious area within Sub-precinct B to manage the stormwater runoff generated by a development to ensure that adverse flooding effects are avoided or mitigated.</p>	<p>I support this policy.</p>
<p>(10) Provide opportunities to deliver a range of site sizes and densities in the Residential -Terrace Housing and Apartment Buildings zone.</p>	<p>I support this policy</p>
<p>(11) In addition to the matters in Policy E1.3(8), manage erosion and associated effects on stream health and values arising from development in the precinct, and enable in-stream works to mitigate any effects.</p>	<p>I agree that this policy will assist with interpretation of the policies in the AUP (Chapter E1 and E3) as it refers directly to the likely need for some in stream works to manage erosion. In my view, there is justification to add this policy.</p>
<p>(12) Require subdivision and development to be consistent with any approved network discharge consent and supporting stormwater management plan including the application of water sensitive design to</p>	<p>I consider that given the value of the receiving environment this policy should be more explicit, such as to important parameters:</p>

Policies	Comments
achieve water quality and hydrology mitigation.	<p><u>Require subdivision and development to be assessed for consistency with any approved network discharge consent and supporting stormwater management plan adopted by Council under that discharge consent, including:</u></p> <ul style="list-style-type: none"> • <u>application of water sensitive design to achieve water quality and hydrology mitigation.</u> • <u>ensuring that all impervious services are treated through a treatment train approach to enhance water quality and protect the health of stream and marine environments.</u> • <u>seeking integrated improvements to water quality, habitat and biodiversity, including by providing planting on the riparian margins of permanent and intermittent streams.</u>

546. In addition to the above policies, I would recommend that the following policies be added to better reflect place-based outcomes relating to amenity and sense of place, as discussed and identified in my review of the effects of the PPC50 request and associated submissions. I consider that there is justification to include the following policies due to the relatively intense urban environment proposed (and enabled by the zoning). This intensity is supported but needs to be matched by a high quality public realm. The AUP RPS reference to quality compact urban development is particularly relevant here. I recommend that the following three policies be added.

Ensure that subdivision and development contribute to a high quality public realm in the Precinct area by integrating the following elements into a comprehensive network:

- Enhanced stream corridors
- Neighbourhood open spaces
- Significant existing trees
- Street design and landscaping that reflects the urban context
- Stormwater management facilities.

In the development of Waihoehoe Precinct, Mana Whenua values are acknowledged and incorporated by:

- Retaining and enhancing streams and their margins
- The physical design of streets, open spaces and plazas incorporating Te Aranga Design principles
- Encouraging applicants to seek input of Mana Whenua into the design of key buildings.

Ensure that development in Waihoehoe Precinct is coordinated with the provision of additional infrastructure, having particular regard to:

- the likely location of educational facilities;
- the location and capacity of existing and planned gas, electricity and telecommunication networks
- future open space networks.

547. A policy directed at protecting the operation of the rail line is warranted:

Potential adverse effects on the operation of the regionally significant NIMT rail line and regional road network and on the health and safety of nearby noise sensitive receivers are managed through building setbacks and building performance standards.

10.3. Methods

Activity table

548. I support the exclusion of public roads from A1. I support deletion of A3, A4, A5 and A6 and their replacement with one activity – subdivision or development that does not comply with the revised standards – discretionary activity.

Notification clauses

549. Clauses IX.5 (1), (2) and (3) should be deleted, with reliance on the standard AUP/RMA tests.

Standards

550. Turning to methods (standards and assessment matters), the Precinct proposes six additional standards to those in the relevant zone and Auckland Wide rules. My assessment of these methods is set out in the following table.

Methods/ standards	Comments
IX.6.1 Staging of Development with Transport Upgrades	I do not consider that these two methods are an effective or efficient method of implementing policies relating to promoting public transport and active modes, or managing effects on the roading network in the vicinity. As is discussed in relation to the technical review and submissions, I support the deletion of these two standards and their replacement with three standards that relate to:
IX.6.2 Trip Generation Limit	<ul style="list-style-type: none"> • Early provision of direct walking, cycling and bus access to Drury Central station • Upgrade of rural roads • Assessment of the impact of development on key intersections (such as Waihoehoe Road / Great South Road) prior to the implementation of SGA NoRs and Mill Road extension.
IX.6.3 Riparian Planting	I agree with a 10m minimum width of planting. The standard needs to be expanded to include reference to infrastructure being located outside the margin, cross reference to the AUP planting guideline, the need for a preliminary archaeological survey and an appropriate legal mechanism, where the riparian area is not to be vested. The following is recommended:

Methods/ standards	Comments
	<p><u>Riparian margins of permanent and intermittent streams must be planted either side to a minimum width of 10m measured from the top of the bank of the stream, provided that:</u></p> <p><u>a. this rule shall not apply to road crossings</u></p> <p><u>b. walkways, cycleways and other forms of infrastructure are not located within the riparian area</u></p> <p><u>c. replanting is carried out in accordance with a planting plan prepared with reference to Appendix 16 Guideline for native revegetation plantings</u></p> <p><u>d. prior to planting an archaeological survey has been completed and any areas of archaeological value are not planted</u></p> <p><u>e. where not vested in Council, the planting is maintained in perpetuity by an appropriate legal mechanism.</u></p>
IX.6.4 Building Setback along Waihoehoe Road	<p>The need for this standard should be reviewed in the light of the NoRs issued by AT and Waka Kotahi. Having said that, given the arterial road nature of Waihoehoe Road, a wider than normal set back to provide space for landscape treatment and the creation of a transitional space between the road and dwelling is desirable. This is a matter that will need to be clarified.</p>
IX.6.5 Maximum Impervious Area within Sub-Precinct B	<p>This standard is appropriate.</p>
IX.6.6 Stormwater Quality	<p>Based on the matters set out in the draft SMP, I consider that there is a need to widen the ambit of this standard to include additional matters. I would recommend the following:</p> <p><u>The activity rules and standards in E9 apply to development in Waihoehoe precinct with the following amendments:</u></p> <ul style="list-style-type: none"> • <u>Reference to high use roads is replaced with reference to all existing, new and upgraded or redeveloped roads;</u> • <u>Development of surface car parking areas and accessways that are not defined as high contaminant generating car parking areas is a permitted activity provided water quality treatment of run off from impervious surfaces is installed, in accordance with an approved Stormwater Management Plan; and</u> • <u>Buildings cannot have exterior materials with exposed surfaces made from zinc, copper and lead.</u>

551. The revised transport infrastructure standards are recommended to be along the following lines:

All subdivision and development shall comply with the following standards. Infringement of the standards will be assessed by way of a Discretionary Activity consent application

Purpose

To ensure that development and activities can efficiently access train services, roads are upgraded to an urban standard and adverse effects on the performance of key intersections is managed as development occurs.

Table IX.6.1 Threshold for development: Transit Oriented Infrastructure

<u>Threshold</u>	<u>Transport and Land use Required to Exceed the Thresholds</u>
<u>Prior to any new buildings being occupied</u>	<u>Drury Central train station is operational</u> <u>A legible, safe, direct and continuous walking and cycling route to Drury Centre train station is available</u> <u>Walking and cycling crossing facilities are provided on all arms of the Great South Road/Waihoehoe Road intersection</u> <u>Bus priority is provided on the Waihoehoe Road and Norrie Road arms of the Great South Road/Waihoehoe Road intersection.</u>
<u>Prior to any buildings being occupied greater than 1.2km radius from Drury Centre train station</u>	<u>Development is located within 400m of, and occupiers can safely and conveniently access, a continuous road connection suitable for local bus movements to and from the Drury Centre train station concourse</u>

Table IX.6.2 Rural Road Upgrades

<u>Threshold</u>	<u>Upgrade</u>
<u>Prior to any development accessing Waihoehoe Road, or any new road connection to Waihoehoe Road</u>	<u>Waihoehoe Road is upgraded to an urban standard between Great South Road and Fitzgerald Road, including an upgrade of the Great South Road/Waihoehoe Road intersection to provide a safe and efficient intersection (and approaches) for all transport modes</u>

IX.6.3 Transport network performance

Prior to Mill Road connecting to Waihoehoe Road and/or 4 Laning of Waihoehoe Road between Fitzgerald Road and Great South Road:

- (1) Any development of more than 50 dwellings or 1000 sqm of non-residential floorspace must meet the following standard:
 - a. Waihoehoe Road / Great South Road intersection traffic performance:
 - i. 95th percentile queues (not average queues) for each movement at intersections do not
 - a. extend to and through upstream intersections
 - b. queues shall not extend beyond dedicated storage lanes

- ii. no individual traffic movement shall have a level of service (LOS) worse than LOS E, or have a degree of saturation higher than 95%
- iii. movements where buses operate shall have a LOS no worse than LOS D
- iv. The overall intersection LOS shall be no worse than LOS D.
- b. a safety review of the Great South Road / State Highway 22 Intersection, Great South Road/Pitt Road Intersection, and Great South Road/Quarry Road Intersection at that time and assessment of the predicted safety risk resulting from the development traffic
- c. identification of any necessary upgrade to the Great South Road / State Highway 22 Intersection, Great South Road/Pitt Road Intersection, and Great South Road/Quarry Road Intersection to accommodate development traffic, and timing of its implementation, to address any adverse effects on the safety and efficiency of the intersection.

A traffic assessment shall be prepared by a suitably qualified and experienced traffic engineer or transportation planner demonstrating compliance with the above must be submitted with any resource consent application for subdivision or development and must utilise traffic data no older than 6 months at the time that a resource consent application is lodged for the development proposal.

Note: Degree(s) of saturation is defined to be the proportion of actual traffic movements using the intersection to the theoretical maximum capacity of the intersection.

Level of Service (LOS) is defined by Auckland Transport guidance or, in its absence, by Austroads guidance.

Traffic generation from parallel, lodged, or consented stages that are not yet operational are to be included in the traffic assessment

Note: Standard IX6.2(1)(c) is not required once Drury South "link road" as shown on I410.10.2 Drury South Industrial Precinct plan 2, and SH1 Drury South Interchange is constructed.

IX.6.4 Waihoehoe Road

By 2028 the Waihoehoe rail overbridge and Waihoehoe Road to Fitzgerald Road shall be upgraded to a four lane format with separated walking and cycling facilities. If this upgrade is not in place by this date, no further subdivision or development shall occur until the upgrade is operational.

552. I recommend the addition of the following standard to manage the interface of development with open spaces:

IX.6.X Sites adjoining public open space

Purpose: To enable opportunities for passive surveillance of the open space.

(1) Where a site adjoins public open space, the following must apply:

- (a) fences or walls or a combination of these structures within the yard adjoining the open space must not exceed either:
 - (i) 1.2m in height, measured from the ground level at the boundary; or
 - (ii) 1.8m in height provided that any fencing above 1.2m in height is at least 50% visually open.

553. A new standard is required for building setbacks from the North Island Main Trunk Line. The following is proposed in section 9.2.14:

IX.6.X Setback from NIMT

Purpose: To maintain the operational capacity of the North Island Main Trunk Railway line.

Buildings (other than those associated with rail operations) must be setback at least 5 metres from any boundary which adjoins the NIMT railway line.

IX.6.X Noise Sensitive Activities

Any new buildings or alterations to existing buildings containing an activity sensitive to noise closer than 60m to the boundary of the NIMT or adjacent to an arterial road must be designed to achieve the noise standards in E26.6.10.

Any new buildings or alterations to existing buildings containing an activity sensitive to noise closer than 60m from the boundary of a railway network is designed, constructed and maintained to achieve rail vibration levels not exceeding 0.3mm/s.

IX.6.X Yards

A building or parts of a building must be set back by a minimum depth of 20m from the main stem of the Waihoihoi Stream, as indicated on the precinct plan.

554. I also recommend the deletion of IX.6(2) referring to trip generation rules not being applicable to the precinct.
555. Matters of control and discretion in IX.8.1(4) need to be expanded to address amendments to Standard IX.6.5 Stormwater Quality recommended above:
- How the location and design of stormwater treatment assets reduces their operating costs.
 - The consolidation and community scale of stormwater treatment assets.
 - The location of stormwater treatment assets where they will be most effective in reducing contaminants.

556. Matters of discretion also need to be added to address the new railway line setback and rail / arterial road noise standards recommended above:

IX.8.X Infringement to standard IX.6.X NIMT railway line building setback:

Effects on the safe operation of the NIMT.

IX.8.X Infringement to standard IX.6.X: Noise sensitive activities:

Effects on the operation of the NIMT and arterial roads and the amenity of nearby noise sensitive activities.

557. Assessment matters need to be expanded to address the revised standards and amended policies. In particular, assessment matters relating to:
- Design of buildings and fencing fronting Waihoehoe Road
 - Subdivision and development that does not comply with the riparian yard requirements

- Subdivision and development that does not comply with the revised transport infrastructure standards
- Development that does not comply with the noise sensitive activity standards.

558. These are addressed in turn.

559. Additional assessment criteria for buildings in the THAB zone:

Building and fence design should ensure a high quality frontage to Waihoehoe Road, including by providing sufficient set back from the street to provide a transitional space, avoiding high fences that block visual interaction with the street, maintaining pedestrian access from the street to buildings, and where practicable, elevating living areas above the street level and incorporating flexible spaces on the ground floor, such as live/work type arrangements.

560. Infringement of riparian yard standard:

In addition to the matters specified in the THAB zone:

(b) Effects on floodplain management taking into account maximum probable development, climate change and the roughness coefficient of existing and planned planting.

(c) Effects on stream bank stability taking into account the cohesiveness of the soil and steepness of the bank angle.

(d) Effects on bio diversity from the inability to provide for any proposed paths, cycleways, infrastructure and facilities outside the 10m wide strip of riparian planting.

561. For subdivision or development that infringes the revised transport infrastructure threshold standards, the following assessment matters should apply:

a) whether the effects of development proceeding ahead of the required transport upgrades are mitigated by any unique characteristics of the scale, staging or operation of an activity,

b) demonstrate the extent to which any staging of subdivision or development will be required due to the co-ordination of the provision of infrastructure;

c) where roading infrastructure is required to be upgraded, whether the preparation of an infrastructure funding agreement or other such measure is necessary to ensure that the infrastructure required to service the subdivision can be funded and provided in a timely manner.

562. For development that infringes the NIMT and arterial road noise standards:

Noise Sensitive Activities within 60m of a Rail Network Boundary and Buildings within 5m of the rail corridor:

(a) The character of and degree of amenity provided by the existing environment and proposed activity.

(b) The reverse sensitivity effects on the railway corridor and the extent to which mitigation measures will not constrain their ongoing operation, maintenance and upgrade.

(c) Topographical, building features or ground conditions which will mitigate noise or vibration impacts:

Noise sensitive activities adjacent to arterial roads

The extent to which noise sensitive activities in proximity to arterial roads are designed to reduce road noise experienced within the building.

Zoning / Precinct Plans

563. Based on the technical reviews, submissions and my own analysis, I consider the precinct plan proposed needs to be modified to better give effect to the objectives and policies. The range of matters that need to be addressed cover:

- The precinct should have a taller height limit of 24m via application of a Height Variation Control overlay.
- Streams (permanent and intermittent) should be shown indicatively on the Precinct Plan – with final alignment and classification determined at consent stage.
- The green corridor concept should be notated along the Waihoihoi Stream (involving riparian planting, walk/cycle, open space etc).
- Sub-precincts A and B should be shown.
- A neighbourhood open space area should be shown (indicative only).

Special Information Requirements of IX.9.

564. The information requirements need to be expanded to deal with a number of information gaps:

- An assessment of archaeology prior to any riparian planting.
- An assessment of whether any trees met the criteria for Notable Trees under B4.5 2(1) prior to subdivision.
- In relation to the risk assessment required by AUP Policy E36.3.32, a high-level (scoping) assessment of liquefaction and consolidation risks prior to subdivision that identifies the nature and magnitude for these constraints and implications for development.
- Wetland and streams to be accurately surveyed and classified upon subdivision or development.

Other

565. I recommend deletion of IX.11 Appendix 1: Road Cross section details.

566. The following replacement of paragraph 5 of the precinct description is consequential to the amended objectives and policies:

The transport network in the wider Drury East area as defined on Precinct Plan 2 will be progressively upgraded over time to support development in the wider area. The precinct includes provisions to ensure that the subdivision and development of land for housing is coordinated with the safe access to Drury train station and other public transport services in order to avoid, remedy and mitigate adverse effects on the local and wider transport network.

11. CONCLUSIONS

567. Based on the technical reviews and analysis of submissions, the plan change request raises a number of potential conflicts with national and regional policies as set out in relevant RMA planning documents.
568. In terms of capacity for growth, the plan change does align with the NPS-UD in relation to providing for expected demands for housing. The AUP RPS also supports the provision of additional capacity. However, that support needs to be seen within the context of the substantial capacity already available through operative AUP zonings, as well as a range of rezoning proposals that are underway. The location of the capacity to be provided (near to a new large centre and rail station) is of benefit.
569. In my view, the main issue is the lack of alignment in the Precinct provisions with AUP RPS objectives and policies that seek a close relationship between urban development and transport investment, particularly public transport. For example:
- RPS Objective B2.2.1(1) - a quality compact urban form that enables all of the following: (a) a higher-quality urban environment; (b) greater productivity and economic growth; (c) better use of existing infrastructure and efficient provision of new infrastructure; (d) improved and more effective public transport;
 - RPS Objective B2.2.1 (5) - the development of land within the Rural Urban Boundary is integrated with the provision of appropriate infrastructure.
 - RPS Policy B2.2.2. (7) Enable rezoning of land within the Rural Urban Boundary to accommodate urban growth in ways that do all of the following: (a) support a quality compact urban form; (b) provide for a range of housing types and employment choices for the area; (c) integrate with the provision of infrastructure;
 - RPS Policy B3.2.3 (2) - Encourage subdivision, use and development to be designed to promote the health, safety and well-being of people and communities by all of the following: (a) providing access for people of all ages and abilities; (b) enabling walking, cycling and public transport and minimising vehicle movements; and (c) minimising the adverse effects of discharges of contaminants from land use activities (including transport effects) and subdivision.
 - The NPS-UD Objective 6 states that local authority decisions on urban development that affect urban environments are: integrated with infrastructure planning and funding decisions; and strategic over the medium term and long term; and responsive, particularly in relation to proposals that would supply significant development capacity.
570. In addition to the above, NPS-UD policy 1 refers to well-functioning urban environments. These are urban environments that, as a minimum, have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport.
571. It is my assessment that at a strategy level, the plan change will assist with meeting housing demands and will work in with and support the proposed new Drury Centre and train station that will be situated to the immediate south of the plan change area. However successful achievement of regional and national policy seeking integration of development with transport infrastructure is dependent upon the development being co-ordinated with access to public transport services (including easy and direct access to the train station and future bus services that can connect into the regional network along Great South Road). The means to ensure such integration has elicited a wide range of submissions from local and central government agencies. Auckland Council and



Auckland Transport have expressed significant concern over the funding and delivery of a number of roading projects that will be important to transport outcomes.

572. These concerns are understandable, but since the plan change request was lodged, recent Council planning documents like the draft Long Term Plan and draft Regional Land Transport Plan identify the wider Drury area as being an important focus area for investment. In my opinion, the uncertainties over the delivery of roading projects (including Mill Road) can be mitigated to a degree by a strong focus on development supporting the use of public transport (particularly given that the NZUP and ATAP updates both commit substantial sums to expanding rail services between Papakura and Pukekohe).
573. In conjunction with improved access to public transport, the quality of the public realm will be important in delivering on objectives relating to a quality, compact urban environment. The position of the precinct adjacent to a new Metropolitan Centre and near the new rail station mean that the density of development needs to be increased to meet the expectations of the NPS-UD. Hand-in-hand with an increase in density needs to come a step up in the extent and quality of the public realm. This can be achieved through retention of stream corridors, more detail on future open spaces and attention to road design that reflects the varied urban contexts that will be present.

12. RECOMMENDATIONS

574. That, the Hearing Commissioners accept or reject submissions (and associated further submissions) as outlined in this report.
575. That, as a result of the assessment of the plan change request and submissions, I recommend that PPC50 be approved with modifications and the Auckland Unitary Plan be amended by inclusion of PPC50, but as amended to address the matters set out in Section 10 of this report.
576. If the matters set out in Section 10 cannot be appropriately resolved, then I would recommend that the plan change request be declined.

13. SIGNATORIES

	Name and title of signatories
Authors	David Mead, Consultant Planner 
Reviewer / Approver	Craig Cairncross Team Leader Central South Plans & Places/Chief Planning Office 

APPENDIX 4
TECHNICAL PEER REVIEW REPORTS

Memo (technical specialist report to contribute towards Council's section 42A hearing report)

19 February 2021

To: David Mead, Reporting Planner
From: Robert Brassey, Principal Specialist Cultural Heritage

Subject: Private Plan Change – PC50 (private): Waihoehoe Precinct, Drury – Historic Heritage Assessment (archaeology)

1.0 Introduction

1.1 I have undertaken a review of the private plan change on behalf of Auckland Council in relation to effects on historic heritage.

I have a Master of Philosophy degree with first Class Honours in anthropology specializing in New Zealand and Pacific archaeology. I have worked in the field of historic heritage management for nearly 40 years, including more than 20 years for Auckland councils. My experience spans archaeology, built and maritime heritage and heritage policy and planning.

1.2 In writing this memo, I have reviewed the following documents:

- PC50 – Section 32 report
- PC50 - Appendix 1 Waihoehoe plan change
- Appendix 5 AUP Objectives and Policies
- Appendix 14 Archaeological Assessment
- Appendix 19 Cultural values assessment Ngāti Tamaoho
- Drury-Opāheke Structure Plan 2019
- Drury Structure Plan historic heritage topic report 2017
- Heritage New Zealand Pouhere Taonga (**Heritage New Zealand**) submission (#26) and further submissions (FS 9)

2.0 Key historic heritage Issues

The archaeological report provided by the applicant is a high-level assessment based primarily on desktop research. There are information gaps, primarily because only a small part of the plan change area was able to be accessed for the purposes of visual assessment.

There is one previously recorded archaeological site that extends into the plan change area, part of the route of the Drury tramway/mineral railway (constructed late 1850s – 1862, rebuilt 1904-05). The tramway route is considered to be of heritage significance, but not recommended for scheduling because of the physical extent of the feature, which would restrict the potential for development on multiple properties.

The key issue in relation to historic heritage is how unidentified or unrecorded archaeological sites that could potentially be present within the plan change area are managed.

3.0 Applicant's assessment

The applicant has provided an archaeological assessment prepared by Clough and Associates which addresses archaeological values. No built heritage or special character assessment have been provided. However, there are no buildings of potential historic heritage significance or value in relation to special character recorded in the plan change area.

The archaeological assessment is based on desktop research and field survey of part of the plan change area. Access to the balance of the plan change area was unavailable as the applicant does not own all of the land. However, the authors consider that sufficient information is available on the heritage values of the area for the purposes of the plan change.

There is one previously recorded archaeological site that extends into the plan change area. It comprises part of the route of the Drury tramway/mineral railway R12/1122 (constructed late 1850s – 1862, rebuilt 1904-05). The tramway/railway route has previously been identified as being of heritage significance but not recommended for scheduling because of the physical extent of the feature, which would restrict the potential for development on multiple properties. The physical/archaeological values of the site in the plan change area are considered by the authors to be limited, and adverse effects are assessed as minor.

The authors of the report state that the possibility of unidentified sites being present within the plan change area cannot be excluded, but that the potential is low. Such sites may include isolated finds, remnant small camp sites or small middens.

The report concludes that Heritage New Zealand Pouhere Taonga Act (**HNZPTA**) archaeological authority may be required if the Drury tramway/mineral railway is affected by future development, and that other unidentified sites can be appropriately managed under the Auckland Unitary Plan (**AUP**) Accidental discovery rule (**ADR**).

4.0 Assessment of historic heritage effects and management methods

The heritage assessment is limited in scope by the inability of the authors to access all the plan change area due to circumstances beyond their control. However, sufficient background research has been undertaken, in my opinion, to support the conclusions reached.

In relation to the potential presence of unidentified archaeological sites within the plan change area, I concur with the conclusions of the assessment. Much of the plan change area would have been unattractive for Māori settlement due to the low-lying and largely swampy nature of the land prior to drainage.¹ While the resources of the plan change area would have been exploited by Māori, the principal area of settlement, as indicated by the presence of recorded sites, lay within the elevated area of volcanic soils to the west, where more favourable locations suitable for cultivations, settlements and defence were available.

I agree that unidentified sites of Māori origin may potentially be present within the plan change area, but that the likelihood is low. Such sites are likely to be insubstantial in nature and could include isolated findspots, remnants of small campsites or small middens as stated in the archaeological assessment.

The assessment states that it will be impracticable to completely avoid adverse effects on the tramway/railway alignment but concludes that adverse effects will be minor and can be mitigated by recording identifiable remains and by interpretation.

I concur with this conclusion. The part of the alignment that is present in the Waihoehoe plan change area is understood to be, substantially or entirely, a modification/extension that dates from the 1904-5 rebuild of the tramway route as a mineral railway, and thus to have limited value in relation to knowledge that can be gained using archaeological techniques.

5.0 Submissions and further submissions

5.1 Heritage New Zealand (#26 and FS 9)

Heritage New Zealand Pouhere Taonga, (#26) have submitted that the plan change area has a number of historical associations, and that there is the potential for undiscovered archaeology within the area.

In the absence of a detailed archaeological assessment, Heritage New Zealand seeks that the plan change be amended to:

¹ The 1850s tramway which ran diagonally through the plan change area required the construction of 1000 feet of bridges and viaducts and 10 miles of drains

- Include provisions within the precinct plan to require archaeological assessment of the area to be undertaken by a suitably qualified professional through the subdivision process.
- Require the riparian margins of permanent or intermittent streams that are to be planted to a minimum width of 10 metres to exclude archaeological site extents as assessed by a professionally qualified archaeologist and require the preparation of an archaeological assessment by a suitably qualified person to inform the planting plan.
- Include appropriate provisions within the precinct plan to address any Maori cultural heritage values identified.

Heritage New Zealand has further submitted in support of a number of primary submissions, in relation to historic heritage. The essence of several of these further submission points is that there should be wider minimum riparian margins and further open space identified within the precinct to provide for the protection and interpretation of historic heritage.

Heritage New Zealand has also submitted in support of a submission by Auckland Council (FS 21.31) seeking the provision of a notable tree assessment and scheduling of any notable trees identified in the assessment.

5.2 Response

In relation to the first matter, I agree that the plan change area has not been subject to a full archaeological assessment and that there is potential for unidentified archaeological sites to be present. However, I concur with the conclusions reached in the archaeological assessment provided by the applicant, that the potential for archaeological sites of Māori origin to be discovered is low, and that, where present, they are likely to be insubstantial sites such as isolated finds, remnants of small campsites or small middens.

The likelihood of sites of this nature meeting the AUP Historic Heritage RPS criteria for inclusion in the heritage schedule 14.1 is very low, in my opinion.

If the plan change was to proceed without provisions including rules requiring identification and assessment of archaeological sites prior to development or planting, the AUP subdivision and land disturbance rules would not trigger resource consent requirements to undertake this work. Therefore, there are two options for managing unidentified (and unscheduled) sites:

- Include precinct provisions as proposed by Heritage NZ
- Rely on the HNZPTA, and the AUP accidental discovery rule.

Where there is known information to suggest that there is the potential for significant unidentified historic heritage to be present in a plan change area, and an adequate assessment has not been provided, I would consider it appropriate to include precinct provisions requiring such an assessment prior to subdivision or land disturbance. However, as I have stated above, I consider the likelihood to be very low in the case of the Waihoehoe plan change area.

In my view it would be appropriate in this case for the second of the two options to be adopted – that is to rely on the HNZPTA and the ADR to manage unidentified heritage. Both the HNZPTA and ADR include provisions to address any Māori cultural heritage values identified.

The basis for Heritage New Zealand's further submissions on riparian margins is that streamside locations often contain archaeological sites relating to past Māori activity, and that this amendment, together with the provision of additional open space generally, would better provide for the avoidance, retention and interpretation of historic heritage.

As I have stated above, I agree that there is a possibility of undiscovered archaeological sites or features being present. However, I do not consider that, in relation to this particular plan change area, this represents a strong argument to justify the proposed amendments. I also concur with the archaeological assessment that there are other locations outside the plan change area that are better suited to on site interpretation of features of the industrial history of the Drury area and the tramway.

I neither support nor oppose the proposed riparian margin and open space amendments, from a historic heritage perspective.

In order to ensure that archaeological sites and extents are identified prior to riparian planting taking place along streams, I propose that the precinct provisions are amended as follows:

IX.9 Special information requirements

(1) Riparian planting

An application for land modification, development and subdivision which adjoins a permanent or intermittent stream must be accompanied by a riparian planting plan identifying the location, species, planter bag size and density of the plants-, and an archaeological assessment prepared by a professionally qualified archaeologist showing the location and extent of any archaeological sites to be avoided. Plant species should be native.

I support the further submission by Heritage New Zealand and the original submission by Auckland Council seeking a notable tree assessment and scheduling of trees, where appropriate.

Relict plantings can sometimes be an indicator of subsurface historic-era archaeological sites. Planted trees can contribute to the setting of historic heritage places or be historic heritage features of value or significance. It is usual practice for a survey of private plan change areas to be undertaken for potential notable trees, including any that are of historic heritage value. Those meeting the criteria should be scheduled as notable trees and/or, where appropriate as features of a scheduled historic heritage place.

6.0 Conclusions and recommendations

In my opinion:

- The applicant has adequately assessed the private plan change effects on the environment related to historic heritage to the extent that this is practicable without physical access to the entire plan change area.
- The private plan change is consistent with the direction and framework of the AUP, including giving effect to the objectives and policies in the Historic Heritage Regional Policy Statement (B5).

The applicant has not provided an assessment of notable trees of potential historic heritage value or significance within the plan change area and I consider this to be an information gap that should be addressed. Any trees meeting the relevant AUP criteria should be scheduled.

I consider that effects on the portion of the Drury tramway/mineral railway within the plan change area can be mitigated by archaeological investigation and recording of the remains. I note that an archaeological authority may be required under the provisions of the HNZPTA to modify or destroy the remains of tramway/railway that cannot be avoided during development.

Effects on currently unidentified archaeological sites and associated Māori cultural values, can be managed under the provisions of the HNZPTA and AUP ADR. This would be facilitated by amendment of the precinct provisions to require a prior archaeological assessment of riparian planting areas.

With such an amendment, and implementation of the recommendation in relation to notable trees, I am able to support the proposed plan change.

18 January 2021

To: David Mead, Consultant Lead Planner, Hill Young Cooper Ltd, for Auckland Council

From: Andrew Kalbarczyk, Senior Specialist – Contaminated Land, Contamination, Air & Noise, Specialist Input, Resource Consents

Subject: Private Plan Change – PC50, Oyster Capital Precinct, Drury East – Contamination Assessment

1.0 Introduction

I have undertaken a review of the request for the above Private Plan Change, on behalf of Auckland Council in relation to potential adverse effects on human health and the receiving environment, associated with the potential contamination within the subject area.

The area of the proposed Private Plan Change covers approximately 48.9ha of land in total. The subject area is currently zoned in the Auckland Unitary Plan (Operative in Part) as 'Future Urban Area'. The Private Plan Change request seeks to re-zone the subject area to Terrace Housing and Apartment Buildings zone. The re-zoning proposal provides capacity for at least 1,133 dwellings.

I hold a MSc degree in Environmental Biology from University of Warsaw (Poland) and Certificate in Environmental Science from Thames Polytechnic in London. I hold a Certified Environmental Practitioner: Site Contamination Specialist certification from the Certified Environmental Practitioner Scheme, established as an initiative of the Environment Institute of Australia and New Zealand (EIANZ), aimed at advancing ethical and competent environmental practice. I work as a Senior Specialist – Contaminated Land in the Contamination, Noise & Air Team, Specialist Input, Resource Consents. I have held this role at Auckland Council and formerly Auckland Regional Council since 2006. I have extensive experience within contaminated land management, resource consenting, and consent compliance monitoring relevant to contaminated land.

In writing this memo, I have reviewed the following documents lodged in support of the proposed Private Plan Change:

- *S32 Assessment Report: Waihoehoe Private Plan Change Request*, prepared by Barker and Associates Ltd, dated May 2020
- *Preliminary Site Investigation: Waihoehoe Road Plan Change Area: Drury, Auckland*, prepared for Oyster Capital Ltd, by Focus Environmental Services Ltd, dated August 2019 ('the Preliminary Site Investigation report')

Additionally, I have also reviewed the following report commissioned by Auckland Council to provide an understanding of the contamination constraints affecting the greater area of the future development within the Drury Future Urban Zone, which includes the Oyster Capital Precinct:

- *Technical Investigation: Contamination Assessment: Drury Future Urban Zone*, prepared for Auckland Council by Riley Consultants Ltd, dated 16 March 2018 ('the Technical Investigation report')

2.0 Key contamination issues (relevant to protection of human health and the environment)

This Private Plan Change request is reported to be generally consistent with sound resource management practice and Part 5 (Standards, Policy Statements, and Plans) of the Resource Management Act (RMA). Also, it is reported to be consistent with the Drury-Opāheke Structure Plan, endorsed by Auckland Council on 6 August 2019, and the concurrently-lodged two Private Plan Change requests, associated with the future development within the Drury Future Urban Zone, made by Kiwi Property Holdings No.2 Ltd and Fulton Hogan Land Development Ltd.

I consider the following regulations, plan, and policy statements to be relevant to the assessment of the proposed Private Plan Change request, in the context of contamination of the land and the associated effects on human health and the environment:

- *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations*, Ministry for the Environment, 2011 (NES:CS)
- Chapter E30 of the Auckland Unitary Plan (Operative in Part) (AUP(OP)), Objectives E30.2(1) and Policies E30.3.(1 and 2)
- The Auckland Council Auckland Regional Policy Statement, particularly Section 17, Objectives 17.3.1-3, and Policies 17.4.1.1-4.
- National Policy Statement for Freshwater Management, updated in 2020, particularly Part 2, Objectives 2.1(1)(a-c), and Policies 2.2(1-5 and 13).

The current assessment of the Private Plan Change request and supporting documentation is focused on identifying any major constrains, associated with the contamination status of the subject area, which would present an impediment to the proposed re-zoning of the land into generally more-sensitive land use. Any other than major constrains, associated with potential contamination of the subject area can be dealt with at a later stage, under the requirements of the relevant regulatory consenting process, associated with the future development.

Detailed assessment of the suitability of individual parcels of land within the area subject to the proposed Private Plan Change will need to be undertaken prior to obtaining relevant resource consents required for carrying out land-disturbance works, the actual change of land use, and subdivisions. The regulations, plan, and policy statements listed above will be applicable once again during the consenting process, and at that stage site-specific investigations and remediation of the land (where required) will be carried out. To those pieces of land within the subject area, which have formerly been affected by any contaminating activities, the regulations of the NES:CS and Contaminated Land Rules of the AUP(OP) will be relevant and considered in the consenting process.

Based on the reviewed Technical Investigation report, the following sources of contaminants of concern have been identified as the potential constrains to the proposed Private Plan Change and relevant future development:

- Existing building structures constructed prior to 1980
Those are associated with the presence of lead and asbestos in the cladding/roofing of the building structures and in the shallow subsurface soils. The contamination status of such soils would need to be determined through a process of undertaking a site-specific Preliminary Site Investigation/Detailed Site Investigation. In case such investigations reveal the presence of unacceptably elevated levels of lead and/or asbestos (exceeding the relevant standards for protection of human health or guidelines for the protection of the environment), remediation of the affected sites and controlled disposal of the contaminated soil will be required.
- The presence of some commercial/industrial land-use properties within the subject area
Depending on the type of commercial/industrial activities, the soil within such properties may be contaminated with a number of heavy metals, polycyclic aromatic hydrocarbons, or volatile organic compounds. The contamination status of such soils would need to be determined through a process of a site-specific Preliminary Site Investigation/Detailed

Site Investigation. In case such investigations reveal the presence of unacceptably elevated levels of contaminants, remediation of the affected sites and controlled disposal of the contaminated soil will be required.

- The presence of closed landfills within the subject area
Depending on the outcome of a site-specific Preliminary Site Investigation/Detailed Site Investigation, the soils within the given land may be adversely affected by landfill gas, heavy metals, polycyclic aromatic hydrocarbons, volatile organic compounds, and nitrates, rendering the relevant properties unsuitable for the residential development.
- The current (at the time of actual development) or former horticultural land use
Depending on the outcome of a site-specific Preliminary Site Investigation/Detailed Site Investigation, the soils within the given land may be adversely affected by elevated concentrations of arsenic and selected heavy metals, and organochlorine pesticides. In case such investigations reveal the presence of unacceptably elevated levels of contaminants, remediation of the affected sites and controlled disposal of the contaminated soil will be required.
- The current (at the time of actual development) or former use of the land for primary production
Depending on the outcome of a site-specific Preliminary Site Investigation/Detailed Site Investigation, the soils within the given land may be adversely affected by elevated concentrations of heavy metals, polycyclic aromatic hydrocarbons, or other petroleum hydrocarbons. In case such investigations reveal the presence of unacceptably elevated levels of contaminants, remediation of the affected sites and controlled disposal of the contaminated soil will be required.
- The presence of unknown potential contamination sources, such as uncertified asbestos dumps, farm dumps, rubbish/waste dumps, demolition material dumps, as well as sites affected by historical pollution incidents and fires
The actual risk associated with the above activities would need to be assessed through the process of a Preliminary Site Investigation/Detailed Site Investigation. Depending on the outcome of such investigations, the soils within the given parcel of land may be adversely affected by asbestos, landfill gas, heavy metals, polycyclic aromatic hydrocarbons, volatile organic compounds, and nitrates. Remediation of the land prior to the residential development may be required.

Recommended by the Technical Investigation report is undertaking representative Preliminary Site Investigations/Detailed Site Investigations within the area subject to the proposed Private Plan Change, in order to confirm the contamination status of the properties in question and identify the presence of any site-specific constraints for the future development.

The above recommendation has been incorporated into the overall recommendations relevant to the proposed Private Plan Change, in Section 6.0 of this Memo.

3.0 Applicant's assessment

The Preliminary Site Investigation report, provided in support of the request for the proposed Private Plan Change has identified a number of sites within the subject area, which are associated with the current or former contaminating activities, described on the Hazardous Activities and Industries List, Ministry of the Environment (HAIL). Those HAIL activities include the following range:

- The presence of underground fuel storage tanks (diesel and petrol)
- Bulk storage of waste oil
- Engineering workshop operation
- Foundry activities at one of the properties
- Burial of waste and refuse material
- Former sheep-spraying operation (spray race)

- The presence of commercial glasshouses, with the potential for persistent bulk storage and use of pesticides
- Persistent leaks of lubricating oil into the ground at one of the properties
- A spill of 200L of diesel onto the ground at one of the properties
- The presence of refuse pits and offal pits at a number of the investigated properties
- The presence of unverified-origin fill in several locations within the subject area, which may be contaminated in exceedance of the Soil Contaminant Standards (relevant to the protection of human health) and/or Permitted Activity soil acceptance criteria (relevant to the protection of the environment)

Also identified in the report was the presence of various structures within the subject area containing hazardous substances, such as lead (in lead-based paint) and asbestos (in the cladding of building structures and sheds, and in fences).

Additionally, a risk to human health, associated with the potential presence of asbestos in the subsurface soil was identified at those selected properties, where demolition of old building structures had formerly taken place.

It is noted in the report, that access to some properties within the subject area was constrained, therefore those properties were assessed only based on the review of the available historical aerial photographs and Auckland Council files. Additional assessment of the risks within such parts of the subject area is yet to be undertaken.

The Preliminary Site Investigation report presents the potential adverse effects on human health and the environment, associated with the identified contamination and the implementation of the proposed Private Plan Change. Those potential adverse effects include incidental ingestion and dermal contact with contaminants by development workers or members of the public, inhalation of vapours and asbestos fibres, uncontrolled contaminated stormwater run-off, off-site migration of contaminated groundwater into ecological receptors of the Waiarohia Inlet of the Manukau Harbour.

However, there appear to be no significant issues of concern with regards to contamination within the subject area, and therefore, the potential adverse effects relevant to the proposed Private Plan Change, the change in land use, future development, and subsequent residential land use are considered to be no more than minor.

No parcels of land have been identified as being at risk of significant contamination that might severely impact the proposed Private Plan Change or future residential development.

Further environmental investigations of the parcels of land identified to have been affected by HAIL activities are recommended within the report. Also recommended is remediation of those selected parcels of land, which contain any contamination hotspots identified to be unsuitable for the proposed residential land use.

The Preliminary Site Investigation report concludes with the statement that based on the information collected to date, the proposed Private Plan Change will be generally suitable for the future residential development, while some localised remediation of isolated contamination hotspots may be required. Resource consents under the NES:CS are anticipated to be required to those properties, which are found to be affected by former or current HAIL activities, and so are further environmental investigations.

The Preliminary Site Investigation report provides a series of recommendations for future work to be carried out subsequently to the completion of the proposed Private Plan Change process. They include the following components:

- Carrying out a walkover and thorough inspection of each property within the subject area, in order to identify the current and former HAIL activities
- Undertaking site-specific Preliminary Site Investigations and Detailed Site Investigations for individual parcels of land at a later stage, prior to the lodgement of the relevant

resource consent applications and prior to the commencement of the residential development.

- Undertaking remediation at those parcels of land, which are found to be affected by contamination in concentrations exceeding the relevant Soil Contaminant Standards for protection of human health and/or environmental guidelines for protection of the environment.

I consider the methodology used in the Preliminary Site Investigation report as being satisfactory and relevant to the proposed Private Plan Change. Also, I concur with the conclusions reached in the applicant's environmental assessment. Lastly, I accept the recommendations for further, site-specific environmental investigations of the properties at risk of being affected by localised contamination hotspots.

4.0 Assessment of the effects on human health and the environment, and management methods

The purpose of my review was to obtain an understanding of the constraints affecting the proposed Private Plan Change and the relevant future development, associated with the potential contamination of soil and groundwater within the subject area.

My review included the assessment of the Preliminary Site Investigation report, submitted in support of the Private Plan Change request, and the compliance of the proposed Private Plan Change with the purpose of the NES:CS regulations, and the objectives and policies of the AUP(OP), Auckland Council Auckland Regional Policy Statement, and National Policy Statement for Freshwater Management, relevant to the contaminated land management.

I consider the information provided within the Preliminary Site Investigation report as being adequate for obtaining sufficient understanding of the scale and significance of the actual or potential adverse effects, and positive effects on human health and the environment, anticipated from the implementation of the proposed Private Plan Change.

I concur with the applicant's conclusion that the proposed Private Plan Change is generally consistent with the purpose of the NES:CS regulations, and the objectives and relevant policies of the AUP(OP), Auckland Council Auckland Regional Policy Statement, and National Policy Statement for Freshwater Management, and that it will be generally suitable for the intended future residential development.

Additional, site-specific Preliminary Site Investigations and Detailed Site Investigations will likely be required to determine the contamination status of the land and relevant consenting requirements. Included within such further investigations would also need to be the historical use of hazardous materials, such as lead (in lead-based paint) and asbestos (in the cladding of building structures and sheds, and in fences) within the subject area.

5.0 Submissions

I have reviewed all 34 submissions received with regards to the proposed Private Plan Change. None of the submissions expressed any concerns relevant to the potential or actual contamination of soil or groundwater within the subject area, that may affect human health or the environment as a result of the proposed Private Plan Change or the associated future development.

Two submissions referred to the contaminant run-off from the existing and new roads and carparks within the subject area. One of them, Submission #7 from Oyster Capital Ltd, in support of the Private Plan Change request, states that the contaminant run-off will be efficiently managed through the Stormwater Management Area Flow (SMAF 1) provisions. The other Submission, #21, from Auckland Council, in opposition to the Private Plan Change request, expressed the submitter's concern about the currently insufficient plan for protection of the ultimate receiving environment, namely the upper Manukau Harbour from continued

contaminant discharges from existing and new roads and carparks. Those two submissions are considered to be relevant to the stormwater management and not the contaminated land management aspect, and therefore they are no further addressed in this review.

Submission #21 also expressed the submitter's concern about the cumulative contaminant loading within the receiving environment of the upper Manukau Harbour, from the discharges off the roads and building structures with exterior materials with exposed surfaces that are made from contaminants of concern, such as copper, lead, and zinc. That submission is also considered to be relevant to the stormwater management and not the contaminated land management aspect, and therefore it is no further addressed in this review.

6.0 Conclusions and recommendations

I consider the documentation provided in support of the Private Plan Change request to be sufficiently adequate to identify the relevant potential effects on human health and the environment. of the implementation of the proposed Private Plan Change on human health and the environment.

There are no significant information gaps identified within the information provided in support of the Private Plan Change request, which would prevent obtaining sufficient understanding of the scale or significance of the actual or potential environmental effects anticipated from the implementation of the proposed Private Plan Change, in my view.

There appear to be no significant issues of concern with regards to contamination within the subject area, that would affect the Private Plan Change in principle. However, a number of potentially contaminating land-use activities and relevant soil contaminants of concern have been identified. A recommendation has been made that further, site-specific Preliminary Site Investigations and Detailed Site Investigations be carried out prior to the consenting process, in order to assess the actual contamination status of the properties within the subject area and inform the remediation requirements.

From the perspective of contamination and the associated potential effects on human health and the environment, the proposed Private Plan Change is considered to be consistent with the purpose of the NES:CS, and relevant objectives and policies of the Contaminated Land Rules of the AUP(OP), Auckland Council Regional Policy Statement, and National Policy Statement for Freshwater Management.

None of the 34 submissions received have raised an issue of concern relevant to the contamination of the soil, surface water, or groundwater, associated with the current or historical land use.

Overall, from the perspective of the current contamination status of the subject area and the potential effects on human health and the environment, I recommend that the proposed Private Plan Change be supported, subject to the following recommended actions to be subsequently taken prior to and during the residential development:

- Undertaking site-specific Preliminary Site Investigations and Detailed Site Investigations for individual parcels of land, to identify the potential risks to human health and the environment and enable to determine and implement the relevant mitigation options.
- Undertaking remediation at those parcels of land, which are found to be affected by contamination in concentrations exceeding the relevant Soil Contaminant Standards for protection of human health and/or environmental guidelines for protection of the environment.
- Implementing adequate controls, management procedures, and mitigation measures during the development of individual parcels of land, in order to protect human health and the environment.

- Adopting the proposed options to avoid, remedy, or mitigate the identified adverse effects on human health and the environment, as per recommendations made in the Preliminary Site Investigation report, provided in support of this Private Plan Change request.
- Monitoring of surface waters during the construction to ensure the protection of the receiving environment.

03/03/2021

To: David Mead, Processing Planner
From: Jason Smith, Consultant Ecologist to Auckland Council

Subject: Private Plan Change – PC50 Waihoehoe, Drury – Ecology Assessment

1.0 Introduction

- 1.1 I have undertaken a review of the Private Plan Change 50 (PPC50), on behalf of Auckland Council in relation to ecological effects, both freshwater and terrestrial.
- 1.2 I hold the qualifications of a BSc and BSc (Hons.) from the University of Auckland.
- 1.3 I have over nine years of professional experience in the fields of ecological surveys, environmental impact assessments, environmental monitoring, water quality, as well as, in providing technical peer-reviews under the Resource Management Act (RMA) including resource consents, notice of requirements, outline plan of works and plan changes.
- 1.4 I am accredited under The Ministry for the Environments Making Good Decisions Programme.
- 1.5 I am a member of the New Zealand Freshwater Science Society and the Engineering NZ Rivers Group.
- 1.6 I have previously provided several reviews of the application material, including:
 - A completeness and adequacy review of the application material as it was initially lodged.
 - A review of the Applicants response's to Council's Further Information Request.
 - A review of the Applicants response's to Council's second Further Information Request.
- 1.7 In compiling this technical review, the following documents have been reviewed and assessed:

Application Material (As Notified):

- *Oyster Capital Section 32 Assessment Report Waihoehoe Private Plan Change Request', report prepared by Barker & Associates, May 2020 Revision. Including:*
 - *Appendix 1: Waihoehoe Precinct.*
 - *Appendix 5: Auckland Unitary Plan (operative in Part) Objectives and Policies Assessment, prepared by Barkers & Associates, undated.*
 - *Appendix 6: Urban Design Statement, report prepared by Holistic Urban Environments dated April 2020, Version 4.1*
 - *Appendix 9: Drury East - Waihoehoe Precinct Plan Change Area, Stormwater Management Plan for 116 Waihoehoe Road and Surrounds', report prepared by Tonkin & Taylor, dated June 2020.*
 - *Appendix 10: Waihoehoe Road Ecology Plan Change, report prepared by Freshwater Solutions, dated June 2019.*
 - *Appendix 11: Proposed Plan Change Engineering Report, report prepared by Crang Civil, dated May 2019.*
 - *Appendix 20: National Policy Statement for Freshwater Management and Auckland Unitary Plan Comparative Analysis.*

Clause 23 Response:

- *Waihoehoe Plan Change: Second RFI Response, memorandum prepared by Barker & Associates, dated 30 April 2020.*
- *Drury East Plan Changes – Ecology Response, memorandum prepared by Justine Quinn, dated 24 March 2020.*
- *Waihoehoe Plan Change: Planning RFI Response, memorandum prepared by Barker & Associates, dated 3 April 2020.*

- 1.8 I have also reviewed the submissions and further submission received.
- 1.9 This technical assessment considers PPC50 from an ecological perspective (both terrestrial and freshwater) as it was notified, along with the Applicant's clause 23 response information, as well as, the submissions and further submissions received to date.
- 1.10 Stormwater management, including stormwater quality and quantity related effects, have are assessed by others under separate cover.

2.0 Key Ecology Issues

This section provides an overview of the key ecological concerns that arise from the review of the application material, along with the relief sought and supporting cross-references back to the Regional Policy Statement (RPS) in the Auckland Unitary Plan (AUP), and the National Policy Statement for Freshwater Management (NPS:FM). Note that the analysis in section 2 is made based on the application material as it was notified and does not address the issues and relief sought through the Applicant's own submission (which is assessed in section 3).

Current ecological features of note include wetlands, as well as permanent and intermittent streams.

2.1 Precinct Map

- 2.1.1 Council's clause 23 request questioned whether the Waihoehoe Precinct should be updated with a precinct map that shows all freshwater watercourses (wetlands, permanent and intermittent streams).
- 2.1.2 The Applicant's response clarified that it is not proposed to amend the maps of the Waihoehoe Precinct to this effect.
- 2.1.3 The reasoning provided was that this lacks spatial accuracy and, that there is no resource management reasons for taking a place-specific approach to this matter.
- 2.1.4 Mapping of freshwater watercourse(s) and the inclusion of those watercourses within Precinct maps is now considered standard practice. The mapping of freshwater watercourses provides guidance for future developments of both opportunities (such as the enhancement of freshwater systems as sought by RPS Objective B7.3.1(1)) and constraints for developments to respond to.
- 2.1.5 The NPS:FM 2020 Clauses 3.22 Natural Inland Wetlands, 3.23 Mapping and Monitoring Natural Inland Wetlands and 3.24 Rivers arguably increases the need for structure and precinct plans to identify and accurately map all freshwater watercourses.
- 2.1.6 NPS:FM Clause 3.22 – 3.24 contain provisions for Regional Council's that relate to the mapping and monitoring of freshwater watercourses. The starting point for this work would be the accurate identification and mapping of such watercourses.
- 2.1.7 The plan change process provides an opportunity for this work to be undertaken and incorporated into the regional plan, in advance of the change of land use and the pressures that may impact on the ecological values (such as water quality and habitat provision) as well as the spatial extent of these watercourses.
- 2.1.8 It is noted that in mapping the freshwater watercourses presented in the EclA, the Applicant's ecologist has not had access to all of the land within the area covered by PPC50.
- 2.1.9 Concern is therefore expressed as to the spatial accuracy of the classification and delineation of freshwater watercourses within the plan change area which would correspond to the confidence of any watercourses shown on a precinct map.
- 2.1.10 This technical assessment adopts the position that the precinct map should include all freshwater watercourse (permanent and intermittent streams, as well as, wetlands) based on the best available information with a footnote that clarifies the level of assessment undertaken and the need for site-specific watercourse classification and delineation assessments to be undertaken and accompany any future resource consent application.

2.2 Consistency with the AUP

- 2.2.1 Proposed Policy 19 of the Waihoehoe Precinct seeks to recognise that there may be no practicable alternative to stream works, including reclamation, where they are required to construct critical infrastructure.
- 2.2.2 Policies E3.3 (13) and E3.3 (18) of the AUP already provides for reclamation, as a non-complying activity, when required for infrastructure:

Avoid the reclamation and drainage of the bed of lakes, rivers, streams and wetlands, including any extension to existing reclamations or drained areas unless all of the following apply:

- (a) there is no practicable alternative method for undertaking the activity outside the lake, river, stream or wetland;*
- (b) for lakes, permanent rivers and streams, and wetlands the activity is required for any of the following:*
- (i) as part of an activity designed to restore or enhance the natural values of any lake, river, stream or wetland, any adjacent area of indigenous vegetation or habitats of indigenous fauna;*
- (ii) for the operation, use, maintenance, repair, development or upgrade of infrastructure; or*
- (iii) to undertake mineral extraction activities; and*
- (c) the activity avoids significant adverse effects and avoids, remedies or mitigates other adverse effects on Mana Whenua values associated with freshwater resources, including wāhi tapu, wāhi taonga and mahinga kai.*

Rivers

- (18) The loss of river extent and values is avoided, unless the council is satisfied:*
- (a) that there is a functional need for the activity in that location; and (b) the effects of the activity are managed by applying the effects management hierarchy.*

[emphasis added]

- 2.2.3 Given Policy E3.3(13), it is not clear what resource management purpose would be served by the addition of Policy 19 or why a place-specific approach to this issue is required.
- 2.2.4 It is noted that Policy 19 is consistent with, and not contrary to, the existing AUP policy direction; although the policy may add to confusion and inconsistent interpretations at the resource consenting stage.
- 2.2.5 The provisions of the Precinct (policy's and standards) relate only to intermittent and permanent streams and, as written, do not apply to wetlands.
- 2.2.6 Wetlands are subject to statutory provisions of the NPS:FM, AUP and non-statutory provisions of the Drury-Opāheke Structure Plan that seek the maintenance and enhancement of the ecological values of freshwater watercourses.
- 2.2.7 The Applicant's response, that wetlands are dynamic and complex environments and therefore, unlike streams, technical analysis, including soil sampling, is required to determine the edge of a wetland, is technically correct.
- 2.2.8 However, I disagree with the Applicant's conclusion that, there is not enough certainty to apply the riparian planting rule to wetlands as a permitted activity standard, as this confidence can be achieved following standard methodologies to delineate the edge of a wetland.
- 2.2.9 The buffering of the wetland with riparian vegetation would enhance ecological functions, similar to that of permanent and intermittent streams; which is proposed and would be consistent with the RPS Objective B7.2.1(2); and Policies B7.3.1(1), B7.3.2(2, 3, 5 and 6).

2.3 Drury-Opāheke Structure Plan

- 2.3.1 The Drury-Opāheke Structure Plan envisions the restoration of 20 m riparian margins along streams, although it also notes that the actual width provided would be subject to more detailed investigation.
- 2.3.2 The Waihoehoe Precinct proposes a permitted activity standard for a minimum of 10 m width of riparian restoration along streams, without any corresponding detailed investigation or assessment of the effect of this reduction.
- 2.3.3 The Drury-Opāheke Structure Plan notes that protection of the riparian planting is envisioned through esplanade reserves or other methods. No mention of protection measures is contained within the application material.
- 2.3.4 The restoration of 20 m riparian margins, provision of the Blue-Green Network and protection in perpetuity align with RPS Objectives B7.2.1(2), B7.3.1(1) and B7.3.1(3).
- 2.3.5 The Applicant's c23 response provides the reasoning for 10 m planted riparian margins still being their preferred option.
- 2.3.6 The Applicant's response is factually accurate, but limited in scope.
- 2.3.7 The ecological functions provided by riparian vegetation including: the filtration of contaminants, habitat provision, organic matter input and supports connectivity and buffering functions, as well as influencing water quality correspondingly increase with the width of the riparian vegetation.
- 2.3.8 Furthermore, 20 m riparian buffers are thought to be self-sustaining for indigenous vegetation, with buffers of lesser extent being subject to a greater degree of 'edge effects' leading to an increase prevalence of weed species and associated increase in maintenance activities required to establish and maintain a self-supporting system.
- 2.3.9 The provision of a 20 m riparian margin would also support the implementation of Policy 9, as notified, in the Waihoehoe Precinct.
- 2.3.10 In summary the full 20 m planted riparian margin, protection measures for riparian planting, or updates to reflect the Drury-Opāheke Structure Plan Blue-Green Network are not proposed.
- 2.3.11 The change in land use is likely to be permanent and it is considered that the measures proposed to address the effects from the change in land use, including the riparian planting, should therefore also be permanent (i.e. secured in perpetuity).
- 2.3.12 Protection in perpetuity through a suitable legal mechanism would have the additional benefit of also securing the gains in the ecological function derived from the riparian vegetation.
- 2.3.13 It not clear what weight Council places on the Drury-Opāheke Structure Plan and if Council would settle for a lesser standard than that of the Drury-Opāheke Structure Plan.
- 2.3.14 For the avoidance of doubt, from an ecological perspective, consistency with the Drury-Opāheke Structure Plan is the preferred outcome.
- 2.3.15 Support for this position can be found in the Regional Policy Statement, Chapter B7 Natural Resources: Objectives: B7.2.1(2), B7.3.1; Polices B7.3.2(1 - 6). The provisions of B7 do not specify 20 m over 10 m riparian margin; but do support the greater degree of enhancement of greater riparian planting margin.
- 2.3.16 By way of relief this assessment seeks that the width of riparian planting around freshwater watercourses be widened to 20 m around wetlands and 20 m either side of permanent and intermittent watercourses, all riparian planting be protected by a suitable legal mechanism, as well as, that these amendments be embedded into the Precinct Plan.
- 2.3.17 For the avoidance of doubt, there is limited scope for low impact activities such as boardwalks and cycle-paths within the 20 m riparian margin; however this will need to consider site specific-ecological values at a level of detail that has not yet been provided.

3.0 Submissions

- 3.1 PPC50 was publicly notified and thirty-four submissions were received.

- 3.2 Ten submissions are relevant to the matters considered within this technical assessment.
- 3.3 Broad themes within the submissions include:
- Concern over the classification of watercourses.
 - That the adverse effects of urban development on the natural environment, including the Fitzgerald Stream and its tributaries can be effectively managed and key natural features within the Plan Change area will be maintained and enhanced.
- 3.4 The more substantive issues, not otherwise considered within this technical assessment, that require further assessment are summarised and assessed in the table below.

Submission Number	Submitter's Name	Issues Raised	Relief Sought (From Submitter)	Technical Assessment
7	Oyster Capital	Deletion of Policy 11 Addition of Matters of Discretion and Assessment Criteria for Standard IX6.3 Riparian Margins	Deletion of Policy 11 <i>Infringements to Standard IX6.3 Riparian Margins (a) Effects on water quality and stream habitat.</i> <i>Infringement to Standard IX.6.3 Riparian Margins (a) Whether the infringement is consistent with Policy IX 3(8).</i>	The deletion of Policy 11 is supported. The additional matters of discretion are supported.
20 and 34	Ngati Te Ata Waiohau and Ngati Tamaoho	Wai (Water): PPC50 does not give effect to Te Mana o te Wai and risks damaging the mauri of wai within the project area. This includes through PPC50's proposed treatment of waterways and its proposed stormwater and wastewater solutions. Native Trees and Plants: The Submitter supports whakapapa sourced trees and plants within the PPC50 site.	Natural and cultural landscaping accounted for in the project design. A minimum of 20 metre riparian margin for all waterways especially those to contain walkways / cycleways. Park edge design adjacent to all waterways. Native trees and plants only within the precinct. Ridgelines hilltops and wetlands protected.	From an ecological perspective, with one exception, the issues raised and relief sought is supported. The exclusive use of native trees and plants within the precinct, whilst generally preferred, may not always be the most practicable option. Exotic vegetation may be preferred, in specific circumstances such as in addressing the effects on natural heritage values; or to provide relatively more rapid canopy cover, bank stabilisation or erosion control. I do not therefore think the exclusive use of native vegetation should be specified, and the use of 'should' in IX.9(1) is appropriate.
21	Auckland Council ¹	The precinct is not fully consistent with the objectives and policies of the National Policy Statement for Freshwater Management 2020 (NPS-FM).	Include more policies and rules to give full effect to the direction in the NPS-FM, including but not limited to Te mana o te wai.	This technical assessment is supportive of provisions within the PPC to give effect to Te Mana o Te Wai. However, no further assessment can be made in this regard as the submission lacks specificity on the additions sought. Solely increasing the number of objectives and policies would not give effect to

¹ Submitter 34 also raised a number of points regarding stormwater management that relate to water quality that are not specifically covered by this technical assessment. From an ecological perspective the inclusion of further provisions to ensure the effects of stormwater is generally supported.

