

**Before the Hearings Panel
At Porirua City Council**

Under Schedule 1 of the Resource Management Act 1991

In the matter of the Proposed Porirua District Plan

Between **Various**

Submitters

And **Porirua City Council**

Respondent

**Variation 1 to the Porirua Proposed District Plan and Plan Change 19 to the
Operative District Plan
Statement of evidence of Graeme Robert McIndoe
on behalf of Porirua City Council**

Urban Design Evidence in Reply

28 April 2023

INTRODUCTION:

- 1 My full name is Graeme Robert McIndoe.
- 2 I have prepared this statement of evidence in reply on behalf of the Porirua City Council (**Council**) in respect of technical and related urban design matters arising from the expert evidence of submitters on the Proposed Porirua District Plan (**PDP**).
- 3 I am authorised to provide this evidence on behalf of the Council.

QUALIFICATIONS, EXPERIENCE AND CODE OF CONDUCT

- 4 My qualifications and experience are set out at paragraphs 4-10 in my 8 February 2023 Statement of urban design evidence.
- 5 I confirm that I am continuing to abide by the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023.

SCOPE OF EVIDENCE

- 6 This reply follows Hearing Stream 7. Minute 60 of the Hearing Procedures allows for s42A report authors to submit a written reply by 28th April 2023. This statement of evidence therefore provides responses to urban design-related questions identified by the Panel in Minute 60.
- 7 Advice to the Panel has already been provided on some of these matters, and in relation to these, I cross-reference that advice. Some of the matters identified in Minute 60 for my attention, particularly production and analysis of maps, are dealt with by PCC.

RESPONSE TO QUESTIONS

Daylight and health research paper (Aries, et al) summary

Question 15: Can Mr McIndoe please provide the summary of the paper –Aries, M.B., Aarts, M.P. and van Hoof, J., 2015. Daylight and health: A review of the evidence and consequences for the built environment- he referred to and that was referenced by Karen Williams.

- 8 The hyperlinked web reference to this summary as included in my 16 March 2023 *Urban Design Advice to the Hearings Panel* is:

https://www.healthdesign.org/system/files/Aries_Aarts_Van%20Hoof-2015-CHD-KPS.pdf .

Evidence of Mr Carter regarding 5C Motuhara Road Plimmerton

Question 16: Please also comment on the evidence of David Carter (Submitter #61).

9 I have responded in detail to Mr Carter in paragraphs 5-10 of my *Response to interim questions from the Hearing Panel – Graeme McIndoe (16 Mar 2023)*.

Site coverage within the HRZ

Question 43: “What are the pros and cons from an urban design perspective of having a site coverage limit within the HDRZ?”

10 Pros for having a site coverage limit within the HRZ are:

- a. Provides specific control and maximum certainty on the management of on-site effects of high site coverage. In relation to this, a site coverage standard:
 - i. Is a useful check on the extent of high building forms.
 - ii. Establishes a threshold to pay particular attention to the effects of site coverage.
- b. Provides greater leverage than the Residential Design Guide to require modification of a proposal where site coverage is considered excessive.
- c. Compensates in part for the inadequacy of the MDRS Outlook Space standard as a means of contributing to controlling space between buildings for outlook, inter-unit privacy, sunlight and daylight.
- d. Is consistent with general practice for district plan management of development in residential zones.

11 Cons of having a site coverage limit within the HRZ are:

- a. Site coverage is not the major determinant of amenity effects across the boundary. Those effects are primarily determined by height and HIRB, and subject to development being within the HIRB

and height envelope, site coverage will have little impact on off-site effects.

- b. Site coverage is addressed in part by HRZ-S4 boundary setbacks, and HRZ-S5 (20% Landscaped Area). The Residential Design Guide also applies and that comprehensively addresses space between buildings, outlook and access to light and sun. Therefore, a site coverage standard may to some extent be redundant.
- c. The HRZ, with the exception of not permitting extensive ground level non-residential activity at ground is virtually identical to the Commercial and Mixed Use zones, where high intensity residential is also intended, and which do not have a site coverage standard.
- d. Should a site coverage standard be unnecessary to address effects, requirement for resource consent for any exceedance is inconsistent with principle of enablement.

