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

Date:	**Monday 2 December 2024**
Time:	**9.30am**
Meeting room:	**Howick Local Board Meeting Room**
Venue:	**Ground Floor, Pakuranga Library Complex** **7 Aylesbury Street, Pakuranga, Auckland**

PRIVATE PLAN CHANGE 101

HEARING REPORT

167-173 PILKINGTON ROAD, PT ENGLAND

WYBORN CAPITAL INVESTMENTS LIMITED

COMMISSIONERS

Chairperson	**David Wren (Chairperson)**
Commissioners	**Nigel Mark-Brown**
	Trevor Mackie

Chayla Walker
KAITOHUTOHU WHAKAWĀTANGA
HEARINGS ADVISOR

Telephone: 09 890 2009 or 027 2315937
Email: chayla.walker@aucklandcouncil.govt.nz
Website: www.aucklandcouncil.govt.nz

Note: The reports contained within this document are for consideration and should not be construed as a decision of Council. Should commissioners require further information relating to any reports, please contact the hearings advisor.

WHAT HAPPENS AT A HEARING

Te Reo Māori and Sign Language Interpretation

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

Hearing Schedule

If you would like to appear at the hearing please return the appearance form to the hearings advisor by the date requested. A schedule will be prepared approximately one week before the hearing with speaking slots for those who have returned the appearance form. If changes need to be made to the schedule the hearings advisor will advise you of the changes.
Please note: during the course of the hearing changing circumstances may mean the proposed schedule may run ahead or behind time.

Cross Examination

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

The Hearing Procedure

The usual hearing procedure is:

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

Please note

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

A NOTIFIED PRIVATE PLAN CHANGE TO THE AUCKLAND UNITARY PLAN BY WYBORN CAPITAL INVESTMENTS LIMITED

Reporting officer, Michele Perwick, Planner

Reporting on proposed Private Plan Change 101 - 167-173 Pilkington Road, Pt England to rezone 7.3 hectares of Business – Light Industry zoned land to Business – Mixed Use.

APPLICANT: WYBORN CAPITAL INVESTMENTS LIMITED

SUBMITTERS:	
Page 85	Charis Charan
Page 87	Georgina Stewart
Page 90	Sibylle Van Hove

Page 92	Auckland Transport
Page 103	Kiwirail
Page 202	Watercare Services Limited
Page 207	Van Den Brink Poultry Limited
Page 211	Foodstuffs North Island Limited

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Hearing Report for Proposed Private Plan Change 101: Pilkington Park to the Auckland Unitary Plan (Operative in part)

Section 42A Hearing Report under the Resource Management Act 1991

Report to:	Hearing Commissioners
Hearing Date/s:	2 December 2024
File No:	
File Reference	
Report Author	Michele Perwick, Senior Policy Planner, - Central/South, Planning and Resource Consents
Report Approver	David Wong, Acting Team Leader, Central/South, Planning and Resource Consents
Report produced	31 October 2024

Summary of Proposed Plan Change 101: Pilkington Park

Plan subject to change	Auckland Unitary Plan (Operative in part), 2016
Number and name of change	Proposed Plan Change 101 – Pilkington Park to the Auckland Unitary Plan
Requestor	Wyborn Capital Investments Ltd
Status of Plan	Operative in part
Type of change	Private Plan Change
Clause 25 decision outcome	Accept
Parts of the Auckland Unitary Plan affected by the proposed plan change	AUP Planning maps Chapter I Precincts (new precinct provisions)
Was clause 4A complete	N/A
Date of notification of the proposed plan change and whether it was publicly notified or limited notified	Publicly notified on 23 May 2024
Submissions received (excluding withdrawals)	8
Date summary of submissions notified	12 July 2024
Number of further submissions received (numbers)	None
Legal Effect at Notification	No legal effect at notification
Main issues or topics emerging from all submissions	• Height • Amenity • Vehicle access and active mode connections • Efficiency of road network • Wastewater networks and water supply • Noise and vibration • General reverse sensitivity

Contents

Abbreviations

Abbreviations in this report include:

Abbreviation	Meaning
PPC 101	Proposed Private Plan Change101
AT	Auckland Transport
AUP	Auckland Unitary Plan (Operative in Part)
Business- Light Industry Zone	B-LI zone
Business- Mixed Use Zone	B-MU zone
FDS	Future Development Strategy
HVC	Height Variation Control
HIRB	Height in relation to boundary
NIMT railway line	North Island Main Trunk railway line
NPS-UD	National Policy Statement on Urban Development 2020 (updated 2022)
NESCS	National Environmental Standard on assessing and managing contaminants into soil to protect human health
PARR	Pilkington Apirana Road Reserve
Requestor	Wyborn Capital Investments Ltd

THAB	Residential – Terrace Housing and Apartment Buildings zone
RPS	Regional Policy Statement
TMIMP	Tūpuna Maunga Integrated Management Plan
STC zone	Strategic Transport Corridor zone
Watercare	Watercare Services Ltd

Attachments

Attachments	
Appendix 1	**Plan Change 101 (Pilkington Park) as notified with appendices**
Appendix 2	**Clause 23 - Further information requests and responses**
Appendix 3	**Summary of Submissions**
Appendix 4	**Maungakiekie Tāmaki Local Board Views**
Appendix 5	**Specialist reports**
Appendix 6	**Recommended changes to PPC 101**

Executive Summary

1. Proposed Private Plan Change 101 - Pilkington Park (PPC101) to the Auckland Unitary Plan (Operative in Part (AUP)) seeks to rezone the land at 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England from Business – Light Industry to Business – Mixed Use. Amendments to the planning maps are sought to enable greater building heights of 21m and 27m. A new precinct is proposed to manage site-specific matters, including the management of the location and design of buildings and the effects of rail and road noise and vibration on sensitive activities located within the site. The railway land at the northern tip of the site is not part of the proposed precinct provisions.

2. The private plan change process set out in Part 2 of Schedule 1 of the Resource Management Act 1991 ('RMA') was adhered to in developing this plan change.

3. Following receipt, all further information was accepted for processing under Clause 25 of Schedule 1 on 17 April 2024.

4. PPC 101 was publicly notified on 23 May 2024 and closed for submissions on 21 June 2024. The summary of submissions was notified on 12 July 2024 and closed for further submissions on 26 July 2024.

5. Eight submissions were received. Three of the eight submissions were received late.

6. In preparing for hearings on PPC 101, this hearing report has been prepared in accordance with section 42A of the RMA.

7. This report considers the private plan change request and the issues raised by submissions on PPC101. The discussion and recommendations in this report are intended to assist the Hearing Commissioners, the requestor and those persons or organisations that lodged submissions on PPC 101. The recommendations contained within this report are not the decisions of the Hearing Commissioners.

8. This report also forms part of council's ongoing obligations to consider the appropriateness of the proposed provisions, as well as the benefits and costs of any policies, rules or other methods, as well as the consideration of issues raised submissions on PPC 101.

9. A report in accordance with section 32 of the RMA was prepared by the applicant as part of the private plan change request as required under clause 22(1) of Schedule 1 of the RMA. The information provided by the applicant in support of PPC 101 (including the s32 report and an Assessment of Environmental Effects) is attached in Appendix 1 to this report.

10. In response to submissions, proposed amendments to PPC 101 are being considered by the requestor. At the time of writing, I had not seen these amendments. This creates a degree of uncertainty in assessing the proposed precinct provisions.

11. I also consider the applicant needs to provide more evidence as to the potential for adverse effects on the neighbouring open spaced zoned land on the Pilkington Park Road Reserve and for the objectives to address the integration of subdivision and development with infrastructure delivery and transport improvements.

12. Therefore, this report has made an interim assessment of whether the objectives are the most appropriate way of achieving the purpose of the RMA. On this basis, I consider the proposed amendments are not the most appropriate way of achieving the purpose of the RMA. I will

revisit this interim position following receipt of the requestor's evidence and amended plan change provisions, in my addendum hearing report.

13. Subject to the Hearing Commissioners being satisfied on these matters I recommend that PPC 101 be approved subject to the recommended amendments outlined in Appendix 6 to this report.

1. Purpose of the proposed private plan change

14. Proposed Private Plan Change 101 (PPC101) to the Auckland Unitary Plan (Operative in Part (AUP)) seeks to rezone the land at 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England from Business – Light Industry to Business – Mixed Use. Amendments to the planning maps are sought to enable greater building heights of 21m and 27m. A new precinct is proposed to manage site-specific matters, including the management of the location and design of buildings and the effects of rail and road noise and vibration on sensitive activities located within the site.

15. The purpose of PPC101 as outlined on pages 6 and 7 in the s32[1] report is to:

"...*enable mixed use development and greater building height to make efficient use of land that is highly accessible to the Glen Innes Town Centre and Train Station.*

It is noted that the railway land has been included in the rezoning request to ensure a coherent zoning pattern within this block of land. However, the railway land at the northern tip of the site is not part of the proposed precinct provisions.

2. Site and surrounding area

16. The site at 167–173 Pilkington Road and the railway corner at Glen Innes has a triangular area of 7.3 hectares, with a length of approximately 580m. The site and surrounding neighbourhood are shown in Figure 1 below.

[1] Report titled 'Pilkington Park Private Plan Change Request | Section 32 Assessment' by Kasey Zhai of Barker & Associates Limited, dated 11 April 2024.Attached in Appendix 1.

Figure 1: Aerial photograph of site (red outline) and surrounding area (Source Auckland Council GIS Map)

17. In accordance with s42A (1A) of the RMA, I do not propose to repeat information included in the requestor's application; and under s42(1B)(b) of the RMA, I adopt the description of the site and surrounds set out in the requestor's site context assessment.[2]

18. However, I make the following additional observations:

- The railway line to the immediate west, is separated from the subject site by a 2m high metalled and fenced bund.

- The open space zoned land to the east of the site known as the Pilkington Apirana Road Reserve (PARR)) contains a significant number of large trees particularly in the southern part of the PARR where the land broadens considerably to around 38m before reducing in width to 15m. This part of the site has well maintained and open grassed areas which extends under the canopy of trees. Many of these trees extend partly over the boundary and into the site along most of its length. The encroaching trees appear to spread between 2 to 5 metres

[2] Section 32 report, Sections 3.2 and 3.4

into the site. The widest part would accommodate a 3,500m^2 usable area, comparable to a neighbourhood scale park.

- The planned separated cycleway referred to in the Section 32 report has now been constructed on the western side of Apirana and Pilkington Road, forming part of a wider cycle network to the City Centre.

- The Tāmaki area has experienced considerable transformation in recent years as part of the Tāmaki Regeneration Programme. Stonefields, a primarily residential area has developed in the nearby former quarry; and the first stage of the Te Tauomo residential development on the former University campus on Morrin Road, to the west of the site, has recently been consented. This provides for approximately 181 residential units in two residential buildings (up to 18 storeys high).

- The Glen Innes Town Centre Zone has a Height Variation Control of 32.5m. Land to the north of Merton Road has a Height Variation Control of 21m. Similarly Residential – Terrace Housing and Apartment Buildings Zone to the north-east of Salima Talagi Street has a Height Variation Control of 19.5m.

19. The requestor, Wyborn Capital Investments Limited, is the owner of the principal site, excluding KiwiRail's land to the north. Their s32 report explains that they wish to develop their landholdings in a manner consistent with the proposed zoning and planning framework. While there are no specific development plans to consider as part of this plan change, some preliminary design testing has been carried out to inform infrastructure and transport assessments. This estimates a potential yield of 713 dwellings. I understand there is currently no workers accommodation provided on site.

20. I visited the site on 26 September 2023 with the council project team and the applicant's representative and planner. I revisited the wider neighbourhood on 17 October 2024.

3. Clause 23 Requests

21. Prior to accepting PPC 101 for notification, the Council requested that the applicant provide further information under Clause 23 of Schedule 1 of the RMA. This request is attached as Appendix 2 to this report. The purpose of the further information request was to enable Council to better understand the effects of PPC 101 on the environment and the ways in which adverse effects may be mitigated. The key information sought from the request related to landscape, urban design, planning, open space traffic, acoustic and economic assessments.

22. On 9 October 2023 and 18 January 2024, the requestor provided the following material in response to the council's two Clause 23 further information requests. These are also included in Appendix 2 to this report. Prior to notification the requestor then updated the plan change documentation to incorporate the further information provided.

23. Although the plan change was publicly notified on 23 May 2024, the plan change documents that were notified online excluded the Schedule 1, clause 23 requests for further information as well as the responses. Given the detailed nature of the requests and responses, the Council's view is that these may have been of some assistance to the public in terms of understanding the plan change, deciding whether to submit, and informing the content of any submission. This information was provided on the council's website on 29 August 2024.

4. Existing Plan Provisions

24. The site is zoned Business – Light Industry Zone (B-LI Zone) in the AUP as shown in Figure 2 below. The zone description anticipates industrial activities that do not generate objectionable odour, dust or noise. It notes the level of amenity will be lower than the centre zones, Business - General Business zone and Business – Mixed Use zone. Due to the industrial nature of the zone, activities sensitive to air discharges, such as dwellings are non-complying activities.

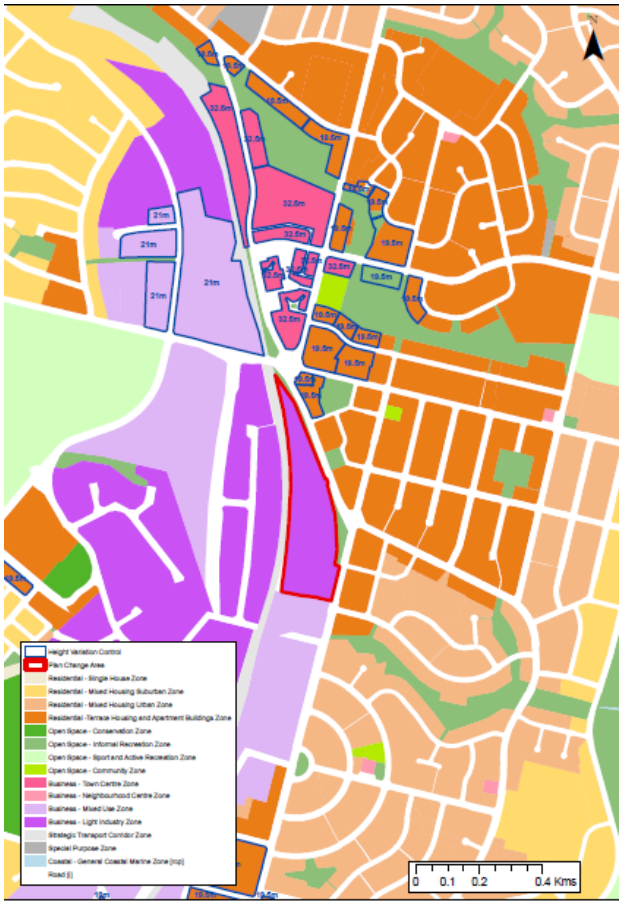


Figure 2: Operative zoning (site outlined in red) Source – AUP planning maps

25. The objectives for the B-LI zone are:

H17.2 Objectives

(1) Light industrial activities locate and function efficiently within the zone.

(2) The establishment of activities that may compromise the efficiency and functionality of the zone for light industrial activities is avoided.

(3) Adverse effects on amenity values and the natural environment, both within the zone and on adjacent areas, are managed.

(4) Development avoids, remedies or mitigates adverse effects on the amenity of adjacent public open spaces and residential zones.

26. Key provisions of the B-LI zone, in the context of this plan change, are:

- Industrial, wholesale, logistics transport and distribution activities including offices that are accessory to a primary activity on the site are provided for as a permitted activity
- Retail and office activities are subject to a maximum gross floor area limit and are a non-complying activity where this is exceeded
- Worker's accommodation – one per site, is a permitted activity
- Dwellings and Integrated residential development are non-complying activities
- New buildings and additions and alterations to buildings are a permitted activity
- A building height standard of 20m applies, unless otherwise specified by a Height Variation Control or by rules in an overlay or precinct
- A height in relation to boundary (HIRB) standard applies where the site adjoins public open space of 6m + 35 degrees
- A side yard standard of 5m applies where the site boundary adjoins public open space zones.

27. The plan change site is also subject to the following additional overlays, controls and designations, as shown in Figure 3 below:

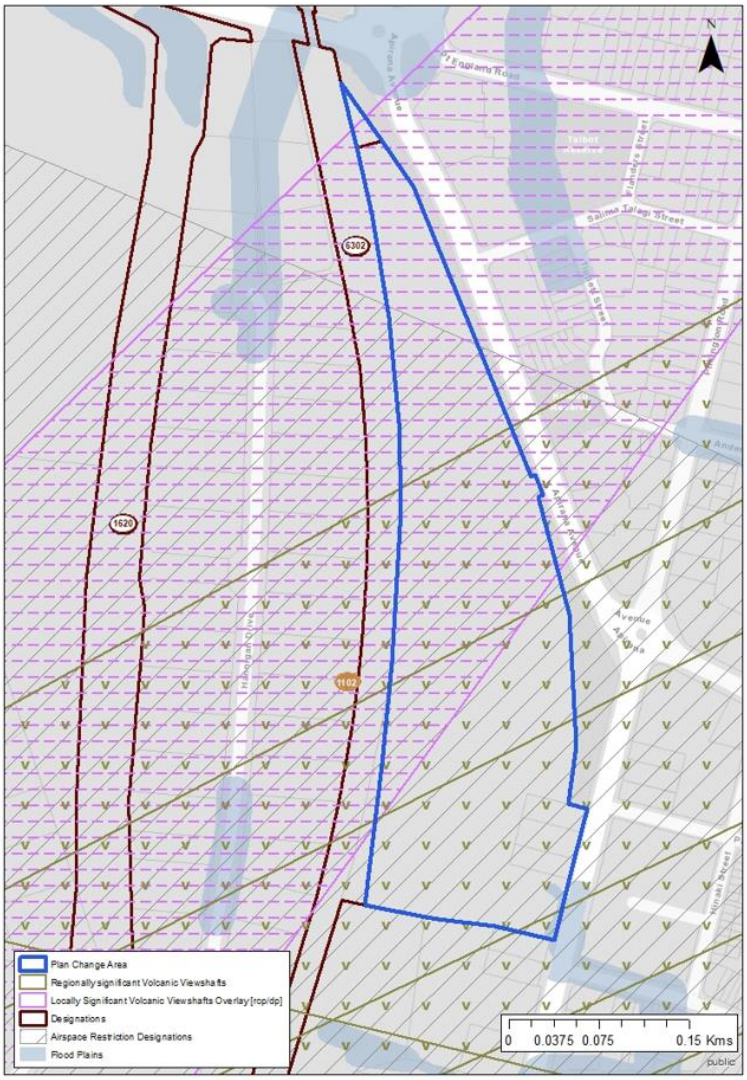


Figure 3: Auckland Unitary Plan overlays designations and controls (Source AUP planning maps

Overlays – Natural Heritage

- Regionally Significant Volcanic Viewshafts and Height Sensitive Areas Overlay - W12, Mount Wellington, Viewshafts
- Locally Significant Volcanic Viewshafts Overlay - W13, Mount Wellington

Controls

- Macroinvertebrate Community Index – Urban
- Stormwater Management Area Control - OMARU STREAM, Flow 2
- Pilkington Road and Apirana Avenue are arterial roads. As such, a Vehicle Access Restriction applies to all sites within the site in accordance with standard E27.6.4.1(3)(c).

Designations

- Airspace Restriction Designations - ID 1102, Protection of aeronautical functions - obstacle limitation surfaces, Auckland International Airport Ltd
- Designations - 6302, North Island Main Trunk Railway Line, Designations, KiwiRail.

28. The Mt Wellington/Maungarei volcanic cone lies to the west of the precinct area and is scheduled in the AUP as an Outstanding Natural Feature. The Volcanic Viewshafts and Height Sensitive Areas overlay seeks to protect significant public views to Auckland's maunga. I note that no height sensitive areas apply over the site.

29. A small flood plain is located in the south-eastern corner of the site. I note that existing runoff from the site discharges to the Omaru Creek via the public pipe network and then discharges to the Tāmaki Estuary. This part of the Tāmaki Estuary is identified as a Significant Ecological Area (ref: SAE-M2-49A).

30. The rail corridor to the west is zoned Strategic Transport Corridor Zone (STCZ). The purpose of this zone is to ensure the safe and efficient operation of nationally significant infrastructure. The STCZ applies to state highway and railway corridors and therefore does not affect development capacity. However, there is an increased potential for reverse sensitivity effects to arise where development which provides for greater density occurs adjacent to the STCZ.

31. The adjacent land to the east is zoned Open Space – Informal Recreation and is known as Pilkington Apirana Road Reserve (PARR). It is a recreational reserve under the Reserves Act. This zone applies to open spaces that range in size from small local parks to large regional parks. These areas are used for a variety of outdoor informal recreation activities and community uses.

5. Proposed Plan Change Provisions

32. The zone description for the B-MU Zone identifies four relevant zone characteristics in the context of this plan change:

- it typically located around centres and along corridors served by public transport.
- applies to areas where there is a need for a compatible mix of residential and employment activities'.
- provides for residential activity as well as smaller scale commercial activity that cumulatively does not affect the function role and amenity of centres.
- it does not require a mix of uses on individual sites or within areas.

33. The relevant objectives for the B-MU zone are:

H13.2 Objectives

(1) …

(2) Development is of a form, scale and design quality so that centres are reinforced as focal points for the community.

3) Development positively contributes towards planned future form and quality, creating a sense of place.

(4) Business activity is distributed in locations, and is of a scale and form, that:

(a) provides for the community's social and economic needs;

(b) improves community access to goods, services, community facilities and opportunities for social interaction; and

(c) manages adverse effects on the environment, including effects on infrastructure and residential amenity.

(6) Moderate to high intensity residential activities and employment opportunities are provided for, in areas in close proximity to, or which can support the City Centre Zone, Business – Metropolitan Centre Zone, Business – Town Centre Zone and the public transport network.

(7) Activities within the zone do not compromise the function, role and amenity of the City Centre Zone, Business – Metropolitan Centre Zone, Business – Town Centre Zone and Business – Local Centre Zone.

(8) A mix of compatible residential and non-residential activities is encouraged.

(9) Business – Mixed Use Zone zoned areas have a high level of amenity.

34. There are three critical differences between activities provided for in the B-LI zone and the B-MU zone.

- Residential accommodation including dwellings are provided for as a permitted activity in the B-MU zone, while they are a non-complying activity in the B-LI zone.
- New buildings and additions and alterations to buildings are provided for as a restricted discretionary activity with council's discretion enabling a number of design matters. The B-LI zone provides for such buildings as a permitted activity.
- The B-MU generally provides for a wider range of commercial and community activities as a permitted activity. Light manufacturing, storage and warehousing and the like continue to be provided for as a permitted activity in the B-LI zone .

35. The requestor considers that the B-MU zone is an appropriate zone for the site as it will:

- provide redevelopment opportunities that will contribute to a quality compact urban form and quality built environment, while also facilitating a diverse mix of choice and opportunity for people and communities
- facilitate moderate residential activities and employment opportunities on land that is in close proximity to the Town Centre zone and public transport network
- facilitate the efficient use of highly accessible land for future residential and commercial activities.

Proposed precinct provisions

36. In summary the plan change seeks to:

a) Rezone 7.3 hectares of land from B-LI zone to B-MU zone
b) Provide for Height Variation Control (HVC) of 21m and 27m as shown on the planning maps
c) Introduce a new precinct.

37. The purpose of the plan change is set out Section 1 above. Figure 4 below shows the proposed zoning map and Figure 5 the proposed precinct boundary and HVCs of 21m and 27m.

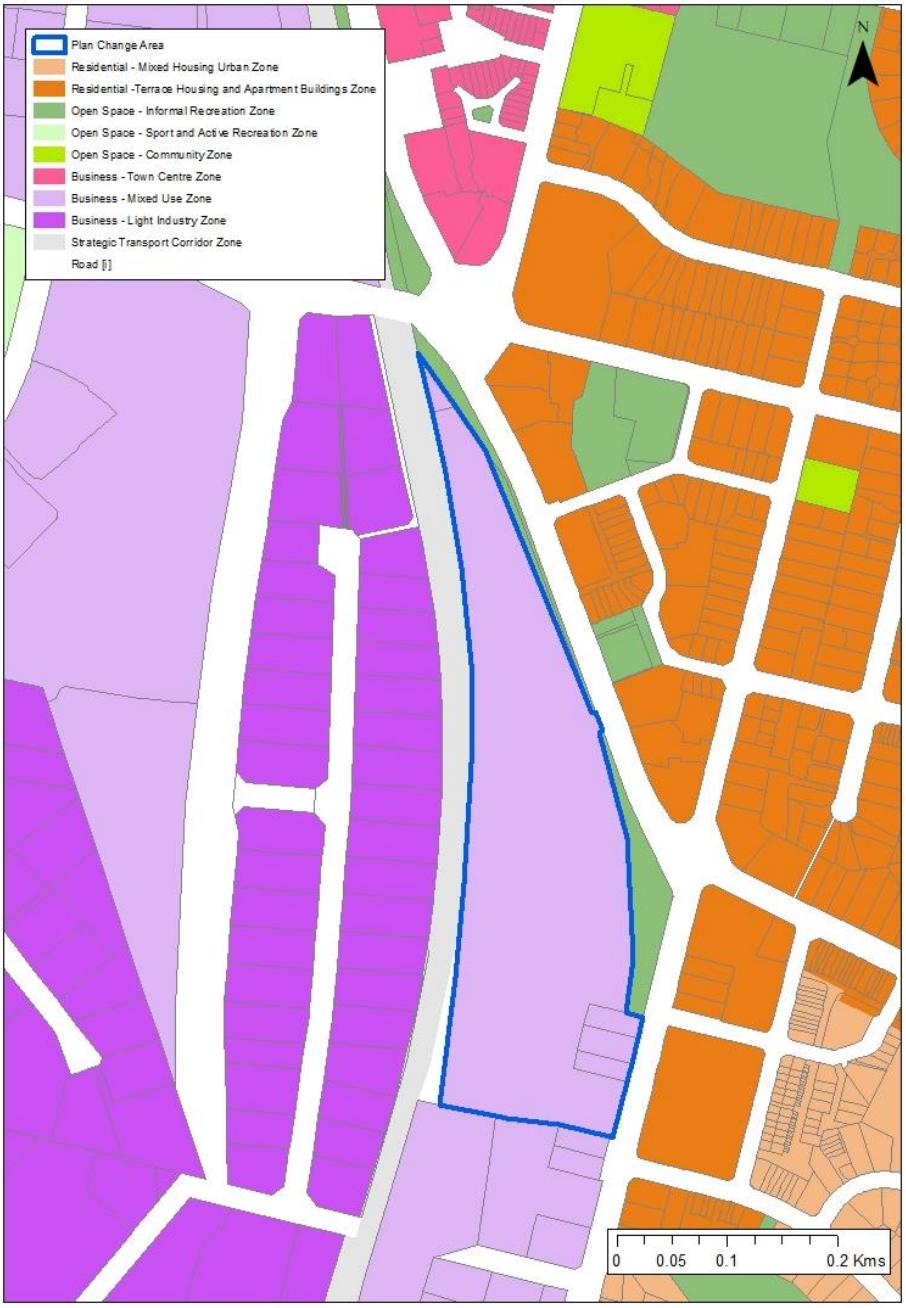


Figure 4: Proposed AUP Business- Mixed Use Zone

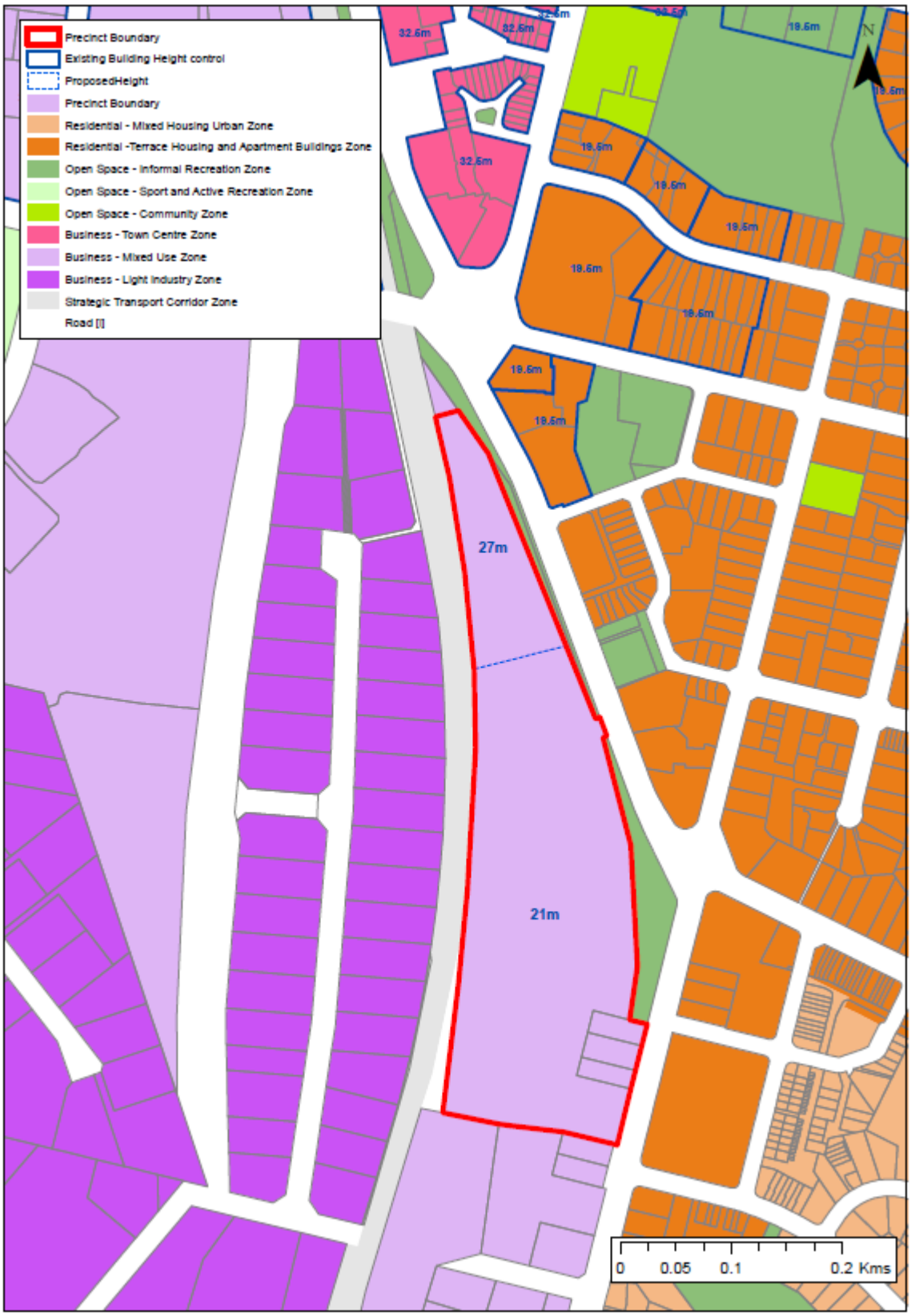


Figure 5: Proposed precinct boundary and Height Variation Control

38. The regional policies and standards take precedent. The Auckland-wide provisions apply in full. The zone provisions continue to apply within the precinct unless specifically exempted. On this basis, the proposed precinct seeks to:

a) Introduce objectives and policies that support a high quality mix of residential and commercial activities, which protects people's health and amenity values from noise associated with the adjacent rail corridor, while not unduly restricting the railway operation
b) Provide for new buildings which do not comply with the precinct standards as a restricted discretionary activity
c) Replace the B-MU zone Building Height standard (H13.6.1) with a new HVC standard restricting height to 21m and 27m) as shown on the planning maps
d) Exempt development from the zone HIRB standard H13.6.2.1 where the site boundary adjoins the Open Space - Informal Recreation zone
e) Introduce noise and ventilation provisions, requiring buildings accommodating noise sensitive activities to provide acoustic insultation and ventilation to mitigate noise from the rail corridor
f) Introduce standards for outdoor play areas within 60m of the rail corridor
g) Introduce new matters of discretion and assessment criteria for new buildings, and for the infringement of building height and activities sensitive to noise, including outdoor play areas within 60m of the rail corridor.

39. Hearing Direction 1 sought that the requestor advise what, if any, changes they recommend to the proposal and to outline which changes are in response to which submissions. In their response, dated 24 September 2024, three key changes are proposed:

Table 1: Amendments to PPC101 – Response to Hearing Direction 1

	Amendment	**Relevant submission**
1	An amendment to the standards to ensure that safe pedestrian access across Pilkington Road at the time of future residential development. This also includes targeted and consequential amendments to the relevant objectives, policies, rules, and assessment criteria.	Auckland Transport (Submission 04)
2	Minor amendments to the objectives, policies and assessment criteria to refer to 'arterial roads' where relevant.	Auckland Transport (submission 04)
3	Amendments to the standards for activities sensitive to noise and outdoor play areas in relation to the technical measurement and assessment of noise. This also includes targeted and consequential amendments to the relevant objectives, policies, rules, and assessment criteria.	KiwiRail (submission 05)

B-MU Zone standards to be removed

40. The use of the Height Variation Control is an established tool within the AUP. Given, the plan change seeks to amend the height provisions applying to the site it also important to understand how the B-MU Building height Standard H13.6.1 currently works.

"H13.6.1 Building Height

Purpose:

- *manage the effects of building height;*
- *manage shadowing effects of building height on public open space, excluding streets;*
- *manage visual dominance effects;*
- *allow an occupiable height component to the height limit, and an additional height for roof forms that enables design flexibility, to provide variation and interest in building form when viewed from the street;*
- *enable greater height in areas identified for intensification; and*
- *provide for variations to the standard zone height through the Height Variation Control, to recognise the character and amenity of particular areas and provide a transition in building scale to lower density zones.*

(1) Buildings must not exceed the height in metres specified in Table H13.6.1.1 below, unless otherwise specified in the Height Variation Control on the planning maps.

Table H13.6.1.1 Building height [new text to be inserted] Occupiable building height

Occupiable building height	***Height for roof form***	***Total building height***
16m	*2m*	*18m*

(2) If the Site is subject to the Height Variation Control, buildings must not exceed the height in metres, as shown in Table H13.6.1.2 below and for the Site on the planning maps.

(3) Any part of a building greater than the occupiable building height is to be used only for roof form, roof terraces, plant and other mechanical and electrical equipment.

Table H13.6.1.2 Total building height shown in the Height Variation Control on the planning maps

Occupiable building height	**Height for roof form**	**Total building height shown on Height Variation Control on the planning maps**
…	…	…
19m	2m	21m
25m	2m	27m
Same as on the planning maps	NA	Exceeding 27m

41. The HIRB standard (H13.6.2) applies in relation to the interface with the adjoining PARR, which is zoned Open Space - Informal Recreation. This requires a recession plan angle of 45^{O} and height above ground level, which the recession plane will be measured from of 8.5m. Th plan change proposes to exclude this standard.

42. I have reviewed the proposed precinct provisions in Appendix 1 of the requestor's section 32 report and generally consider the provisions achieve a clear cascade between provisions from objectives through to assessment criteria. However, I consider there are a few gaps, including giving effect to Objective 2 in relation to contribution of new buildings to the amenity values of the public open space network, assessment criteria relating to the infringement of building height and provision of references to local arterial roads that could be resolved through amendments to the proposed precinct provisions. These are discussed in Section 9 'Assessment of Effects' to this report below.

43. The requestor has provided the following specialists' documents to support their private plan change application.

Table 2: Information provided by the requestor for PPC 101

Document title	Specialist	Date
Economic Assessment	Property Economics	September 2022
Economic Memo Further Information Response	Property Economics	November 2023
Record of Mana Whenua Consultation	Barker and Associates	9 October 2023
Record of Stakeholder Consultation	Barker and Associates	9 October 2023
Integrated Transport Assessment	Parlane and Associates	13 July 2023
Integrated Transport Assessment Further Information Response	Parlane and Associates	29 November 2023
Sidra Network	Akcelik and Associates	11 November 2023
Civil Engineering Report	Blue Barn Consulting Engineers	13 April 2023
Urban Design Assessment	Barker and Associates	19 April 2024
Landscape Visual Assessment	Barker and Associates	18 April 2024
Acoustic Assessment	Styles Group Acoustics and Vibration Consultants	28 March 2024
Contamination Assessment	ENGEO	2 March 2023
Assessment of RPS	Barker and Associates	9 October 2023
Assessment of Other Plans	Barker and Associates	9 October 2023
Provision of Open Space	Barker and Associates	9 October 2023

6. Analysis of the section 32 report and any other information provided by the requestor

44. In accordance with s42A(1) of the RMA this report is prepared on information provided on any matter by the requestor. In accordance with s42A(1A) this report does not need to repeat information included in the requestor's application, and instead under s42A(1B) may—

- adopt all of the information; or
- adopt any part of the information by referring to the part adopted.

45. This report also forms part of council's ongoing obligations under section 32 of the RMA to consider the appropriateness of the proposed provisions, as well as the benefits and costs of any policies, rules or other methods, as well as the consideration of issues raised by submissions. Having carefully reviewed the requestor's Section 32 report, I now set out those parts which I adopt and the parts which I disagree with.

46. The requestor's Section 32 assessment is contained within section 8 of their Section 32 report. The assessment appropriately starts with an investigation of whether the objectives of the plan change are the most appropriate way to achieve the purpose of the RMA. In summary their assessment concludes the plan change objectives will deliver a high-quality and high-density mixed-use

development in close proximity to the Glen Innes Town Centre and existing public transport, that is integrated with the surrounding area while managing noise effects to provide for people's health and amenity.

47. In the response to Hearing Direction 1 the requestor has advised[3] the Hearing Commissioners that it is considering key changes to the plan change to address:

- safe pedestrian access across Pilkington Road
- minor amendments to refer to 'arterial roads
- activities sensitive to noise and outdoor play area in relation to the technical measurement and assessment of noise.

48. These changes will include amendments to the relevant objectives, policies, rules and assessment criteria. At the time of writing these amendments had not been finalised. Therefore I am unable to assess whether the proposed objectives are the most appropriate way of achieving the purpose of the RMA and have not specifically assessed Objective IX.2(4). For the remaining three objectives my analysis is based on the objectives as assessed in the requestor's Section 32 report.

49. While I generally agree with the requestor regarding the suitability of the site for urban intensification and appropriateness of Objectives IX.2(1) and (IX.2(2) to achieve the purposes of the RMA, I consider the plan change could have potentially significant adverse effects on the:

- safety of pedestrian and cycling connections across the arterial road network;
- integration of infrastructure delivery with subdivision and development.
- potential for visual dominance and shading of the PARR land

50. I consider that additional objectives should be included to describe the outcomes to be achieved in respect of infrastructure delivery and transport improvements. The issue regarding the PARR is assessed in my s32(1)(b) analysis below as to whether the precinct provisions are the most efficient and effective in achieving Objectives IX.2(1) and IX.2(2) of the plan change.

51. Nevertheless, I have considered the plan change objectives as a whole against Part 2 of the Act below.

52. I accept that the objectives of the plan change recognise and provide for matter of national significance in accordance with Section 6 of the RMA including the protection of outstanding … landscapes from inappropriate subdivision, use, and development and the relationship of Mana Whenua with their ancestral lands, water, sites, waahi tapu, and other taonga.

53. Particular regard must be had to the matters identified in Section 7 of the RMA. I agree with the requestor's assessment that the objectives, subject to the recommended amendments to the precinct provisions in this report can:

- achieve the efficient use and development of land
- maintain and enhance of amenity values – in respect of internal site development and new buildings
- maintain and enhance the quality of the environment

54. However, as discussed in paragraphs 49 and 50 above and in more detail in Sections 9.2, 9.3 and 9.4 of this report there has not been adequate regard to the maintenance and enhancement amenity values in respect of the integration of the development with the neighbouring PARR. The requestor may wish to address this issue at the hearing.

[3] Memorandum Private Plan Change 101 – Response to Hearing Direction #1, from Kasey Zhai of Barker & Associates Ltd, dated 24 September 2024

55. I accept the requestor has taken into account the principles of the Treaty of Waitangi when developing the plan change.

56. I have also assessed the plan change against the statutory framework of National Policy Statements and the RPS, which have been determined to achieve the purpose of the RMA. I have concluded that the plan change will give effect to the National Policy Statement for Urban Development and RPS, as it achieves a quality compact urban form, supporting both the town centre and public transport and it will contribute to well-functioning urban environment, subject to the recommended amendments to the precinct provisions in this report.

57. Taking into account the uncertainty regarding forthcoming amendments to the plan change objectives and the need for additional objectives I have made an interim assessment of whether the objectives are the most appropriate way of achieving the purpose of the RMA. On this basis, I consider the proposed amendments are not the most appropriate way of achieving the purpose of the RMA.

58. I will revisit this interim position following receipt of the requestor's evidence and amended plan change provisions, in my addendum hearing report.

Section 32(1)b) - examine whether the provisions in the proposal are the most appropriate way to achieve the objectives

59. In Section 8.2 of the Section 32 report, the requestor considers that in addition to the objectives of the plan change the most relevant AUP objectives are:

Within the RPS:

- B2.2.1(1) A quality compact urban form that enables all of the following: (a) a higher-quality urban environment; (b) greater productivity and urban growth; (c) better use of existing infrastructure and efficient provision of infrastructure; (d) improved and more effective public transport; (e) greater social and cultural vitality; and (g) reduced adverse environmental effects;

- B2.3.1(1) A quality built environment where subdivision, use and development do all of the following: (a) respond to the intrinsic qualities and physical characteristics of the site and area, including its setting; (b) reinforce the hierarchy of centres and corridors; (c) contribute to a diverse mix of choice and opportunity for people and communities; (d) maximise resource and infrastructure efficiency; (e) are capable of adapting to changing needs; and (f) respond and adapt to the effects of climate change.

- B2.3.1(3) The health and safety of people and communities are promoted.

- B4.3.1(1) Significant public views to and between Auckland's maunga are protected from inappropriate subdivision, use and development.

Within the Business Zones:

- H13.2(2) Development is of a form, scale and design quality so that centres are reinforced as focal points for the community.

- H13.2(6) Moderate to high intensity residential activities and employment opportunities are provided for, in areas in close proximity to, or which can support the City Centre Zone, Business – Metropolitan Centre Zone, Business – Town Centre Zone and the public transport network.

60. Section 8.3 of the report then goes on to assess reasonably practicable options for achieving the objectives and examines

- Zoning
- Maximum allowable building height
- Integrated and high quality development

I have read the requestor's assessment of Section 32(1)(b) of the RMA and in particular the alternative options and I respond below:

Zoning

61. Consideration needs to turn to which zone, either the operative B-LI zone or the proposed B-MU zone, is the most appropriate way to achieve the purpose of the plan change .

62. In Section 8.3.1 of their Section 32 assessment, the requestor has considered three options for zoning the subject site as follows;

- Option 1: Status quo – retain the B-LI zone.
- Option 2: Change the zoning from B-LI Zone to B-MU zone
- Option 3: Change the zoning from B-LI to Residential – Terrace Housing and Apartment Buildings zone (THAB).

63. Option 3 is primarily rejected as it does not enable the most efficient use of land

64. The requestor concludes the Option 2 is the most appropriate way to achieve the plan change objectives for the following reasons:

- In accordance with B2.2.1(1) and B2.3.1(1), it will provide redevelopment opportunities that will contribute to a quality compact urban form and quality built environment while also facilitating a diverse mix of choice and opportunity for people and communities; and
- In accordance with H13.2(6), it will facilitate moderate residential activities and employment opportunities on land that is in close proximity to the Town Centre zone and public transport network.
- In accordance with IX.2(3), it will facilitate the efficient use of highly accessible land for future residential and commercial activities.

65. I agree with the requestor that the three options are reasonably practicable and that Option 2 (B-MU zone) is the most appropriate way to achieve the objectives of the plan change, particularly IX.2(3), as notified.

Maximum allowable building height

66. In Section 8.3.2 of their Section 32 assessment the requestor has considered four building height options for the site as follows:

- Option 1- Status quo: apply the B-MU zone Building Height standard, being up to 18m total building height.
- Option 2 – Apply the B-MU zone Building Height standard proposed under PC78, being up to 21m total building height.
- Option 3 – Apply total building heights of 21m and 27m
- Option 4 – Apply a total building height of 32.5m.

67. The requestor concludes that Option 3 is the appropriate way to achieve the plan change objectives for the following reasons:

- In accordance with Objective B2.2.1(1) and B2.3.1(1), this option will facilitate productivity and urban growth, a diverse mix of choice and opportunity for people and communities, and the efficient use of existing infrastructure;
- In accordance with Objective B4.3.1(1), this option will not adversely affect public views to and between Auckland's maunga;
- In accordance with Objective H13.2(2), this option will facilitate urban form that reinforces the Glen Innes Town Centre as the focal point for the community.

68. I agree with the requestor that the four options are reasonably practicable, although I note that little weight can be given to Option 2 as submissions have challenged this proposed height and hearings have yet to be held on this plan change.

69. I generally agree with the requestor that Option 3 is the most appropriate way to achieve the purpose of the plan change, particularly in respect of the first two reasons outlined in paragraph. 67 above. However, I disagree that the outcomes sought by Objective H13.2.2(2) can be achieved by the proposed precinct provisions. This is because the precinct lacks appropriate assessment criteria to ensure the consideration of a suitable transition to the Glen Innes Town Centre when considering infringements to the HVC control. This matter is discussed in detail in Section 9.3 to the report where additional assessment criteria are recommended by council's urban design consultant, Ms Skidmore. I concur with her recommendations.

Integrated and high quality development

70. The plan change proposes to exclude the B-MU zone HIRB standard at the eastern boundary where it adjoins the PARR. While the potential to create adverse visual dominance and shading effects is recognised by the requestor, the exclusion is seen as enabling a more efficient use of the land and because the PARR is regarded by the requestor as part of the road reserve and currently does not have a recreation function.

71. I disagree with this conclusion and do not consider the exclusion of the HIRB to be the most appropriate way to achieve the objectives of the plan change. In forming this view, I rely on the advice received from council's landscape, urban design and open space specialists. As development occurs within the precinct this open space zoned land has the potential to perform a valuable informal recreation and amenity function. This issue is assessed in more detail in Section 9 of this report where it concluded more information would be considered helpful from the requestor in terms of determining potential adverse visual and dominance effects on the PARR. The requestor may wish to address this matter at the hearing.

72. As noted above, the requestor is proposing amendments to precinct provisions relating to acoustic treatment including objectives. Therefore, I am not in a position to determine whether the proposed acoustic provisions are the most appropriate way to achieve the objectives of the plan change.

73. The plan change provisions proposes to include additional matters of discretion and assessment criteria for new buildings. Following the advice of council's urban design specialist, Ms Skidmore, I consider that the proposed provisions are the most appropriate way of achieving the plan change objectives.

74. In conclusion I agree with the findings of the alternative options set out in the requestor Section 32 assessment relating to zoning, maximum allowable height and matters of discretion and assessment criteria for new buildings. However, I disagree with the findings of alternative options for HIRB and have reserved my conclusions on acoustic treatment.

75. However, if the Hearing Commissioners determined that the objectives of the plan change do achieve the purpose of the RMA then I consider the proposed zoning and proposed provisions (subject to amendments discussed in this report) to be the most appropriate methods to achieve the objectives generally.

Section 32AA assessment

76. Section 32AA of the RMA requires a further evaluation on any changes that are proposed to the notified plan change since the original section 32 evaluation report was completed. Section 32AA requires that all changes to a proposal since the original evaluation must be well justified and supported by sound information that demonstrates the change will be appropriate, efficient and effective.

77. All amendments to the notified plan change proposed in this report have been assessed in accordance with section 32AA. Although not explicitly stated, the options, appropriateness, effectiveness and efficiencies that I have considered in this assessment include the proposed provision and the amended provisions as sought by submitters. Where insufficient information has been provided by the requestor, I support retaining the existing position of the B-MU zone provisions in the AUP.

78. The outcome of my section 32AA analysis is reflected in the evaluation and recommendations of the analysis of submissions found in sections 9 and 12 of this report. I consider that the recommended amendments will make the precinct provisions more appropriate, efficient and effective in achieving the purpose of the RMA and giving effect to the national and regional policy statements.

7. Hearings and decision-making considerations

79. Clause 8B of Schedule 1 of RMA requires that a local authority shall hold hearings into submissions on private plan changes.

80. The Chief Executive's' Delegations Register delegates to hearing commissioners all powers, duties and functions under the Resource Management Act 1991. This delegation includes the authority to determine decisions on submissions on a plan change, and the authority to approve, decline, or approve with modifications, a private plan change request. Hearing Commissioners will not be recommending a decision to the council, but will be issuing the decision

81. In accordance with s42A(1) of the RMA, this report considers the information provided by the requestor and summarises and discusses submissions received on the plan change. It makes recommendations on whether to accept, in full or in part; or reject, in full or in part; each submission. This report also identifies what amendments, if any, can be made to address the matters raised in submissions. This report makes a recommendation on whether to approve, decline, or approve with modifications PPC 101. Any conclusions or recommendations in this report are not binding to the Hearing Commissioners.

82. The Hearing Commissioners will consider all the information submitted in support of the plan change, information in this report, and the information in submissions, together with evidence presented at the hearing.

83. This report has been prepared by the reporting planner and draws on technical advice provided by the following technical experts:

Table 4: Specialist input into s42A report

Area of expertise	Authors
Technical expert -Urban Design	Rebecca Skidmore, Consultant Urban Designer, Skidmore (on behalf of Tāmaki Makaurau Design Ope)
Technical expert - Landscape and Visual Effects	Gabrielle Howdle, Principal Landscape Architect, Tāmaki Makaurau Design Ope, Auckland Council
Technical expert -Economics	Susan Fairgray, Consultant Economist, Market Economics Ltd
Technical expert Open Space	James Hendra, Consultant Parks Planner, WLA (on behalf of Community Investment)
Technical expert - Transport	Mat Collins, Consultant Traffic Engineer, Abley Ltd
Technical expert – Stormwater	Danny Curtis, Consultant Engineer (on behalf of Auckland Council Healthy Waters)
Technical expert - Stormwater	Amber Tsang, consultant planner (on behalf of Auckland Council Healthy Waters)
Technical expert - Noise and vibration	Andrew Gordon, Senior Specialist Contamination Air Noise, Planning and Resource Consents Auckland Council
Technical expert - General reverse sensitivity	Paul Crimmins, Air Quality, Consultant, Pattle Delamore Partners
Technical expert - Water and Wastewater	Matthew Revill, Principal Project Manager, Auckland Council

84. The technical reports provided by the above experts are attached in Appendix 5 to this report.

8. Statutory and policy framework

85. Private plan change requests can be made to the Council under clause 21 of Schedule 1 of the RMA. The provisions of a private plan change request must comply with the same mandatory requirements as Council initiated plan changes, and the private plan change request must contain an evaluation report in accordance with section 32 and clause 22(1) in Schedule 1 of the RMA.

86. Clause 29(1) of Schedule 1 of the RMA provides "*Except as provided in subclauses (1A) to (9), Part 1, with all necessary modifications, shall apply to any plan or change requested under this Part and accepted under clause 25(2)(b)*".

87. The RMA requires territorial authorities to consider a number of statutory and policy matters when developing proposed plan changes. There are slightly different statutory considerations if the plan change affects a regional plan or district plan matter.

88. The plan change covers matters that are related to both the regional and district plan parts of the AUP.

89. The following sections summarises the statutory and policy framework, relevant to the plan change.

8.1. Resource Management Act 1991 – Regional and district plans

Plan change matters – regional and district plans

90. In the development of a proposed plan change to a regional and/ or district plan, the RMA sets out mandatory requirements in the preparation and process of the proposed plan change. Table 5 below summarises matters for plan changes to regional and district plan matters.

Table 5: Plan change matters relevant to regional and district plans

Relevant Act/Policy/Plan	Section	Matters
Resource Management Act 1991	Part 2	Purpose and intent of the Act
Resource Management Act 1991	Section 32	Requirements preparing and publishing evaluation reports. This section requires councils to consider the alternatives, costs and benefits of the proposal
Resource Management Act 1991	Section 80	Enables a 'combined' regional and district document. The Auckland Unitary Plan is in part a regional plan and district plan to assist Council to carry out its functions as a regional council and as a territorial authority
Resource Management Act 1991	Schedule 1	Sets out the process for preparation and change of policy statements and plans by local authorities

91. The mandatory requirements for plan preparation are comprehensively summarised by the Environment Court in Long Bay-Okura Great Park Society v North Shore City Council, Environment Court Auckland A078/2008, 16 July 2018 at [34] and updated in subsequent cases including Colonial Vineyard v Marlborough District Council [2014] NZEnvC 55 at [17]. When considering changes to district plans, the RMA sets out a wide range of issues to be addressed. The relevant sections of the RMA include sections 31-32 and 72-76 of the RMA.

92. The tests are the extent to which the objective of the plan change is the most appropriate way to achieve the purpose of the RMA (s32(1)(a)) and whether the provisions:
- accord with and assist the Council in carrying out its functions (under s 31) for the purpose of giving effect to the RMA;
- accord with Part 2 of the RMA (s 74(1)(b));
- give effect to the AUP regional policy statement (s 75(3)(c));
- give effect to any national policy statement (s 75(3)(a));
- have regard to the Auckland Plan 2050 (being a strategy prepared under another Act (s 74(2)(b)(i));
- have regard to the actual or potential effects on the environment, including, in particular, any adverse effect (s 76(3));
- are the most appropriate method for achieving the objectives of the AUP, by identifying other reasonably practicable options for achieving the objectives (s 32(1)(b)(i)); and by assessing their efficiency and effectiveness (s 32(1)(b)(ii)); and: identifying and assessing the benefits and costs of environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for:
  i. economic growth that are anticipated to be provided or reduced (s 32(2)(a)(i)); and
  ii. employment that are anticipated to be provided or reduced (s 32(2)(a)(ii));

- if practicable, quantifying the benefits and costs (s 32(2)(b)); and
- assessing the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions (s 32(2)(c)).

93. Under section 74(1)(e) of the RMA the decision maker must also have particular regard to the section 32 evaluation report prepared in accordance with s 32 (s 74(1)(e)).

8.2. Resource Management Act 1991 – Regional Matters

94. There are mandatory considerations in the development of a proposed plan change to regional matters. Table 6 below summarises regional matters under the RMA, relevant to the plan change.

Table 6: Plan change – regional matters under the RMA

Section of the RMA	Matters
Part 2	Purpose
Section 30	Functions of regional councils in giving effect to the RMA
Section 59	Sets out the purpose of a regional policy statement in giving effect to the RMA
Section 60	Sets out the requirement for and the process for, changes to the regional policy statement
Section 61	Sets out the matters to be considered for a regional policy statement
Section 62	Sets out the required contents of regional policy statements
Section 63	Sets out the purpose of regional plans
Section 64	Sets out the requirement for and the process for, changes to the regional coastal plan
Section 65	Sets out matters to be considered for changes to regional plans
Section 66	Sets out matters to be considered in (other) regional council plans
Section 67	Sets out required contents of regional plans
Section 68	Sets out the purpose and considerations of rules in regional plans (regional rules)
Section 69	Sets out matters to be considered for rules relating to water quality
Section 70	Sets out matters to be considered for rules relating to discharges

8.3. Resource Management Act 1991 – District matters

95. There are mandatory considerations in the development of a proposed plan change to district plans and rules. Table 7 below summarises district plan matters under the RMA, relevant to the plan change.

Table 7: Plan change – District plan matters under the RMA

Section of the RMA	Matters
Part 2	Purpose and intent of the Act
Section 31	Functions of territorial authorities in giving effect to the Resource Management Act 1991
Section 73	Sets out Schedule 1 of the RMA as the process to prepare or change a district plan
Section 74	Matters to be considered by a territorial authority when preparing a change to its district plan. This includes its functions under section 31, Part 2 of the RMA, national policy statement, other regulations and other matter
Section 75	Outlines the requirements in the contents of a district plan
Section 76	Outlines the purpose of district rules, which is to carry out the functions of the RMA and achieve the objective and policies set out in the district plan. A district rule also requires the territorial authority to have regard to the actual or potential effect (including adverse effects), of activities in the proposal, on the environment

National Policy Statements

96. The relevant national policy statements (NPS) must be considered in the preparation, and in considering submissions on the plan change. Table 8 below summarises the relevant parts of the NPSs that apply to the plan change.

Table 8: National Policy Statements relevant to PPC 101

Relevant Act/Policy/Plan	Section	Matters
National Policy Statement – Urban Development 2020 (Updated May 2022)	Objectives 2, 5, 7	Relates to planning decisions which improve housing affordability, take into account the principles of Te Tiriti o Waitangi, and are based on robust information about a territorial authority's urban environment.
	Policy 1	Relate to planning decisions which contribute to well-functioning urban environments

	Policy 6	Relate to planning decisions and the matters to have particular regard to including the urban form and benefits anticipated by the NPS-UD

National Policy Statement – Urban Development 2020 (Updated May 2022)

97. The National Policy Statement on Urban Development 2020 (NPS-UD) seeks to ensure that New Zealand's towns and cities are well-functioning urban environments that meet the changing needs of diverse communities. It also seeks to remove barriers to development to allow growth 'up' and 'out' in locations that have good access to existing and future services, public transport networks and infrastructure.

98. The Environment Court considered the impact of the NPS-UD on private plan changes in its decision (Eden-Epsom Residential Protection Society Incorporated v Auckland Council [2021] NZEnvC 082) dated 9 June 2021 (released by the Court on 15 June 2021). The Environment Court decision appears to consider that the only NPS-UD objectives and policies that are relevant to the merits of a private plan change request accepted by the Council are those that include specific reference to 'planning decisions' i.e. Objectives 2, 5 and 7 and Policies 1 and 6. In the absence of the Council having completed the work envisaged by other policies, it appears that currently only some sub-clauses of Policy 6 would apply.

99. The Environment Court's decision also confirms that Policies 3 and 4 of the NPS-UD, do not currently apply when considering the merits of private plan change requests i.e. having regard to Part 4 and subpart 6 of Part 3 of the NPS-UD. It is anticipated that future Council initiated plan changes will implement these policies.

100. In accordance with the Court's direction, I consider that Objectives 2, 5 and 7, and Policies 1 and 6 are relevant to the plan change, noting that Auckland is identified as a Tier 1 urban environment. I responded to the relevant objective 2 which the requestor has not assessed.

- In relation to Objective 2 (housing affordability) I consider that the plan change meets this objective as it will support competitive land and development markets.
- In relation to Objective 5, I accept the plan change meets this objective and has taken into account the principles of the Treaty of Waitangi.

101. In relation to Objective 7 (updated information) I note this is an obligation on council to use robust and updated information to inform planning decisions.

102. The requestor, in Section 5.1.1 of the Section 32 report, has assessed the plan change against the following objectives and policies of the NPS-UD to the plan change:

- Objective 4 (changed environments and changed needs)
- Policy 1 (well-functioning urban environments)
- Policy 6 (changing amenity values)

103. The requestor concludes that the plan change gives effect to the NPS-UD.

104. In relation to Objective 4 I consider the plan change will achieve a good standard of internal amenity for the site, but it is less clear how the amenity of the adjacent PARR will be maintained or enhanced.

105. With regard to the Court identified relevant policies of the NPS UD, I agree with the requestor that the plan change, subject to my recommended amendments to the proposed precinct provisions, will give effect to Policy 1(a) to (f) as the future development enabled by the plan change will:

- contribute to a well-functioning urban environment enabling of a variety of homes that meet the needs of different households as sought by Policy 1(a)(i) and (ii); and
- enable a variety of sites that are suitable for different business sectors as sought by Policy 1(b);
- promote good accessibility for all people between housing, jobs community services, natural spaces, and open spaces, including by way of public and active transport as sought by Policy 1(c);
- support the competitive operation of land and development markets by providing an enabling zoning framework and providing flexibility for the market to take up those opportunities as sought by Policy 1(d);
- enable high density development that is well located with good access to active and public transport options and reduced car dependence which is likely to support reductions in greenhouse gas emissions as sought by Policy 1(e); and
- be resilient to the current and future effects of climate change as sought by Policy 1(f).

106. I agree with the requestor that the plan change, subject to my recommended amendments to the proposed precinct provisions will give effect to Policy 6(c) and Policy 6(c) in so far as it gives effect to Objective 1 by:

- providing for an increased level of intensification,
- realising development capacity in an area with existing high levels of public transport accessibility and good access to active modes.

107. I consider that the plan change will contribute to a more efficient use of land that results in fewer emissions per capita compared with urban development not served by public transport. I also note that the precinct area falls within the area of interest of Tāmaki Regeneration Programme, which aims to deliver better housing, infrastructure, transport, education and jobs.

108. I have also turned my mind to other NPS-UD objectives and policies which are helpful to consider in the context of this plan change.

109. In relation to Objective 3 (locations for intensification) I consider that:

(a) the site is near a centre zone or other area with many employment opportunities,
(b) the site is well-serviced by existing or planned public transport,
(c) there is high demand for housing or for business land in the area, relative to other areas within the urban environment.

110. The plan change does not include provisions which tie development to the delivery of infrastructure as sought by Objective 6(c) (infrastructure planning and funding). The submissions by Watercare and AT both raise concern regarding the integration of land use and infrastructure.

111. I note that AT has currently funded improvements to the active mode crossing to the immediate north of the site (Merton Road/Apirana Avenue roundabout) as part of the Links to Glen Innes Cycleways project. Watercare has also raised the need for local water supply upgrades to service the proposed development.

112. I consider that there is some risk that that subdivision and development of the site could advance ahead of infrastructure delivery which can change due to the reprioritisation of funding or programmes. This could have significant implications on the servicing of the development and on the safety of pedestrians crossing arterial roads that cannot safely accommodate them. Mr Collins, council's traffic engineer considers that there are safety concerns if the above improvements are not completed ahead of development. This is because of the large number of residents and visitors that would be crossing at this point. These two potential adverse effects are discussed in more detail in Section 9.5 and 9.6 of this report. The requestor may wish to address this matter at the hearing.

113. I agree that the plan change gives effect to the NPS-UD, except in respect of the integration of subdivision and development with infrastructure and transport improvements. These matters are discussed in detail in Section 9.5 and 9.6 of this report.

National environmental standards or regulations

114. Under section 44A of the RMA, local authorities must observe national environmental standards in its district/ region. No rule or provision may be duplicate or conflict with a national environmental standard or regulation.

National Environmental Standard on assessing and managing contaminants into soil to protect human health (NESCS)

115. The NESCS provides a nationally consistent set of planning controls and soil contaminant values to ensure that land affected by contaminants in soil is appropriately identified and assessed before it is developed and, if necessary, the land is remediated, or the contaminants contained to make the land safe for human use.

116. The requestor has provided an assessment against the NESCS. The assessment finds that the site is considered more likely than not to have been subject to activities listed on the Hazardous Activities and Industries List.

117. I do not consider that the plan change conflicts with the NESCS. However, I consider the resource consent stage is the appropriate time to assess any proposed development against the NESCS, along with any other relevant AUP provisions.

8.4. Auckland Unitary Plan

118. For a plan change, the relevant policy statement and plans must be considered in the preparation of the plan change and in the consideration of submissions. Table 9 contains the relevant sections of the AUP's Regional Policy Statement (RPS) and District Plan, applicable to the plan change.

Table 9: Relevant regional policy statements and district provisions of Auckland Unitary Plan

Relevant Act/Policy/Plan	Section	Matters
Auckland Unitary Plan - Regional Policy Statement	B2.2	Urban growth and form
	B2.3	A quality built environment
	B2.4	Residential growth
	B2.5	Commercial and industrial growth
	B3.2	Infrastructure
	B3.3	Transport
	B4.3	Viewshafts

Auckland Unitary Plan - district provisions	D14	Volcanic Viewshafts and Height Sensitive Areas Overlay
	H7.5	Open Space – Informal Recreation Zone
	H13	Business - Mixed Use Zone
	H17	Business – Light Industry Zone
	H22	Strategic Transport Corridor Zone

119. The requestor has assessed the plan change in respect of the RPS provisions in Section 5.1.1 and Appendix 13 of the section 32 assessment report. Specifically, the following chapters are identified as being of relevance:

- B2.2 Urban growth and form
- B2.3 A quality built environment
- B4.3 Viewshafts
- B3.2 Infrastructure
- B3.3 Transport
- B10.2 Natural Hazards and Climate Change

B2 Tāhuhu whakaruruhau ā-taone - Urban growth and form

120. The requestor considers the plan change gives effect to the relevant 'Urban growth and form' objectives B2.2.1 and policies B2.2.2 for the following reasons:

- *is within an existing urban area and the proposed Mixed Use zone will contribute to a quality compact urban form that enables the efficient use of existing infrastructure and effective public transport through increased patronage;*
- *will enable higher residential intensification around centres and close to public transport, social facilities and open space, and employment opportunities;*
- *will accommodate urban growth in a highly accessible location that enables an increase to range of housing types and employment choices for the surrounding area; and*
- *As identified in the Economic Assessment included at Appendix 4, the application of the proposed Mixed Use zone will complement the Glen Innes Town Centre zone as it will enable a range of residential and commercial land use activities that do not cumulatively affect the function, role, and amenity of the Glen Innes Town Centre. The Plan Change proposal will not undermine the existing hierarchy of centres identified in the RPS.*

121. The requestor considers the plan change gives effect to the relevant 'A quality Built Environment' objectives B2.3.1 and B2.3.2 policies for the following reasons:

- *will enable future development that achieves the concepts of a quality bult environment, including the opportunity to respond to the setting of the surrounding area;*
- *will enable more people to live and/or work in a location that is highly accessible to public transport, active modes infrastructure, and existing amenities;*
  will contribute to a diverse mix of choice and opportunity for people and communities;

Comment

122. I agree with the requestor's assessment and consider that subject to the recommended amendments to the precinct provisions in this report will give effect to the RPS by allowing for a quality compact urban form, allowing higher levels of intensification (both residential and commercial) and urban growth, close to the existing town centre and train station. In my view, this will meet the needs and lifestyles of Auckland's diverse population in an area which is well-located to support an increase in housing capacity, with a range of social facilities, employment options supported by frequent public transport services and good active transport networks.

123. While I generally agree that the plan change gives effect to Chapter B2.3 I have two reservations based on matters raised by council's urban design consultant, Ms Skidmore. Firstly, there is insufficient information to determine whether the plan change will respond appropriately to the setting of the surrounding area under Objective B2.3.1(a). I am concerned that the removal of the Height in relation to boundary (HIRB) control from the precinct provisions has the potential for new buildings to visually dominate and shade the PARR. Secondly, the ability to reinforce the hierarchy of centres as sought by Policy B2.3.1(b) is not assured given some deficiencies in the assessment criteria for assessing height infringements. This matter is discussed in detail in Section 9.3 of this report.

124. The requestor has not addressed B2.4 Residential Growth and B2.5 Commercial and Industrial Growth. However, Ms Fairgray, council's consultant economist, supports enabling higher residential development within the site and considers that the loss of industrial land is unlikely to result in a significant effect on the operation of industrial activity in the area. Ms Fairgray also considers that within the local market context, there is high demand for residential uses, which are likely to develop within the site and reduce the area developed into commercial uses.

B3. Ngā pūnaha hanganga, kawekawe me ngā pūngao - Infrastructure, transport and energy

125. The requestor considers that:

- Infrastructure solutions are available to service future development
- By enabling residential and commercial growth within an accessible location it will:
    - Support the movement of people, goods and services by way of the existing roading network and existing and planned public and active modes
    - Contribute to supporting a quality compact urban form by enabling residential and commercial development on close proximity to existing and planned transport infrastructure;
    - Facilitate a variety of mode choices.
    - Encourage land use development that reduce the rate of growth in demand for private vehicle trips, including during peak periods;
    - Ensure trip generations associated future development at this location can be efficient served by public and active transport modes, including public transport services by train and bus; and
    - Ensure that any future high-trip generation activities within the site are located within close proximity to a public transport node.

Comment

126. I agree, as supported by the advice of Ms Fairgray with the requestor that the plan change identifies benefits to proposed residential and commercial development on this site. However, my earlier concerns remain, as supported by the advice of Mr Collins that the proposed precinct provisions do not adequately provide for the safe active mode choices to support urban growth. In my view the proposal does not meet Objective B3.3.1(1) in providing effective and efficient and safe transport choices for all sectors of the community.

127. I also note that the proposed precinct provisions do not provide for the integration of subdivision and development with infrastructure as sought by Objective B3.2.1(5). Given this choice is essential to achieve a well-functioning urban environment I am unable to conclude that the plan change gives effect to this part of the RPS.

B4. Te tiaki taonga tuku iho - Natural heritage

128. Section B4.2 sets out the objectives and policies in relation to the Volcanic Viewshafts. The requestor considers that the plan change is consistent with this chapter for the RPS for the following reasons:

- future development of buildings up to the maximum allowable building height proposed will not protrude the existing viewshaft contours, allowing both locally and regionally significant views to Mount Wellington to be preserved.
- the provisions within Chapter D14 of the AUP will apply to any future development, including a requirement for new buildings and structures to confirm compliance with the existing viewshaft contours.

Comment

129. It is my view supported by the advice of Ms Howdle, council's landscape specialist, that applying HVCs of 21m and 27m will not impact adversely on the objectives and policies in B4.2 as while the plan change may result in a greater degree of built form and mass within the landscape, there is unlikely to be disturbance to the visual integrity of the Mt Wellington/ Maungarei maunga, and the plan change will not affect the physical integrity of the maunga.

130. In relation to future development proposals that seek to intrude beyond the viewshaft plane, these activities would be categorised as non-complying activities and would require public notification in accordance with D14.4.1(A6) of the AUP.

B6 Mana whenua

131. Chapter B6 of the AUP sets out the strategic framework for the recognition of the Treaty of Waitangi partnerships and participation, recognition of Mana Whenua values; Māori economic, social and cultural development; and the protection of Mana Whenua cultural heritage.

132. The requestor does not specifically address this chapter in its assessment. I understand that there are no matters of concern to Mana Whenua as no mana whenua groups made submissions and no concerns were raised through the requestor's pre-notification consultation process by any iwi groups.

B10. Ngā tūpono ki te taiao - Environmental risk

133. Section B10.2 sets out the objectives for Natural Hazards and Climate Change. The requestor considers that site can be feasibly developed without exacerbating the risk of natural hazards.

Comment

134. A stormwater assessment has been undertaken by the requestor and reviewed by the council stormwater consultants, Mr Curtis and Ms Tsang. I have relied on the evidence of Mr Curtis and Ms Tsang and have concluded that this chapter is not particularly relevant to the plan change. The potential stormwater effects are discussed in Section 9.6 to this report.

Proposed Plan Change 80

135. Plan Change 80 is a complementary and companion change to PC78, the Council's intensification planning instrument that amends the district plan provisions of the AUP. Plan Change 80 makes the following amendments to the RPS to reflect specified aspects of the NPS-UD:

- references to a well-functioning urban environment in the objectives and policies of the RPS – these references were added to the RPS because it is a key policy of the NPS-UD and sets a broad urban development context;
- references to qualifying matters in the B2.4 Residential growth objectives and policies of the RPS – these references were added to provide regional policy support for the use of qualifying matters which was part of PC78; and
- references to resilience to the effects of climate change in the RPS – these references were added as the RPS to provide further policy direction relating to the effects of climate change.

136. The requestor in section 5.4.2 of their Section 32 report noted that Plan Change 80 was being progressed through the appeals process. The requestor considers that the plan change will be in keeping with the amendments to the RPS proposed under PC80.

137. This appeal to Plan Change 80 was recently withdrawn and the council will be considering whether to make the plan change operative in mid-November 2024.

RPS conclusion

138. I agree that the plan change will give effect to the RPS, subject to my recommended amendments to the precinct provisions in this report, except in relation to the two urban design matters discussed in paragraph 123 above and the integration of subdivision and development with infrastructure and transport improvements discussed in paragraphs 126 and 127 above. These matters are discussed in detail in Sections 9.3, 9.4, 9.5 and 9.6 of this report.

District Plan Provisions

139. The requestor, in sections 8.3.2 and 8.3.3 of their section 32 report, assessed the district plan standards they seek to exclude from the precinct provisions, specifically H13.6.2 1 Building Height and H13.6.2 Height in relation to boundary. I agree with the proposed amendments to the maximum allowable building height but disagree with the exclusion of the HIRB control for the reasons outlined in paragraph 123 above.

Proposed Plan Change 78 Intensification

140. This council-initiated Intensification Planning Instrument (IPI) (PC 78) seeks to give effect to the NPS-UD. These mean, in the context of the plan change, the council must:

- enable at least six-storey buildings within walkable catchments from Rapid Transit Stops
- enable development in and around town centres
- implement qualifying matters to reduce the height and density of development required by the RMA to the extent necessary to accommodate a feature or value that means full intensification is not appropriate.

141. PC 78 has identified the subject site as being within the walkable catchment of the Glen Innes Train Station. Approximately 200 submission points were coded to the Glenn Innes walkable catchment topic.

142. The requestor in section 3.4 of the section 32 report summarises their submission (#1110) to PC 78 which seeks to retain the extent of the Glen Innes walkable catchment, increase building heights up the maunga viewshafts and height sensitive areas overlay and to increase height limits of up 40m on Business zoned land within a walkable catchment. The site currently falls within the proposed Glen Innes Train Station's walkable catchment.

143. Hearings have been completed for some topics. However, with some limited exceptions all hearings and alternative dispute resolutions, including the walkable catchments topic, have been paused while the council progresses variations to PC78 regarding flooding/natural hazards issues and the Auckland Light Rail Corridor respectively.

8.5. Other relevant legislation

144. In considering a plan change, a territorial authority must have considered any regulation that is relevant to a regional or district plan change. I have considered the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 and found that it does not directly affect the plan change.

8.6. The Auckland Plan 2050

145. In considering a plan change, a territorial authority must have regard to plans and strategies prepared under other Acts. The Auckland Plan, prepared under section 79 of the Local Government (Auckland Council) Act 2009 is a relevant strategy document that council should have regard to in the preparation of the plan change. This long-term plan considers how we will address our key challenges of high population growth, shared prosperity and environmental degradation.

146. In addition to the Auckland Plan, the NPS-UD requires Council to prepare a Future Development Strategy (FDS) every 6 years. The purpose of the FDS is:

(a) to promote long-term strategic planning on how Council intends to:
- achieve well-functioning urban environments in its existing and future urban areas
- provide at least sufficient development capacity over the next 30 years to meet expected demand.

(b) assist the integration of planning decisions under the RMA with infrastructure and funding decisions.

147. The Auckland Plan and the FDS 2023-2053 work together to set the high-level direction for Auckland over the long-term for how growth and change will be provided for in the region. The FDS encourages a quality compact city approach with development:

(a) in areas that are easily reached by public transport, walking and cycling
(b) within reasonable walking distance of services and facilities including centres, community facilities, employment opportunities, and open spaces.

148. The FDS identifies that infrastructure, services, and local amenities to support growth within existing urban areas is required and that the private sector can play an important role in their delivery.

149. The FDS indicates that there is a current shortage of industrial land in Auckland. While measures are proposed to address this challenge, it is recognised that some areas may be suitable for more residential intensity. Tāmaki is identified as a joint priority area between the council and central government. The programme includes the development of significant areas where bulk infrastructure is needed to enable regeneration, housing jobs and recreation areas. Investment would be over the next 30 years.

150. The requestor in section 5.2.1 of their section 32 report concludes that the plan change is consistent with the strategic direction of the Auckland Plan and will contribute to achieving a quality compact approach to urban growth. I agree with this conclusion subject to my recommended amendments to the proposed precinct plan provisions in this report.

8.7. Any relevant management plans and strategies prepared under any other Act

151. Other relevant plans and strategies that I have considered are:

- Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan 2020

- Tūpuna Maunga Integrated Management Plan – Amended 2022
- Auckland Regional Land Transport Plan 2024-2024
- Maungakiekie-Tāmaki Local Board Plan 2023
- Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan 2020

Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan 2020

152. The Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan was adopted by council in 2020. It is a roadmap to a zero-emissions, resilient and healthier region. The core goals are: To reduce greenhouse gas emissions by 50 per cent by 2030 and achieve net zero emissions by 2050. To adapt to the impacts of climate change by ensuring we plan for the changes that we face under our current emissions pathway

153. Carbon Dioxide emitted by road transport modes is identified as the primary greenhouse gas (GHG) impacting the Auckland Region. The plan points out that integrating land use and transport planning is vital to reduce the need for private vehicle travel and to ensure housing and employment growth areas are connected to efficient, low carbon transport systems.

154. In my view the plan change, subject to my recommended amendments to the proposed precinct provisions, will be consistent with Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan. I note that the site is located in a central area of Auckland, in close proximity to a town centre, a train station, and local schools and amenities.

