

24 May 2024

Goodman
PO Box 90940
Victoria Street West
Auckland 1142

Attention: Phil Crampsie

Dear Phil

WAITOMOKIA PRECINCT – RESPONSE TO RFI

You have submitted a plan change application to Auckland Council to create a new Auckland Unitary Plan (AUP) Precinct. The new Precinct is called Waitomokia Precinct and is located in Māngere, approximately 3km north of Auckland Airport. Appendix A shows the location plan.

Auckland Council has raised concerns about reverse sensitivity noise effects and has requested a noise assessment to address this. The request is reproduced below:

Please provide a noise assessment which assesses reverse sensitivity effects resulting from the proposed precinct provisions which seek to enable activities sensitive to noise within the plan change precinct area, and if deemed necessary by the assessment, amend the precinct provisions to ensure such effects are adequately addressed inside the plan change precinct area (note: as per AUP Chapter A1.7.3, restricted discretionary activities are generally anticipated by the AUP in the existing environment and this should be reflected in the requested assessment where the proposed precinct provisions seek to apply this activity status to precinct activities sensitive to noise when compared with the underlying Business – Light Industry Zone)

We provide our response in this letter, and we include a list of recommended additions to the Precinct Provisions.

The Precinct proposes to include some noise sensitive activities

Figure 1 overleaf shows the proposed activity table for this Precinct. There are proposed to be four sub-precincts, each with a different development intent:

- Sub-precinct A: Land in this sub-precinct is unmodified and would be developed to include typical light-industrial buildings and uses (i.e. warehouses with associated offices)
- Sub-precinct B: Primary location for development of light industry activities
- Sub-precinct C: Intended to be a town-centre with broader range of commercial and community activities. This sub-precinct is the focus of our assessment.
- Sub-precinct D: Contains existing buildings and developments. This means that this sub-precinct is unlikely to see development

Sub-precinct C is proposed to contain activities sensitive to noise¹. All other sub-precincts are not proposed to contain activities sensitive to noise and instead are proposed to contain activities that are anticipated in a *Business – Light Industry* zone. Therefore, typical assessment methods and controls would apply within those sub-precincts.

Figure 1: Activity table from proposed Precinct plan change

Table I0.4.1 Activity table

All sub-precincts

Activity		Activity Status
Use		
Accommodation		
(A1)	Visitor accommodation within sub-precinct C	RD
Community		
(A2)	Food and beverage up to 1,000m ² in sub-precinct C	P
(A3)	Community facilities in sub-precinct C, including within the area show as 'no-build area' on Precinct Plan 3.	P
(A4)	Recreation facilities in sub-precinct C	P
(A5)	Care centres in sub-precinct C	P
(A6)	Public amenities	P
Commerce		
(A7)	Offices up to 1000m ²	P

AUP Standard E25.6.5 provides the relevant zone noise limit. The noise limit is 65 dB L_{Aeq}, applying at all times, when measured within the boundary of any other site in the *Business – Light Industry* zone. Table 1 overleaf shows our assessment of the potential reverse sensitivity effects due to Sub-precinct C based on this permitted noise level.

¹ Definition of 'Activities sensitive to noise' as per Chapter J of the AUP:

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.

Table 1: Acoustic reverse sensitivity assessment table for Sub-precinct C

Activity code	Activity description	Acoustic assessment of reverse sensitivity
A1	Visitor accommodation within sub-precinct C	No reverse sensitivity effect because there are already existing noise control measures in AUP Standard E25.6.10.
A2	Food and beverage up to 1,000m ² in sub-precinct C	Unlikely to be any reverse sensitivity effects arising from indoor venues.
A3	Community facilities in sub-precinct C, including within the area shown as 'no-build area' on Precinct Plan 3	Potential for reverse sensitivity effects depending on the use of the community facility. Discussed further below.
A4	Recreation facilities in sub-precinct C	Potential for reverse sensitivity effects depending on the use of the recreation facility. Discussed