		<p>Extended 20 m riparian building setbacks are appropriate on permanent streams</p> <p>Additional matters of discretion are requested for assessing infringements of standard IX.6.3 referred to above.</p> <p>The council has found that maintenance and enhancement of permanent and intermittent streams is more likely to be achieved on development if indicative permanent and intermittent streams are shown on precinct plans.</p> <p>Including the blue-green linkages from urban concept planning can help reinforce the importance of connections</p>	<p>Replace standard IX.6.3(2) with a new standard and consequential amendments to effect that the riparian yards set for buildings</p> <p>Add the following matters of discretion to IX.8.1(3): ...(b) Effects on floodplain management taking into account maximum probable development, climate change and the roughness coefficient of existing and planned planting. (c) Effects on stream bank stability taking into account the cohesiveness of the soil and steepness of the bank angle. (d) Effects on the ability to provide for any proposed paths, cycleways, infrastructure and facilities outside the 10m wide strip of riparian planting. Add related assessment criteria at IX.8.2(3).</p> <p>Include indicative permanent and intermittent streams and wetlands on the precinct plan.</p> <p>Include the indicative blue-green corridor within the precinct plan based on the urban concept in the Urban Design Assessment.</p>	<p>Te Mana o Te Wai as the mandatory objectives and polices are already included within the AUP and NPS:FM.</p> <p>From an ecological perspective the amendment is supported and aligns with the comments in s2 regarding riparian margins.</p> <p>From an ecological perspective the amendments are supported.</p> <p>From an ecological perspective the amendments are supported, as assessed in s2.</p> <p>From an ecological perspective the submission point is supported, as assessed in s2.</p>
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		<p>It is important to focus on improving biodiversity as distinct from just planting. It is also important to provide for ecological corridors. A new policy and amendments to proposed policy IX.3(9) are proposed to address these matters.</p>	<p>Support Ensure improvements to water quality, and habitat and biodiversity, including by providing planting on the riparian margins of permanent and intermittent streams. All relevant overlay, Auckland-wide and zone policies apply in this precinct in addition to those specified above. Enable a network of open space, riparian corridors and park edge roads that provides for:</p> <ul style="list-style-type: none"> • potential ecological corridors along streams between Te-Manukanuka-O-Hoturoa (Manukau Harbour) and the Hunua; • improvement of freshwater and coastal water systems; and • a safe and attractive walking and cycling network. <p>All relevant overlay, Auckland-wide and zone policies apply in this precinct in addition to those specified above.</p>	<p>From an ecological perspective the submission point is supported.</p> <p>It is noted the riparian planting standards, references and requirements varies across other precincts in the AUP. From an ecological perspective the submission point is supported; however, it is considered that this could be simplified by:</p> <ul style="list-style-type: none"> • making the reference to Appendix 16 of the AUP, which contains similar provisions. • requiring that the planting plan be prepared and implemented by a suitably qualified and experienced person.
<p>Cross-referencing in standard IX.6.4(1) to Appendix 15 of the AUP will assist in ensuring good outcomes.</p>	<p>Retain and amend IX.6.3 (1) by including a cross reference to the matters in Appendix 15.6(3)(b-f) and (4) of the Auckland Unitary Plan.</p> <p>Retain and amend IX.6.4(1) by including a cross reference to the matters in Appendix 15.6(3)(b-f) and (4) of the Auckland Unitary Plan.</p>	<p>From an ecological perspective the submission point is supported.</p>		

4.0 Further Submissions

- 4.1 Ten further submissions were received, four of which are relevant to the matters considered within this technical assessment.
- 4.2 The broad themes of the further submissions are similar to those in the original submissions.
- 4.3 From an ecological perspective, no new concerns are raised that have not otherwise been addressed in section 2 and 3 of this technical assessment. For the avoidance of doubt, this technical assessment:
 - 4.3.1 Supports the deletion of Policy 11, as it is no longer required.
 - 4.3.2 Supports the provision of an increased riparian yard width for all permanent streams, and considers that this should be applied to intermittent streams, as this would facilitate a greater width of riparian planting.

5.0 Conclusions and Recommendations

This technical assessment has reviewed and assessed PPC50 from an ecological perspective. Generally, the application material has adequately assessed the effects on the environment related to ecological effects and provided measures to address those effects that are appropriate. Notwithstanding the assessment above, concern is expressed over:

- freshwater watercourses to be shown on the precinct map.
- restoration of 20 m riparian margins.
- alignment with the provisions of the AUP.
- the provision of the Drury-Opāheke Structure Plan Blue-Green Network.
- protection of future riparian planting by a suitable legal mechanism.
- the specification of native plantings.
- the detail to be included within the riparian planting standard.

Where necessary, relief sought to strengthen the provisions of PPC50 and resolve the issues noted above, have been provided within this technical assessment. With the inclusion of the relief sought, PPC50 could be supported from an ecological perspective.

Memo

14/05/2020

To: Michael Luong, Plans and Places
cc: Charlie Brightman, Engineering & Technical Services
From: Claudia Harford, Engineering & Technical Services
Subject: Oyster Capital Ltd. - Drury Structure Plan Area, Private Plan Change Geotechnical Assessment
Project: 199
Status: Issued for Information
Document ID: AKLC-1201561183-540

Version: 0

1 Introduction

We have been requested by Michael Luong from Auckland Council (AC) Plans and Places to review geotechnical aspects of the private plan change application information supplied by Oyster Capital Ltd. (Oyster) and provide any queries pertaining to geotechnical matters in relation to the Plan Change area shown on Figure 1.

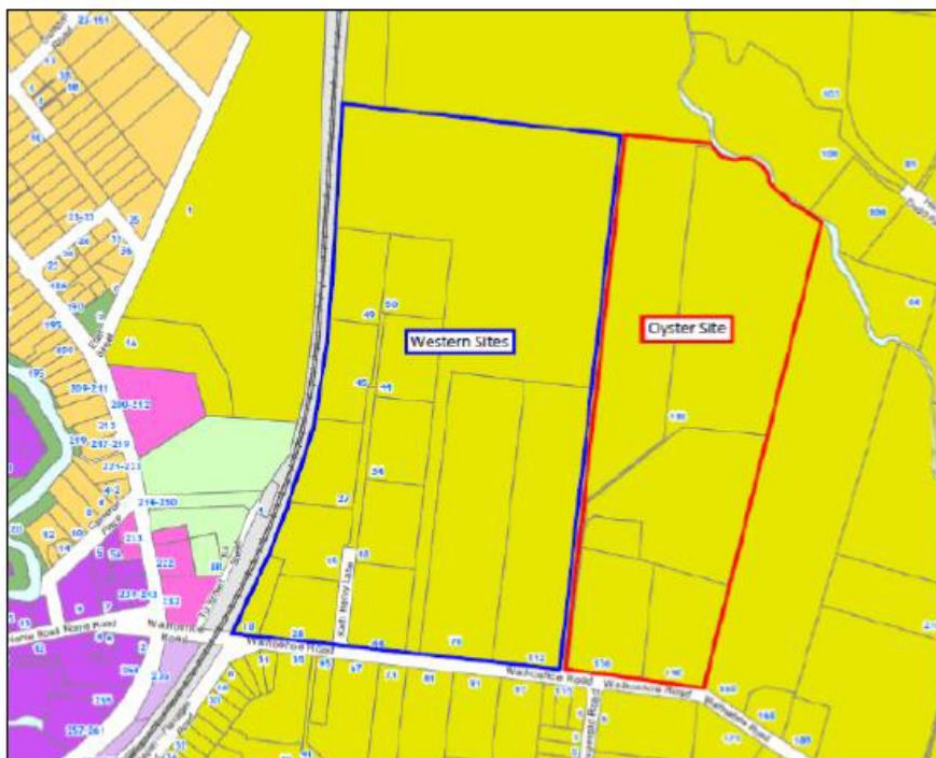


Figure 1: Location of land that Oyster Capital has an interest in, together with the adjoining sites to the west [Source: B & A, Private Plan Change Request Report].

Initial findings of the review were provided on 13 December 2019 and a formal response was issued on 17 February 2020 (refer Appendix A) and incorporated into Council's Request for Further Information (RFI). The geotechnical review highlighted areas where the level of detail provided in the submission was considered inadequate in terms of the lack of factual information, the ways in which ground related hazards were assessed which consequently affected the submission's proposed mitigations of potential adverse effects.

We also queried the general lack of detail surrounding consideration of benefits and costs and consideration of the efficiency and effectiveness of the proposals, as well as broader areas of concern relating to the consideration of best practice guidelines.

Following receipt of the RFI response (dated 18 March 2020), AC requested a meeting with the applicant's geotechnical advisers and planners. The applicant declined to provide any further information.

2 Scope and purpose of memo

2.1 Scope

The scope of this memo is to provide a high-level assessment of the submission, RFI response and supplementary information provided by the applicant.

2.2 Purpose and limitations

The purpose of this review is to assess if the response to the Request for Further Information submitted by Oyster is sufficient to inform Council's consideration of the application under Clause 25 of the RMA, on a sufficiently informed basis.

This report is provided expressly for advising Auckland Council Plans and Places. It is not intended to be used or copied in whole or part for other audiences or purposes without the prior approval of Auckland Council Engineering & Technical Services.

3 Bibliography and references

The following documents have been reviewed for this memo:

- Oyster Capital – Waihoehoe Plan Change Request (Lander Geotechnical Ltd., reference J00784, dated 18 March 2020).
- Planning and engineering guidance for potentially liquefaction-prone land, Resource Management Act and Building Act aspects (MBIE, EQC, MFE, dated September 2017).

4 Discussion

4.1 General

From a geotechnical perspective, areas where the level of detail originally provided was considered to have been inadequately assessed in terms of the impact on the development potential of the site fell into two categories:

- The adequacy of the geotechnical investigations (distribution and total number of investigation points).
- The lack of high-level consolidation and liquefaction assessment to inform an analysis of benefits and costs, and the efficiency and effectiveness, and any possible alternatives to the request.

4.2 Geotechnical investigations

The geotechnical report included with the submission referenced geotechnical investigations but did not provide the supporting factual data. This information was requested by Council in the RFI, and again at a meeting following submission of the RFI response but has not been provided by the applicant.

Recommendations relating to the distribution and density of investigation points as well as the coverage of the various geological units which forms the basis of an assessment suitable for Plan Change decision making is outlined in what we consider to be current best practice guidelines (MBIE, 2017). Although the geotechnical report included in the submission and the RFI response refer to site-specific investigations carried out, supporting information has not been provided and we therefore cannot comment on its adequacy for the purpose of supporting a Plan Change assessment. Failure to provide this basic information represents a gap in the information that must be identified to Council as a risk to inform the decisions to adopt/accept/reject the plan change.

4.3 Assessment of ground related hazards

The applicant has not adequately addressed the potential impacts of ground related hazards (geohazards) on the proposed development. Current best practice guidance (MBIE, 2017) clearly outlines a risk-based approach to assessing liquefaction risk in land-use planning and development decision making. The applicant acknowledged that they were not aware of the guidelines and therefore did not consider them in their assessment.

The submission report states that foundations on inorganic natural ground on the site could be designed in accordance with NZS 3604. However, laboratory testing carried out on two soil samples indicates that the soils properties are such that they would be excluded from the definition of good ground in NZS3604:2011 and thus require specific foundation design, i.e. cannot be designed in accordance with NZS 3604:2011. The RFI response suggests that such considerations are a Resource consent matter. We consider that an understanding around whether or not foundations on the site can be constructed in accordance NZS 3604 is fundamental to planning and development decision making and such matters should be addressed as part

of the submission. The failure to adequately respond to the RFI represents a gap in the information that must be identified to Council as a risk to inform the decisions to adopt/accept/reject the plan change.

There are errors in the way peak ground acceleration (PGA) has been derived, PGA is a key input into the assessment of Liquefaction. The RFI response suggests that the PGA has been reduced to a figure lower than what is required in New Zealand standards, this being on the basis of 'experience'. It is our view that to reduce PGA below the minimum required by New Zealand standards affects the assessment of liquefaction risk at the site and represents a gap in the information that must be identified to Council as a risk to inform the decisions to adopt/accept/reject the plan change.

This review considers that there is significant residual uncertainty around the potential to develop the site in a cost-effective manner and to adequately assess the effect on the environment due to:

- Using methods of assessment not in line with geotechnical best practice (i.e. reduced PGA values),
- the lack of supporting information (ground investigation data)

The likely consequence of this is significant additional work at resource consent stage, with Council being exposed to much of the residual risk/uncertainty. It is also possible that deferral of such assessments could result in the entire plan change area being reconsidered if mitigation measures are found to be prohibitively expensive to implement. There are recent examples where these risks have impacted on developments.

Further, it should be noted that the level of geohazard assessment presented in the submission is not consistent with the level of detail that other disciplines (e.g. transport and stormwater) have presented as part of the same application.

5 Conclusions

It was requested that the applicant update their submission to provide ground investigation data, update portions of the report where erroneous statements had been made (i.e. remove reference to the foundations being constructed in accordance with NZS 3604 and update PGA calculations), include a high level assessment of liquefaction and consolidation risk, and to consider and discuss the constraints and opportunities associated with geohazards on the site.

The applicant's response indicates that they lack a full understanding of New Zealand standards and best practice and propose to carry out high level assessments at Resource/Building Consent stage.

We consider that the available best practice guidelines clearly set out the level of detail required of a Plan Change assessment, we also consider that the submission currently does not align with these guidelines and does not adequately address liquefaction and consolidation in a way that informs Council on the benefits and costs, and the efficiency and effectiveness, and any possible alternatives to the request. We consider that the reduction of design parameters below the minimum required in New Zealand standards is not adequate.

6 Summary comments

We consider that the failure to provide supporting ground investigation information presents an increased risk to council.

We consider that liquefaction and consolidation effects (including using a suitable PGA) and mitigation measures are not adequately addressed in the submission. Specific concerns relate to the potential for significant risks to be identified after a decision on the Plan Changed has been made, resulting in increased risk exposure to council both reputationally and financially.

No further information is required from the applicant in regard to the clause 23 response.

Concerns are being noted here to inform Council's consideration of the application under clause 25 of the RMA on a sufficiently informed basis.

7 Quality assurance

Reviewed and approved for release by

Reviewer

Charlie Brightman, Principal Geotechnical Specialist. 14/05/2020

This memo is satisfactorily completed to fulfil the objectives of the scope. I have reviewed, and quality checked all information included in this memo

Author

Claudia Harford

File location

<https://aklcouncil.sharepoint.com/sites/EXT/ETS/Shared Documents/Memo template ETS.docx>

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Appendix A Oyster Capital Ltd. – Drury East Private Plan
Change Request

Appendix A.1 AKLC-1201561183-506 [V1]

Memo (technical specialist report to contribute towards Council's section 42A hearing report)

13 May 2021

To: David Mead, Hill Young Cooper Ltd
From: Maylene Barrett, Principal Specialist, Parks Planning

Subject: Private Plan Change – PC50 Waihoehoe Precinct, Drury – Parks, Sports and Recreation Assessment

1.0 Introduction

- 1.1 I have undertaken a review of the private plan change, on behalf of Auckland Council in relation to Parks Sport and Recreation (PSR) effects.
- 1.2 I hold a Master of Planning Practice from Auckland University, a Bachelor of Science from Auckland University majoring in Biological Sciences, and a Bachelor of Business from Massey University with a major in Environmental Economics.
- 1.3 I have 19 years of experience in environmental planning, parks planning and project management. I have been employed by Council in the Parks Planning team since July 2014. During that time I have gained extensive experience implementing Precinct plans by providing parks specialist input to the subdivision process, and also the preparation of parks planning advice to several private plan changes.
- 1.4 I was not able to undertake a site visit prior to preparing my report, and have relied on aerial photos and the application material to understand the environment present.
- 1.5 In writing this memo, I have reviewed the following documents:
 - Final Waihoehoe Road Plan Change Section 32 Evaluation
 - Appendix 1 – Waihoehoe Plan Change Final
 - Appendix 4 – Analysis of Alternative Staging
 - Appendix 5 – Auckland Unitary Plan Objectives and Policies
 - Appendix 6 – Urban Design Assessment
 - Appendix 7 – Landscape and Visual Assessment
 - Appendix 10- Ecological report
 - Appendix 11 – Engineering and Infrastructure Report
 - Appendix 12 – Geotechnical Report
 - Appendix 13 – Preliminary Site Investigation Report
 - Appendix 14 – Archaeological Assessment
 - Appendix 15 – Consultation Report
 - Appendix 16 – Cultural Value Assessment – Ngati Te Ata
 - Appendix 17 – Cultural Value Assessment – Ngati Tai Ki Tamaki
 - Appendix 18 – Cultural Value Assessment – Te Akitai
 - Appendix 19 – Cultural Value Assessment – Ngati Tamaoho
- 1.6 Auckland Council documents referred to include
 - Drury Opaheke Structure Plan 2019
 - Papakura Greenways: September 2016
 - Parks and Open space Acquisition Policy 2013
 - Open Space Provision Policy 2016

2.0 Key Parks, Open Space, Sports and Recreation Issues

2.1 This assessment covers the open space provision of the Precinct plan that may be vested in Council with regards to local park provision, riparian reserves to support a greenway network, drainage reserve and esplanade purposes.

Neighbourhood Park provision

- 2.2 The PC50 plan change area proposes the following rezoning of Future Urban zoned land (FUZ) to:
- 10.7Ha of Residential – Terraced Housing and Apartment Buildings Zone (THAB); and
 - 14.8 Ha of Residential – Mixed Housing Urban Zone (MHU).
- 2.4 The proposal is to rezone the whole precinct plan area of 25.5Ha to areas that provide for medium and high density residential development.
- 2.5 The description of neighbourhood parks in the 'Open Space Provision Policy 2016' is that their function is to offer informal recreation and social opportunities within a short walk of surrounding residential areas. Provision targets for neighbourhood parks are that they are available within 400m walking distance to residents in high and medium density areas. There is no indicative local park recreation open space shown in the applicant's proposed precinct plan which is inconsistent with council open space policy which indicates a potential new neighbourhood park (size 0.3-0.5Ha). A connected open space network is key in this policy, and directives include to 'Create a connected network of parks, open spaces and streets that delivers a variety of recreation, ecological, transport, stormwater, landscape and health benefits', and that open spaces are linked together so that 'Open space is core infrastructure that people use to get around their community'. The need for one neighbourhood park for this precinct plan is calculated using the expected catchment area which is a 300m radial distance proxy for walking distance. For a high and medium density area this would provide for a catchment area of 28.3 hectares which is the area of a circle with a 300m radius.
- 2.6 The lack of open space indicated on the precinct plan maps or within the urban design assessment or application documents means that there is the potential for an under provision of public recreational open space. The Open Space Provision Policy indicates that there should be a neighbourhood park located on the precinct plan and there is one shown on the Drury Opaheke Structure Plan (See figure 3). The submission received by Auckland Council has also identified an indicative location for the proposed local park which is supported (see figure 2). Council does not anticipate that local park land acquired for the purposes of playgrounds and kickaround areas would be provided within the flood prone land intended to be drainage reserves.

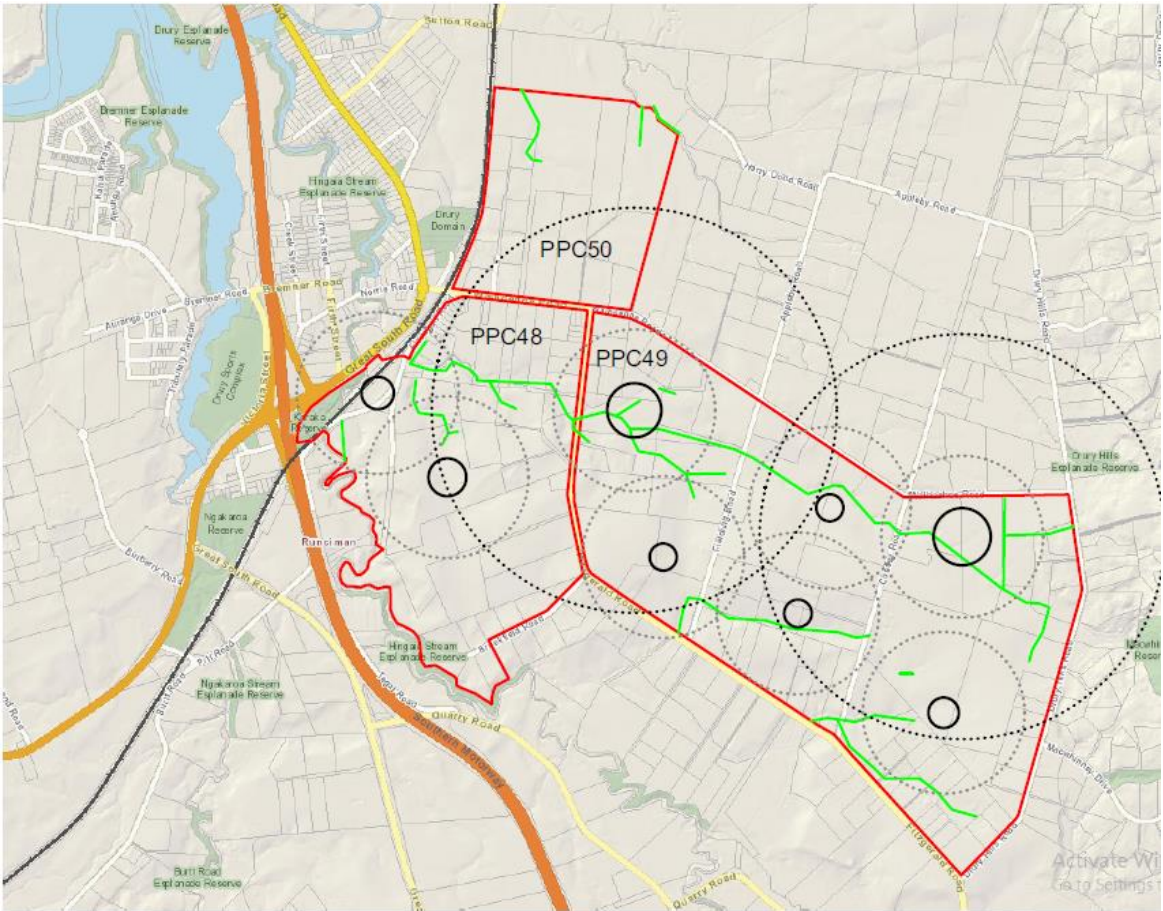


Figure 1 Neighbourhood parks (smaller circles) and Suburb parks (larger circles) proposed by PPC 48, 49 and 50 – showing walking catchments

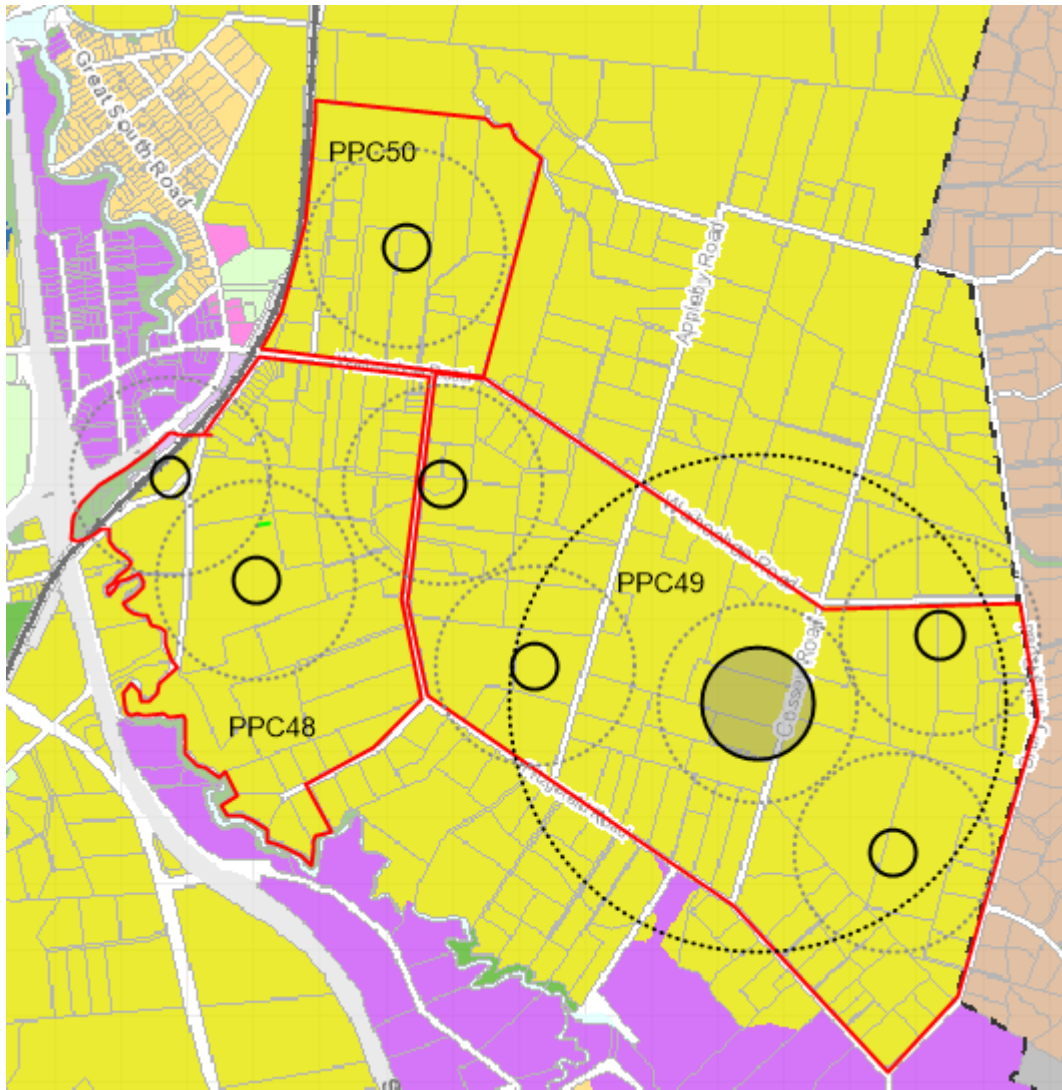


Figure Neighbourhood parks (smaller circles) and Suburb parks (larger circles) proposed by Auckland Council submission – showing walking catchments

2.7 The urban design report by Holistic Urban Environments references the Council's Drury Opaheke Structure Plan but does not discuss the proposed need for a local park. The Figure 9 Opportunities and Constraints diagram on page 10 shows the indicative flood plain areas and streams but does not indicate a potential location for a local park. Figure 10 of the proposed structure plan on page 13 does not show any location for a local park but does provide for existing wetlands, green links/swales, drainage reserves, and park edge roads.

Greenways, green corridors and Esplanade Reserves

- 2.8 There is no Auckland Council Local Board greenway plan for the Drury-Opaheke area. In the absence of a greenway plan for Drury East it would be recommended that a greenway walkway network is indicated on the Precinct plan maps. Spatial provisions are recommended to show an open space network.
- 2.9 Objective B2.7.1(2) of the Auckland Regional Policy Statement requires that public access to and along the coastal marine area, lakes, rivers, streams, and wetlands is maintained and enhanced. It is anticipated that an Esplanade Reserve will be required adjacent to the Waihoihoi stream in the north of the precinct plan change area.
- 2.10 The proposed movement network at 4.2 of the Urban Design Assessment identifies areas for a potential off road pedestrian cycle network in addition to on road and park edge road pedestrian and cycle facilities. This has the potential to provide a network of walkways within the proposed drainage and riparian reserve network however, it isn't shown on the precinct plans.

2.11 The urban design assessment prepared by Holistic Urban Environments talks about green links (swales) at paragraph 4.6 on page 17. The green links are proposed as stormwater treatment devices and are proposed to be within a publicly vested road reserve or private lane.

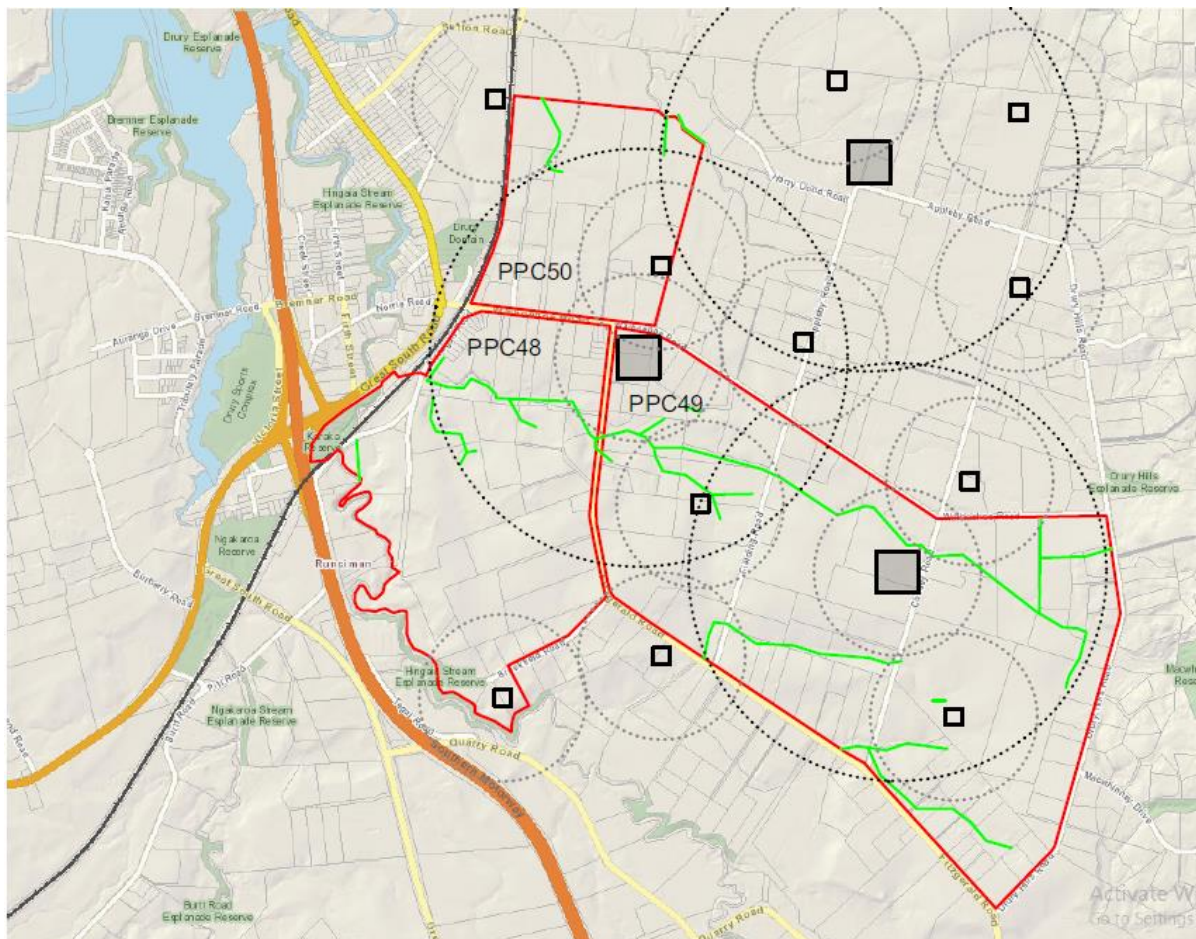


Figure 3 Open Space anticipated by Drury Opaheke Structure Plan for PPC 48, 49 and 50 for context.

2.12 At 3.6 titled proximity to amenity, the urban design assessment prepared by Holistic Urban Environments does not mention the proposed extension of the shared path/cycleway alongside the western side of the motorway as part of the Government’s New Zealand Upgrade Programme upgrade of the motorway from Papakura to Drury South. The precinct plan is recommended to be future proofed to allow for active transport linkages, both on road and off road greenway networks allowing for residents to access the proposed cycleway.

2.13 Open space provision within the precinct is limited to drainage reserves and it is anticipated that this will provide for all recreational opportunities within the precinct. It is proposed in the precinct plan that 18.2Ha of drainage reserve is provided around the existing intermittent streams and flood sensitive prone areas associated with Slippery Creek. The Urban Design assessment includes indicative open spaces and makes the following comments:

- *“Drainage reserves are proposed along the streams which will provide access to the existing natural watercourses. These drainage reserves are multi-purpose linear parks that provide recreational and passive open space, visual amenity and areas for stormwater management.*
- *A larger drainage reserve is shown north of the Plan Change area over the Slippery Creek floodplain. Due to the size of this drainage reserve, this has the potential to be converted to a neighbourhood park subject to consultation with Auckland Council.*

- *Opportunities for playgrounds, small pocket park spaces and other similarly scaled recreational activities are also anticipated to be accommodated along the edges of, and within these drainage reserve corridors, adding to and enhancing the stream-based amenity of the development.”*

2.14 The proposed movement network at figure 11 on page 14 of the Holistic Urban Environments Ltd Urban Design assessment shows potential off-road pedestrian/cycle connections that join up to the park edge road network. This off-road pedestrian/cycle network is proposed to be located within the stormwater management areas (open space).



Existing Open Space network

2.8 With regards to the existing open space network, Drury Domain is to the west of the plan change area located directly across the rail corridor. Drury Domain is a 2.77Ha suburb park and contains sports fields, a hall, a library, playground and carparking. The Drury Sports complex is also located within the Drury Domain.

3.0 Applicant's assessment

- 3.1 In the Section 32 Evaluation the applicant has suggested that the proposed drainage reserve network should also accommodate linear parks that provide recreational and passive open space as well as stormwater management. It is suggested that the drainage reserve proposed over the Waihoihoi stream floodplain be also used to accommodate a neighbourhood park. It is proposed that small pocket park spaces to accommodate playgrounds are anticipated along the edges of the linear park and drainage reserve corridors.
- 3.2 In the Waihoehoe Road plan change Section 32 Evaluation on page 23 it states that the new drainage reserves/open spaces will be developed in accordance with E38 Subdivision – Urban but no further clarification is provided.
- 3.3 At section 8.1.4 of the Section 32 Evaluation it states that *“the proposed precinct plan also shows drainage reserves along the existing Waihoehoe Stream and over the Slippery Creek flood plain. Riparian enhancement will occur as part of the development of these reserves”*. However, there is no reference in the Waihoehoe plan change document to any precinct plan maps showing drainage reserves, or an indicative open space network.
- 3.4 At section 8.2.3 of the Section 32 Evaluation the author discusses Open space and Community Facilities. The author mentions the Open Space provision policy 2016; the Parks and Open space Acquisition Policy 2013; and the Community Facilities Network and Action Plan 2015 which have been taken into account in the preparation of the open space strategy for the plan change but there is no reference to how.
- 3.5 At 9.2 of the Section 32 evaluation a discussion of Oyster's Masterplan which is shown in the Urban design assessment, the author provides reference to the masterplan which provides for locations for indicative collector and local roading patterns, positioning of key access points, roading connections and drainage reserves/public open spaces, and general block layout. The masterplan can be found in the Urban Design assessment but cannot be found in the precinct plan maps. The Figure 21 illustrative masterplan on page 25 of the Holistic Urban Environments Ltd Urban Design Assessment includes a note: *“This illustrative Masterplan shows how the plan change area could potentially look once fully developed in accordance to the proposed structure plan and planning controls. This is only one possible outcome of many possible outcomes”*
- 3.6 In the Section 32 Evaluation at section 10.2 Open Space and Community Facilities it is stated that *“Open Space within the plan change area has been developed around the existing intermittent streams and flood sensitive prone areas associated with the Slippery Creek.”*
- 3.7 In the Section 32 Evaluation at 10.2, it is stated that:
- *Drainage reserves are proposed along the streams which will provide access to the existing natural watercourses. These drainage reserves are multi-purpose linear parks that provide recreational and passive open space, visual amenity and areas for stormwater management.*
 - *A larger drainage reserve is shown north of the Plan Change area over the Slippery Creek floodplain. Due to the size of this drainage reserve, this has the potential to be converted to a neighbourhood park subject to consultation with Auckland Council.*
 - *Opportunities for playgrounds, small pocket park spaces and other similarly scaled recreational activities are also anticipated to be accommodated along the edges of, and within these drainage reserve corridors, adding to and enhancing the stream-based amenity of the development.*
- 3.8 The applicant references that the urban subdivision provisions included in the chapter E38 of the AUP will apply within the plan change area, in particular Policy E38.3(18) which requires subdivision to provide for the recreation and amenity needs of residents by providing for open spaces which are prominent, sufficiently sized to cater for future residents and enable pedestrian and/or cycle linkages. The pedestrian and/or cycle linkages are not indicated on the masterplan, precinct plans or within the precinct plan wording but are indicated on the Holistic Urban Environments Urban design assessment within the proposed structure plan at figure 11 page 14.

- 3.9 The Section 32 Evaluation assumes that Policy E38.3 (18) ensures there are provisions in place to provide for recreation and amenity needs but doesn't go into detail as to how. *“This will ensure that there are provisions in place to ensure there is accessible open spaces of a range of sizes to service the future population consistent with the Council's Open Space Provision Policy, while allowing flexibility to ensure that the final layout of open spaces within the Plan Change area can be determined through the resource consent process once a final design is settled on.”*
- 3.10 It is recommended that indicative locations of the local park and the drainage reserves as ecological corridors are shown on the precinct plan. It is recommended that in addition to Policy E38.3(18) and the suite of Parks acquisition policy documents that an appropriate location for local parks is determined as part of the plan change process to guide the implementation of Policy E38.3(18).

Review summary

- 3.11 It is my assessment that the plan change as proposed does not provide sufficient assurance that the outcomes anticipated by the RPS, the National Policy Statement on Urban Development or Auckland Council's policies and plans to provide for a connected and integrated open space network as indicated in the background documents supporting the plan change will be achieved in the implementation stage of the resource consent process. It is not guaranteed that the appropriate level of community infrastructure and open space will be provided.

6.0 ILLUSTRATIVE MASTERPLAN



Figure 21 - Illustrative Masterplan

Note: This Illustrative Masterplan shows how the Plan Change Area could potentially look once fully developed in accordance to the Proposed Structure Plan and planning controls. This is only one possible outcome of many possible solutions.

4.0 Assessment of Parks Sports and Recreation effects and management methods

4.1 The regulatory framework for Parks, Sport and Recreation assessment is set out within the below regulatory mechanisms, with key points noted:

Esplanade Reserve provision

4.2 The Resource Management Act 1991, which at s229 and 230 requires the provision of esplanade reserves for the purposes of protecting conservation values, and enabling public access and recreational use to or along any sea, river, or lake.

National Policy Statement on Urban Development 2020

- 4.3 The National Policy Statement Urban Development (NPSUD) 2020 which at Policy 2.2, requires urban environments have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport. This policy statement requires at 3.5 that Local Authorities must be satisfied that the additional infrastructure (including public open space) to service the proposed development capacity will be available. This application fails to demonstrate that necessary community infrastructure will be provided in relation to greenways and open space provision. The application does not include reference to the need for a neighbourhood park within the plan change area or include an indicative location for this park anywhere on a precinct plan map.

National Policy Statement for Freshwater Management (NPSFM)

- 4.4 The National Policy Statement for Freshwater Management (NPSFM) which, at Policies 6 and & 7 require that there is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted, and the loss of river extent and values is avoided to the extent practicable.

Auckland Unitary Plan: Auckland Regional Policy Statement and Objectives and Policies

- 4.5 The Auckland Regional Policy Statement, which at B2.7 Open space and recreation facilities has the following Objectives and Policies:

B2.7.1. Objectives

- (1) Recreational needs of people and communities are met through the provision of a range of quality open spaces and recreation facilities.
- (2) Public access to and along Auckland's coastline, coastal marine area, lakes, rivers, streams and wetlands is maintained and enhanced.
- (3) Reverse sensitivity effects between open spaces and recreation facilities and neighbouring land uses are avoided, remedied or mitigated.

B2.7.2. Policies

- (1) Enable the development and use of a wide range of open spaces and recreation facilities to provide a variety of activities, experiences and functions.
- (2) Promote the physical connection of open spaces to enable people and wildlife to move around efficiently and safely.
- (3) Provide a range of open spaces and recreation facilities in locations that are accessible to people and communities.
- (4) Provide open spaces and recreation facilities in areas where there is an existing or anticipated deficiency.
- (5) Enable the development and use of existing and new major recreation facilities.
- (6) Encourage major recreation facilities in locations that are convenient and accessible to people and communities by a range of transportation modes.
- (7) Avoid, remedy or mitigate significant adverse effects of land use or development on open spaces and recreation facilities.
- (8) Avoid, remedy or mitigate significant adverse effects from the use of open spaces and recreational facilities on nearby residents and communities.

(9) Enable public access to lakes, rivers, streams, wetlands and the coastal marine area by enabling public facilities and by seeking agreements with private landowners where appropriate.

(10) Limit public access to and along the coastal marine area, lakes, rivers, streams and wetlands by esplanade reserves, esplanade strips or other legal mechanisms where necessary for health, safety or security reasons or to protect significant natural or physical resources.

The Auckland Unitary Plan framework, in particular:

- 4.6 Open Space Zone – Objective H7.2.(1) Recreational needs are met through the provision of a range of quality open space areas that provide for both passive and active activities and (2) The adverse effects of use and development of open space areas on residents, communities and the environment are avoided, remedied or mitigated.
- 4.7 Subdivision Urban - Objective E38.2.3 Land is vested to provide for esplanades reserves, roads, stormwater, infrastructure and other purposes.
- 4.8 Subdivision Urban - Policy E38.3(18) which requires that subdivision provides for the recreation and amenity needs of residents by providing for open spaces that are prominent, and appropriately sized to cater for future residents and enable pedestrian or cycle linkages.

Review summary

- 4.9 The plan change as proposed does not provide sufficient in the information contained within it, that the outcomes anticipated by the AUP, the National Policy Statement on Urban Development or Auckland Council policies and plans and that the plan change will sufficiently guide the implementation through the resource consent process in the provision of the required open space network.

Recommended changes to the proposed Plan Change Text to provide for an open space network:

Objectives and Policies in the Precinct

Precinct description

The precinct description states “There is a network of streams throughout the Waihoehoe precinct, including the Waihoihoi stream. The precinct seeks to maintain and enhance these waterways and integrate them with the open space network as a key feature.”

- 4.10 There is no wording in the precinct description that talks about the network of streams or drainage areas providing an open space network of greenways, walkways and cycleways, and this is recommended to be added.
- 4.11 The objectives and policies could be strengthened to demonstrate how a network of tracks and walkways along streams, parks and open space is integral to the Waihoehoe precinct that are considered relevant to the open space network. There is a lack of policies that describe how the precinct plan enables the integration of pedestrian links and greenway networks and open space to coordinate infrastructure and open space provision.
- 4.12 The following objectives and policies are suggested as an amendment to the Precinct Plan to give some strength to the precinct description and how to interpret the recommended precinct plan maps (not currently included in the plan change):

Add the following Objectives to the Precinct Plan:

- (5) Parks and open space green corridors are provided along the stream network and off road accessways to achieve an integrated, attractive and safe open space network across the precinct that integrates stormwater management, and ecological and recreational functions, while enhancing the amenity of cyclists and pedestrians who will have access through these open space areas.
- (6) Recognising the importance of the stream network and its connection to Waihoihoi stream while providing for the protection of ecological function and providing for passive recreational opportunities alongside the stream network as part of the greenway network.

Make the following additions to the policies as follows:

- (2) Ensure that development provides a local road network that achieves a highly connected street layout that integrates with the collector road network within the precinct and the and surrounding transport network, and supports the safety and amenity of the open space and stream network.
- (4) In addition to matters (a)-(c) of Policy E38.3.18, ensure the location and design of publicly accessible open spaces contribute to a sense of place for Waihoehoe Precinct, by incorporating any distinctive site features and integrating with the stream network. If Auckland Council ownership is proposed, the open spaces must be consistent with the council's open space and parks acquisition and provision policies.
- (8) Enable extensive active walking and cycling network and futureproof key walkway/cycleway routes including along the indicative greenway route, stream network, and areas of open space in a manner that encourages movement within the precinct and toward Waihoihoi stream and the proposed southern motorway cycleway and offer to Council for vesting these key routes in the Council.
- (9) Ensure the configuration of sites and dwellings creates a positive frontage to any adjacent roads, parks and open spaces and encourages passive surveillance and enhances perceptions of safety.
- (10) Ensure open space areas within the precinct are accessible by pedestrians and cyclists and contribute to the character and amenity of the precinct by using existing elements of the natural landscape where practicable.

There are no standards or assessment criteria relating to the open space and greenway network.

Subdivision Standards

The following should be a standard and be an amendment to the precinct plan to replace IX.6.3 Riparian margins:

Purpose: to maintain and enhance water quality and aquatic habitats; enhance existing native vegetation; and reduce stream bank erosion

- (1) Riparian Margins of permanent or intermittent streams must be planted either side to a minimum width of 10m measured from the top of bank of the stream, or from the centreline of the stream where the bank cannot be physically identified by ground survey. This rule shall not apply to road crossings over streams.
- (2) Riparian margins identified must be planted in accordance with a council approved landscape plan and shall use eco-sourced native vegetation, be consistent with local biodiversity and planted at a density of 10,000 plants per hectare.
- (3) Pedestrian/cycle paths shall be located adjacent to, and not within the 10m planted strip.
- (4) Riparian margins may be offered to Council for vesting at no cost to Council where a walkway is to be provided, and where there is a greenway link indicated on the Precinct Plan or Drury Opaheke Structure Plan. This should be on land vested to a minimum of 20m either side of a permanent stream with at least the first 10m width planted.

Add the following new standards:

IXXX6.10 Sites adjoining public open space

Purpose: To provide privacy for dwellings while enabling opportunities for passive surveillance of the open space.

(1) Where a site or dwelling adjoins open space shown on the Waihoehoe Precinct plan the following must apply:

(a) fences or walls or a combination of these structures within the yard adjoining the open space must not exceed either:

(i) 1.2m in height, measured from the ground level at the boundary; or

(ii) 1.8m in height provided that any fencing above 1.2m in height is at least 50% visually open.

IX.8.2 Assessment criteria

(1) Development of public and private roads:

Location of roads

(c) Whether roads are aligned with the stream network, or whether pedestrian and/or cycle paths are provided along one or both sides of the stream network, where they would logically form part of an integrated open space network.

(d) Where pedestrian and/or cycle paths are proposed within proposed open spaces, whether they are located adjacent to, and not within the 10m planted riparian area.

(2) Greenways

(xii) The greenways shown on Precinct Plan:

- Where they are on land subject to a subdivision that contains a stream that does not qualify for esplanade reserve, if the reserve is vested in Council, the walkway shall be provided in addition to the 10m riparian margin so a 20m riparian reserve is to be vested.
- Where there is no stream where the off-road greenway is indicated this shall be a minimum width of 10m where it is to be vested.
- where they are on land subject to any resource consent application, are constructed to a walking track standard similar to that constructed in Regional Parks, and may be vested in the Council, or in the case where the greenway follows vested roads, constructed to normal footpath standards as appropriate;
- connections to greenways on public or private land outside the land subject to resource consent, are futureproofed by constructing track access to the boundary of the application site.

(xii) A walkway network, generally in accordance with Precinct Plan xx including roads and open space area, is created to ensure an interconnected neighbourhood.

(4) Open Space Insert a precinct plan map showing an indicative open space network, including greenway networks and the indicative location of open space

IX.9 Special information requirements

(1) Riparian Planting

An application for land modification, development and subdivision which adjoins a permanent or intermittent stream must be accompanied by a riparian planting plan identifying the location, species, planter bag size and to a density of 10,000 plants per hectare of the plants. Plant species should be predominantly native eco-sourced native vegetation.

(2) Permanent and intermittent streams and wetlands

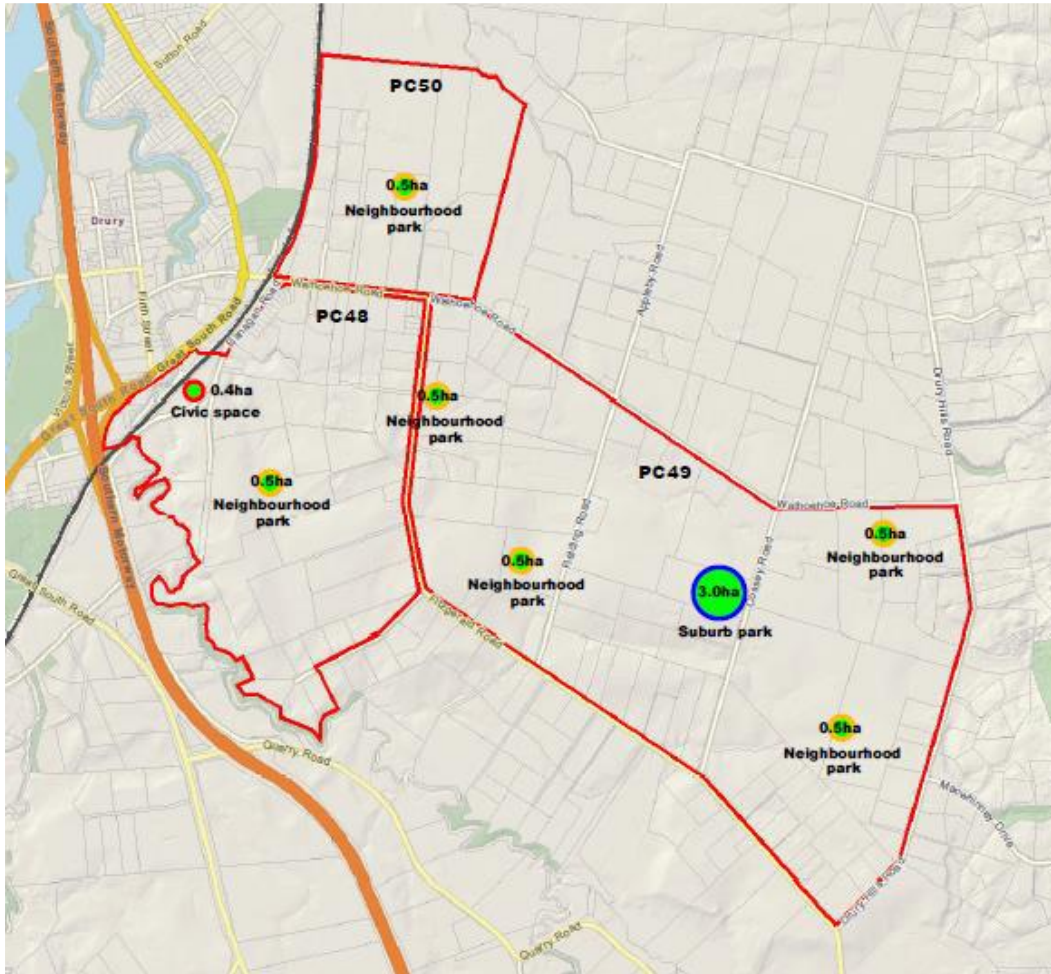
All applications for land modification, development and subdivision must include a plan identifying all permanent and intermittent streams and wetlands on the application site.

5.0 Submissions

Sub #	Sub point	Submitter	Summary	Response
7	3.1	Oyster Capital	Achieves objective of providing a network of open space which integrates with the natural features of the area	Do not support , there is an additional need for a local park as indicated in the Auckland Council submission
10		Chunfeng_Wang	Concerns relating to treatment of natural features and watercourses. Do not support that one third of the plan change site (18.2Ha) is required to be retained as open space (drainage reserve). Does not support their property being regarded as floodplain as it means it won't be suitable for development. Seeks that the applicant deals with stormwater management within its own site, and any adverse effects of intensive development within its own site does not affect adjoining landowners.	Neither support nor oppose. A decision on the acceptance of drainage reserve for land subject to flooding will be made at resource consent stage. Defer to Healthy Waters.
19		Ministry of Housing and Urban Development	Requests that further open space is zoned within the PC 49 area (which does not relate to this PPC).	Support if submission is made in relation to PPC 50 While the submission refers to a different private plan, this may have been an error. Agreed, there is a shortage of usable public recreational open space proposed in the plan change area. The Council will be seeking to acquire a relatively level neighbourhood park in the area indicated on the Auckland Council submission.
20	20.12	Ngati te Ata	Provide a minimum of 20m riparian margin for all waterways especially those that contain walkways/cycleways. Incorporate park edge design to all waterways. Te Aranga principles incorporated in design concepts.	Support. However, the precinct plan needs a map to show a greenway network of walkways/cycleways along the green links and connecting via the road network
21	20.19	Auckland Council	Auckland Council has criteria for purchase or other acquisition of land for public open space. These are set out in policy documents. It is important that these criteria are considered early during planning of public open space if public ownership of the land is intended. The council will not necessarily	Agreed

			<p>agree to purchase or receive proposed open space that does not meet these criteria.</p> <p><u>Relief sought:</u></p> <p>Amend policy IX.3(4) to read: In addition to matters (a)-(c) of Policy E38.3.18, ensure that the location and design of publicly accessible open spaces contribute to a sense of place for Drury East, by incorporating any distinctive site features and integrating with the stream network. Also, if Auckland Council ownership is proposed, the open spaces must be consistent with the council's open space and parks acquisition and provision policies.</p>	
21	21.20	Auckland Council	<p>To provide a transparent starting point for discussion between the council and landowners/developers it is recommended that indicative public open spaces are shown on the precinct plan. The plan attached to this submission (Attachment 1) indicates approximate location, type and quantum of public open space for civic, neighbourhood and suburb scale parks consistent with Auckland Council open space policies and supportable for acquisition by the council (subject to political approval).</p> <p><u>Relief sought:</u></p> <p>Include indicative open spaces in the precinct plan as shown in Attachment 1 to this submission.</p>	<p>Support. Show an indicative open space network on a precinct plan map showing a single neighbourhood park proposed of 0.5Ha centrally located within the precinct plan</p>
24		Ministry of Education	<p>Amendments sought to ensure there is provision of appropriate public open space to support surrounding community.</p>	<p>Support, there is a shortage of usable public recreational open space proposed in the plan change area. The Council will be seeking to acquire a relatively level neighbourhood park in the area indicated on the Auckland Council submission.</p>
25		Leith McFadden	<p>Zone areas for parks and public space</p>	<p>Do not support. An area for a park needs to be indicated on the precinct plan, however, this does not need to be zoned as open space until after the</p>

				subdivision creating the new open space.
26	26.5.6	Heritage New Zealand Pohere Taonga	Riparian margins are requested to be subject to an archaeological assessment so planting avoids archaeological sites.	Neither support or oppose
26	26.5.7	Heritage New Zealand Pohere Taonga	Recommend an interpretation plan for all plan changes that includes place-shaping, place-naming, colour schemes, design references, public artworks and other heritage interpretation. Develop a heritage trail to support local identity and enhance public understanding of historic heritage places through improved public access, continuous esplanade reserves, presentation, interpretation and maintenance of significant historic heritage.	Support in principle where it relates to esplanade/drainage/riparian reserves to be vested in Auckland Council. It is consistent with the Auckland Council's 'Parks and Open Spaces Strategic Action Plan 2013: Areas of Focus: Treasure our parks and open spaces.
29	29.2	NZTA	References to pedestrians and cyclists should be replaced with "active transport".	Support in principle.
29	29.7	NZTA	Include active transport in IX.2 Objective 1	Support in principle
34	34.12	Ngati Tamaoho	<ul style="list-style-type: none"> - A minimum of 20m riparian margin for waterways, especially those with walkways/cycleways - park edge design adjacent to waterways - native trees and plants only within the precinct 	Support. It should also be reiterated that there should be a precinct plan map showing an indicated greenway network showing where walkways along waterways will be anticipated



Attachment 1: Auckland Council submission

5 Conclusions and recommendations

- 5.1 The current proposal does not establish adequate provision for neighbourhood parks which would be one neighbourhood park. There should be a local park of 3000-5000m² shown on the proposed Waihoehoe Precinct Plan in the indicative location shown on the Auckland Council submission (the exact location can be refined through the subdivision and resource consenting processes). The proposal is not consistent with the Regional Policy Statement or the AUP which require that open spaces are provided for the recreation and amenity needs of residents, (RPS Objective B2.7.1, B2.7.2, AUP Subdivision Policy E38.3). Neighbourhood park provision does not meet the anticipated outcomes of the 'Open Space Provision Policy' and does not provide assurance that additional infrastructure is available for the current plan change as required by the National Policy Statement on Urban Development.
- 5.2 No wording should be added to the proposed plan change that implies (and potentially creates a legitimate expectation) that any of the indicative open space on proposed Waihoehoe Precinct Plan will be acquired by the Council. This includes land identified as drainage reserve, or land underlying the indicative greenway routes and the 3000-5000m² shown on the Drury Opaheke Structure Plan and the Auckland Council submission. This also applies to land that is to be acquired at no cost (land acquisition can be addressed during the subdivision and resource consenting processes).
- 5.3 The private plan change is not supported as it needs to include a precinct plan map that includes indicative locations of open space, streams to be retained and riparian areas to be enhanced, proposed esplanade reserve along the Waihoehoe stream, wetlands to be retained, and an indicative greenway route.

21 June 2021

To: David Mead, Consultant Planner, Auckland Council
From: Trent Sunich, Consultant Stormwater Technical Specialist

Subject: Private Plan Change – PPC50 Waihoehoe Precinct, Drury – Stormwater Assessment

1.0 Introduction

I have undertaken a review of the private plan change, on behalf of Auckland Council in relation to stormwater management associated with the development of the precinct.

I hold a Bachelor of Technology (Environmental) which I obtained from the Unitec Institute of Technology in 2001. I have approximately 20 years' experience in the field of natural resource planning and environmental engineering. My expertise is in integrated catchment management planning, stormwater quality management, and assessing associated development related effects where previously I have held roles with the Auckland Regional Council and URS New Zealand Limited. I am currently employed by 4Sight Consulting as a Senior Environmental Consultant.

In writing this memo, I have reviewed the following documents:

- Drury-Opaheke Structure Plan Future Urban Zone, Draft Stormwater Management Plan, April 2019.
- S32 Assessment Waihoehoe Private Plan Change Request, May 2020.
- Drury East – Waihoehoe Precinct Plan Change Area Stormwater Management Plan for 116 Waihoehoe Road and surrounds, Rev 4, dated June 2020.
- Waihoehoe Plan Change Request: Planning RFI Response 3 April 2020.
- Response to Auckland Council Further Information Request on Stormwater Matters for Drury East, dated 25 March 2020.
- Ngati Te Ata Cultural Values Assessment Report dated 2019.
- Drury/Opaheke Plan Change Cultural Values Assessment: Ngāti Tamaoho Trust.
- Ngai Tai Ki Tamaki Cultural Values Assessment, Fulton Hogan Plan Change Drury dated 19 March 2019.
- Te Akitai Cultural Values Assessment dated 2019.

2.0 Key Stormwater Management Issues

The private plan change proposes the development of approximately 49 hectares of future urban zoned land to a Mixed Housing – Urban, Mixed Housing Suburban and Terraced Housing Apartment Buildings zones. Land use in the proposed precinct area is currently rural type in pastoral farming with several large lot rural residential homes.

The natural topography within the plan change area generally drains in a north westerly direction and forms two sub-catchments. The southern sub-catchment drains to the railway culvert at the western property boundary, and the northern catchment drains to Waihoehoi Stream which connects with Slippery Creek. The Slippery Creek catchment discharges into the Drury Creek which is a Significant Ecological Area (SEA), Marine 1 and 2.

The proposed change in land use will be to a predominantly urban environment with the corresponding development of impervious surfaces increasing stormwater runoff flow volumes and flow rates along with the generation of stormwater borne contaminants associated with urban land use being total suspended solids, metals and hydrocarbons. The plan change is also currently subject to flooding at the northern end of the site adjacent to the wider Slippery Creek floodplain. Flood hazard is also evident due to the constriction provided by the railway culvert serving the southern catchment during the 100-year AEP rainfall event.