Tūpuna Maunga Integrated Management Plan

155. The Tūpuna Maunga Integrated Management Plan (TMIMP) sets out the Tūpuna Maunga Authority's long-term vision for the Tūpuna Maunga and establishes the direction for protection, restoration, enhancement and appropriate use of the Tūpuna Maunga. The TMIMP identifies that:

> *'The Tūpuna Maunga are among the most significant spiritual, cultural, historical, archaeological and geological landscapes in the Auckland region. The Tūpuna Maunga are sacred to mana whenua as taonga tuku iho (treasures handed down the generations). Ngā Mana Whenua therefore secured the statutory requirement for an IMP to ensure the future of each of these treasured places will be organised with equal consideration and reverence.'*

156. The TMIMP sets out values and pathways to achieve the integrated outcomes for all the Tūpuna Maunga. The values provide the tika (correct) framework for the care and protection of the Tūpuna Maunga, while the pathways elaborate and give tangible expression to the values. Together they are the guiding principles and objectives that set the direction for the Tūpuna Maunga Authority to protect and care for the Tūpuna Maunga and provide a crucial framework for decision-making.

157. Of specific relevance to this plan change is the pathways associated with the Takotoranga Whenua /Landscape values (refer to section 9.7 of the TMIMP) and of relevance to the plan change are:

    - *Protect the integrity of the landscape of the Tūpuna Maunga*
    - *Preserve the visual and physical authenticity and integrity of the Maunga as landmarks of Tāmaki*

158. The preservation and integrity of Regionally Significant Volcanic Viewshaft W12 Mount Wellington (Maungarei) and Locally Significant Volcanic Viewshaft W13 Mount Wellington (Maungarei) and the associated overlay supports the values and pathways identified in the TMIMP in relation to preserving landscape values.

159. The requestor has not provided a specific assessment of the TMIMP. The Tupuna Maunga Authority did not make a submission to this plan change.

160. I rely on the advice of Ms Howdle, council's landscape specialist in concluding that the plan change, subject to the recommended amendments to the proposed precinct provisions, is consistent with the intent of the TMIMP, particularly pathway 9.7. Under this pathway the plan change will rely on the existing robust approach in the AUP to protect the visual and physical integrity of the landscape of Mt Wellington /Maungarei and ensure it remains an important landmark of Tāmaki.

Auckland Regional Land Transport Plan 2024-2034

161. The Auckland Regional Land Transport Plan sets out the 10 year investment proposal for Auckland's transport network including planned and enabled growth. It is aligned with the Council's priority areas, including Tāmaki, and the spend proposed for Council's Long Term Plan (Budget) 2024- 2034.

162. Under this expenditure, the Urban Cycleways Programme that will provide improved connections along Apirana Avenue to link to Glen Innes.

Maungakiekie-Tāmaki Local Board Plan 2023

Table 10: Maungakiekie- Tāmaki Local Board Plan 2023

Relevant Act/Policy/Plan	Section	Matters
Ta mahere ā rohe o Maungakiekie-Tāmaki 2023 Maungakiekie- Tāmaki Local Board Plan 2023	Tō Tātou Taiao Our Environment	Our arawai / waterways and whenua / land are healthy and thriving. We are resilient to the impacts of climate change. Mana whenua and our community are supported to be kaitiaki / guardians for our environment.
	Tō Tātou Hapori Our Community	Our facilities and open spaces are accessible, cost-effective and fit-for-purpose. Te ao Māori is seen throughout our community. We plan for the future and are open to all the opportunities that can enable greater and more targeted investment in our community.
	Ō Tātou Wāhi Our Places	Growth in our rohe is well-planned and environmentally aware. We have connected neighbourhoods where people feel safe in our community. Our town centres, open spaces and facilities have a range of accessible and reliable transport links to get people to places. Our transport infrastructure is fit for purpose and supports future growth.
	Tā Tātou Ōhanga Our Economy	Our town centres are thriving, and our businesses are resilient. We can live, work, and play locally. We are skilled and our businesses thrive. Our quality of life is high, and we can develop to our full potential.

163. The Maungakiekie Tāmaki Local Board Plan 2023 ('the Local Board Plan')[4] is a three-year strategic plan that guides local board activity, funding and investments decisions. It also influences the local board's input into regional strategies and plans, including the Auckland Plan, the Auckland Council Long-Term Plan (10-yearly budget) and annual budgets.

164. The Local Board Plan includes actions that the Local Board can take in regard to the Council-owned assets in the area including parks, libraries, and community facilities. The Local Board Plan also contains advocacy statements. The advocacy statements that are relevant to the plan change include:

- Advocate to Auckland Transport for better, integrated local transport links between and to our town centres to enable greater access to employment and business opportunities. (Pg 33)

9. Assessment of effects on the environment

165. Clause 22 of Schedule 1 to the RMA requires private plan changes to include an assessment of environmental effects that are anticipated by the Plan Change, taking into account clause 6 and 7 of the Fourth Schedule of the RMA.

166. An assessment of actual and potential effects on the environment ("AEE") is included in the report titled Pilkington Park Private Plan Change Request, 167-173 Pilkington Road Point England, Section 32 Assessment Report' by Barker and Associates Ltd, dated 24 August 2024, lodged with the plan change.

167. The submitted AEE identifies and evaluates the following actual and potential effects:

- Effects on urban design
- Effects on landscape and visual amenity
- Effects on industrial land supply
- Effects on transport
- Effects on noise
- Effects on infrastructure servicing
- Effects on flooding and stormwater management
- Effects on contamination
- Effects on open space and social facilities

168. In my view, the requestor's Section 32 report covers many of the positive and adverse effects. Where I agree with the AEE, I will state so and do not repeat the assessment. There are effects where I disagree with the conclusions of the Section 32 report and I will give reasons why in this report. In this section I firstly set out the requestor's assessment, then secondly, the council's expert views and lastly my own conclusions on each effect. In my view, the following headings cover the environmental effects relevant to the proposed private plan change:

- Economics
- Landscape and visual amenity
- Urban Design

[4] https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/kaipatiki-local-board/Documents/kaipatiki-local-board-plan-2023.pdf

- Open Space
- Transport
- Infrastructure – water supply and wastewater
- Noise and vibration
- Stormwater and flooding
- Contamination

9.1. Economics

Requestor's assessment

169. The economic assessment[5] was prepared by Property Economics. The key conclusions of Property Economics are summarised in Section 7.3 of the section 32 report as follows;

    - There is approximately 2,280 hectares of vacant and vacant potential (land with significant development potential) zoned light industrial land within the Auckland region. In addition, there is approximately 1,220 hectares of industrial land allocated within various Structure Plans for Future Urban zones. As a result, there is potential to support an additional 1,358 hectares of industrial land uses within the existing and future vacant industrial land supply, and up to an additional 3,668 hectares of industrial land use activity when including for vacant potential land.

    - Given the estimated industrial land capacity and sufficiency within the Auckland region, the loss of approximately 7 hectares of light industry is considered minimal and would not undermine the growth of industrial activity within the local catchment or wider region.

    - In the last 21 years, the localised catchment has experienced net growth in industrial employment at a slower rate than the Auckland region. It is expected that the trend of declining industrial employment will continue to occur.

    - Property Economics attributes this slower growth rate to the surrounding industrial and suburban areas being well established. It is expected that a greater proportion of industrial growth would have occurred in emerging industrial hubs and growth areas where vacant land is more freely available and there are competitive advantages such as lower land values.

    - The B-MU Zone will enable a variation of activities and provide for an efficient means to redevelop the site. A number of light industry activities within the site, including manufacturing and servicing, warehousing and storage, and a childcare centre are permitted within the B-MU Zone and these activities will not be displaced following the change in zoning.

170. Having regard to the assessment and findings contained within the Economic Assessment, the requestor considers that the potential effects of the plan change on industrial land supply within the Auckland Region will be acceptable.

Specialist comment

171. Ms Fairgray, council's economic consultant, has assessed the above report. Ms Fairgray's assessment is attached in Appendix 5 to this report.

172. Ms Fairgray considers the proposal would result in a loss of industrial zoned land. However, this is unlikely to result in a significant effect on the operation of industrial activity in this location or the surrounding area. In Ms Fairgray's view the proposed B-MU Zone is likely to;

    - produce a greater level of employment on the site than if the current B-LI Zone remained

[5] Section 32 report Appendices 4 & 4A

- potentially enables a sizeable amount of activity (such as retail, food and beverage, offices) to establish that overlaps with the core commercial role of the adjacent Glen Innes Town Centre. At 7.3ha, the proposed site is large relative to the existing size of the town centre (estimated at around 11 to 12 ha). If developed with a commercial focus, it could contain significantly higher levels of commercial activity than indicated within the requestor's design report.

173. Ms Fairgray considers that development of a substantial amount of commercial activity on this site may result in either some shift to the centre of gravity of the town centre or may increase the overall role of the town centre within its wider catchment area. In Ms Fairgray's opinion, there is less certainty as to the likely effect of the plan change on the commercial role of the Glen Innes Town Centre. In part, this is due to the absence of developer intentions for this site that may otherwise indicate the likely level of commercial development, its integration with the existing centre and confirmation of likely residential yields. Ms Fairgray notes that the requestor has not provided assessment of the likely projected demand for commercial activity at this location.

174. Despite limited information on likely development patterns, Ms Fairgray considers that the local residential development market conditions within the town centre's catchment area are likely to somewhat mitigate adverse effects on the centre. There is sizeable opportunity for residential intensification in the immediately surrounding catchment area, including with the existing THAB zoned area. A significant amount of this is currently being taken up by the market, with sites being redeveloped at much greater intensities than previously existing patterns of development.

175. Ms Fairgray points out that significant levels of residential intensification occurring in areas surrounding the Glen Innes Town Centre are likely to correspondingly increase the level of demand for commercial activity at this location. This will increase the level of commercial activity able to be sustained within this area, likely reducing the dilution of sales within the centre as a result of additional commercial activity establishing within the site.

176. While sizeable commercial space could potentially develop within the site, Ms Fairgray considers this is likely to be mitigated by competing land uses. Within the local market context, there is high demand for residential uses, which are likely to develop within the site and reduce the area developed into commercial uses.

Analysis

177. Given the above advice from Ms Fairgray it is in my view that the proposed change from B-LI Zone to B- MU Zone will not have a significant effect on the provision of industrial land in Auckland and the effects on the town centre are likely to be beneficial. The site is ideally located to enable intensification in an area which is close to public transport and the town centre. The residential development at the site also represents an efficient response to accommodating Auckland's residential demand.

9.2. Landscape and visual amenity

Requestor's assessment

178. The Landscape and Visual Impacts Assessment[6] was prepared by Frank Pierard of Barker & Associates Ltd. Mr Pierard concludes that:

The existing Site has a low level of visual amenity and does not contribute much to the adjoining streetscape or wider landscape due to its car dominated and internalised light industrial character. There are a number of existing landscape features located within adjoining OSZ land which will not

[6] Section 32 report Appendix 10

be affected by the PPC that help to visually contain, screen and soften the Site from the surrounding area.

Overall, the proposed change in land use and building heights associated with the HVC (Areas A and B) are assessed to generate low adverse visual effects. This is due to the limited sensitivity of the existing industrial Site, the limited magnitude of change proposed, the 'partial' visibility typically achieved from both interfaces with adjoining land uses and the wider environment, the existing landscape elements which help to screen and visually contain the Site and the adjoining transport corridors which provide physical and visual separation between the more sensitive residential dwellings to the east.

In my opinion, the change in land use will result in positive effects and likely contribute to a more vibrant and people focused environment that could also result in a more visually appealing built form that could support the vitality of the Glen Innes town centre.

The landscape character and values effects associated with the proposal are assessed to be low. The landscape visual effects associated with the proposal are assessed to be low. Overall, the LVEA is assessed as low.

Specialist Comment

179. Ms Howdle, council's landscape expert has considered the above report. Ms Howdle's assessment is attached in Appendix 5 to this report. Ms Howdle concludes that:

- the change the zone from B-LIZ to B-MUZ is not considered to adversely impact on the visual amenity or visual integrity values of the Scheduled Volcanic Viewshafts. The proposed heights, 21m and 27m being designed to sit below the viewshaft plane.

- the proposed height of 21m (when looked at individually as a standard) across the middle and southern portion of the site would not result in any greater landscape and visual amenity effects compared to the permitted 20m under the B-LIZ

- the area subject to 27m should not be increased in any greater expanse (southward on the site) or height increased across the site, this is to retain local views to the and from the Mt Wellington/Maungarei maunga, as well as from surrounding open spaces, and to retain a sense of place.

- the combined impact of the increased height and the removal of the HIRB along the interface with the open space zone has the potential to diminish the landscape values and visual amenity of users within the open space land and residents to the east of the site to a moderate degree. Potential adverse effects include building dominance, shading and the loss of trees

- the change in zoning from B-LIZ to B-MUZ has the potential to improve the landscape and visual amenity values of the area

180. Ms Howdle considers that improvements to the landscape and visual amenity values of the area could be better achieved by:

- changing the activity status for development which infringes the Standard for building height (IX.6.1 Restricted Discretionary)) within the activity table to discretionary or non-complying activity.

- retention of the HIRB standard to the open space zone.

- including a special information requirement to require a surveyor's report as part of future development, to demonstrate compliance with the Volcanic Viewshaft in relation to the co-ordinates within Schedule 9.

Analysis

181. In my view, no change to the activity status is warranted. Future resource consent applications for buildings that exceed the Height Variation Control will require an assessment against all the relevant provisions of the AUP. I am satisfied that matters of discretion for new buildings and associated criteria and policies would enable the suitable consideration of any additional height requests. Height will also be limited by the scheduled volcanic viewshafts overlays.

182. I recognise that there is some overlap with the disciplines of urban design and open space. In their respective reviews Ms Skidmore and open space consultant, Mr Hendra have also identified the potential for adverse effects on the PARR associated with the removal of the HIRB standard. These concerns are further discussed in section 9.3 and 9.4 below.

183. Ms Howdle considers a special information requirement relating to need for a surveyor's certificate would be beneficial. In my view, this is unnecessary as any buildings that intrudes into the viewshaft will trigger the need for non-complying resource consent under D14.4.1(A6) of the AUP.

9.3. Urban Design

Requestor's assessment

184. The Urban Design Assessment (Appendix 9 of the Section 32 report) by Katherine Hu of Barker & Associates, concludes[7] that:

The Site's proximity to Glen Innes Station and access to a wide range of services and amenities, including those in the Glen Innes Town Centre, make it well suited to the greater intensification and variety of use that could be achieved within the MUZ provisions.

The Site is surrounded by wide roads and a railway corridor, enabling increased height to be accommodated in a manner such that potential adverse effects on the surrounding environment and adjacent properties are low.

The existing MUZ provisions under the AUP, including the matters of discretion and assessment criteria for new buildings, coupled with the application of additional provisions through the proposed Precinct, could contribute to achieving high quality developments and compact urban form outcomes.

Overall, I consider the PPC would result in positive urban design effects, increasing the vibrancy of the local area, increasing the visual legibility of Glen Innes Town Centre and will help to support the vitality and use of the Centre and adjoining rail station.

Specialist comment

185. The above assessment has been reviewed by council's urban design consultant, Ms Skidmore. Ms Skidmore's assessment is attached in Appendix 5 to this report.

186. Generally, Ms Skidmore concurs with the summary of conclusions set out in section 7 of the requestor's Section 32 report. Ms Skidmore agrees that the plan change location makes it well suited to the greater intensification and the variety of uses enabled by the B-MU zone. The changes proposed will enable an increase in the vibrancy of the local area, improved legibility of the Glen

[7] Section 32 report, Appendix 10 page 23

Innes Town Centre, and support the vitality and functionality of the centre and train station. In the context of the continued change anticipated in the wider environment, with increased intensification through the residential environment, a reasonable amenity will be maintained.

Comprehensive approach development

187. The requestor, in response to a clause 23 further information query on how a comprehensive design approach to future development would be achieved, amended the proposed precinct description, Objective 1 and Policy 3 to emphasise the comprehensive approach to development.

188. Ms Skidmore considers that while these changes do not require a comprehensive approach to development, when considered in combination with the subdivision provisions (in particular Policies E38.3(10), (11) and (18) and B-MU zone provisions, including the matters of discretion for new buildings, there is still a need for appropriate consideration of how development within the precinct will achieve suitable integration both within the site and with the surrounding urban environment.

189. To ensure an appropriate relationship between buildings and adjacent open spaces (including streets) is achieved, Ms Skidmore recommends an additional assessment criterion for new buildings to this effect.

Height Variation Control

190. The proposed HVCs of 21m and 27m are considered appropriate by Ms Skidmore, as they will make a better contribution to the functionality and amenity of the urban environment than the 20m B-LI Zone height standard, for the following reasons:

- Enabling buildings of at least 21m is consistent with Policy 3(c) of the NPS-UD which seeks to enable building heights of at least 6 storeys within a walkable catchment of rapid transit stops (in this instance the Glen Innes Train Station);
- It will facilitate greater intensification in a suitable location to access the range of amenities provided in the Glen Innes Town Centre and contribute positively to its vitality;
- While the existing Town Centre has a low built profile, the proposed HVC of 27m will provide a suitable transition from the 32.5m height that is enabled;
- A 27m HVC will enable considerably greater height differential in relation to the residential environment on the eastern side of Apirana Avenue. However, when considered in the context of the 19.5m HVC that applies north of Salima Talagi Street, the broad dimension of Apirana Avenue and the additional separation created by the Open Space zone, this scale differentiation is considered appropriate.

191. Ms Skidmore recommends that amendments are made to the proposed assessment criteria [IX.8.2(2)] where buildings infringe the HVC standard to ensure the consideration of the creation of a suitable transition to the Glen Innes Town Centre and to maintain the centre's primacy in the urban environment. A second amendment would include reference to criterion – Policy H13.3.3(3)(c) – as taller buildings can impact on pedestrian amenity of the surrounding open spaces such as streets in terms of the enclosure created, shading effects and wind effects.

Height in relation to boundary

192. Ms Skidmore observes the southern part of the PARR has the potential to perform a valuable passive recreation and amenity function as the site evolves. It would be helpful for the requestor to provide further analysis in evidence of the difference between the two envelopes in relation to this widened

area of open space and the effects on the amenity of the space that may result. In particular, consideration should be given to the potential shading and visual dominance effects.

193. The requestor's Urban Design Assessment assumes compliance with the HIRB control would result in a stepped building form, depicted in an accompanying diagram (Figure 10). I note that this is one scenario to achieve compliance. Another may be to create a greater setback, or a combination of the two.

194. Subject to further analysis of the amenity effects on the southern part of the PARR I concur with the requestor that the removal of the HIRB control in relation to the Open Space zone is appropriate for the following reasons:

- It will provide greater flexibility to create a direct and engaged interface with the public realm.
- It will provide better passive surveillance beyond the open space over the adjacent street corridor
- The separation created by the combination of the wide and busy street corridor and the open space corridor will ensure unacceptable overlooking and visual dominance of the residential properties to the east will be avoided.
- The application of the design criteria for new buildings, will maintain and may enhance the amenity of the adjacent public realm.

195. Ms Skidmore does not agree with the recommendation from the council's open space specialist requiring a 5m yard in relation to the PARR (as currently required for the B:LI zone). Such a yard in her opinion is unnecessary as it may diminish the ability to front the adjacent space in a positive manner. It may also result in an undesirable site configuration with buildings backing onto the space and using the setback for carparking and storage areas.

Analysis

196. I agree with Ms Skidmore that further information is necessary to assess the shading and dominance effects of removing the HIRB standard on the PARR. The requestor may wish to provide additional information and associated analysis at the hearing. I do have reservations in relation to the exclusion of the HIRB standard from the precinct provisions and support the request for additional information sought by Ms Skidmore.

197. I agree with the addition to IX.8.2(2) Assessment criteria of Policy H13.3(1) and Policy H13.3.3(3)(c). In my view, this will ensure that an appropriate transition to the Glen Innes Town Centre is assessed in future resource consent applications. This in line with the requestor's section 32 assessment which gave the need to reinforce the town centre as a focal point for the community as a key reason for rejecting an HVC of 32.5m.

198. In my view, the proposed new assessment criterion for new buildings will give effect to Objective 1 which seeks to integrate the precinct with the surrounding area and Objective 2 which seeks that new buildings respond to and positively contribute to the amenity values of the public network including open spaces and streets.

199. Given the above findings, it is my view that the plan change subject to my recommended amendments to the proposed precinct provisions in this report, will allow for intensive development and greater heights within the precinct area. I agree with the council experts (including Ms Howdle, Ms Skidmore and Ms Fairgray) that there are clear benefits to allowing increased heights (of 21m and 27m) in this location close to the Glen Innes Town Centre and public transport. I also agree that the presence of wide arterial roads and the PARR separating more intensive development in the precinct area from adjacent residential zoned land to the east combined with the railway corridor and surrounding business zoned land to the north, west and south makes this area suitable for accommodating greater heights and intensification.

9.4. Open Space

Requestor's Assessment

200. The requestor does not provide a specialist assessment of open space. Appendix 15 to the section 32 report shows existing open spaces that are accessible from the site. Section 7.9 of that report concludes that the surrounding open space, amenities, and social facilities are accessible by active modes of transport and are of a sufficient size to cater for the social and cultural needs and wellbeing of future residents of the site.

201. Mr Pierard in Section 4.2 of the landscape assessment considers that the '

> "*.. OSZ land directly east of the site presents an opportunity to provide borrowed amenity for future development. It could also present consenting constraints should additional permeability / connections be required from within the Site to adjoining streets. Although this could be considered a constraint, in my view, additional permeability would be positive and contribute to a more vibrant streetscape outcome. The PPC will not affect this OSZ land as it stands."*

202. The urban designer, Ms Katherine Hu, in section 6.2.3 of the urban design assessment considers that visual and dominance and shading effects are primarily managed in the B-MU zone by applying the HIRB standard along the boundary with specific adjacent zones. The requestor proposes to remove this standard from applying on the PARR. Ms Hu considers the PARR appears to be an extension of the existing road reserve and does not provide any sports, active or recreational uses. Ms Hu considers that it provides a visual and physical buffer between the residential zoned land to the east and the B-LI site. Ms Hu regards the HIRB control along this interface to be technical in nature and supports its removal to ensure it does not result in a less optimal outcome from a built form perspective.

Specialist comment

203. Mr Henda, the council's open space consultant has reviewed the above assessment. Mr Hendra's assessment is attached as Appendix 5 to this report. Mr Hendra advises the PARR is a recreation reserve which must be managed in accordance with the Reserves Act 1977 and the AUP's Open Space – Informal Recreation zone. This zone applies to parks that range in size from local to regional parks.

Playground Accessibility

204. The council's Open Space Provision Policy 2016 anticipates a neighbourhood park with a playground to be within a 400-metre walking distance from high and medium density areas. This metric is applied to development to assess whether play needs are met by existing infrastructure or whether they need to be provided as part of a development or within a precinct.

205. The nearest accessible playground, Talbot Reserve, is calculated to be some 720m from the southern end of the site and 1400m from the northern end, well outside of the council's 400m walking standard due to current difficulties with crossing Apirana Avenue and Pilkington Road. While Mr Hendra acknowledges the requestors proposed development of an amendment to provide a pedestrian crossing across Pilkington Road, he considers that two crossings would be required to meet the above walking distance standard.

206. On the assumption that two pedestrian crossings may not be achievable on arterial roads Mr Hendra has recommended:

- provision of a pedestrian safe route, or routes, which result in a playground being within 400 metres of all site pedestrian access points; or
- provision of a privately owned but publicly accessible playground within the site

Vehicle access over the PARR

207. Currently of the seven vehicle crossings serving the site, four have direct road access and two access across the PARR as shown from Figure 3 of the Parks report below:

Figure 3: Existing vehicle crossings and potential easement surrender and replacement. Source Parks Planning Report WLA 02 October 2024.

208. The smaller southern crossing serving the Blossom's Childcare and other activities within the site does not have authorisation to occupy and use the PARR. Mr Hendra considers this crossing should be removed and the PARR reinstated to fulfil the park's informal recreation purpose. This supports Mr Hendra's position that this part of the PARR land has potential as a neighbourhood park and removing vehicle crossing would improve the functionality of the park's and users safety.

Trees

209. The removal of the HIRB standard and the lack of a side yard to the open space zoned land in the precinct provisions is considered by Mr Hendra to place the trees located in the PARR which extend partly over the boundary into the site (by between 2-5m), at risk of substantial pruning or removal to facilitate development. Mr Hendra notes there is a tension as the varying assessments by the requestor's specialists rely on the trees being altered. In Mr Hendra's view many of these trees are large and significant and are the formative and dominant character element of the reserve and western streetscape. The trees contribute to the amenity, landscape and ecological values of the area, especially significant in this case considering the low comparative amenity values of the site.

210. Without a realistic development model and a supporting detailed arboricultural impact assessment, Mr Hendra considers it is difficult to accurately predict impacts upon trees. Additionally, Mr Hendra considers it difficult to assess if any specific trees, or areas of trees may warrant protection and justify the positioning of buildings to avoid impacting the high value trees. In lieu of this information, Mr Hendra recommends that a 5m yard be provided.

Open Space values of the PARR and development effects

211. The northern section of the PARR is noted at 365m long and to the east adjoins an open grassed area, which forms part of the road reserve, as shown below from Figure 6 of the Parks report:

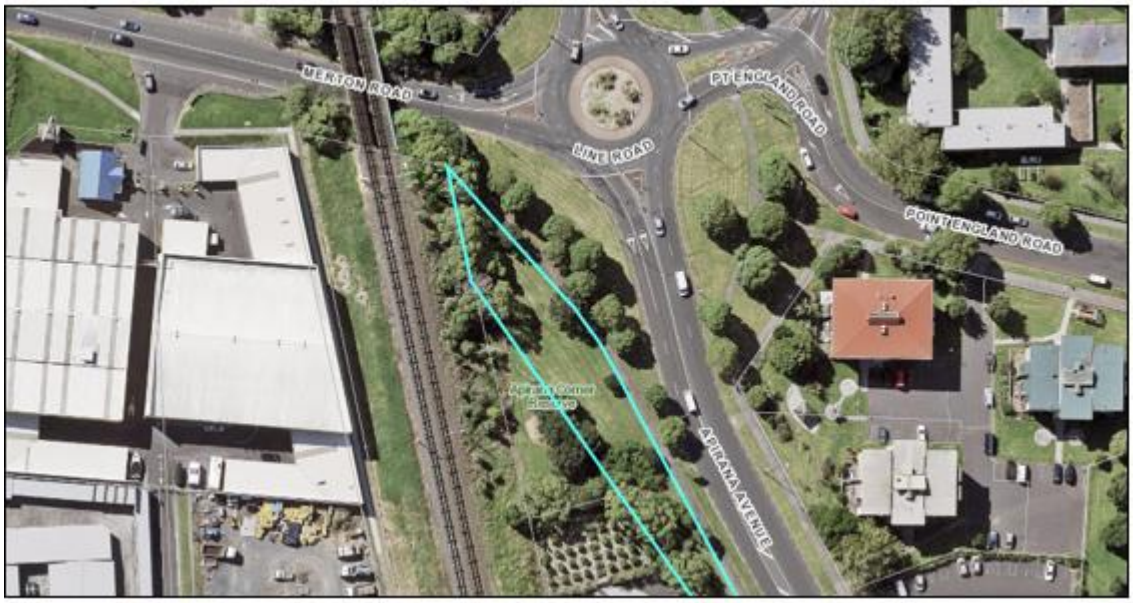


Figure 6 Northern PARR location and context: Source Parks Planning Report WLA 02 October 2024

212. Combined the two areas form a large area which could in Mr Hendra's opinion provide a generous and public space if activated by the plan change. Mr Hendra defers to the council's landscape and urban design experts to assess the effects of the maximum height, exclusion of the HIRB standards and yard controls.

213. The southern extent of the PARR as shown below from Figure 7 of the Parks report:

Figure 7: Southern PARR location and context Source Parks Planning Report WLA 02 October 2024

214. Mr Hendra does not agree with the conclusions of Ms Hu relating to the PARR and shares the concerns raised by the council's landscape and urban design specialists of potential building dominance and shading of the PARR resulting from the exclusion of the HIRB. Mr Hendra supports the request for further information from the requestor as discussed in Section 9.3 paragraph 192 above. In Mr Hendra's opinion:

'The reserve is currently undeveloped not because of constraints within it, but because the adjacent industrial land use does not support the need for a developed public space, and because neighbourhood parks with basic provision are located on the eastern (residential) side of Apirana Avenue and Pilkington Road which serve those communities'.

Rezoning of the Site and accompanying high density residential and mixed-use development would in my opinion be a catalyst for development of the open space with informal recreation, amenity, and route functions. Unlike the northern PARR, the southern part is at-grade with the Site and has space to accommodate improvements without significant impacts upon protected trees. The relatively open area available is around 3,500m2 equivalent to a neighbourhood scale park[8]

215. In conclusion Mr Hendra finds the effects of the proposed building envelope may adversely affect the amenity values of southern PARR considering its likely future public access and amenity functions which may result in response to the mixed-use development enabled by the plan change. Additional provisions may be justified.

Analysis

216. Given the above assessment by Mr Hendra, I agree that access to a neighbourhood park is required to meet the council's open space requirements. While I understand the requestor is considering amendments to the precinct provisions to accommodate an active mode crossing of Pilkington Road, I consider it would be helpful to also indicate potential pedestrian access to the southern part of the PARR. The question of an additional active crossing is discussed in greater detail in section 9.5 Transport below.

217. In my view, the provision of a neighbourhood park within the site is best managed by way of resource consent at the time of development or subject to separate discussions, outside of the RMA process with the council's Community Investment team. I concur with Mr Hendra's expectation that the PARR will be an important park for future residents of this development.

218. I also agree that the safety, functionality and amenity of the PARR would be improved if the southern vehicle crossing (by Blossoms childcare) was to be removed. As there is no easement for this crossing, this is a matter for the council's Property and Commercial unit to investigate in the short term. The requestor may wish to comment on this issue at the hearing. I have some sympathy with restricting access to the southern part of the PARR and discuss this further in the Section 9.5 Transport section later in this report.

219. As previously recommended, further information is necessary to assess the shading and dominance effects of removing the HIRB standard on the PARR. In my view further information is also required to assess the development potential effects on the trees located along the eastern boundary of the site.

9.5. Transport

Requestor's assessment

220. An Integrated Transport Assessment (ITA)[9] was prepared by Mr John Parlane of Barker & Associates.

221. Mr Parlane concludes that the site:
    - is well serviced in terms of public transport and by AT's 'Links to Glen Innes Cycleways' project
    - will enable land use activities which have the potential to generate additional transport related effects.
    - will retain an acceptable network level of service following development, including at the Pilkington Road and Tripoli Road roundabout and the Apirana Avenue and Merton Road roundabout;

[8] Private Plan Change 101 – Pilkington Park (PPC101) Specialist Review Parks Planning by James Hendra of WLA page 15 dated, 2 Oct 2024. Refer Appendix 5 to this report
[9] Section 32 report Appendices 7, 7A and 7B

- existing rules of the Auckland Unitary Plan are sufficient to ensure that any adverse transportation effects associated with future development can be avoided, remedied or mitigated.
- access can either occur at the existing access points or at new locations developed in accordance with the AUP rules.
- is well placed from a transport perspective to accommodate the level of development enabled by the Plan Change, including by encouraging mode shift as a result of high levels of accessibility to public and active modes of transport.

Specialist comment

222. Mr Collins, the council's transport consultant has reviewed the requestor's ITA. Mr Collins assessment is attached as Appendix 5 to this report.

223. Mr Colins agrees with the ITA's conclusion that the site is well positioned to benefit from existing and future public transport services and that the development can rely on the AT 'Links to Glen Innes Cycleways project to ensure safe active modes access to and from the Glen Innes Town Centre.

Accessibility

224. Mr Collins considers the three existing pedestrian crossings along Apirana Avenue are inadequate to support or encourage walking cycling and public transport use from the site. As part of AT cycleways project raised pedestrian and cycle crossings at the Merton Road/Apirana Avenue and Pilkington Road/Tripoli Road roundabouts are proposed. Mr Collins believes this project will address the current deficiencies at these intersections. Figure 6 from Mr Collin's report below shows AT's proposed transport infrastructure in this area.

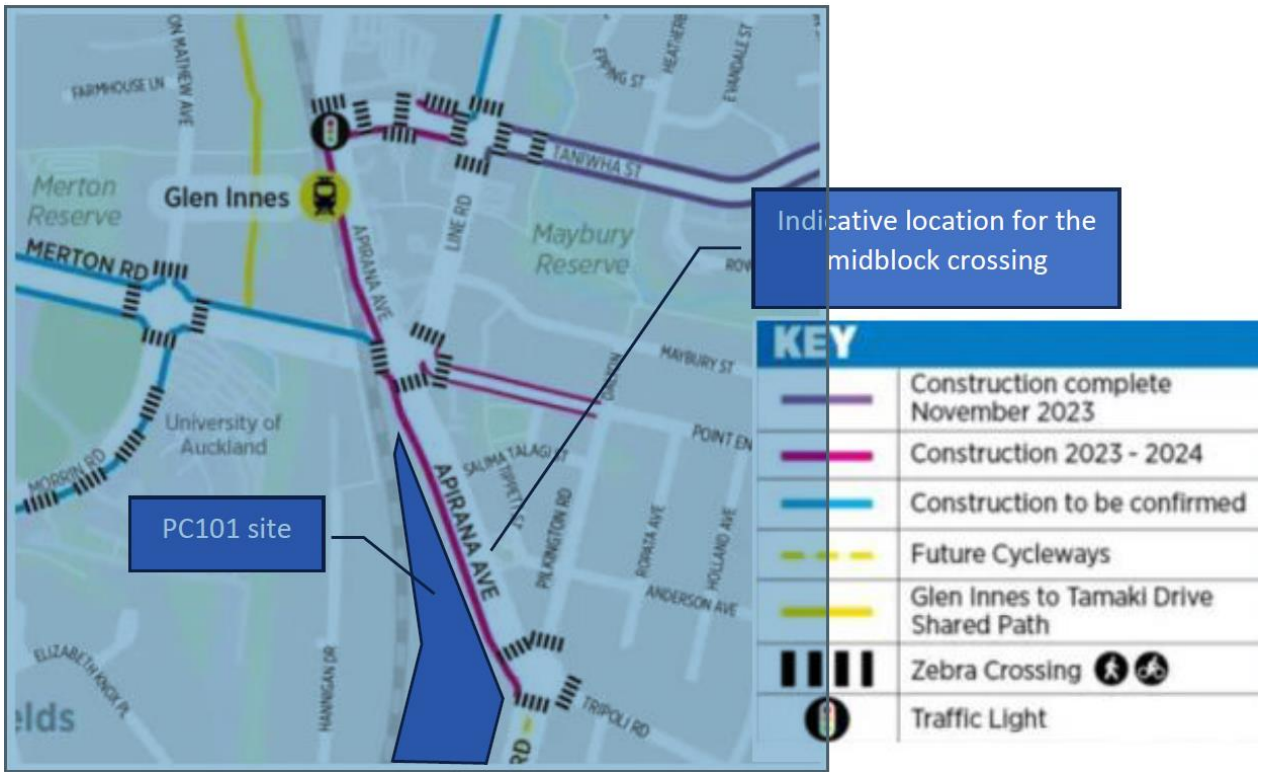


Figure 6 Auckland Transport Links to Glen Innes Cycleways project, reproduced and adapted from the council's website

225. AT has indicated that it has funding to complete these works, with the balance of works expected to be undertaken in Fiscal Year 2025/26. However, should AT delay the delivery of these improvements, Mr Collins is concerned that development of the site would generate demand for walking and cycling trips that could not be safely accommodated by the existing transport network.

Additionally, Mr Collins is concerned at the lack of a pedestrian and cycle crossing along the 500m stretch of the site's length and recommends an additional midblock pedestrian and cycle crossing should be added between the Merton Road/Apirana Avenue and Pilkington Road/Tripoli Road roundabouts. This aligns with the submission from AT (submission number 4.1)

226. In Mr Collins view, both the completion of Auckland Transport's "Links to Glen Innes Cycleways" project and the addition of a pedestrian and cyclist crossing on Apirana Avenue should be prerequisites for any subdivision. Mr Collins recommends amendments to the proposed precinct provision to better align the delivery of transport improvements with subdivision and development. I agree with Mr Collins conclusions and have adapted his proposed amendment and also shown the location of these improvement in precinct plan 1.

Site access

227. The ITA assumes the site will have five vehicle crossing points onto Apirana Avenue, currently there are seven. Given that the location of the PARR means that a large portion of the site does not have access to Apirana Avenue or Pilkington Road, Mr Collins considers that three vehicle crossings are feasible for this site:
    - Gate A - northern access
    - Gate B - which has access to Apirana Avenue without crossing the PARR
    - a single consolidated crossing to the south

228. Although there are fewer vehicle crossings than assumed in the ITA, Mr Collins considers it does not constrain the redevelopment of the site. While fewer vehicle crossings will lead to a higher concentration of vehicle movements, appropriate vehicle access designs can be developed and, if necessary, the developer can vest or allocate land within the site to achieve appropriate outcomes.

229. Mr Collins supports precinct provisions that state that a maximum of 1 vehicle access point can be formed/used within the PARR, or to otherwise limit vehicle access within the PARR.

230. Mr Collins is satisfied that the site can be developed in a comprehensive manner avoiding multiple vehicle crossings onto Pilkington Road and considers that the existing AUP provisions can address this.

Traffic modelling

231. Mr Collins disagrees with the methodology used in the ITA modelling as it is based on current traffic volumes and did not account for future growth. Mr Collins considers it highly like that traffic volumes will rise in the area as significant urban redevelopment is expected. Nevertheless, Mr Collins concludes that additional traffic modelling is unnecessary provided his recommendations for active mode facilities on Apirana Avenue are implemented to reduce the reliance on private vehicles for trips generated by the development.

Analysis

232. I have relied upon the advice of Mr Collins. I acknowledge the requestor is intending to present further detail at the hearing in respect of the recommended mid-block crossing of Apirana Avenue. In my view, amendments to the precinct provisions are needed to better integrate the delivery of infrastructure and land use and to manage the number of vehicle crossings onto Apirana and Pilkington Road, particularly through the PARR.

233. Taking into account both Mr Collins and Mr Hendra expert advice relating to vehicle access over the PARR, I would support the restriction of vehicle access over the southern part of the PARR for the reasons outlined by Mr Hendra in Section 9.4 above and rely on the existing AUP provisions where

the site has direct access to the road reserve or is located in the northern part of the PARR. The requestor may wish to comment on this matter at the hearing.

9.6. Infrastructure – Water and Wastewater

Requestor's assessment

234. A Civil Engineering Report[10] has been prepared by Selina Zhu of Blue Barn Consulting. Section 7.6 of the section 32 report summarises Ms Zhu's conclusions as:
    - Wastewater
        - An existing wastewater connection is available at Apirana Avenue. It is anticipated that Watercare guidelines for building over or near existing services will be incorporated during future development, which will be designed accordingly.
    - Water Supply
        - Hydrant test flows show that there is sufficient capacity within the existing water mains located on Apirana Avenue to service future re-development of the site. Additional connections to the water main located in Pilkington Road are also available.

235. Overall, the requestor considers future redevelopment can be adequately serviced by the existing networks wastewater, and water supply without restrictions on capacity. It is also noted that the site includes existing light industrial buildings and activities that are readily serviced by the existing reticulated network. The requestor considers that servicing effects associated with the proposed plan change can be appropriately managed under existing AUP provisions and regulatory frameworks, where the detailed infrastructure design will be determined as part of any future redevelopment.

Specialist comment

236. Mr Revill, the council's Principal Project Manager Regulatory Engineering, has reviewed the requestor's civil engineering assessment. Mr Revill's report is attached in Appendix 5 to this report.

237. Mr Revill observes that the calculations and conclusions provided in the Blue Barn report are based on a conservative estimation of possible development that could occur after the proposed plan change. From the calculations there appears to be capacity in the water and wastewater networks without the need for wider network upgrades.

238. Further design work, calculations and localised wastewater and water network upgrades will be required at the consent holders' expense once development proposals are known.

Analysis

239. I have relied on the advice of Mr Reill in concluding that infrastructure design details are best timed to be considered when the necessary consents are sought.

9.7. Flooding and stormwater management

Requestor's assessment

240. The Civil Engineering Report[11] also assessed flooding and stormwater management. The key conclusions of Blue Barn's assessment are summarised in Section 7.6 of the section 32 report as follows:

[10] Section 32 report Appendix 8
[11] Ibid Appendix 8

- The site is serviced by the existing public stormwater network, available at the eastern and western boundaries. As the site is at maximum impervious areas, it is anticipated that only minor upgrades to the existing stormwater network will be required to service any future development.
- The site is not subject to any flood plains, flood prone areas, or flood sensitive areas. There are a number of overland flow paths which drain towards Apirana Avenue. These overland flow paths will be managed as part of any future development in accordance with relevant AUP provisions.
- The site is categorised as a brownfield site and the requirements of the Network Discharge Consent ('NDC') will apply to future redevelopment, including for stormwater treatment, retention, and detention. In addition, the northern part of the Site is located within a Stormwater Management Area Flow 1 under the AUP.
- Blue Barn's assessment finds that the required volumes for stormwater retention and detention can feasibly be obtained using on-site devices. Compliance with the requirements of the AUP and NDC will ensure that future development does not adversely affect downstream properties or the Omaru Creek, which stormwater discharges to from the public network.

241. It is therefore considered that potential effects of the plan change associated with flooding and stormwater management can be appropriately managed under existing AUP provisions and regulatory frameworks.

Specialist comment and analysis

242. Mr Curtis and Ms Tsang, the council's stormwater consultants have reviewed the civil engineering report. They conclude that the plan change can provide appropriate stormwater management to ensure that stormwater discharge effects of future developments will be avoided or mitigated, in compliance with the existing AUP provisions.

Analysis

243. I agree with the three specialists that the potential effects of the plan change can be appropriately managed.

9.8. Noise and vibration

Requestor's assessment

244. An Assessment of Noise and Vibration Effects[12] was prepared by Styles Group.

245. The acoustic treatment requirements in Standard E25.6.10 of the AUP require that any Activities Sensitive to Noise (ASN) in the B-MU Zone are acoustically treated from the noise levels that are permitted to be generated in business zones. The site is also exposed to noise effects from the adjacent NIMT railway line and arterial road corridors. The report notes that dwellings in the nearby R-THAB Zone are not required to be acoustically treated.

246. The key conclusions and recommendations of the Styles Group assessment are summarised below:
    - The underlying AUP standards for noise will require acoustic treatment for all activities sensitive to noise within the B- MU Zone, and these measures will be sufficient to manage the potential noise emissions from other activities which may establish within adjacent B-LI and B-MU zoned land.
    - The plan change will not unduly constrain the continued operation of adjacent B-LI zoned sites located at Hannigan Drive. This is because the railway corridor will provide a separation distance of approximately 25m, and there is an existing requirement under the AUP for these

[12] Section 32 report Appendix 11

B-LI zones to meet lower night time noise limits at existing adjacent sites located within the B-MU and THAB zones.

- Due to separation distance and the logical future orientation of future building resulting from the shape of the Site, it is anticipated that vibration levels will be acceptable.

- Additional requirements for acoustic treatment and/or mechanical ventilation are recommended for all activities sensitive to noise located within 60m of the railway corridor and arterial roads. This is because the AUP does not include equivalent rules or standards for sensitive activities located within close proximity to the railway corridor. Styles Group consider that the underlying AUP standards for other sensitive activities will be adequate to protect activities outside of these areas.

- Additional requirements are also recommended to require that the noise level within outdoor play areas for care centres within 60m of the railway corridor do not exceed 55dB LAeq. This may be achieved through acoustic treatment or the design and orientation of play areas.

247. Overall, the assessment by Styles Group finds that noise and vibration effects can be appropriately managed under the provisions of the AUP with additional requirements to address the adjacent railway corridor to the west.

Specialist comment

248. Mr Andew Gordon, the council's senior noise contamination specialist has reviewed the acoustic assessment. Mr Gordon's report is attached in Appendix 5 to this report. Mr Gordon agrees with the conclusions reached in the Styles Group report and the proposed precinct noise standards. However, Mr Gordon, considers the operation of arterial roads needs to be included in Objective 4 and Policy 4 to ensure ASN are adequately protected from road traffic noise.

Analysis

249. Given the above, I generally agree with Mr Gordon conclusions and acknowledge the requestor is considering such amendment to Objective IX.2(2) and IX.3(4) to refer to arterial roads. I also note an error in IX.6(2) Standards for activities sensitive to noise and IX.6(3) Standard for outdoor play areas within 60m of the rail corridor. Figure IX.6.2.31 appears to apply to both noise standards but is not referenced by either of them. The requestor may wish to address this issue at the hearing.

9.9. Reverse sensitivity – air quality

250. The submission from Van den Brink Poultry Ltd raised concerns regarding the potential for air quality reverse sensitivity effects associated with the plan change. Mr Crimmins, the council's air quality consultant, has assessed the risk of air quality reverse sensitivity issues. His report is attached in Appendix 5 to this report. Mr Crimmins concluded that the plan change is not likely to cause significant air quality reverse sensitivity effects to existing and future potential industrial activities within the nearby B-LI Zone. The current proximity of other activities sensitive to discharges already constrains the potential for significant industrial air discharge activities within this area. Mr Crimmins considers that industrial air discharge activities can be appropriately managed under the provisions of the AUP.

9.10. Contamination

Requestor's assessment

251. The Land Contamination Assessment (Appendix 12 of the Section 32 report) concludes that following a desktop review, no activities were identified which would be likely to preclude future conversion of this area to mixed land use, provided that the relevant provisions of the NESCS and

the AUP are followed when the change in land use occurs. Remedial works would occur as required by the findings of the additional investigation works.

Specialist comment

252. Council's Senior Specialist Air, Climate and Contamination, Mr Crimmins has reviewed the Contamination Assessment and agreed with its conclusions.

253. Analysis

254. I have relied upon the advice of Mr Crimmins and consider that it is appropriate for any existing contamination to be managed by way of resource consent at the time of development and, that contamination is not likely to adversely impact on the implementation of the plan change.

9.11. Conclusion of Effects

255. Overall, and based upon the advice of the council specialists I have concluded that some of the adverse effects of the plan change may be able to be avoided, remedied or mitigated through the plan change as notified or through the amendments recommended by the council specialists. The remaining adverse effects, in particular the issue of the potential loss of amenity to the PARR is still open for consideration.

10. Consultation

256. The following consultation was undertaken for the plan change.

10.1. Mana Whenua

257. There are 15 mana whenua groups who have a registered interest in the site. The section 32 report assesses the proposal against the three publicly available Iwi Management Plans from Ngāti Whātua Ōrākei, Ngāi Tai ki Tāmaki, and Waikato – Tanui. That assessment finds the proposal aligns with many of the objectives and outcomes of the Iwi Management Plans including the provision of housing, the integration of land use with mass transit and low carbon transport networks. The protection of the mauri of water and mana whenua values will be ensured by requiring that future redevelopment is adequately serviced and potential effects on the environment are appropriately managed. The assessment also notes that the site is not identified as a site of significance to mana whenua in the AUP.

258. The requestor advised it consulted with the 15 iwi authorities listed below. Emails and letters were sent on 23 November 2022 and followed up on 23 January 2023. Nine iwi did not respond and four indicated they would not be engaging or deferred to other iwi. Ngāti Whanaunga and Ngāti Pāoa (Ngāti Pāoa Trust Board) were provided additional information as requested. Ngati Whanaunga sought a site visit and hui but it appears this did not eventuate.

Table 11: Iwi consultation responses

Iwi	Response
Ngāti Whanaunga	Requested a site visit . Further information provided
Ngāti Pāoa (Ngāti Paoa Trust Board)	Requested information. Information provided
Ngāti Te Ata	Indicated not engaging
Ngāti Whātua o Kaipara	Defer to Ngāti Whātua o Ōrākei

Te Ahiwaru – Waiohua	Defer to Ngaati Paoa / Ngaati Whatua ki Orakei
Waikato – Tainui	Defer to local Mana Whenua
Ngai Tai Ki Tāmaki	No response
Ngāti Maru	N o response
Ngāti Pāoa (Ngāti Paoa Iwi Trust)	No response
Ngāti Tamaterā	No response
Ngāti Whātua Ōrākei	No response
Te Ākitai Waiohua	No response
Te Kawerau ā Maki	No response
Te Patukirikiri	No response
Te Rūnanga o Ngāti Whātua	No response

259. The council notified all the above iwi authorities of this plan change request. No iwi authorities made a submission or provided any additional information.

10.2. Local Board

260. At the September 2024 business meeting of the Maungakiekie Tāmaki Local Board the following resolutions were passed:

That the Maungakiekie Tāmaki Local Board:

a) whakarite / provide local the following board views on PC 101 by Wyborn Capital Investments Limited for 167-173 Pilkington Road, Point England and the railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England.

i. tautoko / support the proposed plan change 101 from Business – Light Industry Zone to Business – Mixed Use zone to introduce a new Pilkington Park precinct for mixed use development.

ii. tuhi ā-taipitopito / note the public submissions received and tono / request the concerns raised are given due consideration, in particular:

A) ensure traffic calming and safety measures prioritising pedestrians safety when crossing property access ways is considered and clear links to planned pedestrian crossings on Apirana Ave (included in AT's Links to Glen Innes project under construction) are provided for.

B) ensure that the effects on Watercare's existing and planned water and wastewater networks are appropriately considered and managed in accordance with the Resource Management Act 1991

C) that the applicant works with Watercare in advance of lodging resource consents to confirm the requirement for any local water supply infrastructure upgrades.

D) whether existing height controls should be maintained in keeping with surrounding developments and ensuring viewshafts to Maungarei are well maintained for the area.

9.3 Other consultation

261. The requestor also consulted with Watercare, KiwiRail and AT. These organisations have made submissions to the plan change and their various requests are assessed in section 12 of this report.

11. Notification and Submissions

11.1. Notification details

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

Date of public notification for submissions	23 May 2024
Closing date for submissions	21 June 2024
Number of submissions received	8
Date of public notification for further submissions	12 July 2024
Closing date for further submissions	26 July 2024
Number of further submissions received	0

262. Three late submissions received that were waived under s37A of the RMA. KiwiRail provided an attachment to their original submission on 24 June 2024, which the council had received on time. Foodstuffs North Island Limited submission was received 25 June 2024. AT provided a replacement submission on 2 July 2024.

263. Copies of the submissions are attached as Appendix 3 to this report.

12. Analysis of submissions

264. The following sections address the submissions received to the plan change. It discusses the relief sought in the submissions and makes recommendations to the Hearing Commissioners.

265. No submissions received for the plan change support or oppose the plan change in full and therefore the submissions received have been grouped by topic of issues discussed. No further submissions were received.

266. Submissions that address the same issues have been grouped together in this report under the following topic headings:

- Height
- Objectives and policies not related to noise
- Transport
- Wastewater networks and water supply
- Noise and vibration
- General reverse sensitivity

267. The Maungakiekie- Tāmaki Local Board's feedback appears in Appendix 4 to this report. While not a submission, and therefore not specifically assessed in this section, the Local Board's feedback has been considered alongside submissions in the analysis given in Sections 9 above.

12.1. Submissions discussing building height

Sub. No. and point	Name of Submitter	Summary of the Relief Sought by the Submitter	Planners Recommendations
1.1	Charis Charan	Reduce building height to 4 storeys in line with Hinaki St apartments.	Reject
2.1	Georgina Stewart	Restrict building height to no more than three storeys	Reject
3.1	Sibylle Van Hove	Remove height variation control (21m and 27m) and maintain the existing height of 20m for the LIZ [Business - Light Industry zone] and 18m for THAB [Residential -Terrace Housing and Apartment Buildings zone].	Reject

Submission points from Mr Charan #1.1, Ms Stewart #2.2 and Ms Van Hove #3.1

Discussion

268. Mr Charan opposes the plan change and seeks alternative relief if approved. Submission points from Ms Stewart and Ms Van Hove) support the plan change, subject to amendments.

269. Height matters are discussed in section 9.3 of this report and the response to submissions from an urban design perspective is made in the Section 5 of the council's urban design expert report by Ms Skidmore. Ms Fairgray also responses to submissions from an economic perspective as set out in Section 7.2 of her expert report. Both these reports are attached in Appendix 5 to this report.

270. In summary I consider the heights are considered appropriate for the following reasons:

- The heights suggested by submitters are lower than the existing height limits that apply on the site and do not accord with the NPS-UD policy direction to accommodate greater intensification (facilitated by higher buildings) in strategic locations.
- An HVC of 27m together with the removal of the HIRB control will enable a noticeable change in building scale in the northern area of the site. However, the existing B-LI zone does not require consents for new buildings. The proposed BMU zone does, with matters of discretion including a consideration of the design and appearance of buildings and the contribution they make to the character, amenity and safety of the surrounding environment.
- Greater height allowances within the northern part of the proposed site are likely to encourage an efficient pattern of development within the site. They will concentrate more intensive development in areas closest to the Glen Innes Town Centre. This is likely to increase the economic benefits generally associated with residential intensification around the centre.
- Development at heights on the site greater than three to four storeys enables a graduated increase in height from the adjacent residential area and the Glen Innes Town Centre.
- Residential development is already occurring within these areas at up to six storeys. Higher density development is likely to account for an increasing share of new dwellings in this location as the market continues to respond to this development opportunity.

271. Both Ms Skidmore and Ms Fairgray conclude that the proposed heights are appropriate in this location. I agree with their conclusions and reasoning.

Recommendation

272. I recommend that submission points 1.1 by Mr Charan, 2.1 by Ms Stewart and 3.1 by Ms Van Howe rejected for the reasons provided above in paragraphs 270-271 above.

273. There are no amendments associated with this recommendation.

12.2. Submissions discussing objectives and policies not related to noise

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter	Planners Recommendations
4.4	Auckland Transport	Retain objective 3 [IX2.(3)]	Accept
4.6	Auckland Transport	Retain policy 1 [IX.3(1)]	Accept
5.5	KiwiRail	Retain objective IX.2. 1 [IX.2(1)]	Accept in part
5.6	KiwiRail	Retain objective IX.2. 2 [IX.2(2)]	Accept
5.7	KiwiRail	Retain objective IX.2. 3 [IX2.(3)]	Accept
5.9	KiwiRail	Retain policy IX.3. 1 [IX.3(3)]	Accept
5.10	KiwiRail	Retain policy IX.3. 2 [IX.3(2)]	Accept

Discussion

274. Auckland Transport and KiwiRail submissions both support the plan change, subject to amendments.

275. The five submission points above support the specific objectives and policies in relation to the precinct's comprehensive, development, the efficient land use and the relationship of new buildings with the surrounding area. I agree with these submissions with the exception of KiwiRail submission 5.5. Objective IX.2(1) refers to the developing a 'high quality mixed-use centre'. The purpose of the plan change is not to create a new centre but a mixed-use development.

Recommendations

276. I recommend that submission points 4.4 and 4.6 by AT and submission points 5.6. 5.7, 5.9 and 5.10 by KiwiRail be accepted for the reasons provided in paragraph. 275 above.

277. There are no amendments to the plan change associated with this recommendation.

278. I recommend that submission point 5.5 by KiwiRail be accepted in part for the reasons provided in paragraph 275 above.

279. The proposed amendments to this plan change are set out in Appendix 6 to this report.

12.3. Submissions discussing transport

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter	Planners Recommendations

1.3	Charis Charan	Increase on premise car parking requirements by at least 50%	Reject
4.1	Auckland Transport	Add a new provision to ensure a key pedestrian crossing and facilities for pedestrians and active modes (across Apirana Avenue to/ from the site and the land to the east) is provided, as shown on page 8 of the submission. The provision may include thresholds or triggers (prior to the first occupation of any dwelling) or clear assessment and consenting processes aligned to related objectives and policies. Apply a non -complying activity status when staging triggers are not met.	Accept in part
4.2	Auckland Transport	Add a new standard to manage access to the site and any associated measures to avoid adverse effects on Apirana Avenue and Pilkington Road. Refer to the full submission on page 9 for details.	Accept in part
4.3	Auckland Transport	Amend paragraph 3 of the precinct description as follows: "Land use, development, and subdivision within the precinct is provided for in a manner which supports the ongoing safe and efficient operation of the North Island Main Trunk Line, and Apirana Avenue and Pilkington Road, including by protecting sensitive activities;.. below."	Accept in part

Mr Charan's submission point 1.3

Discussion

280. I disagree with the relief sought in the submission by Mr Charan. The AUP has removed minimum parking standards as mandated by Policy 11 of the NPS-UD. I agree with the expert advice of Mr Collins that the site is well located for walking, cycling and public transport accessibility. Over provision of car parking would increase reliance on private vehicles transport at the expense of active and public transport usage.

Recommendation

281. I recommend that submission 1.3 by Mr Charan be rejected for the reasons set out in paragraph. 280 above.

282. There are no amendments to the plan change associated with this recommendation.

AT submission points 4.1, 4.2 and 4.3

Discussion

283. AT's submission is in support of the plan change, subject to amendments.

284. At the time of writing this report I was aware, as noted in paragraph 39 above, that the requestor is considering amendments to the precinct provisions to address the various relief sought by AT, KiwiRail and Van Den Brink Poultry Ltd in relation to pedestrian/cycling crossing and to add references to arterial roads. Amendments include targeted and consequential amendments to the relevant objectives, policies, rules and assessment criteria. These changes are to be confirmed in the requestor's evidence.

285. I note that my recommendations on submission 4.1 and 4.3 may change once I have had the opportunity to review the requestor's revised precinct provisions. I intend to confirm my position in my addendum hearing report.

286. Submission point 4.1 seeks the provision of a crossing across Apirana Avenue to the east, to enable safer pedestrian and cycling movement. As discussed in Section 9.5 paragraphs 224 to 226 and paragraph 232 of this report. I support AT's relief, informed by the expert advice of Mr Collins, the council's transport consultant. The requestor also supports the provision of a crossing in this location and as noted in paragraph 282 above is intending amend the proposed precinct provisions to provide for it.

287. In relation to the relief sought by submission point 4.2, the issue of site access is discussed in detail in Section 9.4 Open Space paragraphs. 207-208 and 218, and in Section 9.5 Transport paragraphs 226 to 230 and 233 of this report. Iin summary, it is my view taking into account the expert advice relating to vehicle access over the PARR from Mr Collins and Mr Hendra, that vehicle access over the southern part of the PARR should be restricted. The existing AUP provisions requiring resource consent for direct access onto arterial roads should continue to apply where the site has direct access to the road reserve or is located in the northern part of the PARR. I have amended the proposed standard to better reflect expert advice on this matter.

288. In relation to the relief sought in submission point 4.3, Mr Collins does not support this amendment as Chapter E38 Transport identifies arterial roads. In my view, I agree that that reference should be made to Apirana Avenue and Pilkington Road in the precinct description as the precinct provides for acoustic treatment from noise associated with these specific roads. However, reference later in the paragraph should be qualified by referring to 'adjacent' arterial roads.

Recommendation

289. That submission points 4.1, 4.2 and 4.3 by AT be accepted in part for the reasons set out in paragraphs 286-288 above and because in relation to submission 4.2 I have amended the wording and scope of the new standard sought by AT.

290. These amendments to the plan change are set out in Appendix 6 to this report.

12.4. Submissions discussing wastewater networks and water supply

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter	Planners Recommendations
6.1	Watercare Services Limited	Ensure that the effects on Watercare's existing and planned water and wastewater networks are appropriately considered and managed in accordance with	Reject

		the Resource Management Act 1991.	
6.2	Watercare Services Limited	Reassess the effects on Watercare's existing and planned water supply and wastewater networks should the applicant's civil engineering assumption of a development yield of 711 dwellings be exceeded.	Reject
6.3	Watercare Services Limited	The applicant will need to work with Watercare in advance of lodging resource consents to confirm the requirement for any local water supply infrastructure upgrades.	Reject
6.4	Watercare Services Limited	The applicant will need to investigate the feasibility of a direct connection to the Eastern Interceptor at the resource consent stage. Any connection will need to be confirmed by Watercare.	Reject

Discussion

291. Watercare's submission was neutral in terms of the outcome sought. I consider the relief sought by Watercare is best addressed at the time of development and is outside the scope of this plan change.

Recommendation

292. I recommend that submission points 6.1, 6.2, 6.3 and 6.4 by Watercare be rejected for the reasons in paragraph 291 above.

293. There are no amendments to the plan change associated with this recommendation.

12.5. Submissions discussing noise and vibration

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter	Planners Recommendations
4.5	Auckland Transport	Amend objective 4 [IX.2(4)] to read: Activities sensitive to noise located adjacent to the rail corridor, and Apirana Avenue and Pilkington Road, are designed to protect people's health and amenity values, and in a way which does not unduly constrain the operation of the North Island Main Trunk Line or arterial roads.	Accept
4.7	Auckland Transport	Amend policy 4 [IX.3(4)] to read: "Ensure that activities sensitive to noise adjacent to the North Island Main Trunk Line, and Apirana Avenue and Pilkington Road do not unduly constrain the	Accept

		operation of the rail corridor or arterial roads by providing for buildings and outdoor play areas to be designed with acoustic attenuation measures."	
4.8	Auckland Transport	Amend standard IX.6.2 as follows: (4) Any new noise sensitive space within 60m of Apirana Avenue or Pilkington Road where the road traffic noise level ~~is predicted to exceeds 55db LAeq24hr~~ exceeds current measured or predicted noise levels plus 3 dB must be designed, constructed and maintained with a mechanical ventilation/ cooling system that meets the requirements of E25.6.10(3)(b) and (d) to (f). Note: The design shall be based on current measured or predicted road traffic noise levels ten years plus 3 dB after the noise sensitive space is first occupied.	Reject
5.1	KiwiRail	Retain references in the precinct description to high-quality mixed-use development and protecting sensitive activities from noise associated with the rail corridor.	Accept
5.2	KiwiRail	Amend the precinct description to read "An area within the Precinct which may experience vibration levels higher than would normally be expected because of proximity to the rail corridor is identified on Precinct Plan."	Reject
5.3	KiwiRail	Add a precinct plan to show a 'rail vibration notation over land within 100m of the rail corridor.	Reject
5.4	KiwiRail	Provide an alert layer to future landowners and occupants of sensitive activities that existing activities could have an effect on the level of amenity obtainable.	Reject
5.8	KiwiRail	Add a new objective 4: 'The North Island Main Trunk railway line is protected from adverse effects from the construction and maintenance of new buildings and structures through the use of setbacks'	Reject

5.11	KiwiRail	Amend policy 3 [IX.3(3)] to refer to the protection of amenity when indoors, the use of building setbacks and communal outdoor play areas. Refer to the full submission on page 3 for details.	Reject
5.12	KiwiRail	Amend IX.4.1 Activity table (A2) for restricted activities to read: New buildings and alterations to existing buildings which do not comply with standards IX.6.1 to IX.6.34	Accept
5.13	KiwiRail	Retain IX.5. Notification provisions	Accept
5.14	KiwiRail	Amend Standard IX6.2 Standard for activities sensitive to noise, to extend the distance to which these standards apply from 60m to 100m from the rail corridor. Refer to full submission on page 4 & 5 for details and attached Section 32 report [Standard Railway Noise and Vibration Reverse Sensitivity Provisions and Section 32 Report August 2023]	Reject
5.15	KiwiRail	Add a new standard to read: IX.6.4 Safe operation of the NIMT Buildings and structures must be setback at least 5 metres from any boundary which adjoins the North Island Main Trunk railway line.	Reject
5.16	KiwiRail	Amend IX.8.1(2) Matters of discretion in relation to activities sensitive to noise. Refer to full submission on page 7 for details. Apply these changes to breaches of standard IX.6.3.	Reject
5.17	KiwiRail	Insert new assessment criteria IX.8.1 (4) in relation to the infringement of standard IX.6.4 safe operation of the NIMT Setback from NIMT. Refer to full submission for details on page 7]	Reject
5.18	KiwiRail	Amend IX.9 Special information requirements by requiring consultation with KiwiRail for activities sensitive to noise within 100m of the rail corridor. Refer to full submission for details on page 8.	Reject

7.2	Van Den Brink Poultry Limited	Retain objective IX.2(4)	Accept in part
7.3	Van Den Brink Poultry Limited	Retain policy IX.3(4)	Accept in part
7.4	Van Den Brink Poultry Limited	Retain standard IX.6.2 Standard for activities sensitive to noise	Accept in part
7.5	Van Den Brink Poultry Limited	Retain standard IX.6.3 - Standards for outdoor play areas within 60m of the rail corridor.	Accept in part

294. I am aware that the requestor is considering amendments to the precinct provisions to address the various relief sought by AT, KiwiRail and Van Den Brink Poultry Ltd in relation to managing noise effects. Amendments include targeted and consequential amendments to the relevant objectives, policies, rules and assessment criteria. These changes are to be confirmed in the requestor's evidence.

295. I note that my recommendations on submissions on noise matters may change once I have had the opportunity to review the requestor's revised precinct provisions. I intend to confirm my position in my addendum hearing report.

Auckland Transport submission points 4.5 and 4.7 and Van Den Brink Poultry Limited submission points 7.2 and 7.3

Discussion

296. In relation to the relief sought by AT in submission points 4.5 and 4.7, I agree that reference should be made to Apirana Avenue and Pilkington Road in Objective IX.2(4) and Policy IX.3(4) as the precinct provides for acoustic treatment from noise associated with these roads. However, as a consequential change arising from my recommendation to submission 4.3 above, I consider that references to arterial roads should be qualified by referring to 'adjacent' arterial roads.

297. Van Den Brink Poultry Ltd in submission points 7.1 and 7.2 seeks no change to these two provisions. However, in my view while minor changes are recommended the overall outcome to be achieved does not change.

Recommendation

298. I recommend that submission points 4.5 and 4.7 by AT and submission points 7.2, and 7.3 by Van Den Brink Poultry Ltd, be accepted in part for the reasons set out in paragraph. 296-297 above.

299. These amendments are set out in Appendix 6 to this report.

Kiwi Rail submission point 5.1

Discussion

300. In relation to the relief sought by KiwiRail submission point 5.1 I note that no changes to the precinct description are being sought by other submitters or in this report to the type of development proposed for Pilkington Park or challenging the need for protection of sensitive activities from noise associated with the railway corridor.

Recommendation

301. I recommend that submission point 5.1 by KiwiRail be accepted in part for the reasons set out in paragraph 300 above.

302. There are no amendments associated with this recommendation.

AT submission point 4.8, KiwiRail submission points 5.2, 5.3, 5.4, 5.8, 5.11, 5.14, 5.15, 5.16, 5.17 and 5.18 and Van Den Poultry Ltd submission points 7.4 and 7.5

Discussion

303. The relief sought by AT and KiwiRail in submission points 4.8 and 5.14 seek to modify Standard IX.6.1 Activities sensitive to Noise and submission point 5.15 wishes to add a new standard in relation to setbacks from the NIMT railway line. The two submission points from Van Den Brink Poultry Ltd seek to retain both noise standards – IX.6.1 and IX.6.2 Standards for outdoor play areas within 60m of the rail corridor.

304. The remaining submissions from KiwiRail 5.3, 5.4, 5.5, 5.11, 5.16, 5.17 and 5.18 seek to make related amendments other provisions including the precinct description, objectives and policies, matter of discretion, assessment criteria and special information requirements and by introducing a precinct plan to identify spatial controls such as setbacks.

305. These matters have all been considered by Mr Andrew Gordon, the council's noise specialist in his report which is attached as Appendix 5 to this report. The proposed precinct provisions are considered by Mr Gordon to adequately mitigate external noise and vibration from adjacent business activities, rail and road transport where it is practicable to do so. Mr Gordon considers a 'rail vibration notation and setbacks are unnecessary. Finally, Mr Gordon concludes that no changes are required to the IX.6 noise standards. I have relied on the advice of Mr Gordon and concur with his conclusion. I also consider that amendments to others precinct provisions related to noise are not required.

Recommendation

306. I recommend that submission points 4.8 by AT and submission points 5.2, 5.3, 5.4, 5.8, 5.11, 5.14, 5.15, 5.16, 5.17 and 5.18 be rejected for the reasons set out in paragraph 305 above.

307. I recommend that submission points 7.2, and 7.3 by Van Den Brink Poultry Ltd, be accepted in part for the reasons set out in paragraph 303 above.

308. There are no amendments to the plan change associated with this recommendation.

KiwiRail submission point 5.12

Discussion

309. I agree with the relief sought by KiwiRail to amend IX.4.1 Activity Table so that activity (A2) includes 'alterations to existing buildings' which do not comply with standards IX6.1 to IX6.4. This is standard practice in most business and residential zones. I recommend that the wording is amended to also include additions to existing buildings.

Recommendation

310. I recommend that submission point 5.12 by Kiwi Rail be accepted in part for the reasons set out in paragraph 309 above.

311. These amendments are set out in Appendix 6 to this report.

Kiwi Rail submission point 5.13

Discussion

312. KiwiRail seeks to retain the notification provisions. I agree with this relief as it pertinent to the role of KiwiRail as a network utility operator.

Recommendation

313. I recommend that submission point 5.13 by Kiwi Rail be accepted for the reasons set out in paragraph 312 above.

314. There are no amendments to the plan change associated with this recommendation.

12.6. Submissions discussing general reverse sensitivity

Sub. No.	Name of Submitter	Summary of the Relief Sought by the Submitter	Planners Recommendations
1.2	Charis Charan	Review and update noise management [controls] during building construction and operation	Accept in part
2.2	Georgina Stewart	Any development of the site must minimise the impact for nearby residents.	Accept in part
7.1	Van Den Brink Poultry Limited	Consider and address any potential reverse sensitivity effects associated with enabling residential development adjacent to Light Industry zoned land containing existing industrial activities and in particular a large poultry processing plant.	Accept in part
8.1	Foodstuffs North Island Limited	Retain Plan Change in its current form, and or with precinct provisions or other controls which remove the potential for interface issues to arise between the PC101 land and the Foodstuffs site.	Accept in part

Discussion

Mr Charan's submission point 1.2 and Ms Stewart's submission point 2.1

315. In relation to these submission points I note that resource consent conditions for large developments generally require the consent holder to develop management plans, covering a wide range of matter including construction, traffic, dust, noise, and vibration. An Environmental Monitoring Office from the council will monitor any consents to ensure the developer is complying with the conditions and any other relevant regulations. This will help manage noise during construction to reasonable levels and during operation will be negligible due to normal distance attenuation from neighbouring residential areas.

316. Mr Gordon, the council's noise specialist also makes the following observations in respect of Ms Stewart submission point:

- The development will not change existing permitted noise levels at the Business – Residential interface (i.e. as set out in E25.6.19).
- Rezoning from Light Industry to Mixed Use may potentially reduce overall noise effects currently received within the residential zone.
- Vehicles driving on public roads is a permitted activity and not subject to specific noise controls.
- Vehicle movements associated with the application site are not expected to increase existing traffic noise levels and any change in traffic noise is expected to be imperceptible (i.e. less than 3 dBA).

Recommendation

317. I recommend that submission point 1.2 by Mr Charan be accepted in part for the reasons set out in paragraph 315 above.

318. I recommend that submission point 2.2 by Ms Stewart be accepted in part for the reasons set out in paragraphs 315 and 316 above.

319. There are no amendments to the plan change associated with this recommendation.

Van Den Brink Poultry submission point 7.1

Discussion

320. This submission supports the plan change subject to amendments.

321. In relation to this submission point the council sought advice from Mr Crimmins, an air quality consultant. The concerns raised by the submitter were considered in paragraph 250 of this report. Mr Crimmins concluded that the plan change is not likely to cause significant air quality reverse sensitivity effects to existing and future potential industrial activities within the nearby B-LI Zone.

Recommendation

322. I recommend that submission point 7.1 by Van Den Brink Poultry Ltd be accepted in part for the reasons set out in paragraph 321 above.

323. There are no amendments associated with this recommendation

Foodstuffs (Auckland) Ltd submission point 8.1

Discussion

324. Foodstuffs (Auckland) Ltd supports the plan change, subject to amendments.

325. Foodstuffs raises concerns about interface issues with site but does not specify what issues are of particular concern. It would be helpful for the submitter to provide further information in their evidence or at the hearing so that a focused response can be considered.

Recommendation

326. I recommend that submission point 8.1 by Foodstuffs (Auckland Ltd) be rejected for the reasons set out in paragraph 325 above.

327. There are no amendments to the plan change associated with this recommendation.

13. Section13 Potential changes

328. Clause 10(1) of the First Schedule of the RMA requires the Hearings Commissioners to give a decision on the provisions and the matters raised in submissions. In this report I have considered both the plan change provisions and the submissions.

329. Submissions to the plan change provides for a narrow range of amendments to the precinct provisions, specifically transport and noise effects.

330. As noted in Section 12 no analysis of submission points or changes to the precinct provisions relating to noise have been undertaken in this report. This analysis will be undertaken once the requestor's further precinct amendments are available for review.

331. The amendments I propose are set out in full in Appendix 6 to this report and relate to the following points:

- Precinct description – to provide better context to the surrounding area and the precinct purpose and to recognise key local roads

- New objectives and policies – relating to infrastructure and transport
- New activities in the activity table relating to alterations and additions to existing buildings, and infrastructure and transport
- HIRB standard – retention of this standard
- HVC standard – to recognise that two HVCs are proposed for this site
- Add two new standards – road crossing and direct access to arterial roads
- Add new assessment criterion for new buildings
- Add two new assessment criteria relating to infringements of HVC standard
- Add a new precinct plan 1 to identify an indicative pedestrian crossing improvements and connections, and the vehicle access control area
- Minor editorial changes to reflect the AUP editorial practices

14. Conclusions

332. Based on specialist advice I have received I have identified that the requestor needs to provide more evidence in relation to visual dominance and shading effects of PARR, arising from the exclusion of the HIRB standard from the precinct provisions.

333. PPC 101, with its recommended amendments will:

- assist the council in achieving the purpose of the Resource Management Act 1991
- give effect to the National Policy Statement on Urban Development 2020 (updated 2022)
- be consistent with Auckland Unitary Plan Regional Policy Statement
- be consistent with the Auckland Plan.

334. I note that my recommendations will be confirmed or may be further amended once I have reviewed the requestor and submitter evidence.

15. Recommendations

335. Subject to the Panel being satisfied on the issue of visual dominance and shading of the Pilkington Apirana Road Reserve, I recommend:

336. That, the Hearing Commissioners accept or reject submissions as outlined in this report.

337. That, as a result of the recommendations on the submissions, the Auckland Unitary Plan be amended by:

- the changes proposed by PPC 101, to the Auckland Unitary Plan
- the inclusion of the amendments set out in Appendix 6 to this report.

