

IN THE MATTER of the Resource Management Act 1991(RMA)
AND
IN THE MATTER of Intensification Planning Instrument Proposed Plan Change 78: Intensification (PC78) to the Auckland Unitary Plan Operative in Part (AUP)

JOINT WITNESS STATEMENT (JWS) IN RELATION TO:

Hearing Topics:

- 014A Height - Business height - Policy Principles
- 014B Height - Business height - Strategic Approach
- 014C Height - Business height - Technical Elements
- 014G Height - Residential height - Policy Principles
- 014H Height - Residential height - Strategic Approach
- 014I Height - Residential height - Technical Elements

Expert conferencing held on	11 and 12 March 2024
Venue	Online
Independent facilitator	Marlene Oliver
Secretariat planner	Wayne Siu

1 Attendance:

1.1 The list of participants is included in the schedule at the end of this Statement.

2 Basis of Attendance and Environment Court Practice Note 2023

2.1 All participants agree to the following:

- a) The Environment Court Practice Note 2023 provides relevant guidance and protocols for the expert conferencing session;
- b) They will comply with the relevant provisions of the Environment Court Practice Note 2023;
- c) They will make themselves available to appear before the Independent Hearing Panel;
- d) This statement is to be filed with the Independent Hearing Panel and posted on the Council's website.

3 Matters considered at Conferencing – Agenda and Outcomes

Note from the facilitator: Some experts (other than the Council's experts) were not present during the whole session. Therefore where the JWS text refers to "experts other than the Council's" or "All experts" it was not possible to identify which experts were present at any given time. If experts consider that the JWS needs to be refined to better reflect their position,

they should do so either at any appropriate subsequent expert conference or in their evidence.

3.1 **Uncertainties affecting PC78**

At the opening of this expert conference **all experts** agreed to record their concerns in relation to the number of uncertainties affecting both the policy environment and the processing of PC78. The experts wish to record their concerns as it affects the costs to their clients and the general ratepayers. The experts are keen for these uncertainties to be clarified and resolved as soon as possible.

3.2 **Volcanic viewshafts (and coastal environment)**

Agenda item: How to maintain the protected viewshaft values at their interface by managing building form e.g. an additional recession planes

- a) **Matt Lindenberg, Cam Wallace, Craig McGarr, Simon O'Connor, Anthony Blomfield, Rachel Morgan, Michael Campbell, Amanda Coats** note their disagreement with Council's proposed approach to manage transitional height issues associated with volcanic viewshafts through introducing additional zone-related provisions / height management methods. While any management methods relative to volcanic viewshafts could be addressed through the topics relating to Volcanic Viewshaft & Height Sensitive Area Overlay, the experts who attended earlier expert conferencing on this topic confirmed that these matters were not raised and addressed.
- b) **These experts** are concerned about the introduction of additional provisions for the two reasons of:
 - (1) Whether there is scope for these to be addressed through PC78 and the submissions
 - (2) The technical concerns that arise for example, from changing from a defined boundary to the viewshafts to a more imprecise transitional area affecting the land outside the viewshaft.
- c) **The Council's experts** note that when considering submissions that seek additional height beyond those notified, that there are a range of wider issues that need to be taken into account including those in the NZCPS, and the AUP RPS, and that these may influence what an appropriate height may be. **The Council's experts** wish to raise these issues at this stage so that all submitters are aware of these potential responses to calls for extra height. The Council's experts acknowledge that any response to address these wider issues will need to address matters relating to scope in terms of PC78. Similar issues are raised in relation to requests for additional building height in / or adjacent to the coastal environment.

3.3 **Building Height**

- a) **Principles for evaluating additional/reduced building heights from that notified:**
 - (1) **The Council's experts** supported the following principles to identify additional building height (above six storeys):
 - i. Within walkable catchment of city centre / New Market metropolitan centre.
 - ii. Within metropolitan centre zones with rapid transit stops.

- iii. Adjacent to the edge of metropolitan centre zones with rapid transit stops.
 - iv. Within walkable catchment of rapid transit stop adjacent to town centres.
- (2) **Experts other than the Council's** consider that principle in 3.3(a)(1)(i) above should include all metropolitan centre zones.
- (3) **Amanda Coats** supports the inclusion of the following principle for increased height in addition to 3.3(a)(1) (i)–(iv): (v.) adjacent to an arterial road.
- (4) **All experts** agree with the wording for principles 3.3(a) (1)(ii), (iii) and (iv) above.

Within and adjacent to town centres and local centres

- (5) **All experts** are agreed that in relation to land within and adjacent to Town Centres and Local Centres there should be further place-based assessment to identify opportunities for additional building height (consistent with Policy 3(d) of the NPS-UD) subject to scope within the submissions and PC78. This assessment will include a review of Height Variation Controls.

Policy 4 qualifying matters

- (6) **All experts** agree that there are other policy directives that will also affect the application of these principles e.g. Policy 4 of the NPS-UD (qualifying matters may be present e.g. natural hazards, maunga viewshaft, designations, infrastructure constraints).

AUP - RPS

- (7) **The Council's experts** also support the following principles (gives effect to the AUP RPS):
- i. Coherent block area, not small, isolated sites, responding to the context of the area.
 - ii. Achieve the centres hierarchy, reflecting the difference between city centre, metropolitan and town centres in terms their level of accessibility and scale. Noting that this differentiation can be achieved through extent of the zone and the mix of activities as well as height. (e.g. giving effect to AUP RPS B2.2.2(5) and (6), B2.4.2(4), B2.5.2(2))
 - iii. Supporting the centres hierarchy by providing a graduated reduction in building height from each metropolitan centre out through the surrounding residential areas.
 - iv. That additional height does not create significant adverse landscape effects on identified landscape features (e.g. maunga, coastal environment, Waitakere Ranges and QMs)
 - v. Can accommodate an appropriate transition between higher rise and lower rise zones.
- (8) **Experts other than the Council's** agreed with some of these principles but there was not agreement that all of the principles recorded in Para 3.3(a)(7) were appropriate.

- (9) **Amanda Coats** does not agree to the principles outlined in Para 3.3(a)(7). PC80 amendment to the RPS framework was subject to a Schedule 1 RMA process. A decision has been made but is subject to appeal. The AUP RPS Policy wording to provide for sufficient development capacity is therefore unknown at the date of this JWS. The principles are inconsistent with the NPS UD for land within a walkable catchment in terms of NPS-UD Policy 3(c) and where land is already "infrastructure ready" and "zone enabled".
- (10) In addition to the above, the **Council's experts** consider that the following factors may also weigh against additional height to that notified:
- i. In business zones, will the increased height generate adverse effects on the centre's main street planned character and amenity.
 - ii. In all zones, will the increased height, considering the size and depth of the area affected by the increased height, be accommodated without significant adverse effects on adjacent residential zones.
- (11) **Experts other than the Council's** do not consider the principles in 3.3(a)(7A)(i) and (ii) are appropriate.

Demand

- (12) Demand (rather than capacity) is relevant to setting building heights under Policy 3(b) of the NPS-UD: *'in metropolitan centre zones, building heights and density of urban form to reflect demand for housing and business use in those locations, and in all cases building heights of at least 6 storeys'*
- (13) Noting objective 3 of the NPS-UD lists in para 3(c) 'there is high demand for housing or for business land in the area, relative to other areas within the urban environment.' as one of the factors to take into account in identifying areas to enable additional residential and business and community services.
- (14) **The Council's experts** consider that the Council's modelling of metropolitan centre zones shows considerable plan-enabled capacity in excess of demand, noting that PC78 did not increase plan-enabled capacity in metropolitan centre zones from that in the AUP(OP). There is no overriding need to increase capacity in metropolitan centre zones from a current demand perspective, however there could be wider benefits to urban form, social / community / economic benefits and efficiencies of additional capacity in some metropolitan centres such as those that also have rapid transit accessibility. The Council's modelling expert was not available to attend expert conferencing on the 11 and 12 March 2024.
- (15) **Experts other than the Council's** consider that the Council's demand projections in the HBA are too limited. They consider that, for the purpose of determining building heights and densities, there are other

relevant metrics / factors that should be used to assess demand beyond what is outlined in the Council's Housing and Business Assessment (under the NPS-UD) and should include:

- i. Relative land prices;
- ii. Land values;
- iii. Financial feasibility;
- iv. Building typology opportunities and viability;
- v. Business centre differences;
- vi. Market attractiveness;
- vii. Consent data; and
- viii. developer/landowner feedback.

(16) **David Mead** agrees there are a range of contextual factors to consider holistically, at a zone-based level, when setting building heights and densities, including those listed in 3.3(a)(15) above.

(17) **Experts other than the Council's** consider that a more specific assessment of the factors in listed in para 3.3(a)(15) above should be part of the assessment and determination of additional building heights.

Additional matters

(18) **The Council's experts** consider it appropriate to include a principle to evaluate whether the site-specific heights sought will implement the policies of the zone and achieve the zone objectives.

(19) **Experts other than the Council's** consider that the principle in 3.3(a)(18) above, would be inherently addressed in processing a submission and do not consider a separate principle is required.

(20) **All experts** agree that a principle be: Consider whether additional height will support urban regeneration by enabling redevelopment on established sites.

(21) **All experts** agree that any agreed principles are not a checklist nor do they have a ranking or weighting. The intent is that they can contribute to a consistent analysis that the experts will undertake and present in their statements of evidence.