The applicant has proposed a set of stormwater management related objectives and policies as follows. These are in addition to the AUP(OP) objectives and policies. While in some case there is no direct reference to stormwater management, there is alignment with the concept of integrated management by seeking to manage receiving environment adverse effects:

IX.2 Objectives:

- (1) *Waihoehoe Precinct is a comprehensively developed residential environment that integrates with the Drury Centre and the natural environment, supports public transport use, and respects Mana Whenua values.*
- (3) *Development is supported by appropriate infrastructure.*
- (4) *Freshwater and sediment quality is progressively improved over time in the Drury Waihoehoe Precinct.*

IX.3 Policies

- (6) *Ensure that development in Drury East is coordinated with supporting stormwater, wastewater and water supply infrastructure.*
- (8) *Support improvements to water quality and habitat, including by providing planting on the riparian margins of permanent and intermittent streams.*
- (9) *Limit the maximum impervious area within Sub-precinct B to manage the stormwater runoff generated by a development to ensure that adverse flooding effects are avoided or mitigated. Provide opportunities to deliver a range of site sizes and densities in the Terrace Housing and Apartment Buildings zone.*
- (10) *In addition to the matters in Policy E1.3(8), manage erosion and associated effects on stream health and values arising from development in the precinct, and enable in-stream works to mitigate any effects.*

IX.6 Standards

IX.6.3 Riparian Margin

- (1) *Riparian margins of permanent or intermittent streams must be planted either side to a minimum width of 10m measured from the top of bank of the stream. This rule shall not apply to road crossings over streams.*
- (2) *A building, or parts of a building, must be setback at least 20m from the bank of a river or stream measuring 3m or more in width, consistent with the requirements of E38.7.3.2.*

IX.6.6 Stormwater Quality

- (1) *The activity rules and standards in E9 apply to development in the Drury Centre precinct as if the reference to 'high use roads', was a reference to 'all roads'.*

The proposed plan change is supported by a Stormwater Management Plan (SMP) which has been developed by the applicant's engineering consultant. SMP documents are required when development related stormwater infrastructure (e.g. stormwater pipes, outlets, treatment devices) is proposed to be vested as public assets with the Auckland Council. In most cases SMP documents also outline what form of stormwater mitigation will take place in private properties to support receiving environmental outcomes such as contaminant reduction, hydrology mitigation and flood hazard mitigation.

The Auckland Council's Healthy Waters department reviews each SMP document where the purpose is to have the document adopted under the Auckland Council's Stormwater Network Discharge Consent (NDC). The status of adoption means the stormwater mitigation proposed for the development aligns with the objectives and outcomes of the NDC and authorises future stormwater discharges under the NDC should the proposed plan change be approved. At the time of drafting this memorandum, Healthy Waters had reviewed the SMP document and had provided further comments for review by the applicant's engineering consultant.

Authorisation under the NDC is not mandatory where the alternative would be to seek stormwater discharge consents(s) through Chapter E8 of the AUP. However this would mean all stormwater infrastructure servicing the PCA would remain privately owned and operated which is an unlikely scenario at this scale of development.

3.0 Applicant's assessment

In the SMP document and corresponding reporting in the plan change request's Section 32 analysis, the applicant has outlined current and future site characteristics (e.g. topography, stream systems, site hydrology, flood plains), and in the context of the proposed land use types has detailed how adverse effects are proposed to be mitigated through selected stormwater methods that can be applied to a range of scenarios. The SMP has been developed in accordance with the Drury-Opaheke Structure Plan Future Urban Zone Stormwater Management Plan developed by the Auckland Council. The three main effects - contaminants management, hydrology mitigation and flood hazard management - are discussed as follows:

Stormwater Contaminants

The applicant has proposed to treat all impervious surfaces subject to varying volumes of traffic, this includes all roads and carparks (greater than 30 vehicles) utilising treatment devices compliant with the Auckland Council's GD01¹ document. Other impervious surfaces such as jointly owned accessways or small carparks will receive water quality treatment through hydrology mitigation bio retention devices or through communal treatment devices. Prevention of the generation of contaminants (i.e. contaminant source control) is also included as an option in the SMP through the specification of inert building material typically being no exposed unpainted copper or cladding materials containing higher concentrations of zinc.

Hydrology Mitigation

The stormwater management response to this is firstly reducing stormwater volumes discharging stream systems by promoting soakage to ground or non-potable rainwater harvesting, and secondly through stormwater detention which is holding and releasing stormwater flows at a controlled rate prior to discharge to stream. In the SMP document, the applicant has detailed the suite of stormwater devices which will assist in achieving hydrology mitigation outcomes for the plan change area across the differing zoning types. This includes bioretention devices such as raingardens, tree pits, vegetated swales, rainwater tanks and permeable paving.

Consistent with the commentary above regarding implementation of best practice, the applicant is proposing hydrology mitigation equivalent to Stormwater Management Flow Area 1 (SMAF 1). This is the more conservative of the two SMAF types stipulated in the AUP thereby managing a detention volume for the 95th percentile rainfall event. The inclusion of the SMAF 1 overlay through the plan change area will also trigger future land use consents under the E10 rule set of the AUP.

Flood Hazards

As is summarised in the Section 32 report, the proposed precinct area is identified on the Auckland Council's GIS mapping system as currently being subject to overland flow paths and flood plains, and is within flood prone areas. In order to assess post development flood hazard effects, the applicant undertook a flood hazard assessment using the Auckland Council Slippery creek rapid flood hazard assessment model. The following scenarios were assessed:

1. 100 year ARI with Existing Development (ED) conditions (no future development modelled within the upstream Future Urban Zone (FUZ), no climate change) as a baseline scenario.
2. 100 year ARI with ED conditions and with future development modelled within the FUZ (no climate change) to assess the effects of the proposed plan change.
3. 100 year ARI plus climate change, with MPD and development of the FUZ to assess and plan for the future probable flood hazard.

In summary the assessment concluded development of the FUZ results in minor increased peak flows and depth of flooding within the plan change area and wider Slippery Creek flood plain, while peak flows and depths increase significantly due to MPD development upstream of the FUZ and catchment and climate change factors.

¹ Stormwater Management Devices in the Auckland Region December 2017 Guideline Document 2017/001

Given the existence of the two sub catchments within the plan change area with differing opportunities and constraints, the applicant has proposed separate stormwater and flood hazard management approaches for the respective northern and southern sub catchments:

- The northern sub-catchment of the plan change area is in close proximity to Waihoihoi Stream. The flood hazard assessment shows that flooding from the Waihoihoi Stream impacts the northern part of the property and therefore peak flows generated as a result of development within the plan change area can discharge to the stream without encountering flow constraint e.g. culverts. Additionally, attenuation of flows has the potential to worsen the flooding as it could synchronise the delayed discharge of the plan change with peak flows in the stream from the upper reaches of the Slippery Creek catchment.

In accordance with the Drury Opaheke SMP and confirmed in discussions with Healthy Waters, the lower parts of the catchment should follow a “passing flows forward” approach. After stormwater treatment, the northern sub-catchment will allow for quick conveyance of flows into the Waihoihoi Stream without further attenuation in order to pass them through before the peak flows from the upper catchment reach the area.

- The southern sub-catchment drains in western direction to a culvert crossing the railway line and further downstream to the Slippery Creek floodplain. This branch of the floodplain is reasonably isolated, with the culvert creating a throttle which results in flooding upstream of the culvert.

Changes to peak flows due to development have the potential to increase flood levels upstream of the culvert impacting on properties within the plan change area, but that are yet to be developed. Following discussion with Healthy Waters it was considered that the southern sub-catchment should follow an “attenuation” approach where peak flows generated by development of the plan change area are attenuated within the site and as close to the source as possible. The southern sub-catchment of the site will detain flows of up to the 100-year ARI storms within the sub catchment to mitigate flooding within the western part of the plan change area and further downstream. Attenuation will be provided via attenuation basins.

Plan Change Area Objectives and Policies

The stormwater management related plan change objectives and policies generally relate to the suitable provision of infrastructure including for the management of stormwater noting in Policy IX.3 (6) that it is carried out in a coordinated manner. Indicative of flood risk, Policy IX.3(9) limits impervious areas within Sub-precinct B. Receiving environment related objectives include IX.2 (4) stipulating the progressive improvement of freshwater and sediment quality along with policies supporting improvements to water quality and habitat (IX.3 (9)) and management of erosion and associated effects on stream health (IX.3 (10)).

With regard to stormwater runoff treatment from roads, the applicant has sought to clarify in IX.6.6 that the activity rules and standards in Chapter E9 of the Auckland Unitary Plan apply to development in the Drury East precinct as if the reference to ‘high use roads’, was a reference to ‘all roads’.

4.0 Assessment of stormwater effects and management methods

In the Auckland Unitary Plan (Operative in Part) (the AUP), the stormwater management objectives and policies are detailed in Chapters B7, E1 and E36. Consistent themes throughout the objective and policy frameworks relate to minimising the discharge of contaminants and adverse effects on freshwater and coastal receiving environments. Consistent with the NPSFM 2020 the E1 chapter also details stormwater management policies and introduces the integrated stormwater management approach seeking retention of natural hydrological features, reduction of stormwater flows and contaminants and land use integration to minimise adverse effects on receiving environments. Minimisation of flood hazard, including floodplains and overland flow paths during subdivision use and development is managed through the E36 objective, policy and rule set.

In accordance with current practice for the management of stormwater runoff associated with green field development in the Auckland Region, the applicant has developed an SMP document to provide a road map for the construction and operation of a reticulated stormwater system responding to receiving environment attributes with a suite of devices and methods to be designed in accordance with best practice stipulated in GD01. In summary this is:

- Water quality treatment of contaminant generating impervious surfaces (e.g. roads, car parks, access ways) and prevention of the generation of contaminants by stipulating the use of inert building materials (i.e. contaminant source control);
- Hydrology mitigation to manage post development stormwater volumes seeking to minimise stream bank erosion. This complements the ecological benefits provided by riparian enhancement such as stream bank stabilisation and shading; and
- Adoption of a 'pass forward' approach to flood hazard management for the northern catchment to safely pass flood flows to the lower catchment without exacerbating flood risk to downstream properties and avoiding a coincidence of flood peaks from the developed upper catchment. Provision for peak flow attenuation in the southern catchment to match predevelopment peak flows for the 100 ARI rainfall event.

In reviewing the applicable objectives and policies in the regional policy statement and regional plan of the AUP, the proposed stormwater management methodology outlined in the SMP document and the objectives and policies in the proposed plan change, overall at a high level there is alignment in seeking to achieve suitable receiving environment outcomes associated with the development. In brief there are:

- Proposed integrated management of land use and freshwater systems by providing stormwater infrastructure implemented with assistance of catchment planning (B7.3);
- Minimisation of the generation and discharge of contaminants in stormwater runoff through the proposed use of contaminant source control and water quality treatment devices (B7.4);
- Implementation of hydrology mitigation to minimise or mitigate new adverse effects associated with stormwater running off impervious surfaces (E1(9)); and
- Through catchment and development-based flood hazard modelling, adoption of the 'pass forward' option for management of flood flows and peak flow attenuation, thereby avoiding exacerbation of existing flood risk (E1(11)).

In terms of the stormwater management related objectives, policies and methods in the proposed precinct chapter, given the role of the SMP in development of the catchment, it would be appropriate to include a reference to that document and compliance with the associated Auckland Stormwater Network Discharge Consent. This would be consistent with other precincts in the region and although adoption of SMPs and their implementation as development progresses is a function of Healthy Waters (as the holder on the NDC), this would nonetheless provide a helpful linkage to assist in achieving the specific outcomes sought by the Precinct (or should the ultimate landowner/developer seek their own discharge consent).

Objective 4 reads as follows:

(4) Freshwater and sediment quality is progressively improved over time in the Waihoehoe Precinct.

It is unclear why the term progressively improved is used in this objective which in the context of Chapter E1 relates to existing stormwater discharges and brownfield redevelopment. Further, improvement to sediment quality is typically not an outcome which can be directly influenced by a change in land use. Therefore I recommend the following edits to this objective:

(4) ~~Freshwater and sediment~~ quality is ~~progressively improved over time~~ in the Waihoehoe Precinct.

Policy 9 is as follows:

(9) Limit the maximum impervious area within Sub-precinct B to manage the stormwater runoff generated by a development to ensure that adverse flooding effects are avoided or mitigated. Provide opportunities to deliver a range of site sizes and densities in the Terrace Housing and Apartment Buildings zone.

It is assumed relates to the southern sub catchment where peak flow attenuation is required and therefore it is considered a new map would assist with clarifying this policy.

It is noted future stormwater diversions associated with the development would be permitted activities under Chapter E8 (A1) providing the development demonstrates compliance with the SMP document. Other land use stormwater rule chapters in the AUP being E9 (Stormwater quality - High contaminant generating car parks and high use roads) and E10 (Stormwater management area - Flow 1 and Flow 2) any associated land use consent requirements will still apply.

5.0 Submissions

Assessment of stormwater management related submissions and further submissions is as follows:

3 Peter Dodd

Submission

General flooding to the Slippery Creek Catchment, significant areas currently flood and will only become further adversely effected by the future development of the area. All reports refer to the Pass Forward principle for the stormwater removal for the lower reaches which I support but there is little information or control provided to show how this will be achieved for the greater area beyond Plan Change 50.

The upper reaches of this catchment require detention to lessen the effects of flooding. Without significant effort much of the low-lying area north of Waihoehoe Rd will be unusable for residential.

This will place more pressure on further urban sprawl. Also and just as important is what will this land then be used for. I have previously met with Craig Cairncross to discuss this and suggested large lots for this area with elevated building platforms and onsite compensation for flooding. With private plan changes the risk is the greater good for the area can be overlooked.

Assessment

The flood hazard model scenarios include maximum probable development of the plan change area and FUZ land. This analysis has resulted in the proposed stormwater management methodology for the northern and southern sub catchments. Assessment of FUZ land will take place in due course.

8 Dong Leng 160 Waihoehoe Road, 09 Ken Giffney 60 Jack Paterson Road

Submission

The PPC50 application does not explore the effects of minor filling within the floodplains where there could be opportunities to create more usable land without affecting flood levels.

The PPC50 application does not address the existing overland flow path that runs immediately adjacent to the eastern boundary of the PPC50 site, within my property. Please assess if a drainage reserve will be required over this flow path and if the reserve would need to extend across the boundary into the PPC50 site.

I do not support the proposed water quantity detention approach for 10 year to 100 year flows and propose that the whole catchment should be managed as "passing flows forward" in this regard. I support the SMAF 1 retention and detention proposal although I would prefer that it was implemented via common, publicly owned, attenuation basins. I do not support the implementation of water quality treatment for "all roads" in that it exceeds the Unitary Plans environmental water quality objectives. I therefore seek amendments to the stormwater management proposal in these regards.

Assessment

Management of overland flow paths will be addressed in due course prior to development when the proposal engages the E36 rule set. No reasons are given as to why the pass forward approach to flood hazard management (in the northern sub catchment) is given in the submission. I am comfortable with the methodology outlined by the applicant to determine the future flood hazards including maximum probable development of the plan change area and FUZ land. I do not agree that treatment of all roads exceeds the Unitary Plan requirements. Chapter E1, in my opinion sets an expectation for treatment of all roads associated with green field development and is accepted practice throughout the region.

10 Chunfeng Wang 27 Kath Henry Lane

Submission

Mr and Mrs Wang do not agree with the Applicant's submission that one third of the Plan Change Site (18.2 hectares) is required to be retained as open space (drainage reserve). Or that their property in particular should be regarded as floodplain, which by implication, means it may not be capable of future development.

Assessment

The drainage reserve is mapped to demonstrate the location of the floodplain that currently exists within the plan change area. Given the constriction provided by the downstream culvert (that is not proposed to be upgraded), the floodplain extent will largely remain post development with attenuation proposed to be provided by the attenuation basin to minimise further exacerbation of flood risk. Future development at the fringes of the floodplain will be subject to assessment under the E36 rule set in the AUP.

17 Josephine Kleinsman 112 Waihoehoe Road

Submission

- The extent of flooding indicated on the Structure Plan on the western edge is a result of an undersized 900mm culvert. OC is not proposing any upgrade of this culvert to eliminate this flooding. Instead they are proposing to retain the post development stormwater within the Waihoehoe Precinct. It is noted that the other development groups, Kiwi Property and Fulton Hogan are proposing to upgrade culverts. The provision of an upgraded culvert would eliminate the flooding caused by the railway embankment and allow better utilisation of the Western Sites.
- The proposed stormwater management solution indicates there are two development areas with differing impermeable surface area limitations. There is no plan within the Proposed Plan Change to indicate how this is achieved.

Assessment

- In the flood hazard model analysis, the applicant has not included the scenario of upgrading the culvert so I am not able to assess whether this would be beneficial, other than alleviating the need for peak flow attenuation in the southern sub catchment.
- Consistent with my earlier commentary, I agree a map would be of assistance to define the northern and southern sub catchments/sub precincts.

20 Ngati te Ata

Submission

Wai (Water): PPC48 does not give effect to Te Mana o te Wai and risks damaging the mauri of wai within the project area. This includes through PPC48's proposed treatment of waterways and its proposed stormwater and wastewater solutions.

Relief sought:

(g) A minimum of a two-treatment train approach for all stormwater prior to discharge to a waterway;

(h) Roof capture for reuse and groundwater recharge;

Assessment

There is merit in specifying a treatment train approach as this aligns with best practice with regard to the reduction of contaminants entrained in stormwater runoff. I suggest this is added to the SMP to take a risk-based approach to operate a treatment train for stormwater running off contaminant generating impervious surfaces. It is noted the term treatment train is not defined in the AUP, or in GD01. Examples of a treatment train of stormwater management interventions responding to a particular risk could be:

- High contaminant concentrations generated from a car park discharging through a series of treatment devices;
- Gross pollutant treatment at source then further contaminant treatment (e.g. through bioretention); and
- Contaminant source control through the specification of inert building materials and further management through hydrological mitigation (e.g. rainwater reuse and detention tanks).

Roof water capture and/or groundwater recharge is discussed in the SMP and is a requirement in implementing the E10 Stormwater Management Area Flow rule set in the AUP.

21 Auckland Council

Submission

Stormwater Management Plans (SMP(s)) identify effects of stormwater and how effects should be managed both to achieve the RPS, NPS-FM and regional plan and to be in accordance with the region-wide Network Discharge Consent (NDC) granted by the Environment Court on 30 October 2019. Without an SMP approved by the Network Utility Operator there is uncertainty if the SMP adequately manages effects and if there are sufficient provisions to enact the direction that the SMP would provide.

Policy and matters of discretion/assessment criteria are required to ensure that consenting of subdivision and land uses is consistent with the SMP in its final adopted form which may be included in the council's NDC.

Relief Sought:

Amend precinct to include additional policies and rules to manage the effects of stormwater as described in the SMP.

This includes:

- a. New policy: Require subdivision and development to be assessed for consistency with any approved network discharge consent and supporting stormwater management plan including the application of water sensitive design to achieve water quality and hydrology mitigation.
- b. Additional matters of discretion/assessment criteria that would apply to any restricted discretionary activity in the area of the precinct to ensure that new development and subdivision can be assessed for consistency with the NDC and SMP.

Any other rules necessary to give specific effect to the SMP during development.

Assessment

Consistent with earlier commentary, I agree reference to the implementation of the SMP should be incorporated into the precinct objectives and policies including the version approved by the network utility operator (Healthy Waters). Associated assessment criteria and/or matters of discretion would also be of assistance. It is unclear what benefit an associated rule framework would have as Healthy Waters is responsible for certification of developments through the conditions of the NDC which in my opinion is a satisfactory regulatory pathway.

Submission

Stormwater management area flow 1 (SMAF 1) as proposed in PC 50, is a control which provides a framework for hydrology mitigation where there will be discharges into a stream environment. SMAF 1 has both a retention and detention volume and the combination of these is intended to reduce erosive flows in streams, maintain stream baseflow and support the recharge of aquifers. It is the default minimum required under the region wide NDC and based on current knowledge is the most practicable option for Drury East.

Relief Sought:

Retain application of SMAF 1 to the plan change area.

Assessment

I agree that the SMAF 1 overlay should be retained for the precinct.

Submission

A new policy is required to ensure that flood attenuation is provided until such time that infrastructure is upgraded to provide sufficient flood conveyance capacity and there is no downstream effect.

Relief Sought:

Insert a new policy to the following effect:

Provide sufficient floodplain storage within the Waihoehoe precinct to avoid increasing flood risk upstream and downstream, and manage increased flood risk within the precinct unless downstream infrastructure capacity means this is not required. This is subject to the upgrade of the downstream culvert upgrade.

Insert rules to give effect to this.

Assessment

Although an upgrade to the culvert is not currently proposed for the southern sub catchment, it may be in the future. Therefore this policy is supported along with the wider flood hazard outcomes.

Submission

A new policy relating to the treatment of impervious surfaces is requested to give effect to the SMP and protect the receiving environment of the Te-Manukanuka-O-Hoturoa (Manukau Harbour).

Relief Sought:

Insert a new policy to the following effect:

Ensure that all impervious services are treated through a treatment train approach to enhance water quality and protect the health of stream and marine environments.

Assessment

Consistent with my commentary above, I agree there is merit in the application of a treatment train but consider this best sits in the SMP document so that the meaning of a treatment train can be explained/clarified. I recommend the proposal to add a new policy be rejected.

Submission

Proposed standard IX6.6 (1) Stormwater Quality is supported in principle but cross references to the activity rules and standards in E9, including the parent AUP rule 9.6.1.4 which has additional, and in some cases, confusing exemptions. These undermine its effectiveness because many roads, private roads and carparks may not be required to have stormwater treatment. Consequently, it is not sufficient to protect the upper Te-Manukanuka-O-Hoturoa (Manukau Harbour) from contaminant accumulation from the combined contaminant discharges from all the new, existing or upgraded roads, access ways and parking areas. The requested amendment

includes all these areas in the precinct rules to provide for treatment of these areas. Alternative methods of achieving the same outcome could be considered. This gives effect to the RPS B7.3 objectives and policies relating to freshwater systems, RPS B7.4 objectives and policies relating to coastal water and freshwater, the NPS-FM, and the New Zealand Coastal Policy Statement 2010.

Additional matters of control or discretion are proposed to ensure that stormwater treatment assets are collectively constructed to be efficient and have low long term operating costs.

Relief Sought:

Retain and amend standard IX6.6 (1) Stormwater Quality but amend it to read as follows (including a correction to the precinct reference):

The activity rules and standards in E9 apply to development in the ~~Drury Centre~~ Waihoehoe precinct as if the reference to 'high use roads', ~~was~~ were a reference to 'all existing, new, upgraded or redeveloped roads, accessways and carparks' or other amendments that would achieve the same environmental outcome.

Insert new matters of control and discretion, in addition to those in E9, to the effect of:

- How the location and design of stormwater treatment assets reduces their operating costs.
- The consolidation and community scale of stormwater treatment assets.
- The location of stormwater treatment assets where they will be most effective in reducing contaminants.

Assessment

I agree that as proposed additional text for standard IX6.6 (1) may result in confusion in its implementation when viewed on the context of the high use road and high contaminant generating car park definitions in the AUP. The proposed text also aligns with the water quality treatment outcomes sought by the SMP.

I agree with the proposed matters for control and discretion and reflect policy guidance in Chapter E1 of the AUP and recommendation the relief sought.

Submission

The receiving environments downstream of the plan change sites are highly sensitive to additional contaminants and are Significant Ecological Areas (SEAs). The NPS-FM requires that the health of freshwater receiving environments is prioritised above other uses and needs. This and other existing AUP objectives and policies direct that freshwater quality is maintained where it is good and enhanced where degraded. The existing provisions do not go far enough to achieve this. The SMP notes a mix of methods will be used including treatment of roads and use of inert building materials. A new standard relating to the exterior materials on buildings is requested.

Relief Sought:

Include a new standard to the effect that:

Buildings cannot have exterior materials with exposed surfaces that are made from contaminants of concern to water quality including zinc, copper and lead.

Assessment

I agree with the intent of the drafting of this standard and a similar outcome is sought in the SMP. As discussed earlier, care should be taken in drafting the standard so as not to unintentionally exclude building products which are demonstrated to have inert qualities (e.g. zinc aluminium coated roofing and cladding materials).

Submission

Extended 20m riparian building setbacks are appropriate on permanent streams for the following reasons:

- 20m riparian margins are recommended in the Drury-Opāheke Stormwater Management Plan 2019
- it is important to maintain and enhance freshwater quality, systems and processes
- to allow stream meander paths and floodplains to evolve with less risk to property or intervention to protect property
- it provides space for flood conveyance management and higher stream flows due to increased rainfall
- it provides space for stormwater infrastructure and potential future instream works to stabilise banks so that instream erosion and sediment loss is managed to protect the Manukau Harbour

Relief Sought:

Replace standard IX.6.3(2) with a new standard:

Riparian Margins

~~40~~20m from the edge of all permanent streams and 10m from the edge of all intermittent streams.

Assessment

Considering the assessment on stream erosion risk presented by the applicant and the stream erosion mitigation measures proposed in the SMP (including the application of SMAF 1 Hydrological Mitigation), there is limited validated evidence (in direct response to stormwater discharges from the precinct) to support the relief sought in this submission. Assessment of the ecological and amenity benefits in response to this submission has been assessed by other Council technical specialists.

22 Auckland Transport

Submission

Auckland Transport therefore seeks the deletion of the widths identified for carriageway, median, cycle path, street trees, parking, and footpath. Auckland Transport acknowledges the benefits of using rain gardens as a stormwater detention/treatment device. However, the blanket rule of requiring the establishment of rain garden on all roads is not practical and may not necessarily achieve the best environmental outcomes. For example, rain gardens are not suitable for areas with steep slopes, the volume of stormwater detention and/or runoff reduction can also be limited depending on the size of the rain gardens, and they are known to be expensive to maintain and/or service and hence may not be the most cost-effective solution.

Relief Sought:

Delete IX.11 Appendix 1: Road Cross Section Details.

Assessment

I recommend the addition of text to each rain garden reference in Appendix 1 such as '*Trees/Rain garden (where feasible)*' assists to capture the submission raised by Auckland Transport.

33 Watercare

Submission

Watercare seeks a decision that ensures that the water and wastewater capacity and servicing requirements of the plan change will be adequately met, such that the water and wastewater related effects are appropriately managed.

Relief Sought:

Amend Policy 6 as follows:

(6) Ensure that development in Drury East Precinct is coordinated with, and does not precede, supporting stormwater, wastewater and water supply infrastructure and manages adverse effects, including reverse sensitivity effects, which may compromise the operation or capacity of that infrastructure.

Assessment

This submission and relief sought is supported and reinforces some of the sensitivity of existing infrastructure to the development proposal.

6.0 Conclusions and recommendations

The applicant is proposing to develop a new precinct comprising Terrace Housing and Apartment Building zone resulting in the large-scale creation of impervious surfaces with associated stormwater related effects (flow/volume, contaminants, flood hazard) requiring management and mitigation with a supporting new stormwater network.

In order to support the proposed development and enable future construction and operation of the associated stormwater network, a SMP accompanies the plan change application with associated stormwater related objectives and policies in the proposed precinct chapter. Broadly the two documents align with the stormwater related objectives and policies in the regional policy statement and the regional plan requirements stipulated in E1. The E1 objective and policies regarding implementation of integrated management frame Stormwater NDC requirements and adoption of the SMP by Healthy Waters where demonstration of consistency with E1 is a certification requirement stipulated in Schedule 4 of the NDC. At the time of writing this memorandum, the SMP was being reviewed by Healthy Waters.

Various submissions have raised additions and deletions to the precinct objectives and policies and my recommendations to adopt or reject the relief sought are discussed in the section above. It is noted the edits and new additions are aimed at strengthening the existing objective and policy framework and associated implementation of the SMP and it is unlikely significant adverse effects would result if the matters are not addressed. The recommended changes are summarised as follows:

Additions are underlined, deletions are ~~strikethrough~~.

IX.2 Objective 4

- (4) Freshwater ~~and sediment~~ quality is progressively improved ~~over time~~ in the Waihoehoe Precinct.

IX.3 Policy 6

(6) Ensure that development in Drury East Precinct is coordinated with, and does not precede supporting stormwater, wastewater and water supply infrastructure and manages adverse effects, including reverse sensitivity effects, which may compromise the operation or capacity of that infrastructure.

IX.3 Policy 9

- It is assumed this policy relates to the southern sub catchment where peak flow attenuation is required. Therefore it is considered a new map would assist with clarifying this policy.

Add new policy

- Provide sufficient floodplain storage within the Waihoehoe precinct to avoid increasing flood risk upstream and downstream, and manage increased flood risk within the precinct unless downstream infrastructure capacity means this is not required. This is subject to the upgrade of the downstream culvert upgrade.

Add new policy

- Require subdivision and development to be consistent with any approved network discharge consent and supporting stormwater management plan adopted by Council under that discharge consent, including the application of water sensitive design to achieve water quality and hydrology mitigation.

Standard IX6.5 (1)

- The activity rules and standards in E9 apply to development in the Waihoehoe precinct as if the reference to 'high use roads', ~~was where~~ a reference to 'all existing, new, upgraded or redeveloped roads accessways and carparks', or other amendments that would achieve the same environmental outcome.

Addition to Standard IX6.6

- Buildings cannot have exterior materials with exposed surfaces that are made from contaminants of concern to water quality including zinc, copper and lead.

New matters of control or discretion:

- How the location and design of stormwater treatment assets reduces their operating costs.
- The consolidation and community scale of stormwater treatment assets.
- The location of stormwater treatment assets where they will be most effective in reducing contaminants.

All raingarden references in Appendix 1 Road Cross Section Details:

- Trees/Rain garden(where feasible)

Taking these matters into account, my recommendation is to support the proposed plan change and stormwater related objectives and policies.



**PPC50: Waihoehoe Precinct
Plan Change**

Transportation Hearing
Report

June 2021




flow

TRANSPORTATION SPECIALISTS

200

Project: PPC50: Waihoehoe Precinct Plan Change
Title: Transportation Hearing Report
Document Reference: P:\ACXX\397 Drury East Private Plan Change - Oyster Capital\Reporting\R1C210629 - PPC50 Hearing report.docx
Prepared by: Mat Collins/Terry Church
Reviewed by: Terry Church

Revisions:

Date	Status	Reference	Approved by	Initials
26 January 2021	Draft for Council review	R1A210126	Terry Church	
7 May 2021	Updated with Council Planner's comments	R1B210507	Terry Church	
29 June 2021	Additions added as a result of the Government announcement on South Auckland transport projects	R1C210629	Terry Church	

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EXECUTIVE SUMMARY

Auckland Council (Council) has requested Flow Transportation Specialists (Flow) to review the transportation matters associated with the Waihoehoe Precinct Private Plan Change 50 (PPC50), which has been lodged by Oyster Capital (Oyster) to rezone 49 hectares of Future Urban zoned land to Terrace Housing and Apartment Building zoning.

This report has been completed by Terry Church (Senior Associate) with assistance from Mat Collins (Associate).

I note that the Government announced on 4th June 2021 that the funding for the Mill Road project and elements of the Papakura to Bombay Project, being the widening of the Southern Motorway (SH1) between Drury Interchange and a new Drury South Interchange (Stage 2) which connects to Mill Road has been deferred¹. While these projects are included in ATAP (an agreement between Council and Government on Auckland roading projects), I note that ATAP is not a statutory document, with the relevant document being the Regional Land Transport Programme which is currently in draft format subject to consultation (2021 – 2031 RLPT). I understand that the RLPT was presented to Auckland Council's Planning Committee on 24 June 2021, and that funding for Mill Road project (Drury South to Manukau) is not included.

It has been my view throughout the review of this application that the Mill Road project is an important project for the development of Drury East as it provides a secondary access option and relieves pressure from Waihoehoe Road, the Waihoehoe/Great South Road intersection and the immediate roading network which is very much rural in nature. As such, the transport assessment and the transport planning provisions that have been framed around the applicant's notified transport assessment are in my view considered obsolete following the announcement.

The majority of this report remains unchanged as a result of the Government announcement, given my view that the inclusion of the Mill Road project by 2028 was ambitious. I have made minor amendments throughout my report and expect the applicant to update Council and submitters on the impacts of the announcement leading up to the hearing, where I hope to receive updated information from which to consider transport impacts and appropriate provisions which allow for an integrated land use and transport outcome.

I have reviewed the following documents

- ◆ Section 32 Assessment Report (as lodged), prepared by B&A, dated December 2019, including
 - Appendix 1 Waihoehoe Plan Change
 - Appendix 6 Urban Design Assessment
 - Appendix 8 Integrated Transport Assessment
- ◆ Drury East Modelling Report, prepared by Stantec, dated November 2019

¹ NZUP factsheet South Auckland, published by Waka Kotahi, available online
<https://www.nzta.govt.nz/assets/planning-and-investment/docs/nzup/nzup-factsheet-south-auckland.pdf>

- ◆ Clause 23 responses, from B&A dated 3 April 2020
- ◆ Section 32 Assessment Report (as notified), prepared by B&A, dated May 2020, including
 - Appendix 1 Drury East Plan Change
 - Appendix 8 Integrated Transport Assessment
- ◆ Submissions, as outlined in Section 5, including additional traffic modelling information provided as Attachment B to Oyster Capitals submission (submission #7)
- ◆ Auckland Transport Alignment Project 2021 – 2031 Investment Programme (ATAP 2021 – 2031).

Thirty-four submissions were received, seventeen of which related to transport matters. Key themes from submissions regarding transport matters include

- ◆ Proposed internal transport network structure including direct access to Drury Interchange, road alignments, cross section details, and provision for active transport and public transport users
- ◆ Identification, timing, and responsibility for funding and delivery of enabling/supporting transport infrastructure, and the monitoring of proposed thresholds included in the notified Provisions
- ◆ Provisions relating to the Opāheke North-South arterial road, as shown on Council’s Drury Opāheke Structure Plan
- ◆ Changes to zoning, including removal of the proposed MHU subdivision provisions to THAB zoning and extending the boundary of the Precinct
- ◆ Revisions to Precinct Provisions. I expect that there will be iterative updates to the proposed provisions as the applicant engages with submitters leading up to the hearing. I will provide further comment as updated Provisions are circulated.

I generally support submitters’ comments and requests. However, there are several submission points which I oppose and/or seek further advice from Council’s Planner, as discussed in Section 6.

In my view, PPC50 as notified does not adequately consider the potential effects on the transport network

- ◆ I note that between the lodgement with Auckland Council and subsequent notification, there has been an increase in the extent of Terrace House and Apartment Building (THAB) zone in PPC50, with Mixed Housing Urban zone being removed. As discussed in this report, I consider that the trips that the applicant has assumed to be generated by the three plan change areas are low and this may be compounded with the proposed increase in density to THAB across PPC50. The applicant has provided updated traffic models in its submission (which exclude THAB across the whole of PPC50) and is of the view that this does not impact the mitigation proposed. I have a differing view.
- ◆ While the masterplan for PPC50 is generally consistent with RPS Objectives B2.2.1(1) and B3.3.1(1), I consider that the Precinct provisions give little certainty that integrated land use and transport outcomes will be achieved. Development within PPC50 if developed in accordance with the proposed provisions is unlikely to satisfactorily address safety and efficiency effects on the surrounding transport network. The provisions lack surety that the development will put in place a transport network that is focused on access to Drury Station and local bus services. The

provisions lack surety that integrated staging of land use and transport investment will enable the uptake of public transport and active transport modes as part of a safe and effective transport network.

- ◆ In my view there are significant infrastructure assumptions made by the applicant, which affect the transport investment thresholds put forward in the notified Precinct Provisions. These assumptions include
 - Third-party transport infrastructure investment and delivery assumptions, including Mill Road being constructed in some form by 2028. The recent June 2021 announcement by the Government has since deferred the Mill Road project, confirming my view that reliance on this upgrade by 2028 places considerable risk on how the transport network is predicted to operate and how provisions are then framed around this
 - Designations, which the applicant relies upon, are in place
 - Land within the above designations has been acquired by the designating authority
 - Vehicle trip rates and public transport mode shares assumed in the traffic modelling.
- ◆ I am concerned that transport infrastructure needed to support PPC50, such as the Waihoehoe Road upgrade and Mill Road, may not be delivered in a manner that integrates with development in PPC50. The traffic modelling used to support PPC50 assumes that Mill Road (in some form) will be operational by 2028. While Mill Road is contained within ATAP 2021 – 2031 (an agreement between Council and Government which is a non-statutory document), there is uncertainty over the time it may take to designate the route, acquire properties, and construct the project.
- ◆ Given the uncertain development programmes of each PPC area, I am of the view that the prescriptive nature of the transport upgrade provisions in the Precinct is not appropriate due to impracticalities of administering and monitoring the thresholds proposed by the applicant. Further, I have significant concerns about the assumptions and methodology used in the traffic modelling, which the applicant has relied upon in setting these thresholds.
- ◆ To address the uncertainty in development programmes and third-party infrastructure provision (including that contained within ATAP 2021 – 2031), and my concerns about the traffic modelling assumptions relied upon by the applicant, I consider that Standard IX.6.1 and IX.6.2 should be replaced in their entirety. I am of the view that provisions that are performance based in this instance give the consenting authority greater flexibility in determining mitigation required following an assessment of the environment at the time of development occurring. This also provides clearer ownership as to who is responsible for delivering the mitigation. Precinct provisions are required for this, as reliance on Chapter E27 Transport of the Auckland Unitary Plan – Operative in Part (AUP(OP)) is unlikely to capture the need to assess and upgrade key intersections about the area (including intersections and rural roads).
- ◆ Based on the current provisions, I consider that there is a sizeable risk that there will be consequential adverse outcomes for economic well-being (in terms of transport network efficiency) and social well-being (including road user safety). This may result in Auckland Transport and Waka Kotahi NZTA (as road controlling authorities) being left to address substantial off-site cumulative safety and efficiency effects on the transport network beyond what would be expected from normal development or business as usual upgrades to the network, due to

uncertainty around infrastructure scale, funding and timeframes. A number of third-party infrastructure improvements, including projects within ATAP 2021 – 2031, NZUP and the Drury Transport Investment Programme (DTIP), now referred to as the Drury Infrastructure Funding Framework (DIFF), are assumed in the transport assessment albeit the extent of the projects, funding and timing for delivery of some projects is not yet committed. As an example, Mill Road has been assumed in some form throughout the transport assessment, with the June 2021 announcement deferring the entire Mill Road project. Provisions that enable an assessment against the network at the time land use activities are being applied for would provide greater control on what mitigation is required given the environment at that time, which may also include greater certainty on wider infrastructure timeframes.

- ◆ It is unclear as to whether the layouts proposed by the applicant for the Great South Road/Waihoehoe Road intersection can physically fit within the area that Auckland Transport has issued a Notice of Requirement for, and allow for bus priority (as per the Auckland Transport Supporting Growth network), capture pedestrian crossings on all four approaches and provide the necessary facilities to ensure the corridor operates safely and efficiently for all transport modes. I do not support the current upgrades included in the proposed Precinct provisions at IX.6.1 and IX.6.2 associated with the Great South Road/Waihoehoe Road intersection.
- ◆ Until Mill Road connects to the development and provides a secondary connection (to the north and south), reliance on the Great South Road/Waihoehoe Road intersection and Waihoehoe Road will be much greater than that currently predicted in the transport assessment and that from which the current provisions are framed. A number of third-party infrastructure improvements, including projects within ATAP 2021 – 2031, NZUP and DTIPs, are assumed in the transport assessment albeit the extent of the projects, funding and delivery is not clearly understood. It is for this reason that the requirement to assess the mitigation required as development progresses is a better option, noting the uncertainty as to when wider area infrastructure is in place. I am therefore of the view that the timing or triggers requiring the upgrades captured in IX.6.1 and IX.6.2 are not appropriate as currently drafted as they do not consider effects and therefore upgrades necessary prior to the full Mill Road corridor being constructed and open.
- ◆ The thresholds set out in the notified Provisions for upgrading the Great South Road/Waihoehoe Road are not robust as I consider there are underlying flaws in the modelling assumptions used to set these thresholds. Further, the upgrades of this intersection as proposed in IX.6.1 and IX.6.2 have the potential to cause ongoing disruption to the transport network during works and will require the acquisition of third-party land and widening/replacement of the Waihoehoe Road rail overbridge, which is not identified in the Precinct Provisions. I am therefore of the view that the timing or triggers requiring the upgrades captured in IX.6.1 and IX.6.2 are not appropriate as currently drafted as they do not consider the need for third-party land, the widening/replacement of the Waihoehoe Road rail overbridge, the additional construction traffic effects due to the proposed multiple upgrades to the intersection and the uncertainty around the extent of the Mill Road project.
- ◆ In my view the notified Provisions fail to address likely safety effects on existing rural roads. I consider that Waihoehoe Road should be upgraded to urban standard prior to any increase in traffic due to occupied development within PPC50.

- ◆ In my view the Precinct provisions should include Standards relating to the early provision of the Drury Central train station, bus priority measures westbound on Waihoehoe Road, walking and cycling connectivity between development and the Drury Central train station, and a continuous collector road network to enable Auckland Transport to provide bus services as staged development occurs. Further, I recommend that funding is allocated to enable early provision of public transport services, noting that this sits outside of the Plan Change process and is not considered the responsibility of the applicant.
- ◆ I am of the view that changes are required to the Precinct Provisions in order to better assess and respond to the environment as development progresses. The assessment in my view places a lot of weight and reliance on government led transport network upgrades being delivered and in place prior to 2026-28. I consider that there are risks associated with this assumption and the provisions the Precinct currently frames around their assessment which relies on this.
- ◆ I consider that three main concerns need to be addressed by the Precinct provisions
 - Early delivery and operation of the Drury Central train station and bus priority measures on Waihoehoe Road (particularly westbound)
 - Early delivery of active mode infrastructure (walking and cycling) including connections to trip generators and most importantly the Drury Central train station Delivery of safety and capacity improvements (for all modes) to existing rural roads to manage the transition from a rural to urbanised environment
 - Performance and safety of the Waihoehoe Road/Great South Road intersection and the approaches to it (including the Waihoehoe Road rail overpass) for all road users (walking, cycling, public transport, and general traffic).
- ◆ It is my view that the train station should be open and operating prior to any development being occupied.
- ◆ The traffic modelling contains assumptions that, in my opinion, result in an underestimation of potential traffic effects. These assumptions include
 - under estimation of vehicle trips through the Great South Road/Waihoehoe Road intersection, in the instance that Mill Road (between Waihoehoe Road and Manukau) is not in place
 - under estimation of the number of vehicle trips generated by PPC50, due to assumed high uptake of walking, cycling and public transport, although the surety that infrastructure to support high non-car based travel will be delivered in conjunction with development is lacking in the precinct provisions
 - under estimation of effects on the Great South Road/Waihoehoe Road intersection prior to signalisation, due to the number of vehicle movements through the intersection are under-estimated and that it is modelled as a two-lane roundabout whereas the provisions do not require the existing single lane roundabout to be upgraded.
- ◆ In response to the trip generation assessment, I retain my view that the prescriptive provisions in IX.6.1 and IX.6.2 should be removed in their entirety and replaced with provisions that are performance based. Further, I consider that the Provisions need greater emphasis placed on

delivering infrastructure that provides improved safety and connectivity, so that the necessary transport outcomes to achieve TOD, such as mode share, are achieved.

- ◆ The traffic modelling contains assumptions that, in my opinion, result in an underestimation of potential traffic effects. These assumptions include
 - between the lodgement with Auckland Council and subsequent notification, there has been an increase in the extent of THAB in PPC50, with Mixed Housing Urban zone being removed
 - under estimation of vehicle trips through the Great South Road/Waihoehoe Road intersection, in the instance that Mill Road (between Waihoehoe Road and Manukau) is not in place
 - under estimation of the number of vehicle trips generated by PPC50, due to assumed high uptake of walking, cycling and public transport, although the surety that infrastructure to support high non-car based travel will be delivered in conjunction with development is lacking in the precinct provisions
 - under estimation of effects on the Great South Road/Waihoehoe Road intersection prior to signalisation, due to the under estimation of the number of vehicle movements through the intersection and that it is modelled as a two-lane roundabout whereas the provisions do not require the existing single lane roundabout to be upgraded.
- ◆ In response to the trip generation assessment, I retain my view that the prescriptive provisions in IX.6.1 and IX.6.2 should be removed in their entirety and replaced with provisions that are performance based. Further, I consider that the Provisions need greater emphasis placed on delivering infrastructure that provides improved safety and connectivity, so that the necessary transport outcomes to achieve TOD, such as mode share, are achieved.

In response to my concerns noted above, and my concerns with the practicalities of implementing proposed Standards IX6.1 and IX6.2. I recommend that

- ◆ Standard IX.6.1 and Tables IX.6.1.1 and IX.6.1.2 are replaced, in their entirety, with thresholds to support transit orientated development outcomes (high public transport and active mode share and safety interventions)
- ◆ Standard IX6.2 Trip Generation Limit and Tables IX.6.2.1 and IX.6.2.2 are replaced in their entirety with a Standard that adopts performance-based thresholds for key intersections
- ◆ Other amendments to provisions as discussed in Section 5 and in response to submissions as discussed in Appendix A.

I consider that the proposed Drury Station presents a relatively unique opportunity to enable development consistent with Transit Oriented Development (TOD) principles. However, I consider that the thresholds linked to transport infrastructure identified in the provisions lack robustness and will be unwieldy and impracticable to monitor. Further, the provisions lack sufficient evidence as to how thresholds have been determined and acknowledgement of safety effects on existing rural roads, and enablement of active modes and public transport.

Unless amendments are made to the provisions per my recommendations and commentary on submissions, I consider that PPC50 is unlikely to result in integrated land use and transport outcomes as required by the AUP(OP), and that development within PPC50 is unlikely to satisfactorily address safety and efficiency effects on the transport network.

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- APPENDIX B CLAUSE 23 REQUEST SUMMARY (PC50)
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1 INTRODUCTION

Auckland Council (Council) has requested Flow Transportation Specialists (Flow) to review the transportation matters associated with the Waihoehoe Precinct Private Plan Change 50 (PPC50), which has been lodged by Oyster Capital to rezone 49 hectares of Future Urban zoned land to Terrace Housing and Apartment Building zoning. The rezoning proposal provides capacity for at least 1,130 dwellings.

This report has been completed Terry Church (Senior Associate) with assistance from Mat Collins (Associate). Both Mat and I are experts in the field of transport planning and engineering. We both have a sound knowledge of the Auckland Unitary Plan and the application of the plan to land use developments. Mat and I frequently attend Council Hearing and Environment Court mediation and hearings as transport experts for local government, road controlling authorities or private concerns.

I note that the Government announced on 4th June 2021 that the funding for the Mill Road project and elements of the Papakura to Bombay Project, being the widening of the Southern Motorway (SH1) between Drury Interchange and a new Drury South Interchange (Stage 2) which connects to Mill Road has been deferred². While these projects are included in ATAP (an agreement between Council and Government on Auckland roading projects), I note that ATAP is not a statutory document, with the relevant document being the Regional Land Transport Programme which is currently in draft format subject to consultation (2021 – 2031 RLPT). I understand that the RLPT was presented to Auckland Council's Planning Committee on 24 June 2021, and that funding for Mill Road project (Drury South to Manukau) is not included.

It has been my view throughout the review of this application that the Mill Road project is an important project for the development of Drury East as it provides a secondary access option and relieves pressure from Waihoehoe Road, the Waihoehoe/Great South Road intersection and the immediate roading network which is very much rural in nature. As such, the transport assessment and the transport planning provisions that have been framed around the applicant's notified transport assessment are in my view considered obsolete following the announcement.

The majority of this report remains unchanged as a result of the Government announcement, given my view that the inclusion of the Mill Road project by 2028 was ambitious. I have made minor amendments throughout my report and expect the applicant to update Council and submitters on the impacts of the announcement leading up to the hearing, where I hope to receive updated information from which to consider transport impacts and appropriate provisions which allow for an integrated land use and transport outcome.

I have reviewed the following documents

- ◆ Section 32 Assessment Report (as lodged), prepared by B&A, dated December 2019, including
 - Appendix 1 Waihoehoe Plan Change

² NZUP factsheet South Auckland, published by Waka Kotahi, available online
<https://www.nzta.govt.nz/assets/planning-and-investment/docs/nzup/nzup-factsheet-south-auckland.pdf>

- Appendix 6 Urban Design Assessment
- Appendix 8 Integrated Transport Assessment
- ◆ Drury East Modelling Report, prepared by Stantec, dated November 2019
- ◆ Clause 23 responses, from B&A dated 3 April 2020
- ◆ Section 32 Assessment Report (as notified), prepared by B&A, dated May 2020, including
 - Appendix 1 Drury East Plan Change
 - Appendix 8 Integrated Transport Assessment
- ◆ Submissions, as outlined in Section 6
- ◆ Auckland Transport Alignment Project 2021 – 2031 Investment Programme (ATAP 2021 – 2031).

The scope of this report includes the following

- ◆ a summary of PPC50, focusing on transport matters
- ◆ a review of the material (that covers transportation matters) provided to support the PPC50 application
- ◆ summary of submissions, relating to transport matters only
- ◆ my recommendations, again specifically relating to transport matters.

2 THE PROPOSAL

Oyster Capital (applicant) is applying for a Plan Change to rezone 49 hectares of Future Urban zoned land Residential – Terraced House and Apartment Building (THAB) zoning. Concurrent to PPC50, private plan change (PPC) applications have been received from Kiwi Property No.2 Ltd (Kiwi Property) (PPC48), and Fulton Hogan Land Development (FHLD) (PPC49) on the adjacent land about the Drury East area.

The three PPCs total approximately 328 hectares of Future Urban Zoned land. The three PPC areas and the proposed zonings are shown in Figure 1 with further detail on PPC50 shown in Figure 2.

I note that between the lodgement with Auckland Council and subsequent notification, there has been an increase in the extent of THAB in PPC50, with Mixed Housing Urban zone being removed – with the notified version being consistent with the zoning anticipated in Council’s Drury Opāheke Structure Plan. An assessment of vehicle trips with the applicant confirms that the trips assumed to be generated by the three plan change areas are low and this may be compounded with the proposed increase in density to THAB across PPC50. While updated traffic models have been provided to Council to review (which exclude THAB across the whole of PPC50), the applicant is of the view that this does not impact the mitigation proposed. I have a differing view, refer to my discussion in Section 4.8.

I consider that the proposed zoning as notified is consistent with the NPS: Urban Development, which provides direction to Councils to enable intensification in areas with high accessibility to public transport and active modes. Provided my recommended provisions are adopted, as discussed in Section 5, I consider that PPC50 will have high accessibility for the following reasons

- ♦ Access to the rapid transit network, with the northern end of PPC50 being approximately 1.2 – 1.5km from the proposed Drury Central Train Station, with my recommended provisions requiring all development within PPC50 to have safe and attractive walking and cycling access to Drury Central Train Station
- ♦ Access to the frequent transit network, with the northern end of PPC50 being approximately 600m from Waihoehoe Road, which is proposed to be a frequent transit network corridor.

Figure 1: Drury private plan change areas and proposed zoning (at lodgement)

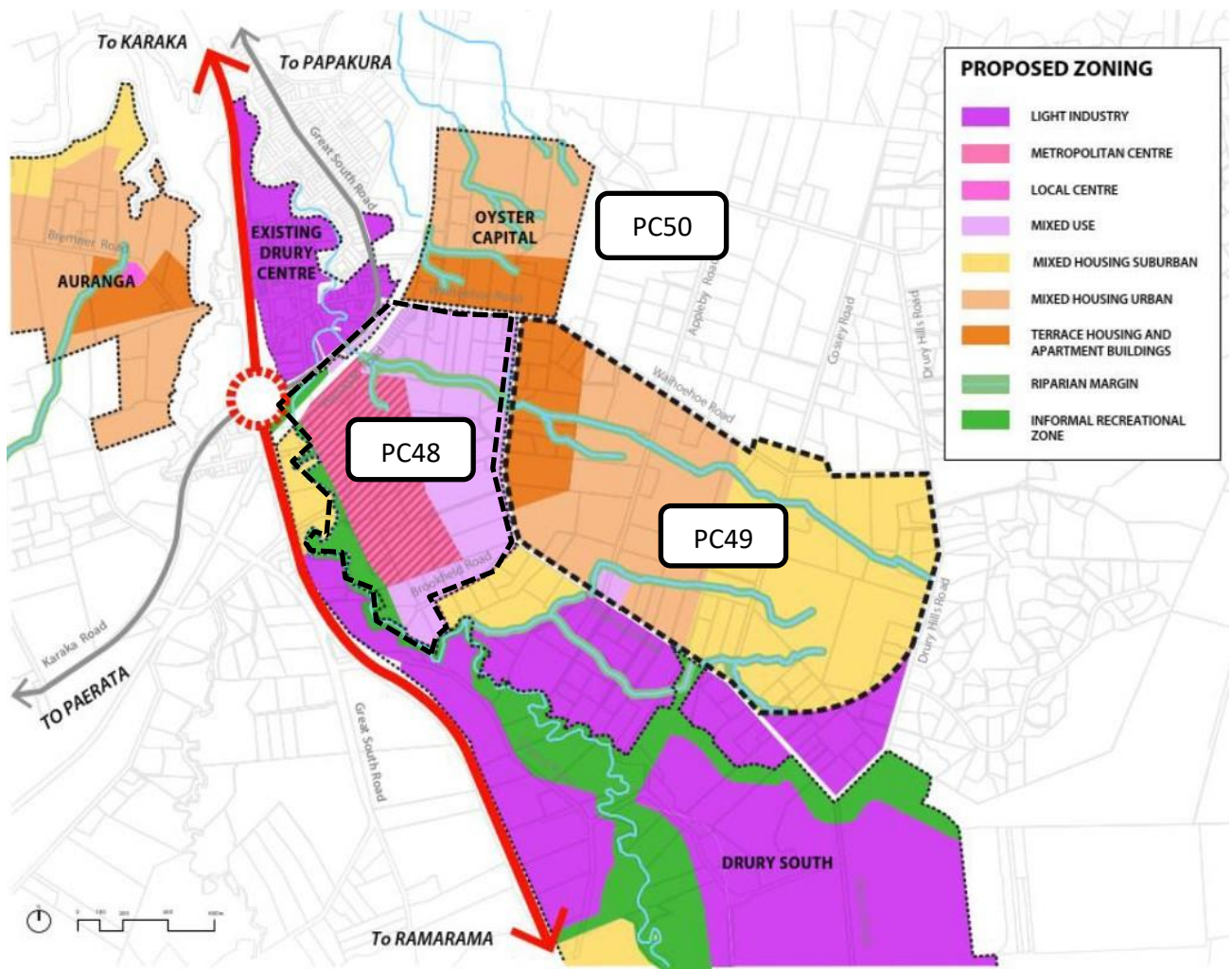


Figure 2: PPC50 zoning (at notification)



3 KEY ISSUES

A summary of all the transportation matters raised throughout my review is contained in Appendix B and Appendix C. Key transport matters/issues raised during my review are summarised below and discussed further in Section 4.

Consistency with transport related Regional Policy Statements in the AUP(OP)

While the masterplan for PPC50 is generally consistent with RPS Objectives B2.2.1(1) and B3.3.1(1), I consider that the Precinct provisions give little certainty that integrated land use and transport outcomes will be achieved. Development within PPC50 if developed in accordance with the proposed provisions is unlikely to satisfactorily address safety and efficiency effects on the surrounding transport network. The provisions lack surety that the development will put in place a transport network that is focused on access to Drury Station, provides for bus priority along Waihoehoe Road and local bus services. The provisions lack surety that integrated staging of land use and transport investment will enable the uptake of public transport and active transport modes as part of a safe and effective transport network.

Refer to my discussion in Section 4.1.

Key assumptions made by the applicant

In my view there are some infrastructure assumptions made by the applicant, which affect the transport investment thresholds put forward in the notified Precinct Provisions. These assumptions include

- ◆ Third-party transport infrastructure investment and delivery assumptions, including Mill Road being constructed in some form by 2028. The recent June 2021 announcement by the Government has since deferred the Mill Road project, confirming my view that reliance on this upgrade by 2028 places considerable risk on how the transport network is predicted to operate and how provisions are then framed around this
- ◆ Designations, which the applicant relies upon, are in place
- ◆ Land within the above designations has been acquired by the designating authority
- ◆ Vehicle trip rates and public transport mode shares assumed in the traffic modelling.

Refer to my discussion in Section 4.2.

The inter-related nature of the three plan changes

I am concerned that transport infrastructure needed to support PPC50, such as the Waihoehoe Road upgrade (that delivers bus priority) and Mill Road (between Manukau and Drury South), may not be delivered in a manner that integrates with development in PPC50. The traffic modelling used to support PPC50 assumes that Mill Road will be operational by 2028. While Mill Road is contained within ATAP 2021 – 2031 (but recently deferred by the Government), there is uncertainty over the time it may take to designate the route, acquire properties, and construct the project.

Given the uncertain development programmes of each PPC area, I am of the view that the prescriptive nature of the transport upgrade provisions in the Precinct is not appropriate due to impracticalities of

administering and monitoring the thresholds proposed by the applicant. Further, I have significant concerns about the infrastructure assumptions and methodology used in the traffic modelling, which the applicant has relied upon in setting these thresholds.

To address the uncertainty in development programmes and third-party infrastructure provision (including that contained within ATAP 2021 – 2031), and noting the recent Government announcement around Mill Road), and my concerns about the traffic modelling assumptions relied upon by the applicant, I consider that Standard IX.6.1 and IX.6.2 should be replaced in their entirety. I am of the view that provisions that are performance based in this instance give the consenting authority greater flexibility in determining mitigation required following an assessment of the environment at the time of development occurring. This also provides clearer ownership as to who is responsible for delivering the mitigation. Precinct provisions are required for this, as reliance on Chapter E27 Transport of the AUP(OP) is unlikely to capture the need to assess and upgrade key intersections about the area (including intersections and rural roads).

Refer to my discussion in Section 4.3 and recommended amendments to provisions in Section 5.

The form, timing and responsibility of supporting transport infrastructure

Based on the current provisions, I consider that there is a sizeable risk that there will be consequential adverse outcomes for economic well-being (in terms of transport network efficiency) and social well-being (including road user safety). This may result in Auckland Transport and Waka Kotahi NZTA (as road controlling authorities) being left to address substantial off-site cumulative safety and efficiency effects on the transport network beyond what would be expected from normal development or business as usual upgrades to the network, due to uncertainty around infrastructure scale, funding and timeframes. A number of third-party infrastructure improvements, including projects within ATAP 2021 – 2031, NZUP and DTIPs, are assumed in the transport assessment albeit the extent of the projects, funding and timing for delivery of some projects is not yet committed.

Provisions that enable an assessment against the network at the time land use activities are being applied for would provide greater control on what mitigation is required given the environment at that time, which may also include greater certainty on wider infrastructure timeframes.

Refer to my discussion in Section 4.4 and recommended amendments to provisions in Section 5.

The Great South Road/Waihoehoe Road intersection

It is unclear as to whether the layouts proposed by the applicant for the Great South Road/Waihoehoe Road intersection can physically fit within the area that Auckland Transport has issued a Notice of Requirement for, and allow for bus priority (as per the Auckland Transport Supporting Growth network), capture pedestrian crossings on all four approaches and provide the necessary facilities to ensure the corridor operates safely and efficiently for all transport modes. I do not support the current upgrades included in the proposed Precinct provisions at IX.6.1 and IX.6.2 associated with the Great South Road/Waihoehoe Road intersection.

Until Mill Road connects to the development and provides a secondary connection (to the north and south), reliance on Waihoehoe Road and the Great South Road/Waihoehoe Road intersection will be

much greater than that currently predicted in the transport assessment and that from which the current provisions are framed. A number of third-party infrastructure improvements, including projects within ATAP 2021 – 2031, NZUP and DTIPs, are assumed in the transport assessment albeit the extent of the projects, funding and delivery is not clearly understood. It is for this reason that bus priority measures on Waihoehoe Road (in particular westbound) are provided for from the outset (i.e. prior to activities being occupied) and the need to assess the mitigation required as development progresses is a better option, noting the uncertainty as to when wider area infrastructure is in place.

I am therefore of the view that the timing or triggers requiring the upgrades captured in IX.6.1 and IX.6.2 are not appropriate as currently drafted as they do not consider effects and therefore upgrades necessary prior to the full Mill Road corridor being constructed and open.

The thresholds set out in the notified Provisions for upgrading the Great South Road/Waihoehoe Road are not robust as I consider there are underlying flaws in the modelling assumptions used to set these thresholds. Further, the upgrades of this intersection as proposed in IX.6.1 and IX.6.2 have the potential to cause ongoing disruption to the transport network during works and will require the acquisition of third-party land and widening/replacement of the Waihoehoe Road rail overbridge, which is not identified in the Precinct Provisions.

I am therefore of the view that the timing or triggers requiring the upgrades captured in IX.6.1 and IX.6.2 are not appropriate as currently drafted as they do not consider the need for third-party land, the widening/replacement of the Waihoehoe Road rail overbridge, bus priority measures on Waihoehoe Road, the additional construction traffic effects due to the proposed multiple upgrades to the intersection and the uncertainty around the extent of the Mill Road project.