16. Signatories

	Name and title of signatories
Authors	 Michele Perwick Senior Policy Planner, Central/South, Planning and Resource Consents
Reviewer / Approved for release	 David Wong Acting Team Leader, Central/South, Planning and Resource Consents

APPENDIX 1

PRIVATE PLAN CHANGE 101 (PILKINGTON ROAD) AS NOTIFIED WITH APPENDICES

This appendix has not been re-produced in this agenda but can be found at:

https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/Pages/details.aspx?UnitaryPlanId=264

APPENDIX 2

CLAUSE 23 - FURTHER INFORMATION REQUESTS AND RESPONSES

This appendix has not been re-produced in this agenda but can be found at:

https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/Pages/details.aspx?UnitaryPlanId=264

APPENDIX 3

SUMMARY OF SUBMISSIONS

Plan Change 101 (Private) - Pilkington Park, 167-173 Pilkington Rd and railway land on the corner of Apirana Avenue and Merton Rd (North Island Main Trunk 671.04-672.38 KM), Point England				
Summary of Decisions Requested				
Sub #	**Sub Point**	**Submitter Name**	**Address for Service**	**Summary of Decisions Requested**
1	1.1	Charis Charan	cckumpula@gmail.com	Reduce building height to 4 storeys in line with Hinaki St apartments.
1	1.2	Charis Charan	cckumpula@gmail.com	Review and update noise management [controls] during building construction and operation
1	1.3	Charis Charan	cckumpula@gmail.com	Increase on premise car parking requirements by at least 50%
2	2.1	Georgina Stewart	georginastewart2@gmail.com	Restrict building height to no more than three storeys
2	2.2	Georgina Stewart	georginastewart2@gmail.com	Any development of the site must minimise the impact for nearby residents.
3	3.1	Sibylle Van Hove	vanhove.s.c@gmail.com	Remove height variation control (21m and 27m) and maintain the existing height of 20m for the LIZ [Business - Light Industry zone] and 18m for THAB [Residential -Terrace Housing and Apartment Buildings zone].
4	4.1	Auckland Transport	spatialplanning@at.govt.nz	Add a new provision to ensure a key pedestrian crossing and facilities for pedestrians and active modes (across Apirana Avenue to/ from the site and the land to the east) is provided, as shown on page 8 of the submission. The provision may include thresholds or triggers (prior to the first occupation of any dwelling) or clear assessment and consenting processes aligned to related obejctives and policies. Apply a non -complying activity status when staging triggers are not met.
4	4.2	Auckland Transport	spatialplanning@at.govt.nz	Add a new standard to manage access to the site and any associated measures to avoid adverse effects on Apriana Avenue and Pilkington Road. Refer to the full submission on page 9 for details.
4	4.3	Auckland Transport	spatialplanning@at.govt.nz	Amend paragraph 3 of the precinct description as follows: "Land use, development, and subdivision within the precinct is provided for in a manner which supports the ongoing safe and efficient operation of the North Island Main Trunk Line, and Apirana Avenue and Pilkington Road, including by protecting sensitive activities;.. below."
4	4.4	Auckland Transport	spatialplanning@at.govt.nz	Retain objective 3 [IX2.(3)]
4	4.5	Auckland Transport	spatialplanning@at.govt.nz	Amend objective 4 [IX.2(4)] to read: Activities sensitive to noise located adjacent to the rail corridor, and Apirana Avenue and Pilkington Road, are designed to protect people's health and amenity values, and in a way which does not unduly constrain the operation of the North Island Main Trunk Line or arterial roads.
4	4.6	Auckland Transport	spatialplanning@at.govt.nz	Retain policy 1 [IX.3(1)]

Plan Change 101 (Private) - Pilkington Park, 167-173 Pilkington Rd and railway land on the corner of Apirana Avenue and Merton Rd (North Island Main Trunk 671.04-672.38 KM), Point England				
Summary of Decisions Requested				
Sub #	**Sub Point**	**Submitter Name**	**Address for Service**	**Summary of Decisions Requested**
4	4.7	Auckland Transport	spatialplanning@at.govt.nz	Amend policy 4 [IX.3(4)] to read: "Ensure that activities sensitive to noise adjacent to the North Island Main Trunk Line, and Apirana Avenue and Pilkington Road do not unduly constrain the operation of the rail corridor or arterial roads by providing for buildings and outdoor play areas to be designed with acoustic attenuation measures."
4	4.8	Auckland Transport	spatialplanning@at.govt.nz	Amend standard IX.6.2 as follows: (4) Any new noise sensitive space within 60m of Apirana Avenue or Pilkington Road where the road traffc noise level ~~is predicted to exceeds 55db LAeq24hr~~ exceeds current measured or predicted noise levels plus 3 dB must be designed, constructed and maintained with a mechanical ventilation/ cooling system that meets the requirements of E25.6.10(3)(b) and (d) to (f). Note: The design shall be based on current measured or predicted road traffic noise levels ~~ten years~~ plus 3 dB after the noise sensitive space is first occupied.
5	5.1	Kiwirail	Allison.Tindale@kiwirail.co.nz	Retain references in the precinct description to high-quality mixed-use development and protecting sensitive activities from noise associated with the rail corridor.
5	5.2	Kiwirail	Allison.Tindale@kiwirail.co.nz	Amend the precinct description to read "An area within the Precinct which may experience vibration levels higher than would normally be expected because of proximity to the rail corridor is identified on Precinct Plan."
5	5.3	Kiwirail	Allison.Tindale@kiwirail.co.nz	Add a precinct plan to show a 'rail vibration notation over land within 100m of the rail corridor.
5	5.4	Kiwirail	Allison.Tindale@kiwirail.co.nz	Provide an alert layer to future landowners and occupants of sensitive activities that existing activties could have an effect on the level of amenity obtainable.
5	5.5	Kiwirail	Allison.Tindale@kiwirail.co.nz	Retain objective IX.2. 1 [IX.2(1)]
5	5.6	Kiwirail	Allison.Tindale@kiwirail.co.nz	Retain objective IX.2. 2 [IX.2(2)]
5	5.7	Kiwirail	Allison.Tindale@kiwirail.co.nz	Retain objective IX.2. 3 [IX2.(3)]
5	5.8	Kiwirail	Allison.Tindale@kiwirail.co.nz	Add a new objective 4: 'The North Island Main Trunk railway line is protected from adverse effects from the construction and maintenance of new buildings and structures through the use of setbacks'
5	5.9	Kiwirail	Allison.Tindale@kiwirail.co.nz	Retain policy IX.3. 1 [IX.3(3)]
5	5.10	Kiwirail	Allison.Tindale@kiwirail.co.nz	Retain policy IX.3. 2 [IX.3(2)]

Plan Change 101 (Private) - Pilkington Park, 167-173 Pilkington Rd and railway land on the corner of Apirana Avenue and Merton Rd (North Island Main Trunk 671.04-672.38 KM), Point England				
Summary of Decisions Requested				
Sub #	**Sub Point**	**Submitter Name**	**Address for Service**	**Summary of Decisions Requested**
5	5.11	Kiwirail	Allison.Tindale@kiwirail.co.nz	Amend policy 3 [IX.3(3)] to refer to the protection of amenity when indoors, the use of building setbacks and communal outdoor play areas. Refer to the full submission on page 3 for details.
5	5.12	Kiwirail	Allison.Tindale@kiwirail.co.nz	Amend IX.4.1 Activty table (A2) for restricted activities to read: New buildings and alterations to existing buildings which do not comply with standards IX.6.1 to IX.6.~~3~~4
5	5.13	Kiwirail	Allison.Tindale@kiwirail.co.nz	Retain IX.5. Notification provisions
5	5.14	Kiwirail	Allison.Tindale@kiwirail.co.nz	Amend Standard IX6.2 Standard for activitiies senstive to noise, to extend the distance to which these standards apply from 60m to 100m from the rail corridor. Refer to full submission on page 4 & 5 for details and attached Section 32 report [Standard Railway Noise and Vibration Reverse Sensitivity Provisions and Section 32 Report August 2023]
5	5.15	Kiwirail	Allison.Tindale@kiwirail.co.nz	Add a new standard to read: IX.6.4 Safe operation of the NIMT Buildings and structures must be setback at least 5 metres from any boundary which adjoins the North Island Main Trunk railway line.
5	5.16	Kiwirail	Allison.Tindale@kiwirail.co.nz	Amend IX.8.1(2) Matters of discretion in relation to activities senstive to noise. Refer to full submission on page 7 for details. Apply these changes to breaches of standard IX.6.3.
5	5.17	Kiwirail	Allison.Tindale@kiwirail.co.nz	Insert new assessment criteria IX.8.1 (4) in relation to the infringement of standard IX.6.4 safe operation of the NIMT Setback from NIMT. Refer to full submission for details on page 7]
5	5.18	Kiwirail	Allison.Tindale@kiwirail.co.nz	Amend IX.9 Special information requirements by requiring consultation with Kiwirail for activities sensitive to noise witihin 100m of the rail corridor. Refer to full submission for details on page 8.
6	6.1	Watercare Services Limited	planchanges@water.co.nz	Ensure that the effects on Watercare's existing and planned water and wastewater networks are appropriately considered and managed in accordance with the Resource Management Act 1991.
6	6.2	Watercare Services Limited	planchanges@water.co.nz	Reassess the effects on Watercare's existing and planned water supply and wastewater networks should the applicant's civil engineering assumption of a development yield of 711 dwellngs be exceeded.
6	6.3	Watercare Services Limited	planchanges@water.co.nz	The applicant will need to work with Watecare in advance of lodging resource consents to confirm the requirement for any local water supply infrastructure upgrades.

Plan Change 101 (Private) - Pilkington Park, 167-173 Pilkington Rd and railway land on the corner of Apirana Avenue and Merton Rd (North Island Main Trunk 671.04-672.38 KM), Point England				
Summary of Decisions Requested				
Sub #	**Sub Point**	**Submitter Name**	**Address for Service**	**Summary of Decisions Requested**
6	6.4	Watercare Services Limited	planchanges@water.co.nz	The applicant will need to investigate the feasiblity of a direct connection to the Eastern Interceptor at the resource consent stage. Any connection will need to be confirmed by Watercare.
7	7.1	Van Den Brink Poultry Limited	emma@civilplan.co.nz	Consider and address any potential reverse sensitivity effects associated with enabling residential development adjacent to Light Industry zoned land containing exisitng industrial activities and in particular a large poultry processing plant.
7	7.2	Van Den Brink Poultry Limited	emma@civilplan.co.nz	Retain objective IX.2(4)
7	7.3	Van Den Brink Poultry Limited	emma@civilplan.co.nz	Retain policy IX.3(4)
7	7.4	Van Den Brink Poultry Limited	emma@civilplan.co.nz	Retain standard IX.6.2 Standard for activities sensitive to noise
7	7.5	Van Den Brink Poultry Limited	emma@civilplan.co.nz	Retain standard IX.6.3 - Standards for outdoor play areas within 60m of the rail corridor.
8	8.1	Foodstuffs North Island Limited	david.boersen@foodstuffs.co.nz	Retain Plan Change in its current form , and or with precinct provisions or other controls which remove the potential for interface issues to arise between the PC101 land and the Foodstuffs site.

From: Unitary Plan
To: Unitary Plan
Subject: Unitary Plan Publicly Notified Submission - Plan Change 101 - Charis Charan
Date: Saturday, 1 June 2024 5:30:24 pm

The following customer has submitted a Unitary Plan online submission.

Contact details

Full name of submitter: Charis Charan

Organisation name:

Agent's full name:

Email address: cckumpula@gmail.com

Contact phone number:

Postal address:
5a Torino Street
Point England
Auckland 1072

Submission details

This is a submission to:

Plan change number: Plan Change 101

Plan change name: PC 101 (Private): Pilkington Park, 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England

My submission relates to

Rule or rules:
Height
Noise
Transportation

Property address: 5a Torino Street

Map or maps:

Other provisions:

Do you support or oppose the provisions you have specified? I or we oppose the specific provisions identified

Do you wish to have the provisions you have identified above amended? Yes

The reason for my or our views are:
Height: The land identified for changes is already higher than the surrounding areas particularly the residential parts. Recent changes due to the Tamaki Regeneration programme have resulted in apartment buildings of 4 stories, which stand out in a residential area that is primarily flat. Whilst changes to this land may be beneficial, the proposed height is too high and will further create an eyesore and impose on the surrounding homes. I recommend meeting the height of the apartments on Hinaki St (4 stories).

Noise: As mentioned, the noise generated during construction and ongoing operation of the Tamaki regeneration has been difficult to live with in the area. Better reduction in noise pollution during the

days and weekends must be taken into consideration for residential occupants.

Transport: There is a significant shortage of on-street parking in this area and this has been further exasperated by high density residential housing, alongside more workers travelling to this exact location during the day. Far more consideration must be given to on-premise parking to reduce the pressure on residents. I cannot even have people over to my home as there is nowhere for them to park within a reasonable walking distance.

I or we seek the following decision by council: Decline the plan change, but if approved, make the amendments I requested

Details of amendments: Reduce height to 4 stories in line with Hinaki St apartments. Review and update noise management during construction and operation. Increase on premise parking requirements by at least 50%. 1.1

1.2

Submission date: 1 June 2024

1.3

Attend a hearing

Do you wish to be heard in support of your submission? No

Declaration

Could you gain an advantage in trade competition through this submission? No

Are you directly affected by an effect of the subject matter of this submission that:

- Adversely affects the environment; and
- Does not relate to trade competition or the effects of trade competition.

Yes

I accept by taking part in this public submission process that my submission (including personal details, names and addresses) will be made public.

From: UnitaryPlanSubmissionForm@donotreply.aucklandcouncil.govt.nz
To: Unitary Plan
Subject: Unitary Plan Publicly Notified Submission - Plan Change 101 - Georgina Stewart
Date: Tuesday, 11 June 2024 4:15:44 pm
Attachments: Council submission.pdf

The following customer has submitted a Unitary Plan online submission.

Contact details

Full name of submitter: Georgina Stewart

Organisation name:

Agent's full name:

Email address: georginastewart2@gmail.com

Contact phone number:

Postal address:
A202 7 Hinaki Street
Point England
Auckland 1072

Submission details

This is a submission to:

Plan change number: Plan Change 101

Plan change name: PC 101 (Private): Pilkington Park, 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England

My submission relates to

Rule or rules:
Allowing greater building heights of between 21m and 27m

Property address: 167-173 Pilkington Road

Map or maps:

Other provisions:

Do you support or oppose the provisions you have specified? I or we oppose the specific provisions identified

Do you wish to have the provisions you have identified above amended? Yes

The reason for my or our views are:
See attached pdf

I or we seek the following decision by council: Approve the plan change with the amendments I requested

Details of amendments: Restrict building height to no more than three stories

2.1

Submission date: 11 June 2024

Supporting documents
Council submission.pdf

Attend a hearing

Do you wish to be heard in support of your submission? No

Declaration

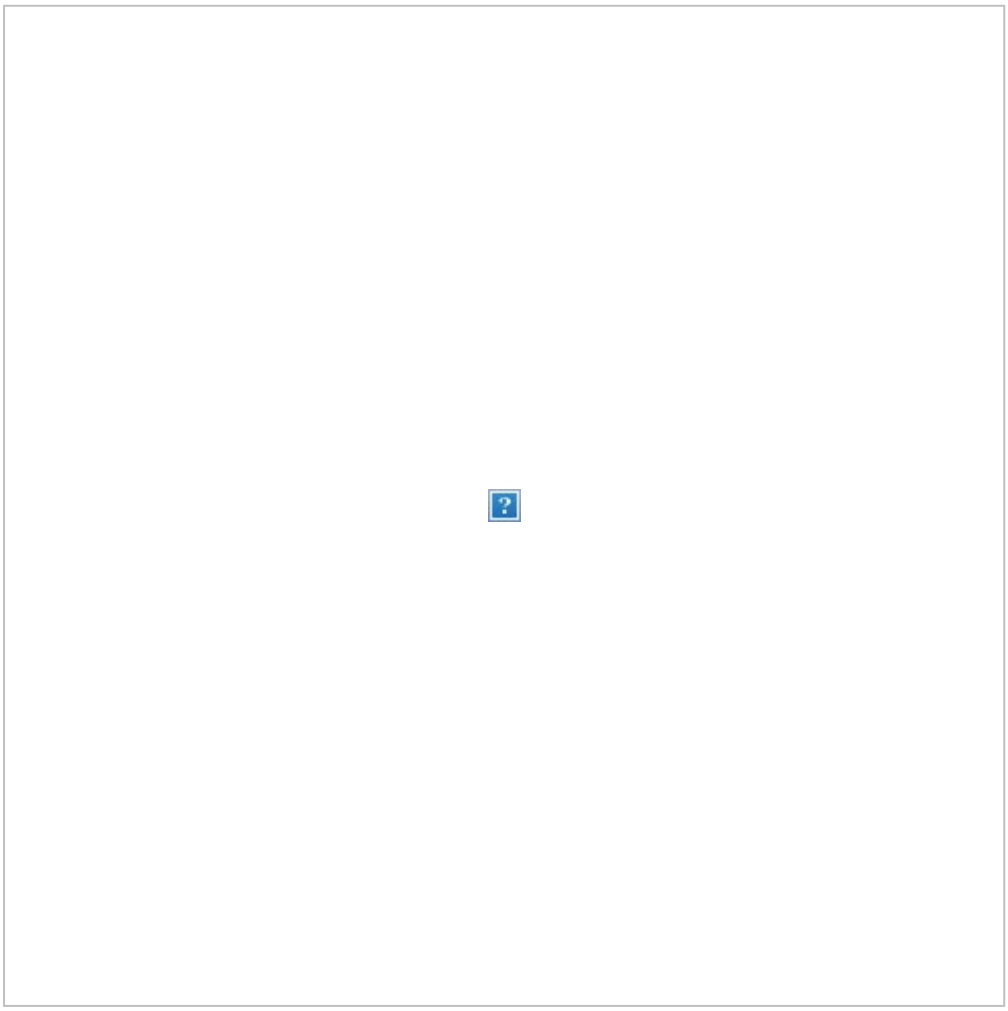
Could you gain an advantage in trade competition through this submission? No

Are you directly affected by an effect of the subject matter of this submission that:

- Adversely affects the environment; and
- Does not relate to trade competition or the effects of trade competition.

Yes

I accept by taking part in this public submission process that my submission (including personal details, names and addresses) will be made public.



I am writing in response to your letter dated May 17th concerning the rule change to 167-173 Pilkington Road, as I live in a nearby property.

Current situation
There is very little impact currently from Pilkington Park. The buildings and activities are shielded by a line of mature trees.

Concerns
Increase in height restrictions.
I am concerned about the visual impact of the increase in the height of buildings on the site, which would allow buildings of about five to seven stories. The buildings would be visible above the trees and obstruct views of Mt Wellington. The building heights would be twice the height of buildings in the surrounding area and dominate the skyline. The nearby Glen Innes shopping centre is low rise and apartment blocks in the area are up to a maximum of three stories.

Increase in noise and traffic.
As Pilkington Park is adjacent to residential areas zoned for intensive residential development, I am concerned that any development to the site must minimise the impact for nearby residents. Pilkington Road is already very busy and I experience quite a bit of road noise and general background noise. The area gets quite congested at peak times, and is not very pedestrian friendly.

2.2

From: UnitaryPlanSubmissionForm@donotreply.aucklandcouncil.govt.nz
To: Unitary Plan
Subject: Unitary Plan Publicly Notified Submission - Plan Change 101 - Sibylle Van Hove
Date: Friday, 14 June 2024 3:46:24 pm

The following customer has submitted a Unitary Plan online submission.

Contact details

Full name of submitter: Sibylle Van Hove

Organisation name:

Agent's full name:

Email address: vanhove.s.c@gmail.com

Contact phone number:

Postal address:

Point England
Auckland 1072

Submission details

This is a submission to:

Plan change number: Plan Change 101

Plan change name: PC 101 (Private): Pilkington Park, 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England

My submission relates to

Rule or rules:

Property address: Pilkington Park, 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road

Map or maps:

Other provisions:
The submission relates to the proposed amendment of planning maps to enable greater building heights.

Do you support or oppose the provisions you have specified? I or we oppose the specific provisions identified

Do you wish to have the provisions you have identified above amended? Yes

The reason for my or our views are:
I strongly support the proposed plan change to rezone the land from Business-Light Industry to Business - Mixed use and introduce a new precinct.
Our reasons for opposing the requested greater building heights are to maintain a medium density urban area for the wellbeing of the community, resilience and equality of the city (and increase the area's value). Significant research has shown the ample reasons that areas of medium density building create more livable cities than those with higher rising buildings. Some reasons include; improving connection between individuals, improving airflow & light, increasing chance encounters & liveliness of the city, improved equality & affordability of the surrounding area, and improved health of community members by making exercise more easily attainable.

Examples of existing high rise buildings in Auckland’s urban areas that do not foster community and livability include the multi-story buildings next to New Lynn and Glen Eden train stations. These are obvious examples of buildings that increase disconnect within the community.

The council's responsibility is to the city's residents and having the communities best interest in mind should be their number one consideration and priority in making this decision.

I or we seek the following decision by council: Approve the plan change with the amendments I requested

Details of amendments: Removal of the height variation control (of between 21 and 27m) and maintain the existing heights of 20m for the LIZ and 18m for THAB zones. 3.1

Submission date: 14 June 2024

Attend a hearing

Do you wish to be heard in support of your submission? No

Declaration

Could you gain an advantage in trade competition through this submission? No

Are you directly affected by an effect of the subject matter of this submission that:

- Adversely affects the environment; and
- Does not relate to trade competition or the effects of trade competition.

No

I accept by taking part in this public submission process that my submission (including personal details, names and addresses) will be made public.

From: Robbie Lee (AT)
To: Unitary Plan
Subject: PC101 - AT Submission Update
Date: Tuesday, 2 July 2024 12:58:15 pm
Attachments: image001.png
PC101 - Submission Final .pdf

Hi there,

Please see attached Auckland Transport's updated submission. I have removed reference to policies 10 & 12 that were incorrectly submitted in support of.

Let me know if you have any questions.

Robbie Lee | Planner
Spatial Planning Policy Advice | Strategy and Governance
Auckland Transport
20 Viaduct Harbour Avenue, Auckland 1010
+6499305001 EXT 2438 | robbie.lee@at.govt.nz | www.at.govt.nz

Auckland Transport
An Auckland Council Organisation

20 Viaduct Harbour Avenue, Auckland 1010
Private Bag 92250, Auckland 1142, New Zealand
Phone 09 355 3553 **Website** www.AT.govt.nz

20 June 2024

Plans and Places
Auckland Council
Private Bag 92300
Auckland 1142

Attn: Planning Technician

Email: unitaryplan@aucklandcouncil.govt.nz

Proposed Private Plan Change 101 – Pilkington Park, 167-173 Pilkington Road and railway land

Please find attached Auckland Transport's submission on **Proposed Private Plan Change 101** – Pilkington Park Road and railway land. The applicant is Wyborn Capital Investment Limited.

If you have any queries in relation to this submission, please contact me at spatialplanning@at.govt.nz or on +6499305001 EXT 2438

Yours sincerely

Robbie Lee

Robbie Lee
Planner, Spatial Planning Policy Advice

Submission by Auckland Transport on Private Plan Change 101: 167-173 Pilkington Road, Point England

To:	Auckland Council Private Bag 92300 Auckland 1142
Submission on:	Proposed Private Plan Change 101 from Wyborn Capital Investment Limited for land located at 167-173 Pilkington Road and railway land in Point England
From:	Auckland Transport Private Bag 92250 Auckland 1142

1. Introduction

1.1 Wyborn Capital Investment Limited (**the Applicant**) is seeking a private plan change (**PC101** or **the plan change**) to the Auckland Unitary Plan - Operative in Part (**AUP(OP**)) to rezone approximately 7.3 hectares of land at 167-173 Pilkington Road, Point England and approximately 600m^2 of land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM) from Business – Light Industry to Business – Mixed Use with associated precinct provisions.

1.2 Auckland Transport is a Council-Controlled Organisation of Auckland Council (**the Council**) and the Road Controlling Authority for the Auckland region. Auckland Transport has the legislated purpose to contribute to an 'effective, efficient and safe Auckland land transport system in the public interest'.[1] In fulfilling this role, Auckland Transport is responsible for the following:

a. The planning and funding of most public transport, including bus, train and ferry services
b. Promoting alternative modes of transport (i.e., alternatives to the private motor vehicle)
c. Operating the roading network
d. Developing and enhancing the local road, public transport, walking and cycling networks.

1.3 Auckland Transport is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991.

2. Strategic context

2.1 The key overarching considerations and concerns for Auckland Transport are described below.

[1] Local Government (Auckland Council) Act 2009, section 39.

Auckland Plan 2050

2.2 The Auckland Plan 2050 (**Auckland Plan**) is a 30-year plan outlining the long-term strategy for Auckland's growth and development, including social, economic, environmental and cultural goals[2]. The transport outcomes identified in the Auckland Plan include providing better connections, increasing travel choices and maximising safety. To achieve these outcomes, focus areas outlined in the Auckland Plan include targeting new transport investment to the most significant challenges; making walking, cycling and public transport preferred choices for many more Aucklanders; and better integrating land use and transport.

Sequencing growth and aligning with the provision of transport infrastructure and services

2.3 The need to coordinate urban development with infrastructure planning and funding decisions is highlighted in the objectives of the National Policy Statement on Urban Development 2020 (**NPS-UD**). Those objectives are quoted below (with emphasis in bold):

> 'Objective 3: Regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:
> (a) the area is in or near a centre zone or other area with many employment opportunities
> (b) **the area is well-serviced by existing or planned public transport**
> (c) there is high demand for housing or for business land in the area, relative to other areas within the urban environment.'
>
> 'Objective 6: Local authority decisions on urban development that affect urban environments are:
> (a) **integrated with infrastructure planning and funding decisions**; and
> (b) strategic over the medium term and long term; and
> (c) responsive, particularly in relation to proposals that would supply significant development capacity.'

2.4 The Regional Policy Statement (**RPS**) objectives and policies in the AUP(OP) place similar clear emphasis on the efficient provision of infrastructure and on the integration of land use and development with infrastructure, including transport infrastructure. Refer, for instance, to Objectives B2.2.1(1)(c) and (5) and B3.3.1(1)(b), and Policies B2.2.2(7)(c) and B3.3.2(5)(a). For example, Policy B3.3.2(5)(a) is to: '*Improve the integration of land use and transport by… ensuring transport infrastructure is planned, funded and staged to integrate with urban growth'*. The alignment of infrastructure to support growth is essential to achieving a well-functioning urban environment.

2.5 The Draft Regional Land Transport Plan (**RLTP**) 2024-2034 sets out the 10-year programme of transport infrastructure investment required to support the transport network including planned and enabled growth in the Auckland region. The Draft RLTP 2024-2034 is aligned with the Council's priority areas and the spend proposed within

[2] The Auckland Plan is a statutory spatial plan required under section 79 of the Local Government (Auckland Council) Act 2009.

the Council's Draft 10 Year Budget 2024-2034. PC 101 will directly benefit from the Urban Cycleways Programme (Overall Rank 52) that will provide improved connections along Apirana Avenue to link to Glenn Innes.

Mitigation of adverse transport effects

2.6 A critical issue is whether the Plan Change includes appropriate provisions to require development and subdivision proposals to mitigate adverse transport effects and to provide the transport infrastructure and services needed to serve it. This is addressed further in **Attachment 1**.

2.7 As mentioned above, adverse transport effects that arise when development occurs without required transport infrastructure and services being provided at an appropriate time cannot be addressed without funding to support the planning, design, consenting and construction of necessary transport infrastructure and services. There is a need to assess and clearly define responsibilities relating to the required infrastructure and the potential range of funding and delivery mechanisms. This includes a consideration of what infrastructure is required at various stages of development.

3. Specific parts of the plan change that this submission relates to

3.1 The specific parts of the plan change that this submission relates to are set out in **Attachment 1**. In keeping with Auckland Transport's purpose, the matters raised relate to transport and transport assets, including integration between transport and land use.

3.2 Auckland Transport **Support in part** the plan change, subject to the matters raised in **Attachment 1** being satisfactorily addressed by the Applicant.

3.3 Auckland Transport is available and willing to work through the matters raised in this submission with the Applicant.

4. Decisions sought

4.1 The decisions which Auckland Transport seeks from the Council are set out in **Attachment 1**.

4.2 In all cases where amendments to the plan change are proposed, Auckland Transport would consider alternative wording or amendments which address the reason for Auckland Transport's submission. Auckland Transport also seeks any consequential amendments required to give effect to the decisions requested.

5. Appearance at the hearing

5.1 Auckland Transport wishes to be heard in support of this submission.

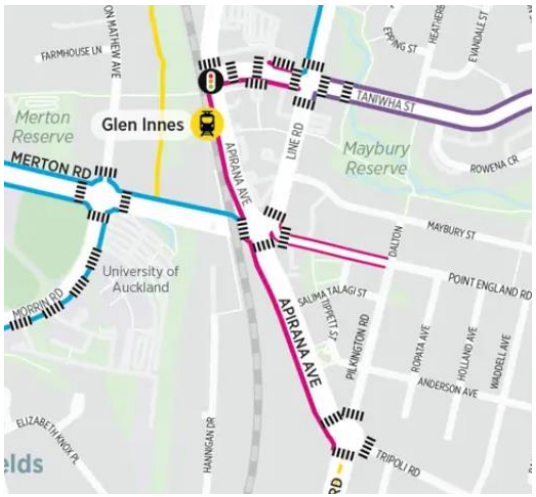
5.2 If others make a similar submission, Auckland Transport will consider presenting a joint case with them at the hearing.

Name:	Auckland Transport
Signature:	 Rory Power Manager - Spatial Planning Policy Advice
Date:	20 June 2024
Contact person:	Robbie Lee Planner - Spatial Planning Policy Advice
Address for service:	Auckland Transport Private Bag 92250 Auckland 1142
Telephone:	+6499305001 EXT 2438
Email:	spatialplanning@at.govt.nz

Attachment 1

Issue / Provision	Support / oppose	Reasons for submission	Decision requested
Overall	Support in part	Auckland Transport supports the plan change to rezone approximately 7.3 hectares of land at 167-173 Pilkington Road, Point England and 600m2 of land within North Island Main Trunk from Business – Light Industry to Business – Mixed Use However, amendments are needed to address a range of transport-related matters. These matters must be addressed before Auckland Transport can be satisfied that appropriate provision has been made to ensure the transport needs of the precinct can be met.	Accept the plan change, provided that the matters outlined in the main body of this submission and the issues identified in this table are addressed and resolved to Auckland Transport's satisfaction.
Pedestrian connection	Oppose in part	Auckland Transport supports the proposal as it will encourage more people living and working in the area to complete some of their journeys through more sustainable modes of transport. This is in part due to the site's location which is near established services and amenities and can utilise existing transport infrastructure, including the Glen Innes Train Station. Additionally, the Links to Glen Innes Project will provide safer connections for residents and workers to access the Glen Innes Train Station through walking and cycling with safe crossing points at the key intersections of Apirana Avenue /Point England Road and Apirana Avenue / Pilkington Road (shown below).	Amend the plan change to include a new section with a provision to ensure the following key pedestrian crossing (infrastructure requirement) is provided in the first stage of development. - Safe crossing facilities and connections for pedestrians and active modes across Apirana Avenue to/from the site and the land to the east (indicative location shown below).

4.1

Issue / Provision	Support / oppose	Reasons for submission	Decision requested
		  While these upgrades will provide key connections for active mode users, an additional connection is needed to support access to neighbourhood amenities (parks and school) to the east of the site. The distance between the two intersections is approximately 500m and there is a risk that pedestrians will choose to cross in the middle of these two points rather than walk the extra distance. Providing an additional midblock	 Provision may include thresholds or triggers (prior to the first occupation of any dwelling), or clear assessment and consenting processes aligned to related objectives and policies. This should include non-complying activity status where staging triggers are not met.

Issue / Provision	Support / oppose	Reasons for submission	Decision requested	
		crossing point between these two intersections ensures that any development will connect users to the surrounding environment safely.		
Site access	Oppose in part	The precinct provisions do not include any requirements to manage access to the site via the existing points on to Apirana Avenue and Pilkington Road and any associated measures to avoid adverse effects on these key arterial routes. The proposal appears to rely on two access points from Apirana Avenue (a small one to the north and larger one to the south) and three access points from Pilkington Road. As the plan change has the potential to significantly increase trip generation through the proposed rezoning, bespoke access provisions are required to illustrate how people will be able to access this site safely rather than relying on the Vehicle Access Restriction on Apirana Avenue and Pilkington Road. Furthermore, Pilkington Road has been identified in the Links to Glen Innes Project as a future cycleway. It is important that access onto this road is managed in a way that protects this future connection.	Amend the plan change to include the following new standard, or similar: *X. Site Access* *Purpose:* - *Maintain a safe road frontage and footpath uninterrupted by vehicle crossings and to provide for the safe and efficient operation of the arterial network* 1) Where subdivision and development adjoins a road with existing or planned footpath or protected cycle lane on the site's frontage, rear lanes (access lot) or access from side roads must be provided so that no vehicle crossing occurs directly from the site's frontage over any shared footpath, protected cycle lane or the road frontage. 2) No new road intersection (excluding active mode only connections), additional vehicle crossing or additional activities using vehicles crossings existing as at the date of these precinct provisions being made operative shall be permitted along the Apirana Avenue and Pilkington Road frontage of the site.	4.2
Pilkington Park Precinct				
IX. 1. – Precinct description	Support in part	Reference to protecting sensitive activities from noise associated with the railway corridor is supported to protect people's health and amenity while they are indoors. However, the precinct description requires an additional reference to Apirana Avenue and Pilkington Road to ensure	Amend the precinct description to include the following, or similar: *Land use, development, and subdivision within the precinct is provided for in a manner which supports the ongoing safe and efficient operation of the North Island Main Trunk Line, and Apirana Avenue and Pilkington Road, including by protecting sensitive activities from noise associated with the railway corridor, and*	4.3

Issue / Provision	Support / oppose	Reasons for submission	Decision requested	
		that development within the precinct considers the efficient operation of these primary arterials.	*arterial roads. All relevant Auckland-wide and zone provisions apply in this precinct unless otherwise specified below.* Otherwise retain the precinct description.	
IX.2. Objective 3	Support	Objective 3 is consistent with integrating subdivision and development with sustainable transport and existing commercial centres. This enables communities to meet their essential needs within close proximity to where they live while being able to travel across Auckland more easily.	Retain Objective 3.	4.4
IX.2. Objective 4	Support in part	Objective 4 is consistent with the protection of activities sensitive to noise from the operation of strategic transport networks. This is required to protect people's health and amenity while they are indoors. However, reference to protecting noise sensitive activities from the adjacent arterial roads of Apirana Avenue and Pilkington Road is also required.	Amend Objective 4 to include the following, or similar: *Activities sensitive to noise located adjacent to the rail corridor, and Apirana Avenue and Pilkington Road, are designed to protect people's health and amenity values, and in a way which does not unduly constrain the operation of the North Island Main Trunk Line or arterial roads.* Otherwise retain Objective 4.	4.5
IX.3. Policy 1	Support	Policy 1 is consistent with integrating subdivision and development with effective, efficient and safe transport.	Retain Policy 1.	4.6
IX.3. Policy 4	Support in part	Policy 4 is needed to ensure activities sensitive to noise are protected from the operation of strategic transport networks. However, this should be extended to include Apirana Avenue and Pilkington Road as they are arterial roads.	Amend Policy 4 to include the following, or similar: *Ensure that activities sensitive to noise adjacent to the North Island Main Trunk Line, and Apirana Avenue and Pilkington Road do not unduly constrain the operation of the rail corridor or arterial roads by providing for buildings and outdoor play areas to be designed with acoustic attenuation measures.* Otherwise retain Policy 4.	4.7

Issue / Provision	Support / oppose	Reasons for submission	Decision requested
IX.6.2. Standard for activities sensitive to noise	Support in part	The requirement to protect activities sensitive to noise arising from road traffic noise associated with Apirana Avenue and Pilkington Road is consistent with protecting people's health and amenity value while they are indoors. The approach taken to assessing noise levels within other recent private plan changes requires measuring future predicted volumes against indoor noise level standards (rather than referencing to a 55 dB trigger). In this instance the applicant has chosen to assess development based on predicted road traffic noise levels ten years after the noise sensitive space is first occupied. However, to avoid the need for the applicant to predict traffic every time they complete an assessment, an alternative is to set a base on current measured or predicted noise levels plus 3 dB. This approach is considered appropriate in this instance as road noise only increases 3 dB with every doubling of traffic, and the design solutions are likely to be the same. Auckland Transport are of the view that due to the function of Apirana Avenue and Pilkington Road this approach would be appropriate here.	Amend IX.6.2. as follows: *(4) Any new noise sensitive space or alteration to an existing noise sensitive space within 60m of Apirana Avenue or Pilkington Road where the road traffic noise level ~~is predicted to~~ ~~exceeds 55dB LAeq24hr~~ exceeds current measured or predicted noise levels plus 3 dB must be designed, constructed and maintained with a mechanical ventilation / cooling system that meets the requirements of E25.6.10(3)(b) and (d) to (f).* *Note:~~-~~The design shall be based on current measured or predicted road traffic noise levels ~~ten years~~ plus 3 dB after the noise sensitive space is first occupied* Otherwise retain

4.8

From: Allison Tindale
To: Unitary Plan
Subject: KiwiRail submission on Plan Change 101 - Pilkington Park
Date: Friday, 21 June 2024 9:40:58 am
Attachments: KiwiRail submission on Plan Change 101 - Pilkington Park.pdf

Hello,

Please find attached KiwiRail's submission on the above plan change.

Any queries, please let me know.

Kind regards
Allison Tindale
Senior RMA Advisor
027 287 3473

21 June 2024

Auckland Council
Planning Technicians
Plans and Places
Private Bag 92300
Auckland 1142
Attn: Michele Perwick

By email to: unitaryplan@aucklandcouncil.govt.nz

SUBMISSION ON PUBLICLY NOTIFIED PROPOSAL FOR PLAN, CHANGE OR VARIATION (FORM 5)

Plan Change 101

NAME OF SUBMITTER:

KiwiRail Holdings Limited (KiwiRail)

ADDRESS FOR SERVICE:

Level 1
Wellington Railway Station
Bunny Street
PO Box 593
WELLINGTON 6140
Attention: Allison Tindale

Ph: 027 287 3473
Email: Allison.Tindale@kiwirail.co.nz

KiwiRail Submission on Auckland Unitary Plan Operative in Plan Change 101 (Private): Pilkington Park by Wyborn Capital Investments Limited.

KiwiRail is the State-Owned Enterprise responsible for the management and operation of the national railway network. This includes managing railway infrastructure and land, as well as rail freight and passenger services within New Zealand. KiwiRail is also the requiring authority for land designated “Railway Purposes” (or similar) in district plans throughout New Zealand.

The plan change area lies adjacent to the one of New Zealand’s key main railway lines, the North Island Main Trunk line (NIMT), which carries both rail freight traffic and Metro passenger services. This rail line forms part of the golden triangle network for rail freight between Auckland, Tauranga and Hamilton. KiwiRail seeks to protect the safe and efficient operation of the railway corridor, to enable its ongoing use for operational purposes.

The scope of KiwiRail's submission relates to the safe and efficient operation of the railway corridor for both passenger and freight services. KiwiRail supports the purpose of the Plan Change and acknowledges the inclusion of provisions, intended to manage reverse sensitivity effects. However, KiwiRail seeks amendments to the proposed precinct provisions to provide a more appropriate degree of protection to the railway corridor from reverse sensitivity effects and buildings built within 5m of the rail corridor.

KiwiRail also asks that acoustic mitigation for new noise sensitive activities be applied to land within 100m of the rail corridor, rather than the proposed 60m. Attached to this submission is KiwiRail's Section 32 Assessment on Noise, which provides additional justification for the amendments requested.

KiwiRail confirms that it has no objection to the proposed zoning of approximately 600m^2 of land within the existing railway corridor to Business-Mixed Use. It is noted that this area of land sits outside the proposed precinct boundary.

KiwiRail's specific suggested wording changes to the plan change provisions are provided in the following Table.

KiwiRail could not gain an advantage in trade competition through this submission.

KiwiRail wishes to speak to our submission and will consider presenting a joint case at the hearing with other parties who have a similar submission.

If you have any queries, please do not hesitate to contact me.

Yours faithfully,

Allison Tindale

Senior RMA Advisor

KiwiRail

Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 101: Pilkington Park	Relief Sought (as stated or similar to achieve the requested relief)	
IX.1 Precinct description	Part support Part seek amendment	KiwiRail supports the precinct description, which includes references to both high-quality mixed-use development and protecting sensitive activities from noise associated with the rail corridor. It is requested that the Precinct description be amended to include reference to potential vibration effects, in a similar manner as Plan Change 48. The associated map to go with this reference should illustrate a 'rail vibration notation' over land within 100m of the rail corridor. Although no specific rules are proposed to manage vibration effects, it is noted that the acoustic assessment by Styles Group in Section 8.3.2 measured vibration levels for freight trains which typically ranged between 0.3mm/s PPV and 0.5mm/s PPV. It is also noted that occupants of buildings can considerably vary in their ability to detect vibration. KiwiRail feels it is important that future landowners and occupants of sensitive activities are aware of any existing activities, which could have an effect on levels of amenity obtainable. An alert level is considered valuable in flagging a potential issue, and reducing the possibility of future complaints.	Retain references to high-quality mixed-use development and protecting sensitive activities from noise associated with the rail corridor. Add **An area within the Precinct which may experience vibration levels higher than would normally be expected because of proximity to the rail corridor is identified on Precinct Plan X.** Include Precinct Plan X	5.1 5.2 5.3 5.4
IX.2 Objectives	Part support Part seek amendment	KiwiRail generally supports the proposed objectives which reflect good planning principles for a town centre location close to the rail corridor. The intent of objective (3) is particularly supported as it seeks to ensure future residents and occupants experience good health and amenity, whilst protecting the North Island Main Trunk Line from reverse sensitivity effects. A new policy is also suggested which refers to the need to manage the proximity of new buildings near the rail corridor to prevent adverse effects on the existing and future operation of trains using the North Island Main Trunk Line. This complements suggested changes to Standard IX.6.4. Objectives and policies within the Pilkington Park Precinct which manage the potential for adverse effects on the North Island Main Trunk Line are consistent with the following provisions in the Operative Unitary Plan. Infrastructure B.3.2.2 Reverse Sensitivity *(4) Avoid where practicable, or otherwise remedy or mitigate, adverse effects of subdivision, use and development on infrastructure.* *(5) Ensure subdivision, use and development do not occur in a location or form that constrains the development, operation, maintenance and upgrading of existing and planned infrastructure.* Transport B.3.3.2 (*5) "Improve the integration of land use and transport by:..* *(f) requiring activities adjacent to transport infrastructure to avoid, remedy or mitigate effects which may compromise the efficient and safe operation of such infrastructure.* *(6) Require activities sensitive to adverse effects from the operation of transport infrastructure to be located or designed to avoid, remedy or mitigate those potential adverse effects."*	**Retain** Objectives 1 and 2 and 3 **Add new Objective 4** ***4. The North Island Main Trunk railway line is protected from adverse effects from the construction and maintenance of new buildings and structures through the use of setbacks.***	5.5 5.6 5.7 5.8
IX.3 Policies	Part support Part seek amendment	KiwiRail generally supports the proposed policies which reflect good planning principles for a town centre location close to the rail corridor. The intent of policy (3) is particularly supported as it seeks to ensure future residents and occupants experience good health and amenity, whilst protecting the North Island Main Trunk Line from reverse sensitivity effects. It is requested that the wording of policy (3) be amended to refer to protecting amenity when indoors and the use of building setbacks. This is consistent with suggested new objective 4. Reference is made to communal outdoor play areas for consistency reasons.	Retain Policies 1 and 2 Amend Policy 3 3. Ensure that activities ~~sensitive to noise~~ adjacent to the North Island Main Trunk Line do not unduly constrain the operation of the rail corridor by: i) **the use of acoustic attenuation measures in the design of building interiors for activities sensitive to noise and communal outdoor play areas** ~~*providing for buildings and outdoor play areas to be designed with acoustic attenuation measures.*~~	5.9 5.10 5.11

3

Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 101: Pilkington Park	Relief Sought (as stated or similar to achieve the requested relief)	
			ii) **managing the location of buildings close to the rail corridor through the use of setbacks.**	5.11
Table IX.4.1 Activity	Seek amendment	An amendment is sought to Development A2 to trigger consent as a Restricted Discretionary activity for a new proposed standard IX.6.4. to provide a setback from the rail corridor, as well as also requiring acoustic mitigation for alterations/extensions to existing buildings containing noise sensitive activities. The absence of reference to alterations to existing building is inconsistent with suggested wording for IX.6.2 Standard for activities sensitive to noise. The need for acoustic mitigation equally applies to extensions and alterations of existing buildings, as it does to new buildings. The absence of provisions for alterations/extensions to existing buildings, can create a perverse incentive to partially demolish/rebuild existing buildings, to avoid a requirement that only applies to new buildings. I450.6.9 (1) in Plan Change 48 requires *"any new building or alteration to an existing building that contains an activity sensitive to noise"* to provide noise attenuation to achieve specified internal noise levels for bedrooms and other habitable spaces.	(A2) New buildings **and alterations to existing buildings** which do not comply with standards IX.6.1 to IX.6.3**4** Restricted Discretionary	5.12
IX.5 Notification	Support	KiwiRail supports the reference in point 2 to giving special consideration to those persons listed in Rule C1.13(4) [of the Operative Plan] when deciding on who is an affected person. This rule refers to *"the network utility operator which operates that infrastructure"* in relation to development potentially affecting infrastructure.	Retain as proposed	5.13
1X.6.2 Standard	Seek amendment	KiwiRail supports the intent of the provision but seeks amendments to extend the distance to which these standards apply from 60m to 100m from the rail corridor. Rail noise effects extend approximately 100m from the railway designation. Additional reasoning for the need for a higher distance is contained in the attached Section 32 report. This assessment provides justification for applying a higher degree of acoustic mitigation for noise sensitive activities close to the rail corridor, than currently apply to this location in the Operative Unitary Plan or prior approved plan changes for the rezoning of land adjacent the rail corridor. The applicant's Assessment of Noise and Vibration Effects by Styles Group dated 28 March 2024 refers in Section 8.2.1 to the logarithmic average of the loudest 6 trains measured 15m from the track of 99.6dBA. Section 8.2.2 confirms that the acoustic consultant accepts KiwiRail's noise source level of 70 dB $L_{Aeq(1\ hour)}$ at a distance of 12 metres from the track. The acoustic consultant has effectively recognised the need for some acoustic measures within 60m of the rail corridor for the proposed mixed-use precinct. Little explanation is provided in the acoustic assessment as to why a 60m noise effects area was considered appropriate. Whilst the mixed-use precinct would be subject to existing standard E25.6.10, which may require some acoustic mitigation for noise sensitive activities, this standard is unlikely to achieve the specified noise level for bedrooms at night for properties close to the rail corridor, because noise levels in the mixed-use zone are assumed to be lower than that generated by a freight train. This is effectively acknowledged in Section 7.5 of the Section 32 report which states: "*additional requirements for acoustic treatment and/or mechanical ventilation are recommended for all activities sensitive to noise…because the AUP does not include equivalent rules or standards for sensitive activities located within close proximity to the rail corridor.* Rather than providing for alternative measurements of noise attenuation from rail over distance as a permitted activity, it is requested that variations from KiwiRail's approved method for calculating rail noise be approved through the resource consent process as a Restricted Discretionary Activity. The applicant's Section 32 report and accompanying acoustic assessment does not provide an obvious reason for the alternative method (modelling) to calculate the attenuation of rail noise over distance recommended in proposed standard IX.6.2. (1)(b)(ii). Whilst KiwiRail acknowledges the potential for actual noise levels to vary from predicted levels due to location specific factors, there are no existing or proposed features in the Precinct which are expected to significantly reduce rail noise below predicted levels, other than the possibility that a building within 100m of the rail corridor, may be built behind an existing building. Provisions suggested by KiwiRail would still allow for a resource consent to be submitted, which contains justification for not reaching the specified standard, based on location-specific factors. KiwiRail is of the view that while potential noise and vibration effects are partially addressed, the plan change does not adequately address likely noise effects from the rail corridor. The applicant's acoustic report does not prove	**IX.6.2. Standard for activities sensitive to noise within ~~6~~100m of the rail corridor** Purpose: To ensure activities sensitive to noise adjacent to the railway corridor are designed to protect people's health and amenity while they are indoors and that such activities do not unduly constrain the operation of the rail corridor. (1) Any new **building** ~~*noise sensitive space*~~ or alteration to an existing **building that contains an activity sensitive to** noise ~~*sensitive space with a façade*~~ within ~~6~~**100** metres of the rail corridor, must be designed, constructed and maintained to ~~*ensure that rail noise does*~~ not exceed ~~*internal*~~ noise levels of 35 dB $L_{Aeq(1\ hour)}$ for sleeping areas and 40 dB $L_{Aeq\ (1\ hour)}$ for all other habitable spaces. **Note:** **a.** ~~*The source level for*~~ **R**railway noise is **assumed to be** 70 $L_{Aeq(1h)}$ at a distance of 12 metres from the nearest track; **and must be deemed to reduce at a rate of** ~~*b. The attenuation over distance is:*~~ ~~*i.*~~ 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres~~*; or*~~ ~~*ii. As modelled by a Suitably Qualified and Experienced Acoustic Consultant using a recognised computer modelling method for freight trains with diesel locomotives, having regard to factors such as barrier attenuation, the location of the dwelling relative to the orientation of the track, topographical features and any intervening structures.*~~	5.14

Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 101: Pilkington Park	Relief Sought (as stated or similar to achieve the requested relief)
		that the requested provisions by KiwiRail are unnecessary to achieve the desired internal noise levels for activities sensitive to noise. The increase in distance to which noise acoustic management is required from 60m to 100 from the rail corridor, is unlikely to have a significant effect on '*Table 3: Theme 3: Future development – Evaluation of Options*', particularly in terms of the costs and benefits of *'Option 2 – Proposed plan change: Apply targeted provisions to manage the development of buildings'* on pages 53 and 54 of the applicant's Section 32 Report. Existing standard E25.6.10(3)(c) specifies the need to provide mechanical ventilation for noise sensitive spaces other than residential dwellings. As the proposed Business – Mixed Use provides for a variety of uses which fit under the definition of 'activities sensitive to noise', it is relevant that this provision also apply to this precinct. KiwiRail feels that it would be more appropriate to test the acceptability of relying on any intervening buildings to achieve adequate levels of noise insulation within 100m of the rail corridor through a resource consent application. The deletion of the proposed exception would also increase consistency of provisions with those in Plan Change 48 and 50. Other minor wording amendments are suggested to increase consistency of proposed provisions with Plan Change 48. IX.6.2 Standard as proposed in the plan change documents is considered to be inconsistent with the following existing objectives and policies in the Operative District Plan, because it does not adequately protect the North Island Main Trunk Line from potential reverse sensitivity effects. This risk of reverse sensitivity effects is best prevented by requiring appropriate levels of noise mitigation for noise sensitive activities within 100m of the rail corridor, so that future occupants are not unduly disturbed by noise generated by the existing rail corridor. *"E25.2.1 Objectives* *(1) People are protected from unreasonable levels of noise and vibration* *(3) Existing and authorised activities and infrastructure, which by their nature produce high levels of noise, are appropriately protected from reverse sensitivity effects where it is reasonable to do so.* *(7) Require activities to be appropriately located and/or designed to avoid where practicable or otherwise remedy or mitigate reverse sensitivity effects on: a) existing or authorised infrastructure…* It is widely accepted that sound from rail networks has the potential to cause adverse health and amenity effects on people living nearby. Future occupants often do not appreciate the actual effects of living with 24/7 rail operations. With careful design, future occupants can be protected from the most significant adverse effects associated with railway noise. It is not possible nor appropriate to expect that the railway corridor can mitigate noise effects on new development, especially multi-storey development.	(2) If windows and doors must be closed to achieve the design noise levels in Standard IX.6.2(1), the building must be designed, constructed and maintained with a mechanical ventilation / cooling system that meets the requirements of E25.6.10(3)(b) ~~*and (d)*~~ to (f). ~~*(3) Standards IX.6.2(1) and IX.6.2(2) do not apply where:*~~ ~~*(a) The façade of any new or altered noise sensitive space is screened from all parts of the rail corridor by a proposed building(s) under the same land use consent or a building(s) existing as at XX XXX 202X; or*~~ ~~*(b) The façade of any new or altered noise sensitive space is partially screened from the rail corridor by a proposed building(s) under the same land use consent or a building(s) existing as at XX XXX 202X, and the closest viewing distance from the facade is over 100m from the rail corridor.*~~ ~~*(4) Where Standards IX.6.2(1) and IX.6.2(2) apply,*~~ **A**~~a~~ report must be submitted by a suitably qualified and experienced person to the council demonstrating compliance with Standards IX.6.2(1) and IX.6.2(2) prior to **the** construction or alteration of any building containing **an activity sensitive to** noise. ~~*sensitive space.*~~ **Note:** The design shall be based on the cumulative level of external noise from the railway corridor in IX6.2(1) and the maximum level of noise permitted by the zone or precinct standards or any adjacent zone or precinct standard **specified in** ~~*to comply with*~~ E25.6.10. Figure 1X6.2.3.1 viewing distance to the rail corridor is deleted.
IX.6.3 Standard	Part Support	KiwiRail commends the applicant for the consideration of a specific noise standard for outdoor play areas associated with early childhood centers. KiwiRail agrees that noise levels in outdoor play spaces could be above desirable levels for health and amenity, where located close to the rail corridor. KiwiRail generally supports the use of noise mitigation for a range of activities, but does not seek to prescribe noise standards for external or outdoor spaces. Nevertheless, it is recommended that the wording of this standard is consistent with the distance and wording used for activities sensitive to noise to avoid confusion.	KiwiRail does not seek a specific relief on this standard but raises this issue to ensure consistency for all noise sensitive activities within the precinct.
IX.6.4	New standard	A building setback is appropriate to reduce the potential conflict between the safe enjoyment and maintenance of buildings on adjacent properties and activities within the operational rail corridor. Providing a physical setback for buildings adjoining the railway corridor boundary, ensures that site occupants are able to carry out normal residential or business activities, including building maintenance with a reduced risk of coming into contact with railway infrastructure. The proposed 5m setback is consistent with the setback from the rail corridor specified in operative Plan Changes 48 and 50. The Proposed Plan Change enables buildings up to 27m in height along the rail corridor. When buildings are taller, they become more difficult to inspect and maintain and require additional equipment like scaffolding or cherry picker cranes for maintenance. A 5m setback provides space for the placement and dismantling of scaffolding at the base of taller buildings, as well as mechanical access. Trains travel at speed and are unable to stop quickly, with freight trains often taking one kilometre to come to a complete stop. Any person or equipment, such as poles and ladders, can all potentially be hit by an oncoming train	Add to IX.6 Standards a new standard IX.6.4: ***IX.6.4 Safe operation of the NIMT*** ***Buildings and structures must be setback at least 5 metres from any boundary which adjoins the North Island Main Trunk railway line***.

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Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 101: Pilkington Park	Relief Sought (as stated or similar to achieve the requested relief)
		if they encroach into the rail corridor. Whilst KiwiRail acknowledges that adjacent landowners require a 'Permit to Enter" from KiwiRail to legally enter the rail corridor, this legal requirement does not prevent all unauthorised access onto the rail corridor. The most efficient and effective means of ensuring that adjacent development does not interfere with the efficient and safe operation of the rail network is to require a setback from the boundary with the rail corridor. This setback reduces the adjoining landowners' likelihood of innocently accessing the rail corridor, reduces the risk of impact by train or the need for landowners to follow the 'Permit to Enter' process to carry out standard maintenance.	
IX.8.1	Seek amendment	Consequential change to name of standard to increase noise control area from 60m to 100m from the rail corridor. It is also noted that no matters of discretion are identified for a breach of proposed standard IX.6.3. To improve consistency, KiwiRail suggests similar provisions for both IX.6.2 and IX.6.3. Matters of discretion (a) to (d) are generally supported as relevant considerations. Some small changes to the matters of discretion to improve clarity are suggested. New matter (a) is suggested to make clear, that applications which infringe the standards should include details of expected internal noise limits, to assist the judgement as to whether the proposal achieves the purpose of the standard or not. The potential for reverse sensitive effects on the rail corridor, is a more relevant consideration than 'unduly constrain the operation of the rail corridor'. If buildings close to the rail corridor do not provide a satisfactory internal noise environment for occupants, it does not immediately or directly affect the operation of the rail corridor. Rather, it increases the probability that residents will seek future restrictions on the operation of the rail corridor, which could ultimately affect its long-term viability. It is therefore easier to make a judgement on potential for reverse sensitivity effects than assess whether a development 'unduly constrains the operation of the rail network'.	**IX.8.1 Matters of discretion** The Council will…. (2) Infringement of standard IX.6.2. Activities sensitive to noise within ~~6~~**100m** of the rail corridor **(a) Measured or predicted internal noise levels within bedrooms and other habitable rooms.** **(b)** ~~**(a) Any**~~ ~~E~~**e**ffects on human health and amenity values **arising from non-compliance with Standard IX.6.2.** ~~*(b) The location and design of buildings*~~ (c) **Location**, topographical, building design features or other alternative mitigate that will mitigate potential adverse effects relevant to noise. (d) Whether the ~~**activity or**~~ infringement will ~~*unduly constrain the operation of the rail corridor*~~ **increase the risk of reverse sensitive effects on the existing rail corridor.** (e) **The outcome of any consultation with KiwiRail.** Noting that any consequential amendments to 1X.8.2. Assessment Criteria will follow from the above Matters of discretion are also identified for Infringement of standard IX.6.3. Outdoor play areas within 100m of the rail corridor for consistency reasons.
IX.8.1	New matters of discretion	This is sought as a consequential change to accommodate restricted discretionary status if the development does not meet proposed standard IX6.4. Setback from NIMT. These include considerations on how far removed from the rail corridor a building or structure is, the ability to maintain a building within private site boundaries, potential effects on the safety and operation of the rail corridor and whether the location and design of the building achieves the purpose the standard. Suggested matter (e) does not require pre-consultation with KiwiRail but does suggest to potential developers, that it would be advisable to consult with KiwiRail, at an early stage, for any intended building within the setback distance. Matters of consideration should refer to effects on the efficient operation of the rail corridor, as both authorised and unauthorised access to the rail corridor can have a significant effect on the efficient operation of the rail corridor, as well as rail safety.	Insert new assessment criteria IX.8.1 (4) as follows: ***(4) Infringement of standard IX.6.4. Safe operation of the NIMT Setback from NIMT*** **(a) Distance of building/structure from the rail corridor** **(b) Whether the proposal ensures that building(s) or structure(s) can be maintained within their site boundaries.** **(c) Whether the proposal is likely to affect the safe operation or operating efficiency of the North Island Main Trunk Line.** **(d) Any characteristics of the proposed building(s) or structure that makes compliance with the standard unnecessary.**

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Proposed Amendment	Support/Oppose/ Seek Amendment	Submission/Comments/Reasons Plan Change 101: Pilkington Park	Relief Sought (as stated or similar to achieve the requested relief)
			(e) **The outcome of any consultation with KiwiRail.**
IX.9	Seek amendment	It is requested that a similar special information requirement be placed on non-compliance with standards relating to the rail corridor, as that contained in Plan Change 48.	**IX.9 Special information requirements** ~~There are no special information requirements in this precinct.~~ 1. **Activities sensitive to noise within 100m of the rail corridor which infringe standard IX.6.2 and/or Buildings/structures within 5m of any boundary which adjoins the North Island Main Trunk Line IX.6.4.** (a) **Evidence of consultation with KiwiRail and its response to that consultation.**

5.17

5.18

From: Allison Tindale
To: Unitary Plan
Subject: Plan Change 101 - Pilkington Park - attachment to previous email sent Friday
Date: Monday, 24 June 2024 7:56:55 am
Attachments: KiwiRail Noise and Vibration s32 2023.pdf

Hello,

I sent in Kiwirail's submission on this plan change yesterday morning.

To my consternation, I remembered, when I got home that I forgot to add the attachment referred to in the submission.

The attachment is our section 32 report regarding noise.

I am very sorry for the delay.

I am hoping that you can still accept it.

It would be better for all parties if this document was considered at an earlier, rather than later stage.

The attached report provides more supporting information for points raised in our submission, but does not itself raise any additional points.

Thank you for your time and consideration

Allison Tindale
Senior RMA Advisor
KiwiRail

Taylor. Planning

KiwiRail Holdings Limited

Standard Railway Noise and Vibration Reverse Sensitivity Provisions and Section 32 Report

16 August 2023

Report Authors: Louise Taylor and Lisa Thorne

Supporting clients to solve their resource management challenges.

Contents

KiwiRail Holdings Limited Section 32 Analysis of Rail Noise and Vibration Provisions

1. Introduction

KiwiRail Holdings Limited (**KiwiRail**) is the State-Owned Enterprise responsible for the construction, maintenance and operation of New Zealand's rail network. The rail network is critical to the safe and efficient movement of freight and passengers throughout New Zealand, and forms an essential part of the national transportation network and the wider supply chain.

KiwiRail is a network utility operator, and the Requiring Authority for railways throughout New Zealand. KiwiRail's rail network operates over 3500km of rail network and infrastructure, used by more than 900 freight trains every week, operating between Whangarei and Bluff. The rail network is utilised to carry imported and exported goods from New Zealand ports, timber and forestry products, bulk good such as dairy products and steel, domestic goods between cities, and domestic passengers, and demand for this service is expected to continue to grow. Passenger rail is also a growing source of traffic for the rail network. While passenger rail volumes are currently only located in New Zealand's main cities, expansion of passenger rail inter-regionally is a growing focus of national transport strategy.

This mix of freight and passenger rail traffic is critical to New Zealand's decarbonisation and public transport goals currently and into the future. For this reason, the rail network is recognised as nationally significant, and is often classified as regionally and/or nationally significant infrastructure in District Plans.

This report has been prepared in accordance with the requirements of s32 and Schedule 1 of the Resource Management Act 1991 (**Act**). It assesses and supports the inclusion of District Plan land use provisions to appropriately manage noise and vibration effects on sensitive activities in the vicinity of the rail network. In some cases, the provisions may require amendment to reflect the structure and style of the District Plan drafting (for example, utilising existing definitions, objectives or policies relating to the transport network or Activities Sensitive to Noise).

1.1 Value of Rail

The rail network is a significant contributor to the movement of freight within New Zealand, carrying 16% of total national freight, 25% of exports, and 18 million tonnes of freight every year. The 2021 Value of Rail in New Zealand report[1] found that the total value of rail in New Zealand was estimated to be between $1.70 billion - $2.14 billion each year, from:

- reduced greenhouse gas emissions and air pollution, by reducing 2.5 million tonnes of CO_2 emissions each year;
- time savings and reduced congestion; reducing cars and trucks on road, avoiding 26 million car trips a year in Auckland and Wellington alone, and removing 24,000 trucks from the road;
- improved road safety, including fewer injuries and fatalities, with 288 fewer injuries and fatalities each year; and
- lower road maintenance costs for taxpayers and greater fuel savings, saving between $310-$329 million each year.

Rail is an energy efficient mode of transport, and generates 70% fewer emissions than heavy road freight transport. KiwiRail is a leader in low emissions freight transport, supporting the national transition to net zero carbon by 2050. To achieve this, KiwiRail's Sustainability Strategy 2022-2025 contains specific carbon emission reduction objectives. With New Zealand's freight market projected to grow by 30% by 2030, rail will play an increasing part in handling the increase, providing greater resilience to the transport network, and reducing carbon emissions.

Acknowledging the benefits of rail (as outlined briefly above) and the role rail will play in decarbonising the freight network, the New Zealand Government has, to an extent not seen in a generation, chosen to fund, via the National Land Transport Fund, rail infrastructure, to ensure rail can scale effectively and efficiently to the needs of passengers and freight. Investment in rail (including new and improved infrastructure and rolling stock – locomotives, wagons and carriages) since 2019 now exceeds $8b.

Given the nationally significant benefits and savings to the New Zealand economy, the greenhouse gas emission reductions, and air pollution reductions associated with rail freight, the adverse effects of failing to protect the rail network from reverse sensitivity are significant. At a national

[1] Ernst and Young, The Value of Rail in New Zealand, Report for the Ministry of Transport, February 2021

scale, for illustrative purposes, every 1% reduction in rail traffic caused by reverse sensitivity may equate to costs in the range of approximately $17 to $21 million per annum.

1.2 Proposed Provisions

KiwiRail proposes to introduce a suite of provisions to the District Plan to appropriately protect the railway network from reverse sensitivity by avoiding and mitigating adverse health and amenity effects associated with railway noise and vibration where sensitive uses locate in proximity to the railway corridor[2]. As outlined in further detail below, similar provisions are already included in numerous operative plans throughout New Zealand.

These proposed provisions are provided in full in **Appendix 1** and are summarised below:

- Insert a new objective and two policies providing for the importance of the rail network and the potential for reverse sensitivity effects when activities sensitive to noise are in close proximity; [if needed, depending on nature of plan change or proposed district plan, including any existing policies which are in place regarding management of reverse sensitivity or activities sensitive to noise near infrastructure / industry]
- Insert a new definition for 'Activity Sensitive to Noise' In the Definitions Section (if required);
- Insert new vibration alert layer to District Plan maps;
- Insert new 100m rail corridor buffer to District Plan maps (called "Rail Noise Control and Vibration Alert Area") to which the rules below will apply:
- Insert new rules and standards for noise and vibration in the vicinity of the railway corridor:
    - Railway noise standards for Activities Sensitive to Noise within 100m of a rail network boundary (i.e. within the Rail Noise Control and Vibration Alert Area); and
    - Construction design standards for indoor noise control for Activities Sensitive to Noise within 100m of a rail network boundary (i.e. within the Rail Noise Control and Vibration Alert Area).
- Require resource consent for a Restricted Discretionary Activity where these standards are not met. Provide matters of discretion by which resource consent applications will be assessed against.

[2] "Railway Corridor" means the area captured within the KiwiRail designation.

- Include an advice note that applies within the Rail Noise Control and Vibration Alert Area, and which alerts the plan user that activities within this Area may be subject to vibration effects from rail activities. No standards or other rules apply in relation to vibration.

1.2 Supporting Information and Assessment

The development of these provisions and the assessment in this Section 32 Report is informed by:

- an expert Noise and Vibration Memorandum by Stephen Chiles, dated July 2023, and attached as **Appendix 2**; and
- an expert Economic Assessment of Options to Manage Rail Noise and Vibration Effects (Economic Assessment) by Insight Economics, dated July 2023, and attached as **Appendix 3**.

The Noise and Vibration Memorandum characterises the noise and vibration associated with the operation of the rail network, and analyses the adverse health effects associated with rail noise and vibration both internationally and in New Zealand. It includes an assessment of appropriate levels for exposure to railway sound and vibration in the New Zealand context to avoid or mitigate sensitivity to rail noise and vibration in proximity to the KiwiRail network. This has informed the preparation and analysis of the proposed provisions, and particularly the appropriateness of the proposed Rail Noise Control and Vibration Alert Area and associated setbacks, acoustic standards, and the consideration of vibration standards.

The Economic Assessment analyses the economic costs and benefits associated with the proposed provisions against a 'do nothing approach', and KiwiRail proposed provisions approach (being option G in this report), and a 100m setback approach (being Option E in this report). This includes the economic costs and benefits of health and amenity effects, building design/location, policy implementation, administration and compliance, opportunity costs of potentially forgoing noise sensitive development, and compromised rail operation and efficiency as a result of reverse sensitivity. The Economic Assessment quantifies an estimate of the net costs and benefits per kilometre of track, which confirms that the preferred option has the highest net economic benefit of the three options assessed.

1.3 Requirements of Section 32 of the Act

This report provides an evaluation of the proposed objective and options to achieve the objectives in accordance with section 32 of the Act. Under the Act, a section 32 evaluation must:

- Examine whether the proposed objectives of the proposal are the most appropriate way to achieve the purpose of the Act (s32(1)(a));

- Examine whether the proposed provisions are the most appropriate way to achieve the objectives by identifying other reasonably practicable options, assessing the efficiency and effectiveness of options and summarising the reasons for deciding on provisions (s32(1)(b));
- Relative to considering the efficiency and effectiveness of the provisions in achieving the objective, include an assessment of the benefits and costs of the effects anticipated from implementing the provisions (s32(2));
- Contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from implementing the proposal (s32(1)(c)); and
- Where amendments are sought to a plan change that is already proposed or a plan which already exists, evaluate the proposal against both the objectives of the proposal and the objectives of the existing plan or plan change (s32(3)). As this assessment applies to District Plans generally, additional evidence is likely to be required in terms of s32(3) for specific plans or plan changes.

Each of these matters is assessed in this report (other than s32(3)), and on that basis the proposed provisions are considered the most appropriate way to achieve the sustainable management purpose of the Act.

2. Resource Management Issue

2.1 Operational Rail Noise

Railway noise levels are dependent on the type and condition of train and traffic volumes, speeds, track geometry and condition, and terrain and other factors. When considering railway noise levels the assumed railway traffic volumes are also important. With full geospatial details and information on railway activity, various standard acoustics computer modelling packages can be used to predict railway noise levels, depending on the situation. However, there is currently no standardised approach to this modelling for railway sound in New Zealand, nor consistent use of a particular method.

In 2009 KiwiRail commissioned Marshall Day Acoustics to provide a recommended method for the prediction and control of rail noise. The recommendations of Marshall Day Acoustics have provided the basis for the methods developed and considered in this report. This is assessed and explained in greater detail in the Noise and Vibration Memorandum provided at Appendix 2 to this report.

The method proposed by Marshall Day Acoustics, and outlined in detail in the Noise and Vibration Memorandum uses a 1 hour averaging method, to appropriately capture the noise maximums likely from the rail network. Specifically, it utilises the following assumed noise levels from rail activities at certain distances:

> *The following provides an illustration of typical railway sound levels based on an assumption of approximately two freight train movements in a one-hour period, in a flat area without screening. This is based on data summarised by Marshall Day Acoustics. More recent (unpublished) measurements for various New Zealand train types confirm these sound levels are in a realistic range.*

Distance from track	Sound level
10 metres	71 dB $L_{Aeq(1h)}$
20 metres	68 dB $L_{Aeq(1h)}$
30 metres	66 dB $L_{Aeq(1h)}$
40 metres	64 dB $L_{Aeq(1h)}$
50 metres	62 dB $L_{Aeq(1h)}$
60 metres	60 dB $L_{Aeq(1h)}$
70 metres	59 dB $L_{Aeq(1h)}$
80 metres	58 dB $L_{Aeq(1h)}$
90 metres	56 dB $L_{Aeq(1h)}$
100 metres	56 dB $L_{Aeq(1h)}$

Table 1: Typical rail sound levels (Noise and Vibration Memorandum)

The Noise and Vibration Memorandum sets out that internal sound levels with windows ajar for ventilation will typically be around 15 dB less than the above external levels.

2.2 Reverse Sensitivity

Reverse sensitivity is the susceptibility of lawfully established effects-generating activities (which cannot internalise all of their effects) to complaints or objections arising from the location of new sensitive activities nearby those lawfully established activities.

In the context of the railway corridor, this can adversely affect the 3500km of rail network throughout New Zealand, where activities that are sensitive to noise and vibration establish in close proximity to the rail corridor without suitable mitigation. The rail corridor is existing, fixed in place, and actively used for rail services (freight and/or passenger).

Without appropriate land use controls in place to manage health and amenity effects and the resulting reverse sensitivity effects associated with new or altered land uses in the vicinity of the railway corridor, sensitive activities can be adversely affected by rail noise and vibration, and this has adverse reverse sensitivity effects on the efficient operation of the rail network.

The rail network is usually identified as “regionally significant infrastructure” or similar definition in District Plans, which makes clear its importance to the District, Region and in some cases Country in terms of transportation of freight, passengers and associated resilience.

The Economic Assessment quantifies the net benefits and costs on rail operations under a ‘do nothing’ scenario (being Option A in this report). The net costs related to impacts on rail operation are estimated as $97,000 per kilometre of track. Conversely, the Economic Assessment confirms

there will be 0$ net costs to rail operation resulting from the proposed provisions.

2.3 Health Effects of Rail Noise

Where noise effects from the railway corridor are not appropriately managed by land use controls, health and amenity effects can arise for Activities Sensitive to Noise located on land near the railway network throughout New Zealand.

It is widely accepted nationally and internationally that sound and vibration from rail networks have the potential to cause adverse health effects on people living nearby. This has been documented by authoritative bodies such as the World Health Organisation[3] (**WHO**), including a publication by WHO Europe in October 2018 (**2018 WHO Guidelines**), which set out guidelines for managing environmental noise[4]. These WHO publications are underpinned by robust scientific research.

The 2018 WHO Guidelines are based on a critical review of academic literature and followed a rigorous protocol to determine the quality of evidence of adverse effects. With respect to noise from rail networks, the 2018 WHO Guidelines note the following adverse effects: ischaemic heart disease, hypertension, high annoyance and sleep disturbance. Based on the evidence of adverse effects, WHO makes recommendations to policymakers to reduce rail noise exposure to below a range of guideline values.

The Noise and Vibration Memorandum provides an analysis of the WHO Guidelines and applicability of those guidelines to New Zealand. Research published in 2019[5] specifically addresses the applicability of international data on noise annoyance to New Zealand. For rail noise, this research was based on a survey of 244 people living in the vicinity of the North Island Main Trunk in South Auckland, including the section through Drury. The survey was based on the questions and methods set out in the international technical specification ISO/TS 15666[6], which is the same approach used in most international studies. The research found that international noise response curves are generally applicable to the New Zealand context, although potentially New Zealanders may be slightly more noise sensitive.

[3] World Health Organisation, Guidelines for community noise, 1999; World Health Organisation, Burden of disease from environmental noise, 2011.

[4] World Health Organisation, Environmental noise guidelines for the European region, 2018.

[5] Humpheson D. and Wareing R., 2019. Evidential basis for community response to land transport noise, Waka Kotahi Research Report 656. https://nzta.govt.nz/resources/research/reports/656/

[6] International Standards Organisation ISO/TS 15666:2003 Acoustics – assessment of noise annoyance by means of social and socio-acoustic surveys.

Although there is current New Zealand and international research that may further refine the understanding of health effects associated with exposure to railway noise, the memorandum sets out that the existing 2018 WHO Guidelines already establishes there are adverse health effects that warrant intervention.

KiwiRail employs various other mechanisms to reduce rail noise and vibration from the railway corridor. These include the installation of ballast mat, rail grinding and tamping, ballast cleaning and replacement, and automated monitoring of rolling stock wheel condition. In terms of track condition, KiwiRail has comprehensive procedures including measurement of track condition/ geometry with a specialist survey vehicle several times a year, and maintenance systems acting on that data.

As explained by Dr Chiles in the Noise and Vibration Memorandum, noise attenuation walls are rarely available for mitigation purposes as typically the rail corridor is elevated and therefore such a wall would need to be unreasonably high to provide benefit. Therefore, not all noise and vibration effects can be completely internalised within the KiwiRail designation boundaries. These effects are the result of normal rail operation and maintenance and cannot be solely attributed to defects in track or rolling stock, and form part of the existing environment.

For new buildings and alterations or additions to existing buildings near to the railway network, it is relatively straight-forward to control internal noise through building location, design and systems (such as using acoustic insulation and mechanical ventilation). In most cases, it is practical to achieve acceptable internal noise levels using such measures. Therefore, with careful design of building location, orientation and materials, and/or the use of new or existing barriers such as acoustic walls and/or bunds, or locating new dwellings behind existing dwellings or landforms on a site, the adverse effects of noise can be appropriately avoided and/or mitigated.

The Noise and Vibration Memorandum sets out that in the New Zealand context:

> *…railway sound level criteria of 35 dB LAeq(1h) inside bedrooms and 40 dB LAeq(1h) inside other habitable spaces have previously been applied for protection from health effects. These values are slightly higher (more lenient) than the 2018 WHO Guidelines for regular sound events but would be more stringent for infrequent events. This comparison relates only to average sound levels, but corresponding relationships with health effects for different frequencies of railway events are uncertain/unknown. Therefore, currently there is not an evidence base available that would support significantly more or less stringent railway sound criteria than 35 dB LAeq(1h) inside bedrooms and 40 dB LAeq(1h) inside other habitable spaces for*

protection of health.

The provisions proposed by KiwiRail is consistent with this approach, and adapted for the New Zealand context as an integral part of KiwiRail's broader noise management activities. The internal noise levels are therefore adopted in the proposed provisions, which provide a suite of options for compliance including building location, orientation and materials, and/or the use of barriers such as acoustic walls and/or bunds.

2.4 Effects of Rail Vibration

Norwegian Standard NS 8176[7] provides a summary of annoyance and disturbance relationships associated with vibration from land-based transport. These relationships demonstrate that adverse effects occur at vibration exposures typically found around existing rail networks. The primary issue relates to people in buildings being disturbed due to feeling vibration. Furthermore, the same vibration can cause buildings to radiate noise inside. As for managing sound, routine track and rolling stock (wheel) maintenance can contribute to reducing vibration at source.

Vibration can vary significantly depending on ground conditions and localised features such as buried services and structures. Even with 'good' ground, track and rolling stock conditions there is still inherent vibration from railways that can cause disturbance.

The Noise and Vibration Memorandum sets out that:

> *Adverse effects of railway vibration can include annoyance and sleep disturbance for building occupants and damage to buildings. Damage to buildings (even cosmetic damage) occurs at greater vibration magnitudes than those which can cause annoyance.*
>
> *Internationally, there has been less research into transportation vibration effects on people compared to research on transportation sound effects. However, the evidence that does exist on adverse health effects caused by railway vibration indicates they are material, and as such the relative paucity of research is not an indicator of the degree of effects. There is international research ongoing in this area. Research is also investigating health effects arising from the combination of railway sound and vibration.*

[7] Norwegian Standard NS 8176:2017 Vibration and shock - Measurement of vibration in buildings from land based transport. and guidance to evaluation of its effects on human beings.

In analysing the standards currently adopted nationally and internationally for assessing vibration effects, the Noise and Vibration Memorandum assesses vibration levels measured from different sources in New Zealand, and concludes that,

> *There is a knowledge gap as to the actual likelihood of cosmetic damage from railway vibration in New Zealand. However, all potential criteria for vibration effects on people are substantially more stringent, such that for buildings containing sensitive activities, cosmetic building damage might not require separate consideration.*

For new buildings and alterations or additions to existing buildings near to the railway network, as with railway noise, vibration can be controlled through building location, and design. Therefore, with careful design of building location, orientation and materials, the adverse effects of vibration can be appropriately avoided and/or mitigated.

However, the exact design requirements to ensure compliance with appropriate vibration levels depend significantly on site-specific factors, including ground condition / soil type, topography or other environmental features. The level of controls required and the associated cost of implementing such controls can therefore differ significantly on a site-to-site basis.

Without further research into the requirements and cost of implementing such controls on a district-wide basis, there is insufficient existing data to confirm appropriate district-wide provisions which require physical controls for vibration.