Summary attachment

(22) For ease of reference, the positions of the experts on the principles above are summarised in Attachment 1. For the avoidance of doubt, if there are inconsistencies then the text of this JWS, the above prevails.

b) Capacity / demand information

(1) **Simon O'Connor** noted that:

- i. Height is the key bulk and location control that enables greater density and is a key component of overall development viability and unlocking centres. For these reasons, greater height is to be encouraged.
- ii. PC 78 and 79 seek to introduce new planning related controls that would affect by way of restricting the yield and overall viability of sites being developed when compared to the AUP-OP.
- iii. the original S32 capacity analysis for PC 78 did not take into account the restrictions that the proposed rules of PC 78 and 79 would create.
- iv. Members of the expert witnesses confirmed that a revised capacity assessment and analysis had since been undertaken since the original notification. Simon confirmed that he maintained his concerns about capacity calculations but would review the revised assessments in detail and provide additional commentary at a later date.

(2) In response to Simon's para 3.3(b)(1)(iv) above, the **Council's experts** referred to the following documents used:

- i. Proposed PC78 s32 Evaluation Reports (Economy Matters)
<https://www.aucklandcouncil.govt.nz/UnitaryPlanDocuments/03-pc-78-section-32-economy-matters.pdf>
- ii. Housing and Business development capacity assessment for the Auckland region 2023. Appendices
<https://knowledgeauckland.org.nz/publications/housing-and-business-development-capacity-assessment-for-the-auckland-region-2023-national-policy-statement-on-urban-development-2020-appendices/>
- iii. Economics technical specialist report to contribute to Council's section 42A report for Plan Change 79 by Dr. Douglas Fairgray (Attachment 2)

3.4 **Zone provisions**

Note: Refer to Attachment 3 for the details of the proposed provisions

a) Possible changes to notified heights – the Council's experts are reviewing these standards and sought preliminary feedback from experts in this session.

(1) Increasing building height from 21m to 22m to enable six storeys (in all walkable catchments)

- i. **All experts** agree that a 22m building height is more appropriate than 21m to enable six storeys.
- ii. **Experts other than the Council's** also consider it is appropriate to apply the 22m building height throughout the plan wherever there is a 21m height limit or the intent to enable six storeys.
- iii. **The Council's experts** agreed to review some other locations where it may be appropriate to increase the 21m height limit to 22m, providing there is scope within the submissions and PC78.

- iv. **Amanda Coats** considers more than 22m is required to enable six stories within walkable catchments for Terrace Housing and Apartment Buildings and Business – Mixed Use zones. She considers increased height is required to address site topography, accommodate different building typologies, enable increased roof pitch, increased flashing height, accessibility (for servicing), services separation compliance from structural members and structural members."
- (2) Subject to investigation, increasing from six to nine storeys (32m) in identified areas, being Residential - Terrace Housing and Apartment Building and Business - Mixed Use zones, in walkable catchments for the city centre zone and the Newmarket metropolitan centre zone.
- i. **All experts** agree with increasing from six to nine storeys (32m) in the identified areas.
 - ii. **Experts other than the Council's** consider that there are areas within the walkable catchments for the city centre zone and the Newmarket metropolitan zone which are appropriate for building heights greater than nine storeys. There are walkable catchments of other centres where it is appropriate for building heights greater than six storeys.
- b) Additional standards to address potential effects from nine storey heights - the Council's experts are reviewing these standards and sought preliminary feedback from experts in this session.**
- (1) Building Set Back at Upper Floors
 - i. **Experts other than the Council's** considered that the proposed setback at upper floors from the street frontage should be reconsidered on the basis that it is more appropriate to have the increase height at this boundary.
 - (2) Maximum Tower Dimension
 - i. **All experts** suggest this provision be labelled 'Maximum Building Dimension'.
 - (3) Wind Standard
 - i. **All experts** agree that the trigger for any potential wind standard should be reviewed for justification and consistency with existing wind standards.

4 PARTICIPANTS TO JOINT WITNESS STATEMENT

4.1 The participants to this Joint Witness Statement, as listed below, confirm that:

- a) They agree that the outcome(s) of the expert conferencing are as recorded in this statement, noting the Note from the facilitator at para 3; and
- b) They agree to the introduction of the attached information – Refer to paras 3.3(a)(22), 3.3(b)(2) and 3.4 above and Attachments 1, 2 and 3; and
- c) They have read the Environment Court’s Practice Note 2023 and agree to comply with it; and
- d) The matters addressed in this statement are within their area of expertise; and
- e) As this session was held online, in the interests of efficiency, it was agreed that each expert would verbally confirm their position to the Facilitator and this is recorded in the schedule below.

4.2 Confirmed online: 12 March 2024

EXPERT’S NAME	Expertise	PARTY	EXPERT’S CONFIRMATION REFER PARA 4.1
Alina Wimmer	Planning	Auckland Council	Yes
Amanda Coats	Planning/architect	North Eastern Investments Limited	Yes
Anthony Blomfield	Planning	Dilworth Trust Board	Yes
Barry Kaye	Planning	Ockham Group Limited	Attended start of at 11/3/24
Brooke Dales	Planning	Porter Group	Yes
Cam Wallace	Urban Design	Foodstuffs North Island Ltd	Yes
Cam Wallace	Planning / Urban Design	Oyster Management Limited	Yes
Cam Wallace	Planning / Urban Design	Stride Property Limited	Yes
Cam Wallace	Planning / Urban Design	Industre Property Limited	Yes
Cam Wallace	Planning / Urban Design	Fabric Property Limited	Yes
Craig McGarr	Planning	Oceania Healthcare Ltd	Yes
Craig McGarr	Planning	Generus Living Group	Yes
Craig McGarr	Planning	Summerset Villages (Parnell)	Yes
Craig McGarr	Planning	Andrew and Sheridan Harnos	Yes
David Mead	Planning	Auckland Council	Yes
David Wren	Planning	Laurie Knight	Yes
Elaine Chen	Urban Design	Kāinga Ora	Attended 11/3/24
Greg Osborne	Planning	Auckland International Airport Limited	Yes
Jethro Joffe	Planning	Ockham Group Limited	Yes
Jethro Joffe	Planning	Kheng Kai Chew (Alex)	Yes
Lisa Mein	Urban Design	Auckland Council	Yes
Madeline Sharpe	Urban Design	Auckland Council	Yes
Mark Benjamin	Planning	Parnell Park Ltd	Yes

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Mark Benjamin	Planning	James Kirkpatrick Group Limited	Yes
Mark Benjamin	Planning	SD Patel Family Trust	Yes
Mark Benjamin	Planning	Emerald Group Limited	Yes
Mark Benjamin	Planning	Richard Hanson	Yes
Matt Lindenberg	Planning	Kāinga Ora	Yes
Matt Norwell	Planning	Foodstuffs North Island Ltd	Yes
Michael Campbell	Planning	Willis Bond and Company	Yes
Michael Campbell	Planning	Catholic Diocese of Auckland	Yes
Michael Campbell	Planning	777 Investments Limited	Yes
Michael Campbell	Planning	Catholic Diocese of Auckland	Yes
Michael Campbell	Planning	MHE Limited	Yes
Michael Campbell	Planning	NZ Housing Foundation	Yes
Michael Campbell	Planning	Neilston Homes	Yes
Michael Campbell	Planning	Classic Group	Yes
Michael Campbell	Planning	Universal Homes	Yes
Morgan Shepherd	Planning	Samson Corporation and Stirling Nominees	Yes
Morgan Shepherd	Planning	Andrew Body	Yes
Nick Grala	Planning	Te Tūāpapa Kura Kāinga - Ministry of Housing and Urban Development (Land Acquisition and Development Team)	Yes
Nick Mattison	Planning	617 New North Limited	Attended 11/3/24
Nick Mattison	Planning	Aaron Ghee	Attended 11/3/24
Nick Mattison	Planning	Henla Limited	Attended 11/3/24
Nick Mattison	Planning	Screation Ltd	Attended 11/3/24
Nick Pollard	Planning	Auckland Council	Yes
Peter Neeve	Planning	Drive Holdings Limited	Yes
Rachel Morgan	Planning	Kiwi Property Group Ltd	Yes
Rachel Morgan	Planning	Southpark	Yes
Rachel Morgan	Planning	Oyster Capital	Yes
Rachel Morgan	Planning	Wyborn Capital Ltd	Yes
Rachel Morgan	Planning	Goodman Nominee (NZ) Limited	Yes
Rachel Morgan	Planning	Wyborn Capital Limited	Yes
Rachel Morgan	Planning	Centuria Funds Management NZ Limited	Yes
Rachel Morgan	Planning	Fletcher Residential	Yes
Rachel Morgan	Planning	Tamaki Regeneration Company	Yes
Robbie Lee	Planning	Auckland Council	Yes
Rory Power	Planning	Auckland Council	Yes
Simon O'Connor	Planning	Brett Carter Family Trust	Attended 11/3/24
Stephen Brown	Landscape	Auckland Council	Yes
Stephen Quin	Landscape	Auckland Council	Yes
Kasey Zhai	Planning	Foodstuffs North Island Ltd	Yes
Adam Wild	Special Character	Samson Corporation and Stirling Nominees	Attended morning of 11/3/24

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Tim Stevenson	Special Character	Samson Corporation and Stirling Nominees	Attended 11/3/24
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Attachment 1: Summary of expert positions on height principles