Refer to my discussion in Section 4.5 and recommended amendments to provisions in Section 5.

Safety effects on existing rural roads

In my view the notified provisions fail to address likely safety effects on existing rural roads. I consider that Waihoehoe Road, including the intersection with Fitzgerald Road, should be upgraded to urban standard prior to any increase in traffic due to occupied development within PPC50.

Refer to my discussion in Section 4.6 and recommended amendments to provisions in Section 5.

Enabling walking, cycling and public transport as viable transport options

In my view the Precinct provisions should include Standards relating to the early provision of walking and cycling connectivity between development and the Drury Central train station, and a continuous collector road network to enable Auckland Transport to provide bus services as staged development occurs.

Further, I recommend that funding is allocated to enable early provision of public transport services, noting that this sits outside of the Plan Change process and is not considered the responsibility of the applicant.

Refer to discussion in Section 4.7 and my recommended amendments to provisions in Section 5.

Prescriptive nature of the transport provisions

Based on the above assessment, I am of the view that changes are required to the Precinct Provisions in order to better assess and respond to the environment as development progresses. The assessment in my view places a lot of weight and reliance on government led transport network upgrades being delivered and in place prior to 2026-28. I consider that there are risks associated with this assumption and the provisions the Precinct currently frames around their assessment which relies on this.

I consider that the main concerns that need to be addressed by the Precinct provisions are

- ◆ Early delivery and operation of the Drury Central train station and bus priority measures on Waihoehoe Road (particularly westbound)
- ◆ Early delivery of active mode infrastructure (walking and cycling) including connections to trip generators and most importantly the Drury Central train station
- ◆ Delivery of safety and capacity improvements (for all modes) to existing rural roads to manage the transition from a rural to urbanised environment
- ◆ Performance and safety of the Waihoehoe Road/Great South Road intersection and the approaches to it (including the Waihoehoe Road rail overpass) for all road users (walking, cycling, public transport, and general traffic).

Refer to discussion in Section 4.8 and my recommended amendments to provisions in Section 5.

Access options

I recommend the removal of all thresholds in IX6.1 and IX6.2 relating to Access A to/from Drury Interchange.

Refer to my discussion in Section 4.10 and recommended amendments to provisions in Section 5.

Traffic modelling

The traffic modelling contains assumptions that, in my opinion, result in an underestimation of potential traffic effects. These assumptions include

- ◆ between the lodgement with Auckland Council and subsequent notification, there has been an increase in the extent of THAB in PPC50, with Mixed Housing Urban zone being removed
- ◆ under estimation of vehicle trips through the Great South Road/Waihoehoe Road intersection, in the instance that Mill Road is not in place
- ◆ under estimation of the number of vehicle trips generated by PPC50, due to assumed high uptake of walking, cycling and public transport, although the surety that infrastructure to support high non-car based travel will be delivered in conjunction with development is lacking in the precinct provisions
- ◆ under estimation of effects on the Great South Road/Waihoehoe Road intersection prior to signalisation, due to under estimation of the number of vehicle movements through the intersection and that it is modelled as a two-lane roundabout whereas the provisions do not require the existing single lane roundabout to be upgraded.

In response to the trip generation assessment, I retain my view that the prescriptive provisions in IX.6.1 and IX.6.2 should be removed in their entirety and replaced with provisions that are performance based. Further, I consider that the Provisions need greater emphasis placed on delivering infrastructure that provides improved safety and connectivity, so that the necessary transport outcomes to achieve TOD, such as mode share, are achieved.

Refer to my discussion in Section 4.11 and my recommended amendments to provisions in Section 5.

4 ISSUES SUMMARY

Each of the key issues highlighted in Section 3 have been discussed in further detail below, based on the assessment of the application as contained within the notified documentation.

4.1 Consistency with Regional Policy Statements in the AUP(OP)

I have considered the consistency of PPC50 with relevant objectives within Regional Policy Statements (RPS) in the AUP(OP), as discussed in Table 1.

Table 1: RPS commentary

RPS Objective	Flow comment
<p>B2.2.1.</p> <p>(1) A quality compact urban form that enables all of the following:</p> <ul style="list-style-type: none"> (a) a higher-quality urban environment; (b) greater productivity and economic growth; (c) better use of existing infrastructure and efficient provision of new infrastructure; (d) improved and more effective public transport; (e) greater social and cultural vitality; (f) better maintenance of rural character and rural productivity; and (g) reduced adverse environmental effects. 	<p>While I consider that the masterplan supporting PPC50 is generally consistent with B2.2.1(1) and B3.3.1(1), I consider that the Precinct provisions provide little in the way of surety that PPC50 will achieve efficient provision of new infrastructure, improved and more efficient public transport, reduced adverse environmental effects, nor facilitate transport choice.</p> <p>Unless amendments are made to the provisions per my recommendations and commentary on submissions, I consider that PPC50 is unlikely to result in integrated land use and transport outcomes, and that development within PPC50 is unlikely to satisfactorily address safety and efficiency effects on the transport network. I consider that the Precinct provisions give little certainty that integrated land use and transport outcomes will be achieved.</p>
<p>B3.3.1</p> <p>(1) Effective, efficient and safe transport that:</p> <ul style="list-style-type: none"> (a) supports the movement of people, goods and services; (b) integrates with and supports a quality compact urban form; (c) enables growth; (d) avoids, remedies or mitigates adverse effects on the quality of the environment and amenity values and the health and safety of people and communities; and (e) facilitates transport choices, recognises different trip characteristics and enables accessibility and mobility for all sectors of the community. 	<p>The provisions lack surety that the development will put in place a transport network that is focused on access to Drury Station and local bus services. The provisions lack surety that integrated staging of land use and transport investment will enable the uptake of public transport and active transport modes as part of a safe and effective transport network.</p> <p>I consider that, based on the provisions, there is a reasonable likelihood that future development will be car-oriented and not facilitate alternative transport modes.</p>

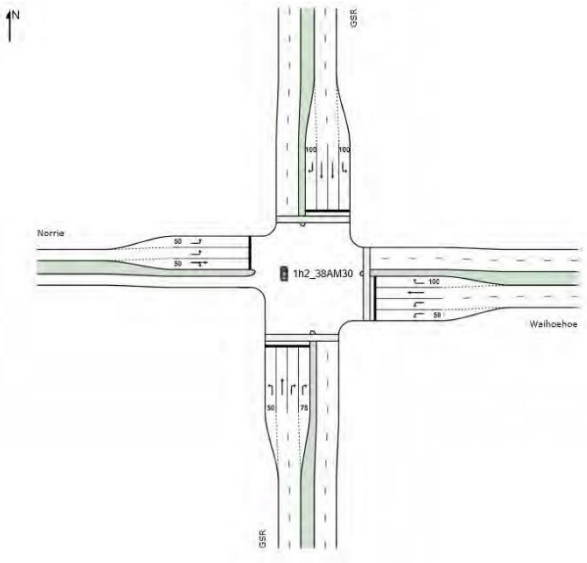
Outcome: While the masterplan for PPC50 is generally consistent with RPS Objectives B2.2.1(1) and B3.3.1(1), I consider that the Precinct provisions give little certainty that integrated land use and transport outcomes will be achieved. Development within PPC50 if developed in accordance with the proposed provisions is unlikely to satisfactorily address safety and efficiency effects on the surrounding transport network. The provisions lack surety that the development will put in place a transport network that is focused on access to Drury Station and local bus services. The provisions lack surety that integrated staging of land use and transport investment will enable the uptake of public transport and active transport modes as part of a safe and effective transport network.

4.2 Key assumptions made by the applicant

PPC50 relies on a series of assumptions, some of which I have concerns about. I have highlighted these assumptions below in Table 2, and discuss them further in the following sub-sections.

Table 2: Applicants key assumptions that I am concerned about

Applicant assumption	Flow comment
<p>Notices of requirement are lodged and resolved, and designations are in place for Waihoehoe Road, including rail overbridge upgrade and intersection with Great South Road</p> <p>Mill Road, between Manukau and Drury South Interchange</p> <p>Drury Interchange upgrade</p> <p>Drury South Interchange</p>	<p>Should designations not be in place, key infrastructure assumed in the ITA, as discussed in Table 3 below, will not be able to be delivered. I am concerned that transport infrastructure needed to support PPC50, such as the Waihoehoe Road upgrade and Mill Road (between Manukau and Drury South), may not be delivered in a manner that integrates with development in PPC50. This project has recently been deferred by Government, confirming my concerns with the delivery of this project and the need to have provisions that reflect this uncertainty). The traffic modelling used to support PPC50 assumes that Mill Road will be operational by 2028. There is uncertainty over the time it may take to designate the route, acquire properties, and construct the project, meaning it is unlikely to be operational at the time development within PPC50 starts to become operational.</p> <p>Refer to my discussion in Sections 4.3, 4.4, 4.5, 4.8, 4.10, and 4.11.</p>
<p>Land has been acquired for the above designations, and construction is complete</p>	
<p>High uptake of public transport during commuter peak periods.</p>	<p>In my opinion this is unlikely unless the infrastructure and services to support public transport uptake, such as the Drury Train Station, bus priority measures on Waihoehoe Road, frequent train services, local bus services, safety upgrades, and walking and cycling facilities are delivered before or in line with development.</p> <p>Refer to my discussion in Sections 4.3, 4.4, 4.5 4.7, 4.8, and 4.11.</p>
<p>The vehicle trip rates assumed in the traffic modelling</p>	<p>I consider that the traffic modelling underpredicts the number of vehicle movements that may be generated during peak periods. This is as a result of the assumed high uptake</p>

	<p>of public transport, as discussed above, and the questionable assumptions regarding commercial trips, as discussed in Section 4.11.</p>
<p>The three major land owners remain in control of existing land holdings and work together to deliver infrastructure collaboratively</p>	<p>In my opinion the prescriptive nature of the transport thresholds identified in the Precinct provisions are likely to be unwieldy in terms of monitoring and implementation, as discussed in Sections 4.3 and 4.8. This would be exacerbated by any further fragmentation of land ownership over the three PPCs. I understand that Council has experienced difficulty administering threshold type precinct rules where multiple land owners are involved, for example in the Redhill Precinct.</p>
<p>The upgrades to the Great South Road/Waihoehoe Road intersection proposed in the Precinct provisions will integrate with the NoR lodged by Auckland Transport for the upgrade this intersection</p>	<p>In determining the thresholds for the upgrade of this intersection, the applicant has assumed the intersection will ultimately be four traffic lanes wide on the eastern approach and four lanes wide on the southern approach. This layout is shown in Figure 3-3 of the Drury East Modelling Report, and shown below. The applicant has assumed that all lanes would be used by general traffic.</p>  <p>Figure 3-3: 2038 Signalised Intersection Layout</p> <p>However, I understand that Auckland Transport’s NoR for this intersection allows for four lanes on the eastern approach and that one of these lanes may be reserved for bus priority, which would reduce capacity for general traffic. The NoR also allows for only three lanes on the southern approach rather than the four assumed by the applicant.</p> <p>Further, Precinct provisions do not discuss the replacement of the Waihoehoe Road rail overbridge. However, this will be required to implement the Waihoehoe Road intersection layout assumed in the traffic modelling.</p> <p>Refer to my discussion in Sections 4.4, 4.5, and 4.8.</p>

<p>That Mill Road will be constructed in its entirety by 2028.</p>	<p>As noted in Table 3 below, the Mill Road project is likely to be delivered in stages. It is this project which dampens the traffic demand and therefore potential effects at the Great South Road/Waihoehoe Road intersection.</p> <p>As set out in the Government announcement, the Mill Road project has been reduced in scale, with safety improvements being the focus between Redoubt Road (in Manukau) and Papakura. The extent of Mill Road, including a new corridor the provides connectivity of the Drury East development to the north and south has been deferred.</p> <p>As such there is uncertainty over the time it may take to designate the route, acquire properties, and construct the project. Following the Government announcement, it is now uncertain as to when the project will occur.</p> <p>Refer to my discussion in Sections 4.4 and 4.11.</p>
<p>That the Drury Central train station is beneficial, but not essential to development in the short term</p>	<p>It is my view that the train station should be open and operating prior to any development being occupied. I am also of the view that supporting connections are also provided for from the outset. Refer to my discussion in Sections 4.7, 4.8, and 4.11.</p>

Outcome

In my view there are some infrastructure assumptions made by the applicant, which affect the transport investment thresholds put forward in the notified Precinct Provisions. These assumptions include

- ◆ ***Third-party transport infrastructure investment and delivery assumptions, including Mill Road being constructed from Manukau to Drury South interchange by 2028. The recent June 2021 announcement by the Government has since deferred the Mill Road project, confirming our views that reliance on this upgrade by 2028 places considerable risk on how the transport network is predicted to operate and how provisions are then framed around this***
- ◆ ***Designations, which the applicant relies upon, are in place***
- ◆ ***Land within the above designations has been acquired by the designating authority***
- ◆ ***Vehicle trip rates and public transport mode shares assumed in the traffic modelling.***

4.3 Inter-related nature of the three plan changes

While the three PPCs have been lodged separately, they rely on a shared traffic modelling assessment prepared by Stantec (Drury East Modelling Report dated November 2019) and therefore the effects associated with the PPCs are cumulative, rather than being isolated to each individual application. While a cumulative assessment allows a holistic understanding of the network effects to be provided, isolating the responsibility as to who delivers the transport upgrades presents some challenges.

As the three PPCs are separately lodged they must, in my view, also be considered in isolation so that if, for any reason, the PPCs become separated and require processing separately as stand-alone proposals,

or development timeframes differ to that currently anticipated, the potential transport effects of each PPC, the mitigation required and therefore the proposed planning provisions can be individually assessed.

I queried during the pre-application phase the extent to which PPC50 relies on PPC48 and PPC49, and how the delay or rejection of one or both PPCs might affect PPC50, particularly in relation to the delivery of transport infrastructure. The applicant's response to this matter was provided in the Planning RFI response from B&A, at Section 1.2, where the applicant sees the risk sitting with the integrated delivery of transport infrastructure. The delivery of infrastructure is discussed in the following section, drawing on what I know about the ATAP 2021 – 2031, NZUP, and the Drury Transport Infrastructure Programme (DTIP) which the applicant views as the response to the issue.

While noting the reliance on wider infrastructure, I note that the assessment of the Drury East area is contingent on all PPCs being approved and developing in accordance with the assumptions of the ITA. By way of example, there is a high reliance on movement remaining within the Precinct, as people live, work and play across the three PPCs. Should the balance of these activities shift, then I would expect a greater level of external (outside Drury East) to internal (inside Drury East), and internal to external trips which would then impact on the predicted effects about the wider transport network. As such, should one or two PPCs be delayed, I would expect that the transport effects and therefore mitigation to alter. This has not been assessed.

Outcome: I am concerned that transport infrastructure needed to support PPC50, such as the Waihoehoe Road upgrade and Mill Road (between Manukau and Drury South), may not be delivered in a manner that integrates with development in PPC50. The traffic modelling used to support PPC50 assumes that Mill Road will be operational by 2028. While Mill Road is contained within ATAP 2021 – 2031 (a non-statutory agreement between Council and Government), there is uncertainty over the time it may take to designate the route, acquire properties, and construct the project. Following the recent Government announcement there is no certainty as to the timeframe of Mill Road that will improve access to the PPC area (through Papakura to Waihoehoe Road).

Given the uncertain development programmes of each PPC area, I am of the view that the prescriptive nature of the transport upgrade provisions in the Precinct is not suitable in this instance. Provisions that are performance based in my view give greater flexibility in determining mitigation required following an assessment of the environment at the time of individual development. This also provides clearer ownership as to who is responsible for delivering the mitigation. Precinct provisions are required for this, as reliance on Chapter E27 Transport of the AUP(OP) is unlikely to capture key intersections about the area.

4.4 Form, timing and responsibility of supporting transport infrastructure

Since lodgement of PPC50, I understand that discussion on the funding and delivery of wider strategic transport infrastructure within the Drury area has been ongoing between central government, local government, and developers. This workstream is referred to as the DTIP, which I understand has recently been renamed DIFF. As Council's transport specialist for PPC48, PPC49, PPC50 and the Drury 2 Precinct (PPC51) I have not been directly involved with these discussions, with my involvement being

limited to briefings on what the DTIP/DIFF programme covers and the process this team is working through.

Key DTIP/DIFF infrastructure about the Drury East area that sits within ATAP 2021 – 2031 and the NZ Upgrade Programme (NZUP) consists of the following

- ◆ Electrification of rail between Pukekohe and Papakura
- ◆ Delivery of a rail station about Drury Central
- ◆ SH1 improvements between Papakura to Drury South (Stage 2, being widening of SH1 to Drury South and the new Drury South interchange on SH1 is now deferred)
- ◆ Mill Road (now rescoped to safety improvements only between Papakura and Redoubt Road).

Firstly, each of these projects is assumed to be complete in the traffic assessment of the PPCs. Of these, it is essential that the first two projects (those related to rail) are delivered so that sustainable travel patterns are encouraged from the outset and that the effects and reliance on private vehicle travel are consistent to that used in the modelling assessment.

For instance, the traffic modelling calculations assume a 20%³ public transport mode share for office workers in 2028. If reliance on private vehicle travel is not reduced through the provision and use of other travel modes, the roading mitigation currently captured within the Precinct provisions may not be sufficient.

Additional projects that are relevant to the PPC are discussed in Table 3. Unlike the above ATAP 2021 – 2031 and NZUP public transport projects where funding is understood to be programmed (though not necessarily committed, as discussed in Section 3), I am unsure as to the outcome of funding and timeframes associated with Waihoehoe Road. Auckland Transport is working on documentation to support a Notice of Requirement (NOR) for Waihoehoe Road which provides confidence that widening Waihoehoe Road is achievable without countering third-party land ownership issues once designation has been obtained. It is important to note however that while Auckland Transport is progressing a NOR for Waihoehoe Road, this process secures the road designation, but does not acquire the land or deliver the improvements assumed in the transport assessment, from which effects are informed.

Waihoehoe Road is a key future public transport route, which will connect the Drury West area (via Jesmond and Norrie Road) to the Drury Central train station. As such, it is highly likely that bus lanes will feature, and in my view need to feature from the outset on Waihoehoe Road. The traffic modelling and mitigation proposed in Appendix A of the application excludes bus priority measures which raises concerns as to whether the mitigation put forward by the applicant aligns with and can fit within the desired network and designation being planned by Auckland Transport.

Until funding, timeframes and an understanding of what the designation allows for in terms of a design for DTIP projects, I am of the view that risks exist with the cost, timing and adequacy of the upgrades required to support PPC48, PPC49 and PPC50.

³ Demand Summary Excel Worksheet_Demand Summary_TC_TWRevision

Section 4 and Appendix B of the notified ITA provides further details on the assumed funding and timing of third-party transport infrastructure. Key infrastructure within the Drury area is summarised in Table 3, with my commentary provided where relevant.

Table 3: Transport investment assumptions

Investment required	Applicant Assumption	Flow comment
Funded, required to support PPC50		
Rail Electrification from Papakura to Pukekohe	Funding confirmed through NZUP, assumed completion 2024	Development prior to increased public transport accessibility may compromise the objective of Drury becoming a TOD.
Drury Central train station	Funding confirmed through NZUP, assumed completion 2024	As the applicant relies on these projects, I am of the view that these should be operational prior to land use activities being operational.
SH1 Papakura to Drury South, including new Drury South Interchange	Funding confirmed through NZUP. Assumed completion 2025	Only funded between Papakura and Drury, as per the recent Government announcement (June 2021). Releases pressure from Drury Interchange and provides additional capacity on the state highway network. The key outcome from this project relates to whether a direct connection to the PPC area is feasible and supported by Waka Kotahi, and if/when the connection would occur.
Mill Road Corridor (Southern and Papakura Section)	Funding confirmed. Assumed to be delivered in stages from 2025/2026 to 2027/2028, with consent application lodged by early 2021 for the Southern and Papakura Section.	Not funded, as per the recent Government announcement (June 2021). The key concern here is that this project is likely to be delivered in stages. As the transport assessment focusses on 2026, any delay in sections, such as the middle section (Waihoehoe Road to Alfriston Road) would place additional pressure onto the Great South Road/Waihoehoe Road intersection (including the approaches) and therefore the effects and mitigation predicted for Waihoehoe Road and Great South Road. I have significant concerns that the timeline for implementation is overly ambitious as the notice of requirement has not yet been lodged, and any land acquisition, ongoing planning, design and construction may take several years. As no assessment has been completed that excludes sections of Mill Road, the extent of the effects of the PPC are unknown.

Investment required	Applicant Assumption	Flow comment
Unfunded, required to support PPC50		
Waihoehoe Road/Great South Road intersection. Safety upgrade	Prior to any development, per Table IX.6.1.1/Table IX.6.1.2./Table IX.6.2.1 and/or Table IX.6.2.2.	Included in DTIP, however I am unsure as to funding, commitment and timeframes.
Waihoehoe Road upgrade	Completion 2025. Assumed to be funded by DTIP.	Included in DTIP, however I am unsure as to funding, commitment and timeframes. Required to mitigate potential safety effects, and to enable FTN network between Drury, Papakura, and Manukau. I consider that urbanisation between Great South Road and PPC50 should precede any development within PPC50. Refer to my recommended Provisions in Section 5. Supporting Growth Alliance (SGA) has lodged notices of requirement for Waihoehoe Road upgrade, although no funding is allocated for construction.
Waihoehoe Road/Great South Road intersection. Upgrade to signals	Per Table IX.6.1.1/Table IX.6.1.2./Table IX.6.2.1 and/or Table IX.6.2.2. Assumed to be between 2033 – 2038.	Included in DTIP. The timing and form of these upgrades are heavily dependent on Mill Road (south of Waihoehoe Road) and Drury South Interchange being operational.
Waihoehoe Road/Great South Road intersection. The intersection will need to be upgraded on the western arm to provide higher exit capacity	Per Table IX.6.1.1/Table IX.6.1.2./Table IX.6.2.1 and/or Table IX.6.2.2. Assumed to be 2038.	I discuss my concern regarding the uncertainty of the timing of the Mill Road corridor in Section 4.11.
Waihoehoe Road/Great South Road intersection. Capacity upgrade	Per Table IX.6.1.1/Table IX.6.1.2./Table IX.6.2.1 and/or Table IX.6.2.2. Assumed to be 2048.	
Walking and cycling network	Delivered in conjunction with development.	Not included in DTIP (other than potential strategic walking and cycling links). I consider that the Objectives, Policies, Matters of Discretion, and Assessment Criteria provide assurance that walking and cycling connections to the Drury Central train station will be delivered along with development.

Investment required	Applicant Assumption	Flow comment
Train and local bus services	Assumed to be provided as development occurs.	Not included in DTIP. The Regional Public Transport Plan 2019 has committed funding for additional electric trains to run services between Pukekohe and Papakura. Other than the replacement of diesel trains for electric trains, the only new services assumed is new connector 374 bus service between Drury and Papakura. The 374 will be introduced by 2028 ⁴ , with 20min frequency during weekdays and 30min frequency during evenings and weekends. I recommend that, if PPC50 is approved, funding for supporting public transport services is allocated in-line with proposed development. Development prior to increased public transport accessibility may compromise the objective of Drury becoming a TOD.
Unfunded, indirectly tied to PPC50		
Jesmond Road upgrade and Extension	Completion 2027	Included in DTIP. Required to enable FTN network between Drury, Papakura, and Manukau. I expect SGA will be lodging notices of requirement, although no funding is allocated for construction.
Bremner Road/Norrie Road realignment and bridge upgrades	Completion 2026	
New Ōpaheke North-South arterial	Completion 2042	
SH22 Safety Improvements and widening	Completed 2027	Included in DTIP. SGA has lodged notices of requirement, although no funding is allocated for construction.
Great South Road FTN Upgrade to Papakura	Completed 2037	Included in DTIP.
Pukekohe Expressway Stage 1	Completed 2038	SH1 to Burt Road section included in DTIP.

Outcome: Based on the current provisions, I consider that there is a sizeable risk that there will be consequential adverse outcomes for economic well-being (in terms of transport network efficiency) and social well-being (including road user safety). This may result in Auckland Transport and Waka Kotahi NZTA (as road controlling authorities) being left to address substantial off-site cumulative

⁴ Regional Public Transport Plan 2019, Appendix 3 Page 214, available online: <https://at.govt.nz/media/1979652/rptp-full-doc-final.pdf>

safety and efficiency effects on the transport network beyond what would be expected from normal development or business as usual upgrades to the network, due to uncertainty around infrastructure scale, funding and timeframes. A number of third-party infrastructure improvements, including projects within ATAP 2021 – 2031, NZUP and DTIPs, are assumed in the transport assessment albeit the extent of the projects, funding and timing for delivery of some projects is not yet committed.

Provisions that enable an assessment against the network at the time land use activities are being applied for would provide greater control on what mitigation is required given the environment at that time, which may also include greater certainty on wider infrastructure timeframes.

4.5 Waihoehoe Road/Great South Road intersection

The Waihoehoe Road/Great South Road intersection is the only upgrade the applicant identifies as being needed on the external network to the precinct. I have several concerns with the application and assessment of this intersection, being

- ◆ Consistency, feasibility and alignment of the upgrade with that anticipated by the SGA NOR
- ◆ Wider network assumptions which dampen down projected short-term demand at the Great South Road/Waihoehoe Road intersection
- ◆ The thresholds proposed in IX.6.1 and IX.6.2 that trigger the need for the intersection upgrade.

4.5.1 Consistency, feasibility and alignment with SGA NOR

During my Clause 23 review I questioned whether the proposed form of the Great South Road/Waihoehoe Road intersection was consistent with the intentions/design proposed by the SGA. The applicant considered that their design was consistent with, or did not preclude potential designs from SGA, and that there would be ongoing liaison between the developer and Auckland Transport so that a mutually agreed concept design of the intersection can be achieved. I am unaware of whether these discussions have been ongoing, but note that including specific upgrades to the intersection within the Provisions is essentially locking in upgrades that may not align with the transport corridor outcomes the NOR and Auckland Transport seek.

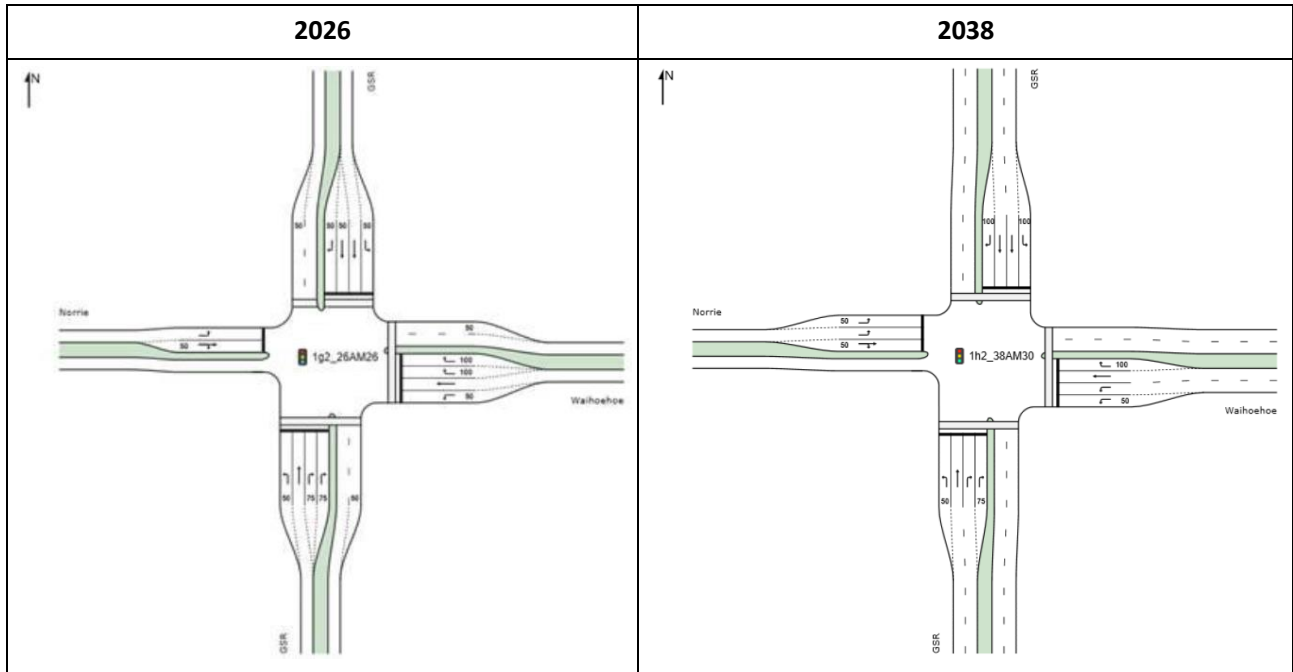
The notified ITA recommends an upgrade of the Great South Road/Waihoehoe Road intersection by 2033 if a new access is not provided to the Metropolitan Centre, or 2038 if a new access is provided to the Metropolitan Centre⁵.

While I have concerns over the timing suggested for the intersection upgrade, I am unaware whether the upgrades put forward in the application can physically fit and provide the capacity intended within the designation that is being sought by Supporting Growth at Auckland Transport. The layouts for 2028 and 2038, as proposed by the applicant, are shown below, as included in the Transport Modelling Report. I note that neither upgrade features bus priority lanes, and they assume four approach lanes on Great South Road and Waihoehoe Road approaches and no pedestrian crossings on the Norrie Road approach. I understand that this does not reflect Auckland Transport's design for the intersection, which I understand will include bus priority measures, only three approach lanes on the southern leg, and

⁵ Section 9.3 of the ITA, Page 44

pedestrian/cyclist crossings on all arms of the intersection. While I appreciate that the design of the intersection is subject to further detail, the key concern relates to whether the current assumptions overestimate future capacity and therefore underestimate the potential effects and necessary mitigation.

Table 4: Great South Road/Waihoehoe Road Intersection Assumptions



NB. A 2028 layout has been tested which assumes four lanes for Waihoehoe Road. The layout of intersection lanes remains similar.

Outcome: It is unclear whether the layouts proposed by the applicant can physically fit within the area that Auckland Transport has issued a Notice of Requirement for, and allow for bus priority, capture pedestrian crossings on all four approaches and provide the necessary facilities to ensure the corridor operates safely and efficiently for all transport modes. Based on the above, I do not support the current upgrades included in the Precinct provisions at IX.6.1 and IX.6.2 associated with the Great South Road/Waihoehoe Road intersection.

4.5.2 Wider Network Assumptions – Dampening of short-term volumes at Great South Road/Waihoehoe Road intersection

I am mindful of the trip generation assumptions and trip assignment included in the traffic model, and the implications this has on determining the transport upgrades carried through to the provisions.

Looking at the short-term 2028 forecast traffic model used to inform the assessment, I note that the model includes the NZUP projects⁶ as an underlying assumption (as set out in Appendix B of the notified ITA), which includes the extent of the Mill Road project. As noted in Table 1 above, the Mill Road project

⁶ NZUP projects are included in ATAP 2021 – 2031, which was released after the PPC50 traffic modelling assessment was undertaken

has now been deferred by the Government. It is this project which dampens the traffic demand and therefore potential effects at the Great South Road/Waihoehoe Road intersection.

To my knowledge, the northern section of Mill Road (Redoubt Road to Alfriston Road) forms Stage 1 of the Mill Road corridor and has been rescaled to only include safety works. The second stage of Mill Road may well be the southern section, connecting Waihoehoe Road to Drury South. I understand that it is the middle section, north of Waihoehoe Road and passing through Papakura, which has the greatest risk in terms of delivery timeframe. It is also the section that this project relies on in terms of reducing pressure at the Great South Road/Waihoehoe Road intersection. Following the recent Government announcement, Mill Road will not be operational by 2028, with the timing of the actual delivery unknown.

I have interrogated the wider area SATURN traffic model for 2028 (which excludes the change in zoning to THAB for PPC50, as notified), to appreciate how many vehicles (from the development) are predicted to use Mill Road, to the north of the development. Table 5 shows that for 2028, 200 vehicles per hour travel northbound and 450 vehicles per hour travel southbound on the section of Mill Road immediate north of the Drury East Precincts (PPC48, PPC49 and PPC50). Those volumes reflect 20% of all volumes exiting the Precincts and 30% entering the Precincts. Adding these volumes to the Great South Road/Waihoehoe Road intersection in my view would require an upgrade to the intersection and the approaches to it much sooner than the current provisions allow for. Further, whether an upgrade of the Great South Road/Waihoehoe Road intersection can cater for these volumes is uncertain.

Table 5: Predicted Precinct traffic distribution (2028 PM Peak)

	Kiwi Precinct (Zone 5541)		Fulton Precinct (Zone 5542)		Oyster Precinct (Zone 5551)		TOTAL	
	From	To	From	To	From	To	From	To
SH1 (north)	98	108	51	135	21	32	170	275
Great South Rd (north)	106	90	40	41	11	11	157	142
Mill Road (north)	91	98	81	275	32	80	204	453
Drury South I/C (south)	64	35	25	46	9	16	98	97
SH22 (west)	45	54	26	45	11	21	82	120
TOTAL PRECINCT (all trips – includes internal)	560	495	340	760	125	315	1,025	1,570

While 2028 volumes have been provided, the key standout from the above is that Mill Road attracts considerably more traffic from the development than is currently predicted to use Great South Road (north).

Outcome: Until Mill Road connects to the development and provides a secondary connection (to the north and south), reliance on the Great South Road/Waihoehoe Road intersection will be much greater than that currently predicted in the transport assessment and that from which the current provisions are framed. A number of third-party infrastructure improvements, including projects within ATAP

2021 – 2031, NZUP and DTIP/DIFFs, are assumed in the transport assessment albeit funding and delivery is not clearly understood. It is for this reason that the requirement to assess the mitigation required as development progresses is a better option, noting the uncertainty as to when wider area infrastructure is in place.

I am therefore of the view that the timing or triggers requiring the upgrades captured in IX.6.1 and IX.6.2 are not appropriate as currently drafted as they do not consider effects and therefore upgrades necessary prior to the full Mill Road corridor being constructed and open.

4.5.3 IX.6.1 and IX.6.2 Intersection Upgrade Thresholds

In light of the above commentary, prior to discussing upgrade options for the Great South Road/Waihoehoe Road intersection, it is important to note that the current roundabout is a single lane roundabout, with single lane approaches on Great South Road (south) and Waihoehoe Road. Great South Road (north) and Norrie Road have two lane approaches, with left turn movements provided with a dedicated lane. An aerial image of the current intersection is shown in Figure 3.

Figure 3: Existing Great South Road/Waihoehoe Road intersection



I am therefore sceptical whether the significant development enabled by the first threshold identified in Table IX6.1.1 (3,406 dwellings, or 62,430 m² Retail, or 34,800 m² Commercial) and Table IX6.1.1 (4,750 vehicles per hour in the AM peak, and 4,810 vehicles per hour in the PM peak) can even be

accommodated by the existing roundabout. I note that the traffic model used to assess the performance of the network in 2028 and 2033 (of which the above thresholds relate to) relies on the underlying assumptions used by the Supporting Growth Alliance (SGA). The SGA traffic model assumes a two-lane roundabout which has been retained in the applicant's traffic assessment, however the thresholds identified in IX6.1.1 do not identify the need to upgrade to two-lanes (which has been assumed in the applicant's traffic modelling).

The upgrade of the Great South Road/Waihoehoe Road intersection will be reliant on the acquisition of third-party land, which the applicant has assumed will be undertaken by Auckland Transport. The upgrade will likely require the widening/replacement of the Waihoehoe Road rail overbridge, which is not identified in the Precinct Provisions. Further, I consider that the multiple-staged upgrades of this intersection, as identified by in Table IX6.1, does not give sufficient consideration of disruption to the transport network during works.

Outcome: The thresholds for upgrading the Great South Road/Waihoehoe Road intersection are not robust as I consider there are underlying flaws in the modelling assumptions used to set these thresholds. Further, the upgrades of this intersection as proposed in IX6.1 and IX6.2 have the potential to cause ongoing disruption to the transport network during works and will require the acquisition of third-party land and widening/replacement of the Waihoehoe Road rail overbridge, which is not identified in the Precinct Provisions.

I am therefore of the view that the timing or triggers requiring the upgrades captured in IX.6.1 and IX.6.2 are not appropriate as currently drafted as they do not consider the need for third-party land, the widening/replacement of the Waihoehoe Road rail overbridge, or the additional construction traffic effects due to the proposed multiple upgrades to the intersection.

4.6 Safety effects of existing rural roads

I consider that PPC50 does not respond to potential safety effects that could be created on existing rural roads. While the applicant has considered the potential safety effects at the Waihoehoe Road/Great South Road intersection and incorporated provisions to address these, I consider that other safety mitigation measures are required.

I am concerned about the potential safety effects on rural roads because of additional traffic generated from PPC50. For example, I consider that the early urbanisation of Waihoehoe Road (with kerb and channel, footpaths, intersection improvements, etc) is required to support the change in nearby land uses.

An example of where safety effects have not been appropriately mitigated during the staged delivery of development is in the Takanini area, where existing roads such as Walters Road and Airfield Road have been urbanised in a piecemeal fashion, leaving discontinuous footpaths, swales presenting a hazard to all road users, power poles too close to road edges, inappropriate speed limits, and poor pavement surfaces.

In the absence of committed funding for the upgrade of Waihoehoe Road to urban standard from the outset of development, or Precinct provisions requiring the same, I remain concerned that potential

safety effects will go unaddressed in the short to medium term. In Section 5 I have recommended Provisions to ensure urbanisation of existing rural roads is delivered in an integrated manner with development. Upgrading Waihoehoe Road is of great importance given the need to provide priority to bus services and provide connectivity for all modes with the Drury Central train station as discussed below.

Outcome: In my view the notified Provisions fail to address likely safety effects on existing rural roads. I consider that Waihoehoe Road should be upgraded to urban standard prior to any development within PPC50.

4.7 Enabling walking, cycling and public transport as viable transport options

A key aspect of my Clause 23 review focused on when and how infrastructure to support public transport, walking, and cycling trips would be delivered within the Precinct. In response to several lines of query, the applicant included several Matters of Discretion and Assessment Criteria related to the provision of a connected street network that links to the Drury Central train station.

I support these provisions, however I consider that Standards relating to the early provision of public transport, walking and cycling connectivity are required. Refer to Section 5 where I have made recommendations for Provisions related to enabling walking, cycling, and public transport as safe and attractive transport options.

Of note is, in my opinion, the need to ensure that all development has a contiguous collector road network connecting it to the Drury Central train station to enable local bus services. While the Provisions proposed by the applicant ensure that the road network will support local bus services at full buildout, I consider that it is critical that bus priority along Waihoehoe Road (particularly westbound) is provided from the outset and local bus connectivity is provided within each stage of development. This is consistent with the assumptions made in the applicant's traffic modelling, which includes the forecast public transport patronage of over 600 trips in the 2028 AM peak and over 1,400 trips in the 2038 PM peak⁷.

Following discussions with Auckland Transport, I understand that the funding for future public transport services to support PPC50 (including local bus services) has not been committed. I consider that early provision of these services, to influence land-use patterns and travel behaviour, is critical for establishing a TOD.

Outcome: In my view the Precinct provisions should include Standards relating to the early provision of walking and cycling connectivity between development and the Drury Central train station, and a continuous collector road network to enable Auckland Transport to provide bus services as staged development occurs. Further, I recommend that funding is allocated to enable early provision of public transport services, noting that this sits outside of the Plan Change process and is not considered the responsibility of the applicant.

⁷ Memo "Response to Clause 23(2) Additional Information Request – Drury Central Private Plan Change Request - Kiwi Property No.2 Ltd, Oyster Capital, and Fulton Hogan Land Development Ltd", produced by Stantec, dated 28 April 2020

4.8 Prescriptive vs Performance transport thresholds

I am of the view that the transport upgrades set out in IX6.1 and IX6.2 are too prescriptive when considering the uncertainties I have highlighted with the transport assessment.

I consider that there are assumptions in the traffic assessment, in terms of trip generation and trip assignment, that present risks when considering the extent of the effects of PPC50 and therefore the standards included in the provisions. My concerns being

- ◆ The number of vehicle trips assumed to be generated. An assessment of vehicle trips with the applicant confirms that the trips assumed to be generated by the three plan change areas are low and this may be compounded with the proposed increase in density to THAB across PPC50. While updated traffic models have been provided to Council to review (which exclude THAB across the whole of PPC50), the applicant is of the view that this does not impact the mitigation proposed. I have a differing view
- ◆ The traffic assessment assumes that all DTIP/DIFF infrastructure is in place from the outset of the development. Key concerns here relate to public transport provision, Waihoehoe Road upgrade, Great South Road/Waihoehoe Road intersection upgrade and the assumption that Mill Road is complete. The assumption that these projects will be in place result in a transport response (mode share and distribution) which in my view presents risks when considering the performance of the immediate network and any upgrades that may be required until such time as the wider external infrastructure is delivered.

It is my view that the timing of upgrades, being either connected to land use thresholds or trip generation is inappropriate given the uncertain timeframes associated with external infrastructure which the traffic assessment has relied on.

Further, I consider that provisions are overly complicated by different transport thresholds for different access options (with and without “Access A” scenarios).

I also consider that the transport improvements identified in the provisions overly focus on car access and do not give sufficient weight to safety, public transport and active mode outcomes. I note that the draft provisions include Assessment Criteria (IX.8.2(1)(c)) related to walking and cycling access, however I consider that this would be better represented as a Standard.

To address these concerns, and to support a TOD outcome, I recommend revised triggers for transport infrastructure. These triggers are outcomes focused rather than prescriptive, and therefore allow for the uncertainty in terms of funding, commitment and delivery of DTIP infrastructure, land use, staging etc.

I am mindful that including a performance-based standard may result in piecemeal development, and result in future resource consents challenging the extent of the network that requires effects to be firstly assessed and secondly mitigated. For instance, a development strategy may well result in subdivision (which will be argued does not generate traffic), with land then being reordered into smaller lots that are then either sold on (to further parties) or developed within AUP(OP) assessment thresholds.

I am of the view that there are some key pieces of infrastructure that need to be provided for upfront. Once constructed and operational, future upgrades could be assessed as development progresses.

Outcome: I consider that the main concerns that need to be addressed by the Precinct provisions

- ◆ ***Early delivery and operation of the Drury Central train station and bus priority measures on Waihoehoe Road, (particularly westbound)***
- ◆ ***Early delivery of active mode infrastructure (walking and cycling) including connections to trip generators and most importantly the Drury Central train station***
- ◆ ***Delivery of safety and capacity improvements (for all modes) to existing rural roads to manage the transition from a rural to urbanised environment***
- ◆ ***Performance and safety of the Waihoehoe Road/Great South Road intersection and the approaches to it (including the Waihoehoe Road rail overpass) for all road users (walking, cycling, public transport, and general traffic)***

I suggest that amendments are made to the Precinct Provisions, as discussed in Section 5.

4.9 Integration with Drury South Industrial Precinct

The following transport improvements have been specified in the Drury South Industrial Precinct Plan (I410), that are relevant to the Plan Change.

- ◆ upgrade of the Quarry Road/Great South Road intersection
- ◆ upgrade of the Great South Road/SH22 intersection
- ◆ upgrade of the right turn bay on Waihoehoe Road at the Waihoehoe Road/Fitzgerald Road intersection
- ◆ a new dedicated pedestrian path and cycleway between the existing Drury township and the Drury South Industrial Precinct.

I recommend that the applicant work with landowners within the Drury South Industrial Precinct to deliver any required infrastructure that is common to both Precincts, noting that this sits outside of the Plan Change process.

4.10 Access options

The Section 32 report, at Section 10.4.1 speaks of several access options to PPC50 by 2048, noting the following

- ◆ Primary access via Waihoehoe Road
- ◆ Primary access via Mill Road, noting that the alignment and design of this corridor has yet to be confirmed by SGA/Waka Kotahi

Based on the above, access by vehicles is essentially restricted to the Great South Road/Waihoehoe intersection in the short to medium term, with further access being via Mill Road in the long term (when constructed).

In my view, access by vehicle is limited to one primary intersection (being the Great South Road/Waihoehoe Road intersection) which therefore places greater emphasis on other travel modes, specifically public transport, walking and cycling. It also requires any upgrade of the Waihoehoe Road/Great South Road intersection to be done right once and once only given the reliance of the intersection providing access to three significant plan change areas, as well as the existing community where safety should be a priority as development comes online and during construction.

4.10.1 Drury Interchange Access

The ITA considers two potential future road networks serving PPC50, one where direct vehicle access to Drury Interchange is provided (termed “Access A” in the Provisions) and one where this connection is not provided. The with/without options are reflected in the Provisions, with Table IX.6.1.1 and Table IX.6.2.1 relating to development with Access A, and Table IX.6.1.2 and Table IX.6.2.2 relating to development without Access A.

During my Clause 23 review I recommended that the applicant engage further with Waka Kotahi to establish the feasibility of Access A as, in my view, such a connection would not be feasible in the immediate future, or until such time as a considerable level of demand was removed from the Drury Interchange (for example by providing an interchange at Drury South). The applicant advised that engagement with Waka Kotahi was ongoing, and they anticipated having more clarity on the access arrangement before the Hearing.

Prior to any further correspondence being shared before the hearing, I note the following in relation to Waka Kotahi’s submission

- ◆ Waka Kotahi raises concerns with the design and directional flow of Access A
- ◆ Waka Kotahi seeks the removal of all thresholds in IX6.1 and IX6.2 relating to Access A

I support Waka Kotahi’s requested relief and consider that the provisions should be simplified to avoid the need for with/without Access A thresholds. Refer to my discussion about performance vs prescriptive triggers in Section 4.8 and recommendations in Section 5.

Outcome: I recommend the removal of all thresholds in IX6.1 and IX6.2 relating to Access A.

4.11 Traffic modelling methodology, assumptions, results, and interpretation

4.11.1 Traffic Modelling Platform

The traffic modelling completed to support the plan change has relied on the Supporting Growth SATURN traffic model, as well as isolated intersection SIDRA models developed by Stantec. Trip generation and distributions within these models have been informed by the Auckland Regional Macro Simulation Model (MSM), formerly known as the ART3 model (Auckland Regional Transport 3).

These tools are accepted tools for assessing the predicted effects of a plan change, provided that the underlying assumptions are reasonable, and that the ability of the models are respected. I have several concerns around the modelling, in terms of

- ◆ Trip generation for the Precincts

- ◆ Assumptions around background infrastructure delivery
- ◆ Network change triggers being primarily driven by traffic model outputs, rather than connectivity and safety requirements.

Each of these matters is briefly discussed below.

4.11.2 Trip generation methodology

I am concerned with the lack of vehicle trips assumed in the traffic modelling assessment, which is further compounded by the increase in THAB zoning proposed in PPC50 (as notified). Modelling Request 18 noted that the reporting provided information for residential activities but trip generation information on other activities (commercial and retail) is absent. The response provided by the applicant suggest that an assessment of trips across each of the land uses is difficult and that it is not possible to dis-aggregate the total trips per zone. With the regional Macro Simulation Model (MSM), formerly known as ART3 informing the traffic modelling assessment, it is important to check the reasonableness of the assumptions included in the MSM, as set out in the Auckland Transport ITA guidelines, which is required to be followed by the AUP, under E27.9(5).

The AT ITA guidelines note⁸,

“ART3 will provide information on predicted private vehicle and public transport trips during the peak, and where these trips originate from or are destined to (trip distribution). Transport professionals are encouraged to make adjustments to this information, in consultation with the relevant transport agencies, based on localised knowledge, detailed land use characteristics, survey information or any other relevant factors not considered to be well represented within the ART3 model.

ART3 provides trip estimates for generic landuse types based on the forecast regional growth pattern and planned roading and public transport networks. Standard industry sources of vehicle trip rates will still be useful in cross checking the forecast private vehicle trips from the ART model runs (and other sources). These sources include the Trips Database Bureau (TDB), RTA and ITE guidance as well as other sources noted directly above. Differences between the ART3 trip estimates and industry data should be logically explained by either the landuse or locational context.”

As set out above, trip generation assumptions relate to two key elements. The first relates to the attractiveness and reasonableness around public transport use, with the successfulness (or not) of public transport use then determining the level of private vehicle trips generated.

The ITA notes at Section 3.1.2 that the traffic modelling of the Drury East development adopts the mode share assumptions contained within the SGA ITA. A mode share of 14% has been assumed for Drury East, with a 19% mode share for Drury West. It is important to note that these mode shares are consistent with well-established town centres within the Auckland Isthmus, such as Grey Lynn, Kingsland and Newmarket, which all assume a mix of land use activities and supportive, well connected street

⁸ <https://at.govt.nz/about-us/manuals-guidelines/integrated-transport-assessment-guidelines/preparing-an-ita/>

networks. Achieving this level of ridership on public transport for Drury (which is located well outside the Auckland Isthmus) from the outset will require substantial effort in providing the necessary infrastructure to encourage and support the public transport ridership assumptions and more importantly, controlling the level of vehicle trips generated. Should the level of public transport ridership not eventuate, an increase in private vehicle travel will result.

An initial review of trip generation assumptions has been completed using a spreadsheet that has been shared between Flow and Stantec. From a residential perspective, I am of the view that residential rates appear reasonable for the notified versions of the Plan Changes. This excludes the proposed change in THAB zoning for PPC50 as this has not yet been assessed by the applicant. Vehicle trips associated with commercial/retail activities however appear light. For instance,

- ◆ trips associated with office activities relies on 1 in 5 (20%) workers using public transport from the outset. I note that this percentage is above the 14% discussed above. While a 20% mode share may still be a reasonable assumption, it is essential that the public transport infrastructure (station and connections) is provided from the outset to achieve this.
- ◆ A pass-by rate of 35% is proposed for the retail component of the development, with the vehicle trips associated with pass-by being excluded from the network. It is important that these trips are not excluded from the trip generation values entering and leaving the Precinct, as these trips if passing by on Great South Road or State Highway 1 for example, will be required to turn into and out of the Precinct at the Great South Road/Waihoehoe Road intersection. Excluding these trips will in my view significantly underestimate the effects of the primary access point to the development.

Based on the above, I have some reservations on the level of trips included in the model which has then formed the basis of the Precinct effects, mitigation and Precinct provisions.

Outcome: In response to the trip generation assessment, I retain my view that the prescriptive provisions in IX.6.1 and IX.6.2 be removed in their entirety and replaced with provisions that are performance based. Refer to Section 5 of this report.

4.11.3 Network Infrastructure Assumptions

With regard to infrastructure, the plan changes are reliant on third parties delivering significant projects about the area which essentially help 'unlock' the area. Failure to have these significant projects delivered in accordance with the anticipated timeframes detailed in Table 1 may impact on the safe and efficient performance of the transport network.

The timing around key investments such as a train station, rail electrification between Papakura and Pukekohe and Mill Road will have a significant bearing on how well the development is serviced from a transportation perspective. Any delay in the delivery of regionally significant infrastructure or change to the current understanding on what the infrastructure is providing (such as form, function, location, connections and timing) may have a significant impact on the timing and level of development that can occur about the Precinct, as the Precinct will be completely reliant on vehicle access via the Great South Road/Waihoehoe Road intersection.

The applicant's assumption that Mill Road will connect between Drury South and Manukau by 2025/26 in my view is very optimistic, and whether the anticipated public transport mode share is achieved from the outset will require supporting measures that encourage high public transport use from day one. With the current transport upgrade timings being uncertain, the Precinct Provisions would either need to

- ♦ limit development within the Precinct until such time as the train station, connections and Mill Road is in place, and therefore ensure the network is consistent with the transport assessment and therefore Precinct provisions, or
- ♦ remove the proposed transport Precinct Provisions at IX6.1 and IX6.2 and replace them with provisions that are performance based.

I prefer the latter, as the level of mitigation can then be assessed at the time of development. While performance-based provisions present a risk associated with piecemeal development, I consider that it is best to assess the mitigation required based on the environment known at that time.

Outcome: Again, I retain my view that the prescriptive provisions in IX.6.1 and IX.6.2 be removed in their entirety and replaced with provisions that are performance based. Refer to Section 5 of this report.

4.11.4 Network Safety and Connectivity Improvements

I note that the traffic modelling provides outcomes relative to capacity. Traffic models do not provide outcomes that indicate when safety and connectivity improvements are needed for vulnerable road users.

Interventions such as safe pedestrian crossings at intersections and footpaths and cycle facilities along corridors are elements that need to be considered separately so that a safe network is provided from the outset which encourage travel on modes other than private vehicles.

As discussed above, the mode share assumptions of 14% are similar to developed centres located about Auckland's Isthmus. Achieving mode shares similar to these areas (such as New Lynn, Newmarket) will not be delivered by providing a train station alone. They will be achieved through providing safe, connected, attractive routes between the station and land use generators commensurate with the street patterns, amenity and land use patterns found in Auckland Isthmus, if not better. The Provisions, which requires the Precinct to 'Provide for the staging of pedestrian and cycling connections to the Drury Central train station to encourage the use of public and active modes of transport' does not provide any standard that gives surety on what is being delivered that achieves the desired transport outcome.

Outcome: I am of the view that the Provisions need greater emphasis placed on delivering infrastructure that provides improved safety and connectivity, so that the desired transport outcomes, such as mode share are achieved. Refer to Section 5 of this report.

4.11.5 Rail Station Sensitivities

The response from the applicant to Clause 23 transport matters (TM6) discusses how a sensitivity test has been completed should the rail station be delayed. The response suggests no significant differences

to the network performance results between using mode share information available for 2016 (no station) and that predicted for 2026 (with a station). Both tests rely on the mode share assumptions output from the MSM. While a sensitivity test has been completed using 2016 mode share information, the sensitivity test provides little insight given the queries raised on the underlying trips captured in the model as discussed above.

The response suggests little difference in network performance is predicted which I would assume to be the case if the difference in public transport mode share between each test is only some 7%. It is also suggested that there is no change to the predicted performance of the Great South Road/Waihoehoe Road intersection. Again, I remain unsure however whether the roundabout assumed in the test continues to be coded incorrectly as a two-lane roundabout, rather than a single lane roundabout, as raised in Section 4.5 above.

I note that the sensitivity test undertaken by the applicant does not account for the influence that the absence of the rail station would have on surrounding land uses. For example, land development prior to the station opening would likely be lower density and more car-based in terms of transport behaviour. This would likely lock-in a car-based land use pattern, forgoing the opportunity for a TOD outcome.

Outcome: I am of the view that the Provisions need to ensure that the Drury Central train station is operating prior to or in conjunction with any development, so that the desired land use and transport outcomes are achieved. Refer to Section 5 of this report.

5 MY REVIEW OF PRECINCT PROVISIONS

As highlighted in Section 4.11 I have concerns about the traffic modelling that has been relied upon for establishing development thresholds at which supporting infrastructure is required. Further, I am concerned about the practicalities of monitoring the complex thresholds specified in Tables IX.6.1.1/2 and IX.6.2.1/2, which include 2 different scenarios (with and without “Access A” connection to Drury Interchange) and 2 different metrics relating to thresholds (GFA and vehicles per hour).

I consider that the complex and multiple alternative thresholds create uncertainty for Council, developers, and transport professionals, with it being likely that nobody will be quite sure when the threshold would be “triggered”. Collating and monitoring the cumulative dwellings, floor area, and peak hour vehicle trip generation from PPC48, PPC49, PPC50 in a readily available way is, in my view, highly unlikely.

Instead, if alternatives like a funding agreement cannot be secured, I suggest that a performance-based standard is used, where the safety and efficiency of the immediate network, and in particular the Great South Road/Waihoehoe Road intersection during peak periods is used to determine whether upgrades are required. This allows the Provisions to be responsive to the uncertainty with Access A, and delivery timeframes for Mill Road. Further, triggers to identify enabling infrastructure for non-car based transport modes should be incorporated to support travel choice, reduce congestion effects, and align with the Precinct Objective IX.2(1).

In summary I recommend that

- ◆ Standard IX.6.1(1) and Tables IX.6.1.1 and IX.6.1.2 are replaced, in their entirety, with thresholds to support Transit Orientated Development outcomes (refer to **IX.6.1 Staging of Development with Transport Upgrades** below)
- ◆ Standard IX.6.2 Trip Generation Limit and Tables IX.6.2.1 and IX.6.2.2 are replaced in their entirety with a Standard that adopts performance-based thresholds for key intersections (refer to **IX.6.2 Transport network performance** below)

IX.6.1 Staging of Development with Transport Upgrades

- (1) Development within the Drury East Precinct Plan 2 - Transport Staging Boundary must not exceed the thresholds in Table IX.6.1 until such time that the identified infrastructure upgrades are constructed and are operational

Table IX.6.1 Threshold for development: Transit Orientated Infrastructure

<u>Threshold</u>	<u>Transport and Land use Required to Exceed the Thresholds</u>
<u>Prior to any new buildings being occupied</u>	<u>Drury Central train station is operational</u> <u>Safe walking and cycling crossing facilities shall be provided on all arms of the Great South Road/Waihoehoe Road intersection</u>

	<u>Waihoehoe Road is upgraded to an urban standard between the Waihoehoe rail overpass and Fitzgerald Road, with westbound bus priority measures being provided.</u>
<u>Prior to any buildings being occupied, greater than 1km radius from Drury Central Train Station</u>	<u>Development is located within 400m of, and can safely and conveniently access, a continuous road connection suitable for direct local bus movements to and from the Drury Central train station concourse.</u>
<u>Prior to any development accessing Waihoehoe Road, or any new road connection to Waihoehoe Road</u>	<u>Urbanisation of Waihoehoe Road between Fitzgerald Road and Great South Road, including an upgrade of the Great South Road/Waihoehoe Road intersection to provide a safe and efficient intersection (and approaches) for all transport modes</u>

IX.6.2 Transport network performance

Prior to Mill Road connecting to Waihoehoe Road and 4 Laning of Waihoehoe Road between Fitzgerald Road and Great South Road:

- (1) Any development of more than 50 dwellings or 1000 sqm of non-residential floorspace must meet the following standard:
- a. Waihoehoe Road/Great South Road intersection traffic performance:
 - i. 95th percentile queues (not average queues) for each movement at intersections do not
 - a. extend to and through upstream intersections
 - b. queues shall not extend beyond dedicated storage lanes
 - ii. no individual traffic movement shall have a level of service (LOS) worse than LOS E, or have a degree of saturation higher than 95%
 - iii. Movements where buses operate shall have a LOS no worse than LOS D
 - iv. The overall intersection LOS shall be no worse than LOS.

Note: Degree(s) of saturation is defined to be the proportion of actual traffic movements using the intersection to the theoretical maximum capacity of the intersection.

Level of Service (LOS) is defined by Auckland Transport guidance or, in its absence, by Austroads guidance.

Note: A traffic assessment shall be prepared by a suitably qualified and experienced traffic engineer or transportation planner demonstrating compliance with the above must be submitted with any resource consent application for subdivision or development and must utilise traffic data no older than 6 months at the time that a resource consent application is lodged for the development proposal.

Note: Traffic generation from parallel, lodged or consented stages that are not yet operational are to be included in the traffic assessment.

5.1.1 Exemption from E27.6.1

During my Clause 23 I queried why the Precinct Provisions included an exemption from E27.6.1 Trip Generation. The applicant responded that Standard E27.6.1(2)(b) and (d) mean that development in the precinct would not need to comply with E27.6.1(1), as an ITA has been prepared to inform the plan change and the specific transport provisions that it includes. In the applicant's view, the exemption from E27.6.1 should be viewed as a clarification rather than a substantive issue for PPC50.

I consider that E27.6.1(2) is clear and does not require clarification within the Precinct provisions. Additionally, I consider that repeating standards across different Chapters within the AUP(OP) creates the opportunity for confusion or contradiction. I recommend that IX.6(2)(b) be deleted from the Precinct provisions.

5.1.2 Road cross section details

IX.11 Appendices: Appendix 1 specifies detailed layouts for different proposed road types within the Precinct. These cross sections were developed prior to the release of Auckland Transport's *Transport Design Manual Section 2: Detailed Technical Requirements*, and therefore may not be consistent with current standards. This highlights the risk of including detailed road cross sections within the Precinct provisions.

I consider that greater flexibility in cross sectional specifications is required to enable street form and function to appropriately respond to future land uses, and for the Precinct to maintain adaptability to future street design standards. I therefore recommend that IX.11 Appendices: Appendix 1 is removed, and IX.8.2(1) *Design of Roads* (a) is updated as follows

Design of roads

- a. *Whether the design of collector and local roads are generally in accordance with ~~the road cross sections provided in IX.11 Drury Centre: Appendix 1~~ Auckland Transport standards and guidelines;*

5.1.3 Minor amendments

I recommend the following minor amendments

- ◆ Waihoehoe Precinct Plan 1: Waihoehoe Road is identified as an "Existing arterial road" however it is not identified as such in the Auckland Unitary Plan. I recommend the legend be revised to be "Arterial roads (existing & upgrades)" as proposed in Drury East Precinct Plan 1 – Road Network.