For this reason, KiwiRail has instead pursued a "Rail Vibration Alert Layer" be added to the District Plan maps. Such alert layers ensure landowners and occupiers are aware that vibration effects may be present in this location (100m from the rail corridor). They can then make their own design and location decisions should they wish to mitigate such effects. This enables behaviour change and appropriate notice to landowners, while avoiding uncertain costs of controls at this time.

2.4 Economic Effects

The Economic Assessment estimates the likely costs and benefits of 3 options: Option 1 to 'do nothing' (Option A in the s32 assessment below), Option 2 being the proposed provisions (Option G in the s32 assessment below), and Option 3 being a 100m setback option (per kilometre of rail track) (Option E in the s32 assessment below). The net costs and benefits of each option based on the assumptions set out in the Economic Assessment are summarised below.

Costs/Benefits per km of Track	Option 1	Option 2	Option 3
Amenity & health benefits	-$4,665,600	$0	$0
Impacts on rail operation	-$97,000	$0	$0
Policy compliance costs	$0	-$1,728,000	$0
Housing market impacts	$0	$0	-$28,800,000
Option Net Benefits/Costs	**-$4,762,600**	**-$1,728,000**	**-$28,800,000**

Table 2: Estimated net benefits and costs per kilometre of track (Economic Assessment)

The Economic Assessment notes there are different economic costs associated with the assessed options, and that when compared to a 'do nothing' or set back approach, the proposed approach has the lowest economic cost.

"Doing nothing" (Option 1/Option A) has a higher economic cost, primarily related to impacts on amenity and health, with some costs to rail operations. The Economic Assessment sets out that it is impossible to accurately assess the extent to which reverse sensitivity would disrupt the rail network and the consequential impacts on the economy. However the Economic Assessment sets out for illustrative purposes, at a national scale, "*every 1% reduction in rail traffic caused by reverse sensitivity from new Activities Sensitive to Noise establishing nearby would cost approximately $17 to $21 million per annum*".

A 100m setback (Option 3/Option E) while avoiding any economic impacts on rail and human health, "*will have the greatest impacts on housing supply because it sterilises the use of land for Activities Sensitive to Noise within 100 metres of the rail network*". The housing market costs associated with the loss of developable land are analysed in the Economic Assessment, and estimated net costs for a conservative typical mixed residential and non-noise sensitive activity scenario are approximately $28,800,000 per kilometre of track.

The proposed approach (Option 2/Option G) is assessed in the Economic Assessment as having no economic impacts associated with human health and rail operation effects. However there will be policy, administrative, and compliance costs estimated at approximately $1,728,000 per kilometre of track for a conservative typical mixed residential and non-noise sensitive activity scenario. These costs include the upfront costs to comply with the noise standards (acoustic assessment and the mitigation measures themselves), conservatively estimated as being $3000 (for an acoustic assessment), plus 3% of the building value for the associated mitigation to achieve compliance.

Although this places some cost burden on those establishing activities sensitive to noise in the vicinity of the rail network, these are largely one-off upfront costs which are a small proportion of

the total build cost. Additionally, these costs are significantly lower than the costs to health associated with no mitigation, and significantly lower still than the opportunity costs to the housing market of prohibiting the activity in the vicinity of the rail network.

2.5 Duty to Avoid Unreasonable Noise

Section 16 of the Act requires that:

> *"Every occupier of land… shall adopt the best practicable option to ensure that the emission of noise from that land or water does not exceed a reasonable level"*, and
>
> "*A national environmental standard, plan, or resource consent made or granted for the purposes of any of sections 9, 12, 13, 14, 15, 15A, and 15B may prescribe noise emission standards, and is not limited in its ability to do so by subsection*".

KiwiRail is a responsible infrastructure operator that endeavours to avoid, remedy or mitigate the adverse rail noise and vibration it produces, through its ongoing programme of upgrade, repairs and maintenance work to improve track conditions.

As discussed above, KiwiRail employs various mechanisms to reduce rail noise and vibration from the railway corridor. These include the installation of ballast mat, rail grinding and tamping, ballast cleaning and replacement, and automated monitoring of rolling stock wheel condition. KiwiRail has comprehensive procedures including measurement of track condition/geometry with a specialist survey vehicle several times a year, and maintenance systems acting on that data.

Not only is this important to KiwiRail as part of being a good neighbour, but it is also under a statutory obligation to use the best practicable option to avoid unreasonable noise (s16) and to avoid, remedy or mitigate adverse effects on the environment (s17).

The proposed provisions complement the above measures undertaken by KiwiRail in respect of its responsibilities under s 16 of the Act - to mitigate the remaining adverse effects that remain following the responsible management of noise and vibration by KiwiRail. They apply only to those developments which are bringing new or expanded sensitive activities to the existing activity operated by the KiwiRail – they do not impose new obligations on already established activities. As set out in the Economics Report, the provisions are also likely to result in a range of ancillary benefits to those dwellings where they are incorporated, including warmer, drier, and quieter homes that are also worth more.

Given the responsibility for the new activity lies with the neighbouring landowners, and the benefits

which come from the controls accrue to the new landowners, including in respect of overall property value, it is considered appropriate that the costs are assumed by those landowners. This is discussed further below in respect of Option H.

3. Approach to Issue

Mapping, land use rules and standards to avoid or mitigate adverse noise and vibration effects on sensitive activities are critical to protect sensitive activities from these effects. These standards are also fundamental to managing the potential for reverse sensitivity effects on the railway network as a result of this sensitivity. The location of incompatible sensitive activities in proximity to rail infrastructure can lead to noise and vibration effects on and complaints from sensitive users, affecting both the occupants in these areas, and affecting KiwiRail.

There are many examples in NZ district plans which seek to control the location and design of sensitive activities such as housing, healthcare and education facilities where such activities seek to locate near existing sources of noise and/or vibration. These include roads, railways, airports, ports, quarries, industrial sites, industrial and business zones, gun clubs and motorsport facilities. For sensitive activities near existing railways, examples of second-generation operative district plans containing controls include: Christchurch, Dunedin, Tauranga, Hamilton, Palmerston North and Hutt City. All these existing plans control land use standards to manage the adverse effects of noise and/or vibration.

The proposed provisions require that noise and vibration sensitive activities that may establish in proximity to the rail network are appropriately designed and sited to reduce the noise effect to an acceptable level. This will ensure that adverse effects on human health and amenity are appropriately managed, protects public health, provides certainty to those developing land adjacent to the rail corridor of the permitted standards, and protects nationally and regionally significant rail infrastructure from reverse sensitivity.

The proposed provisions are set out in full In **Appendix 1** and are summarised briefly below.

3.1 New Definitions

KiwiRail seeks the following definitions be added to the Definitions Section (if a suitably similar definition is not already in place in the District Plan):

Activity Sensitive to Noise: means any residential activity (including student or retirement accommodation), visitor accommodation, educational facility, child care facility, healthcare activity, and places of worship/marae.

3.2 New Objective and Policies

Insert a new objective and two policies providing for the importance of the rail network and the potential for reverse sensitivity effects when activities sensitive to noise are in close proximity:

- The Objective is to '*Ensure adverse reverse sensitivity, health and wellbeing effects arising from the development of Activities Sensitive to Noise adjacent to the railway network are appropriately avoided or mitigated'.*
- The policies are to:
    - '*Avoid reverse sensitivity effects on the ongoing and future operation and development of the railway network by ensuring new Activities Sensitive to Noise are designed or located to meet appropriate acoustic design standards'*; and
    - '*Manage effects on the health and wellbeing of communities through the design and location of Activities Sensitive to Noise adjacent to the railway network to meet appropriate acoustic design standards'*.

Where plans include existing objectives and/or policies which appropriately capture the matters above, or which could be amended or added to in order to integrate the objectives above, then this may be appropriate to ensure greater integration of the provisions into the particular plan.

3.3 New Rules and Standards

KiwiRail seeks the following rules and standards be added to the District Plan:

- For all zones at any point within 100 meters from the legal boundary of the KiwiRail Rail Corridor Designation (**Rail Noise Control and Vibration Alert Area**), all new buildings or alterations to existing buildings containing an Activity Sensitive to Noise, must meet:
    - Specified Internal noise standards ranging from:
        - 35 dB LAeq(1h) for sleeping spaces, lecture rooms/theatres, music studios, assembly halls, and places of worship and marae,
        - 40 dB LAeq(1h) for all other habitable rooms, and education teaching areas, conference rooms, drama studios and sleeping areas, and overnight medical care and wards, and

        - 45 dB LAeq(1h) for libraries, and health clinics, consulting rooms, theatres and nurses' stations; or

    - The nearest exterior façade of the building accommodating the activity is at least 50m from the railway network and is protected by a specified noise barrier, or

    - It can be demonstrated by way of prediction or measurement that the noise at all exterior façades of the listed activity is no more than 15 dB above the relevant noise levels; and

    - For buildings which require windows to be closed to achieve the noise standards, mechanical ventilation standards must be met; and

    - A report is submitted to the council demonstrating compliance with the above rules prior to the construction or alteration of any building containing an activity sensitive to noise using specified assumptions.

- Require resource consent for a Restricted Discretionary Activity where these standards are not met. Provide matters of discretion by which resource consent applications will be assessed against which limit the assessment of effects to the extent of non-compliance, effects on health and wellbeing, reverse sensitivity effects, and the outcome of any consultation with KiwiRail.

- Include an advice note that applies within the Rail Noise Control and Vibration Alert Area, and which alerts the plan user that activities within this Area may be subject to vibration effects from rail activities. No standards or other rules apply in relation to vibration.

4. Assessment of Objective

Section 32(1)(a) requires an assessment of whether the proposed objective is the most appropriate way to achieve the purpose of the Act. The purpose of the Act is set out in Section 5 as:

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

An assessment of the provisions against the proposed Objective against section 5 is set out in the table, below.

Table 3: Assessment of Objective under Section 5 of the Act

Proposed KiwiRail Provisions	Reason for Objective
Objective Ensure adverse reverse sensitivity, health and wellbeing effects arising from the development of Activities Sensitive to Noise adjacent to the railway network are appropriately avoided or mitigated. Policy Avoid reverse sensitivity effects on the ongoing and future operation and	The objective and supporting policies enable communities to provide for their health and wellbeing, and protects the railway network from reverse sensitivity. Where located in close proximity to the railway corridor, activities sensitive to noise are appropriately designed and sited so that adverse effects on health and wellbeing are appropriately managed, and railway infrastructure is appropriately protected from reverse sensitivity.

development of the railway network by ensuring new Activities Sensitive to Noise are designed or located to meet appropriate acoustic design standards. Policy Manage effects on the health and wellbeing of communities through the design and location of Activities Sensitive to Noise adjacent to the railway network to meet appropriate acoustic design standards.	This enables people to provide for the economic and social use of sites adjacent to the railway corridor, and to meet the reasonably foreseeable needs of the activity, while ensuring that adverse noise and vibration effects are avoided and mitigated. It is therefore considered that the proposed objective is the most appropriate way to achieve the purpose of the Act.

5. Assessment of Proposed Noise and Vibration Provisions

Sections 32(1)(b) and 32(2) require an assessment of the proposed provisions to be undertaken to test their appropriateness and efficiency and effectiveness. This must include:

- whether the proposed provisions are the most appropriate way to achieve the objectives by identifying other reasonably practicable options, assessing their efficiency and effectiveness and summarising the reasons for deciding on provisions; and
- relative to considering the efficiency and effectiveness of the provisions in achieving the objective, include an assessment of the benefits and costs of the effects anticipated from implementing the provisions.

The cost and benefit assessment must identify and assess the costs and benefits associated with environmental, economic, social, and cultural effects including economic growth and employment that are anticipated to be provided or reduced. If practicable, the Act requires that these be quantified.

Section 32(2)(b) also requires an assessment of the risk of acting or not acting if there is uncertain or insufficient information. In this case, it is acknowledged that the costs of implementing the insultation measures will vary on a site by site basis, and the scale will depend on factors such as extent of area affected and density of housing. However, there is considered to be sufficient information about the effects of noise and vibration on health and amenity and reverse sensitivity to the rail corridor, to determine the range and nature of effects of the options. No assessment of the risk of acting or not acting is necessary.

5.1 Identification of Reasonably Practicable Options

KiwiRail have considered a range of potential options. This includes 'doing nothing', a number of existing approaches, the proposed provisions, and other regulatory methods and mechanisms available. These are summarised below:

Option A - Do nothing:
No or limited railway noise and vibration provisions in the District Plan. This may include no specific noise and vibration rules, standards or mapping overlays, but may include consideration of reverse sensitivity effects when assessing the adverse effects of any resource consent application, depending on the existing objectives, policies and rules in the District Plan.

This includes subdivision, use or development within the vicinity of the railway corridor if the District Plan provides sufficient direction to do so.

Option B – Rail operator reduces noise and vibration emissions:
The rail operator ensure that noise and vibration emissions are reduced to the extent that Activities Sensitive to Noise within 100m of the rail corridor achieve the recommended noise and vibration levels without needing to undertake any specific insulation, ventilation or construction design standards.

Option C - Noise barriers:
Acoustic walls or bunds installed by the applicant or the rail operator with no other noise or vibration management methods.

Option D - Construction design standards:
A table which specifies minimum construction materials and standards necessary to achieve internal acoustic levels within buildings, with no other noise or vibration management methods.

Option E - Setbacks:
Requiring Activities Sensitive to Noise to be set back 100m from the railway corridor with no other noise or vibration management methods.

Option F - Internal acoustic standards:
Require internal acoustic and ventilation rules and standards for noise-sensitive activities, but provide no other options to achieve compliance.

Option G – Combination of rules and standards (Proposed provisions):
Within 100m of the railway corridor, provide several options to achieve compliance with internal acoustic levels – within 50m of the rail corridor buildings are designed to meet specified Internal noise levels, or must meet a 50m setback, or where the noise at exterior façades is measured or predicted to be no more than 15 dB above the relevant noise level. Buildings must also meet mechanical ventilation standards and reporting standards. Includes an advice note to alert plan users that Activities Sensitive to Noise within the Rail Noise Control and Vibration Alert Area may be subject to vibration effects.

Option H – Proposed provisions funded by rail operator:
Within 100m of the railway corridor, via a mapped Rail Noise Control and Vibration Alert Area, the same options to achieve compliance would be available - buildings are designed to meet

specified Internal noise levels, or must meet a 50m setback, or noise at exterior façades is no more than 15 dB higher. Buildings must also meet mechanical ventilation standards and reporting standards, and there is an advice note regarding vibration effects. However, the difference is that KiwiRail would fund the achievement of these standards.

Option I - Landscaping:
Landscape planting to provide acoustic mitigation, with no other noise or vibration management methods.

Option J - National regulation:
This may include changes to the Building Act or Building Code or introduction of a National Planning Standard or National Environmental Standard. The Building Act and Code currently provides specifications to manage inter-tenancy noise (eg noise between residential apartments within the same building with shared tenancy walls). However, it does not require the management of internal noise where noise is generated from outside a building (e.g. rail noise from an adjacent rail corridor).

Option K Reverse sensitivity covenant:
A plan provision which requires a covenant whereby property owners agree not to complain about noise and vibration effects on sensitive land uses. This is often referred to as a 'no complaints' covenant.

An assessment of these options in accordance with Sections 32(1)(b) and 32(2) of the Act is provided below.

5.2 Assessment of Reasonably Practicable Options

Table 4: Assessment of Reasonably Practicable Options

Option A - Do nothing

No or limited railway noise and vibration provisions, but this option may include consideration of reverse sensitivity effects when assessing a resource consent application for subdivision, use or development within the vicinity of the railway corridor.

Effectiveness and Efficiency	Costs	Benefits
Doing nothing requires no action from the territorial authority or applicant so could be considered efficient. It is considered to be the least effective option as it will place no limit on the establishment of Activities Sensitive to Noise in the vicinity of the railway corridor. This will result in an increase in exposure of sensitive activities to the adverse effects of rail noise and vibration.	Doing nothing will result in the establishment of Activities Sensitive to Noise in the vicinity of the railway corridor without being appropriately designed and sited. This will result in an increase in exposure of sensitive activities to the adverse effects of rail noise and vibration, resulting in adverse health and amenity effects for people, and adverse reverse sensitivity effects on rail activity. These costs are analysed in the Economic Assessment, and estimated net costs to health and amenity are approximately $4,665,600, estimated net costs to rail operation is approximately $97,000, with these costs totalling approximately $4,762,600 per kilometre of track.	There will be no additional regulatory cost or costs to landowners and occupiers in terms of compliance or building cost increases. There will be no administration and regulatory costs to the territorial authority as there will be no associated resource consenting or monitoring and compliance.
Is doing noting reasonably practicable? No - it will not achieve the objective and will result in adverse health and wellbeing effects, and adverse reverse sensitivity effects.		

Option B - Rail operator reduces noise and vibration emissions

The rail operator ensure that noise and vibration emissions are reduced to the extent that Activities Sensitive to Noise within 100m of the rail corridor achieve the recommended noise and vibration levels without needing to undertake any specific insulation, ventilation or construction design standards.

Effectiveness and Efficiency	**Costs**	**Benefits**
This option would not be efficient or effective as, given mitigation measures to minimise rail noise and vibration are unable to comprehensively control these effects, this would significantly curtail the reasonable operation of the existing rail network, and would eliminate the opportunity for any growth in rail traffic over time, resulting in an inefficient use of infrastructure. This would then have consequences for the delivery of freight and passenger transport, and may compromise the achievement of emissions reduction targets by increasing the reliance on road freight.	This option would likely be cost prohibitive to KiwiRail given the impacts on its operations. There may be an environmental cost associated with an increase in emissions associated with having to rely on alternative transport methods.	There are no potential benefits to KiwiRail associated with this option. There would be health and amenity benefits associated with the reduction of rail noise and vibration for Activities Sensitive to Noise within the vicinity of the rail corridor. There may be benefits to landowners to maximise development potential for Activities Sensitive to Noise within the vicinity of the rail corridor.

Is doing noting reasonably practicable? No – this option would places significantly curtail rail the efficient use and development of rail infrastructure.

Option C - Noise barriers

Acoustic walls or bunds installed by the property owner or by the rail operator.

Effectiveness and Efficiency	Costs	Benefits
This option is effective and efficient when it integrated into the design of a new development in some instances. Acoustic walls may be able to be retrofitted in some instances. However it is not always practical because the height of the barrier required to achieve compliance would be very high (often in excess of 3.8m) and is therefore either impracticable or not consentable/difficult to consent. Most locations have practical limitations to install noise barriers. Limitations include the typical raised nature of rail lines (and train engines above these) above surrounding land, or from undesirable ground conditions and a lack of physical corridor which may necessitate property purchase due to the wider	There is a monetary cost of the installation of acoustic walls by KiwiRail. However this is not typically done by KiwiRail given the practical limitations set out in the efficiency and effectiveness review. Acoustic walls can be visually dominant and result in significant shading and shadowing, and can block view and outlook, given the heights required to achieve acoustic compliance. For these reasons the amenity and construction costs may in some circumstances be greater than the health and amenity effects they seek to mitigate. Walls and bunds also may reduce passive surveillance of surrounds and do not reduce vibration effects which would still need to be manged in a different way. If the permitted standards	Acoustic walls and bunds can provide noise reduction for single storied buildings. They also assist in visually screening development from the rail corridor, reducing the perception of noise, however they are often not practical or consentable, and can result in other health and amenity effects.

area of land required for the foundations of the noise barriers which require a wide base (which may result in the removal of adjacent activities) or for the physical space required for any bund. Whether bunds or acoustic walls are used, these may not often be effective for buildings of more than one storey.	are not met, then there will be costs borne by the applicant to prepare a resource consent application, costs to the territorial authority to assess the application, and costs to KiwiRail as a submitter to the application.	
Is the proposed approach reasonably practicable? In some circumstances acoustic walls and bunds can manage the adverse effects of noise on Activities Sensitive to Noise, and will protect KiwiRail railway infrastructure from reverse sensitivity. However, they are difficult to retrofit to existing situations, are often impractical for new situations, and can result on other adverse health and amenity effects.		

Option D - Construction design standards

A table which specifies minimum construction materials and standards necessary to achieve internal acoustic levels.

Effectiveness and Efficiency	**Costs**	**Benefits**
This option is somewhat effective and efficient. It is a relatively common approach	There will be additional compliance costs during building consent and building	Construction standards provide certainty as to outcome and design

to managing the adverse effects of noise in District Plan. However, it can have some limitations in terms of effectiveness as it essentially 'locks in' the standards to those at the time of writing the provisions. This means as construction standards improve and change over time, the standards in the plan remain static. This can result in future activities needing to obtain a resource consent where the standards are not met - even where the noise and vibration effects are appropriately managed. The Noise and Vibration Memorandum also sets out that in the Christchurch District Plan, although multiple compliance options were included for mitigating road and rail noise in buildings, including design standards, that on review of the controls the Council found that in most cases site-specific assessment associated with meeting internal acoustic standards was selected. This was presumably as despite any	construction when compared with Option A. Building and compliance design costs will be borne by the applicant and compliance confirmation costs will be borne by the territorial authority and/or the applicant. If the permitted standards are not met, then there will be costs borne by the applicant to prepare a resource consent application, costs to the territorial authority to assess the application, and costs to KiwiRail as a submitter to the application. Construction standards can often be complex, and typically require technical expertise on behalf of applicant and regulatory authority if there is any deviation from the standards in the schedule. This can Impose additional monetary and time costs. Construction standards often lack the flexibility to accommodate individual site circumstances. This may occur If the topography of the site removes or reduces the	specifications, and the associated costs can be estimated. Where compliance with the standards is demonstrated, an acoustics specialist does not need to be engaged by any party. Compliance can simply be demonstrated on building plans at the time a building consent is lodged.

specialist assessment costs the site-specific assessment provided a more efficient solution. This option is therefore considered to be less efficient than the preferred options.	need for all construction design standards to be met. As the standards are essentially 'locked in' to the plan, it requires a plan change to update them. The same requirements apply regardless of the level of external noise exposure. This means that some buildings will have more treatment and associated costs than is necessarily needed to achieve adequate indoor noise levels. Conversely, some buildings with the higher external noise exposure might not have adequate treatment.	
Is the proposed approach reasonably practicable? Somewhat - construction standards are a common regulatory approach to manage the adverse effects of noise and vibration for Activities Sensitive to Noise, and will protect KiwiRail railway infrastructure from reverse sensitivity. However, achieving compliance can be complex, and it is less preferred in practice than the acoustic standards in Option F, and there are limitations to this approach.		

Option E - Setbacks

Building or activity setback for Activities Sensitive to Noise of 100m from the railway corridor with no other noise or vibration management methods.

Effectiveness and Efficiency	Costs	Benefits
This option is effective as it is a simple method to minimise noise and vibration. However, it is not an efficient use of land. This approach is efficient for large rural sites where there is flexibility to locate Activities Sensitive to Noise away from the railway corridor.	The costs of requiring effective setbacks is the loss of developable land for Activities Sensitive to Noise within the vicinity of the railway corridor. The housing market costs associated with the loss of developable land are analysed in the Economic Assessment, and estimated net costs for a conservative typical mixed residential and non noise sensitive activity scenario are approximately $28,800,000 per kilometre of track. This also imposes a maintenance burden on the landowner as the person responsible for maintaining the large setback areas. If the permitted standards are not met, then there will be costs borne by the applicant to prepare a resource consent application, costs to	This is a simple approach that can work well for large rural sites where setback areas can continue to be used for agricultural purposes. However this approach remains open to rural sites as a method of management under other controls (including noise provisions). Setbacks effectively minimise noise, vibration and amenity effects.

	the territorial authority to assess the application, and costs to KiwiRail as a submitter to the application.	
Is the proposed approach reasonably practicable? Yes - it provides a tried and tested regulatory approach to effectively manage the adverse effects of noise and vibration on Activities Sensitive to Noise, and will protect KiwiRail railway infrastructure from reverse sensitivity. However, it is only efficient and effective for large rural sites, and there are high opportunity costs to the housing market.		

Option F – Acoustic Standards

Require internal acoustic rules and standards for noise-sensitive activities, but provide no other options to achieve compliance.

Effectiveness and Efficiency	**Costs**	**Benefits**
Acoustic standards are reasonably efficient and are common in a number of District Plans to manage noise effects of different activities including road, rail and aircraft noise. Territorial authorities typically require certification that the standard is met as part of the building consent application processing. Compliant buildings would not require a resource	There will be additional compliance costs during building consent and building construction when compared with Option A. Building and compliance design costs will be borne by the applicant and compliance confirmation costs will be borne by the territorial authority and/or the applicant. If the permitted standards are not met, then there will be	Acoustic standards which require Activities Sensitive to Noise to meet internal noise standards provide flexibility to the applicant to determine how they wish to meet the standards. This can be achieved using different options. Provides health and amenity benefits for new and expanded sensitive activities locating adjacent to the rail corridor, without unduly constraining development of

consent. Internal acoustic standards are not effective if there are opening windows. Any standards therefore require internal ventilation standards to be included alongside insulation controls.	costs borne by the applicant to prepare a resource consent application, costs to the territorial authority to assess the application, and potentially costs to KiwiRail as a submitter to the application depending on the potential level of reverse sensitivity effect. These policy, administrative and compliance costs for a conservative typical mixed residential and non noise sensitive activity scenario are analysed in the Economic Assessment, and estimated net costs are approximately $1,728,000 per kilometre of track.	Activities Sensitive to Noise near the rail corridor. Acoustic insulation also provides energy savings to occupiers and is likely to be capitalised in the value of the property. Avoids reverse sensitivity impacts on KiwiRail from increased numbers of sensitive activities locating adjacent to the rail corridor.
Is the proposed approach reasonably practicable? Yes – as addressed in full above it provides for a tried and tested regulatory approach to effectively manage the adverse effects of noise and vibration on Activities Sensitive to Noise, and will protect KiwiRail railway infrastructure from reverse sensitivity.		

Option G – Proposed Approach: Combination of new rules and standards for Activities Sensitive to Noise

Within 100m of the railway corridor, provide several options to achieve compliance with internal acoustic levels – within 50m of the rail corridor buildings are designed to meet specified Internal noise levels, or must meet a 50m setback, or where the noise at exterior façades is measured or predicted to be no more than 15 dB above the relevant noise level.

Buildings must also meet mechanical ventilation standards and reporting standards. Includes an advice note to alert plan users that Activities Sensitive to Noise within the Rail Noise Control and Vibration Alert Area may be subject to vibration effects.		
Effectiveness and Efficiency	**Costs**	**Benefits**
The provisions are effective as, depending on the activity and site circumstances, they provide several options for compliance. This option is efficient as it provides a range of options to achieve compliance. The standards are efficient as development meeting these standards will not require a require a consent and can be advanced as a permitted activity, which strikes an appropriate balance between enabling development and managing adverse effects. The standards are also efficient as they align with the rules in other District Plans - providing a nationally consistent approach and improving administration for KiwiRail and organisations operating nationally such as housing, healthcare and	There will be additional compliance costs during building consent and building construction when compared with Option A. Building and compliance design costs will be borne by the applicant and compliance confirmation costs will be borne by the territorial authority and/or the applicant. If the permitted standards are not met, then there will be costs borne by the applicant to prepare a resource consent application, costs to the territorial authority to assess the application, and costs to KiwiRail as a submitter to the application depending on the potential level of reverse sensitivity effect. These policy, administrative and compliance costs are analysed in the Economic Assessment, and for a	There will be an improvement in human health and amenity outcomes compared to Option A as there will be a reduction in the number of sensitive activities exposed to unacceptable levels of noise and vibration. It therefore enables Activities Sensitive to Noise to establish in the vicinity of the railway corridor where adverse effects can be effectively managed. This provides for the efficient use and development of land in accordance with section 7(b) of the Act. The range of permitted standards provides a flexible compliance pathway for applicants. It provides a range of potential responses to achieve compliance. This option also provides a comprehensive regulatory approach which recognises the actual spatial extent of railway corridor noise and vibration - and only limits

education providers. The noise and vibration provisions do not apply to existing activities so there are no additional constraints on developed sites where redevelopment is not anticipated. The provisions provide clear and specific matters of discretion which gives greater certainty to developers (and the Council) over the matters that will be assessed if resource consent is required.	conservative typical mixed residential and non noise sensitive activity scenario, the estimated net costs are approximately $1,728,000 per kilometre of track.	activities which are adversely affected by operating outside these parameters.
Is the proposed approach reasonably practicable? Yes - it provides for a range of tried and tested regulatory approaches to effectively manage the adverse effects of noise and vibration on Activities Sensitive to Noise, and will protect KiwiRail railway infrastructure from reverse sensitivity.		

Option H - Proposed provisions funded by rail operator

Within 100m of the railway corridor, via a mapped Rail Noise Control and Vibration Alert Area, the same options to achieve compliance would be available - buildings are designed to meet specified Internal noise levels, or must meet a 50m setback, or noise at exterior façades is no more than 15 dB higher. Buildings must also meet mechanical ventilation standards and

reporting standards, and other than an advice note, there are no vibration standards. However, the difference is that KiwiRail would fund compliance with these standards.		
Effectiveness and Efficiency	**Costs**	**Benefits**
This option is efficient as it provides a range of options to KiwiRail to achieve compliance. This option is not effective as putting the onus on KiwiRail to fund any compliance costs could perversely incentivise landowners to develop closer to the rail corridor than they would if the measures were self-funded. This could increase the costs of compliance as higher standards of insultation could be required, and it would result in more Activities Sensitive to Noise establishing in closer proximity to the rail corridor.	The policy, administrative and compliance costs are analysed in the Economic Assessment, and for a conservative typical mixed residential and non noise sensitive activity scenario, the estimated net costs are approximately $1,728,000 per kilometre of track. A large portion of these costs would be borne by KiwiRail.	The same benefit outlined in Option G apply, noting that benefits accrue to the landowner and occupier without any cost to them, despite their choice being to locate near a railway corridor.
Is the proposed approach reasonably practicable? No – this option could result in considerable cost to KiwiRail, of a level that would mean the implementation of the provisions is not feasible, and could perversely incentivise Activities Sensitive to Noise to establish in closer proximity to the rail corridor than they would otherwise.		

Option I - Landscaping

Planted buffers to provide acoustic mitigation.

Effectiveness and Efficiency	Costs	Benefits
This option is not effective or efficient, as dense landscaping in excess of tens of metres in width would be needed to provide noise reduction. Seasonal variations in terms of leaf density and weather induced variations may impact vegetation quality.	The costs of requiring effective landscape mitigation setbacks is the loss of developable land within the vicinity of the railway corridor. This also imposes a maintenance burden on the landowner as the person responsible for maintaining the large planted areas. If the permitted standards are not met, then there will be costs borne by the applicant to prepare a resource consent application, costs to the territorial authority to assess the application, and costs to KiwiRail as a submitter to the application.	Provides the benefit of added visual screening.

Is the proposed approach reasonably practicable? No – landscape planting is not an efficient or effective option.

Option J - National Regulation

This may Include changes to the Building Act or Building Code or the introduction of a National Planning Standard or National Environmental Standard.

Effectiveness and Efficiency	Costs	Benefits
This option is likely to be the most efficient and effective compared to all other options. Unfortunately, although a nationally consistent approach would have a number of benefits, it is outside the Schedule 1 process of the Act and ultimately relies on political will.	Not applicable.	Not applicable.
Is the proposed approach reasonably practicable? No - not within scope.		

Option K - Reverse Sensitivity Covenant

A plan provision which requires a covenant requiring the property owners agree not to complain about noise and vibration effects on sensitive land uses.

Effectiveness and Efficiency	Costs	Benefits
This option is not effective and efficient, because it addresses the ability to complain about noise and vibration, rather than deal with those effects directly. Although this may avoid complaint regarding noise and vibration, Activities	There are legal costs associated with the covenant preparation and registration process. These costs will be borne by both the landowner and the territorial authority. This option provides for poor health and amenity outcomes as the actual	A covenant is a legally binding agreement between the property owner and the territorial authority, and is generally simple to understand. A covenant is likely to be a more cost effective approach compared to the other

Sensitive to Noise will still be affected by noise and vibration, resulting in adverse health and amenity effects for the occupants of these buildings and areas. A provision which requires a covenant is not efficient as it requires every individual site seeking to establish or add to a building to go through a covenant registration process against that individual parcel of land. In time, this can become difficult for a territorial authority to administer as it is not obvious whether or not a covenant applies to a record of title without searching that record of title individually.	effects of railway noise are not appropriately avoided or mitigated. If the permitted standards are not met, then there will be costs borne by the applicant to prepare a resource consent application, costs to the territorial authority to assess the application, and costs to KiwiRail as a submitter to the application.	options (excluding 'do nothing'), as It requires no additional building or design controls, or landscaping or noise barriers.
Is the proposed approach reasonably practicable? No - a reverse sensitivity covenant standard is not an efficient or effective option.		

6. Assessment Summary

Table 5: Assessment Summary

Reasonably Practicable Option	Assessment Summary
Option A - Do nothing: No or limited provisions.	Not reasonably practicable.
Option B – Rail operator reduces noise and vibration emissions: To the extent that no noise or vibration effect is generated on nearby Activities Sensitive to Noise.	Not reasonably practicable.
Option C – Noise barriers: Acoustic walls or bunds.	Not reasonably practicable.
Option D – Construction design standards: A table of minimum design requirements and construction materials to meet noise levels.	Somewhat reasonably practicable, but no favoured by plan users.
Option E - Setbacks: Building or activity setback of 100m with no other noise or vibration management methods.	Preferred methods - these methods can effectively manage the adverse effects of noise and vibration on Activities Sensitive to Noise and will protect KiwiRail railway infrastructure from reverse sensitivity. The most appropriate method to use is dependant on the site context.
Option F – Internal acoustic standards: Require internal acoustic rules and standards for noise-sensitive activities, but provide no other options to achieve compliance.	
Option G – Combination of rules and standards (Proposed provisions): New rules and standards for Activities Sensitive to Noise Within 100m of the railway corridor, provide several options to achieve compliance with internal acoustic levels – within 50m of the rail corridor buildings are designed to meet specified Internal noise levels, or must meet a 50m setback, or where	Most preferred method – Combines several of the methods above to provide options to effectively manage adverse noise effects and vibration and protect KiwiRail railway infrastructure from reverse sensitivity.

the noise at exterior façades is measured or predicted to be no more than 15 dB above the relevant noise level. Buildings must also meet mechanical ventilation standards and reporting standards. Includes an advice note to alert plan users that Activities Sensitive to Noise within the Rail Noise Control and Vibration Alert Area may be subject to vibration effects.	
Option H - Proposed provisions funded by rail operator: As above but funded by KiwiRail.	Not reasonably practicable.
Option I – Landscaping: Landscaping to provide acoustic mitigation.	Not reasonably practicable.
Option J - National Regulation: Changes to the Building Act or Code or new National Planning or Environmental Standards.	An out-of-scope potential long term solution.
Option K - Covenant: A 'no complaints' covenant provision.	Not reasonably practicable.

7. Conclusion

The operation, maintenance and development of the rail network is critical to the safe and efficient movement of freight and passengers throughout New Zealand, and forms an essential part of the national transportation network and the wider supply chain. KiwiRail's proposed provisions to the District Plan enable Activities Sensitive to Noise to be developed in the vicinity of the railway corridor where adverse noise and vibration effects can be effectively managed through a range of standards. The proposed provisions will mitigate health and amenity effects on new and altered Activities Sensitive to Noise that seek to establish within 100 metres of the railway corridor. This will ensure that the continued operation of nationally and regionally significant infrastructure of the rail corridor will be appropriately protected from reverse sensitivity, and neighbouring communities will experience positive health and amenity outcomes.

Consistent with section 32 of the Act, the proposed objective and policies have been developed and analysed against Part 2 and it is considered that the proposed objective is the most appropriate way to achieve the purpose of the Act.

The proposed provisions have been assessed against a number of alternative options in terms of their costs, benefits, and efficiency and effectiveness in accordance with the relevant clauses of section 32 of the Act.

The proposed provisions are considered to represent the most appropriate means of achieving the proposed objective. The provisions are also the most appropriate way of addressing the underlying resource management issues relating to managing the adverse effects of noise and vibration of surrounding land uses, and minimising reverse sensitivity effects to protect the railway network. Adopting the proposed provisions will maintain and enhance the continued use of Railway infrastructure while enabling the efficient subdivision, use and development of land in its vicinity, and providing for health and amenity outcomes.

Appendix 1: Proposed Provisions

Model District Plan Provisions

1. **Definitions**

Noise sensitive activity [if required]
Means any residential activity (including student or retirement accommodation), visitor accommodation, educational facility, child care facility, healthcare activity, and places of worship/marae.

The following provisions should be co-located together in a district -wide chapter (preferable noise and infrastructure) rather than applied on a zone by zone basis.

2. Objective

Ensure adverse reverse sensitivity, health and wellbeing effects arising from the development of noise sensitive activities adjacent to the railway network are appropriately avoided or mitigated.

3. Policies

Avoid reverse sensitivity effects on the ongoing and future operation and development of the railway network by ensuring new noise sensitive activities are designed or located to meet appropriate acoustic design standards.

Manage effects on the health and wellbeing of communities through the design and location of noise sensitive activities adjacent to the railway network to meet appropriate acoustic design standards.

4. Rules/Standards

4.1 Noise and vibration

E. Activities sensitive to noise within 100m of [KiwiRail Rail Corridor Designation]:

<table>
<tr><th></th><th colspan="3">Activity sensitive to noise near a railway network</th><th></th></tr>
<tr><td>All zones – at any point within 100 metres from the legal boundary of [KiwiRail Rail Corridor Designation] (Rail Noise Control and Vibration Alert Area)</td><td colspan="3">Activity status: Permitted

Indoor railway noise
1. Where any activity listed in Table 1 is located within the Rail Noise Control and Vibration Alert Area:
(a) the entire room or space shall be designed, constructed and maintained (including in any alterations) to achieve indoor design noise levels in Table 1; or

[RULEXX] Table 1
<table>
<tr><th>Building type</th><th>Occupancy/activity</th><th>Maximum railway noise level LAeq(1h)</th></tr>
<tr><td rowspan="2">Residential
[note definition in the plan must be broad enough to cover all types of residential activities – or other types of</td><td>Sleeping spaces</td><td>35 dB</td></tr>
<tr><td>All other habitable rooms
[note this may require the definition from the National</td><td>40 dB</td></tr>
</table></td><td>Activity status when compliance with standards 1, 2 or 3 not achieved: Restricted discretionary

Matters of discretion are restricted to:
1. The extent of non-compliance with the noise and vibration standards.
2. Effects on the health and wellbeing of people.
3. The reverse sensitivity effects on the rail network, including the extent to which the activity will unduly constrain the ongoing operation, maintenance and upgrade of the rail network.
4. The outcome of any consultation with KiwiRail.</td></tr>
</table>

residential activities not addressed within it will need to be added to this table]	*Planning Standards to be added if this is not already defined in the District Plan]*		Notification: Application for resource consent under this rule shall not be notified or limited notified unless KiwiRail is determined to be an affected person determined in accordance with section 95B of the Resource Management Act 1991 or the Council decides that special circumstances exist under s 94A(4) of the Resource Management Act 1991.
Visitor Accommodation	Sleeping spaces	35 dB	
	All other habitable rooms	40 dB	
Education Facility	Lecture rooms/theatres, music studios, assembly halls	35 dB	
	Teaching areas, conference rooms, drama studios, sleeping areas	40 dB	
	Libraries	45 dB	
Health	Overnight medical care, wards	40 dB	
	Clinics, consulting rooms, theatres, nurses' stations	45 dB	
Cultural	Places of worship, marae	35 dB	

(b) the nearest exterior façade of the building accommodating the activity listed in Table 1 is at least 50 metres from the legal boundary of the [KiwiRail Rail Corridor Designation], and there is a solid building, fence, wall or landform that completely blocks line-of-sight from all parts of doors and windows, to all points 3.8 metres above railway tracks; or

(c) it can be demonstrated by way of prediction or measurement that the noise at all exterior façades of the listed activity is no more than 15 dB above the relevant noise levels in Table 1.

Mechanical ventilation

2. If windows must be closed to achieve the design noise levels in clause 1(a), the building is designed, constructed and maintained with a mechanical ventilation system that:

(a) For habitable rooms for a residential activity or visitor accommodation activity, achieves the following requirements:

i. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and

ii. is adjustable by the occupant to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour; and

iii. provides relief for equivalent volumes of spill air;

iv. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and

	v. does not generate more than 35 dB $L_{Aeq(30s)}$ when measured 1 metre away from any grille or diffuser. (b) For other spaces, is as determined by a suitably qualified and experienced person. **Report required** 3. A report is submitted to the council demonstrating compliance with clauses (1) to (2) above (as relevant) prior to the construction or alteration of any building containing an activity sensitive to noise. Compliance with 1(a) and (c) must be confirmed by a Registered Acoustician and when doing so railway noise must be assumed to be 70 $L_{Aeq(1h)}$ at a distance of 12 metres from the track, and must be deemed to reduce at a rate of 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres. Note: The Rail Noise Control and Vibration Alert Area identifies the vibration-sensitive area within 100metres each side of the [KiwiRail Rail Corridor Designation]. Properties within this area may experience rail vibration effects. No specific district plan rules or notification requirements apply in relation to vibration controls as a result of this Rail Noise Control and Vibration Alert Area.	

Insert mapping overlay which identifies a 100m buffer on each side of the [KiwiRail Rail Corridor Designation] called “Rail Noise Control and Vibration Alert Area” to which the above rules will apply.

Appendix 2: Acoustics Advice

Chiles Ltd

Project:	**Land use controls for railway sound and vibration**
Report:	**Acoustics advice**
Client:	KiwiRail
Reference:	130418h
Date:	19 July 2023
Author:	Stephen Chiles

Contents:

1. Introduction

1.1. KiwiRail is undertaking an analysis of potential controls for existing/permitted railway sound and vibration from its national network, affecting new and altered sensitive land uses nearby. Chiles Ltd has been engaged by KiwiRail to provide advice on associated acoustics details to inform that analysis. This report sets out: effects of sound and vibration on people and buildings, indicative sound and vibration levels at different distances from railway tracks, methods to reduce sound and vibration, and recommendations for land use controls.

1.2. In normal acoustics usage the term "noise" describes unwanted airborne "sound", although some people use the words interchangeably. However, under the Resource Management Act (RMA) "noise" is defined as including vibration; presumably ground-borne. Notwithstanding that in practice "noise limits" in rules and conditions under the RMA refer exclusively to airborne sound. The term sound has been used in this report to distinguish airborne sound from ground-borne vibration in an RMA context where both are defined as noise.

1.3. A fundamental input when assessing railway sound and vibration is the type, volume and timing of railway traffic to be assumed on a particular section of the network. For comparison, when considering roads in New Zealand, road traffic volumes often gradually increase or remain steady, such that acousticians can sometimes use existing measured road traffic volumes as a reasonable baseline for future design. However, for railways in New Zealand, railway traffic volumes and times can change significantly, such that existing railway traffic may not be a reliable baseline when considering effects associated with new neighbouring houses that will exist for many decades. Therefore, appropriate assumptions for railway traffic types, volumes and times are an essential input that should be considered alongside the following acoustics information in this report.

1.4. Both sound and vibration have complex varying characteristics which are only approximated by metrics representing levels as a single number. There are compromises with whichever metrics are used. In the case of railway sound and vibration in New Zealand the choice of metrics is particularly challenging because often there are a relatively small number of intense events. In this situation, use of average values might under-represent adverse effects and use of maximum values might over-represent effects. The extent of under or over representation varies depending on the rail traffic in any location, which in turn relates to the comment above on railway traffic volumes. Metrics and objective analysis can still be valuable to focus interventions in the most effective places, but the limitations of the metrics require consideration when evaluating potential land use controls. This issue is discussed further in section 4.

2. Effects of sound

2.1. The World Health Organisation ("WHO") has periodically reviewed and collated evidence of health effects caused by environmental sound including from railways.[1] The most recent publication was by WHO Europe ("2018 WHO Guidelines"),[2] which was based on systematic

[1] World Health Organisation, Guidelines for community noise, 1999; World Health Organisation, Burden of disease from environmental noise, 2011.
[2] World Health Organisation, Environmental noise guidelines for the European region, 2018.

reviews of a large number of published studies. There have been numerous other discrete studies of these issues, but the 2018 WHO Guidelines provides a robust synthesis of available information and its findings with respect to railway sound appear to be widely accepted.

2.2. From preceding studies, the 2018 WHO Guidelines found moderate quality evidence that railway sound causes adverse health effects in that it increases the risk of annoyance and sleep disturbance in the population. Various other potential health effects were examined but evidence was not available to determine a relationship for them with railway sound. Based on the information available the 2018 WHO Guidelines made "strong" recommendations that external railway sound levels should be reduced below 54 dB L_{den} and 44 dB L_{night}. The 2018 WHO Guidelines found there was insufficient evidence to recommend one type of intervention over another to reduce levels.

2.3. The above 2018 WHO Guidelines recommendations are in terms of long-term (annual) average sound levels. One of the metrics relates just to the night period (L_{night}) and the other (L_{den}) is for a 24-hour average including penalties for sound occurring in the evening (+5dB) and at night (+10dB). By necessity, this use of long-term averages is a pragmatic approach given that potential health effects generally relate to exposure over extended periods and are determined from consideration of the community/population rather than specific individuals. Other research into health effects, such as relating to awakenings from sleep, has previously referenced maximum sound levels, but sleep disturbance as a health effect is only assessed in terms of average levels in the 2018 WHO Guidelines.

2.4. The 2018 WHO Guidelines were based on international research from a wide range of countries. There was no available data from New Zealand at that time. Subsequent research published in 2019 specifically addressed the applicability of international data on railway sound annoyance of the New Zealand population.[3] This included a survey of people living in the vicinity of the North Island Main Trunk line in South Auckland, using the same general methodology as most international studies. The research found that international noise annoyance response curves are generally applicable for the New Zealand population.

2.5. There is current New Zealand and international research that may further refine the understanding of health effects caused by railway sound. However, the existing 2018 WHO Guidelines already establishes there are adverse health effects that warrant intervention.

2.6. In New Zealand, railway sound criteria have commonly been defined in terms of one-hour average levels (see section 4). Values of 35 dB $L_{Aeq(1h)}$ inside bedrooms and 40 dB $L_{Aeq(1h)}$ inside other habitable spaces have previously been applied for protection from health effects. Accounting for the different metrics, these values are slightly higher (more lenient) than the 2018 WHO Guidelines for regular sound events but would be more stringent for infrequent events. This comparison relates only to average sound levels, but corresponding relationships with health effects for different frequencies of railway events are uncertain/unknown. Therefore, currently there is no evidence base available that would support significantly more or less

[3] Humpheson D. and Wareing R., 2019. Evidential basis for community response to land transport noise, Waka Kotahi Research Report 656. https://nzta.govt.nz/resources/research/reports/656/

stringent railway sound criteria than 35 dB $L_{Aeq(1h)}$ inside bedrooms and 40 dB $L_{Aeq(1h)}$ inside other habitable spaces for protection of health.

2.7. There is a lack of information on the combination of indoor and outdoor living conditions in relation to health effects. Even if indoor conditions are controlled, there may still be residual health effects arising from outdoor conditions. In a New Zealand context, based on criteria applied for other sources, reasonable conditions in outdoor living spaces might be achieved with railway sound levels of 55 dB $L_{Aeq(1h)}$.

3. Effects of vibration

3.1. Adverse effects of railway vibration can include annoyance and sleep disturbance for building occupants and damage to buildings. Damage to buildings (even cosmetic damage) occurs at greater vibration magnitudes than those which can cause annoyance.

3.2. Internationally, there has been less research into transportation vibration effects on people compared to research on transportation sound effects. However, the evidence that does exist on adverse health effects caused by railway vibration indicates they are material, and as such the relative paucity of research is not an indicator of the degree of effects. There is international research ongoing in this area. Research is also investigating health effects arising from the combination of railway sound and vibration.

3.3. Norwegian Standard NS 8176[4] summarises research of human response to transportation vibration and provides exposure response curves in terms of the percentage of people who would perceive or experience degrees of annoyance from vibration. The current version of the standard (2017) discusses the inherent uncertainty in the data, including that it does not account for varying traffic volumes, although notes no other studies addressing that factor were found.

3.4. NS 8176 defines four categories of vibration exposure in residential buildings, with Class A representing the best vibration conditions and Class D (or below) representing the worst. The Class C criterion has previously been applied in New Zealand for habitable spaces in new buildings. This corresponds to a vibration level at which about 20% of people would be expected to be highly or moderately annoyed by vibration. The Class C criterion is defined as a $v_{w,95}$ of 0.3 mm/s (vibration metrics are explained in section 4).

3.5. For vibration effects on buildings, a ppv criterion of 5 mm/s is often used in New Zealand as a threshold at which there is potential for cosmetic damage to new buildings. While the 5 mm/s ppv criterion has been taken from guidance in an overseas standard, it does not relate specifically to railway vibration and is generally regarded as a cautious value. There is a knowledge gap as to the actual likelihood of cosmetic damage from railway vibration in New Zealand. However, all potential criteria for vibration effects on people are substantially more stringent, such that for buildings containing sensitive activities, cosmetic building damage might not require separate consideration.

[4] Norwegian Standard NS 8176:2017 Vibration and shock - Measurement of vibration in buildings from land-based transport, vibration classification and guidance to evaluation of effects on human beings

4. Methods

Sound level metrics

4.1. As discussed in section 1, for railway lines with intermittent traffic in New Zealand, use of an average sound level over any time period can cause inconsistencies between the level and the corresponding human response or health effect.

4.2. The noise provisions which have been sought by KiwiRail in plan changes around New Zealand to date have adopted a one-hour average ($L_{Aeq(1h)}$) for railway sound in their standards. This approach was initially proposed by Marshall Day Acoustics in a review undertaken in 2009 of appropriate noise criteria for district planning rules.[5] This report considered the utilisation of one-hour averaging as against broadscale setbacks and average / maximum or day / night averages. The one-hour average allows for a degree of averaging compared to single events, but still represents periods of activity when disturbance from railway sound is occurring. In the New Zealand context an alternative metric with longer averaging times (e.g. L_{den}/L_{night}) would be likely to significantly under-represent adverse effects from maximum/event sound levels over much of the network.

4.3. Neither one-hour averages or maximum levels however have an established, researched relationship with the health effects correlated to the external long term average sound level criteria recommended by the 2018 WHO Guidelines. This represents a knowledge gap and currently necessitates a broad judgement to determine criteria using the one-hour average (or another metric like maximum levels).

4.4. As set out in section 2, the 2018 WHO Guidelines recommend annual average criteria of 54 dB L_{dn} and 44 dB L_{night} applying outside buildings. These values assume windows may be open, resulting in internal sound levels around 15 dB lower than the criteria (with windows ajar for ventilation): 39 dB L_{den} and 29 dB L_{night}. In a situation where there are regular railway sound events, it could be appropriate to directly take the long-term average L_{den} and L_{night} criteria to apply as one-hour criteria (the L_{den} would also need a -10dB adjustment if applying at night). However, for irregular or infrequent events a higher one-hour criterion could be appropriate. It might also be appropriate to adjust criteria if there are no events at night.

Vibration level metrics

4.5. Internationally there are a range of different metrics used to quantify vibration affecting humans, with no accepted standardisation for this application. The "statistical maximum value of weighted velocity" ($v_{w,95}$) metric has been used previously in New Zealand for both road and railway vibration affecting people, and has the advantage that is corresponds to the exposure response curves in Norwegian Standard NS 8176.

4.6. For vibration effects on buildings and structures, the "peak particle velocity" (ppv) metric is in widespread use in New Zealand. This metric is mandated by the Noise and Vibration Metrics National Planning Standard for construction vibration affecting structures.

[5] Marshall Day Acoustics, *Ontrack rail noise criteria reverse sensitivity guidelines*, 22/10/09

4.7. In this report, vibration is presented in terms of the $v_{w,95}$ with respect to effects on people, and in terms of the ppv with respect to effects on buildings/structures.

Railway traffic characteristics

4.8. The above railway sound levels and effects depend on the timing, type and frequency of train movements at a particular location. As discussed in section 2, the proposed one-hour average sound criteria are generally less stringent than international daily average values for lines with more frequent movements. This was acknowledged by the original Marshall Day Acoustics report, which noted the application of one-hour averages are likely insufficient for lines with greater than 20 train movements a day, and the use of day / night averages or maximum levels would be more protective.

4.9. At the other end of the spectrum, for lines with very infrequent movements the proposed one-hour average criteria might be considered too stringent. With the numerous factors involved and the underlying knowledge gaps relating to sound effects, it is not possible to precisely define a lower railway traffic volume at which one-hour average sound criteria might become unwarranted. Any such consideration should not just include current rail volumes, but potential future rail volumes to which newly established activities may be subject to in the future.

4.10. Railway vibration levels and effects also depend on the traffic characteristics. However, the vibration criteria discussed in section 3 relate to levels from individual events rather than average levels. As such, the criteria are independent of the number of movements. Under the specified standard (NS 8176) the vibration criteria relate to the type of train at a particular location that generates the highest vibration levels, which will generally be freight trains. Therefore, the proposed criteria could be applied to all lines regardless of traffic characteristics.

5. Sound levels

5.1. Different options for sound level metrics are discussed in section 4 with respect to effects and criteria. In this section, example railway sound levels are presented in terms of average values over one hour ($L_{Aeq(1h)}$).

5.2. Railway sound levels are dependent on train types/condition, traffic volumes, speeds, track geometry/condition, terrain and various other factors. As discussed above, when considering average levels the assumed railway traffic volumes are a critical input.

5.3. With full geospatial details and information on railway activity, various standard acoustics computer modelling packages are available to predict railway sound levels for a specific situation. There is currently no standardised approach to this modelling for railway sound in New Zealand or consistent use of a particular calculation algorithm. Consequently, even with the same input data, predictions are likely to vary when made by different practitioners.

5.4. The following provides an illustration of typical railway sound levels based on an assumption of approximately two freight train movements in a one-hour period, in a flat area without screening. This is based on data summarised by Marshall Day Acoustics.[6] More recent

[6] Marshall Day Acoustics, *Ontrack rail noise criteria reverse sensitivity guidelines*, 22/10/09

(unpublished) measurements for various New Zealand train types confirm these sound levels are in a realistic range.

Distance from track	Sound level
10 metres	71 dB $L_{Aeq(1h)}$
20 metres	68 dB $L_{Aeq(1h)}$
30 metres	66 dB $L_{Aeq(1h)}$
40 metres	64 dB $L_{Aeq(1h)}$
50 metres	62 dB $L_{Aeq(1h)}$
60 metres	60 dB $L_{Aeq(1h)}$
70 metres	59 dB $L_{Aeq(1h)}$
80 metres	58 dB $L_{Aeq(1h)}$
90 metres	56 dB $L_{Aeq(1h)}$
100 metres	56 dB $L_{Aeq(1h)}$

5.5. In the Marshall Day Acoustics report which generated the above levels, this sound level assumption of 2 freight train movements in a one-hour period was originally proposed as being approximately equivalent to the sound level from lines with regular passenger trains. It was not intended to apply in settings which actually experienced two freight train movements per hour across a day (as noted in section 4 above, where there were more than 20 movements a day, a one-hour average was considered inadequate to address the likely effects). Instead the intention of the average is to provide an approximation of both the effects of a single event, and a generalised average of noise from the corridor. The report considered a single measurement would enable simpler application of the rule framework by landowners (compared to an average/maximum approach which was considered to add extra complication without significant benefits in effects management given the variability of single train pass-bys).

5.6. Based on this assumption the proposed sound criteria are likely to be appropriate for all urban lines with passenger trains and any lines with at least say six daily freight movements and/or freight movements at night (including where this level of activity may be required in future). This threshold of six freight movements is tentatively suggested based on a hypothesis that the one-hour average criteria would not be unduly stringent at this frequency of effect.

5.7. Internal sound levels with windows ajar for ventilation will typically be around 15 dB less than the external levels set out above. As such, at 100 metres from a track with 56 dB $L_{Aeq(1h)}$ outside, there is still potential to exceed internal criteria of 35 and 40 dB $L_{Aeq(1h)}$ (section 2). A 35 dB internal criterion in particular could be exceeded significantly beyond 100 metres from the track, potentially to around 200 metres. However, at progressively further distances from the track the actual sound level is more likely to be affected by topography and localised screening such that there will be greater variability in sound levels.

5.8. For land use controls, the appropriate method to determine railway sound levels for a particular site (specified values, modelled, measured) depends significantly on the approach to information on train types, volumes and times. This is discussed further in section 9 with respect to recommended controls.

6. Vibration levels (ground-borne)

6.1. The following table summarises various railway vibration measurements (and associated predictions) in New Zealand from a range of sources, generally ordered from lowest to greatest magnitude (other than the first row which uses the ppv metric rather than $v_{w,95}$). Where the data relates to a private development or complaint, a generic source reference is given. Not all measured values are directly comparable due to issues such as differences in measurement positions (ground/building) that would require adjustments.

Data source	Vibration levels
Marshall Day Acoustics, *Ontrack rail noise criteria reverse sensitivity guidelines*, 22/10/09 *(secondary reporting of Marshall Day Acoustics 2006 assessment for Marsden Point)*	Based on measurements: 2 to 3 mm/s ppv at 30m 0.5 to 1 mm/s ppv at 60m
AECOM, *Bayfair to Bayview – Rail Relocation Post Construction Noise and Vibration Monitoring*, 6/3/17	Measured: 0.56 mm/s $v_{w,95}$ at 7m From measurement and distance correction: 0.19 mm/s $v_{w,95}$ at 100m 0.26 mm/s $v_{w,95}$ at 50m 0.37 mm/s $v_{w,95}$ at 25m
Marshall Day Acoustics, *Wiri to Quay Park third main rail line noise and vibration assessment*, 10/7/20	Measured: 0.6 mm/s $v_{w,95}$ at 9.5m
URS, *Maunganui-Girven Road Intersection -Rail Vibration Assessment*, 14/4/14	Measured: 26.5 mm/s^2 $a_{w,95}$ at 17m *(this $a_{w,95}$ value has different units and is not directly comparable to a $v_{w,95}$ value)* From measurement and distance correction: 0.34 mm/s $v_{w,95}$ at 100m 0.47 mm/s $v_{w,95}$ at 50m 0.67 mm/s $v_{w,95}$ at 25m
URS, *Operational noise and vibration assessment Peka Peka to North Ōtaki Expressway Project*, 12/2/13	Measured: 0.58 mm/s $v_{w,95}$ at 60m
Marshall Day Acoustics, *assessment in relation to a complaint near Hamilton*, 28/11/12	Measured (on a deck structure): 0.42 mm/s $v_{w,95}$ at 140m
Marshall Day Acoustics, *assessment for development in Napier*, 6/2/20	Measured: 1.2 mm/s $v_{w,95}$ at 10m
URS, *Ground-borne vibration measurements at Hornby, Christchurch,* 12/9/14	Measured before renewal: 2.2/2.9 mm/s $v_{w,95}$ at 8.4m Measured after renewal: 0.5/0.4 mm/s $v_{w,95}$ at 8.4m

6.2. The data in the above table illustrates the significant variation that is inherent in railway vibration. Vibration levels often vary even within a localised area and cannot be reliably predicted, such as in the same manner as airborne sound. Hence, measurements are generally required to assess ground-borne vibration.

6.3. With respect to effects on people, a vibration criterion of 0.3 mm/s $v_{w,95}$ is discussed in section 3. The measurement data shows that this criterion can routinely be exceeded at over

100 metres from railway tracks in New Zealand, but there is significant variation. Vibration levels exceeding this criterion occur beyond at least 50 metres from the track in most cases.

6.4. With respect to effects on buildings, a vibration criterion of 5 mm/s ppv is discussed in section 3. The vibration measurement data indicates that vibration levels might exceed this criterion within approximately 20 metres of the track. The implications of this are discussed further with respect to recommended controls in section 9.

7. Approaches to manage effects of railway sound

Source

7.1. Routine rolling stock and track maintenance undertaken by KiwiRail contributes to reducing sound at source. There might be incremental improvements if more stringent maintenance service standards were adopted.

7.2. Locomotives can be designed with sound reducing features, such as attenuators and silencers. Generally, these need to be integrated at the time of initial design/manufacture. Retrofitting measures to existing locomotives may be constrained and would be likely to constitute a major rebuilding. Locomotives with alternative power systems such as battery power can have reduced sound, although significant sound still arises from the track/wheel interface. Unpublished research[7] included measurements that show the sound levels set out in section 5 remain representative for the current locomotive fleet, including the newer DL class locomotives. It is understood that KiwiRail has existing workstreams to renew its rolling stock (including the locomotives) overtime. This workstream is focused on alternative power systems, and as a multi-year project to explore (and where supported) upgrades/renewals of its stock, as opposed to retrofitting of existing or old stock.

7.3. Specific sound sources such as wheel squeal, can sometimes be reduced through treatment of rolling stock.

7.4. If older track is not continuously welded, implementing this measure can reduce sound.

Pathway

7.5. Barriers such as formed by earth bunds or walls can reduce railway sound. A barrier providing effective screening could typically reduce railway sound levels by around 5 dB. However, this is often impracticable because any noise barrier would typically need to be in the order of 5 metres high to achieve effective screening of locomotive sound sources that are several metres above the tracks, which in turn are often raised above local ground level. Sound screening might also be provided by intervening buildings or the terrain. As barrier performance is limited by sound passing over the top, typical barriers generally do not provide sufficient sound reduction for receivers close to the railway (within around 50 metres).

[7] Waka Kotahi research programme. Social cost (health) of land transport noise exposure, https://www.nzta.govt.nz/planning-and-investment/research-programme/current-research-activity/active-research-projects/

7.6. Increasing the distance of the pathway reduces sound levels: i.e. separating the receiver from the source by a greater distance. As discussed previously, this measure in isolation may require separation of 100 to 200 metres.

Receiver

7.7. If habitable/sensitive spaces are orientated with no opening windows with exposure to railway sound then internal levels will be reduced. Hence the layout of a building can be used to manage railway sound. A practical approach can be to locate only ancillary, non-sensitive spaces such as garages and bathrooms on the side of the building facing the railway.

7.8. Where windows do have exposure to railway sound, closing those windows reduces internal sound levels. This typically provides a reduction in the order of 10 dB compared to when windows are open ajar for ventilation. However, if windows are required to be closed to reduce sound then an alternative (i.e. mechanical) ventilation and temperature control method is needed for occupants to maintain thermal comfort such that they have a genuine choice to leave the windows closed. For two older roading projects (SH20 Mt Roskill and SH1 Plimmerton) Waka Kotahi installed ventilation systems in 35 and 57 houses respectively with the intention that it would allow windows to be kept closed to reduce road-traffic noise.[8] However, those systems only provided ventilation and not temperature control (e.g. cooling) and for both projects residents reported the temperature being uncomfortable with windows closed. Therefore, if closed windows are to be considered as a noise reduction measure, temperature control should be included in any alternative ventilation system.

7.9. If greater reductions are required than can be achieved just by building layout or closing windows, then the building fabric can be upgraded. This typically requires thicker and/or laminated glazing of windows and in some cases additional/thicker layers of plasterboard wall/ceiling linings.

8. Approaches to manage effects of railway vibration

Source

8.1. As for managing sound, routine track and rolling stock (wheel) maintenance contributes to reducing vibration at source. Again, there might be incremental improvements if more stringent maintenance service standards were adopted. It is understood based on evidence previously provided by KiwiRail that it endeavours to undertake current maintenance best practice where practicable, and continues to invest in ongoing upgrades of its maintenance abilities. This includes the recent commissioning of a new wheel maintenance facility at its Hutt Workshops, which should contribute to improved wheel servicing and repair. In terms of track condition, KiwiRail has comprehensive procedures including measurement of track condition/geometry with a specialist survey vehicle several times a year, and maintenance systems acting on that data.

8.2. There are several different methods to treat railway track to reduce vibration. These include resilient clips fastening the rails to sleepers, resilient material under the sleepers or ballast, and

[8] Waka Kotahi, State highway guide to acoustic treatment of buildings, 2015

tracks directly or on ballast on concrete slabs, "floating" on resilient or spring vibration bearings. These vibration treatments are generally "built into" the overall track formation, particularly for the better performing options. Some treatments can increase the height of the track, having implications on clearances from bridges and overhead structures. As such, these measures are most commonly used for new tracks when the treatments can be integrated into and constructed as part of the overall design (e.g. on the Auckland City Rail Link). Retrofitting treatments over a wide area would require a major rebuilding of the tracks, beyond standard upgrading or maintenance.

Pathway

8.3. There are no standard pathway controls to reduce vibration. In some instances, depending on the dominant propagation route in the specific location, in-ground barriers can reduce vibration propagation. In addition to practical/space constraints (where the corridor is too narrow to construct an in-ground barrier), this is generally not something that could be applied broadly along a rail corridor as it would require analysis and design for specific locations.

8.4. Again, increasing the distance of the pathway reduces vibration levels: i.e. separating the receiver from the source by a greater distance.

Receiver

8.5. Depending on the specific propagation paths, use of different building foundation types (e.g. pile/pad) can result in reduced vibration entering a structure. Likewise, propagation through a structure will alter depending on its design (e.g. concrete/steel).

8.6. Buildings can be built on vibration bearings to reduce vibration from the foundations entering the building. (Some types of vibration bearing are similar to earthquake bearings.) Individual spaces within a building could be constructed as separate structures mounted on vibration isolators, but this is unlikely to be a practical solution in most cases compared to isolating the entire building.

9. Recommended land use controls

Form of controls

9.1. Extensive and widespread mitigation at source would generally only give relatively small incremental improvements and/or would require renewal/replacement of a substantial proportion of track and rolling stock. While (as set out at 7.2 above) there are programmes being undertaken by KiwiRail to renew its existing rolling stock, this confirms any improvements are likely to be incremental as fleets are gradually renewed. There are therefore unlikely to be practicable options for extensive mitigation at source to address sound and vibration effects on new and altered sensitive land uses seeking to establish near existing railways.

9.2. In terms of sound and vibration affecting people, the most robust control would be avoidance of effects by separating sensitive activities from railways. This could be achieved by defining an area around railways where new noise sensitive activities are not allowed. However, in addition to any non-acoustic impacts of such a control, if it contributed to larger and/or more dispersed urban areas then it might in itself cause increased transportation sound and vibration as the

overall population travels greater distances. The following recommendations are therefore made on the assumption that avoidance of effects by separation alone is not a practicable option.

9.3. If new and altered sensitive activities are allowed near railways, then to manage potential health effects, controls are needed to result in appropriate design of buildings or effective screening and separation of those buildings from the railway.

9.4. Several different methods have previously been used in RMA plans. Two common approaches are:

a) setting internal sound and vibration limits; or

b) specifying building constructions directly or in terms of sound reduction performance.

9.5. The first approach requires a site-by-site assessment and tailored mitigation for each development, whereas the second approach requires the same mitigation for all developments. The first requires specialist acoustics expertise whereas the second does not if specifying building constructions directly.

9.6. The potential health effects discussed above have been shown to occur (or be more likely) above certain sound and vibration threshold levels inside buildings. As discussed previously, there are a large number of variables that determine external railway sound and vibration exposure and there are nuances with building siting/layout and design that affect the internal levels. Controls that require the same mitigation for all developments result in excess treatment in many cases and inadequate treatment for those developments most exposed (nearest to the railway). Technically, setting internal sound and vibration criteria and requiring a site-by-site assessment should be the most efficient and effective approach.

9.7. In the Christchurch District Plan, multiple compliance options were included for mitigating road and rail noise in buildings for new sensitive activities. On review of the controls the Council found that in most cases site-specific assessment was selected by developers rather than fixed mitigation (i.e. following a standard building design schedule or fixed sound reduction performance).[9] This was presumably as despite any specialist assessment costs the site-specific assessment provided a more efficient solution.

9.8. It is recommended that any land use controls should be based on achieving internal sound and vibration criteria and allowing for requirements for each site to be determined through individual assessment.

Sound and vibration criteria

9.9. For the reasons discussed previously, the following criteria are recommended to manage potential health effects. A range of sensitive activities have been included in this table, extending from the primary issue of residential units.

9.10. For all these building types the vibration criterion relating to health effects is more stringent than any separate control that might relate to building damage. For other building types a

[9] Christchurch District Plan, Plan Change 5E

separate vibration criterion is included in the table, which could be used to avoid potential building damage.

Building type	Occupancy/activity	Sound criterion $L_{Aeq(1h)}$	Vibration criterion
Residential	sleeping spaces	35 dB	0.3 mm/s $v_{w,95}$
	all other habitable rooms	40 dB	
Visitor accommodation	sleeping spaces	35 dB	
	all other habitable rooms	40 dB	
Education	lecture rooms/theatres, music studios, assembly halls	35 dB	
	teaching areas, conference rooms, drama studios, sleeping areas	40 dB	
	libraries	45 dB	
Health	overnight medical care, wards	40 dB	
	clinics, consulting rooms, theatres, nurses' stations	45 dB	
Cultural	places of worship, marae	35 dB	
All	All occupancies/activities not specified above	-	5 mm/s ppv

9.11. As discussed in section 2, reasonable conditions should be achieved in outdoor living spaces if they are subject to a sound criterion of 55 dB $L_{Aeq(1h)}$.

9.12. The sound level criteria are based on intermittent rail activity. For the assumed rail activity discussed in sections 4 and 5, controls should specify that criteria are to be achieved for external railway sound of 70 $L_{Aeq(1h)}$ at a distance of 12 metres from the track, reducing at a rate of 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres.

Extent of controls

9.13. Setting a distance for application of controls that includes most land affected by railway sound and vibration would extend for say 200 metres from railways, and would include a substantial area towards the periphery where on closer examination of specific developments no building treatments would be required. Previously, a distance of 100 metres has been used for the application of controls for railway sound. Technically this represents a reasonable compromise if the aim is to capture the most affected sites without requiring assessment where building treatment is less likely to be required. This aligns with the assumed sound levels applied for the rail volumes and one-hour average discussed at section 5 above.

9.14. For vibration, a distance of 60 metres has been used for controls previously. On the basis of the measurement data presented above, I have recommended this be increased to 100 metres consistent with the distance used for sound.

Ventilation

9.15. Where windows are required to be closed it is recommended that a mechanical system be required to provide thermal comfort so there is a genuine choice to leave windows closed. Ventilation is outside the expertise of Chiles Ltd, but on the basis of work published by Waka Kotahi[10,11] the following system specification for residential and visitor accommodation habitable rooms may be appropriate:

i. provides mechanical ventilation to satisfy clause G4 of the New Zealand Building Code; and

ii. is adjustable by the occupant to control the ventilation rate in increments up to a high air flow setting that provides at least 6 air changes per hour; and

iii. provides relief for equivalent volumes of spill air;

iv. provides cooling and heating that is controllable by the occupant and can maintain the inside temperature between 18°C and 25°C; and

v. does not generate more than 35 dB $L_{Aeq(30s)}$ when measured 1 metre away from any grille or diffuser.

Alternative compliance pathways

9.16. Existing controls in district plans based on internal sound and vibration criteria, often include alternative compliance pathways that can be used in some cases to demonstrate that appropriate sound and vibration conditions will be achieved, without requiring specialist assessment or only requiring a reduced assessment. Essentially, these pathways allow for sites and buildings that are likely to have lower sound exposure, or that adopt conservative building designs, to face reduced assessment requirements. Alternative pathways have included:

a) Compliance with internal sound criteria demonstrated by external levels not exceeding the internal criteria by more than 15 dB (reduced assessment needed for external levels).

b) Compliance with internal sound criteria demonstrated by the building being at least 50 m from the railway and screened by a solid barrier, from all points up to 3.8 m above the tracks.

c) Compliance with internal sound criteria demonstrated by using prescribed building constructions.

d) Compliance with internal vibration criterion demonstrated by use of prescribed building base isolation system.

9.17. Technically, the alternative pathways are valid as they result in compliance with the sound and vibration criteria, albeit generally not in the most efficient manner. As discussed above, in the case of the Christchurch District Plan alternative pathways provided were generally not used and were found to make the plan more confusing for users and harder to administer for the Council.

[10] Acoustic Engineering Services, NZTA Ventilation specification review, 30 June 2020
[11] Beca, Ventilation systems installed for road-traffic noise mitigation, 26 June 2014

Appendix 3: Economic Assessment

INSIGHT | ECONOMICS

Final Report: 16 August 2023

Economic Assessment of Options to Manage Adverse Rail Noise Effects

Prepared for: **KiwiRail Holdings Limited**

Authorship

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Contents

1. Executive Summary

Introduction

The rail network is an integral part of New Zealand's transport infrastructure and is estimated to generate nearly $2 billion of value annually (via reduced traffic). To ensure that it is free to grow and operate as needed, and to protect the health and amenity of people, KiwiRail promotes the inclusion of District Plan provisions that require new buildings and/or alterations to existing ones, for noise sensitive activities to mitigate the effects of rail noise. To assist decision-makers, this report assesses the likely high level economic costs and benefits of three options for managing such effects.

Options Analysed

The three options analysed are:

1. Do nothing – where the adverse effects of rail noise are not managed (Option A in the s32 report);

2. KiwiRail's proposed provisions – which apply within 100 metres of the rail network (Option G in the s32 report); and

3. No noise sensitive development within 100 metres of the rail network (Option E in the s32 report).

Option Costs and Benefits

The main costs and benefits of the options relate to:

1. Adverse health and amenity effects from prolonged exposure to rail noise.

2. Costs of changing building designs and/or locations to mitigate effects.

3. Policy implementation, administration, and compliance costs.

4. The opportunity cost of potentially foregoing noise sensitive development near the network.

5. Compromised rail operation and efficiency due to potential reverse sensitivity issues (complaints, changes in operating regime).

Worked Example

The likely costs and benefits of each option are area- and context-specific because they depend on a range of factors that are fluid through both time and space. To demonstrate how the approach can be applied in each territorial authority where Kiwirail's preferred provisions are sought, we derived a model that can be applied on a case-by-case-basis. It contains nearly 20 inputs and assumptions that can be populated with figures that match the circumstances of each district at that time to provide timely and reliable insights to the likely costs and benefits of the three options evaluated herein.

Table 1 below shows the various inputs and parameters in the model, which are populated here with a set of hypothetical values purely for illustration.

Table 1: Model Parameters for Assessing Option Costs and Benefits (Hypothetical Example)

Area of Land Affected & Likely Dwelling Yield	**Values**
Control Area (Buffer) start distance in metres from edge of rail network	10
Control Area (Buffer) end distance in metres from edge of rail network	100
Share of land within proposed buffer otherwise available for development	80%
Residential development density - dwellings/ha (gross)	10
Metres per kilometre	1,000
Square metres per hectare	10,000
Land Values for Noise Sensitive and Non-Sensitive Activities	**Values**
Value of land zoned for residential & other noise sensitive activities ($/m2)	$400
Value of land zoned for non-noise sensitive activities ($/m2)	$200
Health & Amenity Benefits	**Values**
Average dwelling price	$540,000
Mitigation Impact (dB of noise reduction)	5
Mitigation benefits (as a % of property value) per 1 dB improvement	1.20%
Policy Compliance Cost Parameters	**Values**
Average dwelling build cost	$300,000
Mitigation fixed costs per dwelling	$3,000
Mitigation variable cost (as a % of construction cost)	3%
Impacts on Rail Operation	**Values**
Annual value of rail to New Zealand (from Deloitte Study)	$1,900,000,000
Impact of new noise sensitive activities on value of rail (as a %)	2%
Total length of NZ railway track (km)	3,700
Financial Parameters	**Values**
Time Period of Analysis (years)	30
Discount Rate	10%

Finally, Table 2 shows the corresponding option costs and benefits for this specific example, where KiwiRail's proposed provisions generate the lowest net cost and hence are the preferred option.

Table 2: Estimated Net Costs/Benefits per Kilometre of Track (Hypothetical Example)

Costs/Benefits per km of Track	**Option 1**	**Option 2**	**Option 3**
Amenity & health benefits	-$4,665,600	$0	$0
Impacts on rail operation	-$97,000	$0	$0
Policy compliance costs	$0	-$1,728,000	$0
Housing market impacts	$0	$0	-$28,800,000
Option Net Benefits/Costs	**-$4,762,600**	**-$1,728,000**	**-$28,800,000**

2. Introduction

2.1 Context & Purpose of Report

KiwiRail is responsible for the development and operation of New Zealand's rail network. To ensure that the rail network is free to grow and operate as needed to meet ever-evolving needs, KiwiRail promotes the inclusion of District Plan provisions that require new buildings, and/or alterations to existing ones, for noise sensitive activities to mitigate the effects of rail noise. To assist, this high-level report assesses the likely key economic costs and benefits of three options for managing such effects, including KiwiRail's proposed provisions.

2.2 Steps in Assessment & Report Structure

Below are the key steps in our assessment and the sections of this report where each is addressed.