Principles for evaluating additional/reduced building heights from that notified:				
JWS ref	The Council's expert	JWS ref	Experts other than the Council's	Notes
Principles to identify additional building height (above six storeys)				
3.3(a)(1)(i.)	Within walkable catchment of city centre / New Market metropolitan centre.	3.3(a)(2)	Within walkable catchment of city centre and metropolitan centres.	
3.3(a)(1)(ii.)	Within metropolitan centre zones with rapid transit stops.	3.3(a)(4)	In agreement	
3.3(a)(1)(iii.)	Adjacent to the edge of metropolitan centre zones with rapid transit stops.		In agreement	
3.3(a)(1)(iv.)	Within walkable catchment of rapid transit stop adjacent to town centres.		In agreement	
		3.3.(a)(3)	Adjacent to arterial road	Additional principle from Amanda Coats
Within and adjacent to town centres and local centres				
3.3(a)(5)	In relation to land within and adjacent to Town Centres and Local Centres there should be further place-based assessment to identify opportunities for additional building height (consistent with Policy 3(d) of the NPS-UD) subject to scope within the submissions and PC78. This assessment will include a review of Height Variation Controls.	3.3(a)(5)	In agreement	
Policy 4 qualifying matters				
3.3(a)(6)	There are other policy directives that will also affect the application of these principles e.g. Policy 4 of the NPS-UD (qualifying matters may be present e.g. natural hazards, maunga viewshaft, designations, infrastructure constraints).	3.3(a)(6)	In agreement	
AUP - RPS				
3.3(a)(7)(i.)	Coherent block area, not small, isolated sites, responding to the context of the area.	3.3(a)(8)	Agreed with some of these principles (paras 3.3(a)(7)(i.)-(v.) but there was not agreement that all of the principles were appropriate.	
3.3(a)(7)(ii.)	Achieve the centres hierarchy, reflecting the difference between city centre, metropolitan and town centres in terms their level of accessibility and scale. Noting that this differentiation can be achieved through extent of the zone and the mix of activities as well as height. (e.g. giving effect to AUP RPS B2.2.2(5) and (6), B2.4.2(4), B2.5.2(2))			
3.3(a)(7)(iii.)	Supporting the centres hierarchy by providing a graduated reduction in building height from each metropolitan centre out through the surrounding residential areas.			
3.3(a)(7)(iv.)	That additional height does not create significant adverse landscape effects on identified landscape features (e.g. maunga, coastal environment, Waitakere Ranges and QMs)			
3.3(a)(7)(v.)	Can accommodate an appropriate transition between higher rise and lower rise zones.			
3.3(a)(10)(i)	factors may also weigh against additional height to that notified: In business zones, will the increased height generate adverse effects on the centre's main street planned character and amenity.	3.3(a)(11)	Do not consider appropriate	
3.3(a)(10)(ii)	factors may also weigh against additional height to that notified: In all zones, will the increased height, considering the size and depth of the area affected by the increased height, be accommodated without significant adverse effects on adjacent residential zones.			

Demand				
JWS ref	The Council's expert	JWS ref	Experts other than the Council's	Notes
3.3(a)(14)	consider that the Council's modelling of metropolitan centre zones shows considerable plan-enabled capacity in excess of demand, noting that PC78 did not increase plan-enabled capacity in metropolitan centre zones from that in the AUP(OP). There is no overriding need to increase capacity in metropolitan centre zones from a current demand perspective, however there could be wider benefits to urban form, social / community / economic benefits and efficiencies of additional capacity in some metropolitan centres such as those that also have rapid transit accessibility.	3.3(a)(15)	Consider that the Council's demand projections in the HBA are too limited. They consider that, for the purpose of determining building heights and densities, there are other relevant metrics / factors that should be used to assess demand beyond what is outlined in the Council's Housing and Business Assessment (under the NPS-UD) and should include: <ul style="list-style-type: none"> i. Relative land prices; ii. Land values; iii. Financial feasibility; iv. Building typology opportunities and viability; v. Business centre differences; vi. Market attractiveness; vii. Consent data; and viii. developer/landowner feedback. 	(3.3(a)(16)) David Mead agrees there are a range of contextual factors to consider holistically, at a zone-based level, when setting building heights and densities, including those listed in 3.3(a)(15).
		3.3(a)(17)	consider that a more specific assessment of the factors in listed in para 3.3(a)(15) above should be part of the assessment and determination of additional building heights.	
Additional matters				
3.3(a)(18)	whether the site-specific heights sought will implement the policies of the zone and achieve the zone objectives.	3.3(a)(19)	consider that the principle in 3.3(a)(18), would be inherently addressed in processing a submission and do not consider a separate principle is required.	
3.3(a)(20)	Consider whether additional height will support urban regeneration by enabling redevelopment on established sites.	3.3(a)(20)	In agreement	
3.3(a)(21)	any agreed principles are not a checklist nor do they have a ranking or weighting. The intent is that they can contribute to a consistent analysis that the experts will undertake and present in their statements of evidence.	3.3(a)(21)	In agreement	

**Auckland Council PC 78 – JWS Topic 014A, 014B, 014C, 014G, 014H, and 014I Height
11 & 12 March**

**Attachment 2: Economics technical specialist report to contribute to
Council's section 42A report for Plan Change 79 by Dr. Douglas
Fairgray**

Memo

6 September 2023

To: Tony Reidy, Nicholas Lau, Ruth Andrews, Lead Planners, Plans & Places

From: Douglas Fairgray, Director, Market Economics Ltd

Subject: Economics technical specialist report to contribute to Council's section 42A report for Plan Change 79

1. INTRODUCTION

1.1 My name is James Douglas Marshall Fairgray. I have a PhD in economic geography from the University of Auckland. I am a director of Market Economics Limited.

1.2 I have 40+ years of experience in research and evidence.

1.3 I have been engaged by Auckland Council (**Council**) to provide an assessment of the implications of proposed Plan Change 79. Of relevance to this memo, I prepared the section 32 evaluation report on economy matters for proposed Plan Change 78: Intensification (**PC78**) to the Auckland Unitary Plan Operative in part (**AUP**), and I presented the high level economic overview evidence to this Panel in March of this year (**Strategic Evidence**).¹

Code of Conduct

1.4 I confirm that I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023, that I have complied with it when preparing this memo, and I agree to abide by it. Except where I state that I am relying on the advice of another person, the matters addressed in this memo are within my area of expertise. I am the author of this memo. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

1.5 The information, analysis and assumptions I have examined in forming my opinions are set out in my memo. Where I have provided opinions, I have given reasons for those opinions.

1.6 I confirm that I have no real or perceived conflict of interest.

Relevant Research Experience

1.7 I summarise here my research experience most directly relevant to the proposed change. Over the last 40 or so years, I have undertaken studies throughout New Zealand of cities and towns, regions and local economies, communities, sectors and infrastructure, mostly in the Resource Management Act 1991 (**RMA**) and Local Government Act 2002 (**LGA**) contexts.

¹ Evidence dated 20 February 2023:

<https://hearing.aucklandcouncil.govt.nz/h627/Evidence/Auckland%20Council,%20Economics,%20evidence,%20J%20Fairgray.pdf>

- 1.8 My discipline is economic geography, also known as spatial economics. It is the study of economic and social activity and processes in time and space, particularly the influence of location². It is especially relevant to the study of a city as a spatial economy. It includes research into landowners' behaviour and decision processes, especially the economic and behavioural aspects of land use and land use change, aspects which I have applied to assess how people (individually) and markets (in aggregate) are likely to respond to economic drivers and plan provisions, and to understand development decisions and land use outcomes.
- 1.9 It draws on knowledge of the key economic and social processes which underpin household and business decisions and choices, and in aggregate drive cities and their spatial patterns. I have examined in particular the economic and social processes through which towns and cities expand, both outwards and by intensifying already urbanised land. I have researched demand for land for housing and business activity from all sectors of the economy, the economics of land use change and development, the feasibility of urban growth and development, and the influence of location and timing. I have researched peoples' decisions to develop land as suppliers, and to take up land as end users, both households and businesses.
- 1.10 I highlight these aspects here because in my view they are core to understanding how cities function and grow, and how plan provisions – in combination with market and social drivers - may be expected to influence peoples' decisions and choices, land use and development and wider urban outcomes.
- 1.11 I have applied those capabilities to assess the likely effects of the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 (HSAA), taking account of Auckland as a dynamic multi-nodal spatial economy, the role of planning in helping achieve efficiency and sustainability, the significance of location and time in urban development, the economics of housing and business development in cities, and the fundamentals of land use change and development feasibility. These matters are especially relevant to how Auckland – as a market, economy and community - is likely to be affected by and respond to PC78, and to PC79.

2. SCOPE OF THIS MEMO

- 2.1 In this memo, I have examined the implications of proposed PC79 for the Auckland community and economy, with particular focus on the potential effects on housing capacity.
- 2.2 PC79 would see pedestrian accessway, accessible car parking, loading space and cycle parking requirements applied to residential zoned areas, potentially affecting many sites. The PC79 requirements may reduce the amount of plan-enabled capacity for housing.
- 2.3 The proposed PC79 provisions would modify the likely outcomes from the PC78 changes. For this memo, I have examined those outcomes in combination with the PC78 provisions. I have drawn from the assessment done for s32 Evaluation Report, and considered the effects of PC79 which are in addition to the PC78 outcomes.

² An acknowledged challenge for traditional economics theory and modelling.

