

BEFORE THE HEARINGS PANEL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of proposed Plan Change G: Aokautere Urban
Growth to the Palmerston North City Council
District Plan

**SECTION 42A TECHNICAL REPORT OF MICHAEL CULLEN
ON BEHALF OF PALMERSTON NORTH CITY COUNCIL**

TECHNICAL – URBAN ECONOMICS

Dated 15 September 2023

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A. EXECUTIVE SUMMARY

1. The key conclusions of my s 42A technical report are:

- (a) The development of a high amenity neighbourhood centre in Aokautere is integral to the following outcomes and benefits:
 - (i) sustainable settlement patterns;
 - (ii) contribute to the delivery of the City Growth Plan 2021-2031, requiring a **constant supply** (my bolding) of 1,800 sections.¹
 - (iii) improved social and physical health;
 - (iv) reductions in CO² emissions through reduced travel need;
 - (v) economic prosperity;
 - (vi) civic pride and care;
 - (vii) housing diversity and density;
 - (viii) improved use of a finite resource (land); and
 - (ix) infrastructure efficiency.
- (b) Palmerston North's housing developer market is not delivering the level of housing diversity to match the city's changing demographics and is out of step with the rest of the country. The 2018 Census for the city showed 60% of the city's households had one or two occupants (compared to the rest of the country at 54%). The housing development industry in Palmerston North is delivering large houses for a household occupancy ratio that no longer exists. In the 1970s the household occupancy ratio was 3.4. It is now 2.6. In 1974 the average New Zealand house size was 109 square metres: it is now 147 square metres.

¹ The City Growth Plan at page 7 comments that the current supply of sections (at the time of the report) was 300. The City Growth Plan further requires, at page 10, that *"Developers deliver a more diverse range of housing types, such as duplexes, terraced housing, apartments and other multi-unit options, particularly in brownfield developments."* And *"There is increased mixed-use development incorporating new residential accommodation."*

- (c) Furthermore, bedroom yields have increased from 3.6 in 2020 to 3.8 in 2022 in greenfield development areas across the city. Average dwelling sizes in Palmerston North greenfield areas² are 212.5 m², yet my experience elsewhere (with similar occupancy trends) is that the majority of the population are wanting to downsize.
- (d) Greenfield growth in Palmerston North has tended to be incremental around the city's edges and not attached to a broader plan framework that seeks to integrate development with community resources (such as a centre). The centre is integral to the density and diversity story represented by Proposed Plan Change G (**PCG**). An incremental edge-of-city growth strategy without urban resources (schools, parks, jobs, centres) is generally referred to as sprawl. PCG seeks to implement a more co-ordinated and sustainable growth strategy.
- (e) PCG responds to a citywide shortage in housing supply by expanding development opportunities and intensifying resources within the urban area. In particular, PCG will enable the delivery of a range of dwellings, including on smaller sites, with provision for medium-density housing options. In doing so, PCG better responds to the range of potential market demand reflected in the city's demographics. Presently, Aokautere lacks diversity in housing and section sizes, with most 600 m² and above.
- (f) I consider the provision of medium-density residential development through PCG to be important for Palmerston North's options in responding to housing demand to suit changing demographics, including through intensification. In my view, it is important for well-functioning urban environments to provide a range of housing options and typologies, which are aligned to community resources, including easy access to proximate goods and services and jobs. A range of density options within Aokautere would offer more price point, typology and living environment choices to the market than other areas within Palmerston North, particularly given the low supply of greenfield land infrastructure enabled within the city.

² Palmerston North City Council data and Statistics NZ Census data.

- (g) The proposed Aokautere Neighbourhood Centre is an integral part of delivering a well-functioning urban environment within the plan change area. The neighbourhood centre will inspire housing diversity and choice, while benefiting the social and economic health of the people within the area. I designed the neighbourhood centre in partnership with McIndoe Urban to ensure a walkable context for many Aokautere residents.
- (h) Submissions seeking the removal of the proposed Aokautere Neighbourhood Centre and medium-density housing from PCG are contrary to good practice from an urban economics and social perspective. The proposed Aokautere Neighbourhood Centre and housing diversity are linked outcomes in PCG. Without the Aokautere Neighbourhood Centre, the capacity to leverage the amenity and amenities of the centre to increase housing diversity and density in Aokautere is lost.
- (i) Failing to deliver the Aokautere Neighbourhood Centre is likely to result in increases in vehicular travel out of Aokautere for basic everyday items, which will trigger several poor outcomes concerning health (physical and mental), well-functioning urban environments, housing supply, energy use and climate change.
- (j) I consider the proposed objectives and policies to implement the Aokautere Neighbourhood Centre Precinct Plan (**Precinct Plan**) provide certainty to developers regarding the intent of PCG and the centre's nexus with higher density housing.
- (k) The Precinct Plan appropriately requires quality urban interfaces³ at street edges within the centre, which (subject to good architectural responses) should deliver urban amenity and increase the desire for residents to walk. These edge

³ "Urban interfaces" refers to the relationships between buildings and public space; which in most cases in Aokautere will be with the street. Urban designers often use the term "frontage activation" which is similar in meaning. Quality urban interfaces are where the siting of buildings, their elements and proportions deliver an enhanced desire to walk. Buildings and their qualities assist with street activation when designed for people moving at pedestrian pace. Functional activation (such as shopping or walking to the park) is task focused. To increase levels of walking, the journey is as important as the destination and the design and placement of buildings influences the desire to walk.

conditions place pedestrians at the forefront of the neighbourhood centre's buildings relationship with the street – not vehicles.

- (l) I recommend that the description of a “superette” within the Precinct Plan be modified to “anchor retailer.” However, the intent is to get a retailer of everyday grocery items. I consider that such retailers may appear in a number of forms.

B. INTRODUCTION

2. My name is Michael Cullen. I am an urban planner and urban economist with 35 years' experience in growth and centre planning and development in Australia and New Zealand.
3. I am engaged by the Palmerston North City Council (**Council**) concerning PCG and have worked on the project since April 2021. PCG seeks to rezone a new greenfield growth area in Aokautere for residential development and inserts an accompanying structure plan and provisions (objectives, policies and rules) into the District Plan.
4. My role has involved reviewing the dwelling yields, working with McIndoe Urban on the Structure Plan and advising on the potential size, design and location of the proposed Aokautere Neighbourhood Centre.
5. I authored the following report: North Village– Review of Development Framework & Potential for a Village Centre, May 2022 (the “**Aokautere Centre Retail Report**”).⁴ This report considered the competitive relationship between the proposed Aokautere Neighbourhood Centre and other retail (particularly the existing Summerhill Centre). It provided a catchment assessment and dwelling yield and established the centre's desired purpose, size, role and location.
6. The Aokautere Centre Retail Report formed part of the supporting evidence base notified with PCG (Appendix 12).
7. This s 42A report builds on the Aokautere Centre Retail Report and economic considerations arising from the submissions. It considers urban design matters where they integrate with or influence economic outcomes or performance.

⁴ Section 32 Report – Plan Change G: Aokautere Growth Area, July 2022 at Appendix 12.

C. CODE OF CONDUCT

8. I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023. I confirm that I have stated the reasons for my opinions in this report, and have considered all the material facts that might alter or detract from those opinions.
9. Statements expressed in this report are within the scope of my expertise, except where I rely on the technical advice I have referred to in paragraph 14 of this report.
10. I have all the information necessary to assess the application within the scope of my expertise and am unaware of any gaps in the information or my knowledge.
11. I am familiar with the site for PCG, having visited it several times in 2020 and 2021.
12. I am also familiar with Palmerston North generally, having also been working with the Council since 2020 on the Kākātangiata growth area. I have also provided advice to the Council on relationships between city and fringe city areas, their zones and functions.

D. SCOPE

13. My s 42A report addresses the following:
 - (a) An overview of projected demand for urban dwellings by dwelling size in Palmerston North;
 - (b) An overview of household occupancy trends in Palmerston North and New Zealand;
 - (c) An overview of the size of dwellings and sections within the greenfield areas of the city;
 - (d) An overview of the mismatch between dwellings produced in the city and the changes in city demographics;
 - (e) The nexus between the proposed Aokautere Neighbourhood Centre and housing diversity;

- (f) Why urban-amenity-supportive control mechanisms are important for the success of PCG and the neighbourhood centre and give greater certainty to the intent of PCG; and
- (g) Submissions.