1. Understand the strategic context (section **3**)
2. Identify options to manage rail noise effects (section **4**)
3. Identify option effects and key stakeholders (section **5**)
4. Assess the impacts of each option on stakeholders (sections **6 to 9**)
5. Identify the best/preferred option (section **10**)

The rest of this report works through each step.

3. Strategic Context

3.1 About the New Zealand Freight Task

New Zealand, like all developed nations, is highly dependent on domestic and international trade. This trade creates a massive freight task, with approximately 280 million tonnes moved around NZ annually.[1] While rail plays a key role in the freight sector, particularly for certain goods like timber, dairy, and meat[2], most of the national freight task is performed by diesel trucks. These generate harmful emissions, including CO_2, and are therefore the target of a concerted effort to decarbonise the transport fleet. For example, the New Zealand freight and supply chain strategy seeks to move 20% more freight by 2035 while generating 25% lower emissions, including via modal shifts to rail.

3.2 Rail for Passengers

Rail is not just a freight mode, either, and also plays an increasingly important role in keeping people moving in and around our largest metropolitan areas, particularly Auckland and Wellington. As those cities continue to intensify with more people living in and around centres serviced by the rail network, the share of passenger journeys taken by rail will also naturally increase too. The potential for to reconnect large metropolitan centres through inter-regional passenger rail is also an increasing focus, building on pilot programmes like the Te Huia connection between Auckland and Hamilton.

3.3 The Future Role of Rail

In parallel, the New Zealand Government has recognised the need to maximise the value of its existing investments in the rail network, including making rail a more attractive mode for freight and expanding the passenger rail network. Previously, investment in the rail network lacked a long-term view about its role in the transport system. This caused short-term thinking and investment decision-making, so a new approach was needed.[3]

The New Zealand Rail Plan[4] was developed in 2021 to articulate the Government's vision and priorities for rail to 2030, and to identify the investment needed to achieve it. In June 2021, the Rail Network Investment Programme (RNIP) was created to fund various planks of the Rail Plan that will help renew the network, restore it to a resilient and reliable state, and support freight and passenger rail growth and productivity.[5]

3.4 The Value of Rail to New Zealand

The New Zealand rail network delivers significant value to its freight and passenger customers, and also generates significant benefits for all New Zealanders. These wider benefits are far-reaching, but the most significant are lower road congestion, fewer road accidents, and lower carbon emissions that result from less road traffic.

[1] https://www.transport.govt.nz/assets/Uploads/Freight-and-supply-chain-issues-paper-full-version.pdf

[2] https://www.kiwirail.co.nz/our-business/freight/

[3] https://www.transport.govt.nz/area-of-interest/infrastructure-and-investment/the-new-zealand-rail-plan/

[4] ibid

[5] ibid

In 2021, Ernst & Young were commissioned by the Ministry of Transport to evaluate the value of rail to New Zealand.[6] Their study built on an earlier analysis from 2016 and considered the benefits of (i) national freight rail, and (ii) passenger rail in Auckland and Wellington.[7] Two scenarios were modelled. The first assumed that all rail services were cancelled, with all rail freight and passengers shifted to the road network. The second scenario also assumed that all rail services were cancelled and shifted to the road network, but with 20% higher rail traffic to capture the impacts of projected future growth. For both scenarios, the value of rail equals the costs of road traffic avoided.

The table below summarises the study's estimates of rail's benefits for the first scenario, where rail volumes match today. In short, the value of rail is estimated to be $1.7 to $2.1 billion per annum.

Table 3: Estimated Annual Value of Rail to New Zealand

Benefit	**Low Estimate**	**High Estimate**
Time (congestion) savings	$939	$1,054
Reduced air pollution	$170	$474
- NOx emissions	$92	$394
- SOx emissions	**<$1**	<1
- Brake & tire (PM10)	$21	$22
- Exhaust (PM2.5)	$57	$58
Reduced fuel use	$211	$222
Reduced GHG emissions	$178	$182
Maintenance benefits	$104	$107
Safety	$94	$98
- Death	$63	$65
- Serious injuries	$25	$27
- Minor injuries	$5	$6
Totals	**$1,695**	**$2,137**

In the words of the Ernst & Young study, as demonstrated above, rail transportation provides the largest benefits to the road sector and society through:

- Time and congestion savings (49% - 55% of benefits)
- Reduced air pollution (10% - 22% of benefits)
- Reduced fuel use and maintenance costs (14% of benefits)
- Reduced greenhouse gas (GHG) emissions (9% to 10% of benefits).

The report also notes that the second scenario, where rail volumes are 20% higher, generates higher benefits than the scenario summarise above, but the difference is not linear with rail volumes. Specifically, the second scenario generates benefits that are about 10% higher than scenario one.

[6] Ernst & Young, the Value of Rail in New Zealand, 2021.

[7] i.e. it excluded inter-island ferries and long-distance passenger rail services, which are also operated by KiwiRail.

3.5 Need for Operational Freedom & Flexibility

To continue realising rail's substantial value to New Zealand, as per above, and to maximise its potential to limit growth in road traffic over time, the rail network must be available for operations 24/7 just like the road network. Reverse sensitivity from nearby sensitive receivers risks undermining that flexibility.

3.6 Summary and Conclusion

Rail is an important part of New Zealand's current transport mix. It provides significant value to New Zealand. It is necessary to protect that critical role to enable rail traffic to grow over time alongside population and economic growth. It is on this basis that KiwiRail seeks the inclusion of District Plan provisions which manage the risk to its operations and future growth that reverse sensitivity poses.

4. Policy Options

This section identifies three policy options to manage the adverse effects of rail noise. These were considered the most plausible/workable options from the long list shown in the appendix.

4.1 Option 1: Do Nothing (option A in the s32 report)

The first option is to "do nothing" with the adverse effects of rail noise not managed, either in the District Plan, or via other means. This forms the baseline (or counterfactual) against which the impacts of the other options are assessed.

4.2 Option 2: KiwiRail Proposed Provisions (option G in the s32 report)

The next option is KiwiRail's proposed provisions. These require new buildings for noise sensitive activities, or alterations to existing ones, within 100 metres of the railway network boundary to mitigate the effects of noise. Specifically, affected buildings must either:

(a) be designed, constructed and maintained to achieve indoor design noise levels resulting from the railway not exceeding the maximum values in the following table; or

Building Type	Occupancy or Activity	Max Railway Noise LAeq(1h)
Residential	Sleeping spaces	35 dB
	All other habitable rooms	40 dB
Visitor Accommodation	Sleeping spaces	35 dB
	All other habitable rooms	40 dB
Education Facility	Lecture rooms/theatres, music studios, assembly halls	35 dB
	Teaching & sleeping areas, conference rooms, drama studios	40 dB
	Libraries	45 dB
Health	Overnight medical care, wards	40 dB
	Clinics, consulting rooms, theatres, nurses' stations	45 dB
Cultural	Places of worship, marae	35 dB

(b) be located at least 50 metres from any railway network, and is designed so that a noise barrier completely blocks line-of-sight from all parts of doors and windows, to all points 3.8 metres above railway tracks, or

(c) it can be demonstrated by way of prediction or measurement that the noise at all exterior façades of the listed activity is no more than 15 dB above the relevant noise levels in Table 1 (above).

If windows must be closed to achieve the design noise levels in (a), mechanical ventilation must be designed, constructed, and maintained. Finally, a report must be submitted to the Council demonstrating compliance with the proposed provisions prior to the construction or alteration of any building containing a noise sensitive activity.

We note the assessment of the costs of Option 2 may also be helpful in assessing a scenario where KiwiRail adopts the funding of the various mitigation measures. This scenario is not assessed

separately below, but we note from an economics assessment, the feasibility of implementing these provisions drops rapidly should KiwiRail adopt both its internal (eg track maintenance and noise reduction costs) and the cost of implementing the provisions. Given the benefits of the provisions also attribute the benefits of the costs of implementation (via warmer, drier, and quieter homes that are also worth more) solely to the landowner, this further reduces the burden of the costs of those provisions sitting with the landowner, rather than KiwiRail.

4.3 Option 3: No Noise Sensitive Development within 100 Metres (option E in the s32 report)

The final option is to prevent new buildings for noise sensitive activities, or alterations to existing ones, occurring within 100 metres of the railway network to avoid adverse noise effects. For clarity, this option does not preclude activities that are not noise-sensitive (eg commercial, industrial or rural activities) from establishing there.

5. Option Impacts & Key Stakeholders

This section identifies likely option impacts and key stakeholders affected.

5.1 Option Costs

The main costs of the options are likely to be:

1. Adverse **health and amenity effects** from prolonged exposure to rail noise. These impacts will vary with several factors, including distance from the network, the design and orientation of buildings, the extent of outdoor activity, plus the health and resilience of affected people.

2. Costs of **changing building designs and/or locations** to mitigate effects. These costs result directly from the need to mitigate effects within the 100-metre buffer area (where deemed necessary by a suitably-qualified noise/acoustic expert).

3. Policy **implementation (ie construction), administration, and compliance** costs. While KiwiRail is seeking the inclusion of provisions only during District Plan review processes, rather than via its own plan change processes (which helps minimise implementation costs), the proposal will still have ongoing administration and compliance costs. These include costs borne by Councils as the administrators of District Plans, plus costs incurred by affected landowners, such as the engaging a noise/acoustic expert to assess the extent of mitigation required, if any.

4. Potential **impacts on housing supply**. If affected properties cannot mitigate the adverse effects of rail noise in a financially feasible manner, there may be a reduction in the quantity of new housing built. This, in turn, could affect the wider housing market and may affect the ability of some Councils to meet their obligations under the National Policy Statement on Urban Development 2020 (NPSUD).

5. **Compromised rail operation and efficiency** due to potential reverse sensitivity. Finally, for options that do not properly manage the adverse effects of rail noise on nearby noise sensitive activities, there may be potential risks to the ongoing operation and efficiency of the rail network.

5.2 Option Benefits

The main benefits of the options are likely to be:

- Improved **health and amenity effects** from properly managing exposure to rail noise. In many cases, these measures will also result in **warmer, drier, healthier homes** that are cheaper to run.

- For options that properly manage the adverse effects of noise, there will be **benefits from the ongoing, unconstrained operation of the rail network**. To the extent that rail can attract a larger share of the national freight task, as sought by several policy initiatives, all new Zealanders will benefit from **lower congestion, accidents, and harmful emissions**.

- Compared to options that effectively sterilise development (for noise sensitive activities) near the rail network, those that enable it will **allow affected land to be put to higher and better uses** than they likely would to otherwise.

- Finally, to the extent that options avoid investments that would otherwise be needed, there will be benefits in the form of **avoided costs saved**.

5.3 Key Stakeholder Groups

Our analysis considers the extent to which option costs and benefits affect the following key stakeholder groups:

- **Affected property owners** – this group will be directly affected in several ways. First, if they develop their land to accommodate noise sensitive activities near the railway line and no mitigation measures are adopted, future occupants may experience adverse effects from prolonged exposure to rail noise. Conversely, affected property owners may face provisions that either (i) limit their ability to develop their land for certain activities, and/or (ii) which impose additional costs to enable noise sensitive activities to establish there.

- **Rail network customers** – this group could be adversely affected if growth in noise sensitive activities near the rail network causes reverse sensitivity, which in turn reduces the frequency, reach, and/or availability of the rail services upon which they rely.

- **KiwiRail and the NZ Government** – As the rail network operator and funder, respectively, KiwiRail and the New Zealand Government will also be affected by the presence or absence of provisions to manage the adverse effects of rail noise. For example, if such effects are left unmanaged, these groups may be negatively impacted by potential constraints arising from reverse sensitivity, which would undermine the operation of – and investment in – the rail network.

- **Territorial authorities** – to the extent that provisions are included in District Plans, territorial authorities will bear the costs and responsibility of incorporating and administering them. While these costs are unlikely to be significant over and above those already associated with their day-to-day functions, they are still an important consideration.

- **NZ's people and its economy** – finally, we note that provisions to manage adverse rail noise, or the absence thereof, may have far reaching effects. For example, if such effects are not properly managed leading to reverse sensitivity that curtail rail operation or availability, any consequent increases in road freight traffic will have negative effects on all of New Zealand. In addition, New Zealanders will bear some of the costs of treating adverse health effects via the tax-funded public health system.

6. Health and Amenity Impacts

This section considers the health and amenity impacts of each option.

6.1 Option 1: Do Nothing[8]

Under this option, the District Plan does not contain provisions that manage the adverse health and amenity impacts of rail noise. Accordingly, it exposes proximate noise sensitive activities to potential adverse health and amenity effects from the rail network.

6.2 Option 2: KiwiRail Proposed Provisions[9]

By design, KiwiRail's proposed provisions directly manage the adverse effects of proximity to the rail network and therefore create ongoing benefits for affected landowners and their tenants (if any). In addition, this option will have wider benefits on the increased warmth, energy efficiency and dryness of homes due to the kinds of mitigation measures imposed (see further discussion re these benefits in the report of Dr Chiles).

However, the true impacts of this option on health and amenity depend fundamentally on the extent to which any proposed mitigation measures would be required anyway, for example to meet the New Zealand Building Code. As the code (likely) continues to strengthen over time, or as developers voluntarily include such measures anyway to keep pace with consumer preferences, the marginal benefits of complying with these provisions will decline. So too, however will the costs, which we return in section 8 below.

To the extent that KiwiRail's proposal does cause some buildings to install design features or elements that they would not have otherwise, there will be health and amenity benefits. First, and most foremost, the adverse effects of rail noise will be properly managed. While it is difficult to accurately quantify such benefits, a recent report for Christchurch City Council (CCC) estimated the health and amenity benefits of noise attenuation to be approximately 1.2% of property value per decibel of road noise reduction.[10]

We consider it unlikely that health and amenity effects accrue linearly with property value, as suggested by the CCC estimate. This would imply, for example, that a $1 million house receives double the benefits of a $500,000 one. Instead, there are likely to also be lump-sum (per-property) elements. That said, these estimates are the best currently available, so below we use them to show the potential benefits for different combinations of property values and noise level reductions.

Table 4: Health & Amenity Benefits by Property Value and Size of Noise Reduction in dB ($000s)

Property Value (000s)	Noise Reduction dB									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
$250	$3	$6	$9	$12	$15	$18	$21	$24	$27	$30
$500	$6	$12	$18	$24	$30	$36	$42	$48	$54	$60
$750	$9	$18	$27	$36	$45	$54	$63	$72	$81	$90

[8] Option A in the s32 report

[9] Option G in the s32 report

[10] Formative, Christchurch Plan Change 5E Noise Sensitive Activities Near Road and Rail Corridors, 30 September 2022.

$1,000	$12	$24	$36	$48	$60	$72	$84	$96	$108	$120
$1,250	$15	$30	$45	$60	$75	$90	$105	$120	$135	$150
$1,500	$18	$36	$54	$72	$90	$108	$126	$144	$162	$180
$1,750	$21	$42	$63	$84	$105	$126	$147	$168	$189	$210
$2,000	$24	$48	$72	$96	$120	$144	$168	$192	$216	$240

Table 4 shows that heath and amenity benefits could be substantial, especially if they accrue linearly with property value as assumed/modelled. For example, a 5dB reduction could translate to a $30,000 benefit for a $500,000 home, or $60,000 for a $1 million home.

In addition, measures adopted to comply with KiwiRail's proposed provisions, such as double glazing and/or mechanical ventilation, are likely to make homes warmer, healthier, and drier. For example, a 2022 interim report by EECA[11] found that 62% of families who were provided heat pumps reported being in very good or excellent health, compared to only 46% before installation. Further, EECA's final report from December 2022[12] noted that electricity use (through winter) falls in a house fitted with a heat pump by an estimated 16% relative to a house without a heat pump installed.

Thus, not only do heat pumps make homes warmer, drier, and healthier, but they also save on energy costs. Over time, these savings will add up and help offset the initial costs of purchase and installation.

6.3 Option 3: No Noise Sensitive Development within 100 Metres[13]

This option also (largely) avoids the adverse effects of rail noise but does not deliver the additional benefits resulting from building improvements associated with the KiwiRail proposal.

[11] Motu report for EECA, Warmer Kiwis Study: Interim Report: An impact evaluation of the Warmer Kiwi Homes programme

[12] Motu report for EECA, Warmer Kiwis Study: Final Report: An impact evaluation of the Warmer Kiwi Homes programme

[13] Option E in the s32 report

7. Impacts on Rail Uptake & Operation

This section considers impacts of each option on rail network uptake and operation.

7.1 Option 1: Do Nothing[14]

Because this option does not manage adverse rail noise effects, it can cause reverse sensitivity that gradually undermines the future uptake and operation of the rail network. This, in turn, would erode the value created by rail (as summarised above) and limit rail's ability to attract market share from the road freight sector. In addition, it can affect the ability of passenger rail services to shift people out of single occupancy vehicles during rush hour, which are a major contributor to congestion and delay on the road network as well as emissions.

Unfortunately, it is impossible to accurately assess the extent to which reverse sensitivity resulting from this option would disrupt the rail network and the consequential impacts on the economy. However, for the sake of illustration, we note that every 1% reduction in rail traffic caused by reverse sensitivity from new noise sensitive activities establishing nearby would cost the broader economy approximately $17 to $21 million per annum (based on the annual values shown in section 3.3 above).

7.2 Option 2: KiwiRail Proposed Provisions[15]

By design, KiwiRail's proposed provisions would directly manage the adverse effects of new noise sensitive activities establishing in proximity to the rail network which would help it become an increasingly credible alternative to road transport for freight and passenger movements. However, that said, we acknowledge that reverse sensitivity may still arise from existing proximate activities.

7.3 Option 3: No Noise Sensitive Development within 100 Metres[16]

This option also (largely) avoids the adverse effects of rail noise and therefore should result in the same outcomes for the rail network as KiwiRail's proposed provisions.

[14] Option A in the s32 report

[15] Option G in the s32 report

[16] Option E in the s32 report

8. Policy Administration/Compliance Costs

8.1 Option 1: Status Quo[17]

The status quo does not incur any administrative or compliance costs because it is (assumed to be) devoid of such provisions.

8.2 Option 2: KiwiRail Proposed Provisions[18]

KiwiRail's proposed provisions will have one-off costs to the Council of including them in the District Plan. However, because KiwiRail is proposing their introduction only during District Plan review or Plan Change processes, where changes to plans are occurring anyway, the marginal costs to Councils of including the proposed provisions is likely to be negligible. Further, while there will be ongoing costs from administering the provisions once operative, these are not expected to be material in the context of functions ordinarily carried out by Councils.

The greatest administrative and compliance costs associated with this option are those that fall on affected landowners. First, affected properties must commission a noise/acoustic expert to identify the need for, and optimal types of, mitigation to manage rail noise. We understand that these are likely to cost about a few thousand dollars.

Where buildings cannot be situated on a site or designed to locate sensitive activities away from the rail corridor, installing insulation, double glazing, mechanical ventilation, and other mitigation features will be the major cost felt by affected landowners. Again, unfortunately, it is difficult to provide reliable generalised estimates of these features because they are context-specific, and depend on the particular design choices of each landowner and their preferred use of their site. In addition, as noted earlier, the true cost of complying with these provisions will depend on the extent to which such measures would have been included in the building design anyway (either due to Building Code requirements and/or because the developer chose to adopt them).

Another complication is that the nature and cost of mitigation works will differ with several variables, including building height and distance from the rail network. For example, the following table from a recent report by Chiles Limited indicates the general relationship between distance from the rail network and the level of noise experienced.[19]

[17] Option A in the s32 report

[18] Option G in the s32 report

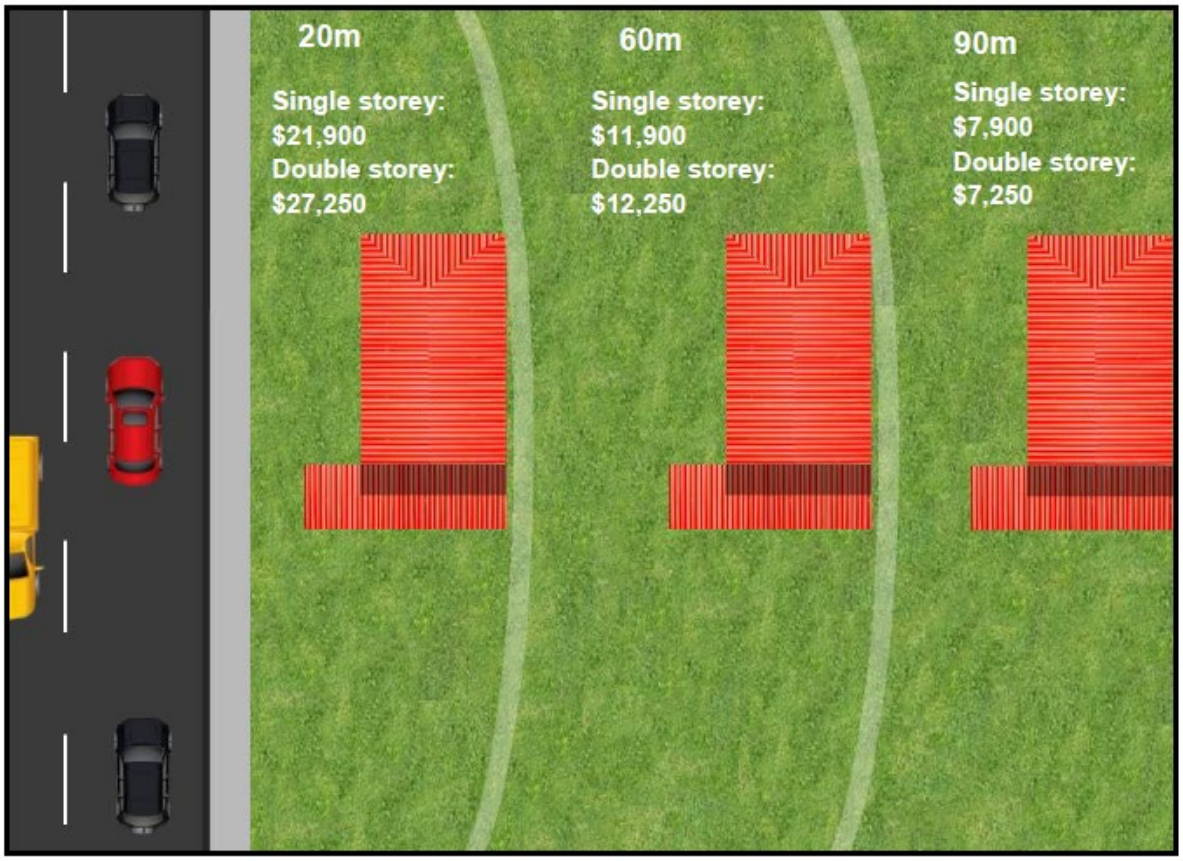
[19] Chiles Limited, Land use controls for railway sound and vibration, March 2023.

Table 5: Relationship Between Distance and Sound Levels

Distance from Track	Sound Level $L_{Aeq(1h)}$
10 metres	71 dB
20 metres	68 dB
30 metres	66 dB
40 metres	64 dB
50 metres	62 dB
60 metres	60 dB
70 metres	59 dB
80 metres	58 dB
90 metres	56 dB
100 metres	56 dB

To advance the analysis, and for the sake of illustration, we draw on work completed by Beca for Waka Kotahi in 2013[20], which estimated the cost of mitigating road noise for dwellings located at different distances from the state highway network. The excerpt below summarises their key findings.

Figure 1: Beca Estimate of Mitigation Costs by Distance from Road Network (2013 $)



A more recent estimate of likely costs was provided by AES for Christchurch City Council, which suggested that they may be about 1 to 2% of construction costs. Thus, the expense for a dwelling that costs $300,000 to build may be $3,000 to $4,000, while the cost for a $500,000 dwelling would be around $5,000 to $10,000. Again, however, we emphasise that the true cost of complying with the

[20] New Zealand Transport Agency Building Acoustic Mitigation Case Study, prepared for NZTA, 2013

provisions depends fundamentally on the extent to which any of the design features or building elements required would have been provided anyway.

It is also important to acknowledge that these costs will be offset by potential energy savings over time, as noted in the previous section. Plus, as set out in the table at 6.2 above, more importantly, they will likely be capitalised in the value of the property. Even setting aside that direct research, houses with double glazing and/or heat pumps are generally worth more than those without. Thus, while this option imposes upfront costs on homeowners, these will not be lost and instead could be better described as investments in the quality and future marketability of properties.

8.3 Option 3: No Noise Sensitive Development within 100 Metres[21]

This option is unlikely to impose any notable administrative or compliance costs.

[21] Option E in the s32 report

9. Housing Market Impacts

9.1 Option 1: Status Quo[22]

The status quo will not affect the quantity of housing supplied in each district.

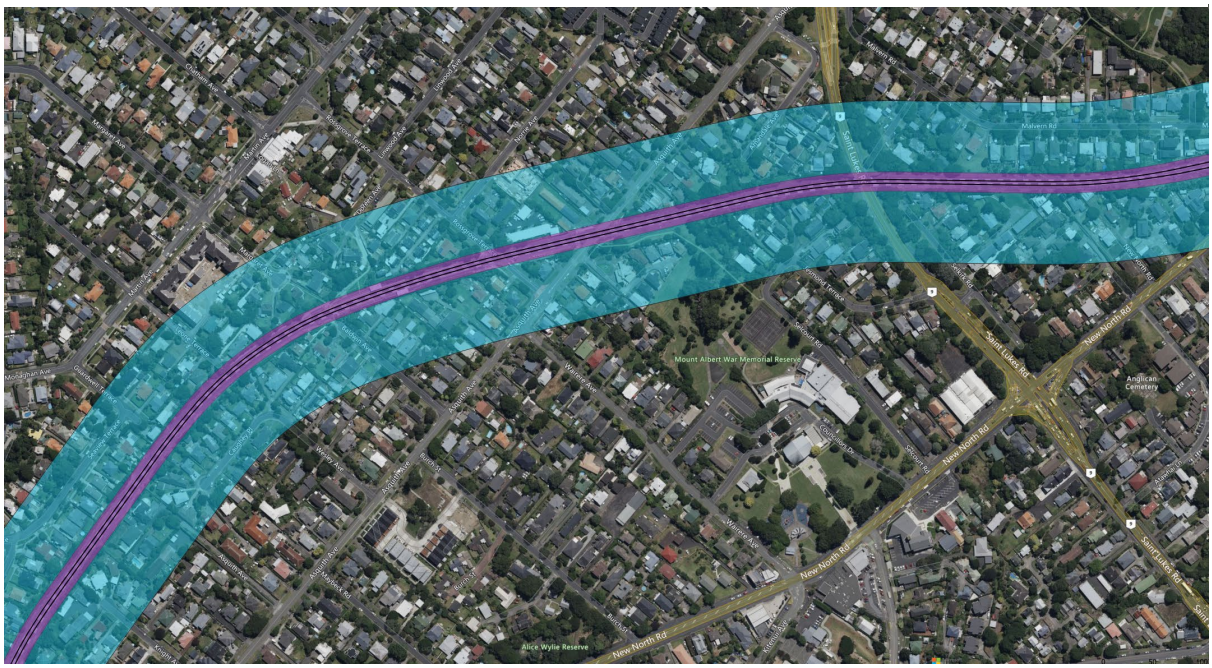
9.2 Option 2: KiwiRail Proposed Provisions[23]

KiwiRail's proposed provisions may have small impacts on housing supply at the margin if the costs of mitigation are considered prohibitively expensive. However, this seems unlikely given the quantum of costs estimated by AES for Christchurch City Council, as per the previous section.

9.3 Option 3: No Noise Sensitive Development within 100 Metres[24]

This option will have the greatest impacts on housing supply because it sterilises the use of land for noise sensitive activities within 100 metres of the rail network. To broadly quantify this impact, we used GIS to inspect the proximity of existing noise sensitive activities to the rail network in built-up areas, particularly Auckland. To that end, the figure below draws 10 and 100 metre buffers around the rail network in pink, and blue, respectively, to investigate how close existing homes are to the tracks.

Figure 2: Proximity of Noise Sensitive Activities to the Rail Network in Mt Albert, Auckland



This map shows there is very little development within 10 metres of the network, although the edges of some buildings are close. Conversely, there are large swathes of development within the 100-metre

[22] Option A in the s32 report

[23] Option G in the s32 report

[24] Option E in the s32 report

buffer. Accordingly, per kilometre of track, this option may prohibit noise sensitive development that would have otherwise likely occurred on approximately 180,000m^2 (or 18 hectares) of land.[25]

The cost of this prohibition will depend on several factors, including the zoning of affected land, the extent to which it is already developed or not, the presence or absence of other binding constraints on development, the underlying value of land, and the scope for accommodating non-noise sensitive activities instead.

Below, we estimate the value of land foregone for noise sensitive development per kilometre of track based on (i) the proportion of land that is developable for any purpose, and (ii) the incremental value of developing land for noise sensitive activities vs other activities. Table 5 presents the results.

Table 6: Value of Land Foregone for Noise Sensitive Activities by 100-Metre Setback per Kilometre of Track ($ millions)

Developable Land %	Incremental Value of Using Land for Noise Sensitive Activities per m^2							
	$50	**$100**	**$150**	**$200**	**$250**	**$300**	**$350**	**$400**
0%	$0	$0	$0	$0	$0	$0	$0	$0
10%	$1	$2	$3	$4	$5	$5	$6	$7
20%	$2	$4	$5	$7	$9	$11	$13	$14
30%	$3	$5	$8	$11	$14	$16	$19	$22
40%	$4	$7	$11	$14	$18	$22	$25	$29
50%	$5	$9	$14	$18	$23	$27	$32	$36
60%	$5	$11	$16	$22	$27	$32	$38	$43
70%	$6	$13	$19	$25	$32	$38	$44	$50
80%	$7	$14	$22	$29	$36	$43	$50	$58
90%	$8	$16	$24	$32	$41	$49	$57	$65
100%	$9	$18	$27	$36	$45	$54	$63	$72

To summarise: the opportunity cost of precluding noise sensitive development within the 100-metre buffer depends critically on the proportion of such land that is developable in the first place, and the difference in land value between noise sensitive activities and all others.

For example, suppose that the current value of residential land is $200 per square metre but (say) $100 for industrial, and that 50% of land within the buffer is available for some form of development. According to the table above, the cost per kilometre of track is $9 million.[26]

In more extreme cases, say where residential land values are $300 higher than industrial and the full buffer area is available for development, the opportunity cost per kilometre is $54 million.

[25] This equals one kilometre of track (1,000 metres) multiplied by 90 metres of developable land between the 10- and 100-meter buffers, which is then multiplied by two because the buffer extends in both directions on both sides of the tracks.

[26] This can be found by subtracting the value of land for industrial from the value for residential (which is $100 per m^2) and scanning down that column to the row labelled as 50% developable.

10. Calculating Option Net Benefits

10.1 Introduction

The likely costs and benefits of each option are area- and context-specific because they depend on a range of factors that are fluid through both time and space. To demonstrate how the approach can be applied in each territorial authority where Kiwirail's preferred provisions are sought, we derived a model that can be applied on a case-by-case-basis. It contains nearly 20 inputs and assumptions that can be populated with figures that match the circumstances of each district at that time to provide timely and reliable insights to the likely costs and benefits of the three options evaluated herein.

10.2 Worked (Hypothetical) Example

Table 7below shows the various inputs and parameters in the model, which are populated here with a set of hypothetical values purely for illustration.

Table 7: Model Parameters for Assessing Option Costs and Benefits (Hypothetical Example)

Area of Land Affected & Likely Dwelling Yield	**Values**
Control Area (Buffer) start distance in metres from edge of rail network	10
Control Area (Buffer) end distance in metres from edge of rail network	100
Share of land within proposed buffer otherwise available for development	80%
Residential development density - dwellings/ha (gross)	10
Metres per kilometre	1,000
Square metres per hectare	10,000
Land Values for Noise Sensitive and Non-Sensitive Activities	**Values**
Value of land zoned for residential & other noise sensitive activities ($/m2)	$400
Value of land zoned for non-noise sensitive activities ($/m2)	$200
Health & Amenity Benefits	**Values**
Average dwelling price	$540,000
Mitigation Impact (dB of noise reduction)	5
Mitigation benefits (as a % of property value) per 1 dB improvement	1.20%
Policy Compliance Cost Parameters	**Values**
Average dwelling build cost	$300,000
Mitigation fixed costs per dwelling	$3,000
Mitigation variable cost (as a % of construction cost)	3%
Impacts on Rail Operation	**Values**
Annual value of rail to New Zealand (from Deloitte Study)	$1,900,000,000
Impact of new noise sensitive activities on value of rail (as a %)	2%
Total length of NZ railway track (km)	3,700
Financial Parameters	**Values**
Time Period of Analysis (years)	30
Discount Rate	10%

Finally, Table 2 Table 8shows the corresponding option costs and benefits for this specific example, where KiwiRail's proposed provisions generate the lowest net cost and hence are the preferred option.

Table 8: Estimated Net Costs/Benefits per Kilometre of Track (Hypothetical Example)

Costs/Benefits per km of Track	**Option 1**	**Option 2**	**Option 3**
Amenity & health benefits	-$4,665,600	$0	$0
Impacts on rail operation	-$97,000	$0	$0
Policy compliance costs	$0	-$1,728,000	$0
Housing market impacts	$0	$0	-$28,800,000
Option Net Benefits/Costs	**-$4,762,600**	**-$1,728,000**	**-$28,800,000**

11. Appendix: Long List of Options

Below is the long list of options from which the three analysed in this report were drawn.

Option A - Do nothing:
No or limited railway noise and vibration provisions in the District Plan. This may include no specific noise and vibration rules, standards or mapping overlays, but may include consideration of reverse sensitivity effects when assessing the adverse effects of any resource consent application, depending on the existing objectives, policies and rules in the District Plan. This includes subdivision, use or development within the vicinity of the railway corridor if the District Plan provides sufficient direction to do so.

Option B – Rail operator reduces noise and vibration emissions:
The rail operator ensure that noise and vibration emissions are reduced to the extent that Activities Sensitive to Noise within 100m of the rail corridor achieve the recommended noise and vibration levels without needing to undertake any specific insulation, ventilation or construction design standards.

Option C - Noise barriers:
Acoustic walls or bunds installed by the applicant or the rail operator with no other noise or vibration management methods.

Option D - Construction design standards:
A table which specifies minimum construction materials and standards necessary to achieve internal acoustic levels within buildings, with no other noise or vibration management methods.

Option E - Setbacks:
Requiring Activities Sensitive to Noise to be set back 100m from the railway corridor with no other noise or vibration management methods.

Option F - Internal acoustic standards:
Require internal acoustic and ventilation rules and standards for noise-sensitive activities, but provide no other options to achieve compliance.

Option G – Combination of rules and standards (Proposed provisions):
Within 100m of the railway corridor, provide several options to achieve compliance with internal acoustic levels – within 50m of the rail corridor buildings are designed to meet specified Internal noise levels, or must meet a 50m setback, or where the noise at exterior façades is measured or predicted to be no more than 15 dB above the relevant noise level. Buildings must also meet mechanical ventilation standards and reporting standards. Includes an advice note to alert plan users that Activities Sensitive to Noise within the Rail Noise Control and Vibration Alert Area may be subject to vibration effects.

Option H – Proposed provisions funded by rail operator:
Within 100m of the railway corridor, via a mapped Rail Noise Control and Vibration Alert Area,

the same options to achieve compliance would be available - buildings are designed to meet specified Internal noise levels, or must meet a 50m setback, or noise at exterior façades is no more than 15 dB higher. Buildings must also meet mechanical ventilation standards and reporting standards, and there is an advice note regarding vibration effects. However, the difference is that KiwiRail would fund the achievement of these standards.

Option I - Landscaping:
Landscape planting to provide acoustic mitigation, with no other noise or vibration management methods.

Option J - National regulation:
This may include changes to the Building Act or Building Code or introduction of a National Planning Standard or National Environmental Standard. The Building Act and Code currently provides specifications to manage inter-tenancy noise (eg noise between residential apartments within the same building with shared tenancy walls). However, it does not require the management of internal noise where noise is generated from outside a building (e.g. rail noise from an adjacent rail corridor).

Option K Reverse sensitivity covenant:
A plan provision which requires a covenant whereby property owners agree not to complain about noise and vibration effects on sensitive land uses. This is often referred to as a 'no complaints' covenant.

From: PlanChanges
To: Unitary Plan
Subject: Watercare Private Plan Change 101 Submission
Date: Friday, 21 June 2024 12:06:01 pm
Attachments: Outlook-mlhqfisp.png
Outlook-dkubjtpe.png
Outlook-k10yw0w4.png
Outlook-ogv0plkh.png
Outlook-tnsienpc.png
Outlook-3lptv4bl.png
Outlook-xanbvp2z.png
Watercare Private Plan Change 101 Submission.pdf

Kia ora,

Please find attached Watercare Services Limited submission to Private Plan Change 101.

Ngā mihi,

Logan Fraser-List
Graduate Planner | Major Developments
Ika Tauhou Kaiwhakamahere | Nga Hanganga Matua

Watercare Services Limited
Mobile: 021 786 491
Mon Tue Wed Thu Fri
Office Home

Watercare

Watercare Services Limited
73 Remuera Road, Remuera,
Auckland 1050, New Zealand
Private Bag 92521, Victoria Street West,
Auckland 1142, New Zealand
Telephone +64 9 442 2222
www.watercare.co.nz

Auckland Council
Unitary Plan Private Bag 92300
Auckland 1142

Attn.: Planning Technician

unitaryplan@aucklandcouncil.govt.nz

TO:	**Auckland Council**
SUBMISSION ON:	**Plan Change 101 (Private): Pilkington Park, 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England**
FROM:	**Watercare Services Limited**
ADDRESS FOR SERVICE:	**planchanges@water.co.nz**
DATE:	**21st June 2024**

Watercare could not gain an advantage in trade competition through this submission.

1. WATERCARE'S PURPOSE AND MISSION

1.1. Watercare Services Limited ("Watercare") is New Zealand's largest provider of water and wastewater services. Watercare is a council-controlled organisation under the Local Government Act 2002 and is wholly owned by the Auckland Council ("Council").

1.2. As Auckland's water and wastewater services provider, Watercare has a significant role in helping Auckland Council achieve its vision for the Auckland region. Watercare's mission is to provide reliable, safe, and efficient water and wastewater services to Auckland's communities.

1.3. Watercare is required to manage its operations efficiently with a view to keeping overall costs of water supply and wastewater services to its customers (collectively) at minimum levels, consistent with the effective conduct of its undertakings and the maintenance of the long-term integrity of its assets. Watercare must also give effect to relevant aspects of the Council's Long Term Plan, and act consistently with other plans and strategies of the Council, including the Auckland Unitary Plan (Operative in Part) and the Auckland Future Development Strategy 2023-2053.[1]

[1] Local Government (Auckland Council) Act 2009, s58.

2. SUBMISSION

General

2.1. This is a submission on a private plan change requested by Wyborn Capital Investments Limited ("Applicant") to the Auckland Unitary Plan (Operative in Part) ("AUP-OP") that was publicly notified on 18 April 2024 ("Plan Change 101").

2.2. Plan Change 101 requests to rezone approximately 7.3 hectares of land at 167 – 173 Pilkington Road, Point England and approximately 600m^2 of land within RAILWAY LAND NIMT 671.04-672.38 KM, Point England from Business-Light Industry to Business–Mixed Use with associated precinct provisions. The purpose of Plan Change 101 is to enable mixed use development and greater building height to make efficient use of land that is highly accessible to the Glen Innes Town Centre and Train Station.

2.3. Watercare neither supports nor opposes the plan change. The purpose of this submission is to ensure that the effects on Watercare's existing and planned water and wastewater network are appropriately considered and managed in accordance with the Resource Management Act 1991 ("RMA"). 6.1

2.4. In making its submission, Watercare has considered the relevant provisions of the Auckland Plan 2050, Te Tahua Pūtea Tau 2021-2031 / The 10-year Budget 2021-2031, the Auckland Future Development Strategy 2023-2053 ("FDS"), the Water Supply and Wastewater Network Bylaw 2015 ("Bylaw"), the Water and Wastewater Code of Practice for Land Development and Subdivision and the Watercare Asset Management Plan 2021 – 2041. Watercare has also considered the relevant RMA documents including the AUP-OP and the National Policy Statement on Urban Development 2020 (updated in May 2022) which (among other matters) requires Auckland Council as a Tier 1 local authority to ensure that at any one time there is sufficient development capacity to meet expected demand for housing and business land over the short term, medium term, and long term[2].

Watercare's position and interest in the plan change

2.5. Watercare's submission relates to Plan Change 101 in its entirety.

2.6. Watercare is interested in the plan change insofar as it relates to Watercare's water and wastewater network infrastructure servicing the plan change area. This submission raises several matters which will be relevant to the ultimate development of the plan change area, and which will need to be addressed at the future resource consenting and development stages.

Yield

2.7. The Civil Engineering Report[3] supporting the plan change adopts a high density development scheme comprising 711 dwellings, one commercial development and one community hub. If the final development yield is greater than this assumption, then the effects on Watercare's existing and planned water supply and wastewater networks will need to be reassessed. 6.2

[2] National Policy Statement on Urban Development 202 (May 2022) Policy 2.
[3] 167-173 Pilkington Road, Proposed Plan Change – Civil Engineering Report prepared by Blue Barn Consulting Engineers, Date: 13/04/2023.

Wastewater servicing

2.8. Wastewater servicing for the plan change area is proposed to connect directly to the Eastern Interceptor which runs through the plan change area. Connection is proposed via an existing satellite manhole located within the plan change area close to the existing Apirana Ave entrance.

2.9. As at the date of this submission, Watercare confirms there is capacity in the bulk wastewater network to service the development anticipated in the plan change area.

2.10. Future development will need to carefully consider the location of the Eastern Interceptor. It is noted that works near Watercare assets and infrastructure may require approval from Watercare under the Bylaw. All works within 10m of the interceptor will require a 'critical assets works over' approval from Watercare under the Bylaw.

2.11. Feasibility of a direct connection to the Eastern Interceptor will need to be investigated by the applicant at the resource consent stage and confirmed by Watercare. Watercare advises that connections to interceptors of this size can be complex, even where there is an existing connection point. 6.3

2.12. Connections to Watercare's wastewater network are subject to Watercare's approval under the Bylaw. Watercare has the ability under the Bylaw to refuse an application for approval to connect to a network where, in Watercare's reasonable opinion, refusal is necessary to protect its networks, or the health and safety of any person, or the environment.

Water supply servicing

2.13. Plan Change 101 is located within a Kāinga Ora high growth area which is within the Glen Innes water supply zone supplied by the bulk St John's water reservoir. As at the date of this submission, Watercare confirms there is capacity in the bulk water supply network to service the development anticipated in the plan change area.

2.14. The development of the Kāinga Ora high growth area will increase the demand on the existing local water supply network, in addition to the development of the plan change area.

2.15. The local water network currently does not have the capacity or resilience to service the additional development from the plan change area without additional upgrades. These upgrades will need to be integrated with Watercare's proposed other short-term upgrades to the local network and will be at the cost of the developer. As per Watercare's Code of Practice for Land Development and Subdivision, the local networks must be sized to accommodate the future upstream and downstream development potential at the developers cost.

2.16. The Applicant will need to work with Watercare in advance of lodging resource consents to confirm the requirement for any local water supply infrastructure upgrades. 6.4

2.17. Connections to Watercare's water supply network are subject to approval by Watercare under the Bylaw. Watercare has the ability under the Bylaw to refuse an application for approval to connect to a network where, in Watercare's reasonable opinion, there is insufficient capacity in the network to accommodate the connection.

3. DECISION SOUGHT

3.1. Watercare neither supports nor opposes Plan Change 101.

3.2. Watercare's interests lie more with the water and wastewater aspects of the proposal which will be dealt with through subsequent processes and at the resourcing consenting stage.

4. HEARING

4.1. Watercare wishes to be heard in support of its submission.

21st June 2024

Mark Iszard

Mark Iszard
Head of Major Developments
Watercare Services Limited

Address for Service:
Amber Taylor
Development Planning Lead
Watercare Services Limited
Private Bag 92521
Victoria Street West
Auckland 1142
Phone: 022 158 4426
Email: Planchanges@water.co.nz

From: Emma Bayly
To: Unitary Plan
Cc: Michael Sheridan - Van den Brink Group (Michael@vandenbrinkgroup.co.nz); Andrew Cocks; Belinda Sutton
Subject: Submission on Plan Change 101
Date: Friday, 21 June 2024 3:48:32 pm
Attachments: 2595-SUB01v1-elb-20240621.pdf

Please find attached a submission on proposed Plan Change 101 on behalf of Van Den Brink Poultry Ltd, Van Den Brink 15 Limited and Van Den Brink 12 Limited.

Let me know if you have any queries.

Kind Regards

Emma Bayly

Emma Bayly
Associate
BPlan(Hons), MNZPI
027 461 2313
09 222 2445

CivilPlan Consultants Limited
Level 9, 20 Amersham Way, Manukau, 2104
www.civilplan.co.nz

CIVILPLAN CONSULTANTS

Form 5

Submission on the Proposed Plan Change 101

To:	Auckland Council
Name of Submitter:	Van Den Brink Poultry Ltd, Van Den Brink 15 Limited, Van Den Brink 12 Limited
Address for Service:	C/- CivilPlan Consultants Limited PO Box 97796 Manukau City **Auckland 2241** Attn: Emma Bayly
Telephone:	(09) 222 2445
Email:	emma@civilplan.co.nz

This is a submission on Plan Change 101 (Private) ("the proposal").

The submitter is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991 ('RMA').

1. Specific provisions of the proposal that this submission relates to

This submission relates to the change of zoning from Business – Light Industry to Business – Mixed Use, which results in residential dwellings being a permitted activity.

2. Submission

2.1 The Submitter

The submitters own/occupy land at 9-15 Hannigan Drive and 8-12 Hannigan Drive, St Johns, as shown in Figure 1 below. The submitters' land is zoned Business - Light Industry Zone.

The submitters lease land for/operate a Broiler Poultry Processing plant on the land at 9-15 Hannigan Drive, which has been in operation for 10 years. The activities include processing of dressed whole chickens (including chopping and deboning, marinating/crumbing, cooking and smoking) and packaging along with an administration and distribution centre.

The plant has high vehicle and truck movements and employs 300-350 people across multiple shifts, operating 7 days a week and on statutory holidays when required.

The submitter intends to continue these operations and likely expand their operations in this location in the near future. These activities are permitted in the Light Industry zone.

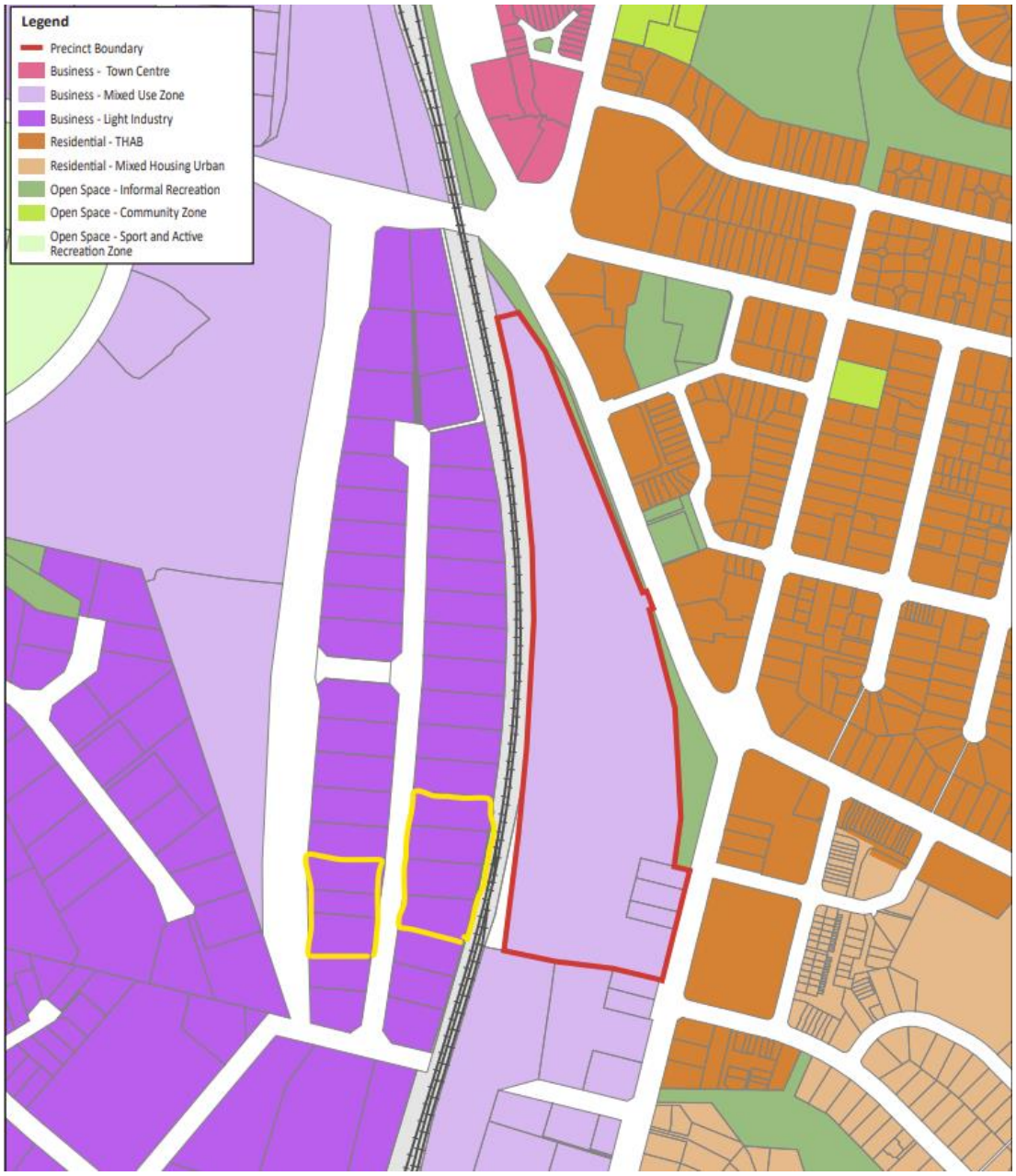


Figure 1: Submitter's landholdings identified in yellow.

2.2 The Submission

The submitter is neutral with respect to the proposed rezoning and new Precinct, provided that the plan change does not result in new reverse sensitivity effects on the operation of existing or new industrial activities located on the Light Industry zoned land along Hannigan Drive.

If the zoning is confirmed, the submitter supports the proposed precinct provisions include provisions that seek to ensure that reverse sensitivity effects of future land use activities within the precinct do not unduly inhibit the operation of the North Island Main Trunk Line. This includes Objective IX.2(4), Policy IX.3(4) and the standards in IX6.2 Standard for activities sensitive to noise and IX.6.3 Standards for outdoor play areas within 60m of the rail corridor. These provisions are supported as they will also have the effect of mitigating potential acoustic reverse sensitivity effects on activities operating in the adjacent Light Industry zone.

3. Relief Sought

The submitter requests the following relief:

a) That the plan change considers and addresses any potential reverse sensitivity effects associated with enabling residential development adjacent to Light Industry zoned land containing existing industrial activities, and in particular a large poultry processing plant. 7.1

b) That if the zoning is confirmed, the proposed precinct provisions that manage reverse sensitivity effects in relation to the Main Trunk Railway Line are retained, including:

   i) Objective IX.2(4); 7.2

   ii) Policy IX.3(4); and 7.3

   iii) Standards IX6.2 Standard for activities sensitive to noise and IX.6.3 Standards for outdoor play areas within 60m of the rail corridor 7.4 7.5

c) Any additional or consequential relief to address the concerns of the submitter

d) Any alternative relief to address the concerns of the submitter.

The submitter does not wish to be heard in support of it submission.

Signature: .....

Emma Bayly – Associate, CivilPlan Consultants Ltd
on behalf of Van Den Brink Poultry Ltd, Van Den Brink 15 Limited, Van Den Brink 12 Limited

Date: 21 June 2024

S:\Jobs\2595 - Hannigan Drive\submissions\2595-SUB01v1-elb-20240621.docx

From:	David Boersen
To:	Unitary Plan
Cc:	melissam@barker.co.nz; kaseyz@barker.co.nz
Subject:	Plan Change 101
Date:	Tuesday, 25 June 2024 6:26:31 pm
Attachments:	image001.png 991397 - Letter to Auckland Council seeking Waiver.docx 991290 - Foodstuffs Submission on PC101.docx

Please see attached

David Boersen
Senior Development Manager

foodstuffs NORTH ISLAND

M: 027 689 0586
P: 2365
35 Landing Drive, Mangere, Auckland 2022, DX Box CX 15021

SUBMISSION ON PRIVATE PLAN CHANGE 101 (PRIVATE): PILKINGTON PARK, 167-173 PILKINGTON ROAD AND RAILWAY LAND ON THE CORNER OF APIRANA AVENUE AND MERTON ROAD (NORTH ISLAND MAIN TRUNK 671.04-672.38 KM), POINT ENGLAND TO THE AUCKLAND UNITARY PLAN (OPERATIVE IN PART)

To: Auckland Council, Plans and Places
unitaryplan@aucklandcouncil.govt.nz

And: The Plan Change Applicant
C/- Barker & Associates Ltd
Attn: Melissa McGrath / Kasey Zhai
melissam@barker.co.nz; kaseyz@barker.co.nz

FOODSTUFFS (AUCKLAND) LIMITED at the address for service set out below ("**Foodstuffs**" or "**the Submitter**") makes the following submission in relation to Private Plan Change 101: PC 101 (Private): Pilkington Park, 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England ("**PC101**" or "**the Plan Change**") lodged by Wyborn Capital Investments Limited ("**the Applicant**") in respect of 9.7ha of land at 167-173 Pilkington Road, Point England ("**PC101 Land**").

1. PC101 seeks to rezone the PC101 Land from Business-Light Industry to Business- Mixed Use, amend the planning maps to enable greater building heights and introduce a new precinct - Pilkington Park.

2. The Submitter is directly affected by PC101 as it owns the property at 153 Pilkington Road, Glen Innes[1] ("**the Foodstuffs Site**"), which directly adjoins the PC101 Land.

3. The Submitter is not a trade competitor of the Applicant and could not gain any advantage in trade competition through this submission.

4. The submission relates to the parts of PC101 which have the potential to impact on the Foodstuffs Site. The Submitter is not opposed to PC101 provided that the proposal (and in particular the precinct provisions) does not create any interface issues for the Foodstuffs Site.

Reasons for submission

5. The reasons for the submission are as follows:

[1] Legally described as Lot 2 Deposited Plan 86427 comprised in Record of Title NA44A/841 (North Auckland Registry)

(a) Provided the relief sought below in this submission is granted, PC101 will:

(i) Promote the sustainable management of natural and physical resources;

(ii) Amount to and promote the efficient use and development of resources;

(iii) Otherwise be consistent with the purpose and principles in Part 2 of the Resource Management Act 1991 ("**RMA**");

(iv) Represent the most appropriate way to achieve the objectives of the Plan Change and the Auckland Unitary Plan in accordance with s 32 of the RMA; and

(v) Not generate significant adverse effects on the environment, or the potential for interface issues with the Foodstuffs Site; and

(vi) Represent best resource management practice.

6. In particular, but without derogating from the generality of the above:

(a) Foodstuffs (Auckland) Limited is a property holding company of Foodstuffs North Island Limited ("**FNIL**"). Foodstuffs is a cooperative owned by the operators of Gilmours, New World, Pak 'n' Save, Four Square, and Liquorland stores. The wider Foodstuffs group is New Zealand's largest grocery distributor.

(b) The Foodstuffs Site adjoins the Plan Change Land and is zoned Business – Mixed Use. It currently houses the Tamaki Zero Waste Hub, but it is likely to be redeveloped in the future to accommodate Foodstuffs activities. Foodstuffs' interest is therefore in ensuring that the provisions applied to the PC101 Land do not have the potential to adversely impact future activities on the Foodstuffs Site. Provided PC101 does not create any interface issues with its site, Foodstuffs is not opposed to the Plan Change in principle.

Relief sought:

7. The Submitter seeks the following relief with regard to PC101:

(a) That the Plan Change is retained in its current form, and/or with precinct provisions or other controls which remove the potential for interface issues to arise between the PC101 Land and the Foodstuffs Site. 8.1

(b) Such other conditions, relief or other consequential amendments as are considered appropriate or necessary to address the matters outlined in this submission.

8. The Submitter wishes to be heard in support of its submission.

9. If other parties make a similar submission, the Submitter would consider presenting a joint case with them at any hearing.

DATED this 24th day of June 2024

FOODSTUFFS (AUCKLAND) LIMITED

David Boersen – Senior Development Manager
Foodstuffs North Island

ADDRESS FOR SERVICE: Foodstuffs North Island Limited 35 Landing Drive, Mangere, Tāmaki Makaurau Auckland, 2022. Attention: David Boersen. david.boersen@foodstuffs.co.nz.

APPENDIX 4

MAUNGAKIEKIE TĀMAKI LOCAL BOARD VIEWS

Appendix 4 – Maungakiekie-Tāmaki Local Board views

16 Local board views on private plan change 101 for Pilkington Park Point England

Michele Perwick – Senior Policy Planner, and Hannah Milatovic – Policy Planner, were in attendance to speak to the report.

Resolution number MT/2024/145

MOVED by Member D Allan, seconded by Member N Henry:

That the Maungakiekie-Tāmaki Local Board:

a) whakarite / provide local the following board views on PC 101 by Wyborn Capital Investments Limited for 167-173 Pilkington Road, Point England and the railway land on the corner of Apirana Avenue and Merton Road (North Island Main Trunk 671.04-672.38 KM), Point England.

i) tautoko / support the proposed plan change 101 from Business – Light Industry Zone to Business – Mixed Use zone to introduce a new Pilkington Park precinct for mixed use development.

ii) tuhi ā-taipitopito / note the public submissions received and tono / request the concerns raised are given due consideration, in particular:

A) ensure traffic calming and safety measures prioritising pedestrians safety when crossing property access ways is considered and clear links to planned pedestrian crossings on Apirana Ave (included in AT's Links to Glen Innes project under construction) are provided for.

B) ensure that the effects on Watercare's existing and planned water and wastewater networks are appropriately considered and managed in accordance with the Resource Management Act 1991

C) that the applicant works with Watercare in advance of lodging resource consents to confirm the requirement for any local water supply infrastructure upgrades.

D) whether existing height controls should be maintained in keeping with surrounding developments and ensuring viewshafts to Maungarei are well maintained for the area.

CARRIED

APPENDIX 5

SPECIALIST REPORTS

Private Plan Change 101 – Pilkington Park (PPC101)

Specialist Review (Economics) on behalf of Auckland Council

(Susan Fairgray, Market Economics Ltd)

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1. Introduction

1.1. My name is Susan Michelle Fairgray. I hold the qualifications of Bachelor of Science and Master of Science (1st Class Honours) in geography, specialising in economic geography from the University of Auckland.

1.2. I have over 16 years of experience in urban economics developing and supporting central/local government and private-sector positions across a range of areas. Residential capacity, growth and demand assessments across a range of higher and medium growth urban economies, and business land use assessments have formed important areas of focus within the context of assessing and developing district plans (and plan changes and variations). My experience traverses a wide range and scope of urban economics including but not limited to:

a) Capacity and demand assessments: under the National Policy Statement for Urban Development 2020 (NPS-UD), Housing and Business Development Capacity Assessments (HBAs), intensification plan changes and Future Development Strategies;
b) assessing land use patterns and effects on urban form;
c) developing robust and detailed methodologies for aligning residential capacity with demand;
d) retail assessments, providing advice for commercial and public sector clients on the most appropriate scale and location of retail as well as the effects of retail location on the existing network and future urban form; and
e) preparing and presenting evidence and expert conferencing in relation to the above matters.

1.3. I was engaged by Auckland Council at the time the application for PPC101 was lodged. My role has been to:

a) Review the original plan change application documents[1];
b) Visit the site[2];

[1] These include: Property Economics Ltd, 2022. *167-173 Pilkington Road Pilkington Park PPC Economic Assessment,* prepared for Wyborn Capital Investments Ltd, September 2022; B&A, 2023. *Urban Design Assessment Private Plan Change Request 167-173 Pilkington Road, Glen Innes,* prepared for Wyborn Capital Investments Ltd, 1 September 2023; and Warren and Mahoney, 2022. *Pilkington Park Plan Change Design Report,* May 2022, Section 32 Report and precinct proposed provisions. The urban design and Section 32 reports have been examined for key details that may inform the economic effects of the proposal. However, M.E have not been requested to undertake a peer review of these reports.

[2] I visited the site on 26 September 2023 together with the Auckland Council project team and applicant's planners.

c) Identify matters, within my area of expertise, that required further information from the applicant[3], and assessing the applicant's response[4];
d) Review the submissions and further submissions;
e) Identify issues relevant to my area of expertise;
f) Give my expert opinion on the issues, with recommendations where appropriate;
g) Provide this Review as part of Councils RMA s42A reporting process to the Commissioners.

1.4. In preparing this Review I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note (2023) and agree to comply with it. Except where I state that I am relying on the specified evidence of another person, the content of this Review is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

2. Summary

2.1. I rely on the reporting planner to explain PPC101 including its location and what the plan change is seeking.

2.2. I have identified the following issues relevant to my area of expertise:

a) Loss of industrial land across Auckland's eastern isthmus.
b) The potential for other business activity to establish on the site under a Business - Mixed Use Zone (BMUZ).
c) Any associated changes in local employment capacity within the proposal area.
d) Any effect on the Glen Innes Town Centre from commercial activity establishing under a BMUZ.
e) The level of residential development able to occur on the site and any effect on the town centre and surrounding residential area, as well as housing supply and affordability.
f) Additional height effects on land use and development patterns.
g) Effects on urban form.
h) Economic effects from potential constraints to the rail corridor operation.

2.3. The recommendations I make in respect of these issues are:

a) Enable higher density residential development to occur within the PPC101 site.
b) Enable commercial development (including retail) to occur within the PPC101 site that would be sustained by demand growth within the catchment area and function together with the town centre.
c) Provide for the additional proposed height in the northern part of the site.
d) Appropriately mitigate development at this location to avoid any significant constraints to the rail corridor operation if they are determined to be likely to occur.

[3] I have provided a memo to inform the Clause 23 request (M.E Ltd, 2023. *Re: 167-173 Pilkington Road, Glen Innes, Private Plan Change, Request for Further Information,* memo to Michele Perwick at Auckland Council, 4 October 2023), review of the RFI (*RE: PC – 167-179 Pilkington Road, Pt England – cl 23 response received,* email to Michele Perwick, 15 December 2023), and further input to the Clause 25 report (*RE: Pilkington Road PC,* email to Michele Perwick, 12 April 2024).

[4] Property Economics Ltd, 2023. *Pilkington Park RFI Economic Response Memorandum,* prepared for Wyborn Capital Investments Limited, November 2023.

3. Loss of Industrial Land

Summary of Change

3.1. Rezoning of the plan change area from Business - Light Industry Zone (LIZ) to Business Mixed Use Zone (BMUZ) will result in the loss of 7.3 hectares of light industrial land. This is likely to reduce the plan enabled opportunity for industrial land uses at this location, as well as reduce the opportunity for a component of other associated activities that typically occupy industrial zones.

3.2. I note that there is a level of overlap in the business activities enabled in the LIZ and BMUZ. While the BMUZ enables some industrial land uses, these are more limited than those enabled under the LIZ. In particular, the BMUZ industrial activities are limited to light manufacturing and servicing and less intensive industrial uses than those enabled under the LIZ.

3.3. Application of a BMUZ would increase the range of non-industrial activities that are enabled on the site. The increased range of other potential land uses is likely to affect the propensity for the site to be used for the industrial purposes enabled under the BMUZ.

Analysis

3.4. I have examined a range of factors to understand the likely effect of the plan change on the level of industrial activity at this location. This includes the demand and supply for industrial activity within Auckland (including the eastern isthmus), the current patterns of industrial land use across Auckland, spatial changes to these patterns and the previous and currently existing land uses on the site. I have also reviewed the applicants' economic assessment, which provides a high-level overview of the supply and demand balance of industrial land across the Auckland region and within a more localised eastern/southern Auckland catchment area (as defined in the assessment).

3.5. I consider that there is an important difference between the range of land uses that are enabled within the LIZ and those which are likely to be viable at this location. The latter is important in understanding the likely effect of the proposed plan change on realised land uses, including any reduced industrial activity at this location.

3.6. During the site visit, I observed that the site has an existing low intensity of land use, including with a low employment density (which is also confirmed through the applicant's RFI response). I understand that much of the existing activity is in storage and distribution related functions, with some light manufacturing occurring in the northern part of the site. I further understand (from the applicant's planner during the site visit) that the site has been occupied by low intensity uses for a significant time period, defined as at least the past 5 years. I note that many of these existing uses would also be enabled within the BMUZ.

3.7. In my view, the site is unlikely to develop into more intensive industrial land uses currently enabled under the LIZ. These are less likely to be commercially viable at this location as a function of both the local market conditions as well as comparative advantages offered in alternative industrial locations in other parts of Auckland.

3.8. I also consider that the proposed BMUZ would enable the site to be developed to a greater intensity with other commercial or residential uses than if it were developed as industrial uses. Commercial and residential uses would be likely to occur as multi-level developments that would increase returns to developers and incentivise these uses ahead of industrial uses that are typically unable to accommodate significant above-ground development.

3.9. I therefore consider that the proposal would result in a loss of industrial zoned land, however, this is unlikely to result in a significant effect on the operation of industrial activity in this

location or the surrounding area. I provide further comment on the likely changes to business land uses, from those currently on site or likely to occur with retaining a LIZ, with the application of a BMUZ in Sections 4, 7 and 8.

4. Change in Employment Density

Summary of Change

4.1. The application of a BMUZ would change the range of land use activities enabled on the proposed site from those currently enabled under the LIZ. While it would reduce the range of industrial activities, it would increase the range of other commercial business activities and non-commercial land uses.

4.2. The BMUZ enabled land uses have associated differences in levels and types of employment to those likely to occur under a LIZ, resulting in likely changes to the future employment density on the proposed site.

Analysis

4.3. I have examined the range of land uses that would be enabled on the proposed site under the BMUZ. I note that the applicant has not provided an intended development pattern on the site as I understand the plan change does not contain any associated developer intentions. Consequently, I have considered these potential land uses within the context of the local market to understand their likely effect on the future employment composition and density on the site relative to that likely to occur with a LIZ.

4.4. In my view, the PPC site is likely to develop into a combination of residential and commercial uses (including retail) rather than the range of industrial uses currently enabled on the site. A commercial/residential development pattern is significantly more intensive than industrial development as it can typically accommodate above-ground uses and achieve greater floorspace rents and higher returns to developers.

4.5. Industrial uses are also likely to be less viable on the proposed site due to the higher rents arising from the value of this location. The proposed site is relatively central within the wider Auckland context, with cheaper, larger sites in other locations likely to form more attractive options to a significant portion of industrial activity.

4.6. If the site is developed with some commercial (including retail) uses, then it is likely to have a significantly higher employment density than if it were instead used for industrial purposes. In my experience, taking into account the likely relativities in employment density between the uses, the employment potential from commercial/retail uses would be likely to exceed the full-site industrial employment potential even if only a minor portion of the site were developed into these uses. I also note that the existing (mainly wholesaling/distribution) uses on the site are likely to be within the lower range of employment density, further increasing this differential.

4.7. I therefore consider that the proposed application of the BMUZ is likely to produce a greater level of employment on the PPC site than if the current LIZ remained.

5. Effect of Development on the Glen Innes Town Centre

Summary of Change

5.1. The PPC may have some effect on the commercial function of the Glen Innes Town Centre. This may occur through the types of commercial activities developed as enabled with the

BMUZ. The BMUZ also enables residential development, which is likely to generate additional demand within the primary catchment of the town centre.

Analysis

5.2. The application of the BMUZ on the proposal site could potentially enable a sizeable amount of activity to establish that overlaps with the core commercial role of the adjacent Glen Innes Town Centre. At 7.3ha, the proposed site is large relative to the existing size of the town centre (estimated at around 11 to 12 ha). If developed with a commercial focus, it could contain significantly higher levels of commercial activity than indicated within the applicants' design report.

5.3. I consider that development of a substantial amount of commercial activity on this site may result in either some shift to the centre of gravity of the town centre, or may increase the overall role of the town centre within its wider catchment area. Any potential effect would primarily relate to the ground floor commercial activity that is oriented to serving household demand (e.g. retail, hospitality, household services, etc). The type and scale of effect is likely to depend on the level of commercial activity, its integration with other commercial activity within the town centre and any growth in demand through residential intensification within the surrounding catchment area.

5.4. In my view, there is less certainty as to the likely effect of the PPC on the commercial role of the Glen Innes Town Centre. In part, this is due to the absence of developer intentions for this site that may otherwise indicate the likely level of commercial development, its integration with the existing centre and confirmation of likely residential yields. I note also that the applicant has not provided assessment of the likely projected demand for commercial activity at this location.

5.5. Despite limited information on likely development patterns, I consider that the local residential development market conditions within the town centre's catchment area are likely to somewhat mitigate adverse effects on the centre. There is sizeable opportunity for residential intensification in the immediately surrounding catchment area, including with the existing THAB zoned area. A significant amount of this is currently being taken up by the market, with sites being redeveloped at much greater intensities than previously existing patterns of development.

5.6. In my view, the significant levels of residential intensification occurring in areas surrounding the town centre are likely to correspondingly increase the level of demand for commercial activity at this location. This will increase the level of commercial activity able to be sustained within this area, likely reducing the dilution of sales within the centre as a result of additional commercial activity establishing within the proposed site. I also note that development of commercial activity on this site, serving household demand, is located proximate to large areas of residential intensification within the southern part of the centres catchment.

5.7. I also consider that while sizeable commercial space could potentially develop within the site, this is likely to be mitigated by competing land uses. Within the local market context, there is high demand for residential uses, which are likely to develop within the site and reduce the area developed into commercial uses.

6. Effect on Housing Supply and Affordability

Summary of Change

6.1. The PPC will enable residential dwellings to be developed on this site through application of the BMUZ. The additional height proposed within the northern part of the site will also affect the likely patterns of residential development within the site.

Submissions

6.2. Sibylle Van Hove (Submission 3) considers that medium density development would be more appropriate in this location and would improve housing affordability to a greater extent than higher density development.

Analysis

6.3. I consider that the PPC is likely to have economic benefits through increasing dwelling supply at this location. The level of residential intensification currently occurring within the surrounding area suggests that the commercial market is likely to develop at least part of the proposed site into residential dwellings. Intensification occurring within the surrounding area indicates that higher density development of vertically-attached apartment dwellings, as enabled under the BMUZ, are likely to be feasible on this site. I note the applicant has provided dwelling yield scenarios of 505 to 711 dwellings, which I consider are reasonably consistent with current patterns of development.

6.4. I disagree with Sybille Van Hove (Submission 3) that residential development on the site should be limited to medium density. I consider that higher density development on this site is likely to produce greater economic benefits, than only medium density, as it achieves greater intensification around the town centre. The market for more intensive dwellings is already well-established in this location, meaning that limiting development to a medium density scale would reduce the level of intensification that could otherwise be delivered by the market.

6.5. In my view, more intensive residential development on the proposed site may also have a limited positive effect on housing affordability at this location. I consider this may occur through increasing housing choice at this location, which increases the ability for households to make trade-offs between dwelling size, price, typology and location. I note that an increased range of dwelling typologies and densities are already occurring in the surrounding area as enabled through the THAB zone, with the PPC likely to further contribute higher density dwellings within this range.

7. Effects of Additional Height on Land Use and Development Patterns

Summary of Change

7.1. The PPC increases the height of buildings enabled within the proposed site from that currently enabled under the LIZ. The main increases occur within the northern parts of the site, where building heights of up to 27 metres are proposed, with only a small (1 metre) height increase enabled across the remainder of the site (as set out in the proposed Height Variation Control).

Submissions

7.2. Several of the submissions request reductions to the heights enabled within the PPC site:

a) Charis Charan (Submission 1) and Georgina Stewart (Submission 2) request that heights are limited to four and three storeys, respectively, to maintain consistency with the surrounding residential areas.

b) Sybille Van Hove (Submission 3) opposes the greater enabled building heights, requesting that the existing LIZ 20m height limit is retained.

Analysis

7.3. I consider that the proposed height increases are likely to have an important effect on development patterns in the northern part of the site through their effect on the feasibility of higher density development.

7.4. Based on my experience in assessing the feasibility of residential development patterns, I consider that the additional height allowances within the northern part of the precinct are likely to increase the feasibility for residential development. The feasibility of higher density residential development generally increases with height up to the point able to be sustained by the market.

7.5. I consider that the scale of residential development enabled within the additional height provisions is likely to be commensurate with the medium to long-term scale and timing of market demand in this location. This is likely to encourage the market to deliver these types of dwellings, which will produce economic benefit through increasing housing supply.

7.6. Increased height allowances within the northern part of the site may also increase the feasibility of commercial office development through increasing the potential returns to developers from more intensive development. However, I consider that any increases in feasibility of commercial space in this location are likely to be lower than that for residential development or occur over a longer time period. This is due to the lower demand for office space at this location.

7.7. In my view, the effect of height on feasibility is interdependent with the change in enabled land uses with the application of the BMUZ. Height increases applied to a LIZ in this location and site configuration are likely to have only limited effect on the feasibility of industrial land uses, which typically only develop at one to two levels.

7.8. In my view, greater height allowances within the northern part of the proposed site are likely to encourage an efficient pattern of development within the site. They will concentrate more intensive development in areas closest to the Glen Innes Town Centre. This is likely to increase the economic benefits generally associated with residential intensification around the centre.

7.9. For the reasons outlined above, I disagree with Charis Charan (Submission 1), Georgina Stewart (Submission 2) and Sybille Van Hove (Submission 3) that heights are limited to between three storeys and 20 metres across the plan change site.

7.10. In my view, a height limit of three to four storeys may limit the feasibility of some higher density apartment developments. It would reduce the potential dwelling yield within each development, which may reduce returns where higher yields may be required to offset the higher construction costs of this typology. While development of higher density dwellings is still likely to remain feasible at this height, it may reduce the propensity of the market to deliver these dwellings as a result of lower returns in comparison to alternative development opportunities within the surrounding area.

7.11. I also disagree with Charis Charan (Submission 1) and Georgina Stewart (Submission 2) that development at greater heights than three to four storeys is likely to be inconsistent with surrounding patterns of residential development. The PPC101 site is located adjacent to or within close proximity to areas with height limits of between 16 metres and 32.5 metres.

Residential development is already occurring within these areas at up to six storeys. I consider that higher density development is likely to account for an increasing share of new dwellings in this location as the market continues to respond to this development opportunity.

8. Effects on Urban Form

Summary of Change

8.1. The PPC is likely to affect the urban form at this location through changing the likely land use development patterns on the site (as set out above) from that likely to occur under the current LIZ.

Submissions

8.2. Auckland Transport (Submission 4) highlights the NPS-UD objectives 3 and 6 for development to occur in locations within the urban environment that are well supported by centre amenity, integrated with transport infrastructure and have high relative demand.

Analysis

8.3. I consider that the PPC is likely to produce urban form economic benefits through its likely impact on land uses and the corresponding effect on the efficiency of the urban spatial structure at this location. Urban form effects are likely to apply to the site itself as well as through its effect on land use patterns within the surrounding area.

8.4. In my view, more intensive development on this site, than likely to occur under a LIZ, would be economically beneficial. It would have greater efficiency of land use within the site and would contribute to the development of the urban node in this location.

8.5. I consider that intensification in areas surrounding centres is likely to contribute to a well-functioning urban environment. Higher density residential development in these areas, as encouraged by the greater height limits, is likely to support the commercial viability of the centre. The commercial function of centres is important for sustaining the wider role of centres (which includes a range of social and other infrastructure) and the level of amenity they provide to the communities in the catchments they serve.

8.6. In my view, residential intensification on the proposed site would contribute to the development of this urban node. It would be located within an area of high relative demand and high amenity with accessibility to infrastructure within the town centre.

8.7. I consider the PPC is likely to encourage an efficient pattern of development within the urban node at this location. I have outlined concerns (in Section 5) with the scale of retail activity that could potentially occur on the site in relation to the town centre commercial role. However, I note that the proposed BMUZ is consistent with patterns of land use in other areas surrounding the town centre. Retail development on this site would also be located to efficiently serve demand arising from the intensive residential areas within this part of the town centre catchment.

8.8. I also consider that the further intensification within this area is likely to represent an efficient long-term development pattern within Auckland's wider spatial economic structure. The proposed site is relatively central on a wider Auckland basis being located within the isthmus area.

9. Economic Effects from Potential Constraints to Rail Corridor Operation

Submissions

9.1. KiwiRail (Submission 5) considers that if the PPC is developed to contain noise sensitive land uses (including residential), then this may constrain the operation of the adjacent rail network.