- 2.4 For the s32 assessment, I examined the likely effects of proposed PC78 in the context of the region's long term growth outlook. I considered the direct effects on the level of housing development which would be enabled under PC78, and addressed the wider effects on likely patterns of growth in the economy, and the broader context of the well-functioning urban environment (**WFUE**). Those matters were summarised in my Strategic Evidence presented to this Panel.
- 2.5 The potential direct effect of PC79 will be on Auckland's housing capacity in terms of dwellings enabled. That was assessed for PC78 through site-level evaluation of Auckland residential zoned areas. I have drawn on the attached assessment by Chad Hu, Senior Spatial Analyst in Council's Research & Evaluation Unit (RIMU) (**Annexure A**). Mr Hu has detailed how he has undertaken a site-level evaluation of PC79, for which he has examined the plan-enabled capacity with both PC78 and PC79 in place.
- 2.6 I have drawn on Mr Hu's estimates of plan-enabled capacity with PC78 and PC79 in place, and compared to examine the implications of PC79 and PC78 for Auckland's capacity for housing into the long term. I have applied the same methods and assessment framework as I did for the s32 evaluation of PC78. I report on my findings below.
- 2.7 In summary, Mr Hu's analysis shows that the PC79 provisions would slightly reduce the plan-enabled capacity for housing in Auckland. However, because the amount of plan-enabled capacity in Auckland under PC78 is very large, I consider that the reduction from PC79 would not materially affect Auckland's ability to accommodate housing growth into the long term, and it would not detract from the WFUE.

3. ASSESSMENT OF PC79

PC78 Evaluation

- 3.1 I summarise the s32 evaluation for PC78. That was based on very extensive assessment of Auckland, its economy and community, the region's prospects for population and household growth, into the long term, to consider the implications for the land resource and dwelling estate. The research included detailed modelling of enabled housing capacity at the site level, to reflect how the proposed PC78 provisions would take effect, taking account of in the context of the size and nature of each site, as well as surrounding sites, and location. Complementing the detailed evidence base was research across the New Zealand economy and overseas, and analysis of theoretical and conceptual bases of how cities and their land markets function, and how Plan provisions have effect. That addressed a main focus of the NPSUD and the Policy 3 and MDRS provisions, to ensure that Auckland as a Tier 1 city has sufficient capacity to accommodate the housing required for its future population.
- 3.2 The assessment showed that the Plan with the proposed PC78 provisions in place would enable a very large amount of housing capacity, far in excess of the projected total demand for housing, into the long term. It also showed that the potential for any negative effects of Qualifying Matters would be very small.
- 3.3 Overall demand for housing at the region level was estimated to increase from the 2021 level of 574,000 to a 2051 total (long term) of between 716,000 (Low), 815,000 (Medium) or

913,000 (High), as detailed in Table 3-6 in the s32 Report. That population and household growth would see demand for a net additional 142,000 (Low), 241,000 (Medium) or 338,000 dwellings by 2051, on the basis of one dwelling per each additional household, in addition to any current housing shortfall. Examination of plan-enabled housing capacity identified capacity at 2,853,000 (dwellings) in residential zoned areas, and another 436,000 in business zones. This is shown in Table 1 (re-produced from the s32 report).

Table 1 : Plan-Enabled Capacity Residential and Business Zoned Land (from Table 4-2 in S32 Report)

Location	Existing Dwellings	AUP	MDRS - No QMs	Difference	Difference %
NPSUD	64,000	245,000	559,000	314,000	128%
MDRS	416,000	1,180,000	2,294,000	1,114,000	94%
Total Residential	480,000	1,425,000	2,853,000	1,428,000	100%
Business Zoning	48,000	400,000	436,000	36,000	9%
Total inc Business	528,000	1,825,000	3,289,000	1,464,000	80%

Source: Housing Enablement Model 2022

- 3.4 The s32 assessment provided further detail on plan-enabled capacity with QMs in place. The high-level estimate with all QMs in place indicated plan-enabled capacity for 2,826,000 dwellings. This is shown in Table 2.

Table 2 : Plan-Enabled Capacity Residential and Business Zoned Land (from Table 4-4 in S32 Report)

Location	MDRS - No QMs	MDRS - All QMs	Difference	Difference %
NPSUD (WC) with SCA	40,000	6,000	- 34,000	-85%
NPSUD (WC) excl SCA	518,000	461,000	- 57,000	-11%
NPSUD (WC) Total	559,000	466,000	- 93,000	-17%
MDRS with SCA	62,000	13,000	- 49,000	-79%
MDRS excl SCA	2,233,000	1,910,000	- 323,000	-14%
MDRS Total	2,294,000	1,924,000	- 370,000	-16%
Total	2,853,000	2,390,000	- 463,000	-16%
SCA Total	102,000	19,000	- 83,000	-81%
Total inc Business	3,289,000	2,826,000	- 463,000	-14%

Source: Housing Enablement Model 2022

- 3.5 The s32 assessment compared these capacity estimates with total demand for housing, estimated from the StatsNZ growth projections from March 2021. This is re-produced in Table 3. The analysis showed very substantial margins between plan-enabled capacity, and total demand for dwellings from resident households, in High, Medium or Low growth futures, with QMs in place.

Table 3 : Plan-Enabled Capacity Residential Zoned and Business by Scenario (from Table 4-7 in S32 Report)

	Existing Dwellings	AUP	MDRS - No QMs	MDRS - All QMs
NPSUD	64,000	245,000	559,000	466,000
MDRS	416,000	1,180,000	2,294,000	1,924,000
Total Residential	480,000	1,425,000	2,853,000	2,390,000
Business Zoning	48,000	400,000	436,000	436,000
Total inc Business	528,000	1,825,000	3,289,000	2,826,000
	Future Dwellings	<i>Plan-enabled Capacity Margin (2051 High)</i>		
High Households	913,000	912,000	2,376,000	1,913,000
Medium Households	815,000	1,010,000	2,474,000	2,011,000
Low Households	716,000	1,109,000	2,573,000	2,110,000

Source: Housing Enablement Model 2022

- 3.6 A key conclusion was that the NPSUD and MDRS provisions will enable very considerably more housing capacity than is anticipated to be demanded by the Auckland population, into the long-term future.
- 3.7 In December 2022, Statistics NZ (StatsNZ) released an amended set of Territorial Land Authority level population projections for the 2018-2048 period, which replaced the previous series released in March 2021. These projections suggested much lower growth for Auckland, with substantially reduced in-migration levels.
- 3.8 Subsequently, Auckland Council commissioned StatsNZ to prepare a further population projection, to take account of the evidence that in-migration was recovering, suggesting that the December 2022 series was likely to under-estimate the growth outlook. I have examined that March 2023 series. It shows lower projected growth than the March 2021 series, though higher growth than the December 2022 series.

PC79 Evaluation

- 3.9 Mr Hu has provided two estimates of the effects of PC79. He estimates that the provisions of the Notified version would reduce plan-enabled capacity by -54,979 dwellings in the Low Density Residential, Mixed Housing Urban and THAB zones. The Post-notification provisions would have a smaller impact on plan-enabled capacity, in the order of -40,260 dwellings.
- 3.10 I have taken those estimates into account to consider the overall effects for plan-enabled capacity across Auckland.

Implications for Plan-enabled Capacity

- 3.11 I have applied the same table format as I applied in the s32 assessment, comparing plan-enabled capacity in residential and business zoned areas, and considering the plan-enabled capacity in relation to projected household numbers in Auckland, out to 2052. This shows both the Notified PC79 and the Post-Notification PC79 outcomes. For ease of comparison, I have done this first applying the same March 2021 household projections as used in the s32 evaluation. The outcome for the Notified version of PC79 is shown in Table 4.

- 3.12 This shows a very substantial margin between total housing demand and plan-enabled housing capacity, with all the proposed Qualifying Matters in place, of between 1,858,000 (high growth) and 2,055,000 (Low growth).

Table 4 : Plan-Enabled Capacity Residential Zones & Business with PC79 (Notified Version)

	Existing Dwellings	AUP	MDRS No QMs	MDRS-All QMs
NPSUD	64,000	245,000	559,000	466,000
MDRS	416,000	1,180,000	2,294,000	1,924,000
<i>Adjustment for PC79</i>			- 54,979 -	54,979
Total Residential	480,000	1,425,000	2,798,020	2,335,020
Business Zoning	48,000	400,000	436,000	436,000
Total inc Business	528,000	1,825,000	3,234,020	2,771,020
Projected Household Growth Mar 21	Future Dwellings Needed	<i>Plan Enabled Capacity Margin (2052)</i>		
High	913,000	912,000	2,321,000	1,858,000
Medium	815,000	1,010,000	2,419,000	1,956,000
Low	716,000	1,109,000	2,518,000	2,055,000

Source: Housing Enablement Model 2023

totals rounded

- 3.13 The outcome for the Post-Notification version of PC79 is shown in Table 5. This again shows a very substantial margin between total housing demand and plan-enabled housing capacity, with all the proposed Qualifying Matters in place, of between 1,873,000 (high growth) and 2,070,000 (Low growth).

Table 5 : Plan-Enabled Capacity Residential Zones & Business with PC79 (Post-Notification)

	Existing Dwellings	AUP	MDRS No QMs	MDRS-All QMs
NPSUD	64,000	245,000	559,000	466,000
MDRS	416,000	1,180,000	2,294,000	1,924,000
<i>Adjustment for PC79</i>			- 40,260 -	40,260
Total Residential	480,000	1,425,000	2,812,740	2,349,740
Business Zoning	48,000	400,000	436,000	436,000
Total inc Business	528,000	1,825,000	3,248,740	2,785,740
Projected Household Growth Mar 21	Future Dwellings Needed	<i>Plan Enabled Capacity Margin (2052)</i>		
High	913,000	912,000	2,336,000	1,873,000
Medium	815,000	1,010,000	2,434,000	1,971,000
Low	716,000	1,109,000	2,533,000	2,070,000

Source: Housing Enablement Model 2023

totals rounded

- 3.14 The March 2023 projection series shows in the order of 48-49,000 fewer resident households in Auckland by 2052, than the March 2021 projections. That growth outcome would mean a

correspondingly greater margin (+48,000 to +49,000) between total demand and plan-enabled capacity by 2052, in all three growth futures.