6 MY REVIEW OF SUBMISSIONS

Sixteen submissions related to transport matters were received

- ◆ Submitter 2 – Doug Signal
- ◆ Submitter 5 – Wendy Hannah
- ◆ Submitter 7 – Oyster Capital
- ◆ Submitter 8 – Dong Leng
- ◆ Submitter 9 – Ken Griffney
- ◆ Submitter 17 – Josephine Klein
- ◆ Submitter 18 – Lomai Properties Ltd
- ◆ Submitter 19 – Ministry of Housing and Urban Development
- ◆ Submitter 21 – Auckland Council
- ◆ Submitter 22 – Auckland Transport
- ◆ Submitter 23 – Counties Power
- ◆ Submitter 25 – Leith McFadden
- ◆ Submitter 27 – Matthew Royston
- ◆ Submitter 28 – Drury South Limited
- ◆ Submitter 29 – Waka Kotahi New Zealand Transport Agency
- ◆ Submitter 32 – Kāinga Ora

Details of the submissions and my comments are provided in Appendix A.

Key themes from submissions regarding transport matters include

- ◆ Proposed internal transport network structure including direct access to Drury Interchange, road alignments, cross section details, and provision for active transport and public transport users
- ◆ Identification, timing, and responsibility for funding and delivery of enabling/supporting transport infrastructure, and the monitoring of proposed thresholds included in the notified Provisions
- ◆ Provisions relating to the Opāheke North-South arterial road, as shown on Council's Drury Opāheke Structure Plan
- ◆ Changes to zoning, including removal of the proposed MHU subdivision provisions to THAB zoning and extending the boundary of the Precinct
- ◆ Revisions to Precinct Provisions. I expect that there will be iterative updates to the proposed provisions as the applicant engages with submitters leading up to the hearing. I will provide comment as updated Provisions are circulated.

I generally support submitters comments and requests. However, I do not support the following submitters' comments and requests

- ◆ Oyster Capital submission 7. I consider that the further traffic modelling by the submitter, and its opinion that development within PC50 does not rely on DTIP upgrades until 2048, are not sufficiently robust. Risk remains that development is not coordinated with the Drury Central Train Station, Mill Road, urbanisation of existing rural roads, or Auckland Transport's corridor upgrade of Waihoehoe Road and the Waihoehoe Road/Great South Road intersection. Refer to my discussion in Section 4
- ◆ Josephine Klein submission point 17.8, Auckland Transport submission point 22.49 and Counties Power submission point 23.12 and 23.24 seek detailed road cross sections within the Precinct provisions, however I recommend that the provisions instead reference Auckland Transport Standards and Guidelines. Refer to my discussion in Section 5.1.2
- ◆ Auckland Council submission point 21.1(c). I consider that some aspects of the relief sought (relating to infrastructure thresholds) may not be feasible
- ◆ Auckland Transport submission point 22.8 seeks that development not complying with IX6.1 and or IX6.2 is a Non-complying activity, however I consider that Discretionary status should apply
- ◆ Ministry of Education submission point 24.2 seeks to retain Standard IX.6.1 as notified, however I recommend that Standard IX6.1 and IX6.2 are replaced in their entirety, as discussed in Section 5
- ◆ Waka Kotahi NZTA submission point 29.19. Waka Kotahi seeks to retain the exemption from E27.6.1, however I oppose the exemption from E27.6.1 as discussed in Section 5.1.1.

I seek advice from Council's Reporting Planner regarding the following submitters' requests

- ◆ Auckland Transport submission point 22.16 seeks that funding of transport infrastructure be included as an assessment criterion. I am unsure whether this is appropriate
- ◆ Auckland Transport submission points 22.23 – 22.28 seek to include provisions related to the Opāheke North South arterial, as shown in Council's Drury Opāheke Structure Plan. However, I consider that details of the arterial should be confirmed via a Notice of Requirement or developer agreement rather than the Precinct provisions
- ◆ Waka Kotahi NZTA submission point 29.12 and Kāinga Ora submission point 32.7 seek that Standard IX6.(3) relating to MHU subdivision rules applying to THAB zoning be deleted. I am unsure whether this is appropriate
- ◆ Kāinga Ora submission point 32.1 seeks to include 1 and 1A East Street within the Precinct boundary. I query whether this is within the scope of PPC50.

7 SUMMARY AND CONCLUSION

A summary of my review of submissions, and my recommendations following my review of PPC50, is as follows.

7.1 Summary of my review of submissions

Key themes from submissions regarding transport matters include

- ◆ Proposed internal transport network structure including direct access to Drury Interchange, road alignments, cross section details, and provision for active transport and public transport users
- ◆ Identification, timing, and responsibility for funding and delivery of enabling/supporting transport infrastructure, and the monitoring of proposed thresholds included in the notified Provisions
- ◆ Provisions relating to the Opāheke North-South arterial road, as shown on Council's Drury Opāheke Structure Plan
- ◆ Changes to zoning, including removal of the proposed MHU subdivision provisions to THAB zoning and extending the boundary of the Precinct
- ◆ Revisions to Precinct Provisions. I expect that there will be iterative updates to the proposed provisions as the applicant engages with submitters leading up to the hearing. I will provide further comment as updated Provisions are circulated.

I generally support submitters comments and requests. However, there are several submission points which I oppose and/or seek further advice from Council's Planner, as discussed in Section 6.

7.2 Summary of my review of PPC50

In my view, PPC50 as notified does not adequately consider the potential effects on the transport network

- ◆ I note that between the lodgement with Auckland Council and subsequent notification, there has been an increase in the extent of Terrace House and Apartment Building (THAB) zone in PPC50, with Mixed Housing Urban zone being removed. As discussed in this report, I consider that the trips that the applicant has assumed to be generated by the three plan change areas are low and this may be compounded with the proposed increase in density to THAB across PPC50. The applicant has provided updated traffic models in its submission (which exclude THAB across the whole of PPC50), and is of the view that this does not impact the mitigation proposed. I have a differing view.
- ◆ While the masterplan for PPC50 is generally consistent with RPS Objectives B2.2.1(1) and B3.3.1(1), I consider that the Precinct provisions give little certainty that integrated land use and transport outcomes will be achieved. Development within PPC50 if developed in accordance with the proposed provisions is unlikely to satisfactorily address safety and efficiency effects on the surrounding transport network. The provisions lack surety that the development will put in place a transport network that is focused on access to Drury Station and local bus services. The provisions lack surety that integrated staging of land use and transport investment will enable the

uptake of public transport and active transport modes as part of a safe and effective transport network.

- ◆ In my view there are some significant infrastructure assumptions made by the applicant, which affect the transport investment thresholds put forward in the notified Precinct Provisions. These assumptions include
 - Third-party transport infrastructure investment and delivery assumptions, including Mill Road being constructed in some form by 2028. The recent June 2021 announcement by the Government has since deferred the Mill Road project, confirming my view that reliance on this upgrade by 2028 places considerable risk on how the transport network is predicted to operate and how provisions are then framed around this Designations, which the applicant relies upon, are in place
 - Land within the above designations has been acquired by the designating authority
 - Vehicle trip rates and public transport mode shares assumed in the traffic modelling.
- ◆ I am concerned that transport infrastructure needed to support PPC50, such as the Waihoehoe Road upgrade and Mill Road, may not be delivered in a manner that integrates with development in PPC50. The traffic modelling used to support PPC50 assumes that Mill Road (in some form) will be operational by 2028. While Mill Road is contained within ATAP 2021 – 2031 (an agreement between Council and Government which is a non-statutory document), there is uncertainty over the time it may take to designate the route, acquire properties, and construct the project.
- ◆ Given the uncertain development programmes of each PPC area, I am of the view that the prescriptive nature of the transport upgrade provisions in the Precinct is not appropriate due to impracticalities of administering and monitoring the thresholds proposed by the applicant. Further, I have significant concerns about the assumptions and methodology used in the traffic modelling, which the applicant has relied upon in setting these thresholds.
- ◆ To address the uncertainty in development programmes and third-party infrastructure provision (including that contained within ATAP 2021 – 2031), and my concerns about the traffic modelling assumptions relied upon by the applicant, I consider that Standard IX.6.1 and IX.6.2 should be replaced in their entirety. I am of the view that provisions that are performance based in this instance give the consenting authority greater flexibility in determining mitigation required following an assessment of the environment at the time of development occurring. This also provides clearer ownership as to who is responsible for delivering the mitigation. Precinct provisions are required for this, as reliance on Chapter E27 Transport of the Auckland Unitary Plan – Operative in Part (AUP(OP)) is unlikely to capture the need to assess and upgrade key intersections about the area (including intersections and rural roads).
- ◆ Based on the current provisions, I consider that there is a sizeable risk that there will be consequential adverse outcomes for economic well-being (in terms of transport network efficiency) and social well-being (including road user safety). This may result in Auckland Transport and Waka Kotahi NZTA (as road controlling authorities) being left to address substantial off-site cumulative safety and efficiency effects on the transport network beyond what would be expected from normal development or business as usual upgrades to the network, due to uncertainty around infrastructure scale, funding and timeframes. A number of third-party

infrastructure improvements, including projects within ATAP 2021 – 2031, NZUP and the Drury Transport Investment Programme (DTIP), now referred to as the Drury Infrastructure Funding Framework (DIFF), are assumed in the transport assessment albeit the extent of the projects, funding and timing for delivery of some projects is not yet committed. As an example, Mill Road has been assumed in some form throughout the transport assessment, with the June 2021 announcement deferring the entire Mill Road project. Provisions that enable an assessment against the network at the time land use activities are being applied for would provide greater control on what mitigation is required given the environment at that time, which may also include greater certainty on wider infrastructure timeframes.

- ◆ It is unclear as to whether the layouts proposed by the applicant for the Great South Road/Waihoehoe Road intersection can physically fit within the area that Auckland Transport has issued a Notice of Requirement for, and allow for bus priority (as per the Auckland Transport Supporting Growth network), capture pedestrian crossings on all four approaches and provide the necessary facilities to ensure the corridor operates safely and efficiently for all transport modes. I do not support the current upgrades included in the proposed Precinct provisions at IX.6.1 and IX.6.2 associated with the Great South Road/Waihoehoe Road intersection.
- ◆ Until Mill Road connects to the development and provides a secondary connection (to the north and south), reliance on the Great South Road/Waihoehoe Road intersection and Waihoehoe Road will be much greater than that currently predicted in the transport assessment and that from which the current provisions are framed. A number of third-party infrastructure improvements, including projects within ATAP 2021 – 2031, NZUP and DTIPs, are assumed in the transport assessment albeit the extent of the projects, funding and delivery is not clearly understood. It is for this reason that the requirement to assess the mitigation required as development progresses is a better option, noting the uncertainty as to when wider area infrastructure is in place. I am therefore of the view that the timing or triggers requiring the upgrades captured in IX.6.1 and IX.6.2 are not appropriate as currently drafted as they do not consider effects and therefore upgrades necessary prior to the full Mill Road corridor being constructed and open.
- ◆ The thresholds set out in the notified Provisions for upgrading the Great South Road/Waihoehoe Road are not robust as I consider there are underlying flaws in the modelling assumptions used to set these thresholds. Further, the upgrades of this intersection as proposed in IX.6.1 and IX.6.2 have the potential to cause ongoing disruption to the transport network during works and will require the acquisition of third-party land and widening/replacement of the Waihoehoe Road rail overbridge, which is not identified in the Precinct Provisions. I am therefore of the view that the timing or triggers requiring the upgrades captured in IX.6.1 and IX.6.2 are not appropriate as currently drafted as they do not consider the need for third-party land, the widening/replacement of the Waihoehoe Road rail overbridge, the additional construction traffic effects due to the proposed multiple upgrades to the intersection and the uncertainty around the extent of the Mill Road project.
- ◆ In my view the notified Provisions fail to address likely safety effects on existing rural roads. I consider that Waihoehoe Road should be upgraded to an urban standard prior experiencing an increase in traffic due to occupied development within PPC50.

- ◆ In my view the Precinct provisions should include Standards relating to the early provision of the Drury Central train station, bus priority measures westbound on Waihoehoe Road, walking and cycling connectivity between development and the Drury Central train station, and a continuous collector road network to enable Auckland Transport to provide bus services as staged development occurs. Further, I recommend that funding is allocated to enable early provision of public transport services, noting that this sits outside of the Plan Change process and is not considered the responsibility of the applicant.
- ◆ I am of the view that changes are required to the Precinct Provisions in order to better assess and respond to the environment as development progresses. The assessment in my view places a lot of weight and reliance on government led transport network upgrades being delivered and in place prior to 2026-28. I consider that there are risks associated with this assumption and the provisions the Precinct currently frames around their assessment which relies on this.
- ◆ I consider that the main concerns which the Precinct provisions need to address are
 - Early delivery and operation of the Drury Central train station and bus priority measures on Waihoehoe Road, (particularly westbound)
 - Early delivery of active mode infrastructure (walking and cycling) including connections to trip generators and most importantly the Drury Central train station
 - Delivery of safety and capacity improvements (for all modes) to existing rural roads to manage the transition from a rural to urbanised environment
 - Performance and safety of the Waihoehoe Road/Great South Road intersection and the approaches to it (including the Waihoehoe Road rail overpass) for all road users (walking, cycling, public transport, and general traffic).
- ◆ It is my view that the train station should be open and operating prior to any development being occupied.
- ◆ The traffic modelling contains assumptions that, in my opinion, result in an underestimation of potential traffic effects. These assumptions include
 - between the lodgement with Auckland Council and subsequent notification, there has been an increase in the extent of THAB in PPC50, with Mixed Housing Urban zone being removed
 - under estimation of vehicle trips through the Great South Road/Waihoehoe Road intersection, in the instance that Mill Road (between Waihoehoe Road and Manukau) is not in place
 - under estimation of the number of vehicle trips generated by PPC50, due to assumed high uptake of walking, cycling and public transport, although the surety that infrastructure to support high non-car based travel will be delivered in conjunction with development is lacking in the precinct provisions
 - under estimation of effects on the Great South Road/Waihoehoe Road intersection prior to signalisation, due to the under estimation of the number of vehicle movements through the intersection and that it is modelled as a two-lane roundabout whereas the provisions do not require the existing single lane roundabout to be upgraded.

- ◆ In response to the trip generation assessment, I retain my view that the prescriptive provisions in IX.6.1 and IX.6.2 should be removed in their entirety and replaced with provisions that are performance based. Further, I consider that the Provisions need greater emphasis placed on delivering infrastructure that provides improved safety and connectivity, so that the necessary transport outcomes to achieve TOD, such as mode share, are achieved.

In response to my concerns noted above, and my concerns with the practicalities of implementing proposed Standards IX6.1 and IX6.2. I recommend that

- ◆ Standard IX.6.1 and Tables IX.6.1.1 and IX.6.1.2 are replaced, in their entirety, with thresholds to support transit orientated development outcomes (high public transport and active mode share and safety interventions)
- ◆ Standard IX6.2 Trip Generation Limit and Tables IX.6.2.1 and IX.6.2.2 are replaced in their entirety with a Standard that adopts performance-based thresholds for key intersections
- ◆ Other amendments to provisions as discussed in Section 5 and in response to submissions as discussed in Appendix A.

I consider that the proposed Drury Station presents a relatively unique opportunity to enable development consistent with Transit Oriented Development (TOD) principles. However, I consider that the thresholds linked to transport infrastructure identified in the provisions lack robustness and will be unwieldy and impracticable to monitor. Further, the provisions lack sufficient evidence as to how thresholds have been determined and acknowledgement of safety effects on existing rural roads, and enablement of active modes and public transport.

Unless amendments are made to the provisions per my recommendations and commentary on submissions, I consider that PPC50 is unlikely to result in integrated land use and transport outcomes as required by the AUP(OP), and that development within PPC50 is unlikely to satisfactorily address safety and efficiency effects on the transport network.

APPENDIX A

Submission summary

Details of the submissions directly related to transport aspects, and my comments, are provided in Table 6. For clarity I have nominated subpoints in submissions where this assists my response, unless the Submitter has specifically included relief/decision request numbering in their submission.

I have used the following status coding to assist referencing

- ◆ **Green** – no action needed unless other submitters request consequential changes
- ◆ **Orange** – I recommend action by Council
- ◆ **Red** – I do not support the relief/decision requested by the submitter

Table 6: Submission summary (transport matters) and commentary

Submitter and sub point	Summary of submission point/relief sought	Flow comment	Status
Doug Signal:2.1	Requests full plans for all roads and intersections that need to be upgraded to support re-zoning.	Support in part. I consider that the PPC50 application does not robustly assess the potential effects, nor fully reflect the transport infrastructure needed to mitigate transport effects. Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report. I consider that full plans of all roads and intersections are not required as part of the Plan Change, as this can be resolved as part of subsequent subdivision/land use consents provided appropriate mechanisms are available in the Precinct provisions.	Support. Refer to my discussion and recommendations in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11
	Raises concern with traffic delay and deposition of soil on roads during construction	I consider that this is a matter that can be addressed by Council’s consent monitoring team, as conditions of consent to address deposition of debris on public roads is a standard inclusion in earthworks consents.	Support concern, however, this can be addressed by other processes
Wendy Hannah: 5.1	Seeks clarification on the effects on access to 228 Flanagan Road, and that a 2 lane carriageway (one lane each direction) would be maintained to allow existing access and future redevelopment.	Support, however I consider that this can be addressed via other processes. 228 Flanagan Road currently has to a sealed carriageway approximately 5.5m wide within a public road corridor approximately 12m wide, adjacent to the Southern Motorway corridor. I consider that the proposed Precinct does not preclude ongoing access to Flanagan Road, and should access be affected (e.g. through road stopping or realignment of Flanagan Road to allow for “Access A”) I consider that this can be considered and addressed as part of future road stopping or resource consent processes.	Support request, however, this can be addressed by other processes

Oyster Capital: 7	Provides additional traffic modelling to understand whether the DTIP upgrades are necessary to support development in the Plan Changes areas, and therefore manage the effects of development on the effectiveness and safety of the transport network. Considers that the additional modelling demonstrates that development enabled by the Drury Centre, Drury East and Waihoehoe Plan Changes does not rely on the DTIP transport upgrades until 2048.	<p>Oppose</p> <p>Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report.</p> <p>I consider that the follow key issues are unresolved</p> <ul style="list-style-type: none"> ◆ surety that Mill Road, including the connection to Manukau, will be provided in an integrated manner with development. Mill Road is critical for relieving traffic congestion on the Waihoehoe Road/Great South Road intersection ◆ surety that the Drury Central train station, electrification and connections to the train station will be provided in an integrated manner with development ◆ whether the mitigations proposed by the applicant for the Waihoehoe Road/Great South Road intersection align with the forthcoming Notice of Requirement from Auckland Transport ◆ whether, in the short term, the Plan Change relies on DTIPs upgrades such as the urbanisation and widening of Waihoehoe Road, including the widening/replacement of the Waihoehoe Road rail overbridge, to address safety and efficiency effects ◆ traffic modelling methodology, including trips associated with the short term modelling and the extent to which public transport influences travel behaviours <p>I consider that the Precinct should</p> <ul style="list-style-type: none"> ◆ adopt performance based measures for the Waihoehoe Road/Great South Road intersection ◆ identify upgrades to existing rural roads to ensure a safe and connected transport network for all road users ◆ identify all enabling transport infrastructure, including Mill Road and the Drury Central train station 	<p>Oppose.</p> <p>Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11</p>
Dong Leng: 8.5	<p>Arterial Roads</p> <p>Please confirm that intersection access to my property from Waihoehoe Road will not be restricted once it has been upgraded to an Arterial Road as proposed.</p>	I consider that it is too early to be able to confirm whether access to 160 Waihoehoe Road will be affected by any future upgrade. I anticipate that a notice of requirement will be lodged by Auckland Transport for the upgrade of Waihoehoe Road, at which point further details on access arrangements may be known.	Access to 160 Waihoehoe Road will be confirmed via a separate process
Dong Leng: 8.6 Ken Giffney: 9.2	Amend the locations of the proposed collector roads to be in accordance with the draft Drury-Opaheke Structure Plan and so as to properly service the land beyond, without conflicting with the streams to the north and east	<p>I consider that the collector roads are generally consistent with the Drury-Opaheke Structure Plan Integrated Transport Assessment, and note that the Structure Plan was not intended to “lock in” the location of future collector roads.</p> <p>I anticipate that a notice of requirement will be lodged by Auckland Transport for the road shown as a north/south collector on Precinct Plan 1 (shown as Opaheke North-South arterial in Council’s Drury Opaheke Structure Plan), at which point further details alignment will be confirmed.</p>	The location of the north/south collector road will be confirmed via a separate process
Josephine Klein: 17.4	The applicant should be required to provide the arterial road [extension of Fitzgerald Road] in accordance with the Drury –Opaheke Structure Plan	<p>Support.</p> <p>Refer to my response to Auckland Transport submission point 22:20.</p>	Refer to my response to Auckland Transport submission point 22:20
Josephine Klein: 17.8	Seeks for the road cross sections to include the proposed locations of the underground services as the usual lay position conflicts with the proposed rain gardens.	<p>Oppose in part</p> <p>Refer to my discussion in Section 5.1.2</p>	Oppose in part

Josephine Klein: 17.10	Amend plan change policies to ensure appropriate funding arrangements are in place for development.	Support. I consider that the PPC50 application does not robustly assess the potential effects, nor fully reflect the transport infrastructure needed to mitigate transport effects. Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report.	Support. Refer to my discussion and recommendations in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11
Lomai Properties Ltd: 18.1	Seeks confirmation that PPC50 will provide the transport infrastructure requirements to service development without affecting the staging of land release indicated in the Drury Ōpaheke Structure Plan, in particular Drury West (which includes the submitters land).	Neither support nor oppose. I can confirm that the PPC50 application has not considered the cumulative transport effects of the wider network that may result from PPC50 plus the submitters property. Council's Planner should consider whether PPC50 should assess the effect on other Future Urban Zoned land due to "out of sequence" zoning for PPC50 relative to the Drury-Ōpaheke Structure Plan, unless DTIP addresses wider transport requirements on the basis that all FUZ land within Drury is rezoned to enable development.	Council's Planner to consider submission point
	Seeks further clarification that traffic modelling is sufficient to demonstrate that the proposed trigger rules would adequately avoid, mitigate or remedy adverse traffic effects to an appropriate level.	Support, refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report	Support. Refer to my discussion and recommendations in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11

<p>Auckland Council: 21.1</p>	<p>PC 50 does not provide for the strategic integration of transport infrastructure with land use. The provision of such infrastructure works will not be achieved at a rate with which the council (representing the community) can physically and economically cope.</p> <p>Ensure that the council's concerns about infrastructure: funding deficit, timing and location uncertainty are resolved by the following or other means:</p> <p>a) Evidence is presented at the hearing that a mechanism has been identified with the agreement of the council that unfunded infrastructure (as of October 2020) will be funded.</p> <p>b) Evidence is presented at the hearing that parts of the plan change area are not constrained by infrastructure funding, timing or location uncertainty and can proceed without significant adverse effects.</p> <p>c) Infrastructure development threshold or staging rules can be devised that are enforceable and effective, and supported by robust objective and policy provisions. This could for example include:</p> <ul style="list-style-type: none"> • Threshold rules are not used for infrastructure works to be supplied by third-party, e.g. Auckland Transport or NZTA, if these agencies do not have funds allocated for the works. • Threshold rules are not used for infrastructure works which are scheduled beyond the lifetime of the plan (2026). • Threshold rules are not used for works to be funded privately but there is no funding agreement in place. • Threshold rules are not used for works which would require a funding contribution from multiple landowners or developers and there is no agreement to apportion costs and benefits in place. • Threshold rules do not use gross floor area as a metric (the council may not be able to track this with current data systems). • Threshold rules are not used in circumstances where the extent and location of works have not been determined yet. • Use of prohibited activity status for infringement could be considered. <p>d) Notices of requirement have been lodged for the relevant infrastructure by the time of the hearing.</p>	<p>Support in part, oppose in part</p> <p>In relation to Council's submission points (a) and (b): I consider that the PPC50 application does not robustly assess the potential effects, nor fully reflect the transport infrastructure needed to mitigate transport effects. Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report of this report.</p> <p>In relation Council's submission point (c)</p> <ul style="list-style-type: none"> • the key pieces of infrastructure that I consider are necessary to be constructed prior to any development being occupied include rail electrification, Drury central train station. This submission point does not preclude my position. <p>Mill Road (full corridor) could be a threshold rule, allowing a certain level of development to progress based on the performance of the Waihoehoe/GSR intersection. My preference remains that a performance based provision is the desired mechanism for managing development effects on the adjacent road network. Refer to my discussion in Section 4.8 of this report.</p> <ul style="list-style-type: none"> • In my view, this submission point would require all transport infrastructure works to be in place prior to, or shortly after, subdivision. Much of the infrastructure needed to support PPC50 is unlikely to be operational prior to 2026, if aligned to a development threshold. <p>The extent to which any threshold rule would be able to abide by this submission point is unlikely, noting also that resource consents for development usually have a lapse period that would extend past 2026 but be subject to infrastructure works. I do not support this submission point and will take advice from Council's Planner</p> <ul style="list-style-type: none"> • In my view, this submission point would require all transport infrastructure works to be in place prior to, or shortly after, subdivision. Much of the infrastructure needed to support PPC50 is unlikely to be operational prior to 2026, if aligned to a development threshold. I do not support this submission point and will take advice from Council's Planner • Agree as this would be ultra vires, however I consider that the current provisions of PC48, PC49, and PPC50 point towards each party needing to deliver the upgrades in order to release development within each plan change area • Agree, refer to my discussion in Section 4.8 of this report • Agree to a certain extent. I am assessing transport effects at a plan change level. I should consider the indicative "footprints" needed to confirm feasibility of upgrades. However, I consider that the detail design is not required at Plan Change, as this will not come until future resource consents and detailed design. • Council's Planner to consider whether prohibited activity status is warranted. <p>In relation to Council's submission point (d), I support Council's comment, in particular Waihoehoe Road and Mill Road.</p>	<p>Support in part Oppose in part Refer to my discussion and recommendations in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11</p>
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Auckland Council: 21.25	Add a policy and standards to provide for increased density near RTN stations including: a) A policy to the effect of: Ensure a built form and walkable environment that will provide for a high density of people living, working or visiting within an extended walkable radius of a rapid transit network station. b) Building height standards enabling at least the Metropolitan Centre equivalent 22-23 storey building height in all zones within a short walkable radius of the RTN train station, and 7-8 storey building height within an extended walkable radius of the proposed RTN station;	Support as this supports greater use of public transport and active transport modes.	Support I will provide comment on any revised provisions following the Applicant's response to submissions
Auckland Council: 21.28	Review the need for IX.6.4 if a notice of requirement has been lodged for the upgrade of Waihoehoe Road	Support.	Council's Planner to consider submission point
Auckland Transport: 22.1	Concerns with the lack of infrastructure funding to support 'out of sequence' development	Support in part.	Support in part.
Auckland Transport: 22.2	Development triggers/provision of transport upgrades and mitigation. Auckland Transport believes that pure reliance on development triggers to stage transport infrastructure provision in the absence of a development staging plan will result in piecemeal and uncoordinated development and will not achieve the transit-oriented development outcome this plan change seeks to achieve. Auckland Transport's primary position at this time is that PPC 50 should be declined unless the transport infrastructure funding and provision concerns identified in the main body of this submission and in this table, including its concerns about reliance on development triggers to stage transport infrastructure provision, are appropriately addressed and resolved. In the alternative: (a) Amend the plan change to include alternative mechanisms/provisions (including alternative objectives, policies, rules, methods or maps) to address Auckland Transport's concerns; and/or (b) Include amendments to relevant plan change provisions as required by Auckland Transport and outlined in its submission.	I consider that the PPC50 application does not robustly assess the potential effects, nor fully reflect the transport infrastructure needed to mitigate transport effects. Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report. However, I consider that revised provisions can enable development to occur in an integrated manner. Refer to my discussion in Section 5 of this report. I consider that my proposed Standard IX.6.1 Staging of Development with Transport Upgrades and IX.6.2 Transport network performance (refer to Section 4.8 and 5 of my report) provides the security that transport infrastructure to support staged development is not "piecemeal" as well as providing flexibility for the land owner to undertake development in an efficient manner.	I recommend Council's Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions
Auckland Transport: 22.3	IX.1 Precinct Description. Amend the Precinct Description as follows: <i>The transport network in the wider Drury East area as defined on Precinct Plan 2 will be progressively upgraded over time to support development in the wider area. The precinct includes provisions to ensure that any subdivision and the development of land for business and housing is coordinated with the funding and construction of the transport network upgrades in order to avoid, remedy and mitigate adverse effects on the local and wider transport network necessary to support it.</i>	Support in part. I query whether the funding needs to be incorporated within the description, as the description speaks to the construction of the transport network upgrades. I suggest funding is removed, being replaced by commitment. I will provide comment on any revised provisions following the Applicant's response to submissions.	Support in part. I will provide comment on any revised provisions following the Applicant's response to submissions
Auckland Transport: 22.4 and 22.5	IX.2 Objectives (2) and (3). Amend Objectives IX.2 (2) and (3) as follows: <i>(2) Access to the precinct occurs in an effective, efficient and safe manner that manages effects on State Highway 1 and the effectiveness and safety of the surrounding road network. A transport network that facilitates the safe and efficient movement of people, goods and services and manages effects on the safe and efficient operation of the surrounding and wider transport network.</i> <i>(3) Development is supported by appropriate infrastructure. Subdivision and development are supported by the timely and coordinated provision of robust and sustainable transport, stormwater, water, wastewater, energy and communications infrastructure networks.</i>	Support. I support the revised wording. It places greater emphasis on the transport network as a whole, including sustainable transport, rather than focussing on the state highway network. I will provide comment on any revised provisions following the Applicant's response to submissions.	Support. I will provide comment on any revised provisions following the Applicant's response to submissions

<p>Auckland Transport: 22.6 and 22.7</p>	<p>IX.3 Policy (5) Amend Policy IX.3 (5) and add a new policy as follows: <i>(5) Ensure that the timing of subdivision and development in the wider Drury Centre Precinct area as defined on Precinct Plan 2 is coordinated with the funding and delivery of transport infrastructure upgrades necessary to avoid, remedy and mitigate the adverse effects of urbanisation development on the safe and efficient operation effectiveness and safety of the immediately surrounding and wider transport network.</i> <i>(x) Avoid any subdivision and development in the wider Drury area as defined on Precinct Plan 2 until the required transport infrastructure is in place.</i></p>	<p>Support in part. Similar to my response to Auckland Transport 22.3 above, I recommend the use of ‘commitment’ instead of “funded”. In the RLTP, a project may be funded, but until it is committed, the timing of the project is not certain. I will provide comment on any revised provisions following the Applicant’s response to submissions.</p>	<p>Support in part. I will provide comment on any revised provisions following the Applicant’s response to submissions</p>						
<p>Auckland Transport: 22.8</p>	<p>IX.4.1 Activity table All Sub-Precincts Amend Rules IX.4.1 (A2), (A3), (A5) and (A6) to introduce more onerous activity status for any development and/or subdivision not complying with Standards IX6.2 Staging of Development and IX6.2 Trip Generation Limit (such as non-complying activity status). In the alternative, amend Rules IX.4.1 (A2) and (A3) as follows:</p> <table border="1"> <tr> <td>(A2)</td> <td>Development and/or subdivision that does not comply with Standard IX6.1 Staging of Development with Transport Upgrades but complies with Standard IX6.2 Trip Generation Limit as confirmed in the Transport Assessment submitted with application for consent.</td> <td>RD</td> </tr> <tr> <td>(A3)</td> <td>Development and/or subdivision that does not comply with Standard IX6.1 Staging of Development with Transport Upgrades and or Standard IX6.2 Trip Generation Limit as confirmed in the Transport Assessment submitted with application for consent.</td> <td>NC D</td> </tr> </table> <p>As a consequential amendment, delete Rules IX.4.1 (A5) and (A6).</p>	(A2)	Development and/or subdivision that does not comply with Standard IX6.1 Staging of Development with Transport Upgrades but complies with Standard IX6.2 Trip Generation Limit as confirmed in the Transport Assessment submitted with application for consent.	RD	(A3)	Development and/or subdivision that does not comply with Standard IX6.1 Staging of Development with Transport Upgrades and or Standard IX6.2 Trip Generation Limit as confirmed in the Transport Assessment submitted with application for consent.	NC D	<p>Oppose I am of the view that a Non-Complying activity status for not meeting Standard IX6.1 or IX6.2 is a high order. I am of the view that some discretion is required to establish the extent to which the application breaches the standards, as the breach may be very minor in scale. However, note that my recommendation is to replace IX6.1 and IX6.2 in their entirety, as discussed in Section 4.8 and Section 5 of this report. There has been some challenge on the provisions as notified, as discussed in my report, as well as by submitters. As such, I will provide comment on any revised provisions following the Applicant’s response to submissions.</p>	<p>Oppose I will provide comment on any revised provisions following the Applicant’s response to submissions</p>
(A2)	Development and/or subdivision that does not comply with Standard IX6.1 Staging of Development with Transport Upgrades but complies with Standard IX6.2 Trip Generation Limit as confirmed in the Transport Assessment submitted with application for consent.	RD							
(A3)	Development and/or subdivision that does not comply with Standard IX6.1 Staging of Development with Transport Upgrades and or Standard IX6.2 Trip Generation Limit as confirmed in the Transport Assessment submitted with application for consent.	NC D							
<p>Auckland Transport: 22.9</p>	<p>IX.5 Notification Amend the IX.5 Notification rules (1) to (3) which require non-notification to require the normal tests for notification under the relevant sections of the RMA.</p>	<p>Submission does not relate to transport matters, Council’s Planner to consider this submission point.</p>	<p>Council’s Planner to consider this submission point</p>						
<p>Auckland Transport: 22.10</p>	<p>Delete Standard IX.6 (2)</p>	<p>Support. Refer to Section 5 of this report.</p>	<p>Support. Refer to my discussion and recommendations in Section 5</p>						
<p>Auckland Transport: 22.11</p>	<p>IX.6.2 Standard Amend Standards IX.6.1 (1) and delete Standard IX.6.1 (2) and the note as follows: <i>IX.6.2 Staging of Development with Transport Upgrades</i> <i>(1) Development and subdivision within the area shown on IX.10.3 Precinct Plan 2 must not exceed the thresholds in Table IX.6.1.1 and Table IX.6.1.2 until such time that the identified infrastructure upgrades are constructed and are operational.</i> <i>(2) Table IX.6.1.1 sets out the development thresholds if ‘Access A’ is not constructed to provide direct access to the Drury Centre from State Highway 1, as shown on IX.10.2 Drury Centre: Precinct Plan 2. Table IX.6.1.2 sets out the development thresholds if ‘Access A’ is constructed to provide direct access to the Drury Centre from State Highway 1 as shown on IX.10.2 Drury Centre: Precinct Plan 2.</i> <i>Note: Transport infrastructure projects for Drury included in the New Zealand Upgrade Programme 2020 – Transport prepared by the New Zealand Transport</i></p>	<p>Support. I have no immediate concern with the suggested changes. I will provide comment on any revised provisions following the Applicant’s response to submissions.</p>	<p>Support. I will provide comment on any revised provisions following the Applicant’s response to submissions</p>						

<p>Auckland Transport: 22.12</p>	<p>Amend Table IX.6.1.1, including to specify additional transport infrastructure upgrades and network improvements required to be completed (NB: the upgrades/network improvements required for PPC 50 is a matter of ongoing discussion and review – the upgrades/network improvements specified below are those which Auckland Transport has identified to date as needing to be completed, as a minimum, noting also that triggers may change as a result of negotiations with developers and/or additional assessment).</p> <p>Table IX.6.1.1 sets out the transport upgrades required to enable specified development thresholds to be exceeded (i.e. the number of dwellings and gross floor areas of retail and commercial development), each applying to successively higher development yields. It appears that Table IX.6.1.1 was formulated based on the applicant’s modelling outcomes, and Table 8-2 of the applicant’s Integrated Transport Assessment and Attachment 3 of the Request for Information Response: Transport. It is concluded in the applicant’s Integrated Transport Assessment that the developments are unlikely to have a significant adverse effect on the traffic network, provided that the transport infrastructure required to support the developments is implemented.</p> <p>However, Table IX.6.1.1 as currently drafted is of concern to Auckland Transport for the following reasons:</p> <ul style="list-style-type: none"> • It is unclear as to how the proposed development thresholds (by way of number of dwellings and gross floor areas) will be able to capture subdivision. As discussed above, it is Auckland Transport’s view that all subdivision (including vacant lots) and any development of land which precedes a subdivision (e.g. earthworks) will generate construction traffic which can in turn affect both the network capacity and road conditions (e.g. provision of a safe pavement condition). Therefore, the transport upgrade requirements should apply to subdivision • As proposed by the applicant under Table IX.6.1.1, no transport upgrade except for interim safety upgrades (i.e. safe crossing facilities for pedestrians and cyclists) to the Waihoehoe/Great South Road intersection is required until 3,406 dwellings, 62,430m² of retail GFA or 34,800m² of commercial GFA are developed. This is different to Table 8-2 of the applicant’s Integrated Transport Assessment and Attachment 3 of the Request for Information Response: Transport which includes additional transport upgrade requirements at lower development threshold levels. • There is lack of mitigation proposed to address construction traffic effects on both the capacity and condition of roads. The pavement condition of both Fitzgerald Road and Waihoehoe Road will require pavement rehabilitation upgrade from the outset in order to safely and effectively accommodate the increased construction related traffic from the development to be enabled through this plan change. Any pavement upgrade should take into account the future requirements of the road and other underground/above ground service renewals. The existing roundabouts at the Waihoehoe Road/Great South Road and Waihoehoe Road/Fitzgerald Road intersections will also require upgrades to support increased traffic volumes and construction related movements. The requirements in relation to Drury Boulevard and closure of Flanagan Road are discussed in detail below. • The wider network improvements required to enable each threshold level were not included in Table IX.6.1.1. While the funding and/or programme of a number of these wider works have already been planned, the plan change proposals including the Drury Centre, Drury East, Waihoehoe and Drury 2 Precincts are effectively bringing forward the need for a proportion of the proposed works. To give certainty as to when and what transport upgrades are required to mitigate the associated traffic effects, NZUP projects and other wider network 	<p>Support in part.</p> <p>With regard to bullets 1 and 3, the subject of construction traffic impacts on the network in my view is best dealt with through subsequent resource consent applications, whether this applies to subdivision or land use activity resource consents. I do not see these points being relevant in the context of a plan change.</p> <p>I support bullet 2 regarding the timing of transport upgrades to the Great South Road/Waihoehoe Road intersection. I consider that the PPC50 application does not robustly assess the potential effects, nor fully reflect the transport infrastructure needed to mitigate transport effects. Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report.</p> <p>Bullet 4 speaks to including NZUP projects and other wider network improvements within the provisions. I appreciate the risk associated with the transport assessment, in that it relies on NZUP infrastructure to manage and mitigate effects, yet there is no certainty as to when this infrastructure will be operational.</p> <p>To avoid ultra vires infrastructure triggers, I consider that the provisions need to be redrafted such that the performance of the network and therefore mitigation required is assessed and addressed at each development stage. Refer to my discussion in Sections 4.8 and 5 of this report.</p>	<p>Support in part.</p> <p>I recommend Council’s Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions.</p> <p>I am of the view that construction matters are best dealt with at Resource Consent.</p>
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	<p>improvements should be included in Table IX6.1.1. This aligns with Table 8-2 of the applicant's Integrated Transport Assessment.</p> <p>Auckland Transport therefore considers that the proposal (i.e. the amended provisions and the resulting anticipated development enabled by these amendments) will have the potential to result in significant adverse effects on the local and wider transport network, unless the above issues are appropriately addressed</p>		
Auckland Transport: 22.13	Delete Table IX.6.1.2 as a consequential amendment from AT's submission point on Access A.	Support deletion of Table IX6.1.2. Noting my recommendation to replace Standards IX6.1 and IX6.2. This point is consistent with Waka Kotahi's submission. Refer to Sections 4.8 and 5 of this report.	Support in part. I recommend Council's Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions
Auckland Transport: 22.14	<p>Amend Standards IX.6.2 (1), delete Standard IX.6.2 (2) and the note, and add a new clause as follows:</p> <p>IX.6.2 Trip Generation Limit</p> <p><i>(1) Development and subdivision within the Drury area shown on IX.10.2 Precinct Plan 2 must not exceed the thresholds in Table IX.6.2.1 and Table IX.6.2.2 until such time that the identified infrastructure upgrades are constructed and are operational.</i></p> <p><i>(2) Table IX.6.2.1 sets out the development thresholds if 'Access A' is not constructed to provide direct access to the Drury Centre from State Highway 1, as shown on IX.10.2 Drury Centre: Precinct Plan 2. Table IX.6.2.2 sets out the development thresholds if 'Access A' is constructed to provide direct access to the Drury Centre from State Highway 1 as shown on IX.10.2 Drury Centre: Precinct Plan 2.</i></p> <p><i>Note: Transport infrastructure projects for Drury included in the New Zealand Upgrade Programme 2020 – Transport prepared by the New Zealand Transport Agency are not included in the development thresholds below</i></p> <p><u>(x) A Transport Assessment corresponding to the scale and significance of the proposed activity prepared by a suitably qualified expert must be provided in order to confirm compliance with this standard.</u></p>	<p>Consequential changes are required to Standards IX.6.2(1) and Standard IX.6.2(2) to address matters raised in submissions, in particular those of Waka Kotahi, as well as my views. I consider that the transport upgrades set out in IX6.1 and IX6.2 are too prescriptive when considering the uncertainties highlighted with the transport assessment. Refer to Sections 4.8 and 5 of this report.</p> <p>I will provide comment on any revised provisions following the Applicant's response to submissions.</p>	

<p>Auckland Transport: 22.15</p>	<p>Amend Table IX.6.2.1, including to specify additional transport infrastructure upgrades and network improvements required to be completed (NB: the upgrades/network improvements required for PPC 50 is a matter of ongoing discussion and review – the upgrades/network improvements specified below are those which Auckland Transport has identified to date as needing to be completed, as a minimum, noting also that triggers may change as a result of negotiations with developers and/or additional assessment</p> <p>Table IX.6.1.1 sets out the transport upgrades required to enable specified development thresholds to be exceeded (i.e. the number of dwellings and gross floor areas of retail and commercial development), each applying to successively higher development yields. It appears that Table IX.6.1.1 was formulated based on the applicant’s modelling outcomes, and Table 8-2 of the applicant’s Integrated Transport Assessment and Attachment 3 of the Request for Information Response: Transport. It is concluded in the applicant’s Integrated Transport Assessment that the developments are unlikely to have a significant adverse effect on the traffic network, provided that the transport infrastructure required to support the developments is implemented.</p> <p>However, Table IX.6.1.1 as currently drafted is of concern to Auckland Transport for the following reasons:</p> <ul style="list-style-type: none"> • It is unclear as to how the proposed development thresholds (by way of number of dwellings and gross floor areas) will be able to capture subdivision. As discussed above, it is Auckland Transport’s view that all subdivision (including vacant lots) and any development of land which precedes a subdivision (e.g. earthworks) will generate construction traffic which can in turn affect both the network capacity and road conditions (e.g. provision of a safe pavement condition). Therefore, the transport upgrade requirements should apply to subdivision • As proposed by the applicant under Table IX.6.1.1, no transport upgrade except for interim safety upgrades (i.e. safe crossing facilities for pedestrians and cyclists) to the Waihoehoe/Great South Road intersection is required until 3,406 dwellings, 62,430m² of retail GFA or 34,800m² of commercial GFA are developed. This is different to Table 8-2 of the applicant’s Integrated Transport Assessment and Attachment 3 of the Request for Information Response: Transport which includes additional transport upgrade requirements at lower development threshold levels. • There is lack of mitigation proposed to address construction traffic effects on both the capacity and condition of roads. The pavement condition of both Fitzgerald Road and Waihoehoe Road will require pavement rehabilitation upgrade from the outset in order to safely and effectively accommodate the increased construction related traffic from the development to be enabled through this plan change. Any pavement upgrade should take into account the future requirements of the road and other underground/above ground service renewals. The existing roundabouts at the Waihoehoe Road/Great South Road and Waihoehoe Road/Fitzgerald Road intersections will also require upgrades to support increased traffic volumes and construction related movements. The requirements in relation to Drury Boulevard and closure of Flanagan Road are discussed in detail below. • The wider network improvements required to enable each threshold level were not included in Table IX.6.1.1. While the funding and/or programme of a number of these wider works have already been planned, the plan change proposals including the Drury Centre, Drury East, Waihoehoe and Drury 2 Precincts are effectively bringing forward the need for a proportion of the proposed works. To give certainty as to when and what transport upgrades are required to mitigate the associated traffic effects, NZUP projects and other wider network 	<p>Refer to my response to Auckland Transport: 22.12 above. The same response applies.</p>	<p>Refer to my response to Auckland Transport: 22.12</p>
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	<p>improvements should be included in Table IX6.1.1. This aligns with Table 8-2 of the applicant's Integrated Transport Assessment.</p> <p>Auckland Transport therefore considers that the proposal (i.e. the amended provisions and the resulting anticipated development enabled by these amendments) will have the potential to result in significant adverse effects on the local and wider transport network, unless the above issues are appropriately addressed</p>		
Auckland Transport: 22.16	Delete Table IX.6.2.2 as a consequential amendment from AT's submission point on Access A.	Support.	Support in part. I recommend Council's Planner adopt my proposed replacement of Standard IX6.2 or a hybrid of the two provisions.
Auckland Transport: 22.17	<p>Amend IX.8.1 (2) as follows:</p> <p><i>(2) Development and/or subdivision that does not comply with Standard IX.6.2 Staging of Development with Transport Upgrades but complies with Standard IX.6.2 Trip Generation Limit:</i></p> <p><i>(a) Effects on the transport network consistent with the trips generated by development specified in Table IX.6.2.1 or Table IX.6.2.2;</i></p> <p><i>(b) The rate of public transport uptake and travel management measures; and</i></p> <p><i>(c) The coordination of retail, commercial and residential development in within the wider Drury area shown on IX.10.2 Precinct Plan 2; Drury-East.</i></p> <p><i>(x) The degree of certainty around the provision of required infrastructure upgrades including confirmation of infrastructure funding or other such measures agreed; and</i></p> <p><i>(x) Any mitigation measures or review conditions required to address the effects from development occurring ahead of the required infrastructure upgrades.</i></p>	<p>Support in part.</p> <p>Similar to above, in my view 'infrastructure funding' should be replaced with 'committed infrastructure'.</p> <p>I will provide comment on any revised provisions following the Applicant's response to submissions.</p>	Support in part. I recommend Council's Planner adopt the suggested changes to the Matters of Discretion, however note that the text may be updated in response to submissions.
Auckland Transport: 22.18	<p>Amend IX.8.2 (2) as follows:</p> <p><i>(5) Development and/or subdivision that does not comply with IX.6.1 Staging of Development with Transport Upgrades but complies with IX.6.2 Trip Generation Limit:</i></p> <p><i>(a) Whether the effects of the proposal on the transport network are consistent with the trips generated by development specified in Table IX.6.2.1 or Table IX.6.2.2;</i></p> <p><i>(b) Whether increased use of public transport provides additional capacity within the local transport network included within the Drury area shown on IX.10.2 Precinct Plan 2; including by implementing travel demand management measures.</i></p> <p><i>(c) Whether residential development is coordinated with retail and commercial development within the wider Drury East area shown on Precinct Plan 2 to minimise trips outside of the precinct providing additional capacity within the transport network;</i></p> <p><i>(d) The effect of the timing and development of any transport upgrades</i></p> <p><i>(x) Where new, upgrades and/or extensions to transport infrastructure are required, whether infrastructure funding agreements or other agreements exist to ensure that the new, upgraded or extended infrastructure required to service the subdivision and/or development can be funded and delivered; and</i></p> <p><i>(x) Whether the effects of development proceeding ahead of the required transport upgrades are mitigated by any conditions of consent including those relating to the scale, staging or operation of an activity, review conditions or interim network improvements proposed by the applicant</i></p>	<p>Consequential changes to Assessment Criteria will be required depending on the changes applied to the Precinct standards and Matters of Discretion.</p> <p>Responding to this submission point, I support</p> <ol style="list-style-type: none"> the suggested changes to IX.8.2(5)(b) the addition of second (x) <p>I am unsure whether it is appropriate to require funding agreements or other agreements to be tabled as such through assessment criteria and seek advice on this from the Council Planner.</p>	Support in part. I recommend Council's Planner adopt the suggested changes to IX.8.2(5)(b) and the addition of second (x) I seek advice from Council's Planner regarding funding mechanisms as a matter of discretion.

Auckland Transport: 22.19	Delete all reference to 'Access A' under Standards IX.6.1 and IX.6.2 Remove 'Access A' from Precinct Plan 2 and Precinct Plan 2.	Support, refer to my response to Waka Kotahi's submission	Support, refer to my response to Waka Kotahi's submission			
Auckland Transport: 22.20, 22.21 and 22.22	<p>The precinct provisions should be amended to better address the following related matters:</p> <ul style="list-style-type: none"> Define the key transit-oriented development principles, characteristics and outcomes as they apply to the plan change area. Ensure there is consistency through the suite of precinct provisions in regard to giving effect to the transit-oriented development related outcomes. Applying appropriate mechanisms in the precinct provisions to support transit-oriented development related outcomes e.g. managing the provision of parking as part of the wider suite of travel demand management measures that are applied to transit-oriented development scenarios. <p>In addition:</p> <ul style="list-style-type: none"> Provide further assessment of the impacts of the proposal on accessibility between the Waihoehoe area the Drury Central rail station for all modes including public transport and pedestrian access, focusing on safety, permeability and connectivity between the areas. <p>Include provisions in the plan change to ensure that funding for public transport services (i.e. bus services) is available to support and provide public transport connections between the developments and the Drury Central rail station upon its completion</p>	<p>Support.</p> <p>I have no immediate concern with the suggested changes. I will provide comment on any revised provisions following the Applicant's response to submissions.</p>	<p>Support.</p> <p>I will provide comment on any revised provisions following the Applicant's response to submissions</p>			
Auckland Transport: 22.23	<p>Amend IX.10.1 Waihoehoe: Precinct Plan 1 as follows:</p> <ul style="list-style-type: none"> Add to the legend and show the proposed Opāheke North-South arterial road as a future arterial road 	<p>Oppose in part.</p> <p>While I recognise the strategic importance of the Opāheke North-South arterial road, I consider that details such as alignment should be confirmed by a NoR or developer agreement, separate from the Plan Change Process</p>	<p>Oppose in part</p> <p>I consider that the Opāheke North-South arterial road should be determined by other processes.</p> <p>I seek advice from Council's Planner</p>			
Auckland Transport: 22.24 and 22.25	<p>IX.3 Policies</p> <p>Add two new policies as follows:</p> <p><u>(x) Recognise and protect the route for the proposed Opāheke North-South arterial road as a future Frequent Transit Network arterial route which provides for the north-south movements between Papakura and Waihoehoe Road.</u></p> <p><u>(x) Ensure that subdivision and development in Waihoehoe Precinct does not preclude the construction and operation of proposed Opāheke North-South arterial, as defined by</u></p> <ul style="list-style-type: none"> <u>The indicative Opāheke North-South arterial road alignment shown in IX.10.1 Waihoehoe: Precinct Plan 1; or</u> <u>Relevant designations and resource consents for the proposed Opāheke North-South arterial road</u> 					
Auckland Transport: 22.26	<p>Add a new rule</p> <table border="1"> <tr> <td>(X)</td> <td><u>Subdivision and/or development of land including or adjacent to the proposed Opāheke North-South arterial road shown in IX.10.1 Waihoehoe: Precinct Plan 1</u></td> <td>RD</td> </tr> </table>			(X)	<u>Subdivision and/or development of land including or adjacent to the proposed Opāheke North-South arterial road shown in IX.10.1 Waihoehoe: Precinct Plan 1</u>	RD
(X)	<u>Subdivision and/or development of land including or adjacent to the proposed Opāheke North-South arterial road shown in IX.10.1 Waihoehoe: Precinct Plan 1</u>			RD		
Auckland Transport: 22.27	<p>Add a new matter of discretion as follows:</p> <p><u>(x) Subdivision and/or development of land including or adjacent to the proposed Opāheke North-South arterial road:</u></p> <p><u>(a) Effects on the proposed Opāheke North-South arterial road</u></p>					

Auckland Transport: 22.28	<p>Add new assessment criteria as follows:</p> <p><u>(x) Subdivision and/or development of land including or adjacent to the proposed Opāheke North-South arterial road:</u></p> <p><u>(a) Whether the subdivision and/or development preclude the construction and operation of the proposed Opāheke North-South arterial road; and</u></p> <p><u>(b) the extent to which the subdivision and/or development provide for the proposed Opāheke North-South arterial road to be developed in a cohesive manner</u></p>		
Auckland Transport: 22.29 and 22.30	<p>IX.3 Policies</p> <p>Add two new policies as follows:</p> <p><u>(x) Recognise and protect the route for Waihoehoe Road as a multi-modal arterial which provides for the east-west movements between Great South Road and Drury Hills Road intersection.</u></p> <p><u>(x) Restrict direct vehicle access onto Waihoehoe Road to support the safe and efficient operation of the transport network for walking, cycling and public transport.</u></p>	<p>Support.</p> <p>I have no immediate concern with the suggested changes. I will provide comment on any revised provisions following the Applicant's response to submissions.</p>	<p>Support.</p> <p>I will provide comment on any revised provisions following the Applicant's response to submissions</p>
Auckland Transport: 22.31	<p>IX.6.4 Standard</p> <p>Amend the building line restrictions to reflect the final alignment and width required and ensure any yard requirements that apply are considered in addition to the building setbacks. The need for IX.6.4 should be reviewed if a notice of requirement is lodged for the upgrade of Waihoehoe Road.</p>		
Auckland Transport: 22.32	<p>IX.11 Appendix 1: Road Cross Section Details</p> <p>Retain the vehicle access restriction on Waihoehoe Road as per Rule E27.6.4.1 (3)(c) of the AUPOP.</p>		
Auckland Transport: 22.33	<p>Amend Objective IX.2 (1) as follows:</p> <p><u>(1) Waihoehoe Precinct is a comprehensively developed residential environment that integrates with the Drury Centre Precinct and the natural environment, supports public transport use, walking and cycling, and respects Mana Whenua values</u></p>	<p>Support.</p> <p>I have no immediate concern with the suggested changes. I will provide comment on any revised provisions following the Applicant's response to submissions.</p>	<p>Support.</p> <p>I will provide comment on any revised provisions following the Applicant's response to submissions</p>
Auckland Transport: 22.34 and 22.35	<p>Amend Policies IX.3 (3) and (7) as follows:</p> <p><u>(3) Require streets to be attractively designed and appropriately provide for all transport modes by:</u></p> <p><u>a) providing a high standard of pedestrian amenity, safety and convenience; and</u></p> <p><u>b) providing for safe separated access for cyclists on arterial and collector roads that link key destinations; and</u></p> <p><u>c) providing a level of landscaping that is appropriate for the function of the street; and</u></p> <p><u>d) providing for the safe and efficient movement of public transport and private vehicles.</u></p> <p><u>(7) Provide for the staging of bus, pedestrian and cycling connections to the Drury Central train rail station upon its completion to encourage the immediate use of public and active modes of transport as soon as practically possible.</u></p>		
Auckland Transport: 22.36 and 22.37	<p>Retain Policy IX.3 (1) and amend Policy IX.3 (2) as follows:</p> <p><u>(1) Require collector roads to be generally in the locations shown in IX.10.1 Drury East: Precinct Plan 1, while allowing for variation, where it would achieve a highly connected street layout that integrates with the surrounding transport network.</u></p> <p><u>(2) Ensure that subdivision and development provide a local road network that achieves a highly connected street layout and integrates with the collector road network within the precinct, and the surrounding transport network, and supports the safety and amenity of the open space and stream network</u></p>		

<p>Auckland Transport: 22.38</p>	<p>IX.4.1 Activity table All Sub-Precincts Amend Rule IX.4.1 (A1) as follows</p> <table border="1"> <tr> <td>(A1)</td> <td>Development of new public or private road (this rule does not apply to Auckland Transport)</td> <td>RD</td> </tr> </table> <p>As a consequential amendment, the same changes are sought to the heading of IX.8.1 (1) matters of discretion and IX.8.2 (1) assessment criteria</p>	(A1)	Development of new public or private road (this rule does not apply to Auckland Transport)	RD	<p>Support. I have no immediate concern with the suggested changes. I will provide comment on any revised provisions following the Applicant's response to submissions.</p>	<p>Support. I will provide comment on any revised provisions following the Applicant's response to submissions</p>
(A1)	Development of new public or private road (this rule does not apply to Auckland Transport)	RD				
<p>Auckland Transport: 22.39</p>	<p>IX.6 Standards and IX.4.1 Activity table All Sub-Precincts Add a new standard to require the vesting of proposed public roads in all sub-precincts as follows: <u>IX.6.X Road Vesting</u> <u>Proposed public roads (including separated pedestrian and bicycle routes) must be constructed and vested in Council upon subdivision or development of the relevant area at no cost to the Council.</u> As a consequential amendment, add a new rule as follows</p> <table border="1"> <tr> <td><u>(X)</u></td> <td><u>Development and/or subdivision that does not comply with IX.6.X Road Vesting</u></td> <td><u>NC</u></td> </tr> </table>	<u>(X)</u>	<u>Development and/or subdivision that does not comply with IX.6.X Road Vesting</u>	<u>NC</u>	<p>Neither support nor oppose. In my view consideration of road vesting is a regionwide matter, and I am not aware of any reasons why the provisions would require a specific Activity for this.</p>	<p>Neither support nor oppose. Council's Planner to consider submission point</p>
<u>(X)</u>	<u>Development and/or subdivision that does not comply with IX.6.X Road Vesting</u>	<u>NC</u>				
<p>Auckland Transport: 22.40</p>	<p>IX.8.1 (1) Matters of discretion Amend IX.8.1 (1) as follows: <i>(1) Development of new public and private roads:</i> <i>(a) Location and design of the collector roads streets, local roads streets and connections with neighbouring sites and to achieve an integrated street network;</i> <i>(b) Provision of safe and efficient public transport, cycling and pedestrian networks;</i> <i>(c) Location and design, and sequencing of connections to the Drury Central train rail station; and</i> <i>(d) Matters of discretion IX8.1 (1)(a) - (c) apply in addition to the matters of discretion in E38.12.1; and</i> <u>(x) Location and design of intersections with existing roads;</u></p>	<p>Support. I have no immediate concern with the suggested changes. I will provide comment on any revised provisions following the Applicant's response to submissions.</p>	<p>Support. I will provide comment on any revised provisions following the Applicant's response to submissions</p>			