14. In preparing this report, I have reviewed the following information:

- (a) Population projections by Statistics NZ and Palmerston North City Council;
- (b) Statistics NZ Census data relating to demographic shifts in Palmerston North between 1991 and 2018;
- (c) Council's Housing Capacity Assessment Report June 2021;
- (d) Council's City Growth Plan 2021-2031;
- (e) Urban Development Capacity Indicators (Quarterly from 2017 to September 2022);
- (f) Projections for Palmerston North 2011-2031, PNCC September 2011;
- (g) Council Building Consent data, January 2018 to December 2022;
- (h) Statistics NZ Time Series Census Data on Palmerston North Housing by Bedrooms by Occupied Private Dwelling Type;
- (i) The Master Plan, Structure Plan and Precinct Plan for the Aokautere Growth Area; and
- (j) Housing preference studies in Australia and New Zealand.

15. In addition to my own observations, I rely on the technical evidence of:

- (a) Ms Anita Copplestone (Planning);
- (b) Mr David Murphy (Strategic Planning);
- (c) Ms Ruth Allen and Mr Gareth Nicholl (Feasibility Assessment); and

- (d) Mr Andrew Burns (Urban Design).
16. I have reviewed submissions and further submissions on PCG. The submissions that relate to my expertise cover the following matters:
- (a) The proposed Aokautere Neighbourhood Centre location;
 - (b) Desirability of a neighbourhood centre;
 - (c) The Structure Plan and Precinct Plan; and
 - (d) Housing density, diversity and feasibility.
17. Of particular note are the submissions relating to the following issues:
- (a) The prescriptive nature of the Precinct Plan and Structure Plan for PCG;
 - (b) Whether the housing density proposed in the Structure Plan is “economically feasible”;
 - (c) The feasibility of the Aokautere Neighbourhood Centre where shown to be located (and should be entirely on Pacific Drive); and
 - (d) The status of the urban connector approach road to Aokautere Neighbourhood Centre and the location and quantum of car parking.
18. Some submissions cover matters which have both a planning and urban economic dimension. My evidence does not address planning matters, as Ms Copplestone and Mr Murphy will deal with these issues. However, as my skills sit at the interface of urban design and urban economics, I will discuss urban design matters where they impact the performance and viability of the proposed neighbourhood centre, including its location and extent of the local business zone and surrounding residential areas, as appropriate.

E. BACKGROUND

19. As I have noted, PCG seeks to rezone a new greenfield growth area to the southeast of Palmerston North for residential development and provides an accompanying Structure Plan and provisions (objectives, policies, and rules) into the District Plan. The plan change will provide for additional housing supply in Aokautere (and the City), to

help meet growth projections for Palmerston North over the medium to long term while addressing the specific topography and environmental issues in Aokautere.

20. PCG proposes to provide plan-enabled housing for a broader range of dwelling types and sizes, compared with the currently enabled patterns of larger detached dwellings on full sites. A full description of the PCG plan provisions are contained within the s 32 report, and in the s 42A report of Ms Copplestone.
21. The PCG area is of a size requiring a detailed, co-ordinated and balanced approach to housing, movement, centre catchments and urban quality.
22. In the Aokautere Centre Retail Report I provided an overview of the rationale, role and market for a small neighbourhood centre in Aokautere, including the following matters:
 - (a) The rationale behind the location of the proposed neighbourhood centre;
 - (b) The importance of exposure of the neighbourhood centre to Pacific Drive;
 - (c) The importance of the neighbourhood centre to the evolving Aokautere community;
 - (d) The necessary urban and built-form qualities that register the neighbourhood centre at the heart of the community;
 - (e) The likely/desirable urban (street) edges and interfaces;
 - (f) The centre's catchment growth projections that determine centre size and role and its possible development sequence; and
 - (g) The amenity and amenities of the neighbourhood centre as a trigger for housing density and diversity, as well as for non-retail jobs.
23. When I was engaged to advise on PCG the physical development of Aokautere housing was already in an advanced state. This posed some challenges for designing the neighbourhood centre in the Master Planning process and subsequent Structure Plan.
24. As covered in the Aokautere Centre Retail Report, ideally, the neighbourhood centre would have a more substantial presence on Pacific Drive. However, the recent

established subdivision and development in Aokautere prevents this (with all but one of the sites facing Pacific Drive already developed for housing). Therefore the PCG design team has worked hard to establish a centre-supportive structure plan. The Structure Plan, and supporting Precinct Plan, allows the Aokautere Neighbourhood Centre to be partly on Pacific Drive and connects to the two most important links in the primary road network. This structure response addressed issues relating to the neighbourhood centre's location and its viability (economic performance).

25. I established in the Aokautere Centre Retail Report that the catchment is of sufficient size to generate demand for the neighbourhood centre at the scale proposed. Further, with its retail offering, the neighbouring Summerhill local centre can co-exist with the proposed Aokautere Neighbourhood Centre. At completion of the Aokautere development area, I consider that Summerhill will have a catchment of around 6,000 plus people, and Aokautere, a catchment of 3,700 people.
26. As I cover in more detail below, the proposed Aokautere Neighbourhood Centre is a crucial inspiration for the PCG Structure Plan's proposed higher density housing and diversity. The development that has occurred in Aokautere to date has delivered a homogenous series of suburban low density house and land packages. Based on my experience elsewhere, I do not accept that there is no market desire for diverse housing typologies around the proposed neighbourhood centre. I consider that there will be a large latent market for diverse and attached/ medium density housing in Palmerston North – especially housing within an easy walk of a centre. This is a standard approach within all growth area planning across Australia and New Zealand (noting I have worked on growth area planning for governments across Australia for over 3 million people).
27. I consider the current market conditions for housing across New Zealand as unusual, with substantial cost increases for construction, supply issues and falling house prices. These conditions will normalise in due course. I consider that development of the centre and its associated density is still some years away.

F. AN INTRODUCTION TO URBAN ECONOMICS AND PLANNING FOR CENTRES

28. Where I use the term “**economic**” in my evidence, I am referring to net benefits to society as a whole. I understand that this is how economic well-being would be defined when considering the requirement to manage the use, development and protection of

natural and physical resources in order to promote sustainable management under the Resource Management Act 1991.

29. In this way I distinguish between “**economic feasibility**” and “**financial feasibility**”. Financial feasibility has a much narrower focus that relates to “returns of equity capital”, not net benefits to society. Reflecting these differences, I note that Council has a broad focus on the welfare of its community (public focus), whereas developers have an obligation to make a profit from land development (private focus).
30. I consider that the economic benefits of the relationships between the centre and housing diversity are fundamental and that to remove either of these elements will negate the other, to the economic and social detriment of PCG and the Palmerston North housing market. Loss of these elements will further entrench the development culture of large, single family homes on large sections in greenfield areas, and thereby reduce housing choice in Palmerston North in opposition to household formation trends.
31. Notwithstanding, I note that the housing feasibility analysis by TPG, as reported on by Ms Allen and Mr Nicholl, shows that housing diversity around the centre is feasible.
32. In determining the Aokautere Neighbourhood Centre's location, scale, form and role within PCG there is a core assumption about the social wellbeing objective that the neighbourhood centre provides, or serves, for its community.⁵ To be meaningful in the lives of Aokautere residents and to deliver civic pride within Aokautere, the centre requires four elements:
- (a) A critical mass of activity that attracts everyday trade and the desire for people to stay longer (not just shop and go);
 - (b) A fine grain character of buildings (lots of buildings on small lots in each of which is a shop (in some cases there may be two));
 - (c) Building fronts trading to the street; and

⁵ Aokautere Centre Retail Report, at page 4.