- 3.15 I have also considered the PC79 provisions in the context of the broader matter of the distribution of plan-enabled capacity. The very small effect on plan-enabled capacity, and the considerable margin between expected housing demand and total enabled capacity, mean it is very unlikely in my view that PC79 would have any material impact on the enablement of development densities (or heights) in relation to the roles of centres in terms of Policy 3(d). That is, the combination of PC78 and PC79 applied to residential zones will enable development which is commensurate with the Policy 3(d) requirements.³

4. SUMMARY and CONCLUSIONS

- 4.1 The s32 Evaluation report for PC78 was based on very extensive assessment of Auckland, its economy and community, its land resource, its housing estate, and the region's prospects for population and household growth, into the long term. It included detailed technical analysis at the site level, to understand housing enablement according to the proposed PC78 provisions, the size and nature of each site, as well as surrounding sites, while taking account of location. This strong evidence and analysis base was complemented by research across the New Zealand economy, and consideration of underlying theories and conceptual bases which help inform understanding of how cities and their land markets function.
- 4.2 The analysis of the likely effects of PC79 show that it would have a very small effect on Auckland's plan-enabled capacity for housing: a theoretical reduction of -1.4% based on the Post-Notification version of the PC79 provisions.⁴
- 4.3 On this basis, I confirm my conclusions from the assessment of PC78 – that PC78 including QMs as proposed would provide for greater overall benefit for the Auckland community than would application of the MDRS and Policy 3 provisions in all locations without QMs – also apply with PC79 as part of the planning framework.

Douglas Fairgray

6 September 2023

³ For completeness, I note that PC79's provisions are not relevant to Policy 3(a) to (c) requirements, and do not alter compliance with MDRS.

⁴ As a point of clarification, this percentage yield reduction is calculated based on the total plan-enabled residential capacity under PC78 – that is, the reduction from 2,826,000 to 2,785,740 equates to -1.4%. By contrast, Mr Hu's percentage yield reductions in Tables 6a and 6b of his **attached** note, are based on the reduction in capacity for only those sites which would be directly affected by PC79, which is 2,044,909, and less than the total Auckland capacity of 2,826,000.

ANNEXURE A

Assessment by Chad Hu, Senior Spatial Analyst in Council's Research & Evaluation Unit (RIMU)

Annexure A – PC79 capacity assessment

Introduction

The Plan Change 79 (PC79) capacity assessment (abbreviated as PC79 assessment) utilises modelled yield output from the notified Plan Change 78 (PC78), an capacity assessment tool developed by Auckland Council. Its goal is to measure the trade-offs of development capacity between the maximum development yield enabled by the notified PC78 provisions (calculated without PC79 provisions being specifically modelled), and then to quantify the capacity lost due to the application either the notified or the post-notification PC79 provisions.

The PC79 assessment functions as a deduction process, initially utilising net ISA. If the available net ISA is insufficient, then portions of the ground level maximum building coverage (MBC) would be sacrificed, either partially or fully, to fulfil the remaining area needed to satisfy PC79 standards. This is then compared to the PC78 ground-level yield to quantify the amount of development yield lost (conceptually depicted below, figure 1).

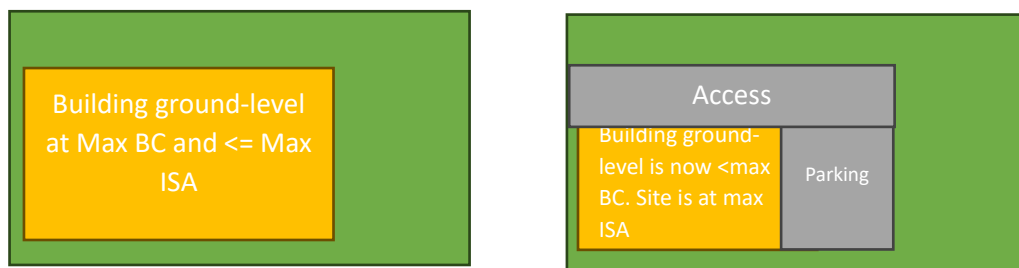


Figure 1 PC78 capacity assessment vs PC79 capacity assessment

Assessment overview

An integral aspect explicitly integrated and analysed for PC79 assessment is site frontage length (also referred to as site accessway width in earlier CfGS documents). Site frontage length is measured along the portion of the site boundary that directly adjoins a road corridor. The flow chart below illustrates the processes undertaken for the PC79 capacity assessment (figure 2).

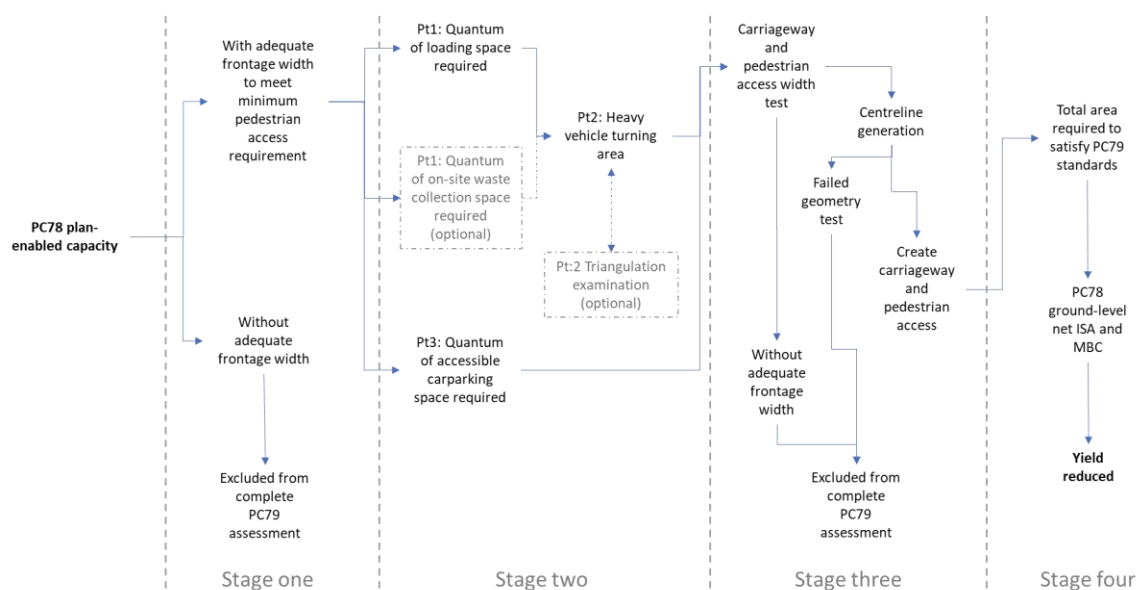


Figure 2. Processes undertaken for the PC79 capacity assessment

Stage one – assessing the minimum pedestrian access requirement

The first stage of the PC79 assessment is designed to identify residential sites suitable for yield reduction comparison. Table 2 summarises the site frontage assessment process.

Table 2. Initial frontage test

Site frontage width	Treatment
< 1.8m	Sites 'failing' PC79 assessment from the get-go. These sites would require right of way arrangement with neighbouring site(s) in order to qualify PC79 standards.
>= 1.8m to < 2.5m	Sites meeting pedestrian access only. These sites would require right of way arrangement with neighbouring site(s) in order to form legal vehicle access.
=> 2.5m	Pass for second stage frontage test

Stage two – assessing loading space, on-site waste collection, heavy vehicle turning bay and accessible parking

The second stage of the assessment comprises three components:

- assessing the need for provision of a loading space(s) and on-site waste collection space
- spatially evaluates whether the residential site has adequate space to accommodate an on-site heavy vehicle turning area.
- estimates the minimum number of accessible carparks required to meet PC79 standards.

For both sets of PC79 provisions, the necessity for loading space is determined by the quantity of gross floor area or dwelling unit equivalents. The parameters adopted for this assessment are listed in Table 3. The calculations for loading space are based on the plan-enabled dwelling capacity at the individual site level.

Table 3. Loading space requirements tested

Notified provisions	Post notification variation	Gross floor area requirement (or dwelling units equivalent)	No. of loading space required
Apply to all sites fronting <u>public road</u>	Apply to all sites fronting <u>arterial road</u>	5,000-20,000m ² (between 9 to 166 dwelling units with an average size of 120m ² per unit)	1 small space (22.4m ²)
		20,000-90,000m ² (between 167 – 750 dwelling units with an average size of 120m ² per unit)	2 large spaces (28m ² per space)
		Greater than 90,000m ² and one additional space for every 40,000m ² (greater than 750 dwelling units and one space for every 333 units, with an average size of 120m ² per unit)	3 or more large spaces (28m ² per space)

Calculation of on-site waste collection space is an optional consideration if loading space and heavy vehicle access are required at the individual site level. The required space is determined by the number of dwellings. Trigger points for assessment involve:

- site frontage length and dwelling capacity;
- where site frontage is deemed long enough (calculated at 1.4m² per bin), priority is given to kerbside waste collection;
- the sites identified in the preceding step possess sufficient size and spatial capacity to accommodate a heavy vehicle turning bay without requiring the truck to reverse out from these sites.

To ensure that the residential sites examined for the PC79 assessment can accommodate the t-shaped turning bay, an optional shape test involving triangulation processes. The model eliminates elongated and narrow driveways that are unsuitable for a heavy vehicle turning bay. The remaining 'suitable site area' is subsequently assessed based on its size to ascertain whether it can adequately accommodate the T-shape turning bay.

Figure 5 provides a visual depiction of the conceptual process involved in this filtering mechanism.

The requirement for a heavy vehicle turning bay was exclusively evaluated based on its area requirement, and optional shape test was bypassed for the most recent PC79 assessment.

The third segment of stage two entails estimating the total count of accessible carparks necessary for each residential site.