<p>Auckland Transport: 22.41, 22.42, 22.43, 22.44, 22.45, 22.46, 22.47 and 22.48</p>	<p>IX.8.2 (1) Assessment criteria Amend IX.8.2 (1) as follows: (1) Development of <u>new</u> public and private roads: <i>Location of roads</i> <i>(a) The extent to which the collector road network and the Key Retail Street are provided generally in the locations shown on IX.10.X Drury Centre: Precinct Plan 2 to achieve a highly connected street layout that integrates with the surrounding transport network and responds to landform. An alternative alignment that provides an equal or better degree of connectivity and amenity within and beyond the precinct may be appropriate, having regard to the following functional matters:</i> <i>(i) The presence of natural features, natural hazards or contours and how this impacts the placement of roads;</i> <i>(ii) The need to achieve <u>a permeable and efficient</u> block structure and layout within the precinct suitable to the proposed activities.; and</i> <i>(iii) The constructability of roads and the ability for it to be delivered by a single landowner.</i> <i>(b) Whether a high quality and integrated network of local roads is provided within the precinct that provides a good degree of accessibility <u>and connectivity</u>, and supports <u>public and active modes of transport</u> a walkable street network.</i> <i>(c) Whether roads are aligned with the stream network, or whether pedestrian and/or cycle paths are provided along one or both sides of the stream network, where they would logically form part of an integrated open space network;</i> <i>(d) Where pedestrian and/or cycle paths are proposed within proposed open spaces, whether they are located adjacent to, and not within the 10m planted riparian area</i> <i>(e) Whether subdivision and development provide for <u>arterial</u>, collector roads and local roads to the site boundaries to coordinate with neighbouring sites and support the integrated completion of the network within the precinct over time</i> <i>Design of roads</i> <i>(g) Whether the design of collector and local roads are generally in accordance with <u>the minimum road reserve widths and key design elements</u> road cross-sections provided in in IX.10.1 Waihoehoe: Appendix 1;</i> <i>(h) Whether the layout of the street network provides a good degree of accessibility <u>and connectivity</u>, and supports <u>the development of Waihoehoe Precinct as a walkable centre and community street network</u>. As a general principle, the length of a block should be no greater than 280m, and the perimeter of the block should be no greater than 600m;</i> <i>(i) Whether safe and legible pedestrian and cycle connections to the Drury Central train <u>rail</u> station are provided, via facilities on Waihoehoe Road and Flanagan Road/Drury Boulevard, from the Fitzgerald Rd extension to the Drury Rail Station. Or an alternative is provided that achieves an equal or better degree of connectivity. Where development precedes the upgrade of Waihoehoe Road and connecting roads, interim pedestrian and cycle facilities <u>should</u> may be provided;</i> <u>(x) Whether the layout of the street network supports the provision of a safe and efficient bus network;</u> <u>(x) Whether the design of collector and local roads include safe and efficient intersection treatments with existing roads; and</u></p>	<p>Support in part. I have no immediate concern with the suggested changes. However, regarding IX8.2(1)(g) I consider that the cross sections contained in Appendix 1 should be removed. I consider that greater flexibility in cross sectional specifications is required to enable street form and function to appropriately respond to future land uses, and for the Precinct to maintain adaptability to future street design standards, as discussed in Section 5.1.2 of this report. I will provide comment on any revised provisions following the Applicant's response to submissions.</p>	<p>Support in part. I will provide comment on any revised provisions following the Applicant's response to submissions</p>
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	<i>(x) Where development is adjacent to a rural road, whether the road is to be upgraded to an urban standard.</i>		
Auckland Transport: 22.49	<p>IX.11 Appendix 1: Road Cross Section Details</p> <p>Delete IX.11 Appendix 1: Road Cross Section Details.</p> <p>Introduce provisions relating to the minimum road reserve widths and key design elements and functional requirements of new roads and roads which need to be upgraded to urban standards including but not limited to:</p> <ul style="list-style-type: none"> • Carriageway • Footpaths • Cycleways • Public Transport • Ancillary Zone (parking, street trees etc.) • Berm • Frontage • Building Setback • Design Speed <p>As part of new provisions, retain vehicle access restriction provisions, as addressed above</p>	<p>Oppose in part.</p> <p>I consider that the Precinct Plan already sets out the key functional routes (for example collector roads). I consider that amendments to the Precinct Plan and/or Provisions are required to support active transport and public transport, refer to my discussion in Sections 4.7 and 5.</p> <p>However, details such as those requested by Auckland Transport are more appropriately determined as part of future resource consent and engineering plan approval applications, noting that these will be subject to Auckland Transport Standards and Guidelines. Refer to my recommended changes to Provisions relating to road cross sections, and IX.11 Appendix, in Section 5.1.2 of this report.</p>	<p>Oppose in part</p>
Auckland Transport: 22.50 and 22.51	<p>Seek provisions to add layers to the AUPOP for:</p> <ul style="list-style-type: none"> • Arterial roads within the Precinct area, including Waihoehoe Road <p>The purpose of all roads to be shown on the precinct plans. As notified, some existing roads do not have their future role annotated. The AUPOP maps need to specify the future intended classification of these roads;</p>	<p>Support.</p>	<p>Support.</p> <p>I will provide comment on any revised provisions following the Applicant's response to submissions</p>
Auckland Transport: 22.52	<p>Make any necessary amendments to PPC 50 as required to achieve a consistency in approach, including in relation to objectives, policies, rules, methods and maps, across the private plan changes within the Drury growth area</p>		
Counties Power: 36.12 and 13	<p>Counties Power seeks a typical road cross-section to identify the proposed location of the street trees and landscaping and to ensure that the berm is an acceptable width for installation of underground electrical reticulation.</p>	<p>Refer to my response to Auckland Transport submission point 35.49</p>	<p>Refer to my response to Auckland Transport submission point 35.49</p>
Ministry of Education: 37.1, 2, 3, 4, 5, 6	<p>Seeks amendments to Provisions to acknowledge education infrastructure and allow discretion for the development of the road network relative to schools</p>	<p>Neither support nor oppose. Council's Planner should consider whether matters of discretion for the location of roads should include integration with schools</p>	<p>Council's Planner to consider submission point</p>
Ministry of Education: 24.8	<p>Retain Standard IX.6.1 Staging of Development with Transport Upgrades to ensure appropriate transport infrastructure is provided.</p>	<p>I consider that the transport upgrades set out in Standards IX6.1 and IX6.2 are too prescriptive when considering the uncertainties highlighted with the transport assessment. While I support the Ministry's request for ensure infrastructure provision is linked to development, I recommend revised triggers for transport infrastructure. Refer to Sections 4.8 and 5 of this report</p>	<p>Oppose</p> <p>I recommend Council's Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions</p>
Leith McFadden: 25.2	<p>Raises concerns with negative traffic effects and seeks to ensure infrastructure upgrades are delivered with staged development.</p>	<p>Refer to my response to Auckland Transport submission point 22.1</p>	

Matthew Royston: 27.1	Raises concerns with negative traffic effects on existing rural roads and seeks to ensure infrastructure upgrades are delivered with staged development		Refer to my response to Auckland Transport submission point 22.1
Drury South Limited: 28.1	Raises concern with ability to monitor Activity Table IX.4.1 (A2), (A3), (A5) and (A6) together with Standard IX.6.2. Consideration should be given to whether a simplified approach using GFA triggers alone is a more effective approach, given the potential challenges in monitoring trip generation levels for a development of this scale	Support in part. I consider that the transport upgrades set out in IX6.1 and IX6.2 are too prescriptive when considering the uncertainties highlighted with the transport assessment. While I support the submitters request for greater clarity for Activity Table IX.4.1 and Standard IX.6.1, I recommend revised triggers for transport infrastructure rather than amendments to IX6.1 and IX6.2. Refer to Sections 4.8 and 5 of this report.	Support in part. I recommend Council's Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions
Drury South Limited: 28.3	IX.6(2) exempts activities within the PC48 area from complying with Trip Generation Rule E27.6.1. This might be acceptable if adequate provision was made for transportation infrastructure within the other PC48 rules, but it is not. Amend so that any exemption is clear as to the activities that it applies to, and that the effects of those activities have been assessed through an ITA.	Support in part. I recommend that IX.6(2) be deleted from the Precinct provisions. Refer to my discussion in Section 5.1.1 of this report. Alternatively, the relief sought by the submitter could be considered.	Support in part
Drury South Limited: 28.4	The transportation upgrades proposed in both Tables IX.6.1.1 and IX.6.1.2 are inadequate in scope and nature to ensure that there are not adverse effects on the Drury South Industrial Precinct and the surrounding transport network. The transport assessment which supports PPC50 places undue reliance on currently unfunded transportation upgrades being provided by other parties or through as yet unspecified developer funding agreements. Amend PPC50 to ensure that: (a) adequate upgrading of the surrounding road network (for example Waihoehoe Road shown on Precinct Plan 1) is undertaken; and (b) any non-compliance with this standard is a discretionary activity.	Support in part. I consider that the PPC50 application does not robustly assess the potential effects, nor fully reflect the transport infrastructure needed to mitigate transport effects. Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report.	
Waka Kotahi NZTA: 29.1	Waka Kotahi seeks to ensure that transport effects across the land transport system are appropriately managed and that sufficient infrastructure is provided to service the proposed development. At present, future local level transport networks (i.e. those provided and/or operated by Auckland Transport) for the Drury area are not identified in the Regional Land Transport Plan. The delivery of such infrastructure needs to be aligned with the release of land for development in order to manage adverse effects on the transport network. Seeks information and suitable provisions to resolve the transport infrastructure issue.	Support. I consider that the PPC50 application does not robustly assess the potential effects, nor fully reflect the transport infrastructure needed to mitigate transport effects. Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report.	Support. Refer to my discussion and recommendations in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11
Waka Kotahi NZTA: 29.2	The terms active transport and public transport are utilised within the National Policy Statement Urban Development 2020 (NPSUD). It is requested that references referring to pedestrians and cyclists is replaced with active transport to ensure consistency and clarity. For clarity, where the individual term pedestrian or cyclist is used, these should remain.	Support	Support I will provide comment on any revised provisions following the Applicant's response to submissions
Waka Kotahi NZTA: 29.4	Delete 'Access A' from Precinct Plan 2.	Support. I have no immediate concern with the suggested changes. I will provide comment on any revised provisions following the Applicant's response to submissions.	Support. I will provide comment on any revised provisions following the Applicant's response to submissions
Waka Kotahi NZTA: 29.7	Amend IX.2 Objective 1 (1) <i>Drury East is a comprehensively developed residential environment that integrates with the Drury Centre Precinct and the natural environment, supports active and public transport use, and respects Mana Whenua values</i>		

Waka Kotahi NZTA: 29.14	Amend IX.3 Policy 7 (7) Provide for the staging of pedestrian and cycling connections to the Drury Central train station and Drury Centre to encourage the use of public and active modes of transport		
Waka Kotahi NZTA: 29.16	Opposes (A2), (A3), (A5) and (A6) a) Monitoring the thresholds would be extremely difficult and it would be onerous to keep up to date and convey when and what threshold had been reached. b) The thresholds are standard across PC 48, 49 and 50, which adds further confusion determining when these thresholds are reached (or close to being reached). c) The thresholds centre on general vehicle performance, and deficient of public transport or active mode performance criteria. Alternative mode uptake is considered necessary to achieve the overarching trip generation as identified in the ITA d) The threshold criteria assume, the safety upgrades to be undertaken before any new dwellings, retail or commercial development, at the Waihoehoe/Great South Road intersection, will be adequate until to cater for significant development (for example, 62,430m ² of retail GFA).	Support. I consider that the PPC50 application does not robustly assess the potential effects. I consider that the transport upgrades set out in IX6.1 and IX6.2 are too prescriptive when considering the uncertainties highlighted with the transport assessment. Refer to Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report.	Support. Refer to Sections 4.2, 4.3, 4.4, 4.5, 4.7, 4.8, and 4.9
Waka Kotahi NZTA: 29.18	Delete Standard IX.6(3) The proposal to apply the Mixed Housing Urban standard to Terrace House and Apartment Building Zone is not supported as it would potentially hinder the provision of high density development in proximity to a rapid transit station and a metropolitan centre zone, contrary to the NPSUD.	Support in principle, although I am unsure whether the proposed Standard is related to managing flooding effects or has not been updated from lodgement, noting the change from MHU to THAB in the notified version of Precinct Plan. I seek advice from Council's Planner	I see advice from Council's Planner
Waka Kotahi NZTA: 29.19	IX6.(2) recognises E27.6.1(2) which provides an 'exemption' from further assessment where there are requirements to consider transport, traffic or trip-generation effects within zone or precinct rules. The provision is supported on basis that transport, traffic or trip-generation provisions are retained in the precinct and that no permitted activities are enabled. Retain IX6.(2) as notified on basis that transport, traffic or trip-generation provisions are retained in the precinct and that no permitted activities are enabled.	Oppose the retention of IX.6(2). Refer to my discussion in Section 5.1.1 of this report. Further, I oppose it on the basis that I consider that the PPC50 application does not robustly assess the potential effects, on which the current provisions are based. Further, as currently notified, I consider that development that complies with IX6.1 and IX6.2 would be a Permitted activity. In noting the above, I do not agree to the notified transport provisions. I expect, once the transport provisions are agreed, a degree of Permitted Activities will be enabled.	Oppose
Waka Kotahi NZTA: 29.20	Delete IX.6.1 (3) Staging of Development with Transport Upgrades Waka Kotahi seeks deletion of Access A from Precinct Plan 2 and all consequential amendments. IX.6.1 (3) needs to be deleted to reflect this	Support. Refer to my discussion in Sections 4.10.1 and 5 of this report	Support.
Waka Kotahi NZTA: 29.22	Amend Table IX.6.1.1 Threshold for Development Table IX.6.1.1 Threshold for Development with 'Access A' as shown on IX.10.2 Drury East: Precinct Plan 2 not constructed		
Waka Kotahi NZTA: 29.23	IX.6.1.1 Table for Development The transport upgrades described in the right hand column (Transport Upgrades Required to Exceed the Dwelling, Retail/Commercial GFA Thresholds) of the Table require more specificity to ensure that the proposed outcomes are clear for future plan uses and able to be delivered. Retain with amendment: Provide more specificity as to the details of works required by including upgrade details listed in Table 8.1, column headed Revised (2020) Modelling – Infrastructure Upgrades Required.	Support in part. In my view the transport effects should be considered at a plan change level, including the indicative "footprints" needed to confirm feasibility of upgrades. However, I consider that the detail design (such as that requested by NZTA) is not required at Plan Change, as this will not come until future resource consents and detailed design. I consider that the level of detail requested by the submitter is not warranted within a plan change of this scale. I consider that the transport upgrades set out in IX6.1 and IX6.2 are too prescriptive when considering the uncertainties highlighted with the transport assessment. While I support Waka Kotahi's request for greater clarity for Table IX6.1.1 and IX6.1.2, I recommend revised triggers for transport infrastructure rather than amendments to IX6.1 and IX6.1. Refer to Section 5.	Support in part. I recommend Council's Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions

<p>Waka Kotahi NZTA: 29.24</p>	<p>Waka Kotahi seeks deletion of Access A from Precinct Plan 2 and all consequential amendments. Table IX.6.1.2 needs to be deleted to reflect this</p>	<p>Support deletion of thresholds relating to Access A, refer to Section 5.</p>	<p>Support</p>
<p>Waka Kotahi NZTA: 29.25</p>	<p>Delete IX.6.2 Trip Generation Limit including Tables IX.6.2.1 and IX.6.2.2. Replace with provisions which provide for operational requirements and more specific transport network responses. Potential wording could include a new permitted activity standard with non-compliance being a restricted discretionary activity (consequential changes to Activity Table IX.4 would be required). Restricted discretionary activity assessment criteria/matters of discretion could include transport network improvements. An alternative compliance pathway would be for an applicant to propose and undertake transport network improvements to maintain LOS E i.e. comply (noting that all development requires consent so compliance could be considered as part of this process).</p> <p><u>IX.6.2 Transport Infrastructure Development and subdivision to comply with the following:</u></p> <p>a) Great South Road/ Waihoehoe Road Intersection Operation:</p> <ul style="list-style-type: none"> • Where the baseline intersection operation is at Level of Service E (LOS E) or better at the time of application, no subdivision or development shall generate traffic movements <u>which result in:</u> <ul style="list-style-type: none"> i. <u>a Level of Service of less than LOS E; or</u> ii. <u>have a degree of saturation higher than 95%.</u> • Where the baseline intersection operation is at Level of Service F (LOS F) at the time of application, no subdivision or development shall generate traffic movements which results in: <ul style="list-style-type: none"> i. <u>degrees of saturation of more than the base line scenario, or</u> ii. <u>delays of more than 10% greater than the baseline scenario.</u> <p>Other relief would include additional provisions which outline transport upgrades to be considered (as listed in Table 8.1). Waka Kotahi would like to work with the applicant on this proposal.</p>	<p>Support in part. I support Waka Kotahi’s request to include performance based triggers. My proposed Standard IX.6.x Transport network performance (refer to Sections 4.8 and 5 this report) is consistent with the first bullet of Waka Kotahi’s proposed provision. My provision also incorporates aspects of active and public transport. However, my provisions do not reflect a situation where the intersection is already operating at LOS F, which I consider has merit. I consider that I can work with Waka Kotahi to better align the two proposed provisions.</p>	<p>Support in part. I recommend Council’s Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions</p>
<p>Waka Kotahi NZTA: 29.26</p>	<p>IX.6.2.1 Table for Development with ‘Access A’ not constructed and IX.6.2.2 Table for Development with ‘Access A’ is constructed If the relief in point 29.25 is not accepted; for both Tables, the transport upgrades described in the right-hand column (Transport Upgrades Required to Exceed the Trip Generation Thresholds) require more specificity to ensure that the proposed outcomes are clear for future plan uses and able to be delivered. Retain with amendment if submission point 18 not accepted: Provide more specificity as to the details of works required in the right hand columns of both Tables by including upgrade details listed in Table 8.1, column headed Revised (2020) Modelling – Infrastructure Upgrades Required.</p>	<p>Support in part. In my view the transport effects should be considered at a plan change level, including the indicative “footprints” needed to confirm feasibility of upgrades. However, I consider that the detail design (such as that requested by NZTA) is not required at Plan Change, as this will not come until future resource consents and detailed design. I consider that the level of detail requested by the submitter is not warranted within a plan change of this scale. I consider that the transport upgrades set out in IX6.1 and IX6.2 are too prescriptive when considering the uncertainties highlighted with the transport assessment. While I support Waka Kotahi’s request for greater clarity for Table IX6.2.1 and IX6.2.2, I recommend revised triggers for transport infrastructure rather than amendments to IX6.1 and IX6.2. Refer to Sections 4.8 and 5 this report.</p>	<p>Support in part. I recommend Council’s Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions</p>

Waka Kotahi NZTA: 29.28, 29.29, 29.30 and 29.31	Various amendments to provisions to include engagement with the relevant road authority as a matter of discretion	Support. I have no immediate concern with the suggested changes. I will provide comment on any revised provisions following the Applicant's response to submissions.	Support. I will provide comment on any revised provisions following the Applicant's response to submissions
Kāinga Ora: 32.1	Seeks to include 1 and 1A East Street within the Precinct	Neither support nor oppose. I query whether this submission is within the scope of PPC50 and will take advice from Council's Planner. Further to this, changing and/or extending the extent of rezoning would require further assessment of transport effects, particular given that these properties are not contiguous with PPC50, being separated by the rail line, and therefore would have different traffic effects.	I seek advice from Council's Planner
Kāinga Ora: 32.8	Standard IX.6(3) The provision makes reference to the Mixed Housing Urban Zone which is not identified within the precinct plans. This reference should either be deleted, or the proposed zonings amended to reflect.	Support in principle, although I am unsure whether the proposed Standard is related to managing flooding effects or whether it has not been updated from lodgement, noting the change from MHU to THAB in the notified version of Precinct Plan. I seek advice from Council's Planner	I seek advice from Council's Planner
Kāinga Ora: 32.10, 32.11	Policy (5), (6), and (7), IX.6.1 Staging of Development with Transport Upgrades, and IX.6.2 Trip Generation Limit. Kāinga Ora questions the extent to which the various publicly-funded infrastructure works (noted under IX.6.1 (4) and IX.6.2 as "...not included in the development thresholds...") have influenced the setting of the development thresholds proposed, and whether the thresholds have assumed those upgrades have taken place. If those public works not taking place have a material influence on the threshold proposed, Kāinga Ora submit they should be included in the precinct. Seeks to clarify and/or amend policies and associated provisions and thresholds to account for public infrastructure upgrades	Support in part. I consider that the PPC50 application does not robustly assess the potential effects, nor fully reflect the transport infrastructure needed to mitigate transport effects. Refer to my discussion in Sections 4.4, 4.5, 4.7, 4.8, 4.10, and 4.11 of this report. However, I consider that revised provisions can enable development to occur in an integrated manner. Refer to my discussion in Section 5 of this report. I consider that my proposed Standard IX.6.1 Staging of Development with Transport Upgrades and IX.6.2 Transport network performance (refer to Section 4.8 and 5 of my report) provides the security that transport infrastructure to support staged development is not "piecemeal" as well as providing flexibility for the land owner to undertake development in an efficient manner.	Support in part. I recommend Council's Planner adopt my proposed replacement of Standards IX6.1 and IX6.2 or a hybrid to address Auckland Transport and Waka Kotahi submissions

APPENDIX B Clause 23 request summary (PC50)

PROJECT ACXX395: DRURY PRIVATE PLAN CHANGE – OYSTER CAPITAL
SUBJECT PRIVATE PLAN CHANGE - CLAUSE 23 INFORMATION REQUESTS
TO MICHAEL LUONG (AC), DAVID MEAD (HYC)
FROM MAT COLLINS
REVIEWED BY TERRY CHURCH
DATE 03 MARCH 2020

1 INTRODUCTION

Auckland Council (Council) has requested Flow Transportation Specialists (Flow) to review the transportation matters associated with three Private Plan Changes (PPC), which have been lodged by Kiwi Property No.2 Limited (Kiwi Property), Fulton Hogan Land Development (FHLD), and Oyster Capital (Oyster). The three PPCs seek to rezone approximately 328 hectares of Future Urban Zoned land in Drury to a mix of Business and Residential zones.

This technical note contains Clause 23 information requests relating to the Oyster PPC. It should be read in conjunction with our Clause 23 information requests relating to the Drury East Modelling Report (Modelling Report). The Modelling Report provides a single traffic modelling report that each of the PPCs to refer to in each of their respective Integrated Transport Assessments. We have attached our Clause 23 information requests relating to the Modelling Report as Appendix A.

The Clause 23 requests are associated with the following documents

- ◆ Section 32 Assessment Report, prepared by B&A, dated December 2019, including
 - Appendix 1 Plan Change Zoning Map and Precinct Provisions
 - Appendix 8 Integrated Transport Assessment
- ◆ Drury East Modelling Report, prepared by Stantec, dated November 2019

We note that we have not engaged with Auckland Transport (AT) and the New Zealand Transport Agency (NZTA) as part of our review.

2 SITE SUMMARY

Oyster is applying for a Plan Change to rezone approximately 49 hectares of Future Urban land into a mix of residential zones (Terrace Housing and Apartment Building and Mixed Housing Urban). The rezoning proposal provides capacity for at least 1,130 dwellings.

The three PPC areas and the proposed zonings are shown in Figure 1, with further detail on the Oyster PPC shown in Figure 2.

Figure 1: Drury East Private Plan Change areas and proposed zoning

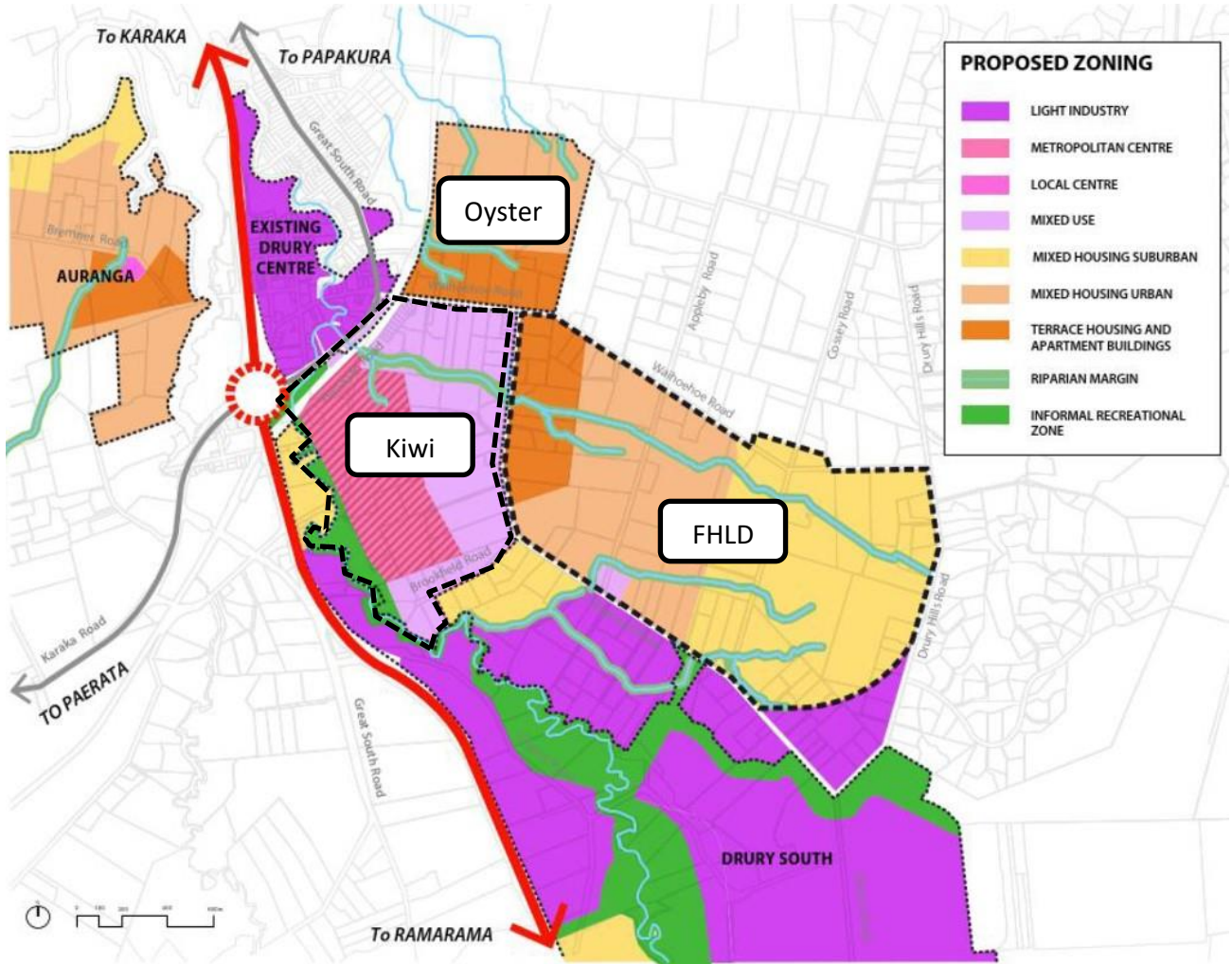
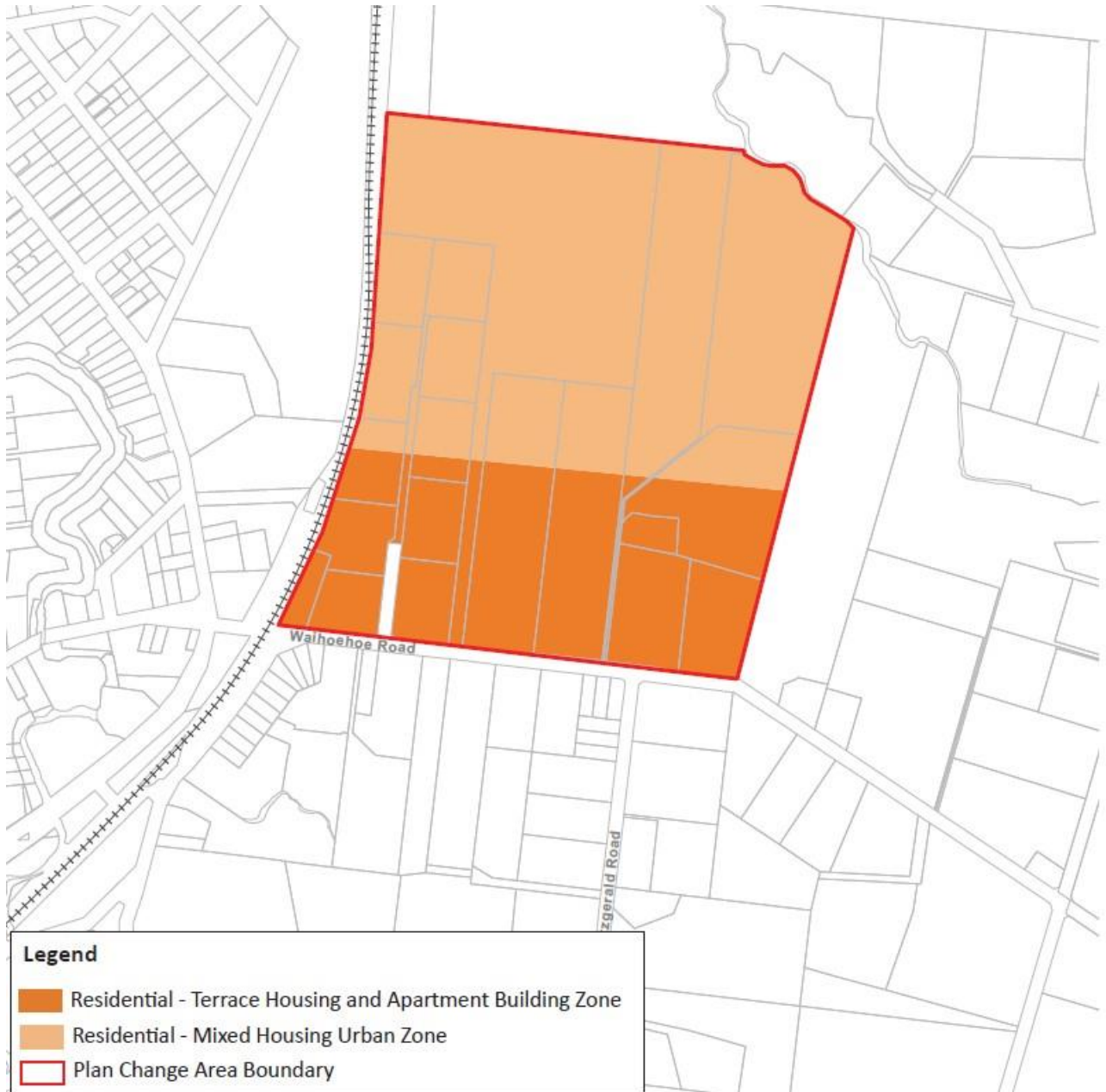


Figure 2: Oyster Private Plan Change proposed zoning



3 SUMMARY OF ADDITIONAL INFORMATION REQUESTS

Having reviewed the relevant documents provided, we consider that additional information is required to better understand the transport effects and their management. Information requests are summarised below, with further discussion of these requests provided in Section 1.1.

These requests should be read in conjunction with our Clause 23 information requests relating to the Modelling Report (attached as Appendix A).

The New Zealand Government recently announced the New Zealand Upgrade Programme¹. This includes funding for

- ◆ Mill Road between Manukau and Drury, including the Drury South interchange
- ◆ Rail electrification from Papakura to Pukekohe
- ◆ Drury West and Drury East train stations
- ◆ State Highway 1 widening from Papakura to Drury South interchange (3 lanes each way)

This announcement clearly has the potential to have a major impact on potential transport effects and mitigation measures for the PPCs. We understand from Council staff that there are still complexities around the funding of these projects. The Clause 23 requests in our report should be read in the context of a “snapshot in time”, based on the application material that has been provided.

3.1 Section 32 report and proposed Precinct

Request 1 Explanation: The PPC has been lodged parallel to two other Private Plan Changes for land adjoining the PPC, one from FHLD and one from Kiwi. These three PPCs rely on the Drury East Modelling Report, which provides a single traffic modelling report for each of the PPCs to refer to in each of their respective Integrated Transport Assessments. However, as the three PPCs are separately lodged, they must, in our view also be considered in isolation so that if, for any reason, the PPCs become separated and require processing separately as stand-alone proposals, the potential transport effects of each PPC and the proposed planning provisions can be individually assessed.

Request 1. *The transport modelling assessment and planning provisions currently speak to all three PPCs being accepted as a package and progressing in parallel. In the event that the PPCs are disaggregated, or deviate from each other in terms of timing as a result of the public notification process/resolution of critical elements, please provide further information as to how the transport effects of each individual PPC can be understood and mitigated and how the provisions may need to be amended as a result. Please confirm to what extent the PPC relies on the PPCs submitted by Kiwi and FHDL, and how the delay or rejection of one or both of these PPCs might affect the Oyster PPC.*

Request 2 Explanation: The Precinct includes rules requiring the delivery of transport infrastructure based on a GFA/dwelling assessment and an external trip generation assessment. It is not clear how

¹ <https://www.nzta.govt.nz/planning-and-investment/nz-upgrade/auckland-package/>

these rules will be monitored or how equitable outcomes between beneficiaries (i.e. landowners within the three PPC areas) will be ensured.

Request 2. *Please comment on potential risks/challenges associated with monitoring the complex thresholds specified in Tables IX.6.1.1/2 and IX.6.2.1/2, and how these might be addressed.*

Request 3 Explanation: It is not clear whether Standard IX.6.1(1) is interpreted requiring the upgrades identified in Tables IX.6.1.1 and IX.6.1.2 when *any* or *all* development thresholds are exceeded. This also applies to Standard IX.6.2(1).

Request 3. *Please clarify whether Standard IX.6.2(1) requires the upgrades identified in Tables IX.6.2.1 and IX.6.2.2 when “any” or “all” development thresholds are exceeded? Similarly, clarify this for Standard IX.6.2(1.).*

Request 4 Explanation: Objective IX.2(2) and Policy IX.3(4) reference that access occurs in a manner that manages *significant* adverse effects on the transport network.

Request 4. *Please clarify why Objective IX.2(2) and Policy IX.3(4) only apply to the management of “significant” transport effects.*

Request 5 Explanation: Please comment on how the proposed precinct provisions identify progressive/staged upgrades that results in traffic effects consistent with the transport assessment, pointing to travel choice.

Request 5. *Please comment on the feasibility of the proposed multiple upgrades to the Waihoehoe Road/Great South Road intersection, compared with implementing one or two upgrades to achieve the same result. Consideration should be given to the disruption to the transport network and provision for all modes of transport.*

Request 6 Explanation: Standard IX.6(2) states that E27.6.1 Trip Generation does not apply to activities in Activity Table IX.4.1, however the Section 32 report does not comment on the rationale for this exemption. It is unclear why this waiver is necessary.

Request 6. *Please clarify why an exemption from E27.6.1 Trip Generation is proposed in the Precinct plan.*

Request 7 Explanation: Section 10.4.2 of the Section 32 report states

Fitzgerald Road was classified in the SGA ITA as an arterial road. It is proposed to change the planned status of Fitzgerald Road to a collector road due to the extension primarily serving a residential area, the difficulty in providing a link to the north, and in order to provide an enhanced urban outcome.

Where arterial roads are required or proposed to enable greenfield development, Flow considers that it is common practice for developers to provide the link to a collector road standard, with Auckland Transport providing “top-up” funding to upgrade this to an arterial road. Securing arterial roads before

subdivision is critical to ensure key transport corridors can be protected. We also note that Figure 8-2 of the SGA ITA shows this link as being part of the future Frequent Transit Network, meaning a collector standard may not be appropriate.

Request 7. Please confirm whether feedback has been sought from the Supporting Growth Alliance regarding the proposal to not protect Fitzgerald Road extension as an arterial road.

Request 8 Explanation: Assessment criteria IX.8.2(1)(e) is a repeat of criteria IX.8.2(1)(d).

Request 8. Please confirm whether the repetition of Assessment Criteria IX.8.2(1)(d) in IX.8.2(1)(e) is intentional.

Request 9 Explanation: Precinct Plan 1 shows Waihoehoe Road as an “Existing arterial road”, which is not correct. Please also refer to Request 7 regarding the status of Fitzgerald Road extension.

Request 9. Please confirm whether Precinct Plan 1 correctly refers to Waihoehoe Road as an existing arterial road.

Request 10 Explanation: Precinct Tables IX.6.1.1 and IX.6.1.2 require multiple upgrades to the Waihoehoe Road/Great South Road intersection. By 2048 Waihoehoe Road is proposed to be 6 lanes wide, and Norrie Road is proposed to be 5 lanes wide. The SGA ITA identifies these roads as key public transport corridors, where bus priority measures (such as bus lanes) are likely. The form of this intersection proposed by the Precinct may not be compatible with provision for frequent bus services.

Request 10. Please confirm whether the proposed form of the Waihoehoe Road/Great South Road intersection is consistent with the design proposed by the SGA, particularly regarding bus priority, noting that the SGA may be lodging a notice of requirement for this intersection.

Request 11 Explanation: IX.11 Drury Centre: Appendix 1 specifies road cross section details. In providing this level of detail, it is unclear what consideration has been given to ensuring future roads will be contextual to surrounding land uses (for example, whether a 16m local road will provide sufficient width to enable the level of public realm amenity expected in high density land use). Further, future changes to Auckland Transport standards and guidelines, such as the Roads and Streets Framework, may mean Appendix 1 is not compatible with future best practice.

Request 11. Please confirm what consideration has been given to Auckland Transport standards and guidelines when developing the road cross sections in IX.11 Drury Centre: Appendix 1, and explain how the Precinct will provide flexibility in design to ensure future roads are contextual to surrounding land uses and consistent with potential changes in Auckland Transport standards and guidelines.

3.2 Integrated Transport Assessment

3.2.1 Infrastructure feasibility, timing, responsibility and funding

Request 12 and 13 Explanation: The ITA refers to “committed” and “planned” infrastructure projects in the area. Please update Tables 9-1, 9-2, 9-3 and 9-4 to specify which projects in these tables are funded

within the RLPT/NLTP (“Funded”), unfunded with the RLPT/NLTP (“Committed”) and not in the RLPT/NLTP (“Uncommitted”).

Please confirm that these tables include all transport infrastructure assumed in the various modelling scenarios included in the Drury East Modelling Report, and that these improvements can be implemented within the road corridor without third party land acquisition.

Request 12. Please confirm which transport infrastructure projects referenced in the ITA are funded within the RLPT/NLTP (“Funded”), unfunded with the RLPT/NLTP (“Committed”) or not in the RLPT/NLTP (“Uncommitted”). Please confirm that the ITA includes all infrastructure assumed in the various modelling scenarios included in the Drury East Modelling Report.

Request 13. Please confirm whether the recommended transport improvements can be achieved within the existing legal road, or by vesting private property owned by Kiwi Property, FHLD, or Oyster. If there is no mechanism to deliver infrastructure that requires third party land, third party agreement or third-party funding, then the reasonableness of including the upgrade should be discussed within the report.

Request 14 Explanation: The ITA has considered the Supporting Growth future transport network and states that the 2038 and 2048 modelling is “satisfactory” as all key infrastructure required to support the growth are anticipated to have been implemented.

The ITA should consider the risks associated with Supporting Growth infrastructure implementation, noting that the Supporting Growth preferred network is yet to be consulted on, approved and secured. While some enabling projects may be “committed”, they are not funded and as such the certainty or risk of these being on the ground by the intended date (particularly those in the short term) requires further discussion in the report.

The “what”, “how”, “when” and “by whom” regarding the provision of this infrastructure and the connections should be clearly identified. Commentary on the feasibility and/or risks associated with these projects should also be included, for example the proposed improvements to the Great South Road/Waihoehoe Road intersection may require the acquisition of third-party land.

Further, the proposed Precinct provisions give little surety that public transport infrastructure and services will be delivered early to support immediate travel behaviour change, with minimal means to encourage mode shift away from private vehicles identified in Precinct Tables iX.6.1.1/2 and IX.6.2.1/2. There is also potential for the staged development within the three PPCs to occur in a “siloe” fashion, with limited or no connectivity for public transport, walking and cycling until most of the rezoned land is developed.

Request 14. Please confirm the “what”, “how”, “when” and “by whom” for the funding and delivery of all transport infrastructure and transport services required to support the PPC. This should include discussion about the staging, fit for purpose rail station facilitates, connections to the rail station for all modes, required bus services (including private services), and walking and cycling connections between each PPC area as development progresses. If there is no mechanism to deliver infrastructure that requires third party

land, third party agreement or third-party funding, then the reasonableness of including the upgrade within the Precinct provisions should be discussed.

Request 15 Explanation: The ITA states that the public transport network will be very well connected to the wider Drury and regional areas. The timing to which this comment relates is not clear. While the network may be well connected in approximately 30 years' time when the PPC areas are approaching full development, in the intermediate years the PPC may not be well served by public transport unless there is a commitment to early delivery of infrastructure and services. The ITA should discuss how the public transport mode share assumptions within the Drury East Modelling Report align with the early delivery of a connected street network to enable train and bus services, and increased walking and cycling catchment. The discussion should include consideration of the level of train and bus services needed to achieve the assumed public transport mode share, with a maximum walking catchment of 800m for the rail station.

Request 15. Please explain how the staged delivery of train and bus infrastructure and services, and walking and cycling infrastructure, aligns with the public transport mode share assumptions made in the Drury East Modelling Report. Please clearly identify any third-party funding for infrastructure or services needed to support these assumptions.

Request 16 Explanation: The ITA identifies the need to upgrade Waihoehoe Road and its intersection with Great South Road. This may require the upgrade of the Waihoehoe Road bridge over the rail line, which may need to be lifted in the process to meet Kiwi Rail vertical clearance requirements and require third party land on the western side.

Request 16. Please confirm whether the Waihoehoe Road rail overbridge will require replacement/upgrade to implement the transport infrastructure recommend in the ITA. If replacement/upgrade is required, please comment on whether potential alterations to the vertical alignment of the carriageway would affect safety outcomes (i.e. safe stopping distances for drivers) and how the upgrade of the bridge impacts on the level of development allowed for prior to its upgrade.

Request 17 Explanation: Figure 1 of the Section 32 report shows that a sizable portion of the PPC area is owned by third parties, including a large amount of road frontage with Waihoehoe Road.

Request 17. Please confirm whether the urbanisation of Waihoehoe Road will be undertaken by Oyster, or whether this is assumed to be undertaken by the landowner along each site frontage.

Request 18 Explanation: Figure 8-1 of the ITA shows the proposed transport network for the three PPCs. It would be helpful if this was shown as a land use and transport staging plan, coordinated between the three PPCs, and included the staging of roads, walking and cycling infrastructure.

Request 18. Please show the proposed staging for land use and how the proposed transport network, including walking and cycling infrastructure and streets suitable for buses, will be delivered in stages in an integrated way.

3.2.2 Provision for public transport, walking and cycling

Request 19 Explanation: The ITA states that the PPC is highly supportive of mode shifts, primarily through its proximity to public transport. It is unclear how this public transport mode share will be achievable without the accelerated provision of public transport and active modes infrastructure, including connectivity to and from the rail station as the PPCs areas progressively develop. .

The ITA has provided recommended local road upgrades on a general traffic capacity basis. In our view the report should consider upgrades that may be needed on a safety and/or accessibility basis. Given that much of the network about the development area reflects a rural environment, many of the upgrades would focus on transitioning the environment to an urban context, where safety, active modes and connectivity to PT provision is paramount.

Request 19. Please provide further information on transport mitigation measures and appropriate thresholds for infrastructure improvements based on outcomes relevant to safety, public transport, and active modes. This should draw on the findings of the modelling report, but importantly consider the upgrades and improvements needed to achieve safety outcomes, and active mode and public transport uptake.

Request 20 Explanation: The ITA states that local road improvements that will be delivered by the developers. We are of the view that the report lacks clarity about how to ensure that a strong, well laid out, connected and safe network is provided from the outset. This is needed to ensure the mode share targets assumed are promoted and encouraged, rather than development occurring in silos, with no connectivity other than for private vehicles on rural roads.

Request 20. Please confirm whether local road upgrades include provision for public transport and active modes infrastructure, and if so, explain how staged development within the three PPC areas will be interconnected to achieve the mode share assumptions used in the Drury East Modelling Report.

3.2.3 Other requests

Request 21 Explanation: The PPC area is near to the Drury South Industrial Precinct. This Precinct includes requirements for improvements to the transport network surrounding the PPC area. The Precinct Plan includes the provision of walking and cycling facilities, which may enable a connection between the Drury South Industrial Precinct and the PPC.

Request 21. Please comment on how the transport improvements to support the Drury South Industrial Precinct may interact with the improvements needed to support the PPC.

Request 22 Explanation: The ITA leverages off the assessment and conclusions of the SGA ITA. Table 8-1 of the SGA ITA identifies the “next steps” that need to be undertaken for any Plan Change (either initiated by Council or by private landowners). Please comment on how the ITA addresses each of the following topics.

Request 22. Please comment on how the ITA responds to the recommended “next steps” identified in Table 8-1 of the SGA ITA. The report should consider the following topics

- **Land-use changes**
- **Further consideration of local employment to manage travel demand**
- **Future Plan Change guidance**
- **Collection road funding and implementation risks**
- **Further assessment and design development of network “hot spots”**
- **Integration with operative Precincts**
- **Further development of staging strategies**
- **General design detail**
- **Further development of the secondary active mode network and greenways**
- **Further development of rail station access and park and ride strategy**

Request 23 Explanation: The ITA does not provide indicative staging for the development. The report should include information on staging and indicative development years.

Request 23. Please update the ITA to include information on the assumed staging and indicative development years.

Request 24 Explanation: For clarity it would be helpful if Tables 9-3 and 9-4 were incorporated into Tables 9-1 and 9-2, to allow easy comparison of development and vehicle trip generation thresholds. Please also include the number of public transport trips assumed at each threshold.

Request 24. Please provide a consolidated table showing development thresholds for infrastructure upgrades, which includes vehicle trip generation and the assumed number of public transport trips.

Reference: P:\ACXX\397 Drury East Private Plan Change - Oyster Capital\Reporting\T1C200303 - Oyster PPC Clause 23 requests.docx - Mat Collins

APPENDIX C Clause 23 request summary (Drury East Modelling Report)

PROJECT	ACXX395: DRURY EAST PRIVATE PLAN CHANGE – KIWI PROPERTY
SUBJECT	DRURY EAST MODELLING REPORT - CLAUSE 23 INFORMATION REQUESTS
TO	MICHAEL LUONG (AC), DAVID MEAD (HYC)
FROM	MAT COLLINS
REVIEWED BY	TERRY CHURCH
DATE	03 MARCH 2020

1 INTRODUCTION

Auckland Council (Council) has requested Flow Transportation Specialists (Flow) to review the transportation matters associated with three Private Plan Changes (PPC), which have been lodged by Kiwi Property No.2 Limited, Fulton Hogan Land Development, and Oyster Capital (the developers). The three PPCs seek to rezone approximately 328 hectares of Future Urban Zoned land to a mix of Business and Residential zones. Stantec (the author) has prepared the Drury East Modelling Report (the modelling report) which provides a single traffic modelling report for each of the PPCs to refer to in each of their respective Integrated Transport Assessments.

This technical note contains Clause 23 information requests and Flow recommendations relating to the modelling report only. It is applicable to all three PPCs and should be read in conjunction with the respective Clause 23 technical notes that Flow has produced for each PPC. Separate Clause 23 requests will be provided for each of the PPCs.

The Clause 23 requests are associated with the following document

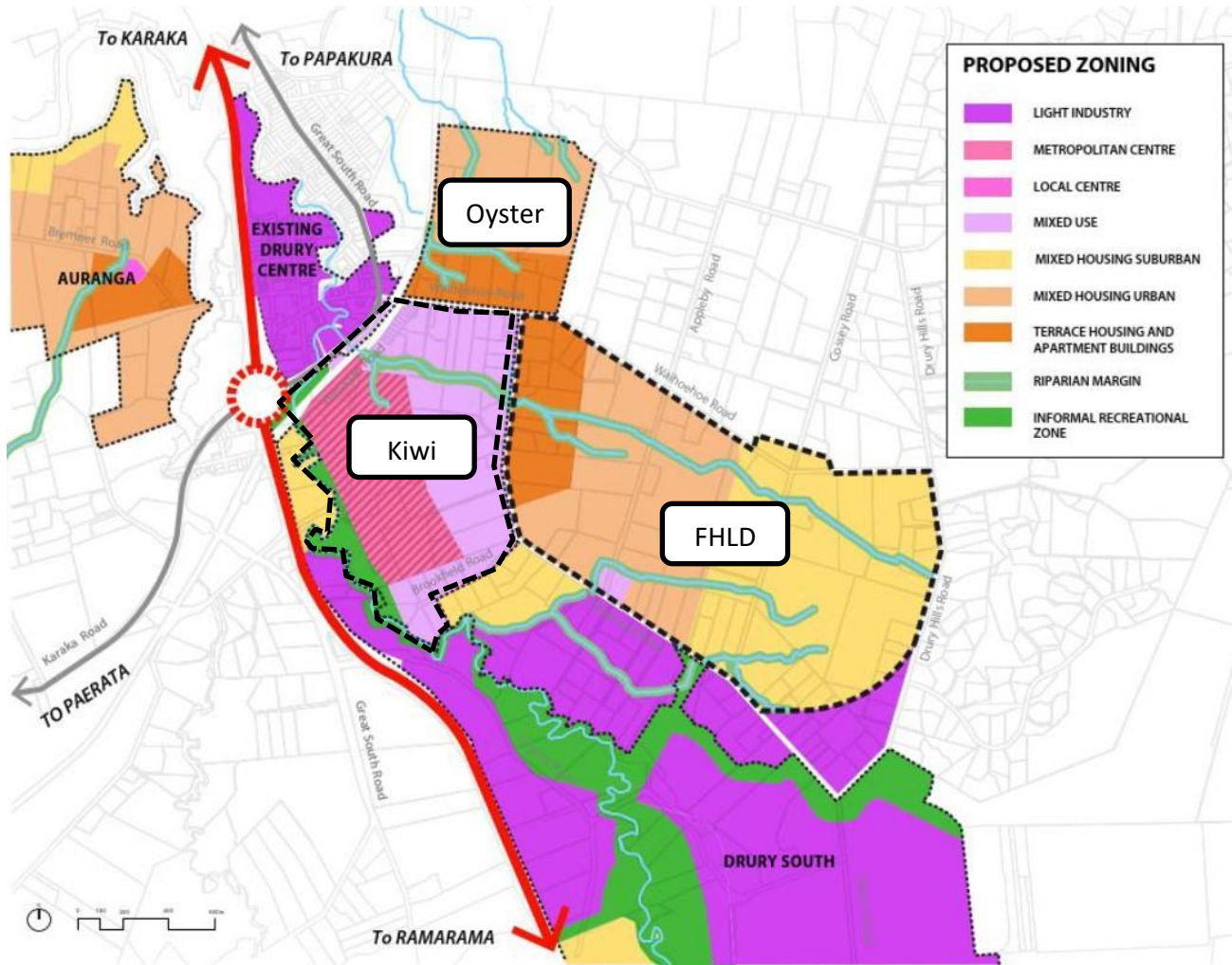
- ◆ Drury East Modelling Report, prepared by Stantec, dated 18 November 2019, including Appendices A to E

We note that we have not engaged with Auckland Transport (AT) and the New Zealand Transport Agency (NZTA) as part of our review.

2 SITE SUMMARY

The area covered by the three PPCs and the proposed zoning are shown in Figure 1.

Figure 1: Private Plan Change areas and proposed zoning



2.1 Kiwi Property No.2 Limited

Kiwi Property No.2 Limited (Kiwi Property) is applying for a Plan Change to rezone 95 hectares of Future Urban zoned land to a mix of Business - Metropolitan Centre, Business - Mixed Use and Open Space- Informal Recreation zones.

2.2 Fulton Hogan Land Development

Fulton Hogan Land Development (FHL D) is applying for a Plan Change to rezone 184 hectares of Future Urban land to a mix of residential zones (Terrace Housing and Apartment Building, Mixed Housing Urban and Mixed Housing Suburban) serviced by a limited area of business zoning (Mixed Use). The rezoning proposal provides capacity for at least 2,800 dwellings.

2.3 Oyster Capital

Oyster Capital (Oyster) is applying for a Plan Change to rezone 48.9 hectares of Future Urban land into a mix of residential zones (Terrace Housing and Apartment Building and Mixed Housing Urban). The rezoning proposal provides capacity for at least 1,130 dwellings.

3 ADDITIONAL INFORMATION REQUESTS

Having reviewed the relevant documents provided, we consider that additional information is required to better understand the transport effects and their management. Additional information requests are summarised below, with further discussion of these requests provided in Section 1.1.

These requests should be read in conjunction with Clause 23 information requests for each respective PPC.

The New Zealand Government recently announced the New Zealand Upgrade Programme¹. This includes funding for

- ◆ Mill Road between Manukau and Drury, including the Drury South interchange
- ◆ Rail electrification from Papakura to Pukekohe
- ◆ Drury West and Drury East train stations
- ◆ State Highway 1 widening from Papakura to Drury South interchange (3 lanes each way)

This announcement clearly has the potential to have a major impact on potential transport effects and mitigation measures for the PPCs. We understand from Council staff that there are still complexities around the funding of these projects. The Clause 23 requests in our report should be read in the context of a “snapshot in time”, based on the application material that has been provided.

3.1 Supporting transport infrastructure

Request 1 Explanation: Table 2-6 identifies infrastructure upgrade assumptions. Section 3.1 states that the SGA ITA assumed the first set of infrastructure upgrades will be fully completed in 2028.

Please add detail on whether projects are “funded” (if so, what is the funding level and scope), “committed” (in the RLPT but without funding), or “uncommitted”.

Request 1. *Please update Tables 2-6 and Table 5-1 to include whether projects are “funded” (and if so, what is the funding level and scope), “committed” (in the RLTP but without funding), or “uncommitted”. Please identify who is the party responsible for delivering each of these projects. If there is no mechanism to deliver infrastructure that requires third party land, third party agreement or third-party funding, then the reasonableness of including the upgrade should be discussed within the report.*

3.1.1 Developer delivered infrastructure

Request 2 Explanation: The author assumes that a greater proportion of commuting trips will be undertaken by alternative modes as the TOD is developed.

The author assumes that Drury East will have a similar PT mode share to Drury West in 2028, which is 5% higher than the PT mode share for New Lynn in 2013.

¹ <https://www.nzta.govt.nz/planning-and-investment/nz-upgrade/auckland-package/>

It is unclear how this PT mode share is achievable by 2028 without the accelerated provision to encourage PT and active mode uptake. The anticipated level of PT uptake is an input assumption to the traffic modelling which is fundamental to the assessment of effects and assessment of mitigation measures.

The “what”, “how”, “when” and “by whom” regarding the provision of this infrastructure and the connections should be clearly identified.

Request 2. *Please comment on the “what”, “how”, “when” and “by whom” for developer delivered infrastructure required to support the PPC. This should include discussion about the staging of infrastructure such as fit for purpose rail station facilitates, connections to the rail station (including walk, cycle and bus connections to internal development), safety and walking and cycling connections between each PPC area as progressive development occurs.*

Request 3 Explanation: Section 2.7 of the modelling report details local road improvements that will be delivered by the developers before 2028. It is unclear from the report how the provision of a strong, well laid out, connected and safe from the outset will be ensured, or how the mode share targets assumed will be promoted and encouraged, rather than development occurring in silos with no connectivity other than for private vehicles on rural roads.

Request 3. *Please confirm whether local upgrades include provision for public transport and active modes infrastructure, and if so “what”, “how”, “when” and “by whom”. Please confirm that the upgrades proposed can be achieved within the existing legal road, or by vesting private property owned by Kiwi Property, FHL, or Oyster.*

Request 4 Explanation: The modelling report has provided recommended local road upgrades on a capacity basis. While we acknowledge that the report is primarily a modelling report, we are unclear whether the author considers upgrades that may be needed on a safety and/or accessibility basis

As much of the network about the development area reflects a rural environment, it is important to understand how upgrades would focus on transitioning the environment to an urban context, where safety, active modes and connectivity to PT provision is paramount.

Request 4. *Please provide further information on transport mitigation measures and triggers with a focus on safety and alternative transport modes. This should draw on the findings of the modelling report, but importantly consider the upgrades and improvements needed to achieve safety outcomes, and active mode and public transport uptake from the outset. At this time the upgrade timing seems to be determined by capacity, rather than safety and the desire to encourage alternative travel modes.*

Request 5 Explanation: Section 2.7.3.1 of the report states that modelling outputs forecast 22,000 – 31,000 vehicles per day on Waihoehoe Road and Great South Road. The author references the Highway Capacity Manual, which indicates a four-lane corridor.

While this reference to the Highway Capacity Manual provides an assessment of capacity, it is unclear whether consideration has been given to other outcomes, such as Place. The report should also reference Auckland Transport's Roads and Streets Framework, which includes consideration of place value.

Request 5. *Please provide a discussion on how the proposed local road upgrades align with Auckland Transport's Roads and Streets Framework and that being investigated and pursued by the Supporting Growth Alliance, and in particular, how the proposed mitigation for Waihoehoe Road is consistent with that which AT will be seeking designation for.*

Request 6 Explanation: Section 2.7 of the modelling report does not discuss upgrades to the Drury East rail station, whereas the Precinct provisions specify that temporary stations can be provided as part of rail electrification. Please summarise what assumptions were included in the model regarding enabling rail as a transport option prior to delivery of fully functional rail stations and provide commentary on whether these mode share assumptions are likely to align with the user perception of a "temporary" rail station.

Request 6. *Please confirm what assumptions were included in the model regarding enabling rail as a transport option prior to a fully functional rail station being delivered. Provide commentary on whether these mode share assumptions are likely to align with the user perception of a "temporary" rail station or a development strategy which may start from the south, rather than around the station itself.*

3.1.2 Third party infrastructure

Request 7 Explanation: The report has considered the Supporting Growth future transport network and states that the 2038 and 2048 modelling is "satisfactory" as all key infrastructure required to support the growth are anticipated to have been implemented.

The modelling should consider the risks associated with Supporting Growth infrastructure implementation. While some enabling projects may be "committed", they are not funded and as such the certainty of these being on the ground by the intended date/or around the time of the land use anticipated is occupied (particularly those in the short term) should have further discussion in the report.

Request 7. *Please comment on the "what", "how", "when" and "by whom" for the third party delivered infrastructure required to support the PPC. This should include discussion about the staging of infrastructure to provide for a safe network which enables walking, cycling, and public transport trips in line with the mode share assumptions made in the modelling report.*

Request 8 Explanation: The author concludes that the PPC is unlikely to have a significant adverse effect on the traffic network if the infrastructure required to support the PPC is implemented. However, commitment to the required infrastructure is yet to be confirmed. At this point the only safe assumption is that funded projects in the RLTP will be delivered.

Request 8. *While the government has provided support around major infrastructure projects, the applicant will need to confirm the “what”, “how”, “when” and “by whom” for the infrastructure required to support the PPC. Confirmation should include how funding is assured, rather than suggesting there is a commitment.*

3.1.3 Road Controlling Authority Liaison

Request 9 Explanation: The report states that three potential accesses to the Metropolitan Centre were considered:

- ◆ Direct access to the Drury Interchange
- ◆ Firth Street access
- ◆ Quarry Road access

Section 2.7.1 of the modelling report identifies that further liaison with the NZ Transport Agency is required to confirm the access strategy.

There is uncertainty regarding each of these options:

- ◆ **Direct Access.** The Structure Plan and SGA ITA show this link, however, this is based on a 2048 year (when pressure on the Drury Interchange will be relieved by the Drury South Interchange). It is unclear whether the NZ Transport Agency will support direct access to the Drury Interchange before the Drury South interchange and Pukekohe Expressway are in place. It is also unclear whether this link complies with safety and geometric standards due to the need to get sufficient vertical clearance over the rail line.
As such, greater weight should be placed on the no-connection scenario, which also places greater focus on other modes, particularly public transport.
- ◆ **Firth Street Access.** It is unclear whether the NZ Transport agency would support this option, given the proximity of the access at Firth Street to the Drury Interchange, particularly once the interchange footprint is widened to cater for widening of the State Highway 1 carriageway in the future.
- ◆ **Quarry Road.** It is unclear whether placing additional ramps at Quarry Road will fit within NZ Transport Agency specifications for interchange spacing, as it is located between Drury and the future Mill Road/Drury South interchanges.

Each of the above risks should be captured within the report, with feedback being requested from Auckland Transport and the NZ Transport Agency.

Request 9. *We recommend that feedback is sought from Auckland Transport and the NZ Transport Agency regarding the access strategy for the Metropolitan Centre. This feedback should be included and discussed within the modelling report.*

Request 10 Explanation: Section 3.1.2 states that the Drury Interchange upgrade is planned to be completed in 2024 but the report does not identify the source of this information. We understand that the widening of SH1 between Papakura and Drury may be completed by 2024, where this may include some

tie in improvements at the Drury Interchange (i.e. northbound ramp configurations). The extent to which the Interchange will be upgraded however needs to be confirmed.

Request 10. *We recommend that feedback is sought from the NZ Transport Agency regarding the completion of the Papakura to Drury project, and scope of upgrades to the Drury Interchange. This feedback should be reflected in the Saturn model.*

3.1.4 Precinct provisions

Request 11 Explanation: Section 2.7 of the modelling report refers to potential staging/progressive upgrades for some infrastructure. Taking into consideration the feedback provided above, please comment on how the proposed precinct provisions identify progressive/staged upgrades that results in traffic effects consistent with the transport assessment, pointing to travel choice.

Request 11. *Please comment on the feasibility of the proposed multiple upgrades to the Waihoehoe Road/Great South Road intersection, compared with implementing one or two upgrades to achieve the same result. Consideration should be given to the disruption to the transport network and provision for all modes of transport.*

3.2 Modelling methodology and results

3.2.1 Additional Reports

Request 12 Explanation: The modelling report references the Drury East Modelling Report Rev B dated 18 June 2019.