- (d) Architectural elements in centre buildings that appeal to people walking (typically, this means visual richness and human scale proportions and materials of the area).
33. This social assumption (or objective) aligns with the description of the function of business zones in the operative District Plan, Section 11:⁶
- Business areas are primarily places of employment, exchange of goods and services, and social interaction. As well as providing a social focal point for the community, business areas are places where large numbers of people go to work, to do business, to shop or to be entertained. Business areas provide for the community's social and economic wellbeing by providing an important focal point, which helps to create a sense of place for the City.
34. To achieve this social wellbeing objective, I consider that the Aokautere Neighbourhood Centre should be of a size, configuration and quality to be a 'social focal point', not just a destination of necessity. It is intended to be a place of social and economic exchange.
35. In relation to the statement in Section 11 (above), a "sense of place" requires geographic attachment to a specific location. It requires a response from architecture, use of materials, and a sense of individuality within nationhood. It is not the same as everywhere else but true to the culture and character of Aokautere within Palmerston North and New Zealand. For the neighbourhood centre, this means that it is not a monocultural expression of a variation of Summerhill or any other ubiquitous parking-dominated shopping centre across the nation.
36. As we can see, to fully engage with the description of the function and desired qualities of the business zone described within the District Plan requires considerably more than the siting and land use elements of the Precinct Plan.
37. I consider that these desired outcomes justify a directive approach, at a minimum as shown in the Precinct Plan and the Structure Plan Given my experience in following

⁶ Palmerston North City Council District Plan Section 11 Business Zones, 11.1 Introduction, 11.1.1 Function of Business Zones.

these types of plans through to completion, I would even prefer a more prescriptive approach than the current Precinct Plan for the centre.

38. The neighbourhood centre needs a vital everyday functional role (groceries, chemist, cafes, bakery etc) that inspires regular trips, plus a leisure and social function, encompassing urban cafes, restaurants and the like. When food and beverage services (F&B) employment equal or exceed retail employment we find an association with urban amenity (which must come first in order to get the appropriate F&B ratio), which subsequently attracts a broader range of non-retail businesses.
39. The term “urban” carries several meanings but in the context of my report I narrowly define the meaning of the term as “street-focused.” In other words, urban centres are centres where the primary movement of pedestrians between activities is along streets, not within single buildings. The level to which people walk the streets between activities results in urban vibrancy or “active streets”. As I shall explain later, active streets are a precursor to elevated economic and social performance along with a higher F&B yield.
40. The fundamental basis for successful urban centres is mixed-use and intensity of use. Mixed-use in centres generally relates to the level of non-retail activity. Demand aside, mixed-use in centres requires an adaptable built form and an amenity rich physical environment. Intensity of use arises from these factors, plus a vibrant urban environment (active streets). Active streets occur when an urban centre's built and functional assets work well together.
41. In studies by my firm on over 100 centres across Australia and New Zealand, we have found that ‘urban’ centres generate 2.6 non-retail jobs for every retail job. In contrast, single function ‘shopping’ centres (such as the Summerhill Centre) generate 0.5 non-retail jobs per retail job. This is an important economic and social issue as retail jobs are the lowest-paying jobs in the economy. Providing solely for these activities in our centres is a poor economic model. I consider that if we proceed without the Structure Plan and Precinct Plan, we will underperform socially and economically in Aokautere. In terms of multi-modal movement, urban amenity also requires a structure that delivers an optimum volume of multi-modal traffic through the centre (i.e. so it is

vibrant and ‘congested’).⁷ The desired outcome is an improved walkable context and an attractive public realm, not one that is car dominated at its edges. Recent studies by the World Economic Forum confirm the economic power and importance of walking in urban centres. *“Only 1.2% of the land mass of the largest 35 metropolitan areas in the US are walkable areas. This fraction of land in the top 35 metropolitan areas generates 20% of the US GDP.”*⁸

42. We know from research⁹ that there are key structural factors which account for most trip generation by foot. Structural factors include:
- (a) Housing density;
 - (b) Employment density;
 - (c) Permeability; and
 - (d) Points of interest (including architectural features that appeal to people walking).
43. That same research also establishes that detached housing reduces rates of walking to centres.¹⁰ A key factor in encouraging walking to centres is to have no more than 30% of dwellings within 600 metres of the centre in the form of detached housing and an intersection density (or structure) of 45 intersections per square kilometre (minimum). These densities are not achieved around the local centre yet, however in my opinion the Structure Plan offers the possibility of an “unfinished urban centre” that can densify over time. As I note later in this report, urban centres are nearly never finished.
44. The PCG Structure Plan (and Precinct Plan) have been developed to:

⁷ Note: “Congestion” within centres is important to ensure slow vehicular movement through the centre. This means that cars will “walk” through the centre, which, when combined with cars reversing into car parks, improves pedestrian safety and amenity, whilst adding vibrancy to the street.

⁸ Rodriguez, M.A. and C.B. Leinberger (2023). Foot Traffic Ahead: Ranking America’s Largest Metros, 2023. (Report). Washington: Smart Growth America and Places Platform, LLC and; <https://www.weforum.org/agenda/2023/03/why-walkable-urban-areas-are-america-s-efficient-economic-engines/>

⁹ Transport for NSW, Vivendi Consulting; “What makes people walk? Insights from machine learning analysis of big data”, May 2023 (Note: The “big data” survey recorded anonymised phone data for 179 centres in Sydney 24/7 for a month).

¹⁰ Ibid.

- (a) provide high levels of permeability (i.e., the highest intersection density) within 500 metres of the Aokautere Neighbourhood Centre;
 - (b) encourage employment density (by providing for mixed use – over time);
 - (c) require high quality urban form and points of interest within the Aokautere Neighbourhood Centre (e.g. local landmark opportunities are identified on the Precinct Plan); and
 - (d) provide the opportunity to deliver medium and high density housing within convenient walking distance of the neighbourhood centre.
45. Before I respond to the submissions received on PCG, I consider it helpful to expand on some implicit considerations embodied in the Structure Plan / Master Plan for PCG that relate to the broader influence of the proposed Aokautere Neighbourhood Centre.

G. STRUCTURE PLAN - PCG

46. The Structure Plan seeks to show how the community will interact with the Aokautere Neighbourhood Centre. It indicates, and responds to, a subdivision pattern, as well as landform and connections. The Structure Plan provides a hierarchy of streets and in large part determines the location of the Aokautere Neighbourhood Centre. The Precinct Plan indicates how to access the neighbourhood centre and deals with the relationships between buildings, land uses (employment and housing), movement and density (jobs, housing, intersections). The Precinct Plan, supported by the wider Structure Plan, deals with all these things as a package.

Why is a structure plan needed?

47. Aokautere is one of several urban growth areas identified by the Council. The scale of development anticipated in Aokautere is significant, and of a scale that I consider requires a comprehensive Structure Plan. In my experience, consistent with the approach taken in PCG, development at the scale proposed within Aokautere would require a Structure Plan to be prepared before development commences.
48. In this case a Precinct Plan has also been included as part of the Structure Plan for PCG. The Precinct Plan directs the layout of the neighbourhood centre, including matters

such as frontages, land use (zoning), locations of parking, and supportive density. The benefits of this approach include greater certainty of intent and the ability for the centre to evolve and grow over time (mixed use in a business zone is unlikely in the first stages of a centre).¹¹

49. I have been involved with master planning and growth strategies for many years (for a wide range of areas/population sizes), and in my experience a successful Structure Plan results from more detailed site/area considerations. The integrity of a Structure Plan relies on background detailed analysis and testing, typically via a Master Plan.
50. These more detailed investigations simultaneously deal with infrastructure, topography, regional context and site-based subdivision, resulting in the formulation of an informed Structure Plan, street and block network. The Master Plan approach adopted for PCG incorporated these factors, adopting a multi-disciplinary technical approach which informed the composition, layout and connectivity of the proposed greenfield development area. These matters are addressed in the s 42A report of Mr Andrew Burns.

Why is such a prescriptive approach needed?

51. It is my opinion that Structure Plans are or should be directive in illustrating the intent of the planning framework/requirements in a place-based manner. The advantages of a directive approach when considering PCG include:
- (a) It provides certainty to the developers and landowners - existing and future;
 - (b) It establishes a mix of inter-dependent land uses that could otherwise fail without the support of the Structure Plan.
 - (c) It provides a clear demonstration of the more diverse, urban-focused development outcomes which the Council is seeking. This is particularly important where the outcomes are a departure from recent Palmerston North

¹¹ Urban centres are almost never finished. Our firm's research shows that establishing a quality urban environment is key to mixed use and the demand for associated and centre-based housing density.

residential housing developments, including the current roll out of standard 600 square metre plus sections.¹²

- (d) It complies with the National Policy Statement – Urban Development 2020 (**NPS-UD**) directions, especially with Objective 4.