Table 4 provides an overview of the parameters integrated for modelling process for both the notified provisions and the post notification variation. A standardised size of 17.5m² per lot is established for accessible carparks. In situations where multiple accessible carparks are required, a 1.1 metre overlap is incorporated between them, ultimately reducing the average size to 14.75m².

Table 4. Accessible parking requirements

No. of dwellings per site	Notified provisions	No. of dwellings per site	Post notification variation
1 – 10	0	1 – 10	0
10 - 19	1	10 – 19	1
20 - 29	2	20 – 29	2
30 - 39	3	30 – 50	3
More than 40	1 additional for every additional 10 dwellings	More than 50	1 additional for every additional 23 dwelling units or parts thereof

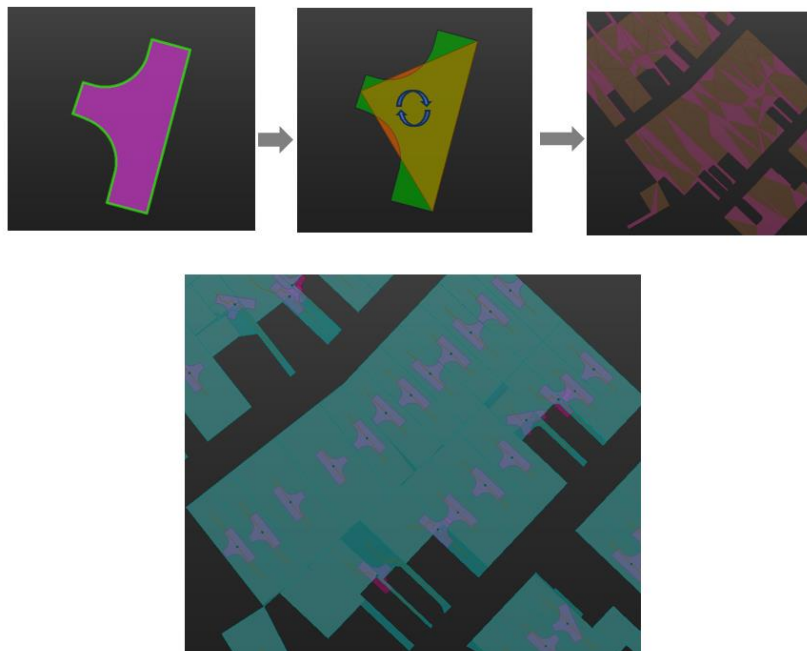


Figure 5 Turning bay shape test process

Stage three – assessing carriageway and pedestrian access, and passing bays

Stage three of the PC79 assessment is concerned with determining the ground-level impervious surface area that can be allocated to vehicle and pedestrian access, along with any necessary passing bays based on the lengths of these accessways.

To streamline the modelling process, it is assumed that the carriageway and pedestrian access run in parallel. This global assumption has been formulated to ensure equitable treatment of all sites. This entails adopting a polygon-to-centreline conversion methodology facilitated by a built-in-tool within FME.

This tool transforms area geometries to their corresponding centrelines. Once these line features are generated for all tested residential sites, the centrelines are extended to reach the site boundaries, effectively simulating road front access.

Table 5. Minimum width requirements for carriageway and pedestrian access.

No. of dwellings per site	Notified PC79		Post notification variation	
	Carriageway width (in meters)	Pedestrian width (in meters)	Carriageway width (in meters)	Pedestrian width (in meters)
2	2.5	-	2.5	-
3	3	-	3	-
4 – 9	3	-	3	1.4
4 – 9 with heavy vehicle access	3	1.35**	-	-
10 – 19	2.75*	1.35**	2.75*	1.4
20 or more	2.75* *Vehicle passing bays provided at 50m intervals)	1.8** **Pedestrian passing bays provided at 50m intervals	2.75* *Vehicle passing bays provided at 50m intervals)	1.8

Centreline lengths are calculated. These lengths play a crucial role in determining the need for vehicle and/or pedestrian access passing bays as outlined in (see Table 5).

To account for various scenarios of carriageway and pedestrian access length combinations, the percentage variable has been set at 50% for both carriageway and pedestrian access. This implies that accessways would extend from the road front to the halfway point of individual residential sites, providing a conservative estimate.

Stage four – combine PC79 calculation and calculate yield reductions

The final stage of the assessment integrates all preceding calculations to determine the overall ground level impervious surface area required to comply with PC79 standards. The formulas are shown below:

$$\text{Total ISA for PC79 Standards} = \text{Accessible Carpark Area} + \text{Loading Space Area} + \text{Waste Collection Area} + \text{Vehicle Carriageway Area} + \text{Pedestrian Access Area} + \text{Passing Bay Area (if required)}$$

$$\text{Remaining Ground Level Area} = \text{Ground Level Plan-Enabled Capacity Area} - \text{Total ISA for PC79 Standards}$$

$$\text{Dwelling Capacity for PC79} = \text{Remaining Ground Level Area} / \text{Average Ground Level Dwelling Area (120m}^2\text{)}$$

$$\text{Lost Dwelling Capacity} = \text{Ground Level Plan-Enabled Capacity} - \text{Dwelling Capacity for PC79}$$

In essence, the formulas provided allow for the calculation of the lost dwelling capacity resulting from the application of PC79 provisions, as compared to the initial plan-enabled capacity under PC78. This comparison provides insights into the impact of the PC79 provisions on the development potential of residential sites.

Results

Table 6a and Table 6b present the outcomes of the PC79 capacity assessment categorised by PC78 residential zones and overall yield categories under the notified PC79 provisions and post notification variation. The tables provide summaries of dwelling yield changes resulting from the application of the two PC79 provisions.

Table 6a. Dwelling yield summary by PC78 residential zones under the notified PC79 provisions

PC78 base zone	No. of sites assessed	Total plan-enabled PC78 capacity (excluding PC79)	Total plan-enabled PC78 capacity if ground level yield removed	Ground level capacity (PC78)	Percentage of capacity lost if ground level capacity removed	Yield reduced if notified PC79 provisions are applied	Yield reduction if notified PC79 provisions are applied
Low Density Residential Zone	20,707	78,296	47,855	30,441	38.88%	138	0.18%
Mixed Housing Urban Zone	224,718	1,463,224	1,093,473	369,751	25.27%	33,582	2.30%
Terrace Housing and Apartment Building Zone	15,648	180,245	123,405	56,840	31.53%	4,409	2.45%
Terrace Housing and Apartment Building Zone with walkable catchment	28,901	405,150	337,814	67,336	16.62%	16,850	4.16%
Grand Total	289,974	2,126,915	1,602,547	524,368	24.65%	54,979	2.58%

The explainer further outlines key details regarding the table:

- The carriageway and pedestrian access variable is set at 50% for the calculations;
- The average dwelling size is assumed to be 120m²;
- Out of a total of 343,163 residential sites, 289,974 have been assessed under the PC79 notified provisions. The remaining 53,189 sites either do not require assessment due to no additional plan-enabled capacity, or because of site frontage width limitations apply;
- The estimated ground level plan-enabled capacity from PC78 suggests that among the assessed residential sites, a maximum of 524,368 dwelling units could be built at the ground level. With the incorporation of PC79 parameters, it is estimated that 54,979 units would be lost, constituting approximately 2.58% of the total ground level plan-enabled capacity;
- The most significant reductions in estimated capacity are observed in Mixed Housing Urban (MHU) sites and Terrace Housing and Apartment Building (THAB) sites within walkable catchments.

For the avoidance of doubt, I emphasise that my percentage yield reductions in the table above (and in Table 6b below) are based on the lower residential site figures referenced, rather than the total plan-enabled residential capacity under PC78, which Dr Fairgray addresses in his memo.

Table 6b. Dwelling yield summary by PC79 residential zones under the PC79 post notification variation

PC78 base zone	No. of sites assessed	Total plan-enabled PC78 capacity (excluding PC79)	Total plan-enabled PC78 capacity if ground level yield removed	Ground level capacity (PC78)	Percentage of capacity lost if ground level capacity removed	Yield reduced if post notification PC79 provisions are applied	Yield reduction if post notification PC79 provisions are applied
Low Density Residential Zone	19,715	73,014	44,954	28,060	38.43%	32	0.04%
Mixed Housing Urban Zone	214,660	1,397,537	1,046,334	351,203	25.13%	33,876	2.42%
Terrace Housing and Apartment Building Zone	15,257	177,500	121,597	55,903	31.49%	1,469	0.83%
Terrace Housing and Apartment Building Zone with walkable catchment	27,800	396,858	331,269	65,589	16.53%	4,883	1.23%
Grand Total	277,432	2,044,909	1,544,154	500,755	24.49%	40,260	1.97%

The explainer further outlines key details regarding the table:

- The carriageway and pedestrian access variable has been set at 50%, indicating the assumed average coverage of carriageway and pedestrian access;
- The average dwelling size is assumed to be 120m² for the calculations;
- A total of 277,432 (out of 343, 163) residential sites have undergone assessment using the post notification variation of PC79 provisions. 65,731 residential sites are excluded from PC79 capacity assessment for reasons similar to those discussed earlier;
- Among the assessed sites, the upper limit of ground level plan-enabled capacity is estimated to be 500,755 dwelling units;
- Once the PC79 provisions are considered, it is estimated that 40,260 dwelling units would be removed from the total yield, constituting around 1.97% of the ground level capacity;
- The largest proportion of capacity reduction is observed in sites zoned as Mixed Housing Urban (MHU).