Request 12. *Please include a summary of the findings from the Drury East Modelling Report Rev B, dated 18 June 2019, within the modelling report or otherwise provide this report for review.*

3.2.2 State Highway 1 and Drury Interchange

Request 13 and 14 Explanation: Section 1 of the modelling report assumes that the completion of SH1 roadworks north of Drury Interchange will alleviate pressure on the transport network, including the Great South Road/Waihoehoe Road intersection.

Please explain the basis of this assumption. The extension of the Southern Motorway Improvements from Papakura to Drury had a modal shift philosophy, where additional lane capacity focusses on moving people rather than cars. As such, any assumptions in the model may be overly optimistic in terms of capacity gained by the improvements, which therefore may not alleviate pressure (to a great extent) at the Great South Road/Waihoehoe Road intersection. While three general traffic lanes may be the outcome, guidance should be sought from the Transport Agency on what may be delivered for SH1 (between Papakura and Drury) to ensure the transport modelling reflects anticipated network improvements.

Request 13. Please clarify the basis for the assumption that the completion of State Highway 1 works north of Drury Interchange will alleviate pressure on the transport network, including the Great South Road/Waihoehoe Road intersection?

Request 14. Please comment on the assumed allocation of lanes on State Highway 1 north of Drury Interchange (e.g. general traffic, high occupancy priority, bus lane, etc)?

Request 15 and 16 Explanation: Section 3.2 of the report states that network capacity upgrades at the Drury Interchange will be required before 2038 by doubling the northbound on-ramps at Drury Interchange. There is insufficient detail regarding the feasibility and practicality of the proposed onramp capacity increase.

The SATURN traffic model controls on-ramp capacity through a two-lane ramp meter, with the capacity reflecting 1,440 vehicles per hour. This is based on the calculation of 1800 vehicles per lane x 2 (two lanes) with 2 seconds green time over a 5 second cycle. Assuming the doubling of the northbound on-ramps needs to be clarified, as capacity is metered by the two-lane ramp meter signal.

With the traffic model already assuming a two-lane ramp meter at the stop line, the feasibility of doubling the on-ramp lanes at the stop line is not clear. Providing two additional lanes on the on-ramp joining the motorway would require an additional northbound lane on State Highway 1 (widening to four lanes).

There may be an opportunity for a high occupancy vehicle/transit lane/truck bypass lane at the meter signal which could deliver some improvement in capacity.

The appetite for a high occupancy vehicle/transit lane/truck bypass lane should be discussed with the NZ Transport Agency, and/or whether the timing of the bypass lane has been incorporated into the analysis. The text which refers to the “doubling” of lanes should be clarified.

Request 15. Section 3.2 of the report states that the northbound on-ramp capacity at Drury Interchange will be “doubled”. Please clarify how this will be achieved, and discuss any downstream effects on State Highway 1? We note that the on ramp in the model already includes a two-lane ramp meter and bypass lane.

Request 16. Please comment on the potential benefit of a high occupancy vehicle/transit lane/truck bypass lane that the northbound on-ramp capacity at Drury Interchange?

3.2.3 Land-use assumptions

Request 17 Explanation: Section 2.2.1 of the modelling report should clearly state whether the PPC land-uses were updated in the macro simulation model (MSM) to obtain updated trip demands.

Request 17. Please confirm whether the MSM outputs include the PPC land-use scenario?

Section 2.3 and 3.1 of the modelling memo reference a 27/06/19 land-use memo from B&A, whereas Section 2.1 references a 01/07/19 land-use memo.

Request 18 Explanation: Please clarify which version of the land-use assumptions have been used in the modelling, including outside of the PPC area. It may be helpful to provide a summary of the land-use used in the modelling, and a comparison to the current land-use assumptions if these are different from those used in the modelling.

Request 18. Please confirm the land-use assumptions used in the traffic modelling, including outside the PPC area, and whether these assumptions match the current land-use assumptions from B&A? We suggest that these assumptions be tabulated in the modelling report.

Request 19 Explanation: It would be useful for Table 2-1 to also include MSM scenario 11.4 land-use assumptions.

Request 19. Please include MSM scenario 11.4 land-use assumptions within Table 2-1?

Request 20 Explanation: The report states that “The employment assumptions for Drury East have been adjusted using an estimated target build-out of 5,090 jobs”, however Table 2-1 states an estimated 15,420 jobs.

Request 20. Please clarify the number of jobs estimated within the PPC area?

Request 21 Explanation: The report states that the SGA ITA does not clearly outline the land-use assumptions for each year. Instead, the report has used a growth rate per year based on Table 7-3 of the Supporting Growth Alliance ITA. Based on the methodology applied by Stantec, it suggests that an arithmetic growth outcome is assumed, rather than a stepped outcome. We note that Section 7.2.2 of the Supporting Growth Alliance ITA provides a description and analysis of how intermediate years (2028 and 2038) have been provided.

Please reconsider whether the SGA ITA provides enough material from which to appreciate the intermediate years (2028 and 2038) from which comparisons can be assessed.

Request 21. Please confirm if information from Section 7.2.2 of the Supporting Growth Alliance Drury ITA has been incorporated within the modelling report.

Request 22 Explanation: Table 2-2 provides land-use assumptions for Pukekohe and Paerata. Further on in the text, it is explained that these assumptions are based on MSM without further modification. The table header should clarify that these assumptions are based on MSM.

Request 22. For clarity please revise the header of Table 2-2 to “MSM Land-use Assumptions”.

3.2.4 Public transport mode share

Request 23 Explanation: Section 2.4 notes that trip generation data from the MSM model was validated in 2016. Section 3.1 uses MSM 2016 outputs to determine whether infrastructure beyond that assumed in the Supporting Growth Alliance ITA is required before 2028.

How does the MSM model perform for Drury? Assumed car trip generation rates assumed a level of PT usage. Table 2-4 indicates that MSM assumes 7% of trips by PT for trips originating in Drury during the

AM peak. However, the only PT service in Drury is the 376 Service to Papakura, which is a local service at low frequency.

We request that the underlying assumptions in MSM be considered and cross checked, before accepting the MSM prediction and using this as a basis for forecast modelling of Drury East.

Request 23. Please provide evidence that the MSM model reflects existing traffic conditions and mode share splits to an acceptable degree of accuracy for the Drury area?

Request 24 Explanation: Section 3.1.2 indicates that, in absence of a direct vehicle connection to the Metropolitan Centre, the public transport mode share needs to be 10% in 2026 and 12% in 2028 for the Great South Road / Waihoehoe Rd roundabout to perform acceptably. The author states that this mode share is very likely to be achieved. Further explanation is required of how the 10% and 12% public transport mode share will be achieved, noting that the modelled baseline requires validation.

Request 24. Please provide further discussion on how the target public transport mode share for 2026 and 2028 is achieved and what the impacts are on the operation of the Great South Road/Waihoehoe Road intersection if not achieved?

Request 25 Explanation: Table 2-3 shows a reduction in the car trip rate from 2016 to 2028, on the assumption that more trips are made by PT. Please confirm if the reduction in the car trip rate assumptions align with the provision of improved PT services. The report should comment on how many trips are expected to use PT, through a mode share assessment.

Request 25. Please provide a public transport mode share assessment that forecasts the number of public transport trips in 2028. Please also comment on any improvements or investment needed to support and enable these trips?

Request 26 Explanation: The modelling report states that the difference in public transport usage between Drury West and Drury East is a “quirk” of the MSM model. To what extent does this quirk impact on the PPC assessment? Similar to the above query, the assessment should not be accepting the MSM outputs as the default. If “quirks” exist, these should be corrected in the SATURN model and discussed with the Auckland Forecasting Centre to see whether any factors applied to each side of Drury can be corrected or made consistent. Consistent with our recommendation above, the MSM public transport mode share outputs should be validated against existing public transport use for Drury East.

Request 26. Please explain how the difference in public transport usage between Drury West and Drury East, as modelled in MSM, affects the PPC assessment? Please confirm the public transport mode share (2016) for Drury East which has been assumed in the Report, as Section 2.5 in ambiguous. We recommend that this difference is discussed with the Auckland Forecasting Centre to confirm whether adjustments to the MSM model are required.

Request 27 Explanation: There is potential for additional catchment for the train station from the Auranga development. High quality walking and cycling facilities have been constructed on Bremner Road, these could be extended onto Firth Street and over Great South Road to provide a ready

connection to the train station. This may support earlier delivery of the train station and/or train services.

Request 27. Please confirm whether the potential catchment for the train station from the nearby Auranga development been considered, and if so, would provision of a quality walking and cycling connection increase overall public transport mode share and reduce congestion at key constraint points on the network.

3.2.5 Select link analysis and Saturn outputs

Request 28 Explanation: Section 3 of the modelling report states that the modelling has considered the traffic effects on the wider network. Please clarify the extent to which the wider network has been considered, and what the effects are forecast to be. The select link analysis shows a large number of vehicles using Great South Road to travel to/from the north, yet there is no reporting on the wider network and the effects associated with the travel patterns currently reflected in the transport model.

Request 28. Please clarify the extent to which the wider network has been considered in the modelling, and what the effects are forecast to be should development occur at a faster rate than anticipated by the FULSS?

Request 29 Explanation: Section 2.4.1.1 discusses the select link analysis has been undertaken on inbound and outbound trips in peak periods following 2028. Please confirm whether the select link analysis used the Supporting Growth Alliance or PPC Saturn model. Also, confirm what level of development was assumed within the PPC and surrounding areas for each select link analysis assessment.

Request 29. Please confirm whether the select link analysis used the Supporting Growth Alliance or PPC Saturn model, and clarify what level of development was assumed for each analysis?

Request 30 and 31 Explanation: The select link analysis shown in Figures 2-6 and 2-7 of the modelling report shows a much greater use of Great South Road compared to State Highway for northbound trips. This shows a disproportionate level of demand concentrated to Great South Road, rather than using the Drury Interchange. This may be due to delays near Papakura not being represented in the model. The outcome of the select analysis highlights the need to be careful when using the predicted travel patterns when determining infrastructure upgrades. If the directional split at the Great South Road / Waihoehoe Road intersection places too much weight on Great South Road (north), this will cause intersection upgrades to focus on providing too much capacity to the wrong movements or provide more capacity than what is needed.

Request 30. Please provide a wider scope for the select link analysis for northbound trips. This should include consideration of forecast delays at relevant key intersections in Papakura, and a sense check of trip allocation between State Highway 1 and Great South Road (north).

Request 31. Please provide origin/destination select link analysis for each of the three PPC areas, so traffic volumes, routing, and potential constraint points on the network can be clearly identified.

Request 32 Explanation: In Section 3.1.1. the author notes that State Highway 1 Papakura to Drury project will have three lanes northbound and southbound, however, the author states that the upgrade is not required to support Drury East development before 2028. However other sections of the modelling report rely on this upgrade to reduce or remove the current level of congestion experienced through Drury (e.g. Section 3.1.2.), yet in this section of the report suggests that the widening is not required.

Request 32. Please confirm the configuration of State Highway 1, between Papakura and Drury, assumed in the PPC Saturn model, and comment on how this effects development within the PPC area?

Request 33 Explanation: Table 3-5 shows a significant increase in vehicles per day on Waihoehoe Road between 2027 and 2028 (17,500 vs 27,700). Please clarify why when other years have much smaller increases.

Request 33. Please explain why the Saturn model shows a significant increase in vehicles per day on Waihoehoe Road between 2027 and 2028?

Reference: P:\ACXX\395 Drury East Private Plan Change - Kiwi Property\Reporting\T3C200303 - Modelling report Clause 23 requests.docx - Mat Collins

Memo (technical specialist report to contribute towards Council's section 42A hearing report)

23rd April 2021

To: David Mead, Hill Young Cooper Ltd., consultant to Auckland Council

From: Rebecca Skidmore, RA Skidmore Urban Design Ltd.

Subject: Private Plan Change – PPC50 Waihoehoe Precinct, Drury – Urban Design, Landscape and Visual Effects Assessment Review

1.0 Introduction

- 1.1 I have undertaken a review of the private plan change, on behalf of Auckland Council in relation to urban design, landscape and visual effects.
- 1.2 I am an Urban Designer and Landscape Architect. I am a director of the consultancy R. A. Skidmore Urban Design Limited and have held this position for approximately seventeen years.
- 1.3 I hold a Bachelor of Science degree from Canterbury University (1987), a Bachelor of Landscape Architecture (Hons) degree from Lincoln University (1990), and a Master of Built Environment (Urban Design) degree from Queensland University of Technology in Brisbane (1995).
- 1.4 I have approximately 25 years professional experience, practising in both local government and the private sector. In these positions I have assisted with district plan preparation and I have assessed and reviewed a wide range of resource consent applications throughout the country. These assessments relate to a range of rural, residential and commercial proposals.
- 1.5 I regularly assist councils with policy and district plan development in relation to growth management, urban design, landscape, character and amenity matters.
- 1.6 I am an accredited independent hearing commissioner. I also regularly provide expert evidence in the Environment Court and I have appeared as the Court's witness in the past.
- 1.7 In writing this memo, I have reviewed the following documents:
 - The lodged plan change request Section 32 report and, specifically, the Plan Change provision contained in Appendix 1, the Urban Design Assessment report by Holist Urban Environments (dated 23/09/19 and contained in Appendix 6), and the Landscape and Visual Effects Assessment report by LA4 Landscape Architects (dated 02/09/19 and contained in Appendix 7);
 - The planning RFI response from B&A dated 03/04/20 including updated PPC provisions (dated 25/03/2020) contained in Attachment 2, an updated Urban Design Statement (dated 02/04/20) contained in Attachment 3 and a response by LA4 (dated 26/03/20) contained in Attachment 4;
 - The summary of submissions and complete submissions where relevant; and

- Further submissions.

1.8 My review is carried out in the context of:

- The Resource Management Act;
- The National Policy Statement: Urban Development;
- The Auckland Unitary Plan: Regional Policy Statement;
- the Auckland Plan: 2050;
- The Drury-Opāheke Structure Plan; and
- The Southern Structure Area – Neighbourhood Design Statement.

2.0 Key urban design, landscape and visual effects issues

- Timing of development and its relationship to transit infrastructure and amenities;
- Co-ordination of development across land-holdings;
- Ensuring a positive interface between development and the public realm;
- Detail shown on Precinct Plan (streets, streams and stormwater management wetlands);
- Retention of Oak trees;
- Relationship of PPC area to surrounding properties;
- Density and scale enabled by PPC;
- Consideration of Mana Whenua values in design.

3.0 Applicant's assessment

Urban Design Statement (“UDS”)

- 3.1 The introduction to the UDS states that it discusses the key elements of the proposal, how each component has been considered, and how each component, individually and collectively will deliver an integrated, connected and resilient urban community.
- 3.2 Section 2 of the UDS provides a context analysis summarising a number of considerations relating to: existing and planned urban development in the surrounding area; key planned transport initiatives; cultural values; natural landscape character; water hazards; and the framework provided by the Drury-Opāheke Structure Plan (the ‘SP’).
- 3.3 Other relevant statutory planning documents, such as the National Policy Statement – Urban Development (“NPS:UD”) and the Auckland Unitary Plan Regional Policy Statement (AUP:RPS), are not referenced. I have referred to the Section 32a Planning report to

provide suitable context in relation to these frameworks. I note that the NPS:UD has come into effect since the PPC request was lodged.

- 3.4 Section 3 analyses the key opportunities and constraints for the land and is useful in considering the appropriateness of the zoning proposed and the necessity for site specific precinct provisions.
- 3.5 Section 4 of the UDS sets out a structure plan for the PPC area. I note that few of the features identified in the structure plan are included in the proposed Precinct Plan.

Figure 10
Proposed Structure Plan

- Plan Change Area Boundary
- Southern SW sub-catchment coverage control area
- Northern SW sub-catchment coverage control area
- Collector Road
- Local Road
- Park Edge Road
- Signalised Intersection
- Drainage Reserve (to be defined through detail design)
- Existing Wetlands
- Green Link / Swale
- /// Potential Waihoehoe Rd widening. Depth and dimension to be confirmed at a later

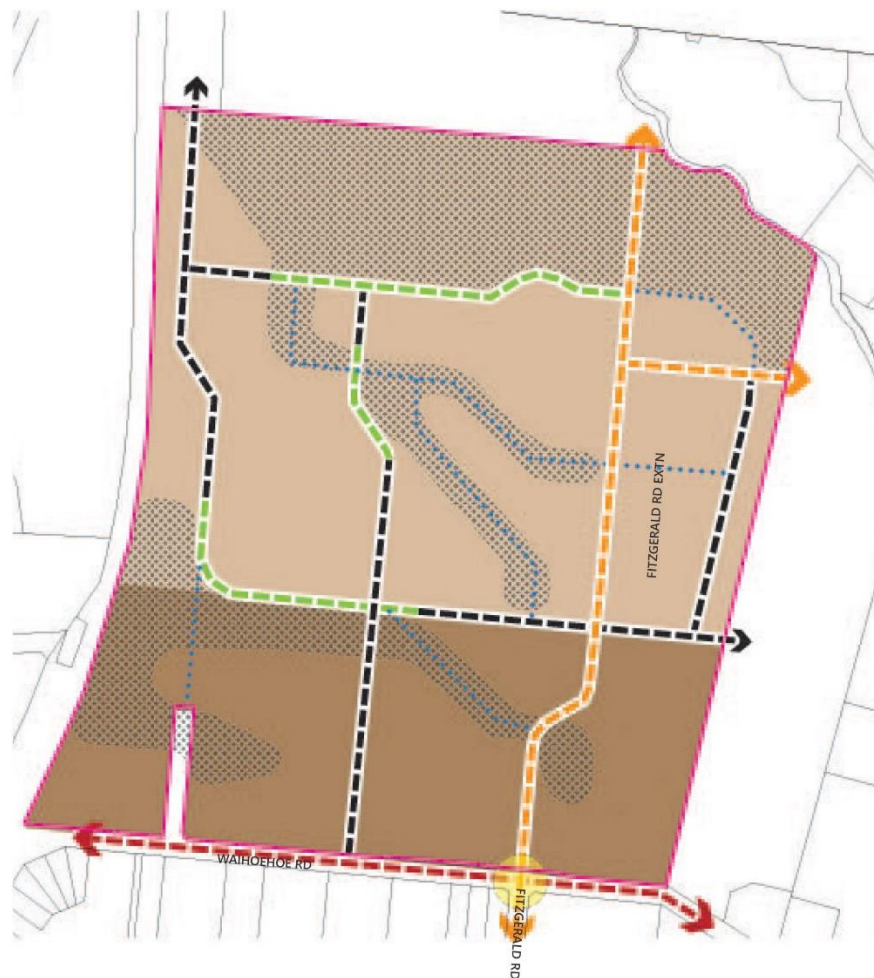


Figure 1: Structure Plan from UDS (Figure 10 on p. 13 of report)

- 3.6 Section 5 of the UDS provides an indicative development plan to demonstrate how the land could be developed and the dwelling capacity that could be achieved (approximately 1,000 homes). It is unclear what housing typology has been used to determine this capacity.
- 3.7 The report conclusions relate to the structure plan depicted in the report. However, I note that this is one development scenario that could be achieved, rather than depicting outcomes that would be required by the PPC provisions.
- 3.8 The UDS does not make specific reference to or provide an assessment of the PPC provisions. Further comment on a number of key issues is set out in the following section

Landscape and Visual Effects Assessment (“LVEA”)

- 3.9 In my opinion, the LVEA adopts a suitable methodology for assessing potential landscape and visual effects at the scale of a plan change.
- 3.10 Section 2 sets out a context analysis. It describes the existing landscape character of the area and identifies key features relating to topography, vegetation and land-use. However, this section also acknowledges the considerable change signalled by strategic planning for the area and already underway in the wider context.
- 3.11 I agree with the finding that, other than the Hunua foothills, the local landscape to the east of Drury has no particularly distinguishing landscape characteristics that set it apart or elevates it from the wider area.¹
- 3.12 A helpful sit analysis plan is provided in Figure 4 on p.12. Key landscape attributes of the Site are identified as including: prominent vegetation (including an avenue of mature Oak trees at 76A Waihoehoe Road), distant views to the wider landscape and the Hunua foothills, and the landform, particularly the natural drainage patterns.
- 3.13 Section 3 sets out a description of the proposal. It notes that the PPC will deliver key roads, open spaces and streams through a series of precinct plans and provisions. I note that the proposed Precinct Plan does not include the detail depicted in the structure plan contained in the UDS.
- 3.14 Section 4 summarises the relevant planning documents that have informed the assessment. This includes non-statutory documents, including the SP Landscape and Visual Assessment report (Opus, 2017), and the Landscape Review of Outstanding Natural Landscapes (ARC, 2008). The report notes that no part of the PPC area or surrounding environment is identified as an ONL. The nearest ONL is located in the Hunua foothills.
- 3.15 Section 5 sets out the assessment of potential landscape and visual effects. I generally agree with the analysis of landscape effects (including natural character effects) provided. However, additional comments about the adequacy of the precinct provisions to deliver the outcomes described is set out in the following section.
- 3.16 In relation to visual effects, I agree with the identification of the groups that comprise the primary viewing audience. A detailed analysis of visual effects is provided and I generally agree with that analysis.
- 3.17 While I generally agree with the conclusions set out in Section 7 of the LVEA, I note that they are made in relation to the ‘masterplan’ that has been developed. As set out below, I consider the Precinct provisions require strengthening to deliver the landscape outcomes described.

¹ Para. 2.13, p.10, Landscape and Visual Effects Assessment, LA4, 02/09/19

4.0 Auckland Unitary Plan Framework

- 4.1 The section 42a report sets out a detailed description and analysis of the relevant regional policy statement provisions for considering the plan change. In terms of a consideration of urban design, landscape and visual effects matters following is a summary of the key provisions that have guided my review.
- 4.2 A key overarching objective for urban growth and form (Section B2.2) is to create a 'quality compact urban environment' (Obj. B2.2.1(1)). The objective for creating a quality built environment (B2.3.1(1)) seeks to ensure subdivision, use and development does all of the following:
- Respond to the intrinsic qualities and physical characteristics of the site and area, including its setting;
 - Reinforce the hierarchy of centres and corridors;
 - Contribute to a diverse mix of choice and opportunity for people and communities;
 - Maximise resource and infrastructure efficiency;
 - Are capable of adapting to changing needs; and
 - Respond and adapt to the effects of climate change.
- 4.3 Supporting Policy 2.3.2(1) seeks to achieve this by managing the form and design of subdivision, use and development to do all the following:
- Supports the planned future environment, including its shape, landform, outlook, location and relationship to its surroundings, including landscape and heritage;
 - Contribute to the safety of the site, streets and neighbourhood;
 - Develop street networks and block patterns that provide good access and enable a range of travel options;
 - Achieves a high amenity and safety for pedestrians and cyclists;
 - Meets the functional, and operational needs of the intended use; and
 - Allows for change and enables innovative design and adaptive re-use.
- 4.4 Other relevant policies relate to provision of access for all people using a variety of modes, providing a range of building forms to support choice to meet the needs of Auckland's diverse population, and balancing the main function of streets as places for people and as routes for the movement of vehicles.
- 4.1 A number of objectives for residential growth (B2.4.1) address the way intensification supports a quality compact urban form (B2.4.1(1)), are attractive, healthy and safe (B2.4.1(2)), are located in relation to centres, public transport, social facilities or employment opportunities (B2.4.1(3)) and increase the housing capacity and choice Auckland's diverse and growing population (B2.4.1(4)).

5.0 Assessment of urban design, landscape and visual effects and management methods

Urban Design

5.1 In terms of urban design considerations I agree with the proposed zoning of the land as Residential: Terrace House and Apartment Building ("THAB"). This is generally consistent with the zoning framework indicated in the SP. However, the SP indicated an area north of Waihoehoe Road as being included within the 'Centre'. Given the masterplanning for the area that has been undertaken and the configuration of zoning proposed as Part of PPC48, I agree that THAB is a more appropriate zone in this location. However, I consider that the site-specific characteristics of the land and its relationship to surrounding future development mean that a number of matters require further consideration/resolution. These relate to:

- Timing of development and its relationship to transit infrastructure and amenities;
- Co-ordination of development across land-holdings;
- Ensuring a positive interface between development and the public realm.

Timing of Development in relation to surrounding development

5.2 The rationale for the THAB zoning of the land, rather than a lower density residential zoning relates to its proximity to the future Drury railway station and the range of amenities that will establish within the adjacent centre of Drury Centre (subject to the outcome of PPC48). This is also consistent with the requirements of Policy 3 of the NPS:UD (further comment about the height standard for the zone is made below).

5.3 Higher density living environments are attractive when they are supported by good transport and amenity options. If development of this land precedes the delivery of the railway service and supporting amenities it is likely that a lower density, private vehicle-oriented housing typology will be delivered. This would not efficiently realise the potential of the land and would not effectively support the objective of creating a quality, compact urban form.

5.4 It is recommended that a mechanism is explored to ensure that development of the land is co-ordinated with the provision of rail services and core amenities within the surrounding walkable catchment.

Co-ordination of development across land holdings

5.5 The current pattern of land-holdings across the PPC area is quite fragmented. This creates a potential constraint on the co-ordination of development of the land and particularly the creation of a connected street and open space network.

5.6 Development of the land is also considerably constrained by the pattern of streams and the location of flood plains.

5.7 The Precinct Plan 1 - Road Network shows the alignment of the Fitzgerald Road extension and a connection to the east. In my opinion, it would be helpful to include a more detailed precinct plan that shows a finer grain indicative arrangement of streets (as shown in the UDS structure plan) together with the alignment of streams and indicative stormwater

management areas. This would create greater certainty about the delivery of a co-ordinated network as the different land holdings are developed.

Ensuring a positive interface between development and the public realm

- 5.8 The Plan Change relies on the underlying zoning to deliver suitable urban outcomes. While the streams and stormwater wetland areas will perform ecological and flood management functions, they also have the potential to make a positive contribution to the amenity and special character of the neighbourhood. In a higher density living environment, the amenity of the public realm becomes more important in creating a quality living environment. In my opinion the amenity role of these corridors/areas should be included in the Precinct description.
- 5.9 Locating public streets along stream and wetland edges improves visual and physical connections to these amenity features, enhancing their contribution to the amenity of the neighbourhood. Creating a public address to these open spaces also improves their safety. I acknowledge that, given the extent of watercourses and wetlands through the area, it will not be possible to provide public streets along all stream and wetland edges. However, I consider there should be policy guidance and subdivision assessment criteria that enables consideration of street alignments to take into account their relationship to streams and wetlands in order to provide good visual and physical access. Providing further detail on the Precinct Plan to indicate this edge condition would also assist in achieving this outcome.
- 5.10 Waihoehoe Road will provide an important connection from the eastern catchment to the Drury Railway Station. The way development interfaces with the street corridor will be important to ensure a good amenity is provided for active transport modes. The arterial status of the street corridor limits access directly onto the street. Careful consideration will be required to ensure development provides a positive street address while complying with this restriction. In my opinion, additional policy guidance and assessment criteria for subdivision and new buildings should be provided to ensure a suitable interface is achieved.

Landscape and Visual Effects

- 5.11 As noted above, the LVEA provides an analysis of the outcomes achieved by the structure plan contained in the UDS. As with my comments in relation to the UDS, I consider that the site-specific characteristics of the land, as identified in the LVEA, mean that a number of matters require further consideration/resolution in order to ensure the outcomes described are achieved. These relate to:

- Detail provided in the Precinct Plan; and
- Retention of Oak trees.

Detail provided in the Precinct Plan

- 5.12 As I have noted, given the fragmented nature of the land holdings within the PPC area, I consider there would be benefit in providing greater detail in the Precinct Plan to ensure co-ordinated delivery of the landscape structure for the neighbourhood.
- 5.13 In relation to the assessment of landscape effects, the LVEA notes that "the extensive planting and riparian restoration proposed as part of the site development would result in

a substantial enhancement to the site and surrounding area. It would also contribute significantly in mitigating many of the negative effects of urbanisation by re-establishing a strong landscape framework, and thereby ensuring a suitable level of amenity, while assisting in integrating the built development into the setting and offsetting the loss of rural character that cannot be avoided when such a large change in land-use is proposed."²

- 5.14 In my opinion, the intended role of the open spaces (including riparian and stormwater management areas) in creating a landscape framework for the neighbourhood should be included in the policy framework, depicted in the Precinct Plan and addressed in the assessment criteria for subdivision.

Retention of Oak Trees

- 5.15 The LVEA identifies a distinctive avenue of Oak trees at 76A Waihoehoe Road. The report notes that the avenue is not adequately spaces to accommodate a street and would limit the potential for comprehensive earthworks in the area. While the retention of the whole avenue would severely impact on the potential to achieve urban development, the LVEA notes that a significant amount of at least one of the rows could be retained and incorporated into future site development. I agree that the retention of at least a portion of the avenue would contribute to the character and amenity of the urban environment and would provide a tangible link to the past use of the land. Therefore, I consider it would be helpful to identify the location of these trees (as a landscape feature) on the precinct plan and to include suitable provisions that would require an assessment of their potential to be included in a subdivision/development layout.

6.0 Submissions

- 6.1 I have reviewed the summary of submissions and full submissions where these raise matters relevant to urban design, landscape and visual effects considerations. I have also reviewed the further submissions. The submissions raise a number of relevant matters that can be grouped into the following themes:

- Relationship of PPC area to surrounding properties;
- Density and scale enabled by PPC;
- Consideration of Mana Whenua values in design; and
- The interface with the railway corridor.

- 6.2 Following is a discussion of each of these topics.

Relationship of PPC area to surrounding properties

- 6.3 The submission by Dong Leng (#8), who is the owner of 160 Waihoehoe Road, raises concerns about the scale, form and character enabled by the PPC and the effects on this property if the zoning is not extended to include this property.
- 6.4 This property adjoins the eastern boundary of the PPC area. It is currently farmed and contains a number of glass houses. The land is also zoned Future Urban as is the land to

² Para. 5.10, p. 21, Landscape and Visual Effects Assessment, LA4, 02/09/19

the north and east.. Land on the southern side of Waihoehoe Road is also zoned Future Urban and is subject to PPC49 which is currently under consideration.

- 6.5 In an area that is in transition from rural to urban there will always be some tension at the boundary between areas at different stages of development. While the property at 160 Waihoehoe Road is currently zoned Future Urban, when the zoning is amended to enable urban development, there will be no incompatibility between the PPC area and this property. In my opinion, it would not be appropriate to require additional controls to limit the scale of development or provide a buffer with this property, that would compromise the ultimate pattern of urban development. Creating such a buffer or controlled interface could compromise the future development options for this Site.
- 6.6 Kāinga Ora own the properties at 1 and 1A East Street, immediately to the west of the railway line. Their submission (#32) seeks the inclusion of these sites in the PPC with the THAB zone applied to 1 East street (with height variation control of 22.5m) and Business: Local Centre zone (with a height variation control of 27m) applied to 1A East Street.
- 6.7 The property at 1 East Street is currently zoned Future Urban and the site at 1A East Street is already zoned Business: Local Centre (with no height variation control). These sites are strategically located in relation to the existing settlement of Drury. In my opinion, comprehensive structure planning to determine a suitable framework for the wider settlement is necessary. In my opinion, it is appropriate for these sites to be considered at that time rather than as part of this PPC.
- 6.8 The rail line forms a strong edge and barrier between the existing Drury settlement and Drury East (including the PPC50 land). I do not agree that zoning the PPC50 land before the submitter's property will compromise options for connectivity between the two areas.

Density and scale enabled by PPC

- 6.9 The joint submission by the Ministry of Housing and Urban Development("HUD"), Te Puni Kōkiri, and the Department of Corrections (#19), emphasises the importance of ensuring outcomes such as density, transport and timing are delivered rather than just enabled. This is consistent with the comments provided in Section 4 above.
- 6.10 The submission by Waka Kotahi (the NZ Transport Agency) generally supports the zoning proposed, but seeks the zoning and associated provisions be reviewed in light of the NPS:UD.
- 6.11 For Tier 1 environments, Policy 3 of the NPS:UD seeks to enable building heights of at least 6 storeys in locations at least within a walkable catchment of rapid transit stops and the edge of Metropolitan centre zones. There is no definition given of what is considered to be a 'walkable catchment'. However, it is generally accepted that a 800m radius represents a 10 minute walkable catchment. The final location of the Drury station has not yet been determined, and while there is no live Metropolitan Centre zoning, PPC48 does seek this zoning to the south of the PC area. As shown in Figure 16 of the PPC UDS, a small portion of the PPC area falls within an 800m radius of the centre of the PPC48 Business: Metropolitan centre zone and a larger portion falls within 800m of an indicative (consistent with the SP location) location for the train station.

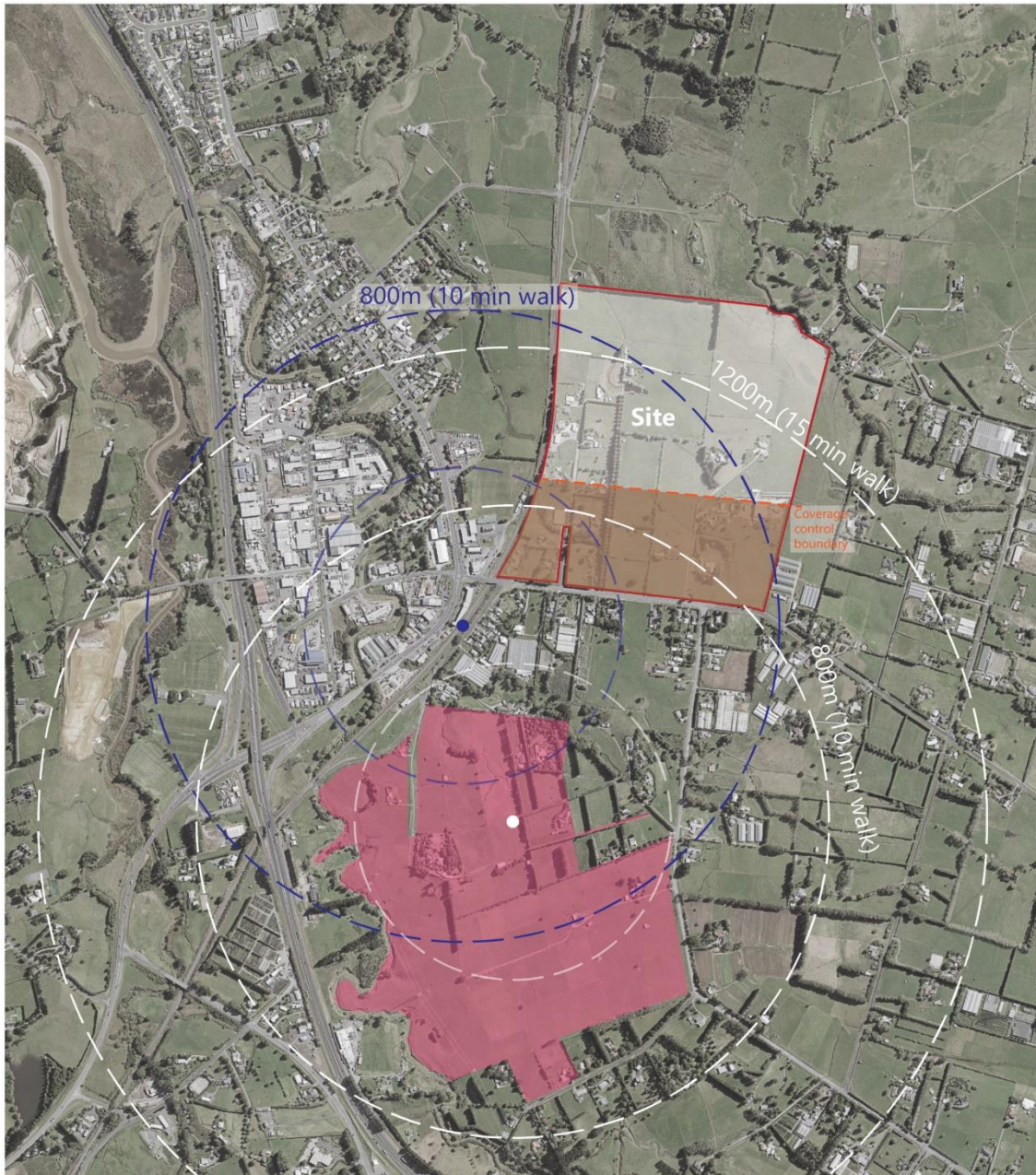


Figure 16 - Coverage Control Area Rationale

- Plan Change Area Boundary
- Coverage Control Boundary
- Proposed Higher Coverage Area
- Kivi Property Land holdings (approximate)
- Proposed New Drury Train Station and PED Shed
- Proposed Town Centre Heart and PED Shed

Figure 2: Figure 16 from UDS (p. 20 of report)

6.12 The THAB zone has a permitted height standard of 16m. To provide for 6 storeys, with some additional space for design flexibility and roof forms, I would recommend a height of 21m. I note that there are a number of development constraints within the PPC area (particularly the alignment of streams and stormwater management constraints) that may preclude the ability to accommodate buildings of this scale. However, providing this additional height would provide capacity and flexibility to accommodate the additional scale where this is achievable. If the 16m height standard is retained, additional height would be enabled by a resource consent as a restricted discretionary activity.

Consideration of Mana Whenua Values in Design

- 6.13 Submissions by Ngāti Te Ata Waiohua (#20) and Ngāti Tamaoho (#34) seek the PPC to incorporate Te Aranga Maori design principles in design concepts. This includes confirming park edge designs adjacent to all waterways and using only native trees and other plants within the Precinct.
- 6.14 The Precinct description emphasises the need for development to respect Mana Whenua values, noting that "In particular there is a network of streams throughout Waihoehoe precinct, including the Waihoehoe stream. The precinct seeks to maintain and enhance these waterways and integrate them with the open space network as a key feature".
- 6.15 Objective IX.2(1) refers to the creation of a comprehensive residential environment that respects Mana Whenua values. However, this is not supported by any detailed policy, development standards or assessment matters. In my opinion, it would be helpful to include additional direction to how these values will be respected by including specific policy reference to the application of Te Aranga Maori design principles in the design of subdivision and development. The incorporation of these principles will be most importantly integrated in the design of the public realm.
- 6.16 I note that while riparian planting will comprise mostly native species, in street environments, native tree species are not always the most appropriate to thrive and create a suitably vegetated environment. I do not think it is appropriate to require exclusive planting of native species in the Precinct.

The interface with the railway corridor

- 6.17 The submission by KiwiRail (#30) considers the relationship of the PPC area to the NIMT, which runs along the Precinct's western boundary. The submission raises concerns about safety and operational requirements of the network and the safety and enjoyment of properties adjoining the NIMT. The submission seeks a 5m building setback from any boundary that adjoins the NIMT.
- 6.18 From an urban design perspective, I consider such a setback is suitable to ensure reasonable amenity (particularly for residential activity) is maintained.

7.0 Conclusions and recommendations

- 7.1 I generally agree with the analysis set out in the UD report and the LVEA report that the Site is suitable to be zoned THAB.
- 7.2 However, there are a number of constraints that could impact on the ability to achieve a well-integrated compact, quality urban environment. In particular, the fragmented land ownership, the location of streams corridors and the flooding constraints limit options for land development.
- 7.3 Having considered the analysis provided in the UD and LVEA reports and the matters raised in submissions, I consider the following matters should be further addressed through amendments to the PPC provisions.

- Explore mechanisms to ensure development of the land is co-ordinated with the provision of passenger rail services and core amenities within the surrounding walkable catchment to ensure a suitable density of residential activity is achieved;
- Include greater detail on Precinct Plan 1, including indicative key streets, streams and stormwater management areas;
- Include reference to the role of the streams and stormwater management wetlands in contributing to the neighbourhood amenity and sense of place in the Precinct description;
- Expand the policy framework, subdivision assessment matters and criteria to enable consideration of street alignments to take into account their relationship to streams and wetlands in order to provide good visual and physical access;
- Expand policy framework, assessment matters and criteria for new buildings to ensure a suitable interface is created with Waihoehoe Road;
- Indicate the row of Oak trees on the Precinct Plan as a landscape feature and include suitable provisions that would require an assessment of their potential to be included in a subdivision/development layout;
- Include a policy to require the application of Te Aranga Maori design principles in the design of subdivision and development;
- Include a 5m building setback requirement from the NIMT railway corridor.

APPENDIX 5

EXPERT CONFERENCING JOINT WITNESS STATEMENTS

AUCKLAND COUNCIL:

PRIVATE PLAN CHANGE 48: DRURY CENTRE PRECINCT – KIWI PROPERTY HOLDINGS LTD

PRIVATE PLAN CHANGE 49: DRURY EAST PRECINCT – FULTON HOGAN LAND DEVELOPMENT LTD

PRIVATE PLAN CHANGE: 50 WAIHOEHOE PRECINCT – OYSTER CAPITAL.

JOINT WITNESS STATEMENT (JWS)

PLANNING (1) - 31 MAY 2021.

Expert Witness Conferencing Topic: Planning

Held on: 31 May 2021, commencing at 9am.

Venue: Committee room, level 26, Auckland House, 135 Albert St, Auckland Central.

Independent Facilitator: Marlene Oliver.

Admin Support: Cosette Saville.

1. Attendance:

The list of expert participants is at the end of this Statement. Their area of expertise (planning) is identified with their names.

2. Environment Court Practice Note 2014.

- i. All participants agree that the Environment Court Practice Note 2014 provides relevant guidance and protocols for the expert conferencing session.
- ii. All participants agree to comply with the relevant provisions of the Environment Court Practice Note 2014.
The Auckland Council (as regulator) participants attended as observers, given their role as s42A reporters.
- iii. All participants agree to make themselves available to appear at the hearing in person if required to do so by the Hearing Panel (as directed by the Hearing Panel's Directions).

3. Basis of participation

Karyn Sinclair (Auckland Transport) and John Duguid, Chris Turbott and Ezra Barwell (Auckland Council (as submitter)) recorded their concern about caucusing prior to

the receipt of the s42A report and agree to participate at a high level only and will not be able to comment on specific provisions at this stage of the process.

Mike Hurley (The Ministry of Housing and Urban Development (HUD)) recorded that HUD has an interest in purchasing a part of the Oyster Capital (PC50) land. This proposal arose after the original submission had been lodged.

4. Kainga Ora proposal to re-zone 1-1A East St.

Michael Campbell for Kainga Ora explained the basis for seeking the land described as 1-1A East Street to be rezoned from Future Urban zone (FUZ) to THAB and Local Centre zone in PPC50.

Paul Sousa for Phil Hogan (owns 1A East Street) noted that Phil Hogan and Kainga Ora are aligned in their requests and joint technical documents will be provided.

Karyn Sinclair for Auckland Transport did not support the inclusion of the further land in the plan changes. The implications for transport infrastructure have not been considered, including upgrades to Great South Road and cumulative effects. Karyn understands that the ITA does not include additional land and the triggers similarly have not included the additional lands. No Section 32 analysis has been presented to date.

Cath Heppelthwaite for Waka Kotahi supports Auckland Transport's position. Noting that planning provisions relating to any additional land areas have not yet been circulated.

John Duguid and Christopher Turbott (Auckland Council (as submitter)) supported the positions stated for Auckland Transport and Waka Kotahi, and he noted that there would be issues related to the shortfall of funding for infrastructure similar to the issues raised in relation to PC48 land.

David Mead (Auckland Council (as regulator)) raised the issue about scope, for including additional land in the plan changes, noting there are several other submissions seeking to include additional land in the plan changes. This also raises questions around whether other parties would have lodged submissions or further submissions if they had understood that further land was being requested for inclusion in the plan changes. Secondly, the issue of the extent of technical analysis to support including additional areas, compared to the documentation lodged with the original PPC's applications.

5. Approaches to open space.

Rachel Morgan for the Applicants outlined that the submissions (primarily Auckland Council) sought more details about open space be provided in the planning provisions. In response to these submissions the applicants will be providing further details including amendments to policies, matters of discretion and assessment

criteria, and mapping of key open space areas and streams. A revised master plan is being prepared for PC48. Details will be provided in evidence.

Christopher Turbott and Ezra Barwell for Auckland Council (as submitter) advised that they have not had time to consider these details. Christopher noted that he would support indicative open space being shown in a precinct plan in principle but would still need to consider this particular proposal. He does not support these details being included in the zoning plans unless it is esplanade reserve. Christopher confirmed that as a general principle he does not support the land under the transmission line corridor being zoned open space. The land in the corridor should take the same zoning as the adjacent land – this is consistent with the current AUP approach.

John Duguid for Auckland Council (as submitter) raised the issue around ownership and zoning of open space areas, noting that the Council has specific policies and processes in place, to guide the provision and acquisition of open space.

Nick Roberts for the Applicants advised that some open space areas may be privately owned and that there is scope in the planning provisions to leave this option available.

David Mead for Auckland Council (as regulator) requested that there be clarity around the ownership of open space and reserve areas that are proposed to be zoned open space. He noted that other forms of easement or protection mechanisms could also be considered for some areas, such as the gas pipeline and the transmission line corridor.

Mike Hurley for HUD sought further rezoning for open space, but he supports the precinct plan approach to identifying areas of open space. Mark Thode for Kainga Ora supports the indicative open space areas otherwise identified on the Masterplan documentation as being identified on precinct plan.

6. Educational facilities

Karin Lepoutre for the Ministry of Education (MoE) sought additional objectives and policies enabling educational facilities. Karin supports revised objective 4 in PC49 to read “*Development is ~~supported~~ coordinated with the supply of by appropriate sufficient transport, water, energy, education and communications infrastructure”.*

Karin is going to further consider the requirement for a supporting policy.

Karin will want to review the revised triggers for transport upgrades as it is understood they will include reference to community infrastructure.

David Mead for Auckland Council (as regulator) raised the NPS-UD reference to definitions of “additional infrastructure” and “development infrastructure”. These have a different policy intent.

David Mead also raised the need to not duplicate provisions that are already in the AUP relating to infrastructure, in particular education facilities. AUP Chapter B2 refers to social facilities.

Karin considers that the AUP does not adequately enable educational facilities and therefore seeks specific provisions in PC49.

The Applicants experts and Karin on behalf of MoE suggest that a new objective could be an alternative way to provide for education facilities and they will have further discussions to address this point.

Mike Hurley for HUD and Mark Thode for Kainga Ora supports that additional provisions need to be included in PC49 to recognise education facilities.

7. Staging and triggers for staging.

Vijay Lala for Lomai Properties Limited (on PC48, PC49 and PC50) understands that the applicants transport modelling is now based on the SGA modelling, in particular the land use assumptions which reflect assumed growth in Stage 1 west of Jesmond Road. Subject to the modelling outcomes confirming acceptable transport capacity outcomes, Vijay advised that Lomai Properties concerns would be adequately addressed.

John Duguid and Christopher Turbott for Auckland Council (as submitter) stated the view that staging of development in the Drury area should be linked to funding for key infrastructure required to support a quality outcome. Karyn Sinclair for Auckland Transport endorsed John's statement and noted that as the triggers will be changed, confirmation of these changes was required before further comments could be made.

8. Relevance of infrastructure funding to zoning decisions under the RMA. AND

9. Consistency of the plan changes with the growth- and infrastructure-related provisions in the NPS-UD and RPS.

Karin Lepoutre was not present and did not participate in these two items.
Nigel Hosken did not participate in these two items.

All other experts (names below) agree that: significant infrastructure investment will be required to service the urbanisation of the PC48, PC49 and PC50 land.

Christopher Turbott for Auckland Council (as submitter) and Karyn Sinclair for Auckland Transport note that significant infrastructure needs to be provided for other plan changes in the area and this should be part of the network analysis and the hearing process for the other plan changes in the Drury FUZ area.

All other experts (names below) agree that: RMA statutory documents require that development is integrated and co-ordinated with the provision of infrastructure. Relevant objective and policies include, but are not limited to: NPS-UD – Objective 6, Policy 1, Policy 8

and Policy 10. Relevant RPS policies include, but are not limited to: B2.2.1(objective 1 and objective 5), B2.2.2 (policy 7), B2.4.2 (policy 6), B3.2.1(objective 5), B3.2.2(Policy 5)(a).

All other experts (names below) agree that: PC48, PC49 and PC50 should address the demands arising from the effects of the plan changes on infrastructure, particularly transport infrastructure. Any infrastructure put in place to address the effects of these plan changes needs to integrate with the wider infrastructure network for Drury, including beyond the plan change areas. The issue of interim solutions versus long term infrastructure upgrades is a key consideration.

Nick Roberts, Rachel Morgan, Vijay Lala, Michael Campbell and Mark Thode consider that the plan changes are required to consider and complement, but not resolve all wider network infrastructure requirements. For example, the interim upgrade of Fitzgerald Road which will complement the full-width upgrade at a later date.

David Mead indicated that the extent of works and the extent of the cumulative effects on the wider network are difficult to define and difficult to attribute to different plan changes. This is yet to be agreed to between the parties.

John Duguid, Christopher Turbott and Karyn Sinclair note that currently the provision of such infrastructure is too uncertain and in particular, that there is insufficient funding available or committed to ensure that integrated and coordinated development can occur in these Plan Change areas.

Nick Roberts, Rachel Morgan, Mark Thode, Michael Campbell, Vijay Lala and Mike Hurley consider that there is sufficient certainty to address the effects of PC48, PC49 and PC50 and that the best option is to rezone the Plan Change areas from FUZ to live zonings (as proposed) and to include a range of mechanisms (including triggers) in the zoning provisions to enable the staging of development to occur as infrastructure is funded and/or provided.

All experts reserve their final positions subject to working through the various amended provisions that parties are providing.

- 10. Amendments proposed to:**
- 11. Zoning.**
- 12. Objectives and policies.**
- 13. Rules.**
- 14. Assessment matters.**
- 15. Notification provisions.**
- 16. Information requirements.**
- 17. Reverse sensitivity controls requested by submitters.**
- 18. Stormwater provisions.**
- 19. Precinct plans/Access A.**

These agenda items were not dealt with during this session.

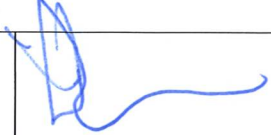


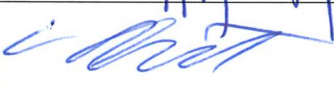
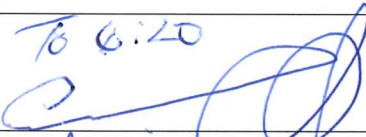

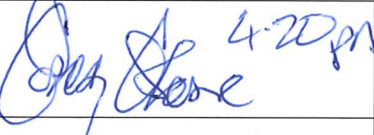


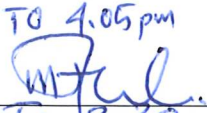

Further planning conferencing to be scheduled for Thursday 10 June 2021. Julie McKee will finalise arrangements.

20. General discussion topic / processing of private plan changes (referred from Transport and Planning JWS #1 held on 24 May, Item 11)

John Duguid noted the concerns of experts and has agreed to set up a session with the planning experts, lawyers and other relevant parties to discuss Auckland Councils processing of private plan changes.

21. All experts agree to file this joint witness statement with the Hearing Panel.

Signed on 31 May 2021:

Expert Name	Parties (app/sub)	
Craig Cairncross	Auckland Council (as regulator)	
David Mead	Auckland Council (as regulator)	
John Duguid	Auckland Council (as submitter)	
Christopher Turbott	Auckland Council (as submitter)	
Paula Vincent	Auckland Council (as submitter)	
Ezra Barwell	Auckland Council (as submitter)	TO 6:20 
Karyn Sinclair	Auckland Transport	
Greg Osborne	Drury South Limited	TO 4:20 pm 
Nick Roberts	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
Rachel Morgan	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
Mark Thode	Kainga Ora	TO 4:05 pm 
Michael Campbell	Kainga Ora	TO 3:30 
Andrew Cave	KiwiRail	

Left room without signing on 31/5/21.
MPC.

Vijay Lala	Lomai Properties Limited	
Karin Lepoutre	Ministry of Education	
Emma Howie	Ministry of Education	
Mike Hurley	The Ministry of Housing and Urban Development (HUD), Te Puni Kōkiri and the Department of Corrections	
Cath Heppelthwaite	Waka Kotahi	
Paul Sousa	Phil Hogan	
Nigel Hosken	Josephine Kleinsman	

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AUCKLAND COUNCIL:

PRIVATE PLAN CHANGE 48: DRURY CENTRE PRECINCT – KIWI PROPERTY HOLDINGS LTD

PRIVATE PLAN CHANGE 49: DRURY EAST PRECINCT – FULTON HOGAN LAND DEVELOPMENT LTD

PRIVATE PLAN CHANGE: 50 WAIHOEHOE PRECINCT – OYSTER CAPITAL.

JOINT WITNESS STATEMENT (JWS)
STORMWATER & PLANNING (1) - 17 MAY 2021.

Expert Witness Conferencing Topic: Stormwater & Planning

Held on: 17 May 2021, commencing at 9am

Venue: Board Room, Ground Floor, Auckland Town Hall

Independent Facilitator: Marlene Oliver.

1. Attendance:

The list of expert participants is at the end of this Statement. Their area of expertise (stormwater or planning) is identified with their names.

2. Environment Court Practice Note 2014.

- i. All participants agree that the Environment Court Practice Note 2014 provides relevant guidance and protocols for the expert conferencing session.
- ii. All participants agree to comply with the relevant provisions of the Environment Court Practice Note 2014.

In this regard Peter Dodd acknowledges that although he has expertise in stormwater matters, he is submitter and therefore is not an independent expert witness.

The Auckland Council (as regulator) participants attended as observers, given their role as s42A reporters.

- iii. All participants agree to make themselves available to appear at the hearing in person if required to do so by the Hearing Panel (as directed by the Hearing Panel's Directions).

3. Relevant updates to the Stormwater Management Plan (SMP), including further information requirements.

Flood management and flood modelling (Plan Change 48 and Plan Change 49)

All stormwater experts agree:

Flood management should not worsen flooding effects upstream or downstream of the plan change areas.

This may be achieved by passing flows forward, requiring Great South Road and railway culverts to be enlarged and upgraded. Prior to this, attenuation of flood flows may be temporarily required. The performance outcomes are met and the management strategy chosen will need to be confirmed by a flood modelling assessment.

Performance standards for flood management are included in the SMP (refer to page 64, section 8.6.2.1 general requirements for flood management and Table 13 requirements to not worsen upstream or downstream flood effects).

A shared model should be used and the model should be held by Auckland Council.

The above matters should be dealt with in the SMP.

Every time there is a resource consent for subdivision / development for part of a plan change area, a flood modelling assessment which reflects what has happened and what is anticipated will be required to demonstrate compliance with the performance standards.

There is a recommendation to the planning expert conferencing to draft an additional policy and assessment matters or standards to give effect to the above paragraphs.

The flood model for Plan Change 48 and Plan Change 49 will be provided by the applicant's experts.

Flood management and flood modelling (Plan Change 50)

Peter Dodd supports Plan Change 50, but expressed his concerns that flood management and modelling for the wider future urban zoned area is required so that efficient use can be made of areas identified in that zoning for urban development that is currently flooding and encourages Auckland Council to take the lead.

The experts for Oyster Capital noted that Plan Change 50 does not preclude those wider Slippery Creek floodplain improvements.

Nikhil Prakash raised concerns about managing the overland flow path identified on the Councils GIS system at the interface of Plan Change 50 land and his clients land to the east (160 Waihoehoe Road). He sought clarification about how the SMP dealt with this interface.

Tim Fisher said that continuation of overland flow paths are a requirement of the Waihoehoe SMP (refer to section 5.3(5)).

Nikhil Prakash sought clarification that fill does not displace the flood storage volume of the wider floodplain.

Tim Fisher responded by referring to the principle that “flood management should not worsen flooding effects upstream or downstream of the plan change areas” which will be demonstrated by flood modelling.

Stormwater management Tool box (Plan Change 48 and Plan Change 49)

All stormwater experts agree:

The SMP(s) are the appropriate place to record details about stormwater management tools but this should not limit the range of tools that could be used.

The SMP should be clarified to identify the methods that can be used to achieve the various stormwater management outcomes while retaining flexibility over a range of methods.

Clarify in the SMP, with respect to water quality treatment, runoff from all high contaminant generating activities (as defined in Chapter E9 of the AUP) must be sized and designed in accordance with GD01.

Runoff from all other impervious areas will require a risk-based approach to water quality. For example, where you put rubbish bins you may consider a roof and a gross pollution trap, a footpath around the back of a house requires no treatment, JOAL's, driveways and uncovered carparks (<30) will require water quality treatment for lower contaminant loading and lower risk frequency such as a catchpit with a sump volume and submerged outlet.

Page 57 of the SMP – options should be relabelled to 'Option 1' and 'Option 2'.

There is a recommendation to the planning expert conferencing to refine policies and rules and draft new assessment matters to give effect to the above paragraph.

Revised SMP Table 13 and associated flow chart to be circulated prior to planning expert conferencing. This will be done for Plan Change 50 as well.

NES-FW

Applicants to review the SMP to recognise the NES Freshwater management requirements.

4. Stream erosion and riparian setbacks.

This remains an area of disagreement at this conference, and as it relates to a number of different factors (e.g stream erosion, stormwater and floodplains, amenity, ecology etc.) this issue will be referred to the planning expert conferencing.

The applicant's experts advised that further work is being done relating to stream erosion potential in the Plan Change 48 area. This will be discussed with Auckland Council (as submitter) when it is available and/or presented in evidence.

5. East Street (Kainga Ora).

Kainga Ora has an interest in land downstream of Plan Change 50. David Hughes sought clarification that consideration had been given to the downstream environment in regard to hydrological mitigation and flood risk. In terms of the detail provided in the Waihoehoe SMP, Kainga Ora is comfortable with the set of provisions providing confidence on the mitigation of downstream flood risk. Kainga Ora supports further coordination of the modelling across the catchment between developers, Kainga Ora and Auckland Council (i.e during the resource consent development (detailed design phase). Kainga Ora accepts the appropriate timing for this is during the resource consent phases, as opposed to prior to or during the plan change process.

Tim Fisher noted that Plan Change 50 application relied on Auckland Council modelling, but for resource consent applications more detailed modelling will be undertaken by the applicant's experts.

6. Stormwater provisions in the precincts that have referred to planning expert conferencing.








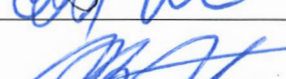






SMP

There is a recommendation to the planning expert conferencing to draft an additional policy and assessment matters or standards in relation to flood modelling and stormwater treatment as discussed in section 3 above.

Riparian margins

This remains an area of disagreement at this conference, and as it relates to a number of different factors (e.g stream erosion, stormwater and floodplains, amenity, ecology etc.) this issue will be referred to the planning expert conferencing.

Signed on 17 May 2021:

Expert Name	Parties (app/sub)	
David Mead (Plg)	Auckland Council (as regulator)	
Trent Sunich (S/W)	Auckland Council (as regulator)	
Craig Cairncross (Plg)	Auckland Council (as regulator)	
Christopher Turbott (Plg)	Auckland Council (as submitter)	
Danny Curtis (S/W)	Auckland Council (as submitter)	
Paula Vincent (Plg)	Auckland Council (as submitter)	
Greg Osborne (Plg)	Drury South Limited	
Pranil Wadan (S/W)	Fulton Hogan Land Development Ltd	
Tim Fisher (S/W)	Kiwi Property Holdings No2 Limited Oyster Capital	
Charlotte Peyroux (S/W)	Kiwi Property Holdings No2 Limited Oyster Capital	
Nick Roberts (Plg)	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
Rachel Morgan (Plg)	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
David Hughes (S/W)	Kainga Ora	
Mark Thode (Plg)	Kainga Ora	
Peter Dodd (S/W)	Self (Peter Dodd)	
Nikhil Prakash (S/W)	Dong Leng	

AUCKLAND COUNCIL:

PRIVATE PLAN CHANGE 48: DRURY CENTRE PRECINCT – KIWI PROPERTY HOLDINGS LTD

PRIVATE PLAN CHANGE 49: DRURY EAST PRECINCT – FULTON HOGAN LAND DEVELOPMENT LTD

PRIVATE PLAN CHANGE: 50 WAIHOEHOE PRECINCT – OYSTER CAPITAL.

**JOINT WITNESS STATEMENT (JWS)
TRANSPORT & PLANNING (1) - 24 MAY 2021.**

Expert Witness Conferencing Topic: Transport & Planning

Held on: 24 May 2021, commencing at 9am.

Venue: Board Room, Ground Floor, Auckland Town Hall.

Independent Facilitator: Marlene Oliver.

Admin Support: Cosette Saville.

1. Attendance:

The list of expert participants is at the end of this Statement. Their area of expertise (transport or planning) is identified with their names.