H. WHY IS A NEIGHBOURHOOD CENTRE NEEDED?

52. A development outcome that does not deliver a neighbourhood centre for a relatively large and somewhat isolated community in Aokautere meets, in my opinion, the criteria for suburban sprawl.¹³ The costs of such an outcome would likely include:

- (a) Lower levels of walking and subsequently increased vehicular traffic movement;
- (b) Increased CO² emissions due to increased need for car-based travel;
- (c) Lower levels of community cohesion and civic pride, and increased potential for crime;
- (d) Increased feelings of isolation, and reductions in community health;
- (e) Reduced housing diversity (due to the loss of the centre and its urban amenity); and
- (f) Increased energy consumption (e.g., the loss of the centre as a trigger for higher density housing would likely result in larger houses which require more heating).

53. These potential effects reinforce the value of the proposed Aokautere Neighbourhood Centre and the “directive” nature of the Structure Plan and, specifically the Precinct Plan.

¹² See, the Executive Summary, points (b) and (c).

¹³ “Urban Sprawl” is characterised as low density, lacking in proximate services, lacking in employment, auto-dependent, infrastructure hungry and costly, socially and economically isolated and bereft.

54. I consider that losing or severely diminishing the proposed Aokautere Neighbourhood Centre will result in most residents leaving Aokautere to avail themselves of the everyday items the proposed neighbourhood centre could otherwise deliver.
55. Losing or minimising the proposed Aokautere Neighbourhood Centre also reduces the capacity for housing density, diversity, and local jobs. In my view, this would challenge NPS-UD Objectives 1, 2, 3, 4 and 8, and the Council's City Growth Plan.

The proposed location for the Neighbourhood Centre

56. I have already identified that the Structure Plan has been developed in a centre-supportive manner. The Aokautere Centre Retail Report shows a configuration whereby the neighbourhood centre is 'attached' to Pacific Drive but the majority is located 'off-line' from this main arterial route.¹⁴ I am comfortable with this layout and was closely involved in its formulation, alongside the urban design team at McIndoe Urban.
57. A benefit of attaching to Pacific Drive and developing the centre perpendicular to it, is the improved "thickness" of the neighbourhood centre's urban context in this location. This configuration allows more housing density around the Aokautere Neighbourhood Centre than would be delivered by a narrow 'ribbon' of development, such as would occur if the neighbourhood centre sat exclusively along Pacific Drive.
58. I address the location of the proposed Aokautere Neighbourhood Centre in further detail when responding to submissions later in this report.

The neighbourhood centre as a driver for increasing housing diversity & density

59. The Structure Plan seeks to broaden the range of housing typologies beyond those which have been delivered to date in Aokautere (i.e. standard suburban homes on standard sections). As identified earlier in this report, the centre is important as an inspiration mechanism for housing diversity. I expand on these matters below.

¹⁴ Aokautere Centre Retail Report, at page 8.

60. The proposed Aokautere Neighbourhood Centre is a fundamental driver of delivery of the desired housing mix. Removing the neighbourhood centre, as sought by some submissions, would have implications for housing diversity and dwelling yields.
61. On the housing supply side, the marketing of Aokautere properties is presently exclusively geared to those purchasers looking for a new, detached home and land package. Focusing solely on supply trends to determine housing needs or market preferences is known in economic terms as a “supply-side distortion”. It ignores those potential buyers who already have a house and wish to trade into something different, or who cannot afford a new, detached dwelling.
62. This distortion goes to a developer's view of their product in a market where they wish to minimise risk, where they dominate the market or where competition is scarce.¹⁵ The supply-side distortion embodies a development philosophy along the lines of: *“We have always built that type of product, and it always sells. Therefore, the market only wants that type of product.”*
63. There is good evidence of demographic changes in New Zealand and in Palmerston North that indicate a need to increase diversity in housing typologies.
64. The 1991 Census age profile for Palmerston North showed that 21% of the population was over 50 years old and 10% over 65 years old. In the 2018 Census the figures were 30% over 50 and 16% over 65. These ages typically represent empty nesters and retirees, many of whom in other markets (based on surveys) remain living in detached and over-sized houses due to a lack of alternatives.¹⁶ In my view, the demands of the older population of Palmerston North would not be meaningfully different from other places in terms of housing preferences, and these trends will continue in Palmerston North.
65. I further note that housing diversity allows people to “age in place” and adopt different housing to suit their changing abilities and circumstances. In this respect, diverse housing for older people allows for improved health and wellbeing and financial flexibility. Given that the majority of denser and diverse housing is proposed to sit

¹⁵ This is a general statement. I am not acquainted with the size and complexity of the home builder/developer market in Palmerston North.

¹⁶ Auckland Council; “The Housing We’d Choose.” May 2015.

around the Aokautere Neighbourhood Centre, it will reduce transport costs and improve access to goods and services for older people and those who are either unable to afford, or do not wish to be in, a large house on a section that requires maintenance.

66. In the 2001 Census 56% of Palmerston North households had one or two occupants. In the 2018 census the number was up to 60% (compared with the national figure of 54%). This indicates the proportion of Palmerston North households made up of just one or two occupants is increasing and is higher than the national average.
67. Recent data on building permit approvals from Council indicate the average number of bedrooms in recently approved dwellings in Palmerston North is around 3.3. However, greenfield developments (such as Aokautere) had an average of 3.7 bedrooms. Council data also shows in greenfield development areas,¹⁷ dwellings were 212.5m² (whereas the national average is 147m²).
68. These data point to a mismatch in Palmerston North between housing supply and housing that matches demographic and lifestyle preferences. This has implications for Aokautere, which, to date, exhibits a pattern of homogenous, single-family houses on average lot sizes of around 779m² with wide street frontages.¹⁸ In order to cater for future demographic and lifestyle preferences, I am of the view that the Structure Plan and Precinct Plan appropriately recognise the need for housing diversity in the Palmerston North market and have appropriately located the density zones within an easy walk of the resources of the proposed centre. I would also expect that in addition to retail, the neighbourhood centre would have a doctor or medical centre and potentially, other associated health professions.
69. My assessment of the housing that has been delivered in Aokautere to date, is that typically dwellings are setback from the street, with few active rooms facing streets, and garages (side on or fronting the street) a consistent street interface. The lack of potential for social engagement due to these features, the organisation of rooms and garages, and the lack of visual qualities that promote the desire to walk, all suggest a need for change in dwelling types and lot sizes, especially around a centre, to

¹⁷ Excludes "rural dwellings".

¹⁸ Based on a random sample of 85 dwellings in Aokautere.

encourage less use of vehicles, and to add to a better, more connected living environment in the PCG area.

I. WHAT COMES FIRST, HOUSING DENSITY OR A NEIGHBOURHOOD CENTRE?

70. The proposed Aokautere Neighbourhood Centre is critical in inspiring the demand for more diverse and intensive housing around it. Without the neighbourhood centre the demand for density reduces, and the nexus with amenities and amenity disappears. On the flip side, if housing density is not delivered, it reduces the centre's walkable context and its vibrancy and reduces the number of dwellings and people in the catchment.
71. I see higher density housing as a defining feature of a traditional neighbourhood centre, where the housing and businesses establish a strong relationship with the centre's streets. The Structure Plan for PCG delivers this by making the proposed Aokautere Neighbourhood Centre's main street the most connected street (outside of Pacific Drive) in the Aokautere growth area network.
72. The development of the Aokautere Neighbourhood Centre is most likely to come at a mature stage of housing supply within the PCG area, as Aokautere is "offline" from the city's urban continuum (it is not on the way to other major populations that could access the centre). Consequently, the centre is dedicated to existing and future Aokautere households and will likely happen later in the Aokautere growth cycle. This provides some comfort in relation to market conditions and timing in terms of feasibility.
73. Regarding relative timing of centre and housing, it is not unusual to develop higher density housing before local/neighbourhood centre development, providing the housing purchasers have certainty over centre delivery, design and timing. This certainty is delivered through PCG via the Structure Plan and supporting plan framework.