HRZ at Paremata

Question 45: If not contained in the above, can Mr McIndoe please provide a map of the area he agreed with Mr Rae should be HDRZ at Paremata?

12 ‘The above’ relates to question and means ‘modifications to the planning maps’. All modifications to these maps, including at Paremata, are described by PCC and included in Mr Rachlin’s Right of Reply evidence.

13 To clarify, while Mr Rae and I agreed that particular street-fronting sites at Paremata would be suitable for additional building height to 6 storeys, I did not agree that these sites should be HRZ. My opinion on zoning at Paremata is recorded at paragraph 8.2 of the Urban Design JWS of 10 March 2023:

“GM considers the underlying zoning should remain as MRZ because the 50% site coverage standard should apply here in this particular coastal edge hillside landscape setting.”

35 Terrace Road cardboard model

Question 46: Can Mr McIndoe comment on the model provided by Mr Keenan of the area including and below 35 Terrace Road.

- 14 I have viewed Mr Keenan’s cardboard model. It is a tilted planar surface with two cut-outs to indicate some flat building platforms. Notes on the model record Mr Keenan’s interpretation of slope. However, because it is a simple flat plane, the model does not show the complexity of the contours over and next to this site. Furthermore, the source of the data used to construct this is unclear. Therefore, while Mr Keenan’s model may provide some context, when commenting on this matter I prefer reference to Porirua City Council’s GIS data which shows the full three-dimensional effect and uses Lidar sourced data that are accurate to 100mm.
- 15 I have viewed that further information prepared by PCC and stand by my advice in evidence that the HVCA should remain for the reasons I identified in that evidence. In particular when determining HVCA, the same parameters and assessment approach were applied to this site and its surrounds as were applied to all other sites through the residential zones of the city.

Expansion of Pukerua Bay NCZ

Question 47: Can Mr McIndoe please comment on the expansion of the Pukerua Bay NCZ that Kāinga Ora propose.

- 16 This proposed extension of the zone is described on the maps in Mr Rae’s evidence, see Figure 1 below.



Figure 1: Extract from Kainga Ora’s ‘Centre: Pukerua Bay’ Sheet 13 of 13. The pink hatched area outlined by blue is the proposed extension to the NCZ at Pukerua Bay

- 17 Increasing the area of neighbourhood centre zoning raises the issue of appropriate zoning. If the Panel were to choose to rezone this to a centres zone, I consider that given the significant increase in the size of this area, Neighbourhood Centre Zoning may no longer be appropriate. This is because of the relative lack of design control within the NCZ.
- 18 To address lack of design control, if zone extension is considered, that in my opinion should be in combination with rezoning to Local Centre Zone. In this case the Local Centre Zone Design Guide would apply and would assist with getting the quality of plan configuration and outcomes necessary for a centre of this scale. Furthermore, Active Street Frontage controls addressing frontage treatment (but not building line) should be applied to these sites. This is to avoid the potentially very poor effect of large blank walls dominating street edges that is quite likely, particularly with any supermarket development.
- 19 However, such a zoning change introduces planning considerations which are addressed by Mr Rachlin. From an urban design perspective:
- a. Zoning change to LCZ would permit buildings to rise to 18m/six storeys, rather than 12m/three storeys in the NCZ. That would have potentially significant adverse effects on the existing houses currently within the zone where extreme visual domination and shading could occur.
 - b. The proposed plan approach is to allow height approaching six storeys around each LCZ. I do not consider that scale to be appropriate in the Pukerua Bay context given lack of services, land form and existing character. I do not consider development higher than three storeys should be a permitted activity in this context.
- 20 This leads to the potential scenario of applying the NCZ zoning and three storey height limit to an enlarged zone area. This would be without the design control benefits of a design guide. Because potentially large developments would be permitted here, such a scenario introduces a high risk of poor development outcomes on a relatively large centre such as this might become, particularly if it provided for a supermarket.