9.2. The submission has not determined whether the rail operations are likely to be constrained as a result of this development pattern. However, it considers that if the rail operations are constrained, then this is likely to have sizeable impacts on Auckland's transport networks with rail demand redirected to the road network. If constrained, any costs may be significant and experienced widely across communities and businesses in Auckland.

9.3. KiwiRail (Submission 5) has assessed three potential development provision options for land areas adjacent to rail corridors in light of the potential constraints. These include a no change option where rail corridor constraints may occur with associated costs to the wider community; or a proposed level of additional construction standards to mitigate noise effects; or prevention of noise sensitive land uses (including residential) within 100 metres of the rail corridor.

9.4. The submission supports the inclusion of additional construction standards to mitigate rail noise effects. It considers that additional construction costs are likely to be relatively small, with part of this cost offset by the associated benefits to the developer or occupying household from a higher building standard, as well as the potential for developers to already incorporate this building standard without any requirement due to railway activities.

9.5. The submission does not support the alternative options. It considers that potential constraints to rail operations may be large and widely experienced (Option 1). It also considers that exclusion of residential activities within these areas (Option 3) may also produce large costs in relation to constraints to housing growth due to the expansive areas across which this would apply.

Analysis

9.6. I agree that the rail network forms an important piece of infrastructure that is critical to the urban economic efficiency of Auckland. Any significant constraints to the operation of this network are likely to produce significant economic costs that accrue at both the local and regional scales. I therefore consider that it is important to avoid significant constraints to the rail network operation.

9.7. As stated in the economic assessment in the KiwiRail Submission (Submission 5), I note that it is not clear whether noise sensitive land uses are likely to constrain the rail network. I note also that efficient operation of the rail corridor would rely on the absence of constraints in other parts of the corridor and not only the PPC101 site.

9.8. I have examined the extent of Option 3 in the KiwiRail Submission (Submission 5) where new development of noise sensitive land uses are excluded from within 100 metres of the rail corridor. This appears to cover almost all of the PPC101 site. Most significantly, this would mean that any residential development could only occur within a minor portion of the southeastern part of the site furthest from the town centre.

9.9. As outlined above in Sections 6 and 8, I consider that development of the PPC101 site to include residential intensification, with greatest intensity closest to the town centre, is likely to produce economic benefits in relation to urban form and housing supply. I therefore also consider that Option 3 would be unlikely to produce an economically beneficial outcome at either the site level or in relation to the economic effects of the surrounding urban form.

9.10. I have considered the additional construction costs associated with Option 2 that are outlined in the KiwiRail Submission (Submission 5). I consider that if these costs are correct (up to 1% to 2% of construction costs), then they are unlikely to prevent residential development from occurring on this site in the medium to long-term.

9.11. If the additional costs occurred in full (assuming that the dwellings were alternatively developed without any of these standards and that the costs applied to the full improvement value cost), then the dwelling sales price would need to increase by up to around two-thirds of this percentage (i.e. around 1% to 1.5%) if the same margins were maintained for the developer.

9.12. In my experience, dwellings generally have a range of sales prices in any location that reflect differences in build quality and other factors. I consider that the above difference in sales prices would be likely to fall within this range of sales prices and reflect the higher build quality. I note that this is unlikely to result in a dwelling price increase generally at this location given that most of the higher density development opportunity is located further from the rail corridor.

Susan Fairgray

2 October 2024

Private Plan Change 101 – Pilkington Park (PPC101)
Specialist Review – Landscape on behalf of Auckland Council

17th October 2024

To: Michele Perwick, Senior Policy Planner, Auckland Council

From: Gabrielle Howdle, Principal Landscape Architect, Tāmaki Makaurau Design Ope

Subject: Private Plan Change – PC101 Pilkington Park - Landscape Assessment

1. Introduction

1.1 My name is Gabrielle Katarina Howdle. I have undertaken a review of the private plan change (PC101), on behalf of Auckland Council in relation to landscape effects, including the potential adverse effects on the visual amenity and visual integrity of the Scheduled Volcanic Viewshafts.

1.2 I have worked as a Landscape Architect for over seven years and have worked at Auckland Council since 2017. I am currently a Principal Landscape Architect in the Tāmaki Makaurau Design Ope, Planning and Resource Consents. I hold a Bachelor of Landscape Architecture (*Hons).*

1.3 I was engaged by Auckland Council at the time the application for PC101 was lodged. My role has been to:

- Review the original plan change application documents.
- Visit the site.
- Identify matters, within my area of expertise, that required further information from the applicant, and assessing the applicant's response.
- Review the submissions.
- Identify issues relevant to my area of expertise.
- Give my expert opinion on the issues, with recommendations where appropriate.
- Provide this review as part of Councils RMA s42A reporting process to the Commissioners.

1.4 In preparing this review I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note (2023) and agree to comply with it. Except where I state that I am relying on the specified evidence of another person, the content of this review is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

2. Executive Summary

2.1 I rely on the reporting planner to explain PC101 in detail and what the plan change is seeking.

2.2 In particular, my review of PC101 will focus on the suitability of the proposed increase in building height of 21m and 27m on site with respect to the wider landscape.

2.3 My review will have regard to the Auckland Unitary Plan (Operative in part) (AUP(OP)) provisions relating to Regionally Significant Volcanic Viewshaft W12 Mount Wellington (Maungarei) and Locally Significant Volcanic Viewshaft W13 Mount Wellington (Maungarei). I have also considered the relevant Regional Policy Statement provisions, including how subdivision, development and use responds to the intrinsic features, characteristics, and relationship of the site within the urban landscape.

2.4 In my view, the key landscape issues that arise from PC101 relate to:

- Whether the change from Business – Light Industrial to Business – Mixed Use and the precinct provisions will provide for development that responds to the qualities and characteristics of the area, including its setting[1].

- The relationship of the proposal with respect to the landscape and visual amenity values of the adjacent public open space / treed road reserve and residential area to the east.

- The potential effects on the visual amenity and visual integrity of the Scheduled Volcanic Viewshafts (Regional and Local) as a result of the height variation control. (See Appendix C for Volcanic Viewshaft descriptions).

2.5 In summary, the recommendations I make in response to these issues include:

- Change the activity status for development which infringes the Standard for building height (IX.6.1 – restricted discretionary activity) within the activity table to discretionary or non-complying activity.

- Retention of the HIRB standard to the open space zone.

- The benefit of including a special information requirement to provide a surveyor's report as part of future development, which demonstrates compliance with the Volcanic Viewshaft in relation to the co-ordinates within Schedule 9.

3. Technical overview

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

Lodged with the original application

- *Section 32 Assessment Report prepared by Barker & Associates Limited, dated 24.08.2023.*
- *Proposed Planning Maps (no author, no date).*
- *Pilkington Park Precinct (no author, no date).*
- *Landscape and Visual Effects Assessment prepared by Barkers & Associates Limited, dated 01.09.2023.*
- *Urban Design Assessment prepared by Bakers and Associates Limited, dated 01.09.2023.*
- *Record of Mana Whenua Consultation and Record of Stakeholder Consultation, between November 2022 – May 2023 (with 15 iwi / iwi groups).*

Submitted as further information in response to Clause 23 request and Notification Material

- *Pilkington Park Clause 23 Response Letter prepared by Barkers & Associates Limited, dated 11.12.2023.*
- *Updated Pilkington Park Precinct.*
- *Height in Relation to Boundary Comparison.*
- *Provision of Open Space Map.*
- *Regional Policy Statement Assessment and Assessment of Other Plans prepared by Barkers & Associates Limited.*
- *Landscape Memorandum prepared by Bakers & Associated Limited, dated 01.12.2023.*
- *Landscape Memorandum Appendix 1 (Landscape and Visual Effects Assessment Viewpoint Locations), prepared by Bakers & Associates Limited, dated 29.11.2023.*
- *Urban Design Memorandum prepared by Barkers & Associates Limited, dated 01.12.2023.*

[1] AUP (OP) – B2 – Tāhuhu whakaruruhua ā-taone – Urban Growth and form. Policy B2.3.1(1)(a).
Merriam-Webster Dictionary – Setting: the manner, position, or direction in which something is set. AND /OR the time, place, and circumstances in which something occurs or develops.

- *Section 32a Assessment Report (Revision 2) prepared by Barker & Associates Limited, dated 11.04.2024.*
- *Landscape and Visual Effects Assessment (Revision B) prepared by Barkers & Associates Limited, dated 18.04.2024*
- *Urban Design Assessment prepared by Bakers and Associates Limited, dated 19.04.2024.*

3.2 I confirm that I have reviewed the submissions: Summary of Decisions Requested (PC101) and Submissions.

3.3 I am familiar with the local area and site. As part of my review, I visited the site (167 – 173 Pilkington Road, Point England) and surrounding area on the 26th of September 2023 as part of a group site visit.

3.4 The Landscape and Visual Effects Assessment prepared by Barkers & Associates Limited is generally consistent with the concepts, principles and approaches set out within Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines[2]. In assessing the landscape and visual amenity effects of the proposal, a seven-point scale has been utilised. For the purpose of reviewing the plan change, I have utilised the same rating scale as provided within the Landscape and Visual Effects Assessment (replicated in Appendix B of this memo) where relevant.

4. Landscape Context

4.1 The Landscape and Visual Effects Assessment provides a description of the local area and site[3]; I generally concur with the urban landscape context and site as described. However, in relation to the relevant landscape matters, I note the following features and aspects which contribute to the current landscape values of the Glen Innes and Point England area.

- The visual and experiential values associated with the form and presence of the Tamaki River and Maungarei (Figure 1), including views from the maunga to the river, and vice versa.

Viewpoint 3. View from Grangers Point / Former Brickworks car park and boat ramp looking west towards the site.

Figure 1: Viewpoint 3 Representative of Regionally Significant Volcanic Viewshaft W12- extracted from Landscape and Visual Effects Assessment, Barkers and Associates, 18.04.2024 (Page 35).

- The treed nature of the public open space land along Pilkington Road and the southern end of Apirana Avenue.

- The green public open space network (including Maybury Reserve to the north-east, Talbot Reserve, Boundary West Reserve (south) and Tippett Street reserve), stitched together by street trees.

[2] Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pito Ora New Zealand Institute of Landscape Architects, 2022.
[3] Landscape and Visual Effects Assessment (Revision B), Barkers and Associates Limited – Section Two, 2.1 – 2.2

4.2 Of relevance to my review, is understanding the current and anticipated urban and landscape context. While the existing town centre comprises generally single to two storey buildings, ranging in small to large footprint retail and commercial development, more recent development in the surrounding area has seen medium-density residential, and walk-up apartments. This introduces a population and community around the town centre, which has a permitted maximum height of 32.5m within the Business - Town Centre zone (not subject to a volcanic viewshaft), and 16m or 19.5m (HVC – Maybury Street, with sites north of Taniwha Street being located outside a volcanic viewshaft overlay) within the Residential – Terrace Housing and Apartment zone under the AUP(OP) (See Figure 2).

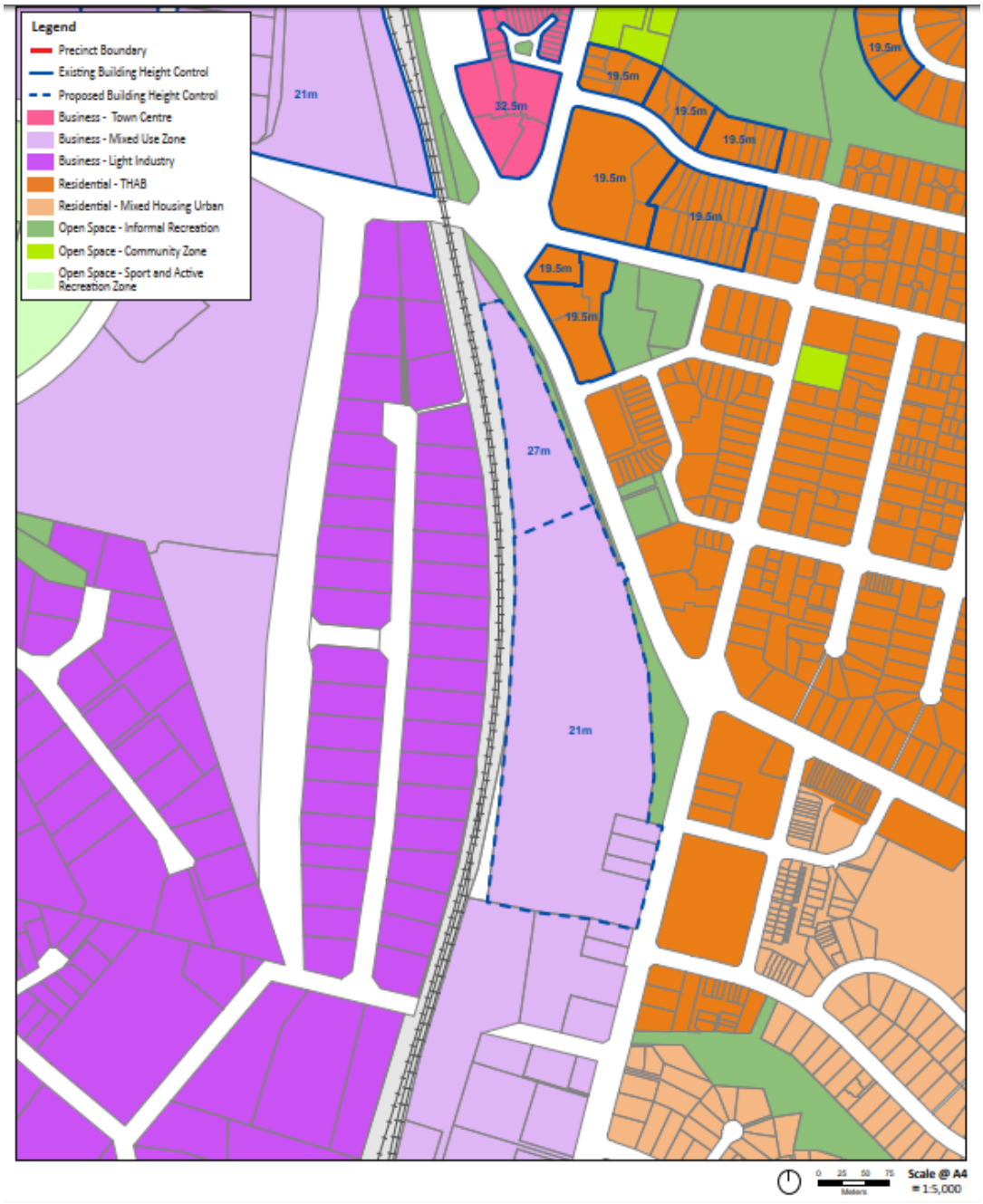


Figure 2: Proposed Planning Map HVC and surrounding zoning and HVC

4.3 The site is located within a complex urban framework, with an industrial and transit-orientated environment to the west and south, and a residential and low-scale town centre character to the north and east. While the existing light industrial area has not been designed to respond

sympathetically to the amenity values within its setting, the presence of the maunga, river and open space network contribute to the amenity of the wider neighbourhood and sense of place.

5. Review of the Landscape and Visual Effects Assessment

5.1 I generally agree with the findings in relation to the potential adverse effects on the scheduled volcanic viewshaft and landscape character values as a result in the HVC within the applicants Landscape and Visual Effects Assessment; however, I consider some provisions need to be changed to achieve these outcomes. I do not agree with the conclusions reached in regard to the effects on the open space as it relates to landscape and visual amenity values.

6. Rezoning from Business – Light Industrial Zone to Business – Mixed Use Zone and precinct provisions in response to qualities and characteristics of the area

6.1 The applicants landscape architect considers that overall *"The change in land use will result in positive effects and likely contribute to a more vibrant and people focused environment that could also result in a more visually appealing built form that could support the vitality of the Glen Innes town centre."* and *"The existing LIZ typically results in an internal facing built character whereas, the proposed MUZ typically results in an external facing built character contributing positively to streetscape and public realm qualities."*

6.2 Overall, the applicant's landscape architect considers *"the proposed change in land use and building heights associated with the HVC (Areas A and B) are assessed to generate low adverse visual effects".* I generally agree with the assessment and comments reached within the Landscape and Visual Effects Assessment with regards to the potential landscape and visual amenity effects resulting from the change in zoning from B-LI to B-MU. I can support the change from B-LI to B-MU from a landscape perspective. However, I do consider that the increase in height to 27m is appropriate where identified (northern part of the site) but should not be extended further south or increased; I discuss this aspect in more detail below.

6.3 A level of increased development is generally anticipated within the site due to the operative AUP B-LIZ zoning which enables buildings up to 20m high. Sites to the south and west are also anticipated to be developed in a similar nature and scale, located within the B-LIZ and B-MUZ, with sites to the north of Merton Road in the B-MU zone also being within a 21m HVC (see Figure 3). As such buildings of a large scale, and footprint (noting no building coverage controls within the B-LI zone) are anticipated in this location.

6.4 From a landscape perspective the proposed change in zone is not considered to significantly impact the landscape values within the area due to the similar level of built form enabled by the zones. The existing B-LI zone provisions allows consideration to be given to the landscape values through objectives and policies such as *"Adverse effects on amenity values and the natural environment, both within the zone and on adjacent areas, are managed." (H17.2 (3))* and *"Require development adjacent to open space zones, residential zones and special purpose zones to manage adverse amenity effects on those zones." (H17.3 (4)).* The change to B-MU zone still requires consideration of the surrounding landscape and amenity values, through provisions requiring *"development to be of a quality and design that positively contributes to the visual quality and interest of street and other public open spaces"* (H13.3 (3)) and *"require large-scale development to be of a design quality that is commensurate with the prominence and visual effects of the development"* (H13.3 (5)).

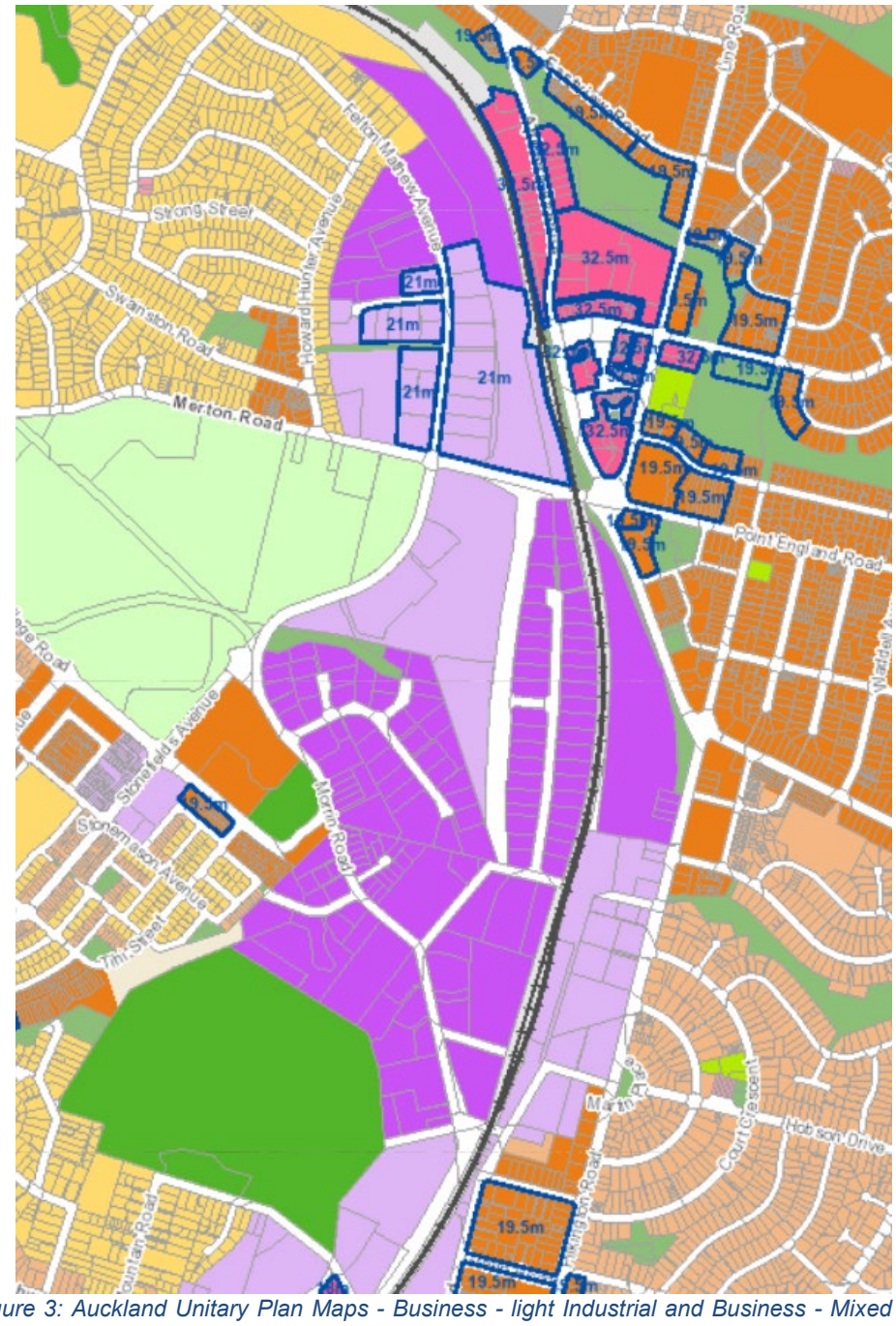


Figure 3: Auckland Unitary Plan Maps - Business - light Industrial and Business - Mixed Use zones and Height Variation Controls

6.5 In my opinion, with respect to the proposed HVC of 21m across the southern part of the site (see Figure 2 above), I consider that a height of 21m can be designed to fit within this urban context. This takes into consideration the surrounding built environment, including large-footprint industrial buildings to the west, as well as the surrounding B-LI and B-MU zoning, and the ongoing development of the residential area to the east. In my view, the additional one metre would unlikely be appreciable in the wider or mid landscape with the currently permitted 20m height control.

6.6 The northern end of the site proposes a maximum 27m HVC, enabling potentially an increase of two to three storeys from the existing B-LI zone 20m height standard. Similar to the above, if designed well; to manage visual dominance resulting from potential building bulk, form and appearance, and in its nearby planned context (32.5m maximum height limit within the Business -Town Centre zone which could in the future provide for a similar built scale and context), could fit with the urban landscape character.

7. Potential increase in height above HVC

7.1 From a landscape perspective I am generally comfortable with the proposed 27m HVC as it applies to the northern portion of the site. However, I consider that it is important that the extent of the 27m is not expanded further south across the site, nor the height increased above 27m in the northern part of the site. The applicant's landscape architect does not provide much comment on the potential increase in height above the 21m and 27m HVC proposed, however the precinct provision Table IX.4.1 (A2) notes a restricted discretionary activity status for any new buildings which do not comply with the standards IX.6.1 to IX.6.3, which includes the Standard for building height.

7.2 While I consider that the surrounding anticipated built form of the town centre and HVC within the R-THAB zone provide for a similar built environment, greater height above the proposed 21m and 27m HVC could intrude into the volcanic viewshaft, be of a scale that is visually dominant to adjacent residential neighbours to the east and could take away from hierarchy and character of the town centre.

7.3 As seen from the local catchment, including Point England Reserve, Taniwha Reserve and Maybury Reserve, I consider that a height greater than 27m within the northern part of the site, or across more of the site would begin to compete with the prominence and form of Maungarei on the skyline and would not fit with the character of the area.

7.4 From a landscape perspective I consider that a discretionary or non-complying activity status for buildings which do not comply with height would be more appropriate to ensure that the landscape features which contribute to the amenity and identity of the area, including treed streets, and local views to the maunga can be retained.

8. Landscape and Visual Amenity Values of the adjacent Public Open Space Land

8.1 The Landscape and Visual Effects Assessment comments that the proposal will not impact the existing landscape features located within the adjacent Council owned open space (Open Space – Information Recreation zone), and that future development on site could even benefit from its amenity (e.g., outlook, access to open space). The landscape architect states that the:

"Proposed assessment criteria IX.8.2.1(a) has been included to ensure any future built form will result in positive frontages (and not turn their 'backs') to the adjoining 'open space' zoned land between the Site and the road corridors. This will help to ensure any future development contributes positively to the existing landscape character and values associated with these adjoining open space areas."[4]

"There are a number of existing landscape features located within adjoining OSZ lands which will not be affected by the PPC that help to visually contain, screen and soften the Site from the surrounding area."[5]

8.2 While PC101 does not propose to change the zoning of the open space land to the east, the open space contributes to the amenity of the area; providing an area of green space for informal activities – such as walking, and large specimen trees which provide an improved visual outlook for nearby residents and contribute to the amenity of the street; which is otherwise vehicle dominant. The open space is also part of a larger green space network within Glenn Innes and Point England area which are and will become more so, important spaces for the current and ongoing growing urban community. Therefore, while the reserve narrows to the north, the overall open space provides for a large number and consistent scattering of native trees which provides for a good level of visual amenity.

[4] Landscape and Visual Effects Assessment (Revision B), Barkers and Associates, 18.04.2024 (page 12)
[5] Ibid. Page 19. Part 4.3 Conclusion

8.3 The precinct proposes to remove the height in relation to boundary standard as it relates to the open space zone (8m + 45degree). In my opinion, the removal of the HIRB control could adversely impact on the quality and character of the open space, such as dominance of buildings, shading and retention of trees, which could diminish the overall visual amenity and landscape values of the local area as described above.

8.4 I agree with the applicant's landscape architect, that the open space area provides for an improved amenity and outlook for potential future residents or visitors (commercial / retail use), however I consider that the proposed removal of the HIRB standard could impact the retention of the existing landscape values received from the open space.

8.5 In my opinion the impact of infringing or removing the HIRB standard to the open space is better placed to be assessed as part of future consents, where the impact on the landscape and visual amenity values can be more thoroughly assessed.

8.6 I defer to Council's Consultant Parks Planner Mr Hendra's report which provides a greater review of the potential effects arising from the proposal on the open space values of the Pilkington Apirana Road Reserve.

9. Visual Amenity and Visual Integrity of the Scheduled Volcanic Viewshafts

9.1 The AUP's Regional Policy Statement[6] and Chapter D14 Volcanic Viewshafts and Height Sensitive Area aim to ensure that "*the regionally significant views to and between Auckland's maunga are protected*"[7] and *"the local significant views to Auckland's maunga are managed to maintain and enhance the visual character, identity and form of the maunga in views"*[8].

9.2 PC101 is seeking an increase in height from 20m to 21m and 27m by applying Height Variation Controls (HVC) over two parts of the site as shown in Figure 2 above. The site is subject to two Scheduled Volcanic Viewshafts, Regionally Significant Volcanic Viewshaft W12 and Locally Significant Volcanic Viewshaft W13 which span across much of the site – illustrated in the Figure 4 below. The viewshafts result in varying heights across the site, as low as 22m (south-west corner).

9.3 The applicant's S32 Report[9] and Landscape and Visual Effects Assessment conclude that the proposed HVC heights will not affect (alter) the Schedule Viewshaft and amenity and integrity values they aim to protect, and the proposed height was determined with consideration of these values. The Landscape and Visual Effects Assessment briefly comments on the Volcanic Viewshaft overlays, noting that *"The HVCs will not impede these elements."*

9.4 As part of the Clause 23 request process, to confirm if the proposed 21m and 27m HVC were appropriate, a surveyor's report demonstrating the volcanic viewshaft plane heights across the site in relation to the co-ordinates within Schedule 9 was requested. This was requested because the plane heights as indicated on Auckland Council GIS Maps are accurate to a degree, however where development is within close proximity to a viewshaft (such as the proposed increased heights of future built form in the southern part of the site which could be as close as 2m), a survey report undertaken by a registered survey is typically provided to demonstrate compliance. In this instance, the HVC was informed by the existing viewshaft overlays and aims to not impede these but does not confirm if this has been surveyed accurately. This information was not provided as part of the Clause 23 response. Provision of the accurate viewshaft plane

[6] AUP(OP) – Regional Policy Statement. B4 Te tiaki taonga tuku iho – Natural Heritage
[7] AUP(OP) – D14 Volcanic Viewshafts and Height Sensitive Areas – Objective D14.2 (1)
[8] AUP(OP) – D14 Volcanic Viewshafts and Height Sensitive Areas – Objective D14.2 (2)
[9] Revision 2.0, Barkers and Associates Limited, dated 11.04.2024.

heights across the site as part of the Clause 23 response would have helped to ensure that the HVC did not impede these elements.

9.5 In my experience in reviewing applications within sites subject to Scheduled Volcanic Viewshafts for Council, this is a common request to ensure buildings and structures (including rooftop plants, lift overruns) do not intrude into the viewshafts.

9.6 A provision for a surveyor's report would help provide awareness of the values of the viewshafts. Therefore, I consider, that it would be beneficial if a special information requirement was included in the precinct, which required a surveyor's report confirming that the proposed development would not intrude into the volcanic viewshaft; specifically, where development is within 2m of a viewshaft plane height as indicated on Council GIS Maps. If not included, I signal to the applicant / future applicants that this will likely be requested at time of resource consent.

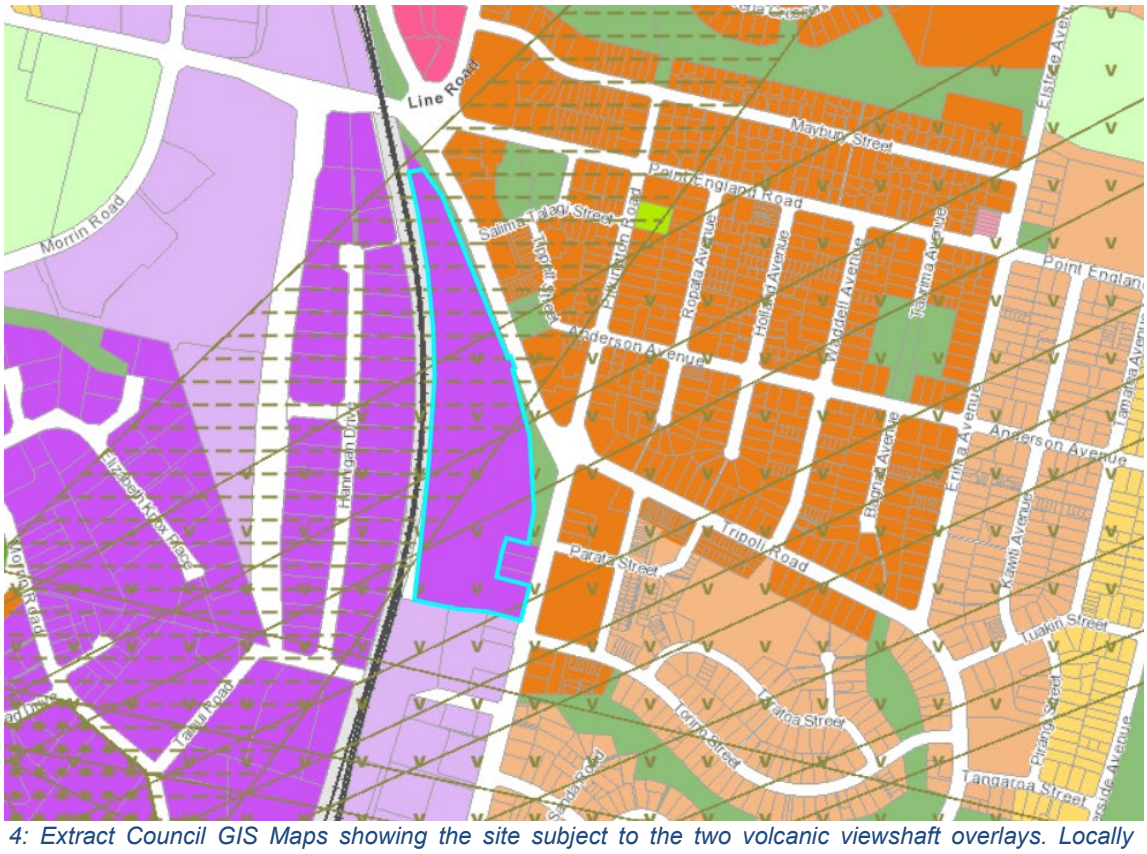


Figure 4: Extract Council GIS Maps showing the site subject to the two volcanic viewshaft overlays. Locally significant shown with (-), regionally significant shown with (v).

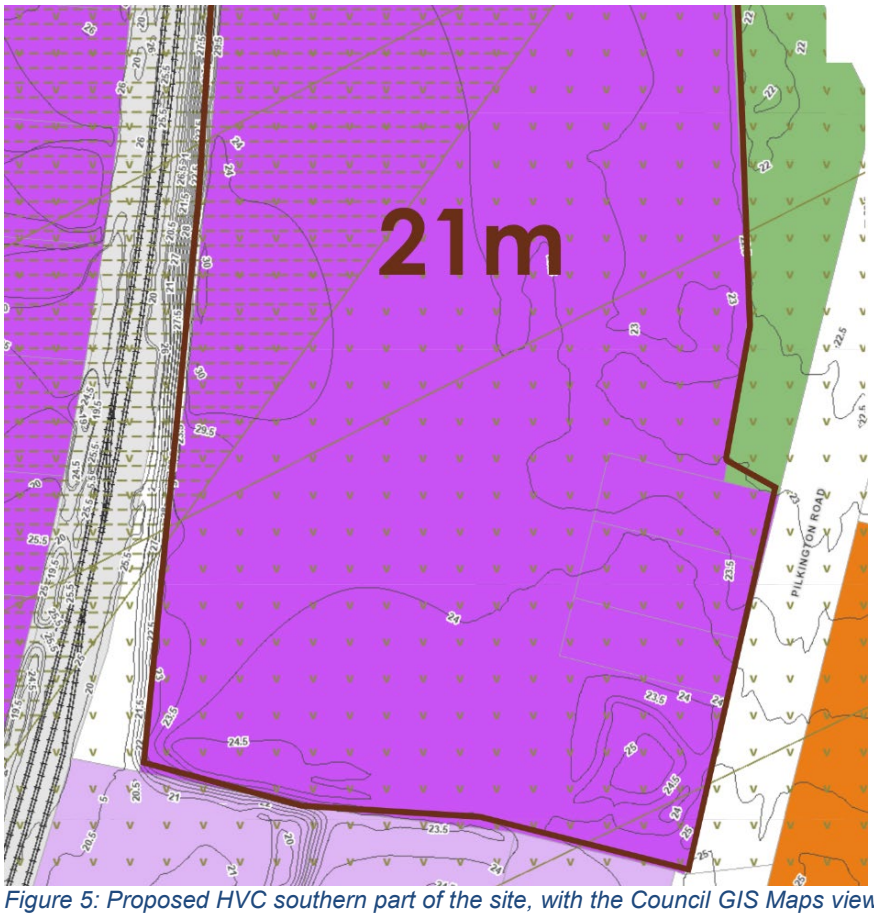


Figure 5: Proposed HVC southern part of the site, with the Council GIS Maps viewshaft overlay 22m in the south-west corner and generally 23m-24m within the southern part of the site – accurate planes to be calculated from Schedule 9 co-ordinates.

10. Analysis of submissions and Maungakiekie-Tāmaki Local Board views

10.1 I have read the submissions and Maungakiekie – Tāmaki Local Board Minutes received. Key themes from a landscape perspective include:

- Support the rezoning from Business – Light Industrial to Business – Mixed Use with a precinct

  Submitter Sibylle Van Hove comments *"I strongly support the proposed plan change to rezone the land from Business – Light Industrial to Business – Mixed Use and introduce a new precinct."*

  Maungakiekie – Tamaki Local Board *"tautoko / support the proposed plan change 101 from Business – Light Industry Zone to Business – Mixed Use zone to introduce a new Pilkington Park precinct for mixed use development."*

- The proposed height (21m and 27m) is not in keeping with the scale of buildings within the nearby residential area or centre.

  Submitter Georgina Stewart comments *"I am concerned about the visual impact of the increase in height of buildings on the site, which would allow building of about five to seven stories. The building heights would be twice the height of buildings in the surrounding area and dominate the skyline."*

- The proposed height will have adverse visual amenity and dominance effects, including being visible above the mature line of trees and on the skyline and obstructing views of Mount Wellington.

Submitter Charis Charan comments *"the proposed height is too high and will further create an eyesore an impose on the surrounding homes."*

Maungakiekie – Tamaki Local Board *"Whether existing height controls should be maintained in keeping with surrounding developments and ensuring viewshafts to Maungarei are well maintained for the area."*

- Relief sought from submitters includes reducing the building height to three-storeys, four-storeys, retain 18m for Residential – Terrace Housing and Apartment Building zone and 20m for the Business – Light Industry zone.

  Submitter Sibylle Van Hove comments *"Our reasons for opposing the requested greater building heights are to maintain a medium density urban area for the wellbeing of the community, resilience and equality of the city*."

  Submitter Name: Georgina Stewart. *"Details of amendments: Restrict building height to no more than three stories."*

  Submitter Name: Charis Charan. "*Details of amendments: Reduce height to 4 stories in line with the Hinaki St apartments."*

  Submitter Name: Sibylle Van Hove. "*Details of amendments: Removal of the height variation control (of between 21 and 27m and maintain the existing heights of 20m for the LIZ and 18m for THAB zones)."*

10.2 Concentrating on those submissions that raised landscape matters; I am comfortable that the I have addressed the majority of these issues in paragraphs 6.1-9.6. However, I provide some comment in regard to the relief sought by some of the submitters in relation to height.

10.3 The existing B-LIZ permits buildings up to 20m. With a floor to ceiling height of 4m, this would equate to around a 5-storey building. Relief sought by some submitters includes reducing the height control to 3-4 storeys, less than what is currently anticipated under the AUP(OP) B-LIZ. For the reasons outlined above, the increase in height to 21m is not considered (individually as a standard) to result in any greater adverse landscape character or visual amenity effects to the current permitted 20m under the B-LIZ. The increase in height to 27m while visually greater than the adjacent residential development, will be located closer to the town centre which under the AUP(OP) does allow for greater height which is better suited to integrate the proposed 27m within the landscape.

11. Conclusions and recommendations

11.1 Overall, the proposal to change the zone from B-LIZ to B-MUZ is not considered to adversely impact on the visual amenity or visual integrity values of the Scheduled Volcanic Viewshafts. The proposed heights, 21m and 27m, while designed to sit below the viewshaft planes, have not been confirmed by a surveyor. A special information requirement for a surveyor's report would help provide awareness of the values of the viewshafts.

11.2 I consider that the proposed height of 21m (when looked at individually as a standard) across the middle and southern portion of the site would not result in any greater landscape and visual amenity effects compared to the permitted 20m under the B-LIZ.

11.3 The area subject to 27m should not be increased in any greater expanse (southward on site) or height increased across the site, this is to retain local views to the and from the maunga, as well as from surrounding open spaces, and to retain a sense of place.

11.4 I do not agree with the applicant's landscape specialist that the landscape features of the open space zone will not be affected by the PPC. In my opinion, the combined impact of the increased height and the removal of the HIRB along the interface with the open space zone is considered to have the potential adverse effects on the landscape values and visual amenity of users within the open space land and residents to the east to a moderate degree.

11.5 Overall, it is my opinion that from a landscape perspective the change in zoning from B-LIZ to B-MUZ would have the potential to improve the landscape and visual amenity values of the area. However, I consider that this would be better achieved through stronger provisions within the precinct, such as

- Changing the activity status for development which infringes the Standard for building height (IX.6.1 Restricted Discretionary)) within the activity table to discretionary or non-complying activity.

- Retention of the HIRB standard to the open space zone.

- The benefit of including a special information requirement to provide a surveyor's report as part of future development, which demonstrates compliance with the Volcanic Viewshaft in relation to the co-ordinates within Schedule 9.

Gabrielle Howdle
Principal Landscape Architect
Tāmaki Makaurau Design Ope
Auckland Council

Appendix A: Qualifications and experience

Gabrielle Howdle
Principal Landscape Architect
Design Review - Tāmaki Makaurau Design Ope
Planning and Resource Consents
Auckland Council

Qualifications and Training

- Bachelor of Landscape Architecture (Hons) (2016), Unitec Institute of Technology, NZ
- Environment Court and Expert Witness Training by DLA Piper (2019)
- Crime Prevention Through Environmental Design, Level 1. International Security Management and Crime Prevention Institute (2018)

Experience:

- Principal Landscape Architect, Design Review Team, Tāmaki Makaurau Design Ope, Auckland Council (September 2023 – Current)
- Specialist Landscape Architect, Design Review Team, Auckland Design Office, Auckland - Council (September 2017- September 2023)
- Graduate Landscape Architect, Brown NZ Ltd. (April 2017- July 2017)
- Landscape Intern, Urban Logic (January 2015- February 2015)

I have been with Auckland Council in the design review team since September 2017. I have over 7 years industry experience in NZ, primarily within the public sector. In my current role as Principal Landscape Architect, I specialise in design review and the assessment of landscape effects, including landscape character, natural character, and visual amenity for projects of various scales. I am a Graduate Member of New Zealand Institute of Landscape Architects Tuia Pito Ora and am a member of the NZILA Auckland Branch Committee. I have attended and provided evidence at a variety of council hearings as part of my role and provided input into MfE Fast Track Consenting projects.

Appendix B: 7-point rating scale extracted Landscape and Visual Effects Assessment (Revision B) prepared by Barkers & Associates, dated 18.04.2024 – Appendix 1 Assessment Methodology

Effect Rating	Use and Definition
Very High:	Total loss to the characteristics or key attributes of the receiving environment and /or visual context amounting to a complete change of landscape character.
High:	Major change to the characteristics or key attributes of the receiving environment and /or the visual context within which it is seen; and/or a major effect on the perceived amenity derived from it.
Moderate-High:	A moderate - high level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate - high level of effect on the perceived amenity derived from it.
Moderate:	A moderate level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate level of effect on the perceived amenity derived from it.
Moderate -Low:	A moderate - low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have moderate - low level of effect on the perceived amenity derived from it.
Low:	A low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a low effect on the perceived amenity derived from it.
Very Low:	Very low or no modification to key elements/ features/ characteristics of the baseline or available views, i.e. approximating a 'no change' situation.

Table 4: Determining the overall significance of landscape and visual effects.

Excerpt from Te Tangi a te Manu in relation to RMA situations

Appendix C: Scheduled Volcanic Viewshafts – Extracted from AUP(OP) – Appendix 20 Volcanic Viewshafts and Height Sensitive Areas – Values Assessments (Pages 169 – 173)

Regionally Significant W12 – Maungarei / Mount Wellington

		CONE	VIEW		ORIGIN POINT		SUMMARY:
VIEW NO:	LOCATION:	ATTRIBUTES:	TYPE OF VIEW:	ATTRIBUTES:	TYPE:	ATTRIBUTES:	
W12	Bucklands Beach: The beach reserve, car parking area & The Parade	**NATURAL HERITAGE:** Although standing somewhat apart from central Auckland and, in some respects, less well known than cones like Mt Eden and One Tree Hill, Mt Wellington is perhaps the most physically impressive and intact of Auckland's Isthmus cones. It rises up from a low-lying periphery of residential, commercial and light industrial mark to stamp an emphatic mark on the landscape around Panmure and the Tamaki River. The cone's dome-like profile, layered by tuff outcrops and ridges is complemented by an explosion crater on its summit that is widely visible. **CULTURAL HERITAGE:** The cones open summit and flanks, reveal a complex layering of pa ditches, terracing and pits, and Maori settlement patterns across Mt Wellington / Maungarei are among the best preserved and most clearly legible of any in New Zealand. Called the 'Watchful mountain' by the maunga's 18th Century Waiohua inhabitants, the cone is also referred to as Te Maungarei a Potaka, in deference to a prominent tribal leader who lived on the maunga, or Maunga a Reipae with reference to a Tainui ancestress who landed on the mountain in the form of a bird. The western river banks and flats of the Tamaki River were occupied by Ngati Paoa in the late 18th Century and it appears that they gifted the maunga – then unoccupied – to Ngati Whatua some time after that. **OTHER VALUES:** Mt Wellington is an iconic feature for the area around Mt Wellington, Panmure, the Tamaki River and Stonefields. It is directly linked to the sunken crater of the nearby Panmure Basin, and various views also link it to other key volcanic remnants, including Mt Eden, One Tree Hill and Pigeon Mountain. It forms part of the introductory chain of cones visible from Pakuranga Rd as motorists approach central Auckland, and it is a key landmark for eastern Auckland in general.	INDIVIDUAL FEATURE CUMULATIVE VALUE – MULTIPLE CONES	**INDIVIDUAL CONE:** The expanse of the Tamaki River is a constant 'draw card' for those using The Parade and its margins. It provides the obvious focus for ranks of housing stepped back from Bucklands Beach and it is clearly the magnet for recreational use over the summer months and times when the weather draws the Auckland populace outside. The extensive sand bank off Tohuna Torea Reserve also draws attention to the middle and far side of the river, but its is largely backed by a low lying, gently unfolding sequence of ridges that are predominantly covered in housing. However, the hunched profile of Mt Wellington climbs emphatically above this urban matrix, with its layering of exposed terraces and crater margins clearly apparent. Although views across and down the Tamaki River therefore have a strongly panoramic quality – stretched out down its meandering channel and framed by low lying terrain on the far side – Mt Wellington is clearly etched on the far skyline. Its form and green slopes contrast with the low-lying patina of residential and light industrial forms that otherwise dominate the far banks – together with a linear strip of coastal vegetation around Point England Reserve and elsewhere – so that it is a constant landmark and point of reference within this coastal landscape. Together with the more recessive, but still iconic, silhouette of One Tree Hill, it provides a powerful reminder of the presence of the cone field and of the forces that continue to form the Isthmus and its surrounds. **CUMULATIVE VALUE:** Viewed from the eastern side of the Tamaki River and estuary, Mt Wellington is seen in conjunction with One Tree Hill, although its gentle conical profile – both accentuated and pinpointed by the Logan Campbell memorial – is remote and visually subdued in comparison with Mt Wellington. As a result, it tends to make a rather solitary visual statement that is subtly reinforced by the connection with One Tree Hill. Views from W12 also reveal Rangitoto beyond the mouth of the Tamaki River. Although Rangitoto has a quite different physical profile, character and scale – compared with Mt Wellington – the two still serve to reinforce the broad reach of Auckland's volcanic field and the way in which it has shaped so much of Auckland's landscape and identity. **OTHER VALUES:** Although Mt Wellington retains a strong association with suburban Panmure and Mt Wellington, it is also important in terms of the identity of the Tamaki River landscape. Moreover, the connection between the maunga and river is also symbolic of the past use of both the cone and alluvial plains closer to the river for Maori habitation, gardening and food gathering.	LINEAR VIEWPOINT VIEWING DISTANCE TO CONE: 5.5kms	**RECREATIONAL FOCAL POINTS:** Bucklands Beach comprises two gently curving beach areas that are linked by a small promontory that is used to accommodate a parking area and small yacht club. Grass berms wither side of this promontory provide ample room from picnicking over the summer months, while the extensive beachfronts and road behind – The Parade – provide public frontage to some 1.9kms of river estuary. As a result, W12's linear origin point provides the focus for a wide range of activities, with a strong bias towards maritime and beachfront recreation: swimming, boating, picnicking, walking, etc. Although it lacks the regional status that is attributed to other origin points, such as roads, it nevertheless remains a highly attractive part of Auckland's coastal environment that attracts thousands of beach users over summer and autumn. Even over winter, it can be ideal for strolling along. In addition, Viewpoint W12 enjoys exposure to, and use by, a very sizeable residential catchment in its immediate vicinity – stretching across the Music Point isthmus to Eastern Beach and it lies close to a broad swathe of suburbs that include Pakuranga, Panmure, Howick and Botany Downs.	This view combines panoramic views to the Tamaki River and its margins, with the much more focused and directed views to both Mt Wellington and Rangitoto. These views symbolise the broad spread of volcanoes across the Auckland landscape, and remind the regional community of its formative processes. More specifically, W12 reinforces the important contribution that Mt Wellington makes to the character and identity of the Tamaki River landscape.
						EVALUATION:	REGIONALLY SIGNIFICANT

View W12: Photo 1 of 2
The Individual Cone (80mm lens equivalent)
(This photograph is indicative only; field based analysis is required for assessment purposes)

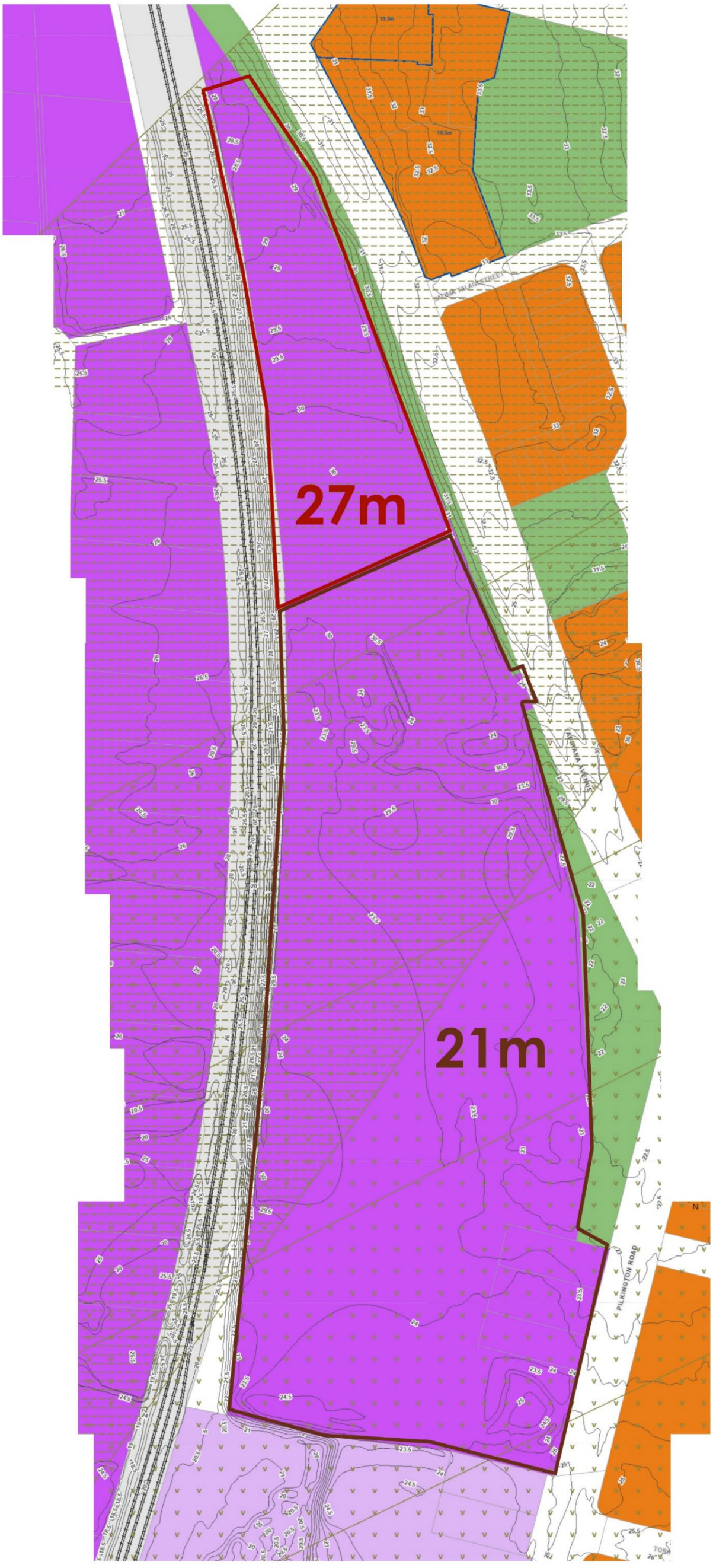
View W12: Photo 2 of 2
Cumulative Values – Rangitoto Also Viewed From W12 (80mm lens equivalent)
(This photograph is indicative only; field based analysis is required for assessment purposes)

Locally Significant W13 – Maungarei / Mount Wellington

		CONE	VIEW		ORIGIN POINT		SUMMARY:
VIEW NO:	LOCATION:	ATTRIBUTES:	TYPE OF VIEW:	ATTRIBUTES:	TYPE:	ATTRIBUTES:	
W13	West Tamaki Rd & West Tamaki Reserve	**NATURAL HERITAGE:** Although standing somewhat apart from central Auckland and, in some respects, less well known than cones like Mt Eden and One Tree Hill, Mt Wellington is perhaps the most physically impressive and intact of Auckland's Isthmus cones. It rises up from a low-lying periphery of residential, commercial and light industrial mark to stamp an emphatic mark on the landscape around Panmure and the Tamaki River. The cone's dome-like profile, layered by tuff outcrops and ridges is complemented by an explosion crater on its summit that is widely visible. **CULTURAL HERITAGE:** The cones open summit and flanks, reveal a complex layering of pa ditches, terracing and pits, and Maori settlement patterns across Mt Wellington / Maungarei are among the best preserved and most clearly legible of any in New Zealand. Called the 'Watchful mountain' by the maunga's 18th Century Waiohua inhabitants, the cone is also referred to as Te Maungarei a Potaka, in deference to a prominent tribal leader who lived on the maunga, or Maunga a Reipae with reference to a Tainui ancestress who landed on the mountain in the form of a bird. The western river banks and flats of the Tamaki River were occupied by Ngati Paoa in the late 18th Century and it appears that they gifted the maunga – then unoccupied – to Ngati Whatua some time after that. **OTHER VALUES:** Mt Wellington is an iconic feature for the area around Mt Wellington, Panmure, the Tamaki River and Stonefields. It is directly linked to the sunken crater of the nearby Panmure Basin, and various views also link it to other key volcanic remnants, including Mt Eden, One Tree Hill and Pigeon Mountain. It forms part of the introductory chain of cones visible from Pakuranga Rd as motorists approach central Auckland, and it is a key landmark for eastern Auckland in general.	INDIVIDUAL FEATURE	**INDIVIDUAL CONE:** Looking from the edge of West Tamaki Rd or the upper reaches of the West Tamaki Reserve, Mt Wellington / Maungarei is clearly visible on the western horizon. Its crater mouth and rim, together with the cone's middle and upper slopes emerge – largely shorn of vegetation – above a mosaic of dwellings, residential gardens and Tamaki Campus buildings (Auckland University) that frame the cone. It is the one landmark on the visible horizon, with the layering of old terraces and pits, the crater mouth and a series of tuff ridges around it, apparent across its open slopes. The cone's form, rising well above the surrounding terrain and development, together with its more fine-grained patina of features, highlight Mt Wellington's volcanic nature, while the terracing and other striations running laterally across its slopes emphasise its past occupation by Maori. Despite trees and buildings encroaching into the margins of W13, it still captures Mt Wellington as the centrepiece of the view from this part of West Tamaki Rd and West Tamaki Reserve. The cone is revealed as a clearly legible, well articulated, landmark and this view also conveys a sense of the cone's form and structure, together with its cultural heritage. Consequently, while this view is fleeting for car users and offset to the main road corridor, it offers a more enduring and layered perspective of the cone for park users, students leaving Sacred Heart College, or waiting to be picked up and pedestrians. **OTHER VALUES:** View W13 helps to reinforce Mt Wellington's role as a local / suburban landmark that contributes very significantly to the identity of the area around West Tamaki Rd and Reserve. **DETRACTORS:** Trees on the eastern side of the reserve, together with housing in the immediate foreground, restricts the scope and extent of this view, without actually intruding into the profile of the cone.	SINGLE POINT VIEWING DISTANCE TO CONE: 3.3kms	**ROAD CORRIDORS:** West Tamaki Rd is described by Auckland Transport as a Secondary Arterial Route (approximately 3,700 vehicle movements west bound per day to September 2015) whose main functions are to: • For 'Through Traffic' to provide movement within the district between key nodes; and • In terms of 'Network Connectivity' to connect major nodes within an area and serve adjacent key activities. It is a significant thoroughfare for commuters within the suburban area of southern Glendowie, West Tamaki and northern Glen Innes, and also provides access to Sacred Heart College directly opposite West Tamaki Reserve and the W13 viewpoint. As a result, it caters primarily for local commuters and road users, together with students and parents either dropping off or picking up students. In so doing, it exposes Mt Wellington to a local / sub-regional audience of motorists, bus users, cyclists and pedestrians.	View W13 captures an iconic perspective of Mt Wellington that reveals both its volcanic heritage and layers of cultural history. It emphasises the cone's role as a landmark and its contribution to the identity of an array of suburbs that surround the cone, including West Tamaki and northern Glen Innes. However, the view is quite restricted and is offset to the left of views down West Tamaki Rd, so that it is primarily exposed to Sacred Heart College students waiting to be picked up or walking away from the College, together with local pedestrians and park users.
					EVALUATION:	LOCALLY SIGNIFICANT	

View W13: Photo 1 of 1
The Individual Cone (80mm lens equivalent)
(This photograph is indicative only; field based analysis is required for assessment purposes)

Appendix D - Volcanic Viewshaft plane heights as mapped on Council GIS (accurate co-ordinates to be confirmed from Schedule 9) and Proposed HVC



Memo

To:	Michele Perwick, Senior Policy Planner, Planning Central and South, Planning and Resource Consents, Auckland Council
Date:	29 October 2024
Reference:	PPC 101, Pilkington Park – Urban Design Review

1 Introduction

1.1 I have undertaken a review of PPC 101, Pilkington Park, in relation to the urban design assessment lodged with the request to Auckland Council. A Council urban designer was previously providing urban design review advice. However, due to their unavailability at the time of the hearing, I have taken over the review role following the close of submissions.

1.2 I am an Urban Designer and Landscape Architect. I am a director of the consultancy RA Skidmore Urban Design Limited and have held this position for approximately twenty one years.

1.3 I hold a Bachelor of Science degree from Canterbury University (1987), a Bachelor of Landscape Architecture (Hons) degree from Lincoln University (1990), and a Master of Built Environment (Urban Design) degree from Queensland University of Technology in Brisbane (1995).

1.4 I have approximately 29 years' professional experience, practising in both local government and the private sector. In these positions I have assisted with district plan preparation and I have assessed and reviewed a wide range of resource consent applications throughout the country. These assessments relate to a range of rural, residential and commercial proposals.

1.5 I regularly assist councils with policy and district plan development in relation to growth management, urban design, landscape, character and amenity matters. In recent years I have assisted Auckland Council with reviewing a broad range of private plan change request. A number of examples are provided in Appendix 1.

1.6 I am an accredited independent hearing commissioner. I also regularly provide expert evidence in the Environment Court and I have appeared as the Court's witness in the past.

1.7 In preparing this Review I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note (2023) and agree to comply with it. Except where I state that I am relying on the specified evidence of another person, the content of this Review is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

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

- Urban Design Assessment (B&A, April 2024) ("UDA") (Appendix 9 of the Sec. 32 report);
- The proposed Precinct provisions (Appendix 3 of the Sec. 32 report);
- The Clause 23 request and response, including the Urban Design memo (attachment 1) and the updated Precinct provisions (v.2.1)
- Submissions.

1.9 My review has also been informed by reference to: the Section 32 planning report; the Economic Assessment (Appendix 4); the Integrated Transport Assessment (Appendix 7); the Landscape and Visual Effects Assessment (Appendix 10) (the "LVEA"); the Acoustic Assessment (Appneidx 11); the Regional Policy Statement Assessment (Appendix 13) and the Provision of Open Space map (Appendix 15).

1.10 In carrying out my review I visited the land subject to the PPC (the "Site") and surrounding environs on the 12th September 2024.

2 Summary

2.1 I rely on the reporting planner to explain PPC101 including its location and what the plan change is seeking.

2.2 I have identified the following issues relevant to my area of expertise:

- Land-use – the appropriateness of the proposed zoning relative to the Site's location and context;
- Comprehensive approach to development;
- Appropriateness of the Height Variation Control;
- Effects associated with removal of the Height in Relation to Boundary Control interfacing with Open Space zone; and
- Interface with surrounding land-use.

Recommendations

2.3 Further analysis (including shade diagrams) relating to the amenity effects associated with the removal of the HRB control off the wider Open Space zone area towards the south of the Precinct.

2.4 Additional assessment criterion for new buildings.

2.5 Additional assessment criteria for buildings infringing the Height Variation Control standard.

2.6 Subject to a review of this further analysis, from an urban design perspective, I conclude the PPC can be confirmed without further amendments.

3 Technical Report Overview

3.1 There is no industry standard setting out an agreed methodology for carrying out an urban design assessment. In my opinion, the UDA by B&A sets out a clear and detailed analysis that, in my opinion, follows an appropriate methodology and addresses the key matters relevant to urban design considerations. As noted in the introduction section, the report should be read alongside the Landscape and Visual Effects Assessment (the "LVEA"), also by B&A. There is an overlap between these disciplines. I note that, while I have had regard to the LVEA, a separate review of this report has been provided by Gabrielle Howdle.

3.2 Section 3 of the UDA provides a brief description of the Site, a summary of the planning provisions that apply to the Site (a more detailed description provided in the Section 32 planning report), and a description of the surrounding context. I generally agree with the description provided. In relation to the Site, in addition I note the following points relevant to an assessment of effects related to urban design considerations:

- The Site has little direct street frontage with only small length at the southern extent directly interfacing with Pilkington Road. The balance of the Site is separated from the Pilkington Road and Apriana Avenue frontage by Council owned land zoned Open Space: Informal recreation. There are four vehicle access points across the open space land that provide access into the Site from the adjacent streets;

- The Site does not contain any notable trees or significant natural or historic features;

- The Site currently contains a mix of light industry – warehousing, packing, distribution and manufacturing with a resulting functional industrial built character. A childcare centre is also located on the Site;

- The existing open space area at the northern apex of the Site is owned by KiwiRail and is currently zoned Business: Light Industry ("B:LI"). It creates a seamless interface with the adjacent Open Space zone (in Council ownership).

3.3 In relation to the surrounding context, I make the following additional observations:

- The planned separated cycleway referred to in the report has now been constructed on the western side of Apirana Avenue and Pilkington Road. This forms part of a cycle network that provides good connectivity all the way through to the City centre;

- As noted, the Site is within walking distance of Glen Innes Town Centre (and the train station). The established town centre contains a mix of retail activities and community service facilities. The current built character is largely limited to low rise (1 – 2 storey) development. The height standard for the zone enables considerable intensification and greater vertical scale with a Height Variation Control of 32.5m applying to the town centre;

- There has been considerable transformation in the wider area in recent years, much facilitated by co-ordinated efforts through the Tamaki Regeneration project extending through Glen Innes, Point England and Panmure. The neighbourhood of Stonefields has also established over a considerable timeframe, transforming the former quarry into a primarily residential neighbourhood;

- The first stage of 'Te Tauomo – a city in a park' – has established on the former Auckland University Tāmaki campus on Morrin Road (to the west of the Site). Stage 1b that provides for approximately 181 residential units in two residential buildings (up to 18 storeys high) has recently been consented.

3.4 Section 4 of the UDA provides a summary of the relevant strategic planning context for assessing the PPC (with a more detailed analysis set out in the Section 32 Planning report). I note that while PC78 is currently on-hold and there is some uncertainty about how it will proceed, the analysis and identification of 'walkable catchments' provided in the PC is helpful in relation to the policy direction set by the National Policy Statement: Urban Development ("NPSUD"). PC 78 identifies the entire Site as being within the walkable catchment of Glen Innes and the train station.

3.5 The body of the urban design assessment is set out in Section 6 of the UDA. It is organised under the following topics:

- Diverse land, uses, character and amenity;
- Streetscape effects;
- Enhanced legibility of Apirana Avenue and Pilkington Road;
- Height and scale relationships;
- Effects on the public realm;
- Visual reinforcement of the Town Centre;
- Adverse effects on neighbouring sites;
- Achieving high quality development;
- Compact city outcomes.

3.6 In the following section I set out some additional commentary around the key aspects of the PPC that I consider are relevant to urban design considerations. Overall, I concur with the conclusions set out in Section 7 of the UDA. I agree that the Site's location makes it well suited to the greater intensification and variety of uses enabled by the B:MU zone. I agree that the changes proposed will enabled an increase in the vibrancy of the local area, improved legibility of the Glen Innes Town Centre, and support for the vitality and functionality of the Centre and train station.

3.7 A number of urban design queries were raised in the Clause 23 request from the Council. The requestors response included an urban design memorandum by B&A (dated 1st December 2023) (Attachment 1). I have also reviewed the additional assessment provided in relation to the Tāmaki Regeneration Masterplan and the Maungakiekie-Tāmaki Local Board Plan (2020) (Attachment 10). I have considered the matters raised and the responses provided and comment further in Section 3 below.

4 Key Urban Design Issues

4.1 As noted above, I generally consider the PPC is supported by robust urban design analysis. Having reviewed the urban design assessment provided and considered this in the context of other relevant material contained in the PPC request and the matters raised in submissions, I consider there are a limited number of issues that require further consideration and comment.

Land-use – proposed Business: Mixed Use zone

4.2 The zone description (H17.1) for the B:LI zone, which currently applies to the Site, notes that the zone anticipates a range of industrial activities that do not generate objectionable odour, dust or noise. The anticipated level of amenity is noted as being lower than in the centre zones, Business: General Business zone and the B:MU zone. I note that residential activity is listed as Non-complying in the B:LI zone and new buildings and additions and alterations to buildings are a Permitted activity.

4.3 In contrast, the B:MU zone is described (H13.1) as typically located around centres and along public transport corridors. The zone acts as a transition, in terms of scale and activity, between residential areas and centre zones. It also applies to areas where there is a need for a compatible mix of residential and employment activities.

4.4 While many of the activities enabled in the B:LI zone are also enabled in the B:MU zone, an important distinction is dwellings are a permitted activity in the B:MU zone and new buildings are a Restricted Discretionary activity, with Council's discretion enabling consideration of a range of design matters, such as the relationship of buildings to public streets and spaces and the amenity created, the application of CPTED principles, and the use of landscaping to contribute to public spaces.

4.5 In my opinion, the Site is better suited to the B:MU zone than the B:LI zone. In particular, its close proximity to the Glen Innes Town Centre and associated railway station (within the walkable catchment), and its relationship to the THAB residential zone on the eastern side of Apirana Avenue and Pilkington Road lend itself to enabling a greater mix of activities, particularly residential, with the zone provisions enabling consideration of the amenity achieved. Enabling the establishment of residential activity in this location has the potential to contribute positively to the functionality and vitality of the adjacent Town Centre.

Comprehensive Approach to Development

4.6 The Site is largely held in a single ownership (other than the northern tip owned by KiwiRail). Being approximately 7.3 ha, this is a large and strategic land holding in a well-established urban environment, adjacent to a town-centre and good public and active transport networks. The long proportion of the Site and lack of direct street frontages also presents some challenges to redevelopment achieving good integration and connectivity with the surrounding environment. The potential constraints to achieving vehicular access across the adjacent open space zone is set out in detail in the Council's Parks Planning Review by James Hendra (Consultant Parks Planner).

4.7 The Clause 23 request for further information noted the significance of the Site and the need for redevelopment to be carried out in a co-ordinated matter to avoid piecemeal / ad-hoc redevelopment. How a 'comprehensive design approach' to future

development, as described in the UDA, would be ensured through the B:MU and Precinct provisions proposed was queried.

4.8 I note that the proposed Precinct provisions do not include a spatial plan depicting any overall key urban structure outcomes such as key connections and frontage interface treatments. I understand that there are no immediate redevelopment plans for the Site and the PPC is not supported by any indicative masterplan or design testing for the Site. Some preliminary design testing has been carried out by Warren and Mahoney Architects, with different yield scenarios used to inform infrastructure assessments.

4.9 In response to the query raised, further reference to a comprehensive approach to development has been added to the Precinct provisions. This includes reference in the Precinct Description to "…. ensuring the precinct is developed in a comprehensive manner", addition in Objective (1) to the precinct being comprehensively developed, and the addition of Policy (3).

> *Promote the comprehensive development and redevelopment of the Pilkington Park Precinct.*

4.10 While these changes do not require a comprehensive approach to development, in my opinion, when considered in combination with the subdivision provisions (in particular Policies E38.3(10), (11) and (18) and B:MU provisions, including the matters of discretion for new buildings, and the additional Precinct matters of discretion and associated criteria for new buildings, appropriate consideration of how development within the Precinct will achieve suitable integration both within the Site and with the surrounding urban environment will be required. In order to ensure an appropriate relationship between buildings and adjacent open spaces (including streets) is achieved, I suggested the following additional assessment criteria would be helpful:

> *The extent to which the placement, configuration and design of new buildings responds to and positively contributes to the amenity values of adjacent public open spaces and streets.*

Height Variation Control

4.11 The B:LI height standard that currently applies to the Site is 20m. The B:MU zone has a height standard of 16m occupiable height, plus a 2m allowance for roof form – providing a total height of 18m. The PPC seeks to apply two Height Variation Control areas across the Precinct (Rule IX.6.1), with 27m at the northern end of the Precinct and 21m at the southern end. The Purpose for the height standard includes 'enable greater height in the north for the precinct to provide a graduation in building height from the Glen Innes Town Centre.'

4.12 The assessment of effects arising from the proposed height standards is set out under a number of assessment topics in the UDA. The assessment is supported by a number

of bulk an location axonometric diagrams (Appendix 1 and reproduced at a smaller scale in the body of the report) that depict a number of scenarios, including:

- The existing situation;
- the AUP 'plan enabled' heights for the Site and the neighbouring THAB zone; and
- the Plan Change 'built-up' scenario.

4.13 These diagrams are helpful to understand the relative heights currently enabled and proposed. However, it is important to note that they do not represent actual development proposals, and effects from designed development scenarios would be quite different. The landscape effects (including visual amenity effects) are assessed in the LVEA. Appendix 2 of the report includes a series of visual simulations (Viewpoint 2 from Maungarei Memorial Drive) that also depict bulk and location diagrams of: the building envelopes currently enabled; enabled under PC78; and proposed by the PC.

4.14 I generally agree with the analysis set out in the UDA and the conclusion that the height standards proposed for the Precinct are appropriate. In my opinion, they will make a better contribution to the functionality and amenity of the urban environment than the current B:LI height standard (with no associated design control of buildings) for the following reasons:

- Enabling buildings of at least 21m is consistent with Policy 3(c) of the National Policy Statement on Urban Development, which seeks to enable building heights of at least 6 storey within at least a walkable catchment of rapid transit stops (in this instance the Glen Innes train station);
- The northern portion of the Precinct is adjacent to the Glen Innes Town Centre and enabling greater building height will facilitate greater intensification in a suitable location to access the range of amenities provided in the Town Centre and contribute positively to its vitality;
- While the existing Town Centre has a low built profile, the proposed 27m height standard will provide a suitable transition from the 32.5m height that is enabled;
- The 27m height standard will enable considerably greater height differential in relation to the residential environment on the eastern side of Apriana Avenue. However, when considered in the context of the 19.5m Height Variation Control that applies north of Salima Talagi Street, the inclusion of this area also within a walkable catchment of the railway station with a likely future uplift in height limits to give effect to the NPS:UD policy direction (as indicated by PC78 height standard of 21m), the broad dimension of Apriana Avenue and the additional separation created by the Open Space zone, I consider the scale differentiation to be appropriate.

4.15 The proposed Precinct provisions include assessment criteria for considering an infringement of the height variation control with reference to a number of relevant policies. To ensure a consideration of the creation of a suitable transition to the adjacent Town Centre (as noted above) and to maintain the Centre's primacy in the urban environment, I consider it would be helpful to include reference to Policy H13.3(1):

> *Reinforce the function of the city centre, metropolitan centres and town centres as the primary location for commercial activity, according to their role in the hierarchy of centres.*

4.16 I also note that taller buildings can impact on the pedestrian amenity of surrounding open spaces such as streets, in terms of the enclosure created, shading effects and wind effects. Therefore, it would also be relevant to include reference in the criteria to Policy H13.3(3)(c):

> *Require development to be of a quality and design that positively contributes to:*
>
> *(c) pedestrian amenity, movement, safety and convenience for people of all ages and abilities.*

Height in Relation to Boundary Control

4.17 The B:MU zone includes a height in relation to boundary standard (Rule H13.6.2) in relation to interfaces with residential and open space zones. The proposed Precinct excludes the requirement for this control in relation to the adjacent Open Space – Informal Recreation zone (Rule IX.6(2)(b)). This would apply to most of the eastern length of the Precinct, with only the southern end of the Precinct directly fronting Pilkington Road. In this location the recession plane standard would still apply in relation to the street frontage. I note the visual simulations from Viewpoint 6 contained in the LVEA are helpful to depict the difference in the envelope enabled (viewed from the southern corner of the Glen Innes Town Centre). No modelling has been provided depicting the envelopes when viewed from the south.

4.18 The UDA analyses and describes the HRB control in relation to the adjacent Open Space zone to be 'technical in nature' as the open space area is assumed to have been formed to create a buffer with the residential environment across the road, rather than to provide a recreation function[1]. This may be the case, but I do note the open space broadens out in the vicinity of the intersection with Tripoli Road and Pilkington Road. This open space area has the potential to perform a valuable passive recreation and amenity function as the Precinct evolves. It would be helpful for the requestor to provide

[1] P. 18, Urban Design Assessment, B&A, 19/04/24

further analysis in evidence of the difference between the two envelopes in relation to this widened area of open space and the effects on the amenity of the space that may result. In particular, consideration should be given to the potential shading and visual dominance effects. Below I set out the key bulk and location parameters that relate to the three zoning and precinct scenarios in relation to the open space. In combination, these factors will determine potential effects of development on the adjacent space.

Zone / Precinct	**Bulk and location Standards**
Business : Light Industry	Height – 20m Side Yard – 5m where boundary adjoins an open space zone HRB – 6m +35 degrees along the boundary with open space zones No assessment of buildings complying with standards (permitted activity)
Business : Mixed Use	Height 18m (16m occupiable building height + 2m height for roof form) or where a site is subject to a Height Variation Control the height specified for the site on the planning maps No yard HRB – 8.5m +45 degrees along the boundary with open space zones New buildings RDA
Pilkington Park Precinct	HVC – 21m in southern area and 27m in the northern area) No yard No HRB control New buildings RDA

4.19 The UDA also makes the assumption that compliance with the HRB control would result in a stepped building form, depicted in an accompanying diagram (Figure 10). I note that this is one scenario to achieve compliance. Another may be to create a greater setback, or a combination of the two.

4.20 Despite these points (and subject to consideration of further analysis of amenity effects on the southern open space area), I agree that the removal of the HRB control in relation to the Open Space zone is appropriate and will provide greater flexibility to create a direct and engaged interface with the public realm. While I acknowledge the dense planting along much of the length of open space has been used to create a screen to the light industrial activity behind, this may not remain the future. The Council's approach for the treatment of the space may change, if, and when, the precinct is redeveloped.

4.21 In my opinion, enabling a more direct interface with the open space corridor would also have potential benefits of providing better passive surveillance beyond the open space over the adjacent street corridor. In my opinion the matters of discretion and associated criteria/policies would enable a suitable consideration of the way development interfaces with the adjacent open space. I note that the Council's open space reviewer has recommended the requirement of a 5m yard in relation to the adjacent Open Space zone (as currently required for the B:LI zone). I do not agree that such a yard is necessary as it may diminish the ability to front the adjacent space in a positive manner. It may also result in an undesirable site configuration with buildings backing onto the space and using the setback for carparking and storage areas.

4.22 In my opinion, the removal of the HRB control may result in an increased building prominence in relation to residential properties to the east across the street corridor, particularly in combination with the additional height proposed at the northern end of the Precinct. However, I consider the separation created by the combination of the wide and busy street corridor and the open space corridor will ensure unacceptable overlooking and visual dominance is avoided.

4.23 Overall, I consider that the removal of the HRB control, as proposed, will enable greater design flexibility and, with the application of the design criteria for new buildings, will maintain and may enhance the amenity of the adjacent public realm. However, further analysis is sought to confirm the potential effects in relation to the broader area of open space in the vicinity of the intersection of Aprirana Avenue, Tripoli Road and Pilkington Road.

Interface with Surrounding Land Use

4.24 The Site is surrounded by areas of differing land use patterns. Immediately to the north of the Site, separated by the Open Space zone, is the broad street intersection of Merton Rod, Apirana Avenue, Line Road and Point England Road. This provides a separation from the Glen Innes Town Centre. As discussed above, in my opinion, the B:MU zone provides for a better range of activities to support the function and amenity of the Town Centre.

4.25 In relation to the established residential environment to the east, the Apriana Avenue / Pilkington Road corridor and adjacent open space corridor provides a separation between the residential neighbourhood and the Site. In my opinion, the mix of activities, and, in particular residential activity, together with the requirement for consent for new buildings in the B:MU zone, provides a framework to better integrate with this environment than the current B:LI zone. The proposed Precinct will enable a greater vertical scale of buildings at its northern end and a more direct interface of buildings with the open space. However, in the context of the continued change anticipated in

the wider environment, with increased intensification through the residential environment, I consider a reasonable amenity will be maintained.

4.26 Land immediately to the south of the Site is zoned B:MU and contains a mix of small scale light industrial and commercial retail premises. The proposed zoning is consistent with this established zone.