J. URBAN DESIGN CONSIDERATIONS FOR THE NEIGHBOURHOOD CENTRE

74. The Structure Plan determines the optimum location of the proposed Aokautere Neighbourhood Centre. The location of the neighbourhood centre is the most efficient use of infrastructure, as is the location of higher density. The majority of catchment

residents will be exposed to the neighbourhood centre on the way to other places (the centre does not require entirely separate trips).

75. Direction as to the proposed Aokautere Neighbourhood Centre is then provided by the Precinct Plan. This plan provides for a block structure, a desired street frontage condition, and a primary store location. As I explain below, this provides direction around the urban form of the neighbourhood centre, and is not too directive as to the final outcome in terms of composition and design.

76. Key elements illustrated through the Precinct Plan include:

- (a) In my experience a local centre's 'grain' or 'intimacy' suffers if the average shop width is 6 metres or more. I note that PCG allows a maximum 7 metre maximum frontage for shops in the Local Business Zone. In my opinion if the shops sit as a conjoined, continuous glazed strip and not as a series of small discreet buildings common in conversation,¹⁹ then the visual cues that encourage walking fade, along with the desire to spend more time in the neighbourhood centre.
- (b) The length of the contiguous, activated street on the north side is approximately 180 metres (including the cross street). I consider this to be a sufficient length to be a meaningful urban centre to walk to and within. The higher density housing is supportive of walking, with limited setbacks and an improved relationship with the street (than the current pattern of large lots with houses setback and garages forward at the street). The current development pattern removes the potential for social engagement and reduces the desire to walk. The point here is that the neighbourhood centre and associated housing should work together to improve the centre's walkable extent. The intent is for the two to combine as a "village" and not a collection of shops with a hard and, in my view, illogical transition to the current residential pattern of setback houses on large lots.
- (c) The Precinct Plan establishes a relationship between the footpath and the active edges of buildings. To work, it requires buildings and pedestrians to

¹⁹ Independent buildings of a similar character and form, working together.

integrate well together. This integration is provided for through the proposed Local Business Zone performance standards. Such an integrated approach contrasts with common practice (which the Precinct Plan seeks to avoid) which is to place car parking between pedestrians and buildings, i.e. prioritising vehicles over pedestrians.

- (d) A small plaza or gathering space with a marker (something significant to the locality around which people can gather) to hold the space is necessary, and the Precinct Plan indicates where this space should be.

77. For these reasons, it is my opinion that the Precinct Plan appropriately provides direction for a pedestrian amenity-first approach. If anything, as I note above, I would prefer a greater level of prescription to guarantee a centre with the level of detail and architectural qualities which this community will come to love.

K. SUBMISSIONS

78. I have considered the submissions and further submissions for PCG. I have identified several issues related to my expertise, which I address in detail below. Specifically, I address points raised within the following submissions:

- (a) TS Investments, Woodgate and Terra Civil– S58, Heritage Estates – S51 - seek removal of Objective 6 and all associated Policies, for three main reasons:
 - (i) The Structure Plan is too prescriptive;
 - (ii) The Aokautere Neighbourhood Centre is not feasible where shown; and
 - (iii) The Structure Plan provides for housing density and diversity without any proof of feasibility.
- (b) Brett Guthrie – S41, Jessica Costall – S66, Anna Berka – S95, Chris Teo-Sherrell – S43, Robert McLachlan – S18, Patrick Morgan - S20, Ralph Sims – S31, Kevin Low – S73, Kat Lyons – S62, Barry Scott – S54, Waka Kotahi – S63, Manawatū Forest & Bird, Linda Rowan – S27

- (i) Would the market/this area support even higher density, more medium density development?
- (c) Chris Teo-Sherrell – S43.005
 - (i) Should we change the status of the Urban Connector approach road - which provides access to the local commercial centre – to local access?
- (d) Heritage Estates – S51
 - (i) Is a ground floor rear flat and ground floor front business a reasonable proposition (ie, not exclude residential entirely from ground floor)?
- (e) Terra Civil - S58
 - (i) Is early development of the shopping centre (i.e. purchase of land by Council) required to facilitate the medium density residential development in North Village?
- (f) Chris Teo-Sherrell – S43.005
 - (i) Would a village square without any motorised traffic be a viable proposition for the local commercial centre?
- (g) Chris Teo-Sherrell – S43, Kevin Low – S73
 - (i) Should additional areas be enabled to provide for commercial activities outside of the commercial centre, eg upslope from the intersection of Pacific and Atlantic Drives, at other intersections? Or would this undermine the feasibility of that centre?
- (h) Kevin Low – S73
 - (i) Would the Plan Change area support two village centres?
- (j) Paul Hewitt S101.005

- (i) The proposed shopping centre straddles a primary road. Should it be repositioned to one side of the road to reduce conflict between pedestrians and traffic?

Precinct Plans, Objectives and Policies, Feasibility

82. Some submitters²⁰ state that the Precinct Plan, and implementing objectives and policies are too prescriptive and the Structure Plan provides for housing density and diversity without any proof of feasibility.
83. As I have noted earlier in my report, the creation of an urban centre requires at least some directive mechanisms to avoid centres primarily dedicated to cars as the first priority access point. The Structure Plan provides for the neighbourhood centre on the most accessible two streets within Aokautere, (that are most connected to the growth area and the wider city) with the fewest turns to get there. This provides an optimum multi-modal access environment for the Aokautere Neighbourhood Centre to thrive.
84. It is also necessary to ensure the neighbourhood centre has high **urban** amenity to promote and inspire density and walkability. The Precinct Plan seeks an urban (built), not car park interface with the street. As I note above, urban amenity is a switch for higher density housing and non-retail jobs. This switch is necessary to create a more sustainable centre, capable of reducing travel out of Aokautere.
85. The design, placement and urban context of the proposed Aokautere Neighbourhood Centre was arrived at under a process required by Objective 2 in the Local Business Zone of the District Plan. Proposed Objective 6 outlines the desired qualities of the neighbourhood centre, and in my opinion, along with the policies, are all seeking desirable outcomes.
86. The submitters have presented no alternatives to the Structure Plan or Precinct Plan or a better way of achieving a great outcome for existing and future residents in Aokautere.
87. The Structure Plan and Precinct Plan, along with the performance standards proposed as part of PCG, should assist a future developer of the neighbourhood centre and

²⁰ TS Investments, Woodgate and Terra Civil– S58 - 039, Heritage Estates – S51 – 111.

associated higher density housing to understand that the quality of the public realm is a mechanism to assist and align the performance of both.

88. In terms of the neighbourhood centre's location, I would prefer that the neighbourhood centre occupied at least two Pacific Drive sites, not one. However, I do not consider this preference to be fatal to the feasibility of the centre. The street network via the Structure Plan locates the neighbourhood centre on the two most accessible streets within the network. I consider this to be the perfect location, despite the preference I note above.
89. Housing feasibility is an issue across much of New Zealand at present due to falling sale values, increased construction costs, shortage of labour and supply chain problems. At present, discussions with housing developers indicate that housing development of any type of dwelling is marginal or not feasible. That is an unusual state. The market will correct itself, as markets do. The higher density housing identified as part of PCG is unlikely to develop in the short term. The market will likely revert to a more normal state within the next year or two bringing improved feasibility. Further, as I note above, feasibility is one matter to consider, along with broader economic and social factors.
90. The development of higher density housing adjacent to the proposed Aokautere Neighbourhood Centre is not an issue that needs current attention as the development of the centre is likely to happen later, when the development of the PCG area is at a more mature stage and the centre's wider catchment mostly complete.
91. I do not agree that the Structure Plan and Precinct Plan are too prescriptive. Rather, they convey the urban form intent for the proposed neighbourhood centre and the preferred location and frontages of buildings.
92. One submitter²¹ supports in part the Aokautere Neighbourhood Centre but opposes including the Precinct Plan and does not support Policies 6.1, 6.3, 6.6, 6.7 and 6.9, which the submitter suggests "*dictate inflexible design solutions.*" I disagree. This issue is partly covered above. These policies tie the Precinct Plan and Structure Plans together and require a focus of buildings on the street, parking and servicing behind. In doing

²¹ S51 - Heritage Estates.

so, the plans prioritise pedestrians not cars. The policies also ensure that the ground floors of buildings trade to the street as shops or businesses and not as private houses.