- 21 From an urban design perspective, a further alternative scenario is to retain NCZ zoning but apply bespoke urban design policies and controls including the LCZ Design Guide to an extended area. These would address the matters raised above and the transition over time of most of the area from a residential environment to a commercial centre.
- 22 If these and all other planning issues can be resolved, then changing the extent of the zone could be supported from an urban design perspective. If not, in my opinion, there should be no change.
- 23 Putting the issue of actual zoning aside, in the analysis below I discuss urban design issues relating to increasing the extent of the zone.

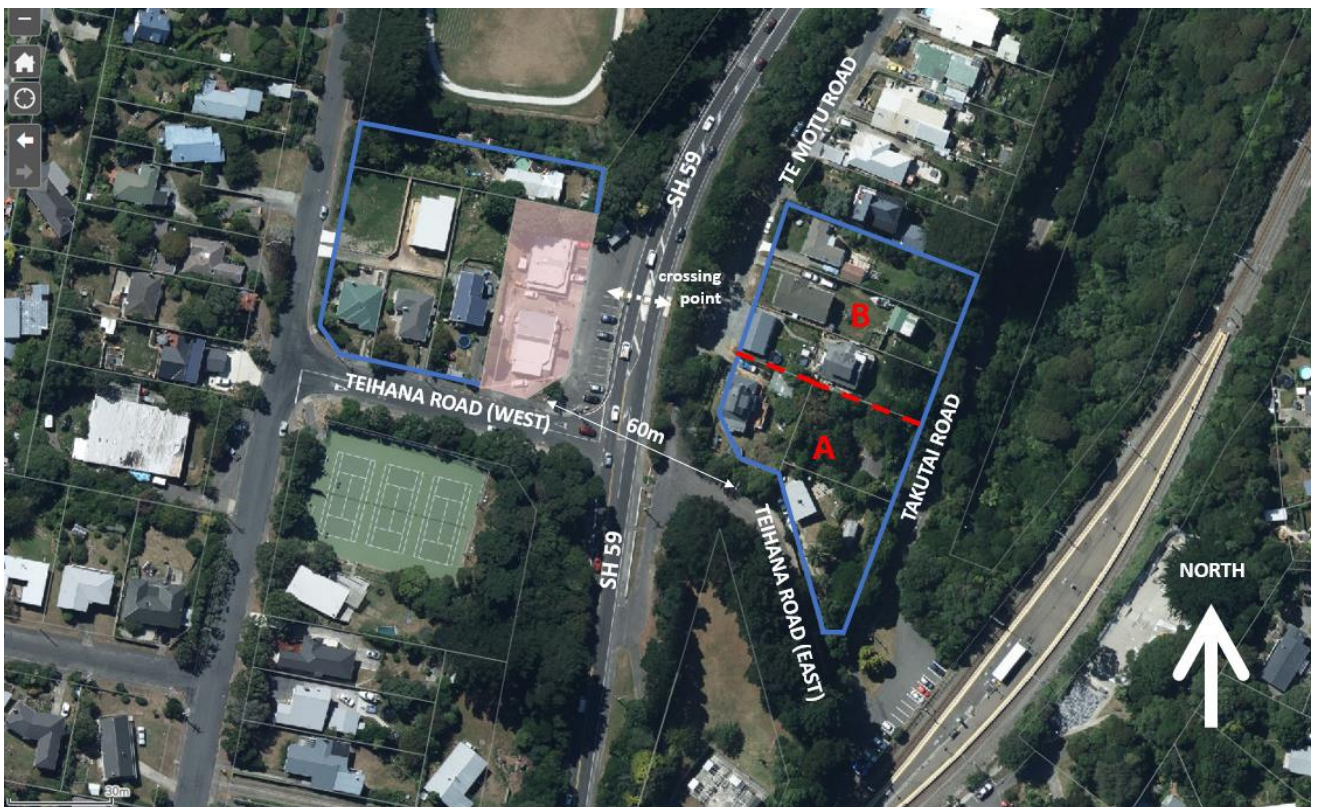


Figure 2: Potential centre zone extension in context with overlay of 60m separation distance. Area A in red shows my proposed modification of the maximum extent of any potential centres zoning to the east of SH59. Area B is not suitable for Commercial Centres zoning.