Chad Hu | Senior Spatial Analyst

Spatial Analysis and Modelling

Research & Evaluation Unit (RIMU)

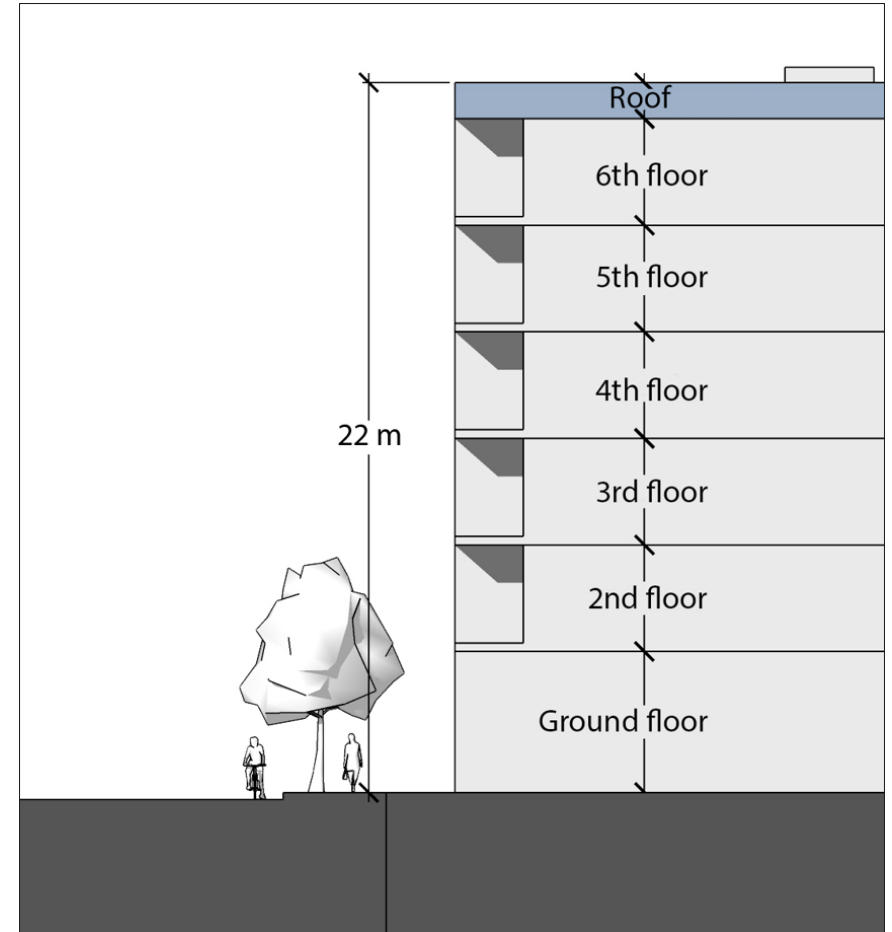
Auckland Council PC 78 – JWS Topic 014A, 014B, 014C, 014G, 014H, and 014I Height
11 & 12 March:

Attachment 3: Possible changes to notified provisions being reviewed by Auckland Council's
experts

Possible changes to notified heights

At least 6 storeys – 21m notified, an increase to 22m would better accommodate 6 storey buildings

- Increase height standard from 21m to 22m
- Consequential increase to height in relation to boundary standard, from:
 - ❖ 19m + 60-degrees to
 - ❖ 20m + 60-degrees



Additional Standards – Possible 9 Storey Area

9-storey buildings will need to comply with:

- The PC78 height in relation boundary development standards which proposed to change to 20m + 60-degrees and
- Development standards currently included in the AUP Business Centres and Mixed Use zone and would apply in THAB zone:
 - Building setback at upper floors,
 - Maximum tower dimension,
 - Wind
- Would require assessment matter and changes to objectives and policies to enable this.

Building Set Back at Upper Floors

- Any part of a new building must be set back from the site frontage, side and rear boundaries from the point where it exceeds the height listed in the table below:

Opposite zone	Minimum setback	Height
When opposite a residential zone	6m	22m
All other zones	6m	27m

Maximum Tower Dimension

- Any part of a new building above 27m not exceed the maximum plan dimension of 55m

Wind Standard

- Any new building or alterations exceeding 22m in height must comply with the wind amenity standards specified in the business centre and mixed use zones.

Additional Standards – Possible 9 Storey Area (continued)

- 9-storey buildings enable through Height Variation Control
- Amendments to activity table, to link these activities with standards for
 - Building setback at upper floors,
 - Maximum tower dimension,
 - Wind.



Will apply to residential developments:

- Dwellings (four or more)
- Integrated residential development

Will also apply to activities enabled to have additional height in WCs in notified text of PC78:

- Supported residential care
- Boarding houses
- Visitor accommodation
- Care centres
- Community facilities
- Healthcare facilities

Also applied to other relevant activity standards:

- Internal and external alterations to buildings for a development of four or more dwellings
- Accessory buildings associated with developments of four or more dwellings
- Additions to an existing dwelling from a development of four more dwellings

Expert Conference attendance sheet

Topic 014A + 014B + 014C + 014G + 014H + 014I

Date: 11 March 2024 9.30am – 5.00pm (Day 1)

Facilitator: Marlene Oliver

Location: Online

Submission number	Submitter name	Representative at mediation	Email	Notes
1215	617 New North Limited	Nick Mattison (Planning)	nick@civix.co.nz	Left at 11.20am
1656	777 Investments Limited	Michael Campbell (Planning)	michael@campbellbrown.co.nz	
1225	Aaron Ghee	Nick Mattison (Planning)	nick@civix.co.nz	Left at 11.20am
FS184	Andrew and Sheridan Harnos	Craig McGarr (Planning)	cmcgarr@bentley.co.nz	Left at 12.23pm
374	Andrew Body	Morgan Shepherd (Planning)	Morgan@brownandcompany.co.nz	
N/A	Auckland Council	Alina Wimmer (Planning)	Alina.Wimmer@aucklandcouncil.govt.nz	
N/A	Auckland Council	David Mead (Planning)	david@meadplanning.nz	
N/A	Auckland Council	Lisa Mein (Urban Design)	lisa.mein@mudp.co.nz	
N/A	Auckland Council	Madeline Sharpe (Urban Design)	Madeline.Sharpe@synergine.com;	
N/A	Auckland Council	Nick Pollard (Urban Design)	Nick.Pollard@boffamiskell.co.nz	
N/A	Auckland Council	Robbie Lee (Planning)	robbie.lee@at.govt.nz	
N/A	Auckland Council	Rory Power (Planning)	rory.power@at.govt.nz	
N/A	Auckland Council	Stephen Brown (Landscape)	stephen@brownltd.co.nz	
N/A	Auckland Council	Stephen Quin (Landscape)	stephen.quin@aucklandcouncil.govt.nz	
870	Auckland International Airport Limited	Greg Osborne (Planning)	greg@osbornehay.co.nz	Left at 4.44pm
2055	Brett Carter Family Trust	Simon O'Connor (Planning)	simon@sentinelpanning.co.nz	Left at 2.30pm
897	Catholic Diocese of Auckland	Michael Campbell (Planning)	michael@campbellbrown.co.nz	

Plan Change 78 Intensification

Submission number	Submitter name	Representative at mediation	Email	Notes
FS163	Centuria Funds Management NZ Limited	Rachel Morgan (Planning)	rachelm@barker.co.nz	Left at 4.38pm
FS166	Century Group Limited	Anthony Blomfield (Planning)	ablomfield@bentley.co.nz	
2033	Classic Group	Michael Campbell (Planning)	michael@campbellbrown.co.nz	
1811	Dilworth Trust Board	Anthony Blomfield (Planning)	ablomfield@bentley.co.nz	
942	Drive Holdings Limited	Peter Neeve (Planning)	pneeve59@gmail.com	
1812	Emerald Group Limited	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
2065	Fabric Property Limited	Cam Wallace (Planning / Urban Design)	CamW@barker.co.nz	Left at 4.33pm
1080	Fletcher Residential	Rachel Morgan (Planning)	rachelm@barker.co.nz	
941	Foodstuffs North Island Ltd	Cam Wallace (Planning/Urban Design)	CamW@barker.co.nz	Left at 4.33pm
941	Foodstuffs North Island Ltd	Matt Norwell (Planning)	MattN@barker.co.nz	
941	Foodstuffs North Island Ltd	Kasey Zhai (Planning)	KaseyZ@barker.co.nz	
1356	Generus Living Group	Craig McGarr (Planning)	cmcgarr@bentley.co.nz	Left at 12.23pm
1075 (Additional Topic Allocation)	Goodman Nominee (NZ) Limited	Rachel Morgan (Planning)	rachelm@barker.co.nz	Left at 4.38pm
1482	Henla Limited	Nick Mattison (Planning)	nick@civix.co.nz	Left at 11.20am
FS462	Industre Property Limited	Cam Wallace (Planning/ Urban Design)	CamW@barker.co.nz	Left at 4.33pm
914	James Kirkpatrick Group Limited	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
873	Kāinga Ora	Elaine Chen (Urban Design)	Elaine.Chen@beca.com	Absent from 1.40pm – 2.14pm
873	Kāinga Ora	Matt Lindenberg (Planning)	Matt.Lindenberg@beca.com	Left at 1.26pm
FS175	Kheng Kai Chew (Alex)	Jethro Joffe (Planning)	jethro@baseplan.co.nz;	Left at 12.00pm
1087	Kiwi Property Group Ltd	Rachel Morgan (Planning)	rachelm@barker.co.nz	
FS153	Laurie Knight	David Wren (Planning)	david@davidwren.co.nz	Absent from 10.42am – 11.30am; Left at 4.43pm
855	MHE Limited	Michael Campbell (Planning)	michael@campbellbrown.co.nz	