93. Policy 6.7 ensures *“that all residential accommodation within the Aokautere Neighbourhood Centre is designed with a high level of amenity”*. In my opinion, there are plenty of design opportunities available to achieve the Objective. The “amenity” referred to is in part conditional on the frontage conditions in the Precinct Plan. These conditions prefer a neighbourhood centre that is good to walk to and around and not a centre where car parking provides the dominant interface with the street.
94. I consider the Precinct Plan is diagrammatic (capable of interpretation within reason), reasonable, and in the best interests of the city and existing and future Aokautere community. Direction has been provided as to the layout of the proposed Aokautere Neighbourhood Centre, along with the likely mix of activities that should be present in centre of this scale, in order to address the centre’s scale, urban condition and role. However, in my view, there remains freedom to develop in a range of styles and forms.
95. I note the original suggestion of a superette needing to be located within the proposed neighbourhood centre. However, having reflected further, I am of the opinion that delivery of a decent sized retailer of food and grocery items (such as a super-deli), would be sufficient in anchoring the neighbourhood centre.
96. A number of submitters²² questioned the market’s ability to deliver higher density and more of it around the centre. I have already addressed this issue above. In terms of the ability for the zone to deliver higher density (than provided for), my understanding is that the planning regulations of PCG allow for higher density, but specify a minimum.
97. One submitter²³ questions the designation of the centre’s main street, currently proposed as an “urban connector.”
98. The desired function of the street is as the main internal access street to the centre and in that role is the second most important structural element (to Pacific Drive) in

²² Brett Guthrie – S41, Jessica Costall – S66, Anna Berka – S95, Chris Teo-Sherrell – S43, Robert McLachlan – S18, Patrick Morgan - S20, Ralph Sims – S31, Kevin Low – S73, Kat Lyons – S62, Barry Scott – S54, Waka Kotahi – S63, Manawātū Forest & Bird, Linda Rowan – S27.

²³ Chris Teo-Sherrell – S43.

Aokautere. In that sense it deserves higher status than a local access street. Ms Fraser addressed this point further in her s 42A report.

99. Another submitter²⁴ raises the possibility of two activities on a ground floor, with a shop or business in the front and a “flat” for residential at the rear. In my view this is a difficult proposition as the structure plans prioritise rear of site servicing of shopfront businesses and public access from the street front. This suggestion would also deliver a subservient use (residential) at a car parking and servicing interface at the rear. In other words, a reduced quality living environment. Furthermore, the level to which each activity divides the space may compromise the quality, performance, adaptability of the primary (business) activity in the front. For these reasons I cannot support the suggestion.
100. One submitter²⁵ assumes the early development of the proposed neighbourhood centre via a purchase of land by the Council, and links this to the delivery of higher density. As I have explained above, I do not see the centre developing early, but more likely at a mature stage in the development of PCG housing. The neighbourhood centre enables a housing density response, however, the point at which it achieves this may be in the planning or the development stage. In markets used to density, it is often the promise of a local centre that triggers a market response to develop such dwellings in advance. There is a real possibility that this would be the case in Palmerston North given the paucity of such housing and latent demand. However, I do not consider this to be necessary for the success of PCG (see above regarding timing and market conditions).
101. Another submitter²⁶ asks *“Would a village square without any motorised traffic be a viable proposition for the local commercial centre?”* The answer is no.
102. First and foremost is that the centre will rely heavily on a “convenience” role, where hurdles in vehicular accessibility will negatively affect performance. Parking remotely and walking to destinations is a feature of good towns and cities and historic European villages, built before the motor car. We have none of those qualities or characteristics here. Secondly, the movement of cars through the centre reduces the amount of

²⁴ Heritage Estates – S51.

²⁵ Terra Civil - S58.

²⁶ Chris Teo-Sherrell – S43.

pedestrian space.²⁷ By removing the cars we would undermine the level of vibrancy being sought in the public realm of the neighbourhood centre²⁸. Vibrancy is crudely “pedestrian density.” If we have too much pedestrian space then pedestrian density drops and the place appears to lack vibrancy. Vibrancy is effectively pedestrians per square metre per minute. It is contextual and will differ from place to place.²⁹ The important matter is the extent of space to be activated. Large plazas and squares need lots of people for the space to look active and vibrant.

103. A number of submitters³⁰ asked whether additional areas should be enabled to provide for commercial activities outside of the commercial centre, or whether this would undermine the feasibility of that centre?
104. This question partly overlaps with the submission regarding the possibility of two centres in Aokautere. I do not support this approach. Splitting the centre would result in splitting the catchment and making each centre smaller. This changes the dynamic of the potential “anchor” store as the loss of catchment would limit the scale and role of stores attracted to the larger catchment. A smaller grocery store (as proposed) is feasible with the catchment as outlined in my original report. Equally however, splitting the catchment will reduce the overall level of service of the centres and relegate the two centres to a “top up” role. In that case, neither centre would thrive or make a strong social place.
105. One of the submissions³¹ talks to “allowing for other businesses outside of the centre;” This approach would result in a loss of density outside of the centre as adaptable business space. Outside of the centre we have a typology problem with single family houses, unsuited to commerce due to their design and setback from street nature. Regardless, I am informed by Ms Copplestone that Home Based Business is permitted anyway. However, notwithstanding comments above, my wider view is that density provisions within an easy walk of a centre should allow ground floor commercial use.

²⁷ Conversely the removal of cars significantly extends the available pedestrian space.

²⁸ In centres, cars are not the problem, fast moving cars are the problem. The street sections and short blocks within the centre, parallel street parking, and pedestrians moving across streets will severely constrain the speed in the centre’s street. With these “frictions” we would expect cars to “walk” through the centre.

²⁹ For example, William Whyte determined that 23 persons per square metre per minute appropriate for New York streets, whereas Jan Gehl determined 13 people per square metre per minute appropriate for Copenhagen.

³⁰ Chris Teo-Sherrell – S43, Kevin Low – S73.

³¹ Mr Sherrell, S43.

106. One submitter³² asks whether the centre should sit on one side of the “primary road” and thereby reduce conflict between pedestrians and vehicles.
107. I am confident that the design of the proposed neighbourhood centre will create enough friction in the “primary road,” to slow traffic thereby making it safe for pedestrians. In particular, I note the following:
- (a) The neighbourhood centre streets provide both 90-degree parking and parallel parking, with the distances between intersections short.
 - (b) The neighbourhood centre street has a kink in it in the mid-block, and the turning angles at all relevant intersections are also tight, so any turns will be slow.
 - (c) The anchor store location, if a superette or super-deli is likely to be self-sufficient in its adjacent parking and its role.
108. In addition, the Council may consider a raised and textured treatment of the road surface in this area to signify the transition to a more pedestrian-friendly environment, with pedestrians moving informally across the street likely to be a feature of the centre.
109. One submitter³³ queries the status of the access road to the neighbourhood centre and the location and amount of proposed car parking.
110. The submission states:
- “The design of the local commercial centre (refer Map 7A.4C): The proposed layout is much too car-dominated with parking being prioritised over creating a 'village square' which would have so many benefits especially in close proximity to the medium density housing. Relatedly, it seems inappropriate to me that the street leading towards the local commercial centre from the east is marked 'A' in map 7A.4C, indicating that it is an urban connector. In fact it wouldn't connect. It doesn't make sense to funnel vehicles through the local commercial centre (haven't we learned anything from the larger Square in the city centre).”

³² Paul Hewitt S101.005.

³³ Chris Teo-Sherrell (S43).