Facilitating an increased number and range of local services

- 24 Increasing the area of land for centres use here would enhance the possibility of increasing the range of local services and facilities including

potentially 'future-proofing' for a local supermarket. The emergence of additional commercial facilities continues to depend on site purchase and amalgamation but, that notwithstanding, such a process would be facilitated by a change from residential to a centres zoning.

Extent and characteristics of the identified area to the west of SH59

- 25 The proposed rezoned area to the west of SH59 (including the existing area zoned as NCZ) is approximately 72m wide in the east-west direction and 67m in the north-south direction. It has an area of approximately 4700m². This has street frontages on three sides including direct frontage to SH59 and while not entirely flat would be visible and accessible along all of these frontages. Intensification of services next to other facilities such as the Pukerua Bay School and tennis courts may also enhance a sense of local 'neighbourhood' and 'centre'. This in my opinion is in principle a suitable location for extending a centres zone, subject to this being technically viable and properly resolved from a planning perspective.

Extent and characteristics of the identified area to the west of SH59

- 26 The proposed area to the east of SH59 is bounded by three local streets. It is located back from and well above SH59, with an intervening street (Te Motu Road) and therefore is unlikely to have an interface with the highway. In my opinion only the southern part of this along Teihana Road East might be suitable for any zoning change.
- a. Te Motu Road is a narrow cul-de-sac accessed only from the south. Because of this it will not attract the through or passing traffic (pedestrian or otherwise) necessary for commercial success.
 - b. Contour drawings show the south-western corner of the proposed area for rezoning (at No.4 Teihana Road East) is 4m higher than SH59. At the north-western corner of the area (by No 3 Te Motu Road) the site is 5m above SH59. Therefore, apart from the lot at the south-west corner (No.4 Teihana Road East), development here will not be visible from SH59 unless existing mature street edge planting is removed. Moreover, direct access to this area is prevented by existing contours.

- c. Takutai Road is a narrow one-way (north) local street with a very narrow footpath along its western side. Contour drawings show it is 5-6m below the lot at its south-eastern corner (at No.2 Teihana Road East) and 8m below the rear of 3 Te Motu Road at the north-eastern corner of the proposed area.
- 27 The lack of visibility and poor access to and past the northern part of this site to the east of SH59 in my opinion makes that northern portion (Area B in my Figure 2) unsuitable for commercial frontages and singularly inappropriate for any sort of neighbourhood centre extension.
- 28 However, considering the southern part of this site (Area A in my Figure 2) pedestrian movement occurs and can be expected to increase over time along Teihana Road East between SH59 and the railway station. That notwithstanding, access to this is not ideal. A change in level of around 1m where Teihana Road East approaches SH59 means that while there is pedestrian access up from the footpath along the eastern side of SH59, pedestrians must negotiate a change in level. Vehicle access is some 40-45 m further to the south. The 'safe' pedestrian crossing point is some 50m to the north. (Refer to Figures 3 and 4 below for images of this intersection.)
- 29 The distance between the eastern and western parts of the proposed rezoned areas can be seen on Figure 2 to be 60m. So, while these areas are on opposing sides of a state highway, (and because the traffic on SH59 will act as a divider rather than a connector) they are not especially close nor well connected. Nevertheless, assuming that railway passenger patronage increases and also that the population of Pukerua Bay increases over time, the lots fronting Teihana Road East might be developed for centres uses.
- 30 Ms Williams notes in her evidence that "*The proposed expansion will improve walkable amenity and connections with the Pukerua Bay train station.*"¹ I consider this beneficial effect could occur, but benefits will be limited. Benefits also depend only on the activity on the lots fronting to Teihana Road East, that is Numbers 2 and 4. It does not rely on rezoning

¹ Appendix B – Section 32AA assessment. Table 6 Neighbourhood Centre Expansion
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substantial areas to the north of this which I consider unsuitable for this type of use for reasons I have identified above.

31 In summary, should the geographical extent of the centre zoning at Pukerua Bay increase, I consider that:

- a. this should be in combination with an appropriate package of controls; and
- b. it should be limited to Kāinga Ora's area to the west of SH59 and to the east, the area identified as A in my Figure 2.