4.27 Immediately to the west of the Site is a 2m high bund to support the railway line that runs the length of the Site and beyond. The rail corridor creates a separation from the established B:LI zone to the west. In my opinion, the rail corridor provides containment to the Site and the proposed B:MU zone and the Precinct provision will not be incompatible with the wider zoning pattern to the west. I note that the zoning interface condition will be similar to that which currently exists to the South of the Site.

4.28 In terms of reverse sensitivity effects, the Council's Air Quality Reverse Sensitivity Assessment[2] does not raise any significant reverse sensitivity effects for residential activity on the Site. However, it notes the potential for higher buildings to accommodate residential units overlooking the industrial area and discharge stacks. While there may be some adverse amenity effects arising from units overlooking the industrial environment, I consider this effect would not be significant in an urban context. The light industrial environment is already established to the West and it is likely that masterplanning of future development within the Site would be cognisant of the outlook created for residential units. In my opinion, there is no need for any Precinct-specific provision to address this spatial relationship.

5 Submissions and Local Board Comments

5.1 I have reviewed the submissions received. Only a limited number raise urban design matters. These primarily relate to the scale of buildings enabled by the proposed Precinct.

Building Scale

5.2 Several submitters[3] that live in the Point England neighbourhood to the east oppose the Heigh Variation Controls proposed. Charis Charan (Submission #1) recommends buildings heights should be limited to 4 storeys, in line with Hinaki Street apartments. Georgina Stewart (Submission #2) recommends heights should be limited to three storeys. Sibylle Van Hove recommends the Height Variation Control is removed. Her

[2] Pattle Delamore Partners Ltd., 04/10/24
[3] #1 - C Charan, #2 – G Stewart, and #3 – S Van Hove

submission notes that significant research has shown that medium density built environments create more livable cities than those with high rise buildings.

Response

5.3 I appreciate the submitters views on higher buildings and their preference for lower height limits. However, the heights suggested by submitters are lower than the existing height limits that apply on the Site and do not accord with the policy direction to accommodate greater intensification (facilitated by higher buildings) in strategic locations. As discussed in Section 3 above, in particular, the policy direction set out in the NPS:UD lends support for the increased heights sought.

5.4 The application of the 27m Height Variation control, in particular, together with the removal of the HRB control will enable a noticeable change in building scale in the northern area of the Site. However, I note that the exiting B:LI zone does not require consents for new buildings. The proposed B:MU zone does, with matters of discretion including a consideration of the design and appearance of buildings and the contribution they make to the character, amenity and safety of the surrounding environment.

5.5 I note the guidance set out in the Policy 6(b) of the NPS:UD that the planned urban built form may involve significant changes to an area and those changes may detract from amenity values appreciated by some people, but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types. The policy notes that this these changes are not, of themselves, an adverse effect.

5.6 I have considered the potential adverse effects arising from the changes to the building envelopes sought and conclude that they are appropriate in this location.

Local Board Comments

5.7 The Local Board supports the PPC, to rezone to the land to B:MU and to introduce a new Pilkington Park Precinct. Their comments note the public submissions received and request the concerns raised are given due consideration. They highlight a number of matters including whether the existing height controls should be maintained in keeping with surrounding developments and ensuring viewshafts to Maungarei are well maintained for the area.

5.8 My assessment of the appropriateness of the height standards proposed is set out above, together with responses to points raised in submissions. The relationship of the height standards to views to Maungarei is addressed in the Landscape Assessment review.

5.9 In summary, I consider the proposed height standards are appropriate.

Rebecca Skidmore
Urban Designer/Landscape Architect
29 October 2024

APPENDIX 1

Examples of PPC reviews

Smales Farm Private Plan Change Request (2017 – 2018) Assisted Auckland Council with urban design, landscape and visual effects advice in relation to a private plan change request to enable significant intensification and high residential apartment buildings to create a Transit Oriented Development at Smales Farm, Auckland

Oraha Road SHA Plan variation (2015 - 2016) – Provided urban design advice and assessment in relation to a variation to the PAUP to facilitate urban development of an identified SHA at Kumeu, Auckland. Have also provide advice and assessment for subsequent subdivision of the land.

St Lukes Private Plan Change Review (2009 – 2013). On behalf of Auckland City Council, reviewed a private plan change request to provide for expansion of the St Lukes retail centre. Continued to assist Auckland Council with appeal resolution and review of resource consent applications.

Sylvia Park Private Plan Change Review (2009 – 2010) On behalf of Auckland City Council, reviewed a private plan change request to enable the expansion and evolution of Sylvia Park as a principal centre.

Central Park Private Plan Change (2008-2010) – Provided urban design, landscape and visual effects advice in the preparation of a private plan change to guide future development of a strategic business development area in Ellerslie.

Milford Town Centre Private Plan Change Review (2008 – 2018) On behalf of North Shore City Council, reviewed a private plan change request to enable residential intensification in association with the shopping centre at Milford Town Centre. Subsequently advised Auckland Council on a range of resource consent applications in relation to the precinct.

Ellerslie Racecourse Private Plan Change Review (2008 – 2010) On behalf of Auckand City Council, carried out urban design, landscape and visual effects assessment review of Private Plan Change request to enable comprehensive development on a portion of Racecourse land.. Assisted Auckland Council with appeal process.

Matiatia Plan Change (2002) – provided an urban design audit role in relation to a private plan change request to create a comprehensive residential and commercial zone at Matiatia, Waiheke Island, and subsequently defended Council's decision at the Environment Court.

Drury Private Plan Change Requests (2019 – 2022) Provided urban design, landscape and visual effects advice to Auckland Council in relation to a number of private plan change requests in Drury.

Beachlands South Private Plan Change (2022 – 2024) Provided urban design and landscape advice to Auckland Council in relation to a private plan change request to enable a major expansion of the settlement of Beachlands.

Hobsoville/Whenuapai Private Plan Changes (2024 – current) Currently providing Auckland Council with urban design and landscape advice in relation to a number of private plan change requests in this growth corridor.

Private Plan Change 101 – Pilkington Park (PPC101)

Specialist Review Parks Planning

James Hendra (Consultant Parks Planner)

On behalf of Parks Planning, Parks & Community Facilities Department, Auckland Council

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Introduction

1. My name is James Anthony Hendra. I hold the qualifications of Master of Planning Practice (hons), University of Auckland and Bachelor of Business, Auckland University of Technology. I am a full member of the New Zealand Planning Institute and a member of the New Zealand Recreation Association.

2. I am the director and principal planner at WLA, a resource management, landscape architecture and project management practice, and have held this position for approximately 8 years. I have 18 years' professional planning experience, including 11 years in specialist open space planning and public policy roles. I also have a part-time role as a Professional Teaching Fellow at the School of Architecture and Planning, University of Auckland.

3. I have been engaged by Auckland Council since pre-lodgement of PPC101. My role has been to:

   - Review the original plan change application documents
   - Visit the site
   - Identify matters, within my area of expertise, that required further information from the applicant, and assessing the applicant's responses
   - Review the submissions and further submissions
   - Identify issues relevant to my area of expertise
   - Give my expert opinion on the issues, with recommendations where appropriate
   - Provide this Review as part of Councils RMA s42A reporting process to Commissioners.

4. In preparing this Review I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note (2023) and agree to comply with it. Except where I state that I am relying on the specified advice or evidence of another person, the content of this Review is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

5. In writing this memo, I have reviewed the notified and clause 23 RFI response documents relevant to open space matters including:

   - Section 32 Assessment Report (Section 32 report)
   - Proposed Planning Maps – Appendix 2
   - Pilkington Park Precinct Provisions – Appendix 3
   - Integrated Transport Assessment – Appendix 7 (ITA)
   - Urban Design Assessment – Appendix 9 (UDA)

- Landscape and Visual Assessment – Appendix 10 (LVA)
- Assessment of Other Plans – Appendix 14
- Provision of Open Space map – Appendix 15
- cl23 – Height in Relationship to Boundary Comparison – Attachment 3
- cl23 – Landscape Memo Appendix 1 – Attachment 4a
- cl23 – Landscape Memo – Attachment 4
- cl23 – Open Space Map – Attachment 2
- cl23 – Pilkington Park Precinct Provisions –V2.1
- Response to Hearing Direction #1.

6. In carrying out my review I visited the land subject to the PPC (the "Site") and surrounding environs on the 26 September 2023.

Summary

7. I rely on the reporting planner to explain PPC101 including its location, what the plan change contains and is proposing, including explanation of the proposed Height Variation Control (HVC) as it applies to the Site.

8. I have identified the following issues relevant to my area of expertise:

a) Pilkington Apirana Road Reserve – Zoning and Reserves Act Classification
b) Public Open Space Playground Provision and Accessibility
c) Pilkington Apirana Road Reserve – Occupation by Current and Future Vehicle Crossings
d) Pilkington Apirana Road Reserve – Effects on Protected Trees
e) Pilkington Apirana Road Reserve – Open Space Values and Development Effects

9. The recommendations I make in respect of these issues are:

Public Open Space Playground Provision and Accessibility

a) Precinct provisions be adopted to require that a playground be required within a walking distance of not more than 400 metres from all Site pedestrian accesses.

Pilkington Apirana Road Reserve (PARR) – Effects on Protected Trees

b) Precinct provisions be adopted to apply a yard setback from the open scape boundary to ensure protected trees in PARR, which overhang the boundary, are retained to preserve the overall vegetated form, character and open space values.

Pilkington Apirana Road Reserve – Occupation by Current and Future Vehicle Crossings

c) The precinct be considered overall on the basis that only one vehicle crossing will occupy Pilkington Apirana Road Reserve.

Pilkington Apirana Road Reserve – Open Space Values and Development Effects

d) I recommend further consideration of the building scale and envelope adjacent to the northern section of PARR to ensure that development provides for the recreation needs of

residents and the community without being subject to excessive shading or building dominance.

Submissions

10. Submissions do not raise any matters relevant to open space or my area of expertise. No further comment on submissions is made in this memo.

Local Board Views

11. In considering the proposal feedback from the Maungakiekie-Tāmaki Local Board includes a request to give due consideration to pedestrian safety at property accessways (vehicle crossings) and provision of clear links to pedestrian crossings over Apirana Avenue. These points align with recommendations later in this memo with respect to provision of access to open space. The local board raises no matters directly relevant to effects on open space.

Pilkington Apirana Road Reserve – Zoning and Reserves Act Classification

12. Pilkington Apirana Road Reserve (PARR) is the primary public realm interface of the Site. PARR comprises three parcels of public open space land which adjoin the eastern boundary of the Site over approximately 580 metres. PARR is sited between the Site and the legal road reserves of Apirana Avenue and Pilkington Road.

13. PARR contains dense mature trees and vegetation which provide a naturalistic character and a public open space transition between intensifying residential development to the east, the busy arterial roads, and the utilitarian industrial buildings contained on the Site. The eastern part of PARR opens to a wide grassed area which will have an important open space function should the Site be developed for intense mixed-use development as proposed. Public footpaths are located within the road reserve alongside PARR.

14. A more detailed description of the different parts of PARR, the effects of the proposed plan change, and recommendations to address these are provided later in this memo. This section focuses on the zoning and Reserves Act classification to provide an overview of the statutory purpose, intended management and permitted development potential on the public land.

Figure 1: PARR location and Site context

15. Despite the PARR name including the words 'road reserve' the land is gazetted and held as a Recreation Reserve under the Reserves Act 1977. It is not a 'road reserve'.

Recreation Reserves are described in the Act[1]:

> *"…for the purpose of providing areas for the recreation and sporting activities and the physical welfare and enjoyment of the public, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor recreational activities, including recreational tracks in the countryside."*

The Reserves Act provides for public use and enjoyment of the land and seeks to manage and protect indigenous flora to the extent compatible with the primary purpose of the reserve[2].

> *"…those qualities of the reserve which contribute to the pleasantness, harmony, and cohesion of the natural environment and to the better use and enjoyment of the reserve shall be conserved:"*

PARR is zoned Open Space - Informal Recreation Zone, described as[3]:

> *The Open Space – Informal Recreation Zone applies to open spaces that range in size from small local parks to large regional parks. These areas are used for a variety of outdoor informal recreation activities and community uses, such as walking, running, cycling, relaxing and socialising, picnics, playing and enjoying the environment.*

H7.5.2 objectives include:

> *(1) The open and spacious character, amenity values and any historic, Mana Whenua, and natural values of the zone are maintained.*
>
> *(2) Informal recreation activities are the predominant use of the zone.*
>
> *(3) Buildings and exclusive-use activities are limited to maintain public use and open space for informal recreation.*

H7.5.3 polices include:

> *(1) Provide for a variety of informal recreation activities, including small-scale community uses and accessory activities.*
>
> *(2) Maintain or enhance the natural character values of open spaces by retaining significant vegetation (where appropriate and practical) and through weed removal, new planting and landscaping.*
>
> *(4) Limit buildings, structures and activities to those necessary to enhance people's ability to use and enjoy the open space for informal recreation.*
>
> *(5) Locate and design buildings and structures to: complement the open and spacious character, function and amenity values of the zone; maintain public accessibility and minimise areas for exclusive use; and protect any natural or historic heritage values.*

16. Permitted activities and development include informal recreation, public amenities, new and accessory buildings, gardens, conservation planting, artworks, parks infrastructure, lighting, parks maintenance and recreation trails.

[1] S 17(1) Reserves Act 1977
[2] S 17(1)(c) Reserves Act 1977
[3] Excerpt. AUP H7.5. Open Space – Informal Recreation Zone H7.5.1. Zone description

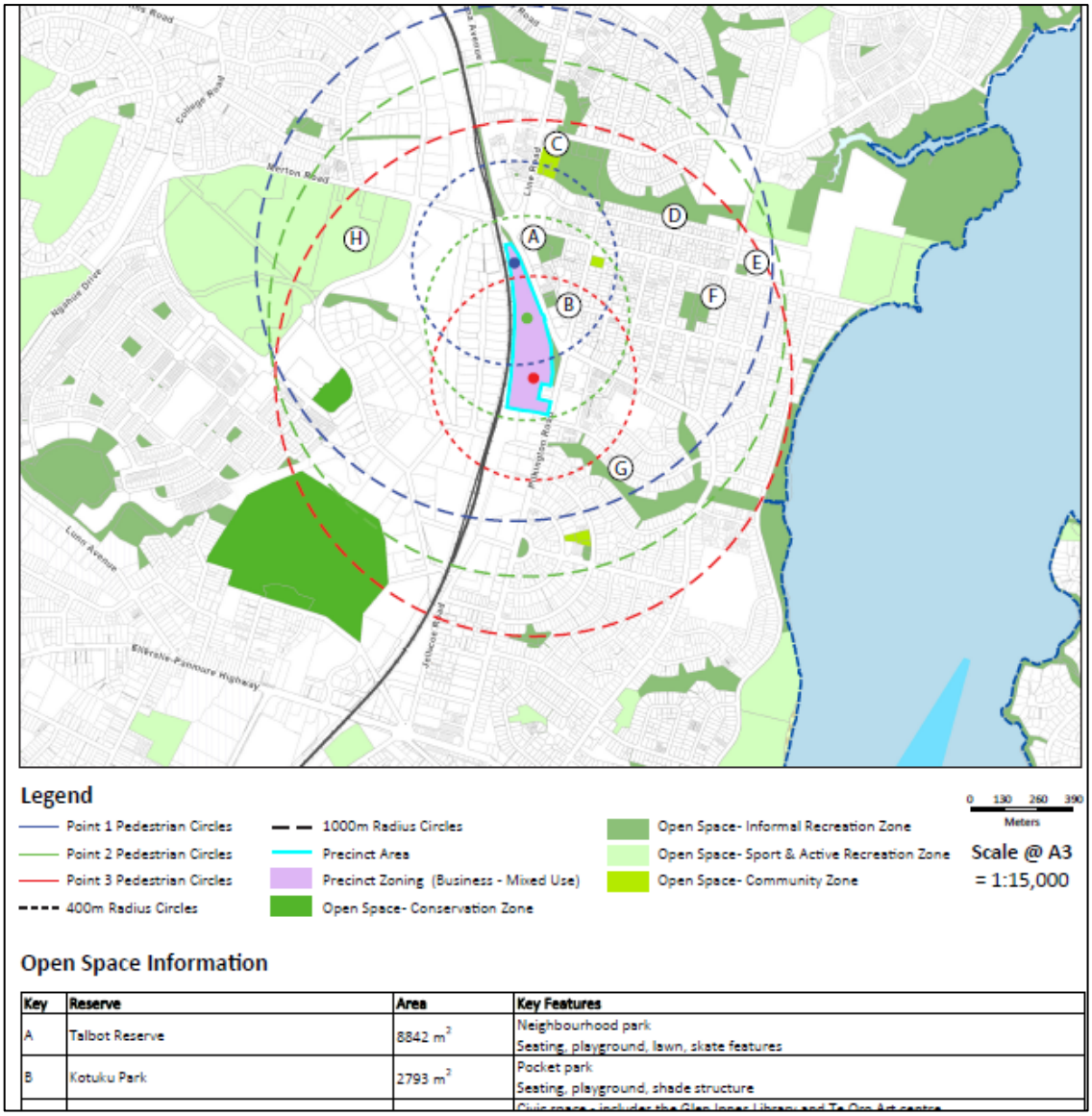
17. Northern and southern sections of PARR provide for passive recreation in accordance with the intent of the zone, with scope and potential to provide improved public infrastructure which could include paths, tables and seating, BBQ areas and shelters, public toilets and lighting at the southern part where space is available. Appropriate development and activities are expected to occur within the land, whilst maintaining and protecting significant vegetation and natural character values.

Public Open Space Playground Provision and Accessibility

18. The council's Open Space Provision Policy[4] anticipates a neighbourhood park with a playground to be within a 400-metre walking distance from high and medium density areas. This metric is applied to development to assess whether play needs are met by existing infrastructure or whether they need to be provided as part of a development or within a precinct.

19. Appendix 15 (Provision of Open Space Map) of the Section 32 report shows a map of the area with neighbourhood parks containing playgrounds. Talbot Reserve and Kotuku Park contain playgrounds and are located within 400 metre circle radiuses of the Site.

[4] Auckland Council - Open Space Provision Policy 2016



Open Space Information

Key	Reserve	Area	Key Features
A	Talbot Reserve	8842 m^2	Neighbourhood park Seating, playground, lawn, skate features
B	Kotuku Park	2793 m^2	Pocket park Seating, playground, shade structure

Figure 2: Excerpt Appendix 15 'Provision of Open Space Map'

20. The cl23 response[5] states:

> *"It is considered that the existing open spaces in the area will cater for the needs of any future residents, including as the Plan Change are (sic) is developed over time. In accordance with the provision metrics for open space needs, Attachment 2 identifies all open spaces available to meet the needs of future residents and accessible within a 400m and 1000m walking distance in accordance with the accessibility anticipated for high and medium density areas."*

21. The 400 and 800 metre circles represent 5-minute and 10-minute walking distances respectively but only if a direct linear route is available. In this case, arterial roads adjacent to the Site are a barrier to safe pedestrian access to these parks. Pilkington Road, Apirana Avenue and Merton Road do not contain formed or safe pedestrian crossings in proximity to

[5] Response OS1, Pilkington Park Plan Change Request – Response to Clause 23 Request for Further Information, 11 December 2023

the Site. Despite the noted parks being located relatively close to the Site, the safe pedestrian route which avoids uncontrolled crossing of Pilkington Road and Apirana Avenue is much longer and extends well beyond the 400-metre maximum distance.

22. The shortest safe pedestrian route is to Talbot Reserve, which requires a circuitous journey north via crossing of Merton Road (unformed), then up to the pedestrian crossing at the Glen Innes shops, then back south again along the eastern side of Apirana Road. The walking route from the northernmost extent of the Site to the Talbot Reserve playground is approximately 720 metres, and from the southern end of the Site, is approximately 1400 metres. The Site is therefore not within a safe 400 metre walking distance of a neighbourhood park with a playground. Considering the high-density proposed, I consider that adequate access to a playground should be required and achieved.

23. With respect to provision of pedestrian crossings over the arterial road(s). I note the 'Response to Hearing Direction #1', in response to AT submission (s4):

> *"An amendment to the standards to ensure that safe pedestrian access across Pilkington Road at the time of future residential development.*
>
> *This also includes targeted and consequential amendments to the relevant objectives, policies, rules, and assessment criteria."*

24. Details of the amendment have not been provided at the time of this memo. The location of pedestrian crossings is material to whether the neighbourhood parks would be within a 400-metre safe actual walking distance from pedestrian accesses at the Site. Two pedestrian crossings would likely be required to achieve this outcome.

25. I recommended precinct provisions be adopted to require that a playground be accessible within an actual walking distance of not more than 400 metres from all Site pedestrian accesses. To provide flexibility, and recognising that pedestrian crossings at suitable locations may not be achievable on the arterial roads, the provisions could allow:
    - provision of a pedestrian safe route, or routes, which result in a playground being within 400 metres of all Site pedestrian access points.
    - provision of a privately owned but publicly accessible playground within the Site.

26. The minimum specification of any new playground within the Site would need to equate to the playground in Talbot Reserve and/or Kotuku Park.

Pilkington Apirana Road Reserve – Occupation by Current and Future Vehicle Crossings

27. The Site has existing vehicle footpath crossings at the southern end of Apirana Avenue and from Pilkington Avenue at 169, 171 and 173 Pilkington Avenue, and at the very southern end of Pilkington Avenue. A northern vehicle crossing occupies PARR and provide access to Apirana Avenue. This vehicle crossing is enabled via a historic easement.

28. A vehicle crossing also occupies the southern part of PARR and provides access to a kindergarten and into the Site. However, an easement is not in place to authorise occupation and use of PARR for the private vehicle access at this location. Hence, it is expected that upon redevelopment, the vehicle crossing will be removed, and PARR reinstated to it fulfil its

intended purpose at this location. Council may choose to pursue removal of this crossing irrespective of the plan change or development outcomes.

Figure 3: Existing vehicle crossings and potential easement surrender and replacement

29. Therefore, the only lawfully established vehicle crossing upon PARR is at the northern end. Use of existing or future vehicle crossings (available 'as-of-right' notwithstanding resource consent) are limited to where the Site directly connects with Apirana Avenue and Pilkington Road, as described, and shown on Figure 3.

30. The s32 report and the ITA do not address that the existing southern crossing is not enabled via easement or that additional crossings to occupy PARR to serve the transport needs of the Site cannot be presumed to be achievable. The ITA provides transport assessment based on masterplan drawings which presume and show two vehicle crossings over the PARR and the one central crossing where the site joins with the road reserve[6]. The model does show the southern existing crossing to no longer be in place, presumably recognising that that crossing is not currently authorised and is unlikely to remain.

[6] The Integrated Traffic Assessment includes modelling from a Warren and Mahoney Masterplan which was provided to council pre-lodgement but is not part of the lodged or notified package of information. The modelling shows three vehicle crossings located upon PARR.

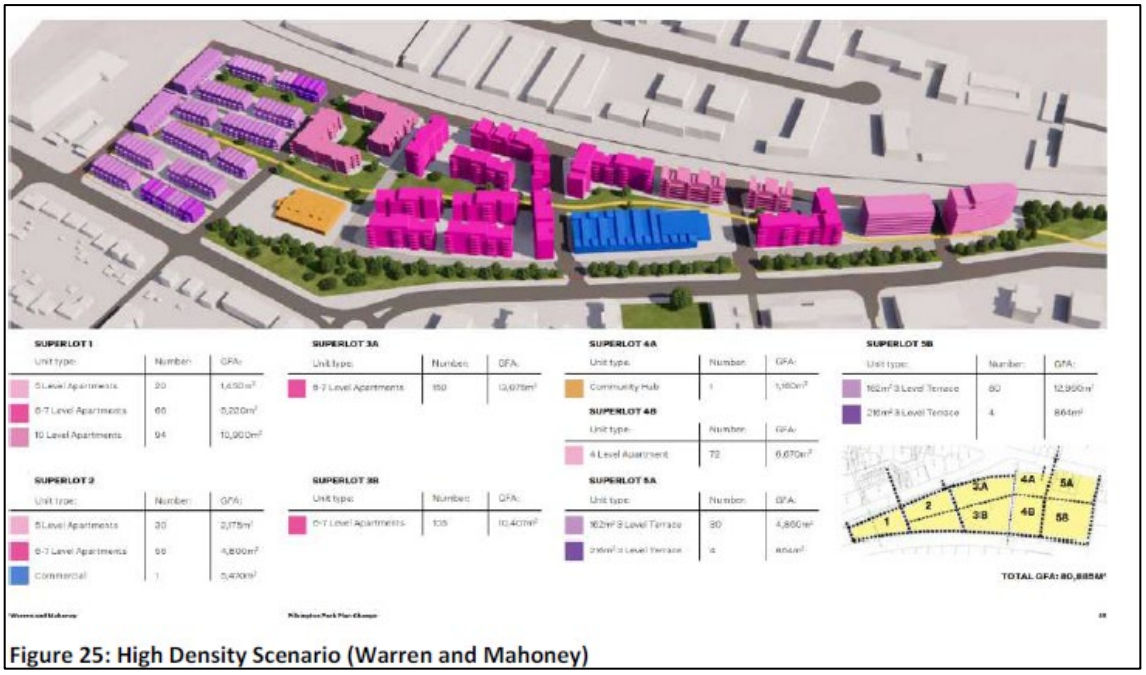


Figure 4: ITA excerpt. Pg. 30. Showing four vehicle crossing occupying PARR at Apirana Avenue. Image in ITA sub-sourced from Pilkington Park Plan Change Design Report, by Warren Mahoney, 2022.

31. Based on the ITA, the requestor appears to presume that permission for a future vehicle access over PARR would be able to be obtained[7]. In my opinion, permission for future additional vehicle crossings may be difficult to obtain. At long linear open spaces such as PARR, crossings create pedestrian safety risks, and fragment continuity of the space and vegetation. Crossings occupy land with a private use which is contrary to the purpose and intent of the zone, and the Reserves Act classification. Crossings result in permanent loss of public reserve land for private benefit.

32. Section 48 of the Reserves Act outlines the provisions which apply to the granting of leases and easements which include public notification, submissions and hearings (s48(2)). Therefore, council as a landowner would assess any application for a crossing with respect to the purpose, objectives and policies of the zone, effects on the open space continuity and public safety. Further, any application would be subject to due public process.

33. This opinion is based on my experience in practice with comparable situations and the existing situation where only one crossing upon PARR is enabled by easement (2001)[8]. In my opinion, the presumption should be that only one of the existing vehicle crossings would remain authorised and no further crossings occupying the PARR would be approved.

34. South of the northern vehicle crossing the PARR is around 10 metres wide and extends for around 220 metres, reducing in width to about 4 metres at termination of the parcel and the central vehicle access to the Site. This section is heavily treed with maturing Pohutukawa being a noticeably dominant species.

[7] Response OS5, Pilkington Park Plan Change Request – Response to Clause 23 Request for Further Information, 11 December 2023
[8] DP 433420 – CSD Plan

35. South of the central vehicle crossing PARR expands in width just south of the roundabout to about 38 metres before reducing in width to around 15 metres. This part of PARR also contains a significant number of large trees balanced by well maintained and open grassed areas which extends under the canopy of trees. The widest part would accommodate a 3,500m^2 usable area, comparable to a neighbourhood scale park.

36. For the reasons explained, I recommend that consideration of the proposed plan change and enabled development be assessed based on the one northern vehicle crossing remaining to occupy PARR, and all other potential crossings being where the Site directly adjoins a road reserve.

Pilkington Apirana Road Reserve – Effects on Protected Trees[9]

37. Based on review of council's GIS aerial imagery, it is apparent that publicly owned trees located within PARR extend partly over the boundary and into the Site along most of the length. The encroaching trees appear to spread between 2 to 5 metres into the Site.

38. Trees are highly valued in open spaces, as set out in the AUP: OP[10].

> *Trees in the open space zones are an important public asset and need to be managed appropriately. As urban areas intensify, open space zones will be relied on to a greater extent to provide amenity in these areas.*
>
> *Trees in the open space zones contribute towards Auckland being a desirable place to live and are an important part of Auckland's natural heritage and identity.*
>
> *Environmentally, trees provide important ecological values in terms of storing carbon and providing habitat and food for wildlife, improving air quality and providing ecosystem services.*

39. The application is not supported with a boundary survey or an arboricultural assessment of potential effects on protected trees. Tree species, quantities, size, protected status or extent of encroachment matters have not been defined. It appears that the predominant species of large trees are Pohutukawa. Although generally growing with trunks upon PARR the part of the trees which extend over the boundary are effectively part of the Site.

40. In the open space zone, resource consent is required to trim or alter a tree or undertake works within the protected root zone (which do not meet Standard E16.6.2), or for removal of any tree greater than 4m in height or greater than 400mm in girth. This applies to parts of trees which span over a boundary. Removal or alteration of the trees would also require asset owner approval.

41. Even without an arboricultural assessment and boundary survey, I am confident based on my site visit and the canopy extent observable on aerial images, that most of the trees which

[9] The content in this section regarding trees has been reviewed and endorsed by Benedict Free, Parks Planner and Arborist

[10] E16. Trees in open space zones. E16.1. Background

appear to encroach over the boundary of the Site are greater than 4m in height or greater than 400mm in girth and as such would require consent to alter under the provisions of E16. For context, council's historic aerial images show a pattern of trees in PARR in 1996, which indicates that many of the trees more than 28 years old.

42. Council generally takes a pragmatic approach to requests for resource consent and asset owner approval for alterations to public trees which encroach on private property. As such, I would expect that approvals would be generally attainable, notwithstanding, there may be some trees of merit which may not be approved for alteration.

43. I expect that if the plan change is approved and the precinct outcome is to enable development up to the boundary (as proposed), given that the extent of tree encroachment is obvious at the time the decision, the outcome would generally be removal or trimming of trees which encroach into the Site where required.

44. The Business-Light Industry zone (B-LI Zone) has a 5-metre side yard[11] building setback (H17.6.4.1) which affords an area of space for the encroaching trees to remain unaffected by permitted development. Therefore, currently, the parts of trees extending into the site are not at imminent risk from redevelopment.

45. The proposal to adopt the Business – Mixed Use Zone (B-MU Zone) would place the trees at risk because MUZ has no yard control with respect to an adjacent open space zone. Buildings would be permitted up to the PARR boundary. The 'H13.6.6 Landscaping'[12] requirement standard would also not apply because the boundary is not a 'street frontage'. The likely consequence of the proposed development envelope is that trees would require altering to provide for buildings where necessary up to the boundary with PARR.

46. Without a realistic development model and a supporting detailed arboricultural impact assessment, it is difficult to accurately predict impacts upon trees. It is also difficult to assess if any specific trees, or areas of trees may warrant protection and justify the positioning of buildings to avoid impacting the high value trees.

47. Council's conventional practice is to trim public trees 2 metres from private buildings to enable building maintenance, light (benefiting the private use and the tree), and some space for regrowth. At places where trees encroach 5 metres over the boundary this practice could necessitate removal of up to 7 metres of canopy which may significantly affect the form, health and canopy of some trees. Branch removal may also be based on form and may require limbs to be removed rather than a uniform 'trim' along the boundary.

48. The potential arboricultural and landscape character impact of clearing the encroaching trees from the boundary has not been quantified or assessed in the application. It may result in significant changes to the form of trees and the height and density of the overall 'green belt' within the open space. In my view, this information is required to accurately assess the effects on protected trees.

[11] Due to PARR being located between the Site and the road, the eastern Site boundary is defined as a 'side yard' not a 'front yard'

[12] 2 metre landscaped yard

49. The potentially altered tree environment is also relevant to understand because the UDA and LVA reports, and by implication the s32 report, all presume or state that PARR or the trees within it will be unaffected or unaltered by the proposed plan change and consequent enabled development[13] . To varying degrees the assessments, presume and/or rely on the existing trees to remain unaltered. The large and significant trees within PARR are the formative and dominant character element of the reserve and western streetscape. The trees contribute to the amenity, landscape and ecological values of the area, especially significant in this case considering the low comparative amenity values of the subject site. It is unclear to what extent the permitted development envelope would adversely affect the character should trees require alteration.

50. In my opinion, in lieu of survey information and expert assessment defining the impact upon trees which would allow for an accurate assessment of effects, a precautionary approach is warranted to ensure that the trees are retained unaltered. Improvision of provisions which avoid alteration or removal of the trees in PARR would be consistent with the objectives and policies contained in E16 Trees in open space zones and H7 Open Space zones. For example, a 5-metre front yard setback may be appropriate.

51. I therefore recommend that precinct provisions be adopted to apply a yard setback from the open scape boundary to ensure protected trees in PARR which overhang the boundary are retained to preserve the overall vegetated form, character and open space values.

52. The requestor has not consulted with Auckland Council Community Facilities regarding the plan change proposal and impact the proposed plan change may have upon trees located within PARR and which overhang the Site.

Pilkington Apirana Road Reserve – Open Space Values and Development Effects

Pilkington Apirana Road Reserve - Northern Extent

53. The northern section of PARR, from the central vehicle access to the Glen Innes shops roundabout is around 365 metres long and contains dense and relatively tall trees and vegetation.

[13] UDA. Section 6.2 bullet point 1. Section 6.4.1 para. 3: Landscape and Visual Assessment. Sections 3.1, 3.3, 3.4, 4.2, 4.3

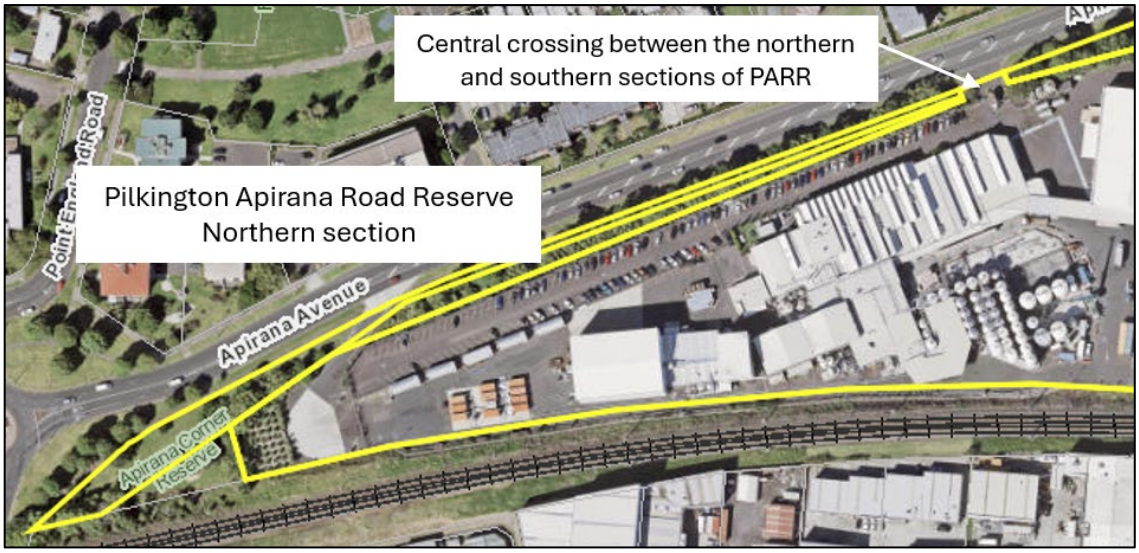


Figure 5: Northern PARR location and Site context (label central road crossing)

54. East of the northern extent of the Site, the PARR contains an open grassed area located between Apirana Corner Reserve (which is part of the subject Site) and the Apirana Road reserve. Although the PARR legal width at this location is around 16 metres when combined with the road reserve, the grassed public area extends to around 35 metres in width over a length of around 80 metres, providing what could be a generous and pleasant public space if activated by the proposed plan change. The rear part of this area is relatively screened from public view and isolated, therefore is not expected to currently attract public use due to safety concerns.

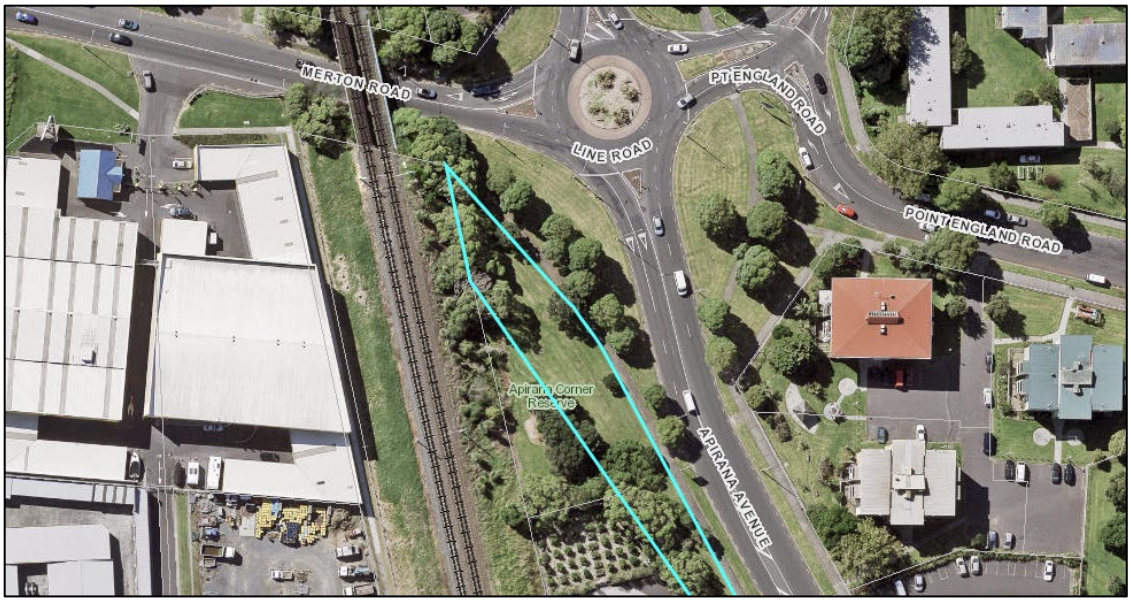


Figure 6: Northern PARR location and Site context

55. This northern section of PARR slopes from the road level up about 2 metres to the Site level. Further south PARR and the Site converge to be at-grade at the road at the central road crossing (Refer Figure 5).

56. The road berm adjacent to PARR contains footpaths and cycleways are planned. People's experience within the northern section of PARR is limited to the grassed area and the Apirana Avenue footpath. Effects on the very northern grassed part of PARR are limited due to the northern aspect comparative to the Site.

57. The Apirana Corner Reserve[14] is proposed to be rezoned From Business - Light Industry Zone (BLI) to Business - Mixed Use Zone (BMU). This would provide a more permissive building envelope within the constrained triangle shaped land parcel due the removal of a 5-metre open space zone yard standard and a taller Height in Relation to Boundary (HIRB) standard.

58. The proposed Height Variation Control (HVC) is not applied to the Apirana Corner Reserve part of the Site. The requestor advises that it is unlikely that this land will be developed as it is also subject to a rail designation and is excluded from modelling of development envelope potential[15]. As such, I do not assess the potential development effects caused by changing the zone and standards of this parcel despite the increased impact it would have upon the upper part of PARR. The Apirana Corner Reserve has potential to be used for a pedestrian access to the Site. I would support that outcome because it would activate the area and improve people's safety.

59. Regarding the remainder of the northern PARR south of this location people are not able to be within the reserve due to vegetation and topography. The proposed maximum height, and lack of HIRB and yard controls warrant assessment of effects relating to the visual, natural character shading and dominance effects as perceived by people generally in the environment. I defer to council's landscape and urban design experts to assess these effects in the whole, and considering my assessment that the development envelope may impact upon the tree canopy within PARR.

Pilkington Apirana Road Reserve - Southern Extent

60. The southern part of PARR flanks the eastern side of the Site for over a distance of around 275 metres. PARR expands in width to 39 metres at the widest point which results in a wide and open central grassed area. This area contains mature trees set within the grassed area; however, these generally have arching canopies which creates a sense of space underneath at the human scale.

[14] Apirana Corner Reserve (Part Allotment 43 District) is a triangle shape (approx. 55m long by 21 metres wide) within the northernmost part of the Site. The land is contiguous with the PARR. Although developed with grass and trees and managed by the council, this land is held as Crown land for rail purposes, gazetted as such in 1953. It is not a 'reserve' in terms of being classified in the Reserves Act and the continued use of it as a de facto public space is not assured. This land is currently zoned LIZ and is proposed to be rezoned to BMU. Development of the land is restrained due its shape but could realistically contain a building or part of a building extending from the main Site land parcel. The location may be suitable for a pedestrian connection to the grassed area of PARR it connects to.

[15] Pilkington Road Plan Change – Clause 23 Request for Further Information (Landscape Visual Assessment)

Figure 7: Southern PARR location and context

61. The reserve is currently undeveloped, not in my opinion because of constraints within it, but because the adjacent industrial land use does not support the need for a developed public space, and because neighbourhood parks with basic provision are located on the eastern (residential) side of Apirana Avenue and Pilkington Road which serve those communities.

62. Rezoning of the Site and accompanying high density residential and mixed-use development would in my opinion be a catalyst for development of the open space with informal recreation, amenity, and route functions. Unlike the northern PARR, the southern part is at-grade with the Site and has space to accommodate improvements without significant impacts upon protected trees. The relatively open area available is around 3,500m^2 equivalent to a neighbourhood scale park (refer Figure 8).

63. As outlined, PARR is classified as Recreation Reserve, required to be managed in accordance with the intent of the Reserves Act, and the Open Space – Informal Recreation zone. The policy framework anticipates a range of informal recreation activities, structures and development, whilst maintaining the pleasantness, harmony, and cohesion of the natural environment and the open space character and amenity values.

64. In my view, it is probable that at least one pedestrian connection would be provided from the Site at this location because the remainder of the site boundary is more restricted by topography and protected trees, and as such, permission for pedestrian accesses over PARR and may be difficult to achieve. It would also be a logical place to provide a dedicated pedestrian connection to the Site separate from the restricted and busy vehicle entrances. This is the only location where the Site has an opportunity to connect and integrate with an existing usable open space, except for the very northern part of the Site which could serve for a pedestrian connection.

65. Development could include paths, resting/destination places such as seats or picnic tables. A public toilet could also be warranted. The park is also located next to an existing bus stop and would be complementary to the planned cycleway and upgrades to Pilkington Road.

Figure 8: Southern PARR open public area (image Google Earth)

66. The proposed provisions do not contain a requirement to provide internal open spaces. PARR is likely to become the default open space to serve the immediate needs of residents and visitors. The requestor's LVA report concurs with this view, stating[16]:

> *"This OSZ land directly east of the site presents an opportunity to provide borrowed amenity for future development. It could also present consenting constraints should additional permeability / connections be required from within the Site to adjoining streets. Although this could be considered a constraint, in my view, additional permeability would be positive and contribute to a more vibrant streetscape outcome. The PPC will not affect this OSZ land as it stands."*

67. Given the expected future function and benefit the open space will provide to Site residents, in my view, consideration should be given to how the permitted scale of development sought would affect the PARR and the likely future functions, as informed by the RMA defined meaning of 'effect'.

> *In this Act, unless the context otherwise requires, the term effect includes—*
>
> *(a) any positive or adverse effect; and*
>
> *(b) any temporary or permanent effect; and*
>
> *(c) any past, present, or future effect; and*
>
> *(d) any cumulative effect which arises over time or in combination with other effects—*
>
> *regardless of the scale, intensity, duration, or frequency of the effect, and also includes—*
>
> *(e) any potential effect of high probability; and*

[16] LVA. Section 4.2 pg. 19

(f) any potential effect of low probability which has a high potential impact.

68. My view, that future potential effects on the PARR need to be considered, differs from the requestor's UDA and LVA experts who consider that only effects on the current use and development of the PARR are relevant to consider, and that the effects of removing the HIRB control are 'technical' rather than actual, due to the PARR currently being undeveloped for recreational use.

69. The reports place emphasis on the benefits of development potential and street enclosure rather without addressing potential adverse impacts on the likely future activated and developed public open space. The UDA states[17]:

> *"I note that both of the Open Space zoned areas visually appear to be extensions of the existing road reserve and do not provide for any sports, active or recreational uses. It also appears that these OSZ strips of land were likely implemented to provide a visual and physical buffer between the residential zoned land to the east and the LIZ Site. For these reasons, I consider the HIRB controls along this interface to be technical in nature and I support the removal of any restrictive HIRB controls along this interface which could result in a less optimal outcome from a built form perspective (i.e. with reference to the 3d diagrams comparison below, it becomes apparent that in order to comply with the HIRB controls, a building would likely require several stepped elements to comply which could detract from the visual quality and degree of street enclosure achieved)."*

70. My view of the future utility of the open space also differs from the view expressed in the s32 report[18] which considers that the land does not provide for recreational purposes, and functions simply as an 'extension of the road corridor'.

71. Somewhat contrary to the position that PARR has no recreational utility and therefore does not warrant consideration in terms of bulk form effects, the s32, UDA and LVA reports variously emphasise proposed and existing provisions which would require the design to respond to the PARR, citing:

> *Objective 1: The Pilkington Park Precinct is comprehensively developed as a high-quality, mixed-use centre which is well-designed and integrated with the surrounding area.*
>
> *Objective 2: New buildings respond to and positively contribute to the amenity values of the public space network including open spaces and streets.*
>
> *Matters of Discretion 1: New buildings:*
>
> *(a) The provision of active frontages to the public space network including open spaces and streets.*
>
> *(b) Whether the location and design of buildings will contribute to comprehensive and integrated development.*
>
> *Assessment Criteria 1: New buildings:*

[17] Urban Design Assessment. Section 6.2.3. pg. 17
[18] s32 report. Section 8.3.3.5 Height in Relation to Boundary

(a) Whether the building provides a quality and attractive frontage as viewed from the street or public open spaces, including through the relationship and orientation of buildings.

(b) The extent to which the effects of fences and walls, along frontages and adjoining public spaces are appropriately managed.

(c) The extent to which the layout, orientation, bulk and scale of existing and future buildings, and connections to the public space network including open spaces and streets will contribute to the comprehensive development of the Pilkington Park Precinct.

(e) The provision of convenient, safe, and legible access for pedestrians and cyclists.

72. For the reasons described, the northern PARR is the only area of open space available for development to respond to in an integrated manner, for example, with activated frontages and functions. Whilst the provisions require design responses to PARR, these are set within the permitted maximised development envelope which may result in adverse shadowing/dominance or character effects, regardless of other design intentions or outcomes.

In Section 6.3 of the requestor's UDA report[19], with respect to 'Effects on the public realm' it is acknowledged:

> *"Compared with the existing plan-enabled building height of 20m, the proposed building heights of up to 27m would result in additional shading to both Apirana Avenue and Pilkington Road during the afternoon hours (to varying degrees depending on the time of year).*
>
> *Notwithstanding, I acknowledge there are no assessment criteria pertaining to shading effects of public streets within either the LIZ or the proposed MUZ provisions. Changes to shading are an inevitable result of intensification in urban areas."*

73. The UDA quote above states that the adverse shading effects on 'public streets' in this case are an inevitable result of intensification, and there are no assessment criteria, inferring that the effects of not imposing the default standards of the zone are unable to be assessed.

74. In my opinion, the purpose of the standards provides a basis to understand the effects they are intended to mitigate, upon not just the street environment, but also on open space. The purpose of the standards can be considered in lieu of assessment criteria, and are set out below.

The purpose of the MUZ HIRB standard is (emphasis added):

> *H13.6.2. Height in relation to boundary*
>
> *Purpose:*
>
> • ***manage the effects of building height.***
>
> • ***allow reasonable sunlight and daylight access to public open space excluding streets, and to nearby sites;***
>
> • ***manage visual dominance effects on neighbouring zones where lower height limits apply.***

[19] UDA. Pg 20

The purpose of the BLI HIRB standard is (emphasis added):

> Purpose:
>
> > • ***manage the effects of building height;***
> >
> > • ***allow reasonable sunlight and daylight access to public open space excluding streets, and neighbouring zones; and***
> >
> > • ***manage visual dominance effects on neighbouring zones where lower height limits apply.***

The respective height standards are described with nearly identical purposes, including (BLI) (emphasis added):

> > • ***manage the effects of building height including visual dominance; and***
> >
> > • ***manage shadowing effects of building height on public open spaces excluding streets.***

75. The purpose of the HIRB and Height standards in both zones is to manage adverse effects relating to building height, sunlight and daylight access to open space (shadowing) and visual dominance effects. By default, the proposed rezoning also removes the BLI 5 metre yard control which applies to adjacent open spaces, allowing buildings to be located up to the open space boundary, which would also increase dominance and shadowing effects compared to the current permitted building envelope.

76. The application does not contain bulk modelling or shading analysis to demonstrate the impact of removing the HIRB standard and increasing the height standard upon the northern PARR, or not applying the BLI yard control, would affect the likely future public open space function and amenity values, compared to the current permitted building envelope. In my opinion, this analysis is required to understand the effects of the proposed provisions. The current built form envelope enabled by the BLI zone should be compared to the default MUZ provisions and the proposed combined MUZ/Precinct provisions to assess the difference in form and consequent shadowing/sunlight, visual dominance effects on the northern PARR.

77. Due to the lack of analysis and obvious increase in development bulk enabled by the proposed provisions, I am concerned that development outcomes will adversely affect the amenity values of the northern PARR, particularly considering likely future development of the open space.

78. The UDA assesses streetscape effects (including effects on PARR) as follows (emphasis added):

> *"Apirana Avenue and Pilkington Road are both arterial roads. Apirana Avenue has a legal width of approximately 23m and Pilkington Road has a legal width of approximately 24m as they relate to the Site. In my opinion, the change of zoning, HVCs and the removal of HIRB standard along the boundary adjacent to Open Space – Informal Recreation Zone will not result in any significant adverse effects to the adjoining streetscape for the following reasons:*
>
> • *Two strips of OSZ land are located between the Site and Pilkington Road and Apirana Avenue. This OSZ land comprises approximately 84% of the entire western frontage and contains a number of well-established specimen trees and vegetation.* ***This OSZ land will not be affected by the PPC and will continue to soften and in most cases screen views of any future built form from the street. If additional connections are required from***

within the Site to the adjoining streets, this will be dealt with during a separate consenting process and in my view, would represent a positive outcome that would contribute to a more vibrant streetscape with a greater level of activation.

- *The Site would form a contiguous block with existing MUZ land to the south. Any future buildings would therefore not appear out of character with surrounding existing and future development as viewed from the adjoining streets.*
- ***The MUZ provisions will effectively manage building height and scale to integrate future development in a positive manner with the surrounding street environment**.*
- *All future developments within the Site will be subject to a resource consent process for new buildings. The **MUZ provisions will help to ensure any future built form outcomes are of a quality and design that positively relate to the adjoining streets while maintaining and enhancing pedestrian safety and amenities**.*

79. I disagree with the assessment on the following points:

- The character of the OSZ land would be affected by the proposed building envelope which would be sited hard against the boundary and trees in PARR, potentially requiring alteration of the trees. The buildings could rise approximately 24 metres above the upper tree line[20], which may alter the naturalistic character of the PARR. The trees are not of a scale and prominence to effectively soften and screen views from the street given the height and scale of the building envelope proposed.

- Application of subjective MUZ design outcome provisions does not require nor are they likely to reduce building height to be less that permitted by the HVC.

- The MUZ design outcome provisions can affect how the building 'presents and responds' to PARR in a limited way because the bulk and location provisions allow the building to be up against the boundary and up to the maximum HVC height.

- With no right to occupy PARR with future public accesses the potential to create an 'active' frontage is limited to architectural form, glazing and internal uses. The ground level of development would be screened by the trees limiting interaction and passive surveillance opportunities, except at the northern section of PARR.

80. I am concerned that development enabled by the proposed building envelope, which extends to the boundary of PARR, may require alteration of the existing trees within PARR, and that the effects of this outcome have not been adequately quantified or considered.

81. I am concerned that effects of the proposed building envelope may adversely affect the amenity values of southern PARR considering its likely future public access and amenity functions which may result in response to the mixed-use development enabled by the plan change. Further assessment may therefore be warranted to consider the effects of the building scale and envelope upon the southern section of PARR considering the likely future function of this area as an informal public open space. This space should be able to serve the residents and community without being subject to excessive shading or building dominance

[20] The tree height above the road level is presumed to be about 5 metres. The building height above the road level is approximately 29 metres.

which could otherwise be avoided by adoption of yard and/or bulk and location controls specific to the location. A such, additional provisions may be justified to ensure that the development appropriately responds to, and does not adversely affect, the probable future function of the northern PARR open space. If necessary, I defer to urban design experts to consider appropriate provisions.

James Hendra

02 October 2024

Private Plan Change 101 – Pilkington Park (PPC101)

Specialist Review (Transport) on behalf of Auckland Council

Mat Collins

Introduction

1. My name is Mathew (Mat) Ross Collins. I hold a Bachelor of Engineering (Hons) from the University of Auckland and have a post-graduate certificate in transportation and land use planning from Simon Fraser University in Vancouver, Canada.

2. I have 10 years of experience as a transportation planner and engineer in public and private sector land development projects, which includes experience with strategic land use and transport planning, plan changes, Integrated Transport Assessments, development consenting, and notices of requirement.

3. My experience includes acting for NZ Transport Agency Waka Kotahi (Waka Kotahi), Auckland Transport and Auckland Council, Kāinga Ora, Whangārei District Council, Kaipara District Council, and various private developers throughout New Zealand. This work has involved:

    a. Plan change applications including multiple Selwyn District Private Plan Changes, Drury East, Drury West, Warkworth North, the Whangarei District Plan Changes for Urban and Services, Mangawhai Central, Avondale Jockey Club, and Pukekohe Raceway.

    b. Resource consent applications including large precincts: Drury South Industrial, Drury Residential, Redhills, Silverdale 3, Drury 1, Waiata Shores, and Crown Lynn Yards.

    c. Designation, Outline Plan of Works, and resource consent applications and reviews for major infrastructure including Supporting Growth Alliance Drury Arterials NoR Package and North Auckland Package, Healthy Waters St Marys Bay Stormwater Water Quality Programme, Watercare Huia Water Treatment Plant replacement, Watercare Huia 1 Watermain replacement, and several Ministry of Education Schools.

4. Ableyl Ltd (Abley) was engaged by Auckland Council at the time the application for PPC101 was lodged to:

    - Review the original plan change application documents;
    - Identify transport matters that required further information from the applicant, and assessing the applicant's response;
    - Review the submissions and further submissions;
    - Identify issues relevant to transport;
    - Give expert opinion on the issues, with recommendations where appropriate;

- Provide this Review as part of Councils RMA s42A reporting process to the Commissioners.

5. I have been involved in the review since Abley received the initial responses to Clause 23 information requests.

6. In preparing this Review I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note (2023) and agree to comply with it. Except where I state that I am relying on the specified evidence of another person, the content of this Review is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Summary

7. I rely on the reporting planner to explain PPC101 including its location and what the plan change is seeking.

8. I have identified the following issues relevant to my area of expertise:

    a. I consider that development of the site will rely on Auckland Transport's "Links to Glen Innes Cycleways" project to ensure safe active modes access to and from Glen Innes Town Centre.

    b. I consider that a safe active modes crossing facility across Apirana Avenue is required to support the development. The type of crossing should be determined in consultation with Auckland Transport as part of the future resource consent application. Without precluding alternative options, this could include a signalised crossing, a raised zebra crossing, or a refuge island with a Swedish table.

    c. The Integrated Transport Assessment (ITA) assumes that up to 5 vehicle access points may be formed onto Apirana Avenue and Pilkinton Road. However, only 3 may be feasible, given a large portion of the Site has frontage with Pilkington Apirana Road Reserve. I consider that this is acceptable and can be addressed through the future resource consent and Engineering Plan Approval processes.

9. The recommendations I make in respect of these issues are:

    (a) That a Standard, along with consequential amendments, is included in the Precinct to require active modes facilities. I suggest the following:

    x. Standard for Pedestrian and cycle connections

    Purpose: To achieve convenient, safe and legible pedestrian and cycle connections across Merton Road, Pilkington Road, and Apirana Avenue.

1. *At the time of subdivision and development, pedestrian and cycle connections must be provided in the following locations, generally as shown in Precinct Plan 1:*

a. *an active modes facility along Apirana Avenue, between Pilkinton Road and the Glen Innes Train Station, including safe crossings at the Merton Road/Apirana Avenue and Pilkington Road/Tripoli Road roundabouts.*

b. *an active modes crossing on Apirana Avenue between the Apirana Avenue / Merton Road and Pilkington Road / Tripoli Road roundabouts.*

Note: The location of the active modes crossing on Apirana Avenue should reflect active modes desire lines to and from Pilkington Park Precinct. The design of the active modes crossing on Apirana Avenue must be determined in consultation with Auckland Transport. Without limiting the scope of the design solution, the active modes crossing may be signalised crossing, a raised zebra crossing, an active modes refuge with traffic speed reduction measures, or other solution that provides for safe and convenient crossing.

(b) That Precinct provisions are included that restrict the use of existing vehicle accesses through Pilkington Apirana Road Reserve, unless provided through an easement.

Positive Features of the Plan Change

10. In respect of transportation, I support the following features of the plan change:

(a) The site is well-positioned to benefit from existing and future public transport services. Once the City Rail Link (CRL) is completed, the Eastern Line will merge with the Western Line, forming a new East-West Line running from Swanson to Manukau via Glen Innes. Trains will operate every 7-8 minutes during peak times and every 15 minutes off-peak, making train travel to and from the site more convenient and accessible.

(b) The site is also well-placed to benefit from future walking and cycling connections to Glen Innes. Auckland Transport's "Links to Glen Innes Cycleways" project includes a separated two-way cycleway along the southern side of Apirana Avenue, extending from Pilkington Road to Taniwha Street, and running along the site frontage. The project also proposes raised pedestrian and cycle crossings at the Merton Road/Apirana Avenue and Pilkington Road/Tripoli Road roundabouts, with construction expected to start this year[1]. These improvements will improve the safety of walking and cycling to and from the site.

Accessibility by active modes of transport and public transport

11. I consider the existing pedestrian crossings along Apirana Avenue and Pilkington Road to be inadequate to support the development of the site. Although there are three pram crossings (as shown in Figure 1), pedestrians must wait for a gap in traffic to cross. Given the high traffic volumes—between 16,000 and 22,000 vehicles per day

[1] https://at.govt.nz/projects-initiatives/east-auckland-projects-and-initiatives/links-to-glen-innes-cycleways

on Apirana Avenue and Pilkington Road—I believe these crossings do not sufficiently support or encourage walking, cycling, or public transport use from the site.

Figure 1 Approximate pram crossing locations.

12. Auckland Transport's "Links to Glen Innes Cycleways" project includes raised pedestrian and cycle crossings at the Merton Road/Apirana Avenue and Pilkington Road/Tripoli Road roundabouts. I believe this project will address the current deficiencies at these intersections, as shown in Figure 2.

13. Auckland Transport has indicated that it has funding to complete these works, and that this is being co-ordinated with Auckland Transport's maintenance and renewals programme with the balance of works expected to be undertaken in FY25/26.

14. However, if Auckland Transport delayed delivery of these improvements, I am concerned that development of the site would generate demand for walking and cycling trips that are will not be safely accommodated by the existing transport network.

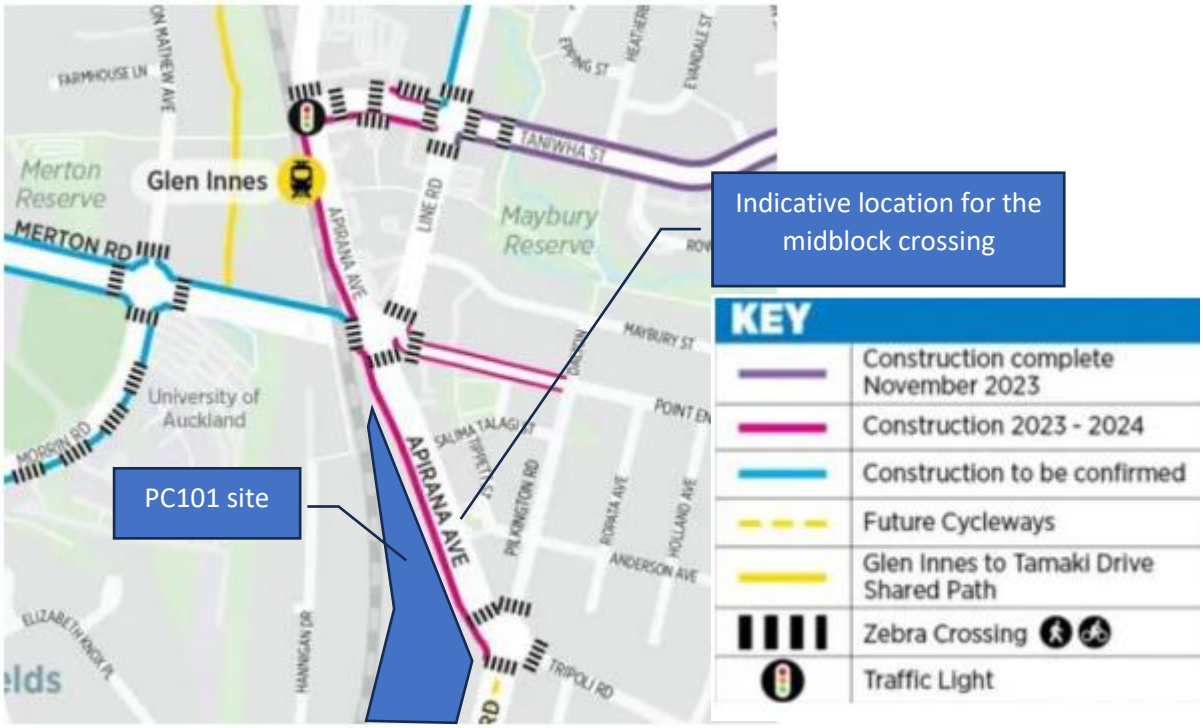


Figure 2 Auckland Transport Links to Glen Innes Cycleways project, reproduced and adapted from Auckland Transport's website[2].

15. Additionally, once Auckland Transport completes the "Links to Glen Innes Cycleways" project, an 500m stretch along the site's frontage will still lack additional pedestrian and cycle crossings. To ensure connectivity to active transport destinations east of Apirana Avenue, including existing bus stops, I consider that a midblock crossing should be added between the Merton Road/Apirana Avenue and Pilkington Road/Tripoli Road roundabouts, as indicated in Figure 2. My recommendation aligns with Auckland Transport's submission (Submission 4, point 4.1).

16. In my opinion, the design of the midblock pedestrian and cycle crossing should be addressed during future resource consent and Engineering Plan Approval processes. Without limiting the scope of future assessments, potential crossing designs could include:

    a. A signalised crossing; or

    b. A raised zebra crossing; or

    c. A refuge island with a Swedish table.

17. I consider that both the completion of Auckland Transport's "Links to Glen Innes Cycleways" project and the addition of a pedestrian and cyclist crossing on Apirana Avenue should be prerequisites for any subdivision or development within the Precinct Plan. I propose the following standard:

    x. Standard for Pedestrian and cycle connections

[2] https://at.govt.nz/media/fxsgtpmi/glen-innes-cycleway-route-updated-september-2024.jpg

Purpose: To achieve convenient, safe and legible pedestrian and cycle connections across Merton Road, Pilkington Road, and Apirana Avenue.

1. *At the time of subdivision and development, pedestrian and cycle connections must be provided in the following locations, generally as shown in Precinct Plan 1:*

a. *an active modes facility along Apirana Avenue, between Pilkinton Road and the Glen Innes Train Station, including safe crossings at the Merton Road/Apirana Avenue and Pilkington Road/Tripoli Road roundabouts.*

b. *an active modes crossing on Apirana Avenue between the Apirana Avenue / Merton Road and Pilkington Road / Tripoli Road roundabouts.*

Note: The location of the active modes crossing on Apirana Avenue should reflect active modes desire lines to and from Pilkington Park Precinct. The design of the active modes crossing on Apirana Avenue must be determined in consultation with Auckland Transport. Without limiting the scope of the design solution, the active modes crossing may be signalised crossing, a raised zebra crossing, an active modes refuge with traffic speed reduction measures, or other solution that provides for safe and convenient crossing.

Site access points

18. The ITA assumes the site will have five vehicle access points onto Apirana Avenue (see Figures 29 and 30 of the ITA). However, a large portion of the site does not have access to Apirana Avenue or Pilkington Road due to the Pilkington Apirana Road Reserve (PARR), as shown in Figure 3. The site only has direct access at the central crossing (Gate B) and approximately 100m of frontage to Pilkinton Road at the southern end of the site.

19. Mr. Hendra (Council Consultant Parks Planner) has stated in his evidence that only one existing vehicle crossing within the PARR is legally established, Gate C at the northern end of the site. All other existing vehicle crossings through the PARR are unlikely to be able to be used when the site redevelops.

20. I understand from Mr Hendra that additional active mode connections across the PARR are possible, meaning active modes connectivity is less likely to be impacted by the presence of the PARR.

21. I believe three vehicle crossings are feasible for the site:

a. The central crossing, Gate B, which has access to Apirana Avenue without crossing the PARR.

b. The northern crossing, Gate C, although this will likely require regrading/realignment to “square up” the vehicle crossing with Apirana Avenue to improve driver sightlines.

c. A southern crossing, within the southern end of the site, which has approximately 120m of frontage to Pilkington Road without crossing the PARR. There are currently 4 vehicle crossings in this location, Gate A, and one vehicle crossing each for 169 – 173 Pilkington Road. I expect that only a single consolidated vehicle crossing would be used to serve comprehensive development of the site.

22. Although this is fewer vehicle crossing than assumed in the ITA, I believe it does not constrain the redevelopment of the site. Fewer vehicle crossings will lead to a higher concentration of vehicle movements, but I am comfortable that appropriate vehicle access designs can be developed and, if necessary, the developer can vest or allocate land within the site to achieve appropriate outcomes. I am therefore supportive of Precinct provisions that state that a maximum of 1 vehicle access point can be formed/used within the PARR, or to otherwise limit vehicle access within the PARR.

23. I have considered whether Precinct provisions are required to control vehicle access along the southern end of the site, which has direct frontage to Pilkington Road. In my view it is preferable that the site is developed in a comprehensive manner, which avoids multiple vehicle crossings onto Pilkinton Road. However, I question whether Precinct provisions are required to address this, as I consider that there are existing mechanisms to address this.

24. Direct vehicle access onto arterial roads is subject to the following process(es), which will allow Council and Auckland Transport to assess any vehicle accesses during future resource consent applications:

    a. If vehicle access is proposed to be retained in private ownership, the establishment of a new vehicle crossing, or use of an existing vehicle, on an arterial road is a restricted discretionary activity, with discretion granted over safe and efficient operation of the adjacent transport network (E27.8.2.(11)).

    b. If vehicle access is proposed is proposed to be vested, it will need to meet Auckland Transport standards and will be subject to Auckland Transport review through the Engineering Plan Approval process.

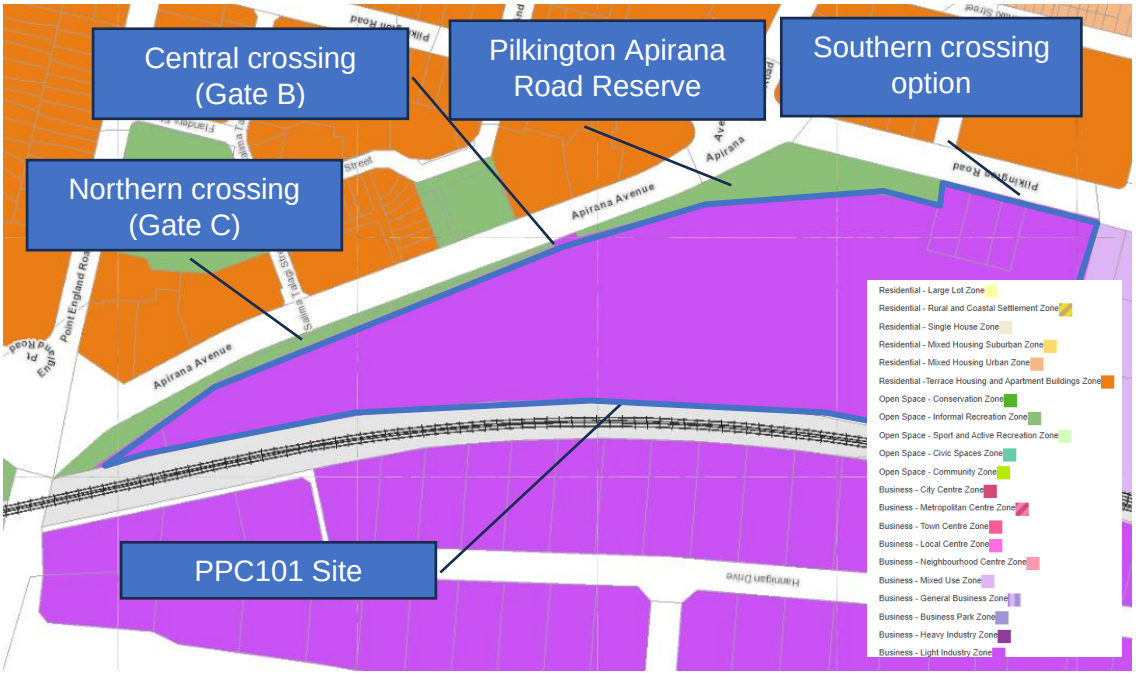


Figure 3: Pilkington Apirana Road Reserve and future vehicle access points

Other matters - Traffic modelling

25. The applicant's ITA modelling indicates that the Apirana Avenue/Merton Road and Pilkington Road/Tripoli Road roundabouts will continue to operate at an acceptable level of service following the site's development. However, the analysis was based on current traffic volumes and did not account for future traffic growth, which contradicts NZTA Waka Kotahi's Integrated Transport Assessment Guidelines. These guidelines recommend using a future assessment year, typically 10 years from the plan changes notification.

26. The applicant's rationale for using current traffic volumes was provided in their clause 23 response:

    "No general growth has been added because the traffic counts show there has not been any general traffic growth. The Pilkington Road counts indicate a small decline in traffic over time but this has not been extrapolated forward."

27. I disagree with the applicant's rationale. It is highly unlikely that traffic volumes will remain stable, given that significant urban redevelopment, including the Tāmaki Regeneration[3], is expected in the surrounding area over the coming decades.

28. Nevertheless, I believe that additional traffic modelling would not provide significant benefits for the following reasons:

    (a) There are no feasible upgrades that could significantly increase the capacity of the Apirana Avenue/Merton Road and Pilkington Road/Tripoli Road roundabouts, as they are already double-lane roundabouts. Instead, mitigation efforts should focus

[3] https://tamakiregeneration.co.nz/

on improving accessibility via active and public transport modes to and from the site.

(b) Any attempt to increase the capacity of these roundabouts would likely conflict with Auckland Transport's planned walking and cycling safety improvements under the Links to Glen Innes Cycleways project.

(c) In my view, peak-hour congestion should not be considered a critical flaw for urban intensification, provided there are alternative transport options and safety concerns are addressed. Once Auckland Transport's Links to Glen Innes Cycleways project is completed, the site will have excellent access to non-car transport options. Additionally, I believe any additional driver delays at nearby intersections due to the site's development are unlikely to result in noticeable safety impacts.

29. In conclusion, I consider that additional traffic modelling is unnecessary, provided that my recommendations for active modes facilities on Apirana Avenue are implemented to reduce the reliance on private vehicles for trips generated by development of the site.

Transport related submissions

30. A total of eight submissions were received on the Plan Change, a summary of decisions requested from those that raised transport matters are provided in Table 1, along with my commentary.

Maungakiekie-Tāmaki Local Board feedback

31. Maungakiekie-Tāmaki Local Board provided feedback on PPC101 in minutes of a meeting held on Tuesday, 24 September 2024. I have included these in Table 2, along with my commentary.

Summary

32. From a transport perspective, I support the Plan Change request, subject to my recommendations being adopted.

Mat Collins

21 October 2024

Table 1: Submission commentary

Submission point	Submitter name	Summary of decision requested	My commentary
1.3	Charis Charan	Increase on premise car parking requirements by at least 50%	I disagree with this request. The NPS:UD mandated that minimum parking requirements be removed from District Plans. Further, I consider that the site is well located for walking, cycling and public transport accessibility. Over provision of car parking would increase the reliance on private vehicles for transport at the expense of active and public transport usage.
4.1	Auckland Transport	Add a new provision to ensure a key pedestrian crossing and facilities for pedestrians and active modes (across Apirana Avenue to/ from the site and the land to the east) is provided, as shown on page 8 of the submission. The provision may include thresholds or triggers (prior to the first occupation of any dwelling) or clear assessment and consenting processes aligned to related objectives and policies. Apply a non -complying activity status when staging triggers are not met.	I support the request for an active modes crossing to be included in the Precinct provisions, refer to my discussion in my evidence.
4.2	Auckland Transport	Add a new standard to manage access to the site and any associated measures to avoid adverse effects on Apirana Avenue and Pilkington Road. Refer to the full submission on page 9 for details.	I support Precinct provisions to limit vehicle access through PARR, as discussed in my evidence and the evidence of Mr Hendra (Council Consultant Parks Planner). I consider that Precinct provisions to limit vehicle access in other locations is not required. Apirana Avenue and Pilkington Road are classified as arterial roads, which would require an assessment of effects for any new/altered vehicle crossing per E27.8.2(11). Therefore, in my view additional access controls are not considered necessary.
4.3	Auckland Transport	Amend paragraph 3 of the precinct description as follows: "Land use, development, and subdivision within the precinct is provided for in a manner which supports the ongoing safe and efficient operation of the North Island Main Trunk Line, and Apirana Avenue and Pilkington Road, including by protecting sensitive activities;.. below."	I do not support Auckland Transport's request. Apirana Avenue and Pilkington Road are identified as arterial roads in the Unitary Plan. I consider that the regionwide provisions of the UnPlan, such as E27.3.(18), E27.3.(21), E27.6.3.4(1) and E27.6.4.1(3), recognise the importance of the safe and efficient operation of arterial roads and therefore Apirana Avenue and Pilkington Road do not warrant bespoke Precinct provisions.

Table 2: Local Board commentary

Local Board feedback	My commentary
Ensure traffic calming and safety measures prioritising pedestrians safety when crossing property access ways is considered and clear links to planned pedestrian crossings on Apirana Ave (included in AT's Links to Glen Innes project under construction) are provided for.	I consider that traffic calming and safety measures prioritising pedestrians safety when crossing property access ways can be addressed during future Resource Consent applications, and I consider that the regionwide provisions in Chapter E27 provide Council sufficient scope to do so. However, I am not opposed to including provisions in Pilkinton Park Precinct to achieve this outcome should Council consider it beneficial. I agree that pedestrian linkages on Apirana Avenue are required, refer to my discussion in my evidence.

Private Plan Change 101 – Pilkington Park (PPC101)

Specialist Review Regulatory Engineering (Water and Wastewater) on behalf of Auckland Council

Matthew John Philip Revill

Introduction

1. My name is Matthew John Philip Revill.
    a. My qualifications are a Bachelor of Civil Engineering Honours degree from the University of Glamorgan, Pontypridd, South Wales, which I obtained on 19th June 1999.
    b. I am a Chartered Professional Engineer (CPEng), International Professional Engineer (IntPE (NZ)) and Chartered Member (CMEngNZ) with Engineering New Zealand.
    c. My registration number is #1007366 and my practice fields are Civil and Environmental Engineering.
    d. I am a Chartered Civil Engineer (CEng (UK))(registration number#6232260) and member of the Institution of Civil Engineers (MICE) (membership number #50451058) in the United Kingdom.

    My experience includes regulatory planning, resource consents and project management for land development infrastructure.

2. I was engaged by Auckland Council at the time the application for PPC101 was lodged. My role has been to:

    - Review the original plan change application documents;
    - Identify matters, within my area of expertise, that required further information from the applicant, and assessing the applicant's response;
    - Review the submissions and further submissions;
    - Identify issues relevant to my area of expertise;
    - Give my expert opinion on the issues, with recommendations where appropriate;

3. In preparing this Review I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note (2023) and agree to comply with it. Except where I state that I am relying on the specified evidence of another person, the content of this Review is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Summary

4. I rely on the reporting planner to explain PPC101 including its location and what the plan change is seeking.

5. I have identified the following issues relevant to my area of expertise:

   (a) Regarding the Proposed Plan Change-Civil Engineering Report (Blue Barn, Revision 0, 13.04.2023) there is sufficient information contained in the report for a preliminary review only.