111. Two connected issues arise from this submission - the designation of the street as an “Urban Connector” and the funnelling of vehicles through the centre with concern about “car dominance” and car parking.
112. I cannot comment on the submitter’s reference to the Square in the city. However, I note my earlier statements about pedestrian density and vibrancy. Large spaces require large populations for activation. The “village square” in the Aokautere Neighbourhood Centre will need to be small, given the smaller catchment population. In my view, there is only one obvious location for such a square.
113. In my opinion, the connector will connect into the roading/street network. In the Aokautere Structure Plan Street Types Map 7A.4D (**Appendix 1**), the connector street continues the major link for the community and will pull substantial traffic through the centre. The street in question is coloured pink and labelled “A, B & C”, but as the submitter points out, it is an adapted Urban Connector (blue street). This street and its connections to the catchment are vital to the proposed neighbourhood centre’s success. To reduce or remove car movement through the local centre without a major compensation in density within at least a 1 kilometre radius of the centre will significantly impact on the centre.
114. The Structure Plan provides for a retirement village to be developed adjacent to the centre on land to its southeast side (as a variation to the principal option). If this opportunity is pursued, the retirement village site would incorporate the alternative Urban Connector link to Pacific Drive to its south. In other words, it may not be a public street. Similarly, the proposed ‘potential future connection’ from the same Urban Connector to the local (green) street to the south (at its northeast point) may not occur.
115. These potential outcomes reinforce the requirement for the neighbourhood centre street to be an Urban Connector, as it will likely be the street (other than Pacific Drive) with the largest volumes of multi-modal traffic. The loss of the other links (noted above) also direct almost all inbound traffic beyond Johnstone Drive through the local centre.
116. When combined with the proposed neighbourhood centre’s Pacific Drive presence, every resident south of the Urban Connector at Pacific Drive and those roads that feed into the centre part of the Urban Connector (i.e. the majority of future Aokautere residents) will pass the neighbourhood centre on exiting and entering Aokautere. In my

experience in designing urban centres, this is almost an ideal condition for a centre's "main street.

117. In my view, the Aokautere Neighbourhood Centre, as proposed through PCG, provides for the development of a high amenity, pedestrian focused centre that will meet the objectives of proposed Objective 6 within the Local Business Zone.

Section 11 Business Zones.

Policy 6.1 To provide for local serving retail and commercial activities in specific locations as identified on the Aokautere Neighbourhood Centre Precinct Plan (Map 7A.4C).

118. Submitters³⁴ raise concerns with proposed Policy 6.1 in the Local Business Zone, which locates the retail and commercial activities as shown on the Precinct Plan. Two other site options were explored, but these were not pursued as they required purchasing sites already occupied by houses.
119. With respect to design options for an urban, street-centred focus for the centre buildings (demonstrated by way of a solid line indicating the primary frontage on the Precinct Plan), I consider that we have tested enough options to satisfy ourselves of the robustness of the principles supporting a precinct plan approach and the policies that relate to it. As I explain above, I am of the view that the Precinct Plan will provide for attractive, high amenity, pedestrian focused Aokautere Neighbourhood Centre in accordance with the requirements of Objective 6.

Policy 6.2 – To ensure an anchor tenant and a mix of smaller scale activities provide a diverse range of goods and services to the local catchment.

120. Some submitters³⁵ also oppose Policy 6.2. This policy refers to a range of goods and services providers in the Aokautere Neighbourhood Centre, including an anchor tenant. Policy 6.2 appropriately references the likely mix of activities that should be present in a neighbourhood centre of this scale. I consider that Policy 6.2 is fit for purpose.

³⁴ Heritage Estates, S51 CTS Investments, Woodgate Ltd., Terra Civil Ltd S58.

³⁵ CTS Investments, Woodgate Ltd., Terra Civil Ltd – S58.

Policy 6.3 To require integration of the Aokautere Neighbourhood Centre with roading and transport connections as identified on the Aokautere Structure Plan.

121. A number of the same submitters³⁶ are also opposed to Policy 6.3.
122. Policy 6.3 seeks to integrate the roading and transport connections in the rest of the Aokautere Structure Plan with the proposed Aokautere Neighbourhood Centre.
123. I have already explained the basis of the Structure Plan and the Precinct Plan. In my view, the two plans need to integrate so as to reflect the importance of multi-modal movement through the neighbourhood centre and the need to locate the centre on the two most important streets within Aokautere. As I have noted above, the street hierarchy in the Structure Plan pulls the Urban Connector through the centre (referred to as “A” on the Precinct Plan), making it likely the second most busy street in Aokautere after Pacific Drive. It is my opinion that this is an ideal outcome in establishing the movement fundamentals for the centre.
124. Given the need for the Aokautere Neighbourhood Centre to be well located along transportation routes, the neighbourhood centre’s performance would likely suffer from any significant departure from the Structure Plan. The alternative would be for the centre developer to acquire enough existing houses on Pacific Drive to complete a one-sided centre. I consider this impractical, expensive (unlikely to be feasible) and unnecessary.
125. Modelling of urban centres worldwide by Space Syntax (London) shows that the best-performing centres are those which are most connected to every other place in their catchments. I have significant experience with this modelling and while I have not undertaken Space Syntax modelling for PCG, drawing on my experience, it is my view that Pacific Drive and the Urban Connector intersection on which the proposed neighbourhood centre sits are the most connected places within the PCG area.

Policy 6.4 To create a high amenity and safe, walkable environment.

126. Submitters also oppose Policy 6.4.³⁷

³⁶ Heritage Estates – S51, CTS Investments, Woodgate Ltd., Terra Civil Ltd – S58.

³⁷ CTS Investments, Woodgate Ltd., Terra Civil Ltd – S58.

127. This Policy seeks *“To create a high amenity and safe walkable environment.”* This is an appropriate aspiration when considering the benefits from encouraging walking with the various health, social and economic benefits. As I discuss above, a high amenity environment is also a necessary precursor for a successful neighbourhood centre.

Policy 6.5 To ensure that buildings and tenancies are built entirely to the front boundary to create a continuous street frontage that encourages pedestrian activity at ground floor level.

128. There is also opposition to Policy 6.5.³⁸ This policy describes the desired urban characteristic of the proposed Aokautere Neighbourhood Centre, which are intended to reinforce and enhance the relationship between buildings and pedestrians.
129. In my view, the Precinct Plan appropriately requires an active continuum of ground-floor retail, predominantly on the north-facing side of the street. The edge pattern gets slightly looser on the south and west-facing sides. Policy 6.5 appropriately removes the possibility of buildings addressing car parks and car parks addressing streets and footpaths (for the reasons I have described earlier).
130. The existence of zero or minimal setbacks for buildings outside the notional core of the centre, is typical of many local centres. Often these buildings accommodate businesses. My experience is that multi-level terrace housing with limited setbacks adapt well to business uses. The Structure Plan setback provisions appropriately provide for potential future expansion of the centre with supportive site dimensions and resultant typologies.

Policy 6.6 To restrict all residential activities within the Aokautere Neighbourhood Centre to above ground floor level.

131. Submitters³⁹ have raised concerns with Policy 6.6, which restricts all residential activities within the centre to above ground floor level. I consider this Policy is essential in the formative stages of the Aokautere Neighbourhood Centre to protect it from non-commercial encroachment of the ground floor. Looking forward, it may be appropriate to review the restrictions imposed by the provision, but in my view, the cost of losing

³⁸ CTS Investments, Woodgate Ltd., Terra Civil Ltd – S58.

³⁹ CTS Investments, Woodgate Ltd., Terra Civil Ltd – S58.

commercial/retail activity on the ground floor would be too high at the formative stages.

132. The data on urban centres and their evolution indicates that typically there is a time lag between when retail is successful in a neighbourhood centre and when commercial (non-retail employment) space is successful. Typically, when a centre is vibrant and active, demand grows for other businesses wanting to locate in or nearby to the centre. Giving the ground floor away to a residential activity in the formative stages will reduce the economic potential of the centre. I consider Policy 6.6 is fit for purpose.

Policy 6.7 To ensure that all residential accommodation within the Aokautere Neighbourhood Centre is designed with a high level of amenity.

133. Policy 6.7 seeks to ensure that all residential accommodation within the centre has a high level of amenity This is important when considering some of the submissions.⁴⁰ There are a number of design means available to achieve Policy 6.7. The Policy (for instance) implies treatment of the effects of adjacency to the proposed neighbourhood centre. There are numerous benefits of this adjacency, but there are also effects that need management, the most obvious of which is noise and servicing issues.