Figure 3: View in the direction of the railway station across SH49 to Teihana Road East. The sign in the foreground reads: 'Safe Crossing Point' with arrow pointing to the crossing some 50m to the north as identified on Figure 2.



Figure 4: View in the direction of the railway station across SH49 to Teihana Road East with the change in level here visible.

Gradients of hill streets

Question 55: Please identify the gradients of the hill streets in the broader Mana/Camborne/South Plimmerton area where HDRZ is recommended and compare those gradients with the additional areas Kāinga Ora (in the evidence of Mr Rae) suggests be upzoned HDRZ?

32 I have identified suitably representative hill streets in these areas and using PCC GIS base data have measured both the horizontal and vertical distance travelled along them. The set-out points are taken from logical entry points and/or the start of KO's proposed new zoning. The selection of streets is described in my attached Appendix 1: 'Gradients of hill streets in the broader Mana/Camborne/South Plimmerton area'. Summary analysis is within that document and also described in *Table 1 Street Gradients* below.

TABLE 1 Street Gradients

Location and measured length	Gradient within PCC's proposed HDZ catchment	Gradient in Kāinga Ora's proposed extension to the HRZ
South Plimmerton		
Motuhara Road (242m)	1 in 11	-
Mana/Camborne		
Grays Road (348m)	1 in 12.4	-
Taupo Crescent (358m)	1 in 10.2	-
Pope Street (210m)	1 in 7.8	-
Acheron Road (154m)	-	1 in 8.1
(Lower) Mana View Road (170m)	-	1 in 8.1
(Upper) Mana View Road (171m)	-	1 in 11.4

Extent of HVCA should additional areas be upzoned

Question 65: If the Hearing Panel accepts Kāinga Ora's proposals to upzone urban areas (i.e. from MRZ to HRZ or to apply an RIP where one was not notified), would the resulting increase in height enabled give rise to shading of downhill sites that the Council's methodology indicates should be the subject of a new height variation control? If so, please provide maps identifying the relevant areas?

33 The resulting increase in height would lead to increased shading of downhill sites including those identified as HVCA by Council. However, there would be no change to the extent of the proposed HVCA as they relate to the contours of the underlying land rather than to the zone type above.

34 Mr Rachlin also addresses this point in his Right of Reply noting that the only change needed would be to the zone-based height control. For example, if the area is rezoned from MRZ to HRZ, then the height variation control changes from *Height Control – Shading C* to *Height Control – Shading A*.

Shading down the slope

Question 69 c) Part of the Keenan case is that the neighbouring downhill property has been benched so much that any structure on the northern half of the Keenan property would shade it, irrespective of height (on its site visit, the Hearing Panel observed that the roof line of the existing one storey house on 3 Vela Street is barely higher than the ground level on 35 Terrace Road and with the north wall hard up against a bank, would appear to get no sun for large parts of the day at present. Is the shading related height control promoted by Council intended to address such a situation?

35 In short, no. The situation here is a single storey building presenting a roof to the north. The control was not intended to address this specific situation nor unique examples like it. Instead, it focuses on shading from buildings built to the maximum envelope permitted by the District Plan over future development either built in accordance with the maximum height standard or existing and/or proposed lower buildings. The effect on downslope dwellings built to the maximum height down the slope is described in my Urban Design Memo #20, Figures 2-5, 7 and 9-12. Figures 6 and 8 demonstrate the shading effects down the slope on a two-storey house. That diagrammatic two-storey dwelling might be existing or it might be proposed.

36 The HVCA will in many cases manage adverse effects on existing houses that are one or two storeys high and located down slopes to the south. But almost certainly it would not benefit the existing single storey dwellings at 3 Vela Street. Should 3 Vela Street be redeveloped as a new

multi-storey residential building in the future, the HVCA would help to ensure that such a new building receives some sun in mid-winter.

Attached

Appendix 1: Gradients of hill streets in the broader Mana/Camborne/South Plimmerton area

A handwritten signature in black ink, appearing to read 'Graeme McIndoe', with a stylized flourish at the end.

Graeme McIndoe
28 April 2023