6. The recommendations I make in respect of these issues are:

   1. *The calculations and conclusions provided in the Blue Barn report are based on a conservative estimation of possible development that could occur after the proposed plan change.*
   2. *From the calculations there appears to be capacity in the water and wastewater networks without the need for wider network upgrades.*
   3. *Further design work, calculations and localised wastewater and water network upgrades will be required at the consent holders' expense once development proposals are known.*

Ir Matthew Revill
BEng (Hons) CEng (UK) CPEng IntPE(NZ)/APEC Engineer MICE CMEngNZ (Civil, Environmental)

25th September 2024

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

9 September 2024

To: Michele Perwick – Senior Policy Planner, Auckland Council

And to: Susan Andrews – Principal Planner, Auckland Council Healthy Waters

From: Amber Tsang – Consultant Planner (on behalf of Auckland Council Healthy Waters)

Danny Curtis – Consultant Engineer (on behalf of Auckland Council Healthy Waters)

Subject: Private Plan Change (PPC) 101 – Pilkington Park Precinct, 167-173 Pilkington Road and railway land on the corner of Apirana Avenue and Merton Road, Point England – Stormwater Assessment

1.0 Introduction

This memo has been jointly written by Amber Tsang, Senior Associate Planner at Jacobs and Danny Curtis, Technical Director – Stormwater at Harrison Grierson.

Amber Tsang has worked as a consultant planner for Healthy Waters since 2016. Ms Tsang holds a Bachelor of Planning (Hons) degree from the University of Auckland and has been a full member of the New Zealand Planning Institute since 2012.

Danny Curtis joined Harrison Grierson in 2023 as the Technical Director for Stormwater, and prior to that held the role of Principal Stormwater Specialist for Catchment Planning at Auckland Council Healthy Waters for four years. He has over 25 years stormwater experience in New Zealand, United Kingdom, India and the Middle East. Mr Curtis graduated from Cardiff University (UK) in 1996 with an honours degree in Civil Engineering and is a certified Project Management Professional (PMP) through the Project Management Institute (Reg: 1828274).

We (Ms Tsang and Mr Curtis) have assessed the Civil Engineering Report submitted as part of PPC 101, on behalf of Auckland Council Healthy Waters, in relation to stormwater effects against the plan change requirements.

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

- Proposed Plan Change – Civil Engineering Report (Revision 0), 167-173 Pilkington Road, by Blue Barn Consulting Limited dated 13 April 2023.
- The Applicant's Request for Information (RFI) response dated 11 December 2022.
- Proposed Pilkington Park Precinct provisions.
- Submissions received.

The following sub-sections are provided to assist the reporting planner's consideration of the plan change proposal in terms of stormwater effects.

2.0 Assessment of Stormwater Effects

PPC 101 seeks to rezone approximately 7.5 ha of land from Business – Light Industry Zone under the Auckland Unitary Plan – Operative in Part 2016 (AUP(OP)) to Business – Mixed Use Zone. The new Pilkington Park Precinct is being proposed as part of PPC 101.

The PPC 101 site is located within the Tamaki North catchment. As stated in Section 3.1.2 of the Civil Engineering Report, existing runoff from the site discharges to the Omaru Creek via the public pipe network and then discharges to the Tamaki Estuary. This part of the Tāmaki Estuary is identified as a Significant Ecological Area (ref: SEA-M2-49a) under the AUP(OP).

As described in Section 3.1.4 of the Civil Engineering Report, the site is currently fully developed and is almost completely impervious.

As stated in their RFI response dated 11 December 2022, the Applicant will decide whether a private stormwater discharge consent will be sought, or if consideration under the Auckland Council Healthy Waters' Regionwide Network Discharge Consent[1] (NDC) is to be sought when redevelopment of the site occurs.

Section 3.1 of the Civil Engineering Report sets out the stormwater management relevant to PPC 101. The proposed management in relation to stormwater treatment and water quality, stormwater detention and retention, stormwater network, and flooding are summarised below.

2.1 Stormwater Treatment and Water Quality

Design of any required treatment devices is proposed to be undertaken at the resource consent stage when redevelopment of the site occurs. The Applicant acknowledges that any future stormwater quality devices that are required must be designed in accordance with GD01 – Stormwater Management Devices in the Auckland Region December 2017 (GD01)[2]. However, Section 3.1.3 of the Civil Engineering Report also identifies that only the High Contaminant Generating surfaces will require treatment, which is not in alignment with Schedule 4 of the NDC for Large Brownfield Development (i.e. development of 20 lots and over, or more than 5000m^2 of new or re-developed impervious surface). The Applicant should be aware that if any stormwater infrastructure is to be vested to Auckland Council at the Engineering Plan Approval (EPA) stage it must comply with Schedules 2 and 4 of the NDC, or there is a risk that the vesting process will be held up or may not be possible.

2.2 Stormwater Detention and Retention

The northern portion of the PPC 101 site is subject to the Stormwater Management Area Flow (SMAF) 2 control under the AUP(OP). Chapter E10 of the AUP(OP) will apply and impose restrictions on development of new or redevelopment of existing impervious areas within the northern portion of the site, as PPC 101 is not proposing to override those provisions nor is it seeking to remove the SMAF 2 control from the site.

In addition, Schedule 4 of the NDC identifies that any development discharging to a stream via a public stormwater network outside of the SMAF control is also required to provide the equivalent of SMAF 1 hydrology mitigation (i.e. Chapter E10 of the AUP(OP)). This comprises retention (5mm runoff to be removed from the discharge through reuse and/or infiltration) and detention (discharge of the 95th percentile rainfall event over a 24-hour period).

Section 3.1.4 of the Civil Engineering Report included a high-level assessment of detention and retention volume required under the SMAF 1 control based on the most conservative assumption that the entire site is redeveloped to be fully impervious. Approximately 1687 m^3 of detention volume and 368 m^3 of retention volume will be required. It is stated that these volumes can feasibly be obtained through raingardens, tree pits, detention tanks or other devices spread through the site.

The preliminary sizing calculation of detention and retention volumes undertaken by the Applicant is considered adequate for the plan change assessment. The PPC 101 site, being at least 7ha in size, will have adequate space to accommodate the required detention and retention volume. The design and standard of any selected stormwater devices will need to be in in accordance with GD01.

2.3 Stormwater Network

As mentioned above, runoff from the PPC 101 site currently discharges to the existing public network. It is stated in Section 3.1.5 of the Civil Engineering Report that the existing stormwater

[1] Consent reference number is DIS60069613.
[2] Refer to Section 3.1.3 of the Civil Engineering Report and the Applicant's RFI response.

connection to the east of the site could be unutilised as the stormwater discharge points for any future development. It stated that the volume of stormwater discharging from the site after redevelopment is likely to reduce compared to the existing situation. Assessment of downstream network capacity, detail calculations, and network upgrade requirements are proposed to be undertaken at the resource consent stage.

It should be noted that where the existing public stormwater network does not have capacity for the 10% Annual Exceedance Probability (AEP) design rainfall event (allowing for climate change increases) then temporary attenuation of post development flows to pre-development flows (without any climate change effects) may be required to ensure that flood risks downstream are not increased. This will need to be assessed and confirmed at the resource consent stage.

2.4 Flooding

As discussed in Section 3.1.6 and shown on Figure 3-3 of the Civil Engineering Report, there are no floodplains, flood prone or flood sensitive areas within the PPC 101 site. There is an overland flowpath (OLFP) which starts within the site boundary, drains along the western boundary of the site before crossing through the middle of the site and drains out towards Apirana Avenue. The Civil Engineering Report states that the existing OLFP will be incorporated in the development design.

Mr Curtis advises that the floodplain maps available through the Auckland Council GIS Viewer (GeoMaps) contains a very old representation of the 100-year Annual Recurrence Interval (ARI) floodplain. Therefore, the existing floodplain mapping should not be relied upon for design purposes. More recent flooding information is available from the Auckland Council Healthy Waters.

Chapter E36 of the AUP(OP) will apply and impose restrictions on developments and activities within flood hazard areas and/or altering any existing OLFP, as PPC 101 is not proposing to override those provisions.

In our opinion, since the site is already almost 100% impervious, the volume of stormwater discharging from the site after redevelopment is unlikely to increase. Accordingly, increase of downstream flood risk is considered to be unlikely. Assessment of flooding effects and mitigation requirements for any future development will need to be undertaken at the resource consent stage in accordance with the NDC's requirements or Chapter E8 of the AUP(OP).

2.5 Summary

Overall, we consider that PPC 101 can provide appropriate stormwater management to ensure that stormwater discharge effects of future developments will be avoided or mitigated.

If the Applicant decides to be considered under the NDC, a Stormwater Management Plan (SMP) meeting the NDC's requirements (including Schedule 2: NDC's strategic objectives, outcomes, and targets, and Schedule 4: performance requirements) will need to be submitted to Healthy Waters for consideration and adoption at time of redevelopment. If a SMP is adopted, then no other stormwater discharge consent is needed. Alternatively, the Applicant can seek a private stormwater discharge consent under Chapter E8 of the AUP(OP).

The design and standard of any stormwater devices (for treatment, detention and/or attenuation) and network will need to meet the NDC's requirements and Stormwater Code of Practice (SWCoP). The Applicant is encouraged to seek input from Healthy Waters at the early stages of design to ensure the adequacy of any proposed stormwater infrastructure intended to be vested. Healthy Waters can reject vesting proposal of any infrastructure that are deemed inadequate for the proposed development.

3.0 Submissions

No submissions received on PPC 101 raised stormwater related issues.

4.0 Conclusions and Recommendations

We consider that PPC 101 can provide appropriate stormwater management to ensure that stormwater discharge effects of future developments will be avoided or mitigated. This is on the basis that the volume of stormwater discharging from the PPC 101 site after redevelopment is unlikely to increase as the site is already almost 100% impervious, and that the site will have adequate space to accommodate the required detention and retention volume.

As mentioned above, the Applicant is encouraged to seek input from Healthy Waters at the early stages of design to ensure the adequacy of any proposed stormwater infrastructure intended to be vested.

Based on the above, we consider that PPC 101 can be supported from a stormwater perspective.

Private Plan Change 101 – Pilkington Park (PPC101)

Specialist Review - Noise and Vibration on behalf of Auckland Council

Andrew Gordon, Senior Specialist

Introduction

1. My name is Andrew Gordon. I hold the qualifications of BSc from the University of Auckland, a National Diploma in Environmental Health from Wellington Polytechnic and a Certificate in Noise Assessment and Control from the University of Western Sydney (extramural). I have 20 years of experience working in the regulatory and environmental health field for territorial authorities and this includes reviewing noise effects for recent private plan changes in Wellsford (PPC 92), Drury (PPC 48,49, 50) and for the Villa Maria (Mangere) site.

2. I was engaged by Auckland Council at the time the application for PPC94 was lodged. My role has been to:

   - Review the original plan change application documents;
   - Visit the site;
   - Identify matters, within my area of expertise, that required further information from the applicant, and assessing the applicant's response;
   - Review the submissions and further submissions;
   - Identify issues relevant to my area of expertise;
   - Give my expert opinion on the issues, with recommendations where appropriate;
   - Provide this Review as part of Councils RMA s42A reporting process to the Commissioners.

3. In preparing this Review I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note (2023) and agree to comply with it. Except where I state that I am relying on the specified evidence of another person, the content of this Review is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Summary

4. I rely on the reporting planner to explain PPC101 including its location and what the plan change is seeking.

5. I have identified the following issues relevant to my area of expertise:

   5.1. Ensure noise created by surrounding business activities is adequately mitigated inside activities sensitive to noise (ASN) based on the maximum permitted noise levels for the zone and adjacent zones.

   5.2. Ensure rail noise is adequately mitigated, specifically inside ASN, based on onsite rail noise measurement results.

   5.3. Ensure rail vibration is adequately mitigated, specifically inside ASN, based on onsite rail vibration measurement results.

   5.4. Ensure road traffic noise is adequately mitigated, specifically inside ASN, based on future road traffic volumes.

   5.5. Ensure potential reverse sensitivity effects on existing business activities, rail and road networks are avoided and/or adequately mitigated as far as possible.

6. The recommendations I make in respect of these issues are:

   6.1. Ensure the site layout and design include acoustic measures to adequately mitigate external noise (and vibration) arising from adjacent business activities, rail and road transport where practicable to do so.

   6.2. Ensure ASN include acoustic design measures (i.e. suitable façade construction and suitable mechanical ventilation) to adequately mitigate external noise arising from adjacent business activities, rail and road transport.

   6.3. I confirm the above recommendations will be met with implementation of the proposed precinct provisions and no changes are required to *IX.6 Standards*.

   6.4. As mentioned in paragraph 37, I agree the operation of arterial roads needs to be included in Objective 4 and Policy 4 to ensure ASN are adequately protected from road traffic noise. This is the only recommended change to proposed precinct provisions.

7. In respect of noise and vibration, I support the following features of the plan change:

   7.1. A precinct standard that requires ASN with a façade within 60m of the rail corridor to be designed, constructed and maintained to ensure that rail noise does not exceed an internal noise level of 35 dB $L_{Aeq(1\ hour)}$ for sleeping areas and 40 dB $L_{Aeq\ (1\ hour)}$ for all other habitable spaces.

   7.2. A precinct standard that requires any new outdoor play area of any care centres for a childcare centre, creche, kindergarten, kohanga reo, play centre, play group, early childhood learning service or an after school care centre within 60 metres of the rail corridor to be designed, constructed, and maintained so that the cumulative level of rail noise and noise from the Business Zones does not exceed 55 dB $L_{Aeq(1hour).}$

   7.3. A precinct standard that requires ASN with a façade within 60m of Apirana Avenue or Pilkington Road where the road traffic noise level is predicted to exceed 55dB $L_{Aeq(24hour),}$ must be designed, constructed and maintained to ensure that road traffic noise does not exceed an internal noise level of 40dB $L_{Aeq(24hour)}$ inside bedrooms and other habitable rooms (refer acoustic assessment).

   7.4. In situations where windows and/or external doors for an ASN must be closed to comply with internal noise limits, a precinct standard that requires installation of a mechanical ventilation and/or cooling system that meets the requirements of AUP (OP) E25.6.10(3)(b) and (d) to (f).

   7.5. A precinct standard that requires a report to be prepared by a suitably qualified and experienced person for submission to council demonstrating compliance with relevant standards prior to occupation of the ASN.

Surrounding Business Activity Noise

8. At present surrounding business activities can create noise up to 65 dB L_{Aeq} (24 hours, seven days) when assessed within the application site. The proposed rezoning from Light Industry to Mixed Use does not change the permitted noise limit during the daytime period (i.e. 7am to 11pm), however, at night (11pm to 7am), the rezoning introduces lower noise limits for business activities namely, 55 dB L_{Aeq} and 75 dB L_{AFmax} when assessed within the application site (i.e. at the facade).

9. I agree there is a low or negligible risk of lawfully established business activities being adversely affected due to imposing lower noise limits at night because;

   a) The rail corridor provides a good buffer separation.

b) The existing requirement (which will not change) for noise limits to be met within adjoining sites zoned Business – Light Industry which are closer than the application site.

c) The existing requirement (which will not change) for nighttime noise limits to be met within adjacent sites zoned Business – Mixed Use and adjacent sites zoned Residential – Terrace Housing and Apartment Building.

d) Existing surrounding businesses are generally unlikely to be currently generating noise levels up to the maximum permitted noise level (i.e. less than 65 dB LAeq).

10. I confirm the acoustic design will consider the cumulative noise level based on the maximum permitted noise levels for the zone and external noise from the rail corridor.

11. Outdoor play areas associated care centres will be designed to ensure the proposed precinct guideline limit is met (i.e. ≤55 dB L_{Aeq}).

12. Reverse sensitivity effects will be avoided and/or adequately mitigated by proposed acoustic design of ASN facades including installation of suitable mechanical ventilation so future occupants have the option of closing windows to keep external noise out and at the same time maintain a comfortable indoor thermal environment.

13. In my opinion, noise effects on future occupants of ASN will be at a reasonable level and reverse sensitivity effects on existing business activities will be avoided.

Rail Noise

14. I confirm the Auckland Unitary Plan Operative in Part E25 city wide provisions do not impose any controls requiring acoustic treatment of dwellings near to the rail network.

15. The proposed precinct standard adopts the KiwiRail's guideline rail noise levels of 70 dB $L_{Aeq(1hour)}$ at 12m from the track. Onsite rail noise measurements confirm noise levels from a freight train pass-by are not materially different than KiwiRail's train noise source level. It is noted that a passenger train pass-by is significantly quieter.

16. I confirm the acoustic design will consider the cumulative noise level based on external noise from the rail corridor and the maximum permitted noise levels for the zone.

17. Reverse sensitivity effects will be avoided and/or adequately mitigated by proposed acoustic design of ASN facades (within 60m of the rail corridor) including installation of suitable mechanical ventilation so future occupants have the option of closing windows to keep external noise out and at the same time maintain a comfortable indoor thermal environment.

18. Outdoor play areas associated care centres will be designed to ensure the proposed precinct guideline limit is met.

19. In my opinion, noise effects on future occupants of ASN will be at a reasonable level.

Rail Vibration

20. The assessment is based on KiwiRail's guidelines which recommend that any new or altered ASN that are located within 60m of the boundary of a railway network are designed and constructed to achieve rail vibration levels not exceeding 0.3mm/s vw95. Alternatively, the guidelines includes a construction schedule that requires buildings to be constructed on a vibration isolating floor slab. I confirm that these requirements are designed to ensure that vibration levels inside ASN are reasonable for occupants.

21. Onsite rail vibration measurements confirm vibration levels from a freight train pass-by are generally low and expected to range from imperceptible to just perceptible. Further, rail induced vibrations are expected to be attenuated as they travel through the foundations and floors of the

nearest buildings, which is referred to as the “coupling loss” or “transfer factor”. The extent of building attenuation will not be known until the detailed design stage.

22. I agree compliance with the KiwiRail guideline limit of 0.3mm/s vw95 can be achieved in practice without the need for specific vibration mitigation design measures.

23. Given compliance is expected, I agree a precinct standard specifying a vibration limit is not necessary. Further, I am not aware of any specific rail vibration limits included in other precincts which include new ASN adjoining or in proximity to a rail network.

24. In my opinion, vibration effects on future occupants of ASN will be at a reasonable level.

Road Noise

25. I agree mitigation requiring acoustic treatment of ASN near to roads are typically only applied where the speed environment is generally 80km/hr or greater and/or where the traffic flows are high (e.g. state highways and some busier arterial roads).

26. I confirm the Auckland Unitary Plan Operative in Part E25 city wide provisions do not impose any controls requiring acoustic treatment of ASN near to any roads or highways.

27. In my view, there is a reasonable expectation that occupants in new buildings will have a good level of acoustic amenity even when located in proximity to existing road infrastructure, which by their nature produce high levels of noise.

28. I support the proposed precinct provision which recommends that ASN within 60m of Apirana Avenue or Pilkington Road where the road traffic noise level is predicted to exceed 55dB $L_{Aeq(24hour)}$, must be designed, constructed and maintained with a mechanical ventilation and/or cooling system that meets the requirements of E25.6.10(3)(b) and (d) to (f).

29. By way of context, NZS 6806:2010 *Acoustics – Road-traffic noise – New and Altered Roads* (referenced in E25) recommends an internal noise limit of 40 dBA $L_{Aeq(24hour)}$ for buildings occupied by activities sensitive to noise, however, this NZ Standard applies to new or altered roads only.

30. I support the proposed precinct provision which requires the design to be based on predicted traffic noise levels ten years after the ASN is first occupied to account for projected growth in traffic volume.

31. Reverse sensitivity effects will be avoided and/or adequately mitigated by proposed acoustic design of ASN facades (within 60m of Apirana Avenue or Pilkington Road) including installation of suitable mechanical ventilation so future occupants have the option of closing windows to keep road traffic noise out and at the same time maintain a comfortable indoor thermal environment.

32. Outdoor play areas associated with care centres also need to be designed to ensure the proposed precinct guideline limit is met from the potential cumulative effects from business, rail and road noise.

33. In my opinion, road noise effects on future occupants of ASN will be at a reasonable level.

Submissions

34. I have reviewed submissions relevant to noise and vibration and associated reverse sensitivity and provide comments to address and/or alleviate submitters concerns.

35. Submission 01 from Charis Charan includes concerns with noise based on experience with noise from other developments in the area. The submitters property is located at least 86m from the nearest application site boundary and therefore noise effects during construction will be reasonable and during operation will be negligible due to normal distance attenuation.

36. Submission 02 from Georgina Stewart states: *"As Pilkington Park is adjacent to residential areas zoned for intensive residential development, I am concerned that any development to the site must minimise the impact for nearby residents. Pilkington Road is already very busy and I experience quite a bit of road noise and general background noise. The area gets quite congested at peak times, and is not very pedestrian friendly".*

- The development will not change existing permitted noise levels at the Business – Residential interface (i.e. as set out in E25.6.19).
- Rezoning from Light Industry to Mixed Use may potentially reduce overall noise effects currently received within the residential zone.
- Vehicles driving on public roads is a permitted activity and not subject to specific noise controls.
- Vehicle movements associated with the application site are not expected to increase existing traffic noise levels and any change in traffic noise is expected to be imperceptible (i.e. less than 3 dBA).

37. Submission 04 from Auckland Transport includes adequately protecting ASN and avoiding reverse sensitivity effects on the efficient operation of Apirana Avenue and Pilkington Road, both of which are arterial roads.

- Proposed precinct provision IX.6.2 and specifically (4) adequately protects ASN from unreasonable road traffic noise and will be sufficient to avoid reverse sensitivity effects.
- I agree operation of arterial roads needs to be included in Objective 4 and Policy 4 to ensure ASN are adequately protected from road traffic noise.
- The proposed precinct provision requires the design of ASN to be based on predicted external road traffic noise levels ten years after the ASN is first occupied. The submitter suggests an alternative is to base the design on current measured or predicted road traffic noise plus 3 dB after the noise sensitive space is first occupied. I note the applicants acoustic specialist recommends a third option, basing the design on traffic volumes at the time of the design with an additional 2 dB added to account for possible future growth. I suggest the proposed precinct provision is retained.

38. Submission 05 from KiwiRail includes adequately protecting ASN and avoiding reverse sensitivity effects on the efficient operation of the rail network.

- The submitter considers a "rail vibration notation" is required to cover land within 100m from the rail corridor. This is considered unnecessary given the potential for adverse rail vibration effects are considered to be negligible as stated in paragraphs 20 - 24.
- In my view, the proposed precinct provision specifying a setback distance of 60m from the rail corridor provides an appropriate effects envelope for this site (noting the maximum width of the site is 169m) given ASN beyond 60m are still required to be acoustically treated in accordance with E25.6.10 and, where ASN further from the rail corridor will be screened or partially screened by buildings located closer to the rail corridor.
- I note Plan Change 48 Drury Centre Precinct (now operative) and precinct provision I450.6.9 adopted a 60m setback distance for acoustic treatment of ASN.
- The definition of ASN (Activities Sensitive to Noise) is defined in the Auckland Unitary Plan – Operative in Part, Chapter J Definitions namely: *"Any dwelling, visitor accommodation, boarding house, marae, papakāinga, integrated residential development, retirement village, supported residential care, care centres, lecture theatres in tertiary education facilities, classrooms in education facilities and healthcare facilities with an overnight stay facility."*

- In my opinion, the proposed precinct provisions are sufficient to protect people's health and amenity values relative to a Business – Mixed Use Zone and, will ensure that potential reverse sensitivity effects are avoided and will therefore will not constrain the efficient operation of the rail network.

39. Submission 07 from Van Den Brink Poultry Ltd includes adequately addressing potential reverse sensitivity effects on its existing business activities located at 9-15 Hannigan Drive and 8-12 Hannigan Drive.

    - As stated in paragraphs 8 – 15, ASN will be designed based on the cumulative noise from the rail network and the maximum permitted noise levels for the zone and adjacent zones.

    - It is noted the site has "high vehicle and truck movements" however the loading bays and associated truck movements occur on the western side of the building where the building itself provides an effective noise barrier to the nearest application site boundary which is setback approximately 90m from this external truck activity.

    - In my opinion potential reverse sensitivity effects on this existing business will be avoided.

Andrew Gordon

21 October 2024 (Revision 1)

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4 October 2024

Michele Perwick
Senior Policy Planner - Planning Central and South
Auckland Council
135 Albert Street
AUCKLAND

Dear Michele

RE: AUCKLAND UNITARY PLAN PRIVATE PLAN CHANGE 101 - AIR QUALITY REVERSE SENSITIVITY ASSESSMENT

1.0 Introduction

1.1 Proposed Private Plan Change 101: Air quality reverse sensitivity

Wyborn Capital Investments Ltd propose a Private Plan Change (PPC) to the Auckland Unitary Plan (Operative in Part) (AUP(OP)) to rezone 7.3 ha of land at 167-173 Pilkington Road and adjoining railway land, Point England, from Business - Light Industry Zone to Business – Mixed Use Zone and create the 'Pilkington Park Precinct' with Precinct provisions in a new section of AUP(OP) Chapter I.

The PPC was publicly notified in May 2024 and one of the submissions received raised concerns regarding the potential for air quality reverse sensitivity effects associated with the PPC's re-zoning. This submission was received from Van den Brink Poultry Ltd ('Brinks'), which owns and operates a poultry meat processing and packaging facility at 8-12 and 9-15 Hannigan Drive, St Johns, to the west of the PPC area.

1.2 Specialist Reviewer

Auckland Council Plans and Places has commissioned Pattle Delamore Partners Ltd (PDP) to review the air quality reverse sensitivity effects of the PPC to provide technical specialist advice for the section 42A report on the PPC.

This technical review is conducted by Paul Crimmins, Service Leader – Air Quality, of PDP. I have over 15 years' experience in air quality assessments (human health and amenity effects) and hold Master of Science (First Class Honours) in Environmental Science from the University of Auckland (2018). I am a Certified Air Quality Practitioner (CAQP) with the Clean Air Society of Australia and New Zealand (CASANZ).

Prior to my employment at PDP, I was a specialist advisor for Auckland Council's Contamination, Air and Noise team within the Resource Consents Department. In this prior role, I reviewed the soil contamination aspects of this PPC, concluding that no further information was required regarding soil contamination at the PPC stage.

1.3 Material reviewed

I have reviewed the section 32 report for the PPC[1] and the submission received from Brinks.[2]

I visited the areas surrounding the PPC and the Brinks facility on Hannigan Drive on 21 August 2024.

2.0 Air quality reverse sensitivity assessment

2.1 Outline of potential air quality reverse sensitivity effects

The term 'reverse sensitivity' is not specifically defined in the AUP(OP) or the RMA. The concept has been defined in a number of Environment Court decisions[3] and is used to refer to the effects imposed by the existence of sensitive activities on other activities in their vicinity, particularly by leading to constraints on the establishment or operation of those activities.

Reverse sensitivity effects can occur when sensitive activities establish in close proximity to industrial activities.[4] This is a particular concern in the air quality field where existing industries which cannot avoid discharging contaminants such as odour and dust to air may face constraints when activities sensitive to air discharges establish nearby. AUP(OP) Chapter J defines 'activities sensitive to air discharges' as including:

- *dwellings;*
- *care centres;*
- *hospitals / healthcare facilities with an overnight stay facility;*
- *educational facilities;*
- *marae;*
- *community facilities;*
- *entertainment facilities; and*
- *visitor accommodation.*

These sensitive activities are generally not provided for by the Rules of AUP(OP) Chapter H17: Business – Light Industry Zone.[5] AUP(OP) Chapter H13: Business – Mixed Use Zone provides for many of these sensitive activities, including dwellings as a Permitted Activity. The PPC therefore enables the establishment of activities sensitive to air discharges in an area where they are generally not provided for under the existing AUP(OP).

Certain areas in Auckland have been set aside, in the form of light and heavy industry zoning, to enable hazardous facilities and industries that cannot operate without discharging contaminants into air. A greater tolerance is given to air quality effects within these zones in accordance with

[1] B&A, 24/08/2023, *Proposed Private Plan Change, 167-173 Pilkington Road, Point England: Section 32 Report*.
[2] Submission on behalf of Van Den Brink Poultry Ltd, Emma Bayly of CivilPlan, 21/06/2024.
[3] *Kombi Properties Ltd v Auckland Council [2021] NZEnvC 62; Gibbston Vines Ltd v Queenstown Lakes District Council [2019] NZEnvC 115; Auckland Regional Council v Auckland City Council [1997] RMA 10/97*.
[4] Examples of reverse sensitivity effects that industries can face if amenity expectations change as a result of land use change are additional consenting and compliance costs, including time taken to respond to complaints.
[5] AUP(OP) Chapter H17 provides for some activities sensitive to air discharges with limitations, such as Worker's Accommodation and Discretionary Activity statuses for Care Centres and Hospitals.

AUP(OP) Policies E14.3(4) and (5). This tolerance is also set at a strategic level by the objectives and policies of AUP(OP) Regional Policy Statement Chapter B7.5 Air.[6]

The potential for the establishment of these types of sensitive activities nearer to industrial air discharge activities located within the Business – Light Industry zone, and the resulting scale of likely constraints on those industrial air discharge activities, is the subject of this review.

2.2 Brinks air discharge activities

I understand from the submission and a prior meeting I attended in c.2019 at the Brinks abattoir facility (located at 309 Karaka North Road, Karaka), that the Brinks facility at Hannigan Drive, St Johns:

- Receives 'dressed whole chickens' (chilled poultry carcasses) for further butchering, processing, and packaging;
- Does not undertake any primary slaughter of poultry, offal-removal or feather removal activities (these are completed at the Karaka abattoir);
- Undertakes some cooking, smoking and/or frying processes; and
- Does not hold an air discharge consent under AUP(OP) Chapter E14.

I do not have information regarding the details or volumes of processes undertaken at the Brinks site. Provided the processing rate for 'curing by smoking' and 'deep fat or oil frying' is under the 250 kg/hour threshold in AUP(OP) Rule E14.4.1(A110), the air discharges from Brinks food processing activities are considered a Permitted Activity under Rule E14.4.1(A1). If the processing rates are above this threshold, then Brinks would require a Discretionary Activity air discharge.[7]

2.3 Other industrial air discharge activities

The Business – Light Industry Zone provides for industrial activities as a Permitted Activity under AUP(OP) Rule H17.4.1(A33). Several existing air discharge consents are held by industrial activities in the wider Glenn Innes / Point England Business – Light Industry zone:

- AHI Roofing Ltd (manufacturing and spray coating operation), 90 Felton Mathew Ave;
- Auckland Quarry Ltd (concrete crushing and aggregate operation), 20 Tainui St;
- Atlas Concrete Ltd (concrete batching operation), 25 Morrin Road.

There is potential for different types of industries to establish within this Business – Light Industry Zone as a Permitted Activity which may be a source of air pollutants in the future. Examples of industrial air discharge activities that could establish near to the PPC area as Permitted Activities (and their Permitted Activity air discharge Rule number within AUP(OP) Activity Table E14.4.1) include:

- Spray painters (A14);
- Food manufacturers (A1, A49-51, A99, A102);
- Metal and non-metal fabricators and manufacturers (A8, A49-51, A61);
- Dust generating processes (A71, A74, A77, A79, A86);

[6] Refer to Regional Policy Statement Objective B7.5.1(2) and Policies B7.5.2(1)(c & f).
[7] Inghams Enterprises (NZ) Ltd at 9 Golden Arches Place, Manukau, and Tegel Foods Ltd at 1 Bruce McLaren Road, Henderson, both hold air discharge consents for frying chicken products at rates greater than 250 kg/hour, whereas the Brinks facility appears to undertake these processes at lower levels.

- Recycling, composting and small waste transfer facilities (up to 30 m³ of refuse or 500 m³ of greenwaste) (A7, A145-148, A153, A156).

Each of the above industries involve discharges of contaminants into air, including odour, dust and/or hazardous air pollutants. If an activity sensitive to air discharges is established near to industrial sites, its presence would be accounted for when assessing compliance with the General Permitted Activity Standard E14.6.1.1 for permitted air discharges and in any decision to grant an air discharge consent application (including conditions).[8] This is because the sensitivity of the receiving environment is accounted for in a 'FIDOL' assessment for odour or dust amenity effects, and in assessing the risk of health effects from exposure to hazardous air pollutants.[9]

2.4 Sensitivity of the PPC to air discharges, including mitigation

The PPC does not include a specific development proposal for assessment. However, the PPC's proposed re-zoning and Precinct enables future development to occur, including activities sensitive to air discharges such as residential dwellings.

AUP(OP) Chapter H13, relating to the proposed Business – Mixed Use Zone, provides for both dwellings and care centres as Permitted Activities. This zone is scheduled by Chapter E14 as a 'High air quality (dust and odour) area', in the same category as other residential zones, to reflect its sensitivity to air quality amenity effects.[10] I consider the proposed Business – Mixed Use Zone would be sensitive to industrial air discharges in accordance with these AUP(OP) provisions.

The proposed Precinct provisions include some mitigation measures relating to noise reverse sensitivity effects on the operation of the rail corridor, including designing dwellings and outdoor play areas to manage noise levels from the railway. No specific mitigation is proposed regarding air quality reverse sensitivity effects.

2.5 Assessment of air quality reverse sensitivity effects

The degree of air quality reverse sensitivity effects posed by the PPC is related to the sensitivity of the activities enabled by the PPC and scale of industrial air discharge activities present and likely to occur in the adjacent Business – Light Industry Zone.

In terms of the existing industrial air discharge activities near to the PPC area, I consider these pose limited risks of significant air quality effects. The existing industrial activities adjacent to the PPC area along Hannigan Drive, including Brinks, appear to have small-scale or negligible air discharges.

There are no existing industrial activities that hold an air discharge consent under AUP(OP) Chapter E14 located on Hannigan Drive. Therefore, I assume that these industrial air discharge activities, including the food processing undertaken at Brinks, are currently provided for as Permitted Activities under AUP(OP) Rule E14.4.1(A1).

[8] 'Note 1' of AUP(OP) Standard E14.6.1.1 describes how the predominant types of activities and amenity provisions of the zone where the effect occurs are accounted for in the 'FIDOL' framework to make an objective and consistent assessment of whether odour or dust are the cause of an offensive or objectionable effect. The FIDOL assessment methodology requires a field assessment of an amenity effect (typically odour or dust) by holistically considering the Frequency, Intensity, Duration, Offensiveness/character, and Location of the effect.

[9] The FIDOL assessment methodology is recommended by the *Good Practice Guide for Assessing and Managing Odour* (Ministry for the Environment, 2016).

[10] Refer to AUP(OP) section E14.4 for the schedule of 'air quality (dust and odour) areas' that apply to the following Activity Table E14.4.1.

While at Hannigan Drive and Pilkington Road on the afternoon of 21 August 2024, I conducted a brief field odour assessment from the road-side. I did not detect any notable industrial odour at this time.[11] During my inspection of businesses along Hannigan Drive immediately to the west of the PPC area, I did not identify any notable dusty activities or large-scale manufacturing operations that may involve significant discharges of hazardous air pollutants.

The Auckland Quarry located at 20 Tainui Road is the nearest notably dust-generating activity and holds air discharge resource consent number DIS60385285 for the crushing of concrete. This industrial site is separated from the PPC area by approximately 210 m. With this degree of separation distance, I consider it is unlikely that any dust from the Auckland Quarry operation would be noticeable within the PPC area if the mitigation measures required by its air discharge consent conditions are being followed. Further, I note that the existing Business – Mixed Use Zone to the south of the PPC area is a similar distance from the Auckland Quarry site, so that the PPC's expansion of this zoning to the north does not provide for the establishment of sensitive activities any nearer the Auckland Quarry site than is already provided for.

I consider that the scale of industrial air discharge activities likely to establish at the northern tip of this Business – Light Industry Zone are already limited by the proximity to activities sensitive to air discharges. These include other residential dwellings to the east of the PPC area,[12] the existing Business – Mixed Use Zone to the south of the PPC area, and Business – Mixed Use Zone to the west of Hannigan Drive (refer to Figure A). The area to the west of Hannigan Drive includes the former University of Auckland Tāmaki Campus at 261 Morrin Road, which I understand is in the process of master-planning for mixed residential, healthcare and commercial activities as the 'Te Tauoma development'.

The proximity of these existing activities sensitive to air discharges to the Business – Light Industrial Zone at Hannigan Drive already poses constraints to the establishment of substantial industrial air discharge activities. Any industrial activities that exist or may establish as a Permitted Activity along Hannigan Drive would need to control air discharges to comply with Permitted Activity Standard E14.6.1.1. I do not consider that the PPC would introduce a necessity for notably greater levels of air emissions controls in order to comply with this effects based Permitted Activity standard. For example, odour discharges from Brinks or other industrial operations along Hannigan Drive already require careful control to minimise the risk of causing 'offensive or objectionable' amenity effects at the existing nearby Business – Mixed Use and residential zones.[13]

While I consider that an assessment by a council enforcement office in accordance Good Practice Guidance[14] is not substantially more likely to determine odour discharges from Hannigan Drive industries as causing 'offensive or objectionable' amenity effects with the PPC than without, I do note there is an increased risk of complaints being received from future residents in the PPC area alleging that such amenity effects exist. This increased risk of complaints, caused by the close proximity of 'activities sensitive to air discharges' to the Business – Light Industry Zone (including where taller apartment buildings may overlook the industrial area and air discharge stacks), poses a small degree of reverse

[11] Wind conditions at the time of my visit were a light breeze from the south-west (which is the predominant wind direction), so that my position on Hannigan Drive was not downwind of the Brinks facility. I did not observe any industrial odours on Pilkington Road.
[12] Including new high-density apartments and terrace housing developments on the eastern side of Pilkington Road.
[13] Permitted Activity Standard E14.6.1.1 requires that discharges of odour do not cause 'offensive or objectionable' amenity effects.
[14] Ministry for the Environment (2016) *Good Practice Guide for Assessing and Managing Odour*.

sensitivity effect to the industrial properties given the risk of increased time to respond to complaints, even where these complaints are found to be unsubstantiated.[15]

Taller residential apartment buildings that immediately adjoin industrial properties may also be more impacted by air discharges from chimney stacks than in a scenario where residential buildings are lower and/or further distant. Considering the specific character of the Hannigan Drive industrial area and degree of separation to the PPC afforded by the rail corridor, I do not consider this risk of increased exposure by residents to air pollutants to be a concern in this instance.[16]

The PPC area (current Business – Light Industry Zone) does not act as a 'buffer' between significant air discharge activities, such as those typically found in a Business – Heavy Industry Zone, and residential zones. Therefore, I consider that the PPC would not reduce existing separation distances between any significant industrial air discharge activities and activities sensitive to air discharges in this area as compared to the current AUP(OP) provisions.

2.6 Air quality reverse sensitivity assessment conclusion

I consider that the PPC is not likely to cause significant air quality reverse sensitivity effects to existing and future potential industrial activities within the nearby Business – Light Industry Zone. The current proximity of other activities sensitive to air discharges and zones that provide for these activities to the Hannigan Drive industrial area already constrains the potential for significant industrial air discharge activities within this area. I consider that the PPC does not notably exacerbate this existing level of constraint.

Any time that activities sensitive to air discharges are present at locations adjacent to industrial air discharge activities, there is a risk of air quality complaints alleging amenity effects (such as odour). I consider that the PPC poses a minor risk of increasing air quality amenity complaints compared to the status quo scenario, so that the overall air quality reverse sensitivity effects are negligible.

Industrial air discharge activities must obtain resource consents under the Rules of AUP(OP) Chapter E14 or comply with Permitted Activity Standard E14.6.1.1. I consider that the PPC does not make the granting of such consents or compliance with the effects-based Permitted Activity Standard notably more difficult.

[15] Unsubstantiated odour complaints are common and include instances where the duration of an odour is not long enough for an enforcement officer to witness and/or where a field odour assessment determines that the odour does not breach the 'offensive or objectionable' threshold on consideration of the FIDOL factors.
[16] The rail corridor and proposed Precinct Provisions regarding noise reverse sensitivity mitigation effectively provides at least 40 m separation between any future residential buildings in the PPC area and locations where industrial stacks may be located on the eastern side of Hannigan Drive.

3.0 Limitations

This report has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Auckland Council others not directly contracted by PDP for the work, including Wyborn Capital Investments Ltd Van den Brink Poultry Ltd. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the report. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This report has been prepared by PDP on the specific instructions of Auckland Council for the limited purposes described in the report. PDP accepts no liability if the report is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

Yours faithfully

PATTLE DELAMORE PARTNERS LIMITED

Prepared by

Paul Crimmins

Service Leader - Air Quality

Reviewed and Approved by

Andrew Curtis

Technical Director – Air Quality

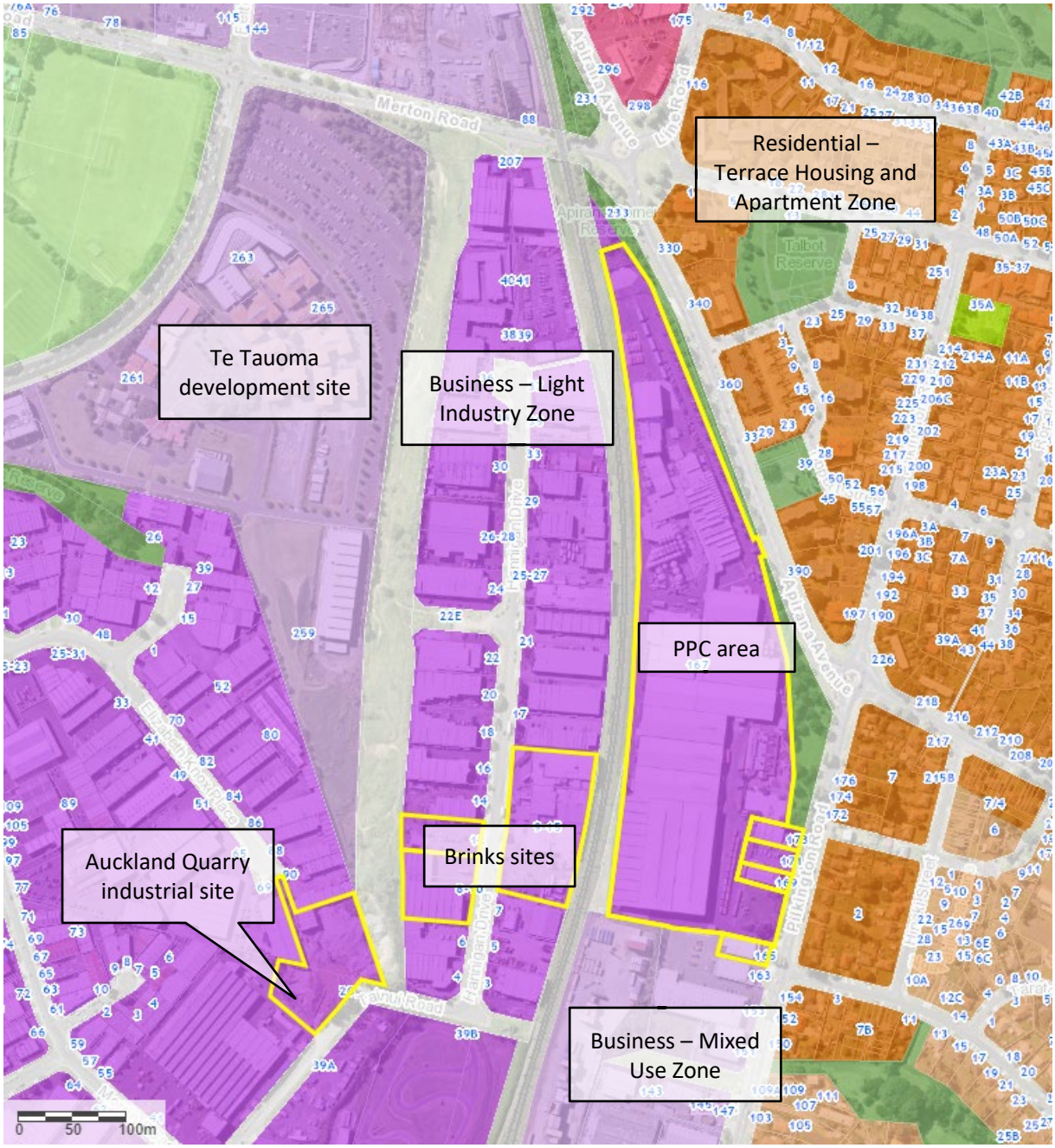


Figure A: Map of PPC and adjoining area, showing current AUP(OP) zoning and activities noted in this assessment.

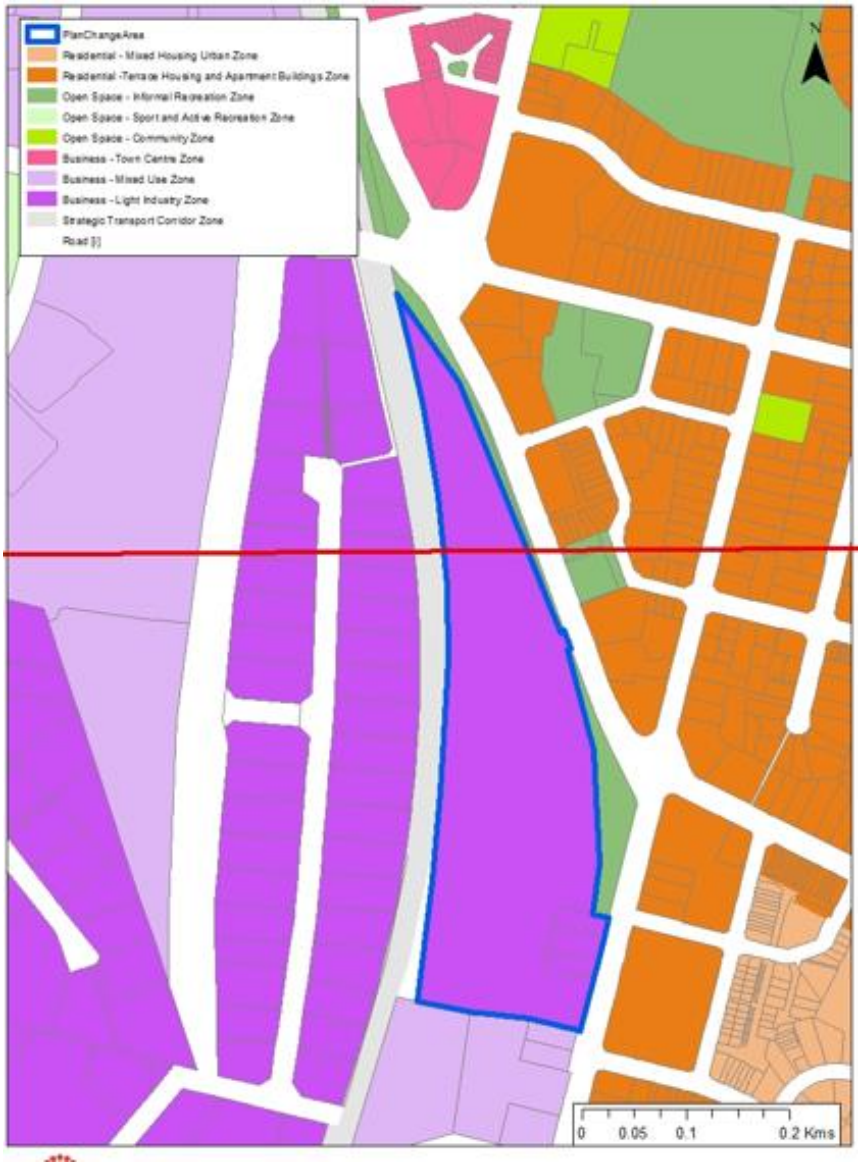
APPENDIX 6

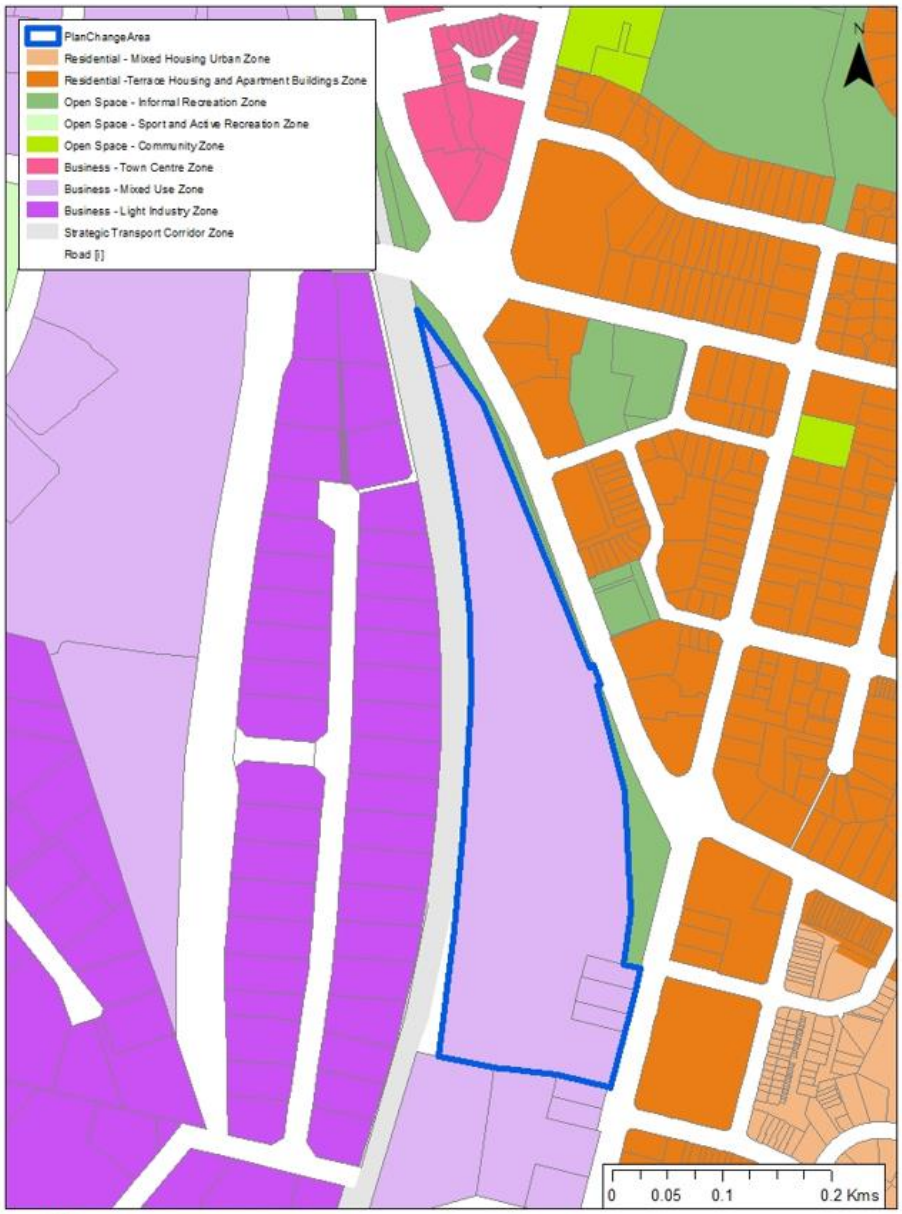
RECOMMENDED CHANGES TO PPC101

Amendments are shown with text to be deleted as struck through and text to be added as underlined.

RECOMMENDATIONS - PRIVATE PLAN CHANGE 101: PILKINGTON PARK

Map 1 Zoning

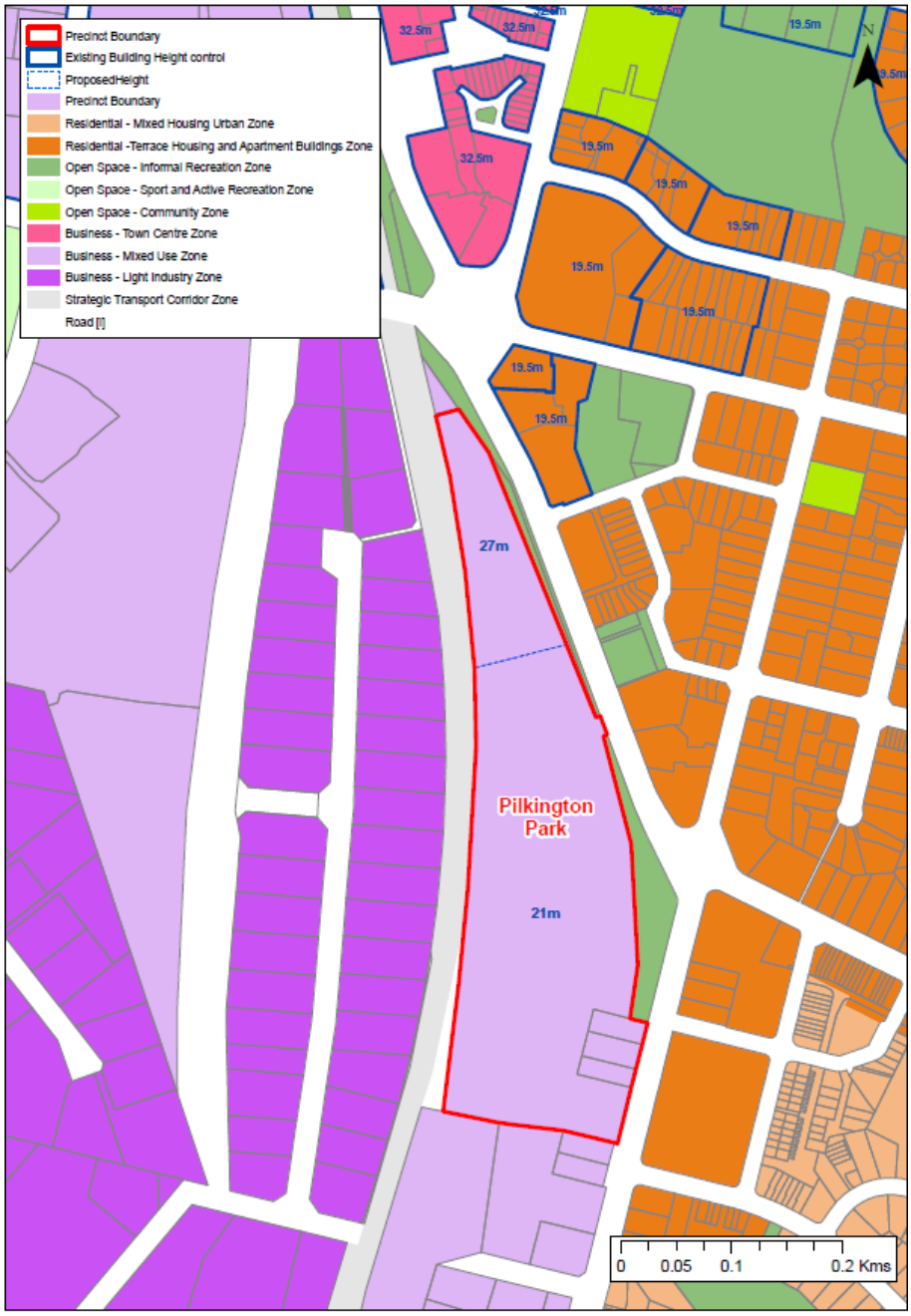




Auckland Council

Pilkington Park - Zoning Map

Map 2 Precinct Boundary and Height Variation Control



Amendments to the proposed Pilkington Park Precinct provisions. Deletions in strikethrough, additions underlined.
Comment boxes identify basis for the amendments

IX. Pilkington Park Precinct

IX.1. Precinct description

The Pilkington Park Precinct covers approximately seven hectares of land in Point England bound by Pilkington Road and Apirana Avenue to the east and the North Island Main Trunk Line to the west. The precinct is separated from Apirana Avenue and Pilkington Road by the Pilkington Apirana Road Reserve, an area of public open space zoned land which adjoins the precinct's eastern boundary.

The purpose of this precinct is to provide for a high-quality mixed use development with additional building height and a greater intensity of development close to the Glen Innes Town Centre and the Glen Innes Train Station. The provisions are designed to complement the underlying zoning of land being Business – Mixed Use and enable future development opportunities while ensuring the precinct is developed in a comprehensive manner.

The provision of adequate capacity in terms of water supply. is essential to achieve the planned level of service. Upgrades to water supply infrastructure located outside the precinct boundaries are required to avoid remedy or mitigate adverse effects on the environment.

The provision of convenient, safe and legible pedestrian and cycling connections from the precinct to the surrounding neighbourhood to the north and east is essential. Improvements to the arterial road network are needed to ensure the safety of pedestrians and cyclists.

Vehicle access to the precinct needs to be managed in in a manner that protects future connections, provides for the safe and efficient operation of the arterial road network, and maintains the integrity of the adjacent public open space zoned land.

Land use, development, and subdivision within the precinct is provided for in a manner which supports the ongoing safe and efficient operation of the North Island Main Trunk Line~~,~~ and Apirana Avenue and Pilkington Road, including by protecting sensitive activities from noise associated with the railway corridor. and adjacent arterial roads.

~~All relevant Auckland-wide and zone provisions apply in this precinct unless otherwise specified below~~.

Commented [MP1]: Consequential amendment from AT sub 4.3 &
s42A recommendation - added in reference to PARR to provide better context of the surrounding area as noted in Objective IX.2(1)

Commented [MP2]: s42A recommendation - to provide better context of the surrounding area

Commented [MP3]: s42A recommendation To give effect to B3.2.1(5)

Commented [MP4]: AT sub.4.1 &
s42A recommendation to give effect to B3.3.1(1)

Commented [MP5]: AT sub. 4.2 &
s42A recommendation to give effect to B3.3.1(1)

Commented [MP6]: AT sub.4.3

Commented [MP7]: AUP style guide correction

IX.2. Objectives

(1) The Pilkington Park Precinct is comprehensively developed as a high-quality, mixed-use precinct ~~centre~~ which is well-designed and integrated with the surrounding area.

(2) New buildings respond to and positively contribute to the amenity values of the public space network including open spaces and streets.

(3) Development provides for an efficient use of land to deliver residential and commercial activities in proximity to existing centres, and public and active modes of transport.

(4) Activities sensitive to noise located adjacent to the rail corridor ~~and~~ are designed to protect people's health and amenity values, ~~and~~ in a way which does not unduly constrain the operation of the North Island Main Trunk Line, Apirana Avenue and Pilkington Road.

(5) Subdivision and development is coordinated with the supply of sufficient stormwater, water, wastewater, energy and communications infrastructure

(6) Subdivision and development occurs in a manner which priorities active modes of transport to and within the precinct.

All relevant Auckland-wide and zone objectives apply in this precinct in addition to those specified above.

Commented [MP8]: KiwiRail sub. 5.5

Commented [MP9]: editorial

Commented [MP10]: AT sub. 4.5

Commented [MP11]: To give effect to RPS B3.2.1(5)

Commented [MP12]: AT sub. 4.1

Commented [MP13]: AUP style guide correction

IX.3. Policies

(1) Optimise the transport and land use opportunities provided by the precinct's proximity to key transport corridors through the provision of a mixture of residential and commercial opportunities.

(2) Enable development in a variety of forms and heights by providing for additional building height in the north of the precinct, while responding to the planned urban built character of adjoining residential sites.

(3) Promote the comprehensive development and redevelopment of the Pilkington Park Precinct.

(4) Ensure that activities sensitive to noise adjacent to the North Island Main Trunk Line, Apirana Avenue and Pilkington Road do not unduly constrain the operation of the rail corridor or adjacent arterial roads by providing for buildings and outdoor play areas to be designed with acoustic attenuation measures.

(5) Ensure that subdivision and development is coordinated with the efficient and effective provision of sufficient infrastructure, including stormwater, potable water, wastewater , energy and communications infrastructure.

(6) Require the provision of safe, direct and legible pedestrian and cycling connections to the Glen Innes train station and across Apirana Avenue, prior to subdivision and development.

(7) Avoid additional or widened vehicle access crossings to and from the precinct through the southern area of the Pilkington Apirana Road Reserve.

Commented [MP14]: AT sub. 4.7
Consequential amendment from AT sub. 4.2

Commented [MP15]: Give effect to RPS B3.2.1(5)

Commented [MP16]: AT 4.1
s42A added in train station

Commented [MP17]: AT 4.2

All relevant overlay, Auckland-wide and zone policies apply in this precinct in addition to those specified above.

Commented [MP18]: AUP style guide correction

IX.4. Activity table

All relevant overlay, Auckland-wide and zone activities tables apply unless otherwise stated below in Table IX.4.1.

Commented [MP19]: Editorial correction

A blank in Table IX.4.1 Activity table below means that the provisions of the overlays, zone or Auckland-wide apply.

Activity Table IX.4.1 specifies the activity status land use and development activities in the Pilkington Park Precinct pursuant to section 9(3) of the Resource Management Act 1991.

Table IX.4.1 Activity table

Activity		Activity status
Development		
(A1)	New buildings	
(A2)	New buildings and alterations and additions to existing buiidngs which do not comply with standards IX.6.1 to IX.6.3	RD
Infrastructure		
(A3)	Development which complies wih Standard IX,6.5 Walking and cycling infrastructure	P
(A4)	Development which does not comply with Standard IX.6.5 Walking and cycling infrastructure	NC
(A5)	Development which complies with Standard IX6.5 Vehicle site access restrictions	P
(A6)	Development which does not comply with Standard IX.6.6 Vehicle site access restrictions	NC
Subdivision		
(A7)	Subdivision which complies with Standard IX.6.5 Walking and cycling infrastructure	P
(A8)	Subdivsion which does not comply with Standard IX6.5 Walking and cycling infrastructure	NC
(A9)	Subdivsion which complies with Standard IX.6.6 Vehicle site access restrictions	P
(A10)	Subdivsion which does not comply with Standard IX.6.6 Vehicle site access restrictions	NC

Commented [MP20]: KiwiRail sub. 5.12

Commented [MP21]: A 4.1 and 4.2

IX.5. Notification

(1) Any application for resource consent for an activity listed in Table IX.4.1 Activity table above will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.

(2) When deciding on who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule C1.13(4).

IX.6. Standards

(1) Unless specified in Standard IX.6(2) below, all relevant overlay, zone and Auckland-wide standards apply in this precinct unless otherwise specified below.

(2) The following standard does not apply to activities listed in Activity Table IX.4.1 above:

(a) Standard H13.6.1 Building height.

~~(b) Standard H13.6.2(1) Height in relation to boundary and Table H13.6.2.1 Height in relation to boundary shall not apply along the zone boundary where the site boundary adjoins the Open Space – Informal Recreation Zone.~~

Commented [MP22]: Provisional position - Awaiting additional information from the requestor as sought by s42A

(3) All activities listed in Activity Table IX.4.1 above must comply with the following standards.

IX.6.1. ~~Standard for building height~~ Height Variation Control

Commented [MP23]: AUP style guide correction - removal of reference to 'Standard'
I consider the new heading better reflects purpose of this standard

Purpose:

- Manage the effects of building height;
- Manage visual dominance effects;
- Enable greater height in the north of the precinct to provide a graduation in building height from the Glen Innes Town Centre.

(1) Buildings ~~in the Business – Mixed Use zone~~ must not exceed the height in metres shown for that part of the site in the Height Variation Control on the planning maps.

Commented [MP24]: s42A - necessary as there are two HVC within the precinct I need to draw attention to this in the pl report.

IX.6.2. ~~Standard for~~ aActivities sensitive to noise

Purpose: To ensure activities sensitive to noise adjacent to the railway corridor and arterial roads are designed to protect people's health and amenity while they are indoors and that such activities do not unduly constrain the operation of the rail corridor.

(1) Any new noise sensitive space or alteration to an existing noise sensitive space with a façade within 60 metres of the rail corridor, must be designed, constructed and maintained to ensure that rail noise does not exceed internal noise levels of 35 dB $L_{Aeq(1\ hour)}$ for sleeping areas and 40 dB $L_{Aeq\ (1\ hour)}$ for all other habitable spaces.

Note:

a. The source level for railway noise is 70 $L_{Aeq(1h)}$ at a distance of 12 metres from the nearest track;

b. The attenuation over distance is:

i. 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres; or

ii. As modelled by a ~~S~~suitably ~~Q~~qualified and ~~E~~experienced ~~A~~acoustic ~~C~~consultant using a recognised computer modelling method for freight trains with diesel locomotives, having regard to factors such as barrier attenuation, the location of the dwelling relative to the orientation of the track, topographical features and any intervening structures.

(2) If windows and doors must be closed to achieve the design noise levels in Standard IX.6.2(1), the building must be designed, constructed and maintained with a mechanical ventilation / cooling system that meets the requirements of E25.6.10(3)(b) and (d) to (f).

(3) Standards IX.6.2(1) and IX.6.2(2) do not apply where:

(a) The façade of any new or altered noise sensitive space is screened from all parts of the rail corridor by a proposed building(s) under the same land use consent or a building(s) existing as at XX XXX 202X; or

(b) The façade of any new or altered noise sensitive space is partially screened from the rail corridor by a proposed building(s) under the same land use consent or a building(s) existing as at XX XXX 202X, and the closest viewing distance from the facade is over 100m from the rail corridor.

Note: The design shall be based on the cumulative level of external noise from the railway corridor in IX6.2(1) and the maximum level of noise permitted by the zone or precinct standards or any adjacent zone or precinct standard to comply with E25.6.10.

(4) Any new noise sensitive space or alteration to an existing noise sensitive space within 60m of Apirana Avenue or Pilkington Road where the road traffic noise level is predicted to exceed 55dB $L_{Aeq24hr}$, must be designed, constructed and maintained with a mechanical ventilation / cooling system that meets the requirements of E25.6.10(3)(b) and (d) to (f).

Note: The design shall be based on predicted road traffic noise levels ten years after the noise sensitive space is first occupied

(5) Where Standards IX.6.2(1), IX.6.2(2) and IX6.2(4) apply, a report must be submitted by a suitably qualified and experienced person to the council demonstrating compliance with Standards IX.6.2(1) and IX.6.2(2) prior to construction or alteration of any building containing a noise sensitive space.

IX.6.3. ~~Standards for~~ Ooutdoor play areas within 60m of the rail corridor

Purpose: To ensure that outdoor play areas adjacent to the railway corridor are designed and located to protect people's health and amenity and that such activities do not unduly constrain the operation of the rail corridor.

Commented [MP25]: Editorial

Commented [MP26]: Dates to be added should plan change be granted

(1) Any new outdoor play area of any care centres for a childcare centre, creche, kindergarten, kohanga reo, play centre, play group, early childhood learning service or an after school care centre within 60 metres of the rail corridor, must be designed, constructed, and maintained so that the cumulative level of rail and noise from the Business Zones does not exceed 55 dB $L_{Aeq(1hour)}$.

(2) Standard IX.6.3(1) does not apply where:

Commented [MP27]: Dates to be added should plan change be granted

(a) Any new outdoor play area is screened from all parts of the rail corridor by a proposed building(s) under the same land use consent or a building(s) existing as at XX XXX 202X. The screening must screen all parts of the outdoor play area up to 1.5m above the play area surface, and excluding play equipment, from the rail corridor; or

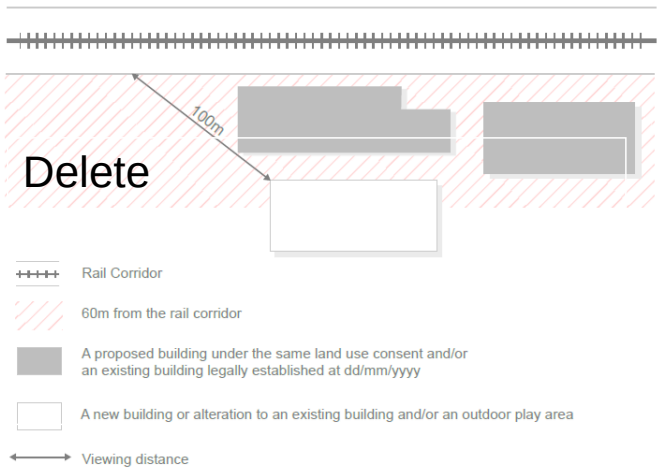
(b) Any new outdoor play area is partially screened from the rail corridor by a proposed building(s) under the same land use consent or a building(s) existing as at XX XXX 202X and the closest viewing distance from the play area is over 100m from the rail corridor.

Note: The design shall be based on the cumulative noise level from rail in IX6.2(1) and the noise levels that are permitted to be generated from neighbouring sites in the Business – Mixed Use and Business – Light Industry zones. The level shall be assessed at any point 1.5m above the main play surface of the outdoor play area.

(3) Where Standard IX.6.3(1) applies, a report must be submitted by a suitably qualified and experienced person to the council demonstrating compliance with Standard IX.6.3(1).

~~**Figure IX6.2.3.1 and IX6.3.2.1: viewing distance to the rail corridor.**~~

Commented [MP28]: Provisional position - awaiting additional information from requestor on integration of Figure with noise standards as outlined in the s42A report



IX.6.5 Walking and cycling infrastructure

Purpose: To achieve convenient, safe and legible pedestrian and cycle connections across Merton Road, Apirana Avenue and Pilkington Road.

(1) At the time of subdivision and development pedestrian and cycle connections, must be provided, in the following locations, as generally shown in Precinct Plan 1:

(a) an active modes facility along Apirana Avenue, between Pilkinton Road and the Glen Innes Train Station, including safe crossings at the Merton Road/Apirana Avenue and Pilkington Road/Tripoli Road roundabouts.

(b) an active modes crossing on Apirana Avenue between the Apirana Avenue / Merton Road and Pilkington Road / Tripoli Road roundabouts.

Note: The location of the active modes crossing on Apirana Avenue should reflect active modes desire lines to and from Pilkington Park Precinct. The design of the active modes crossing on Apirana Avenue must be determined in consultation with Auckland Transport. Without limiting the scope of the design solution, the active modes crossing may be signalised crossing, a raised zebra crossing, an active modes refuge with traffic speed reduction measures, or other solution that provides for safe and convenient crossing.

Commented [MP29]: AT 4.1 & s42A to give better effect to B3.3.1(1)

IX.6.6 Vehicle site access restrictions

Purpose: To avoid direct vehicle access from the precinct onto the southern part of the Pilkington Apirana Road Reserve.

(1) New additional or widened vehicle access crossings to and from the precinct must not have access through the southern part of the Pilkington Apirana Road Reserve, as shown on Precinct Plan 1.

Commented [MP30]: AT sub 4.2

IX.7. Assessment – controlled activities

There are no controlled activities in this precinct.

IX.8. Assessment – restricted discretionary activities

IX.8.1. Matters of discretion

The Council will restrict its discretion to all of the following matters when assessing a restricted discretionary activity resource consent application, in addition to the matters specified for the relevant restricted discretionary activities in the overlays, Auckland-wide or zones provisions:

(1) New buildings:

(a) The provision of active frontages to the public space network including open spaces and streets.

(b) Whether the location and design of buildings will contribute to comprehensive and integrated development.

(c) The positive effects of landscaping, including required landscaping, ~~on~~ for on-site amenity.

(d) The effects of new roads and/or service lanes on pedestrians and cyclists.

(e) The matters of discretion in H13.8.1(3).

(2) Infringement of standard IX.6.1 ~~Building height~~ Height Variation Control~~:~~

(a) Matters of discretion H13.8.1(7) apply.

(3) Infringement of standard IX.6.~~2 Standard for~~ Activities sensitive to noise and IX.6.3 ~~Standard for~~ Ooutdoor play areas within 60m of the rail corridor:

(a) Effects on human health and amenity values.

(b) The location and design of buildings.

(c) Topographical, building design features or other alternative mitigation that will mitigate potential adverse health effects relevant to noise.

(d) Whether the activity or infringement proposed will unduly constrain the operation of the rail corridor.

IX.8.2. Assessment criteria

The Council will consider the relevant assessment criteria below for restricted discretionary activities, in addition to the assessment criteria specified for the relevant restricted discretionary activities in the overlays, Auckland-wide or zones provisions:

(1) New buildings:

(a) Whether the building provides a quality and attractive frontage as viewed from the street or public open spaces, including through the relationship and orientation of buildings.

(aa) The extent to which the placement, configuration and design of new buildings responds to and positively contributes to the amenity values of adjacent public open spaces and streets.

(b) The extent to which the effects of fences and walls, along frontages and adjoining public spaces are appropriately managed.

(c) The extent to which the layout, orientation, bulk and scale of existing and future buildings, and connections to the public space network including open spaces and streets will contribute to the comprehensive development of the Pilkington Park Precinct.

(d) The extent to which landscaping contributes to on-site amenity values.

(e) The provision of convenient, safe, and legible access for pedestrians and cyclists.

(f) The assessment criteria in H13.8.2(3).

Commented [MP31]: editorial

Commented [MP32]: To give effect to RPS B2.3 .1 (1), IX.1 (1) and IX.1(2)

(2) Infringement of standard IX.6.1 ~~Building height~~ Height Variation Control:

(a) Refer to Policy 13.3(1), Policy H13.3(3)~~(a), Policy H13.3(3)(b)~~, Policy H13.3(8), Policy H13.3(13), Policy H13.3(21), Policy IX.3(1), and Policy IX.3(2).

Commented [MP33]: To give effect to B2.3.1 (1),IX.1(1) and IX.1(2)

(3) Infringement of standard IX.6.2 Activities and IX.6.3 ~~Standard for o~~Outdoor play areas within 60m of the rail corridor:

(a) Whether activities sensitive to noise adjacent to the rail corridor and arterial roads are designed to protect people's health and amenity values, and whether such activities unduly constrain the operation of the rail corridor. This includes:

(i) The extent to which building(s) containing activities sensitive to noise have been located and designed with particular regard to their proximity to the rail corridor;

(ii) The extent of non-compliance with the standard and the effects of any non-compliance; and

(iii) The extent to which topographical features or the location of other buildings or structures will mitigate noise effects.

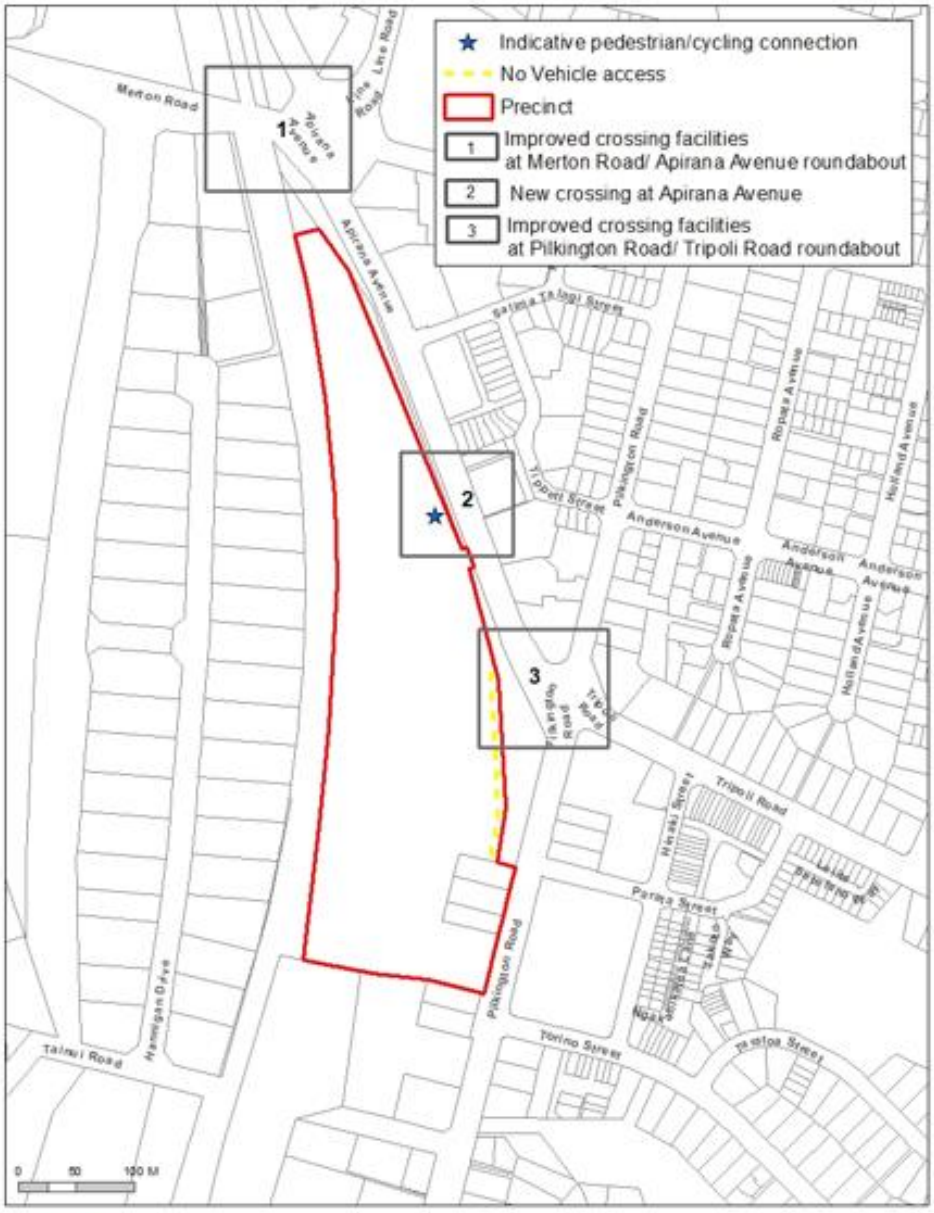
IX.9 Special information requirements

There are no special information requirements in this precinct.

IX.10 Precinct Plans

Commented [MP34]: AT sub. 4.1 and 4.2

IX.10.1 Pilkington Park Precinct Plan 1



IX.10.1 Pilkington Park Precinct: Precinct plan 1