2. Environment Court Practice Note 2014.

- i. All participants agree that the Environment Court Practice Note 2014 provides relevant guidance and protocols for the expert conferencing session.
- ii. All participants agree to comply with the relevant provisions of the Environment Court Practice Note 2014.
The Auckland Council (as regulator) participants attended as observers, given their role as s42A reporters.
- iii. All participants agree to make themselves available to appear at the hearing in person if required to do so by the Hearing Panel (as directed by the Hearing Panel's Directions).

3. Transport modelling assumptions.

Daryl Hughes for the applicants outlined the updates to SGA's Drury traffic model, including adopting the land use and infrastructure and timing assumptions from the SGA model which is different to the plan change documents as notified.

Daryl noted that the revised trigger table was an appropriate framework to assess infrastructure requirements for the plan changes, regardless of the Government's decisions on the timing and scope of Mill Road.

The Applicants will prepare and circulate an addendum to the modelling report to describe these updates and their implications for the plan changes. The addendum report to be circulated on 31 May 2021 with a further expert conferencing session (transport and planning experts) scheduled on 8 June 2021 commencing at 9am at Stantec offices, 111 Carlton Gore Road, Newmarket. Experts to confirm attendance, by email to Julie McKee by 4pm Friday 4 June. Request to Julie McKee to notify all parties.

The Applicants to provide the relevant transport provisions that have been amended following the planning expert conference on 31 May, and before 8 June.

4. Transport upgrade provisions in the precinct (including triggers) (to also be discussed in the planning conference).

All agree that the upgrades along Fitzgerald Road and Waihoehoe Road bordering the plan changes are considered to be 'within the plan change areas and will be subject to walking and cycling upgrades' consistent with the precinct provisions.

The planning expert conference (after the 8 June session) should look at the implementation/workability of the provisions in practice, including robustness of the assessment framework, and information requirements. It is suggested that the applicants provide a flowchart to illustrate the operation of the provisions.

5. Precinct plans/Access A.

Andrew Mein from Waka Kotahi clarified that Tables '*Staging of development with transport upgrades and 'trip generation limit''*' e.g Table 6.2.2 and Table 6.3.2 in PPC48, referring to Access A can be removed from the plan changes, but Access A is to be shown as a potential connection on Precinct Plan 2. All agree with this statement as from a traffic capacity perspective, it is not relevant to the triggers.

Applicants requested to clarify the status of proposed roading connections that go beyond the precincts. To be discussed at 31 May planning expert conference.

6. Road cross-section details.

Applicants to circulate updated cross-sections to all parties through Julie McKee. These will be discussed again at the expert conferencing session on the 8th of June.

7. Precinct provisions relating to the train station.

Andrew Cave for KiwiRail requested that the location of the proposed Drury Central train station to be shown in the plan provisions as indicative, but likely to be positioned immediately south of the existing Waihoehoe Road NIMT overbridge (i.e between Flanagan Road and Great South Road), with associated public transport interchange and necessary infrastructure.

The experts (transport and planning) for the following parties agree to this indicative location noting there is a considerable amount of engineering design work to be done, and that separate consent procedures will be required and parties accordingly reserve their rights to participate in those processes, refer to revised Precinct Plan 2 attached. Auckland Transport, Auckland Council (as submitter), Waka Kotahi and the Applicants.

Note that the Applicant is suggesting the notified area Sub-precinct D in Precinct Plan 2, is proposed to be merged into the original Sub-precinct A area. For clarification the original precinct plan is also attached.

The Applicant advised that master planning details such as the station plaza are being revised to reflect the amended location of the train station. These will be available for discussion at the planning expert conference after 8 June.

8. Other transport related amendments to the provisions.

An amended set of provisions relating to transport will be circulated after the 8 June transport conferencing session for discussion at a subsequent planning conference, date to be confirmed (planners bring their diaries on 31 May so that subsequent date can be confirmed).

The Applicants to clarify PPC49 Precinct Plan 1 reference to proposed Mill Road corridor.

9. Submitters outside of the plan change areas seeking to be included, including Kainga Ora's proposal to re-zone 1-1A East St.

The SGA model relates to Auckland Council's adopted Drury-Opaheke Structure Plan area and follows the Structure Plan timing, not just the areas included in PPC48, 49 and 50.

10. Written questions submitted by Nikhil Prakash on behalf of Dong Leng on PPC50

Proposed Plan Change 50:

- 1) My first question relates to the future crossing/bridge for the proposed collector road over the Waihoehoe Stream. Who will be responsible for providing this bridge? What will the funding mechanism be? PPC50 conveniently proposes not having a crossing on its own stream boundary. The burden of cost associated with this stream crossing is a potential development constraint for my client.
- 2) The locations of the proposed collector roads shown in the PPC50 application are not in accordance with the draft Drury-Opaheke Structure Plan and therefore need to be relocated. Their locations will also conflict with the streams to the north and east and will also not properly service the land beyond. Our client therefore seeks an amendment to the locations of the proposed collector roads.
- 3) Waihoehoe Road will be upgraded to arterial road status. The Fitzgerald Road/Waihoehoe Road will become a major intersection in the future and is very close to our clients site (160 Waihoehoe Road). The ITA recommends limited access along the road. Our client wants confirmation that his site will have direct access to Waihoehoe Road.

There was insufficient time to discuss these at this conference, therefore they will be put on the agenda for the 8 June transport expert conferencing session.

11. General discussion topic / Case Management and plan processing

John Duguid for Auckland Council (as submitter) expressed a concern about the status of the applicant's amended provisions and the timing of when all parties would see those provisions.

He also noted the RMA requirement for section 42A reports on private plan changes to address the notified version of the private plan change, and outlined the advice Auckland Council has received that amended provisions put forward by applicants can only be addressed after being formally introduced to all parties in evidence from the applicant. This constraint combined with a fundamental concern about ensuring natural justice, fairness and transparency, has recently led Auckland Council to suggest an approach along the following lines to its Independent Hearing Commissioners:

- Section 42A report is circulated to all parties based on the notified version of the private plan change
- Applicant's evidence is circulated to all parties
- Mediation/expert caucusing
- Submitters' evidence is circulated to all parties
- Addendum to section 42A report is circulated to all parties (if required)
- Applicant's rebuttal evidence is circulated to all parties (if required)
- Hearing.

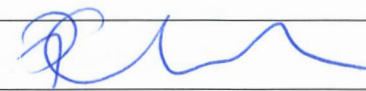

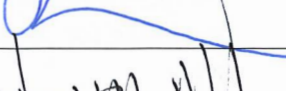

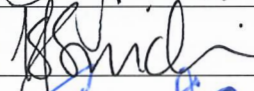






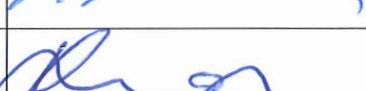

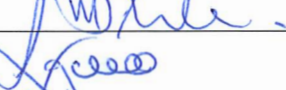
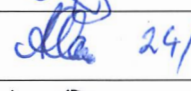
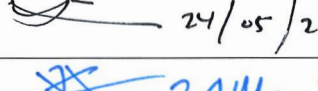
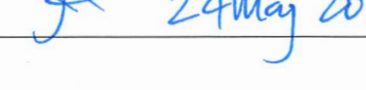



There was general support from the Councils Independent Hearing Commissioners for an approach along those lines, coupled with the early appointment of a chair to independently direct any pre-hearing processes and set the hearing timetable.

John noted that the current Drury private plan change pre-hearing process differs from the above, however he acknowledged that it involves all relevant parties to the private plan changes. The outcome of this process will be carefully considered and inform a follow-up discussion with the council's Independent Hearing Commissioners, who ultimately determine the nature and timing of any pre-hearing processes.

This topic is to be put on the agenda for the planning expert conferencing session on 31 May for further discussion.

12. All parties agreed to file this report with the Hearing Panel.

Signed on 24 May 2021:

Expert Name	Parties (app/sub)	
Terry Church (T)	Auckland Council (as regulator)	
David Mead (Plg)	Auckland Council (as regulator)	
Craig Cairncross (Plg)	Auckland Council (as regulator)	
John Duguid (Plg)	Auckland Council (as submitter)	
Andrew Prosser (T)	Auckland Transport	
Karyn Sinclair (Plg)	Auckland Transport	
Greg Osborne (Plg)	Drury South Limited	
Joe Phillips (T)	Drury South Limited	
John Parlane (T)	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
Daryl Hughes (T)	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
Hilary Papps (T)	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
Nick Roberts (Plg)	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
Rachel Morgan (Plg)	Fulton Hogan Land Development Ltd Kiwi Property Holdings No2 Limited Oyster Capital	
Mark Thode (Plg)	Kainga Ora	
Todd Langwell (T)	Kainga Ora	
Andrew Cave (T)	KiwiRail	 24/05/2021
Leo Hills (T)	Lomai Properties Limited	 24/05/2021
Vijay Lala (Plg)	Lomai Properties Limited	 24 May 2021
Skip Fourie (T)	Ministry of Education	
Andrew Mein (T)	Waka Kotahi	 24/5/21
Nikhil Prakash (T)	Dong Leng	
Jo Michalakakis (Plg)	Counties Power	 24.5.21

Interim upgrades – amendments to the precinct provisions

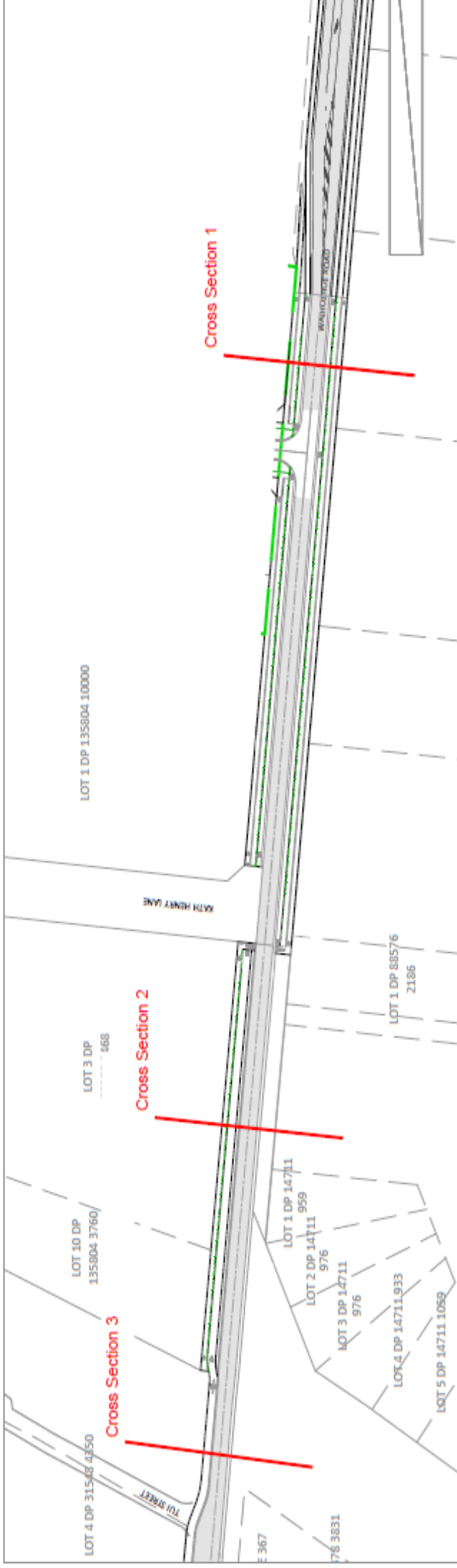
- Interim upgrades that are required prior to any development are addressed in the rules / transport triggers:
 - Waihoehoe/Fitzgerald/Opapeke intersection
 - Interim upgrade of Waihoehoe/GSR/Norrie intersection
 - Waihoehoe Road west upgrade
- Interim upgrades to other local roads will be progressive as development occurs so will be assessed as part of subdivision / development

Upgrades to the Existing Road Network

- (a) Whether **Fitzgerald Road/Brookfield Road** are progressively upgraded to ensure that safe connections are provided from the site to the Waihoehoe Road/Fitzgerald Road intersection. The section of upgraded road should extend from the site being developed to the Waihoehoe Road/Fitzgerald Road intersection.
- (b) Whether the design of the upgraded road/s accords with the road design cross sections included in Appendix 1 and 1a:
 - (i) Where the applicant owns land on both sides of the section of road being upgraded, the design details in Appendix 1 will apply. **(i.e. the ultimate design)**
 - (ii) Where the applicant does not own the land adjoining the section of road being upgraded, either on one or both sides, the interim design details in Appendix 1a apply.

Revised provisions for interim upgrades

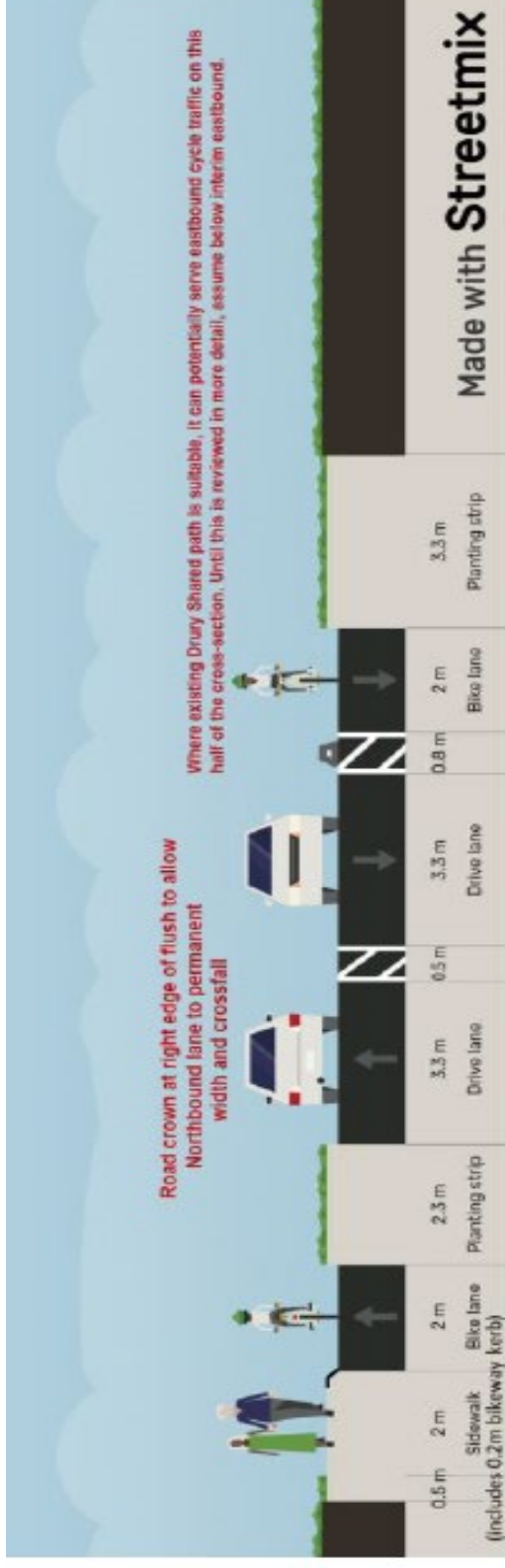
- Interim upgrade of Waihoehoe Road between Fitzgerald and Waihoehoe/GSR/Norrie Road intersection



Revised provisions for interim upgrades

Waihoehoe Road east of Fitzgerald

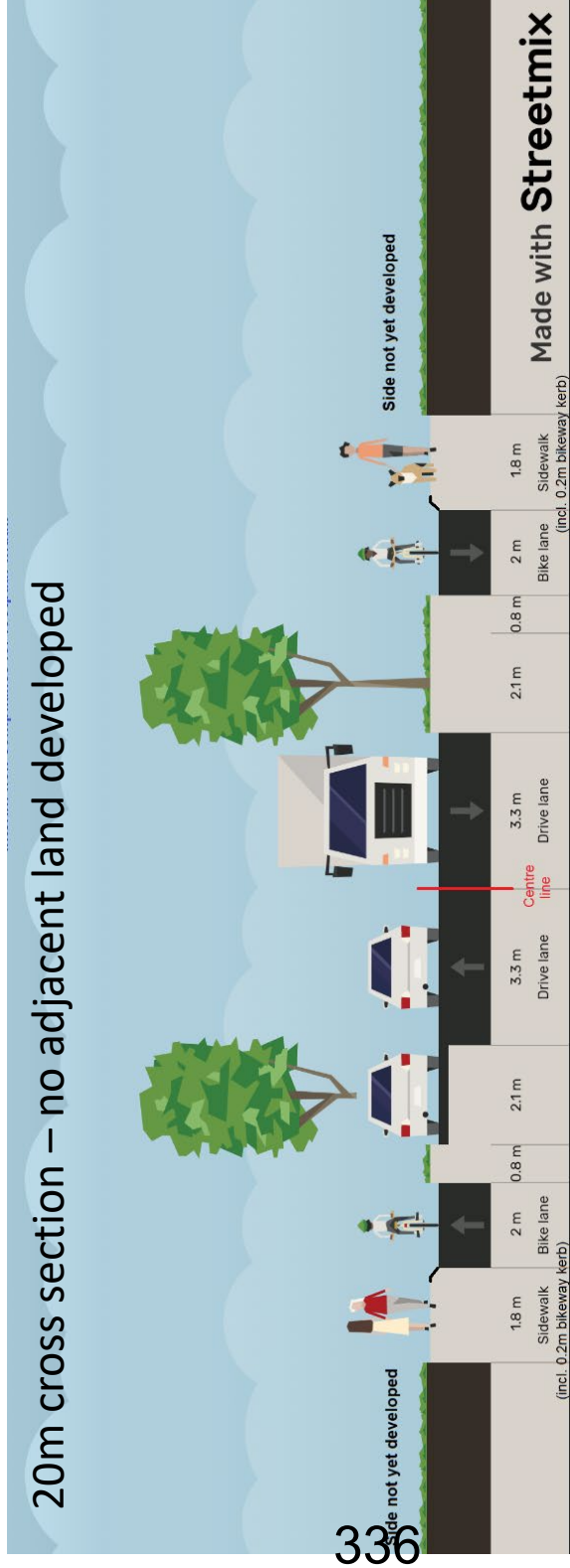
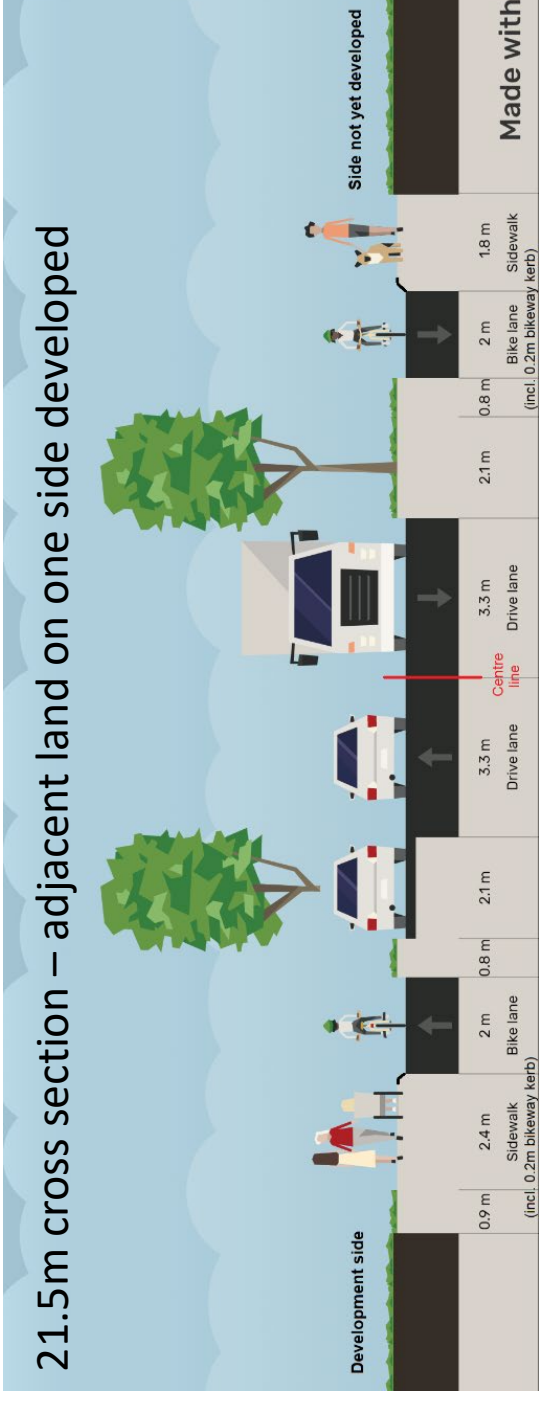
- Interim design for two lane arterial prior to NOR final position / design
- Design for the long term on southern side, as NOR proposes widening to the north
- Otherwise work within the existing 20m road corridor



Revised provisions for interim upgrades

Fitzgerald Road

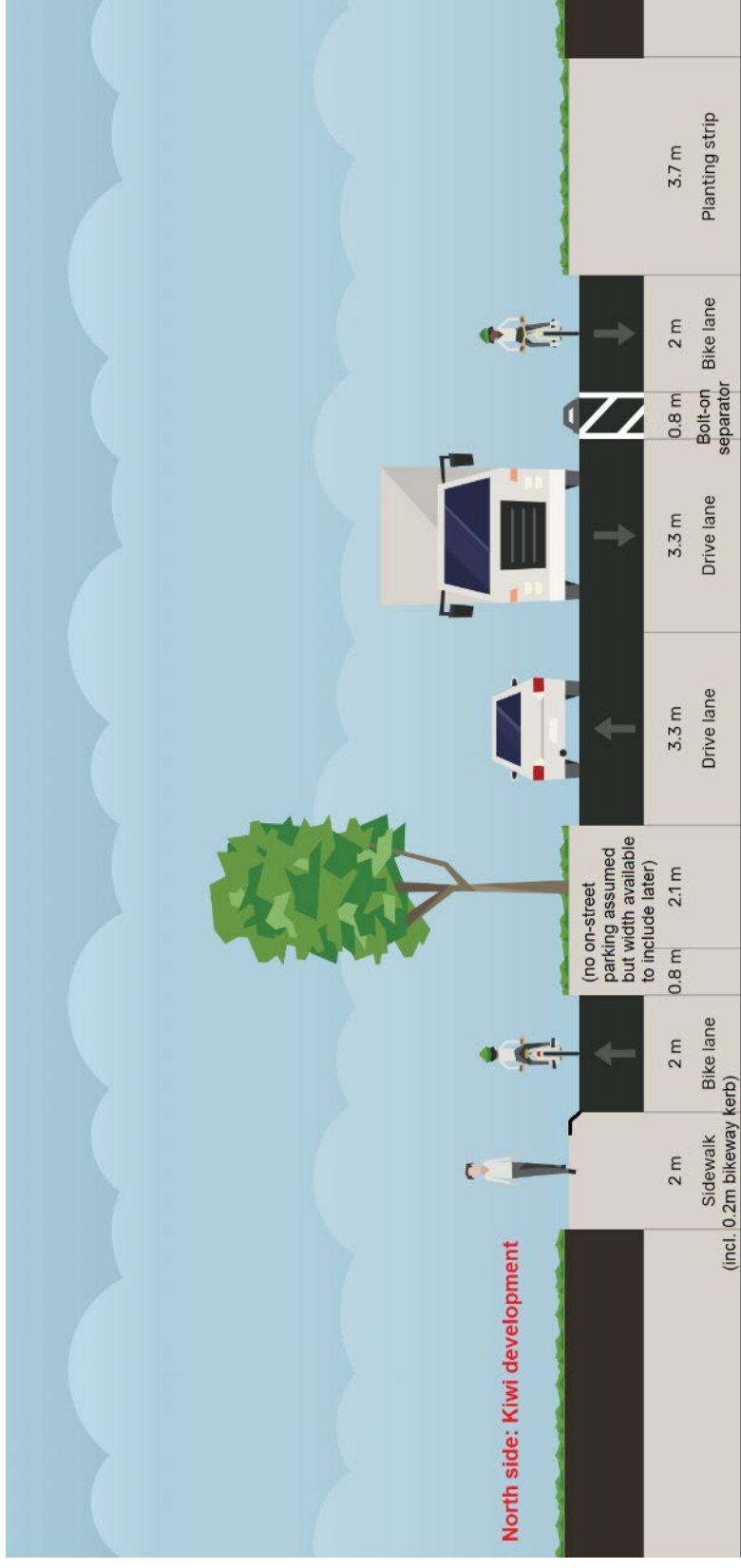
- Interim design for two lane collector
- Design for the long term where the land ownership allows
- Otherwise work within the existing road corridor
- Minor sub standard interim footpath to avoid rework when upgrading interim to long term.



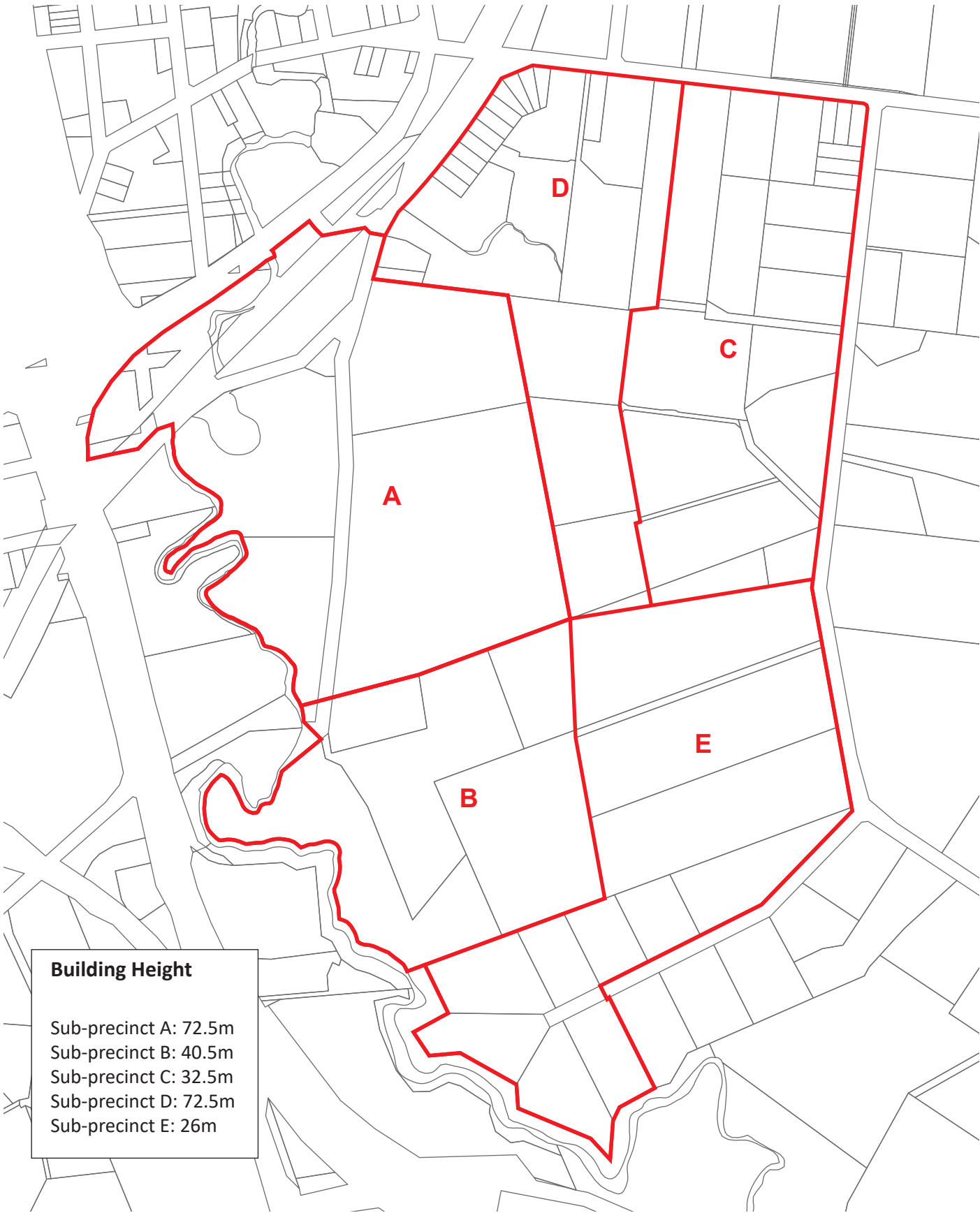
Revised provisions for interim upgrades

Brookfield Road

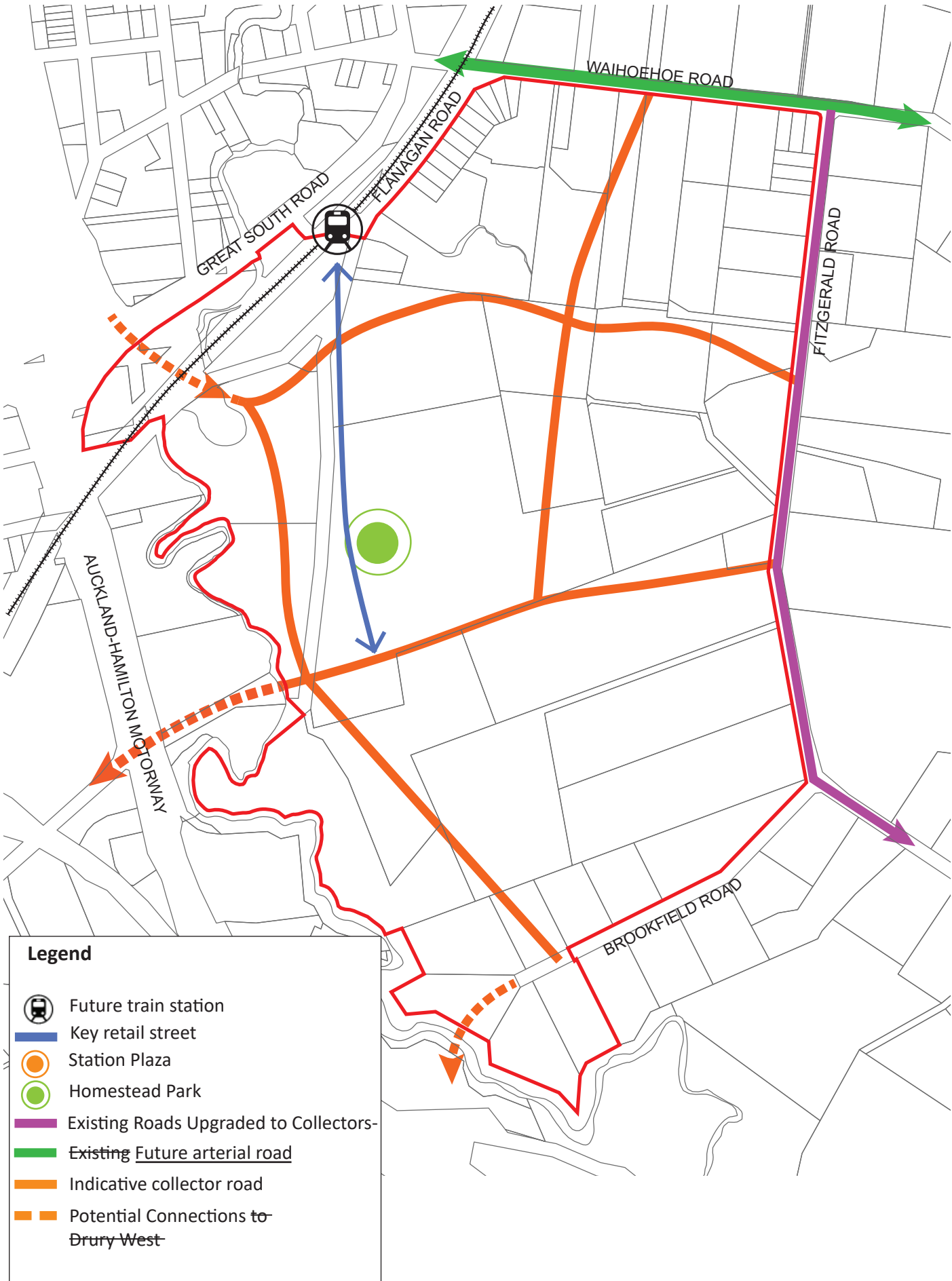
- Design for two lane road with active mode provisions
- Work within the existing 20m road corridor



Drury Centre Precinct Plan 1 - Building Height



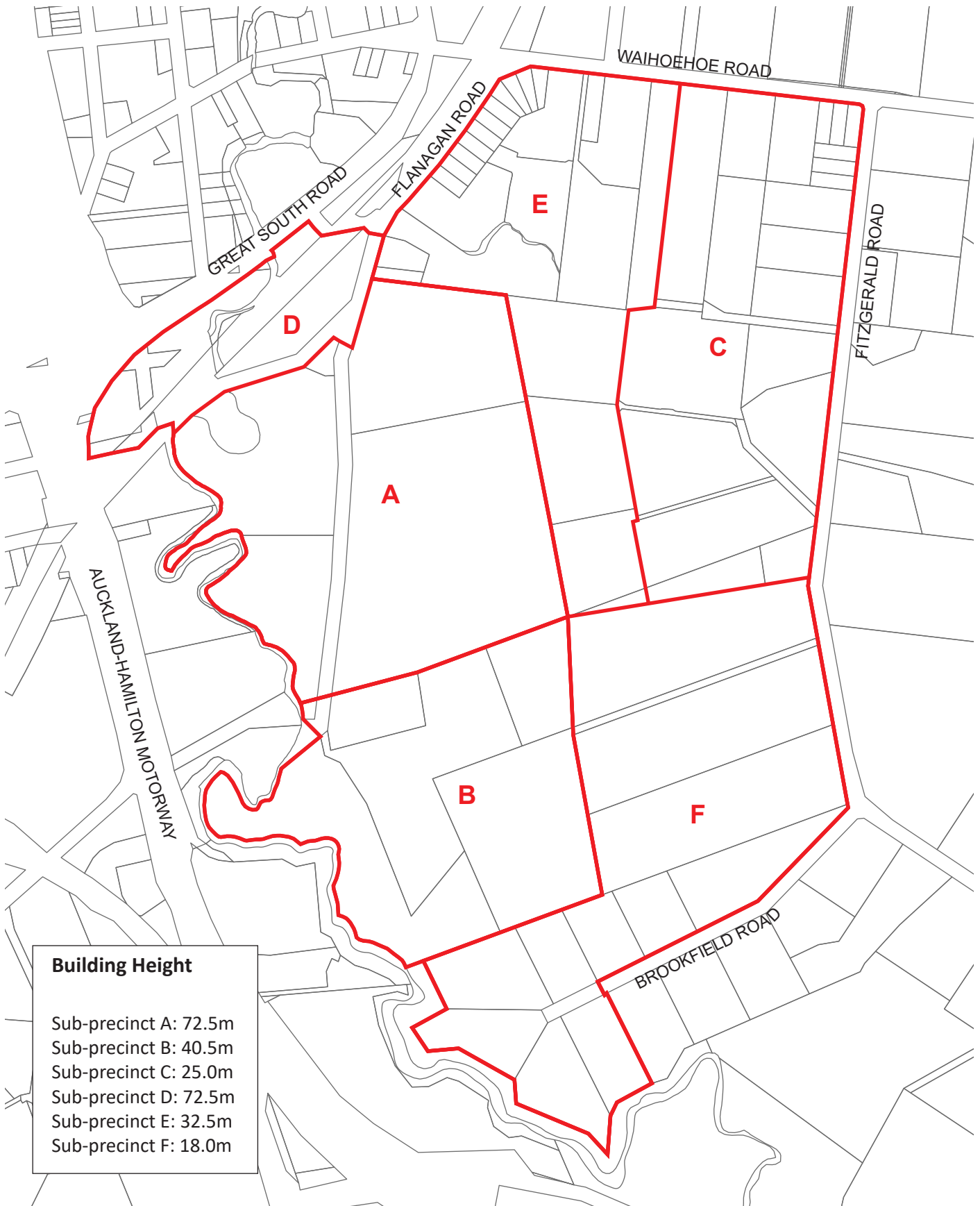
Drury Centre Precinct Plan 2 - Spatial features



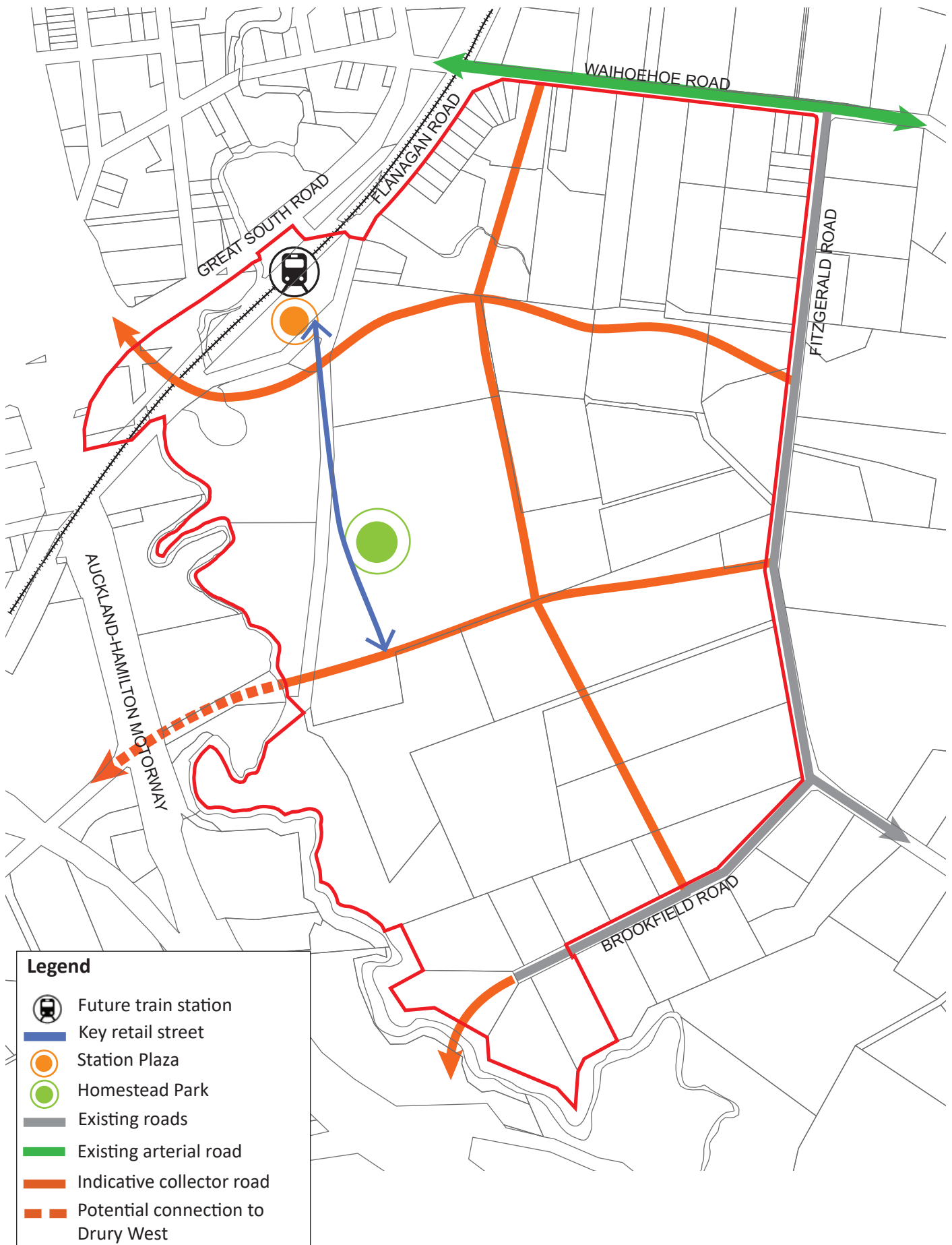
Legend

- Future train station
- Key retail street
- Station Plaza
- Homestead Park
- Existing Roads Upgraded to Collectors-
- Existing Future arterial road
- Indicative collector road
- Potential Connections to Drury West

Drury Centre Precinct Plan 1 - Building Height



Drury Centre Precinct Plan 2 - Spatial features



APPENDIX 6
STATUTORY MATTERS

Appendix 6 – Statutory Matters

Resource Management Act 1991

The key directions of the RMA with regard to consideration of private plan changes are set out in Table 1 below.

Table 1 Sections of the RMA relevant to private plan change decision making

RMA Section	Matters
Part 2	Purpose and principles of the RMA
Section 31	Functions of territorial authorities in giving effect to the Resource Management Act 1991
Section 32	Requirements preparing and publishing evaluation reports. This section requires consideration of the alternatives, costs and benefits of the proposal
Section 72	Sets out that the purpose of district plans is to assist territorial authorities to carry out their functions in order to achieve the purpose of this Act.
Section 73	Sets out Schedule 1 of the RMA as the process to prepare or change a district plan
Section 74	Matters to be considered by a territorial authority when preparing a change to its district plan. This includes its functions under section 31, Part 2 of the RMA, national policy statement, other regulations and other matters
Section 75	Outlines the requirements in the contents of a district plan
Section 76	Outlines the purpose of district rules, which is to carry out the functions of the RMA and achieve the objective and policies set out in the district plan. A district rule also requires the territorial authority to have regard to the actual or potential effect (including adverse effects), of activities in the proposal, on the environment
Schedule 1	Sets out the process for preparation and change of policy statements and plans by local authorities and private plan change applications

National policy statements

The relevant national policy statements (NPS) must be given effect to in the preparation of the proposed plan change, and in considering submissions on PPC50. Table 2 below summarises the NPS that apply to PPC50.

Table 2 National Policy Statements relevant to PPC50

Relevant Act/ Policy/ Plan	Section	Matters
National Policy Statement on Freshwater	Part 2 Objective and policies	Give effect to Te Mana o te Wai in the management of fresh water.
		Manage freshwater in an integrated way considering the effects of the use and development of land on a whole-of-catchment basis, including effects on receiving environments.

Relevant Act/ Policy/ Plan	Section	Matters
Management (NPS-FM) 2020		Ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.
		Protect and restore natural inland wetlands, and avoid the loss of river extent and values to the extent practicable.
		Protect habitats of indigenous freshwater species.
		Provide for social, economic and cultural wellbeing in a way that is consistent with the NPS-FM.
	Policy 7	The loss of river extent and values is avoided to the extent practicable
National Policy Statement on Urban Development 2020 (NPS-UD)	Well-functioning urban environments, competitive land and development markets, and climate change Objectives 1, 2 and 8, Policy 1	Planning decisions contribute to well-functioning urban environments that enable a variety of homes and business sites, have good accessibility, support the competitive operation of land and development markets, support reductions in greenhouse gas emissions, are resilient to effects of climate change.
	Providing development capacity Objectives 3 and 7, Policy 2 and 7 / clauses 3.2 – 3.7	Auckland Council as a Tier 1 local authority, at all times, is to provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term. Sufficient development capacity is plan-enabled and infrastructure-ready, feasible / suitable.
	Intensification requirements Objective 3, Policies 3-4, clauses 3.31-3.34	Auckland Council as a Tier 1 local authority must enable intensification close to centres and places well-served by public transport, including at least 6 storey buildings in the MCZ and 6 storeys within walkable catchments of rapid transit stops and MCZ, unless qualifying matters apply.
	Responsive planning Objective 6(c), Policy 8 / Clause 3.8	Local authority decisions affecting urban environments are responsive to plan changes that would add significantly to development capacity and contribute to well functioning urban environments, even if the development capacity is: (a) unanticipated by RMA planning documents; or (b) out-of-sequence with planned land release.
	Objective 4	New Zealand's urban environments, including their amenity values, develop and change over time in response to the diverse and changing needs of people, communities, and future generations.

Relevant Act/ Policy/ Plan	Section	Matters
	Objective 5, Policy 9	Planning decisions relating to urban environments take into account the principles of Te Tiriti o Waitangi.
	Objective 6	<p>Local authority decisions on urban development that affect urban environments are:</p> <ul style="list-style-type: none"> (a) integrated with infrastructure planning and funding decisions; and (b) strategic over the medium term and long term; and (c) responsive, particularly in relation to proposals that would supply significant development capacity.
	Policy 6	<p>When making planning decisions that affect urban environments, decision-makers have particular regard to the following matters:</p> <ul style="list-style-type: none"> (a) the planned urban built form anticipated by those RMA planning documents that have given effect to this National Policy Statement (b) that the planned urban built form in those RMA planning documents may involve significant changes to an area, and those changes: <ul style="list-style-type: none"> (i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and (ii) are not, of themselves, an adverse effect (c) the benefits of urban development that are consistent with well-functioning urban environments (as described in Policy 1) (d) any relevant contribution that will be made to meeting the requirements of this National Policy Statement to provide or realise development capacity (e) the likely current and future effects of climate change.
New Zealand Coastal Policy Statement	Objective 1, Policy 4, Policy 22, Policy 23	Maintain coastal water quality through considering land use activities that could affect water quality by increasing sedimentation. Reduce contaminant and sediment loadings in runoff and in stormwater systems by controlling land use activities.

National environmental standards or regulations

Under section 44A of the RMA, local authorities must observe national environmental standards (NES) in its district/ region. No rule or provision may be duplicated or in conflict with a national environmental standard or regulation.

Table 3 below summarises the NES relevant to PPC50.

Table 3 National environmental standards and regulations relevant to PPC50

Relevant Act/ Policy/ Plan	Matters	Comment
National Environmental Standard on assessing and managing contaminants into soil to protect human health (NES-CS)	The National Environmental Standard on assessing and managing contaminants into soil to protect human health applies a nationally consistent framework for assessing subdivision, development and use on land that is contaminated or potentially contaminated.	A Preliminary Site Investigation has been provided as part of the plan change material (Appendix 16). There is nothing to indicate that the plan change area is unsuitable for future urban development. Should the plan change be approved, future detailed investigations and resource consents may be required under this national environmental standard.
National Environmental Standards for Freshwater 2020	The NES for Freshwater regulates activities that pose risks to the health of freshwater and freshwater ecosystems. Relevant to urban development these include activities affecting natural wetlands and reclamation/ culverting of streams.	Two wetlands have been identified within the plan change area. This will need specific assessment at earthworks resource consent stage. Resource consents will also be required for any reclamation of streams and culverts that do not meet the conditions under the NES for Freshwater. These matters do not preclude the plan change as a whole.
National Environmental Standard on Sources of Drinking Water	The NES for Sources of Drinking Water sets requirements for protecting sources of human drinking water from becoming contaminated. It is intended to reduce the risk of contaminants entering natural water bodies such as lake, river or ground water.	No sources of human drinking water have been identified within or nearby the plan change area. At earthworks resource consent stage, erosion and sediment controls would be required in accordance with industry best practices and resource consent requirements, to protect against contaminants entering water bodies.

Auckland Unitary Plan

Section 75(3)(c) of the RMA requires that a district plan must give effect to any regional policy statement (RPS).

The RPS objectives and policies that are relevant to PPC50 are identified below. Table 4 below summarises those that I consider are particularly pertinent to this plan change request.

Table 4 Relevant regional policy statement provisions of Auckland Unitary Plan

Section	Matters
Urban Growth Objectives B2.2.1(1), (3) Policies B2.2.2(1), (3), (5), (6), (7)	Achieve a quality compact urban form. Provide sufficient development capacity and land supply to accommodate residential, commercial, industrial growth – a minimum of seven years' growth at any one time. Enable rezoning of future urban zoned land through structure planning and plan change processes in accordance with Appendix 1, integrated with the provision of infrastructure.
Quality Built Environment Objectives B2.3.1(1), (2), (3) Policies B2.3.2(1)-(4)	Achieve a quality built environment where subdivision, use and development respond to the intrinsic qualities and physical characteristics of the site and area; reinforce the hierarchy of centres and corridors; contribute to a diverse mix of choice and opportunity for people and communities; maximise resource and infrastructure efficiency; are capable of adapting to changing needs; and respond and adapt to the effects of climate change. Innovative design to address environmental effects is encouraged. The health and safety of people and communities are promoted.
Residential growth Objectives B2.4.1 (1)-(6) Policies B2.4.2(1)-(6)	Residential intensification supports a quality compact urban form. The primary focus for residential intensification is land within and adjacent to centres and corridors or in close proximity to public transport and social facilities or employment opportunities. Avoid intensification in areas of scheduled natural or physical resources or that are subject to significant natural hazard risks. Residential development capacity is provided to meet the targets in the Auckland Plan Development Strategy.
Open Space and recreation facilities Objective B2.7.1(1)-(3) Policy B2.7.2(2), (3), (7), (9)	Provide a range of quality open spaces and recreation facilities. Maintain and enhance public access along rivers and streams. Avoid, remedy, mitigate reverse sensitivity effects between open spaces and neighbouring land uses. Promote the physical connection of open spaces.
Infrastructure Objective B3.2.1(5) Policy B3.2.2(5)	Infrastructure planning and land use planning are integrated to service growth efficiently. Ensure subdivision, use and development do not occur in a location or form that constrains the development, operation, maintenance and upgrading of existing and planned infrastructure.
Transport Objective B3.3.1(1) Policy 3.3.2(4) Policy 3.3.2(5)	Effective, efficient and safe transport that integrates with and supports a quality compact urban form; enables growth. (4) Ensure that transport infrastructure is designed, located and managed to: (a) integrate with adjacent land uses, taking into account their current and planned use, intensity, scale, character and amenity; and (b) provide effective pedestrian and cycle connections (5) Improve the integration of land use and transport by:

Section	Matters
	<p>(a) ensuring transport infrastructure is planned, funded and staged to integrate with urban growth;</p> <p>(b) encouraging land use development and patterns that reduce the rate of growth in demand for private vehicle trips, especially during peak periods;</p> <p>(c) locating high trip-generating activities so that they can be efficiently served by key public transport services and routes and complement surrounding activities by supporting accessibility to a range of transport modes...</p>
<p>Natural heritage, historic heritage and special character Objective B4.5.1(1) Objective B5.2.1(1), (2)</p>	<p>Notable trees and groups of trees with significant historical, botanical or amenity values are protected and retained.</p> <p>Significant historic heritage places are identified and protected.</p>
<p>Recognition of Te Titiri o Waitangi partnerships and participation Objective B6.2.1(1), (2) Policy B6.2.2(1)</p>	<p>Provide opportunities for Mana Whenua to actively participate in the sustainable management of natural and physical resources including ancestral lands, water, sites, wāhi tapu and other taonga.</p>
<p>Recognising Mana Whenua values Objective B6.3.1(1), (2) Policy B6.3.2(1), (2), (3)</p>	<p>Mana Whenua values, mātauranga and tikanga are properly reflected and accorded sufficient weight in resource management decision-making. The mauri of, and the relationship of Mana Whenua with, natural and physical resources including freshwater, geothermal resources, land, air and coastal resources are enhanced overall.</p>
<p>Indigenous biodiversity B7.2.1(2)</p>	<p>Protect, restore, enhance indigenous biodiversity where development is occurring.</p>
<p>Freshwater systems Objectives B7.3.1(1)-(3) Policies B7.3.2(1)-(6)</p>	<p>Enhance degraded freshwater systems. Minimise loss of freshwater systems. Avoid, remedy or mitigate the adverse effects of changes in land use on freshwater.</p> <p>Ensure water supply, stormwater and wastewater infrastructure is adequately provided for in areas of new growth or intensification. Avoid development where it will significantly increase adverse effects on freshwater systems.</p>
<p>Coastal water, freshwater and geothermal water Objectives B7.4.1(2), (4), (5) Policies 7.4.2(1), (9)</p>	<p>Adverse effects of stormwater runoff and changes in land use on coastal water and freshwater quality are avoided, minimised, remedied, mitigated.</p> <p>Give effect to the NPS-FM.</p> <p>Ensure water supply, stormwater and wastewater infrastructure is adequately provided for in areas of growth</p>
<p>Natural hazards and climate change Objectives B10.2.1 (3), (5) Policy B10.2.2 (5), (7), (8)</p>	<p>New subdivision, use and development avoid the creation of new risks to people, property and infrastructure. The functions of natural systems, including floodplains, are protected from inappropriate subdivision, use and development.</p>

Table 5 Relevant Auckland-wide provisions of Auckland Unitary Plan

Section	Matters
Chapter E1 Water quality and integrated management Objective E1.2(1), Policies E1.3(8), (11)	Avoid as far as practicable, or otherwise minimise or mitigate, adverse effects of stormwater runoff from greenfield development on freshwater systems by taking an integrated approach; minimising contaminants. Have particular regard to potential flood risks, options to manage stormwater on-site, limitations to methods that can be applied, state of receiving environments.
Chapter E3 Lakes, rivers, streams, wetlands Objectives E3.2(2), (3), (4)	Auckland's lakes, rivers, streams and wetlands are restored, maintained or enhanced. Structures are provided for where there are functional or operational needs for the structure to be in that location, or traverse that area. Significant residual adverse effects on lakes, rivers, streams or wetlands are offset.
Chapter E25 Noise and vibration Objectives E25.2(1)-(4)	People are protected from unreasonable levels of noise and vibration. The amenity values of residential zones are protected from unreasonable noise and vibration, particularly at night. Existing and authorised activities and infrastructure, which by their nature produce high levels of noise, are appropriately protected from reverse sensitivity effects where it is reasonable to do so.
Chapter E27 Transport Objectives E27.2(1), (2)	Land use and all modes of transport are integrated in a manner that enables: (a) the benefits of an integrated transport network to be realised; and (b) the adverse effects of traffic generation on the transport network to be managed. An integrated transport network including public transport, walking, cycling, private vehicles and freight, is provided for.
Chapter E36 Natural Hazards and Flooding Objectives E36.2(2) Policies E36.3 (32), (33)	Development only occurs where the risks of adverse effects from natural hazards are not increased overall and where practicable are reduced. Require risk assessment prior to subdivision, use and development of land subject to instability. Locate and design subdivision, use and development first to avoid potential adverse effects arising from risks due to land instability hazards, and, if avoidance is not practicably able to be totally achieved, otherwise to remedy or mitigate residual risks and effects to people, property and the environment resulting from those hazards.
Chapter E38 Subdivision – Urban Objective E38.2(4) Policy E38.3(18)	Infrastructure supporting subdivision and development is planned and provided for in an integrated and comprehensive manner and provided for to be in place at the time of the subdivision or development. Require subdivision to provide for the recreation and amenity needs of residents by: (a) providing open spaces which are prominent and accessible by pedestrians; (b) providing for the number and size of open spaces in proportion to the future density of the neighbourhood; and (c) providing for pedestrian and/or cycle linkages.

The Auckland Plan

Section 74(2)(b)(i) of the RMA requires that in considering a plan change, a territorial authority must have regard to plans and strategies prepared under other Acts.

The Auckland Plan 2050, prepared under section 79 of the Local Government (Auckland Council) Act 2009 is a relevant strategy document that council should have regard to in considering PPC50, pursuant to section 74(2)(b) of the RMA.

Table 6 summarises the relevant sections of the Auckland Plan to PPC50.

Table 6 Relevant sections of the Auckland Plan

Section	Matters
Maori identity and wellbeing	Recognise and provide for Te Tiriti o Waitangi outcomes (Direction 3)
Homes and places	<p>Develop a quality compact urban form to accommodate Auckland's growth (Direction 1)</p> <p>Accelerate the construction homes that meets Aucklanders' changing needs and preferences (Direction 2)</p> <p>Provide sufficient public places and spaces that are inclusive, accessible and contribute to urban living (Direction 4)</p> <p>Accelerate quality development at scale that improves housing choices (Focus area 1). With a fundamental requirement for long-term success including 'making the right decision about development location and sequencing and 'coordinating investment in infrastructure'.</p> <p>Create urban spaces for the future, focusing investment in areas of highest population density and greatest need (Focus area 5)</p>
Transport and access	<p>Better connect people, places, goods and services (Direction 1)</p> <p>Increase genuine travel choices for a healthy, vibrant and equitable Auckland (Direction 2)</p> <p>Maximise safety and environmental protection (Direction 3)</p> <p>Target new transport investment to the most significant challenges (Focus Area 2)</p> <p>Make walking, cycling and public transport preferred choices for many more Aucklanders (Focus area 4)</p> <p>Better integrate land-use and transport (Focus area 5)</p>
Environment and cultural heritage	<p>Ensure Auckland's natural environment is valued and cared for (Direction 1)</p> <p>Use growth and development to protect and enhance Auckland's environment (Direction 3)</p> <p>Focus on restoring environments as Auckland grows (Focus area 2)</p> <p>Account fully for the past and future impacts of growth (Focus area 3)</p>

	Use green infrastructure to deliver greater resilience, longterm cost savings and quality environmental outcomes (Focus Area 6)
Opportunity and Prosperity	Create the conditions for a resilient economy through innovation, employment growth and raised productivity (Direction 1). Ensure regulatory planning and other mechanism support business, innovation and productivity growth (Focus area 2)
Our Development Strategy	In future urban areas the FULSS sequences when land will be live zoned, based on when necessary bulk infrastructure will be available. Development in Opāheke Drury is sequenced for the second decade of the strategy (2028 to 2038) and anticipated to accommodate 7,900 dwellings.

Any relevant management plans and strategies prepared under any other Act

Other relevant plans and strategies to be considered under Section 74(2)(b)(i) and of relevance to PPC50 are summarised in Table 7 below.

Table 7 Other relevant plans and strategies

Relevant Act/ Policy/ Plan	Section	Matters
10 Year Budget 2018-2028 (Long Term Plan)	Volume 2: Our detailed budgets, strategies and policies	Planned and funded infrastructure relevant to the plan change area includes: <ul style="list-style-type: none"> - Mill Road \$507m in 2019-2028, \$875m in 2029-2038 - SH1 improvements Manukau to Bombay \$480m in decade 1 - Electrification of rail line to Pukekohe \$751m in decade 1 - Provision for other transport infrastructure in Drury-Opāheke and other southern growth areas from 2029 onwards - Provision for stormwater infrastructure for Drury-Opāheke and several other future urban areas \$69m in decade 1 and more from 2029 onwards - Acquisition of open space for Drury-Opāheke and several other future urban areas \$696m in decade 1 and more from 2029 onwards.
Auckland Council Draft 2021 Long Term Plan	Key issue 3: Responding to housing and growth	Council's draft 2021 Long Term Plan identifies that the Council is investigating additional infrastructure requirements to support a large number of growth areas across Auckland. However, funding and financing new infrastructure in all of those areas is a major challenge. The LTP states that the focus of limited infrastructure investment capacity will be in a few key areas: <ul style="list-style-type: none"> • areas agreed with the government as part of the Auckland Housing Programme, including Mt Roskill, Māngere, Tāmaki, Oranga and Northcote

		<ul style="list-style-type: none"> • where significant government investment has been made, such as Drury in Auckland’s south, and areas in Auckland’s north-west • where investment in significant projects, such as the City Rail Link, is being made. <p>The draft LTP states that the Council is not in a position to cover all the potential costs in the focused areas, and there will need to be prioritisation of projects within these areas. This focused approach will mean that they will not be heavily investing in infrastructure to support other growth areas in the short to medium term beyond that which is already committed. The plan notes that the council will continue to work with central government and private sector developers to explore alternative ways to progress development. This would include using the new Infrastructure Funding and Financing Act 2020.</p>
Future Land Supply Strategy 2017	The Programme – sequencing of the future urban areas	See section Error! Reference source not found. in this report.
Auckland Transport Alignment Project 2021	ATAP Package Detail	<p>Along with the NZUP projects, ATAP provides for the following:</p> <p><i>“Drury & Paerata Growth Area Funding for transport infrastructure in the Drury area to support the NZUP investment. \$243m”.</i></p> <p>However, actual funding commitments will need to be made in the next iteration of the Regional Land Transport Plan.</p>
Auckland Council draft 2021-2031 Regional Land Transport Plan (RLTP)	Section 5: Responding to Auckland’s Transport Challenges, p58	The draft RLTP states that almost \$250 million is proposed to support the accelerated development of the Drury growth area through public transport links, including to the new Drury rail stations. This is in addition to the new stations themselves, the Mill Road Corridor, SH1 widening to Drury South, and new SH1 Drury South Interchange funded through NZUP.
Franklin local board plan 2020	Outcome 2: Improved transport options and fit for purpose roads	<p>Opportunities include new train stations at Drury and new public transport services to connect people to services and facilities.</p> <p>Challenges include that transport options are not developing in parallel to urban development, which is sustaining car-dependency. Green-field development areas and rural communities are not serviced by public transport.</p>
Papakura local board plan 2020	Outcome 1: A vibrant and prosperous local economy	Papakura intends to make the most of its zoning as a metropolitan centre. Objectives include thriving business in the local board area as local people buy from local businesses, maximising

	Outcome 3: A well-connected area where it's easy to move around	opportunities presented by the new development in Drury. Connectivity objectives include cycleways and walkways providing safe, connected, alternative routes including greenways to residential development in Drury.
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