Policy 6.8 To promote commercial street frontages with the following characteristics:

- **Doors and windows provide passive surveillance of, and visual and physical connection to, the street and public spaces.**
- **Narrow storefronts with frequent entries at the street edge.**
- **Primary building access from public footpaths.**

134. One submitter⁴¹ states that the operative rule ‘75% of the height of the ground floor frontage’ has resulted in “endless peer review” by the Council in terms of urban design outcomes at a consenting stage. They consider the current rule is inflexible and in practice those seeking consent require a more flexible rule of between 60-75% (for glazing).

⁴⁰ CTS Investments, Woodgate Ltd., Terra Civil Ltd – S58.

⁴¹ Heritage Estates [S51.125].

135. Mr Burns considers this further in his s 42A report.
136. As I understand it the objective seeks to provide variation in the streetscape from all viewpoints to encourage walking. The effect of 70% continuous glazing is that the continuity of shopfronts appears as a long, single building. In a centre of the size proposed for Aokautere, the centre priority in design terms is many buildings in each of which there is a shop. Shopping centres are one or two buildings in which there are many shops. The term windows and doors as used within the policies seek to assist to define the buildings as independent, and the glass areas not contiguous but variable.

Policy 6.9 To require service access to be provided at the rear of the buildings as identified on the Aokautere Neighbourhood Centre Precinct Plan (Map 7A.4C).

137. A number of submitters⁴² oppose this Policy.
138. Policy 6.9 requires servicing to be at the rear of sites to preserve the amenity of the front of the site. This is a standard servicing approach of thousands of street-based (urban) centres across the globe. I consider the Policy fit for purpose.

Structure Plan: Map 7A.4C Aokautere Neighbourhood Centre - Precinct Plan.

139. Some submitters⁴³ provide comment in relation to the proposed location of the neighbourhood centre shown on Structure Plan Map 7A. Specifically, along the lines of: *“The issue is tested in the report for the Plan Change by Urbacity. This clearly states that to be successful and viable early in the development process the centre needs to be in Pacific Drive, so that it is highly accessible to existing residential areas”.*
140. In the Aokautere Centre Retail Report, I maintain the need for a Pacific Drive address for the neighbourhood centre. I do not require the entire centre to be located on Pacific Drive. Ideally, I would prefer the centre to be exposed to Pacific Drive on both sides of the road, but the fact that it is not, in my view, is not a major problem for centre performance. I have already addressed the location of the proposed Aokautere Neighbourhood Centre and the accompanying Precinct Plan earlier in this report.

⁴² TS Investments, Woodgate and Terra Civil– S58 - 039, Heritage Estates – S51 – 111.

⁴³ CTS Investments, Woodgate Ltd and Terra Civil Ltd.

L. RECOMMENDATIONS

141. In relation to the major store originally identified on the Precinct Plan, I am comfortable renaming this store as a proposed “anchor” store, rather than a superette or small supermarket.
142. I am comfortable with Objective 6 and all its supporting Policies and the desired nexus or relationship between the Structure Plan and the Precinct Plan. Structure is fundamental to urban centre performance, and if a social place is also to be enabled, then critical mass, walkability and urban amenity is important.
143. I agree with the submitters about the need to change the discussion around glazing and substitute windows and doors as separate elements within a building façade. Obviously, retail shops need more transparent areas than other activities, but the quality and detail of the building is much more important than a one-size-fits-all requirement for glass.

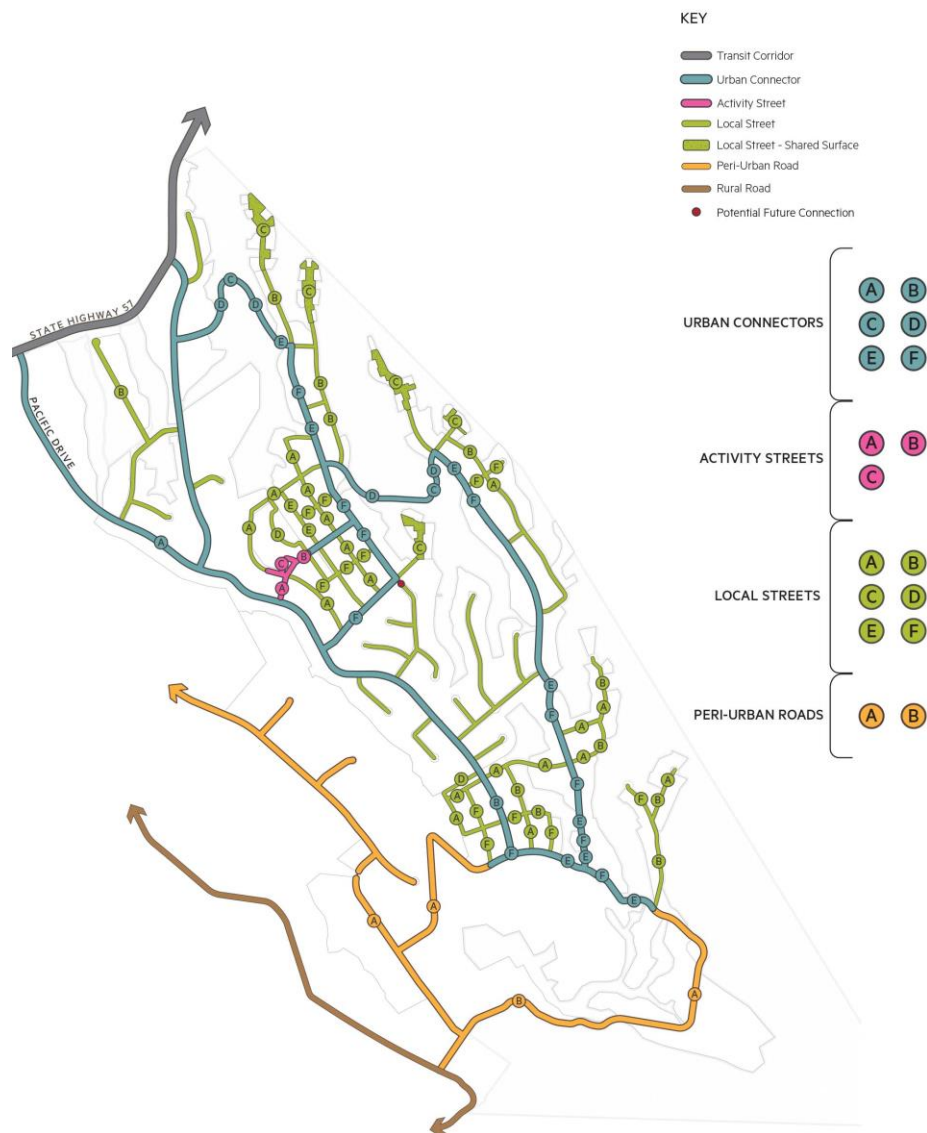
Michael Cullen

15 September 2023

M. APPENDICES

Appendix 1

Aokautere Structure Plan
Street Types Map 7A.4D
Street Cross Sections (7A.3D 1 - 17)



A



McIndoe Urban
02.06.2021

Option A: Car Park 'Square'

Approx Parking Spaces:	87
Distance Between Frontages:	80.5m
Public Space Amenity / Approx:	1,450m ²
Supermarket Lot Area:	1,450m ²
(* service court)	4,700m ²
Other Commercial:	One-way
Street System:	One-way

B



McIndoe Urban
02.06.2021

Option B: Large Square-a-bout

Approx Parking Spaces:	57
Distance Between Frontages:	56.5m
Public Space Amenity / Approx:	1,450m ²
Supermarket Lot Area:	1,450m ²
(* service court)	4,700m ²
Other Commercial:	One-way - Two-way
Street System:	One-way - Two-way

C



McIndoe Urban
02.06.2021

Option C: Medium Square-a-bout

Approx Parking Spaces:	46
Distance Between Frontages:	40m
Public Space Amenity / Approx:	900m ²
Supermarket Lot Area:	1,000m ²
(* service court)	4,700m ²
Other Commercial:	One-way - Two-way
Street System:	One-way - Two-way

D



McIndoe Urban
02.06.2021

Option D: Narrow Square-a-bout

Approx Parking Spaces:	48
Distance Between Frontages:	40m
Public Space Amenity / Approx:	2,000m ²
Supermarket Lot Area:	2,000m ²
(* service court)	4,700m ²
Other Commercial:	One-way - Two-way
Street System:	One-way - Two-way



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E



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F



McIndoe Urban
05/06/2021

G