Plan Change 78 Intensification

Submission number	Submitter name	Representative at mediation	Email	Notes
2041	Neilston Homes	Michael Campbell (Planning)	michael@campbellbrown.co.nz	
836	North Eastern Investments Limited	Amanda Coats (Architecture/Planning)	amanda@proarch.co.nz	
938	NZ Housing Foundation	Michael Campbell (Planning)	michael@campbellbrown.co.nz	
FS226	Oceania Healthcare Ltd	Craig McGarr (Planning)	cmcgarr@bentley.co.nz	Left at 12.23pm
830	Ockham Group Limited	Barry Kaye (Planning)	barrykaye@xtra.co.nz;	Left at 10.14am
830	Ockham Group Limited	Jethro Joffe (Planning)	jethro@baseplan.co.nz;	Left at 12.00pm
1074	Oyster Capital	Rachel Morgan (Planning)	rachelm@barker.co.nz	Left at 4.38pm
902	Oyster Management Limited	Cam Wallace (Planning / Urban Design)	CamW@barker.co.nz	Left at 4.33pm
911	Parnell Park Ltd	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
1117	Porter Group	Brooke Dales (Planning)	brooke@dcs.gen.nz	
2275	Richard Hanson	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
FS273	Samson Corporation and Stirling Nominees	Morgan Shepherd (Planning)	Morgan@brownandcompany.co.nz	
FS273	Samson Corporation and Stirling Nominees	Adam Wild (Heritage architect)	adam@archifact.co.nz	Left at 10.37am
F273	Samson Corporation and Stirling Nominees	Tim Stevenson (Heritage Architect)	tim@archifact.co.nz	Absent 2.49pm - 3.21pm
2295	Screation Ltd	Nick Mattison (Planning)	nick@civix.co.nz	Left at 11.20am
1175	SD Patel Family Trust	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
1981	Southpark	Rachel Morgan (Planning)	rachelm@barker.co.nz	Left at 4.38pm
2068	Stride Property Limited	Cam Wallace (Planning / Urban Design)	CamW@barker.co.nz	Left at 4.33pm
1111	Summerset Villages (Parnell)	Craig McGarr (Planning)	cmcgarr@bentley.co.nz	Left at 12.23pm
987	Tamaki Regeneration Company	Rachel Morgan (Planning)	rachelm@barker.co.nz	Left at 4.38pm
899	Te Tūāpapa Kura Kāinga - Ministry of Housing and Urban Development (Land	Nick Grala (Planning)	N.Grala@harrisongrierson.com	

Plan Change 78 Intensification

Submission number	Submitter name	Representative at mediation	Email	Notes
	Acquisition and Development Team)			
2083	Universal Homes	Michael Campbell (Planning)	michael@campbellbrown.co.nz	
1975	Willis Bond and Company	Michael Campbell (Planning)	michael@campbellbrown.co.nz	
1110	Wyborn Capital Limited	Rachel Morgan (Planning)	rachelm@barker.co.nz	Left at 4.38pm

Expert Conference attendance sheet

Topic 014A + 014B + 014C + 014G + 014H + 014I

Date: 12 March 2024 9.30am – 5.00pm (Day 2)

Facilitator: Marlene Oliver

Location: Online

Submission number	Submitter name	Representative at mediation	Email	Notes
1656	777 Investments Limited	Michael Campbell (Planning)	michael@campbellbrown.co.nz	Left 2.40pm
FS184	Andrew and Sheridan Harnos	Craig McGarr (Planning)	cmcgarr@bentley.co.nz	Left 3.20pm
374	Andrew Body	Morgan Shepherd (Planning)	Morgan@brownandcompany.co.nz	
N/A	Auckland Council	Alina Wimmer (Planning)	Alina.Wimmer@aucklandcouncil.govt.nz	
N/A	Auckland Council	David Mead (Planning)	david@meadplanning.nz	
N/A	Auckland Council	Lisa Mein (Urban Design)	lisa.mein@mudp.co.nz	
N/A	Auckland Council	Madeline Sharpe (Urban Design)	Madeline.Sharpe@synergine.com;	Left at 1.00pm
N/A	Auckland Council	Nick Pollard (Urban Design)	Nick.Pollard@boffamiskell.co.nz	
N/A	Auckland Council	Robbie Lee (Planning)	robbie.lee@at.govt.nz	Left 10.25am
N/A	Auckland Council	Rory Power (Planning)	rory.power@at.govt.nz	
N/A	Auckland Council	Stephen Brown (Landscape)	stephen@brownltd.co.nz	
N/A	Auckland Council	Stephen Quin (Landscape)	stephen.quin@aucklandcouncil.govt.nz	
870	Auckland International Airport Limited	Greg Osborne (Planning)	greg@osbornehay.co.nz	
897	Catholic Diocese of Auckland	Michael Campbell (Planning)	michael@campbellbrown.co.nz	Left 2.40pm
FS163	Centuria Funds Management NZ Limited	Rachel Morgan (Planning)	rachelm@barker.co.nz	
FS166	Century Group Limited	Anthony Blomfield (Planning)	ablomfield@bentley.co.nz	
2033	Classic Group	Michael Campbell (Planning)	michael@campbellbrown.co.nz	Left 2.40pm

Plan Change 78 Intensification

Submission number	Submitter name	Representative at mediation	Email	Notes
1811	Dilworth Trust Board	Anthony Blomfield (Planning)	ablomfield@bentley.co.nz	
942	Drive Holdings Limited	Peter Neeve (Planning)	pneeve59@gmail.com	Left 3.45pm
1812	Emerald Group Limited	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
2065	Fabric Property Limited	Cam Wallace (Planning / Urban Design)	CamW@barker.co.nz	
1080	Fletcher Residential	Rachel Morgan (Planning)	rachelm@barker.co.nz	Absent 11.29am-1.30pm
941	Foodstuffs North Island Ltd	Cam Wallace (Planning/Urban Design)	CamW@barker.co.nz	
941	Foodstuffs North Island Ltd	Matt Norwell (Planning)	MattN@barker.co.nz	
941	Foodstuffs North Island Ltd	Kasey Zhai (Planning)	KaseyZ@barker.co.nz	
1356	Generus Living Group	Craig McGarr (Planning)	cmcgarr@bentley.co.nz	Left 3.20pm
1075 (Additional Topic Allocation)	Goodman Nominee (NZ) Limited	Rachel Morgan (Planning)	rachelm@barker.co.nz	Absent 11.29am-1.30pm
FS462	Industre Property Limited	Cam Wallace (Planning/ Urban Design)	CamW@barker.co.nz	
914	James Kirkpatrick Group Limited	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
873	Kāinga Ora	Matt Lindenberg (Planning)	Matt.Lindenberg@beca.com	Left 10.55am
FS175	Kheng Kai Chew (Alex)	Jethro Joffe (Planning)	jethro@baseplan.co.nz;	
1087	Kiwi Property Group Ltd	Rachel Morgan (Planning)	rachelm@barker.co.nz	Absent 11.29am-1.30pm
FS153	Laurie Knight	David Wren (Planning)	david@davidwren.co.nz	Attended 10.22am-10.50am
855	MHE Limited	Michael Campbell (Planning)	michael@campbellbrown.co.nz	Left 2.40pm
2041	Neilston Homes	Michael Campbell (Planning)	michael@campbellbrown.co.nz	Left 2.40pm
836	North Eastern Investments Limited	Amanda Coats (Architecture/Planning)	amanda@proarch.co.nz	
938	NZ Housing Foundation	Michael Campbell (Planning)	michael@campbellbrown.co.nz	Left 2.40pm
FS226	Oceania Healthcare Ltd	Craig McGarr (Planning)	cmcgarr@bentley.co.nz	Left 3.20pm
830	Ockham Group Limited	Jethro Joffe (Planning)	jethro@baseplan.co.nz;	
1074	Oyster Capital	Rachel Morgan (Planning)	rachelm@barker.co.nz	Absent 11.29am-1.30pm

Plan Change 78 Intensification

Submission number	Submitter name	Representative at mediation	Email	Notes
902	Oyster Management Limited	Cam Wallace (Planning / Urban Design)	CamW@barker.co.nz	
911	Parnell Park Ltd	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
1117	Porter Group	Brooke Dales (Planning)	brooke@dcs.gen.nz	
2275	Richard Hanson	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
FS273	Samson Corporation and Stirling Nominees	Morgan Shepherd (Planning)	Morgan@brownandcompany.co.nz	
1175	SD Patel Family Trust	Mark Benjamin (Planning)	MarkB@mhg.co.nz	
1981	Southpark	Rachel Morgan (Planning)	rachelm@barker.co.nz	Absent 11.29am-1.30pm
2068	Stride Property Limited	Cam Wallace (Planning / Urban Design)	CamW@barker.co.nz	
1111	Summerset Villages (Parnell)	Craig McGarr (Planning)	cmcgarr@bentley.co.nz	Left 3.20pm
987	Tamaki Regeneration Company	Rachel Morgan (Planning)	rachelm@barker.co.nz	Absent 11.29am-1.30pm
899	Te Tūāpapa Kura Kāinga - Ministry of Housing and Urban Development (Land Acquisition and Development Team)	Nick Grala (Planning)	N.Grala@harrisongrierson.com	Left 2.00pm
2083	Universal Homes	Michael Campbell (Planning)	michael@campbellbrown.co.nz	Left 2.40pm
1975	Willis Bond and Company	Michael Campbell (Planning)	michael@campbellbrown.co.nz	Left 2.40pm
1110	Wyborn Capital Limited	Rachel Morgan (Planning)	rachelm@barker.co.nz	Absent 11.29am-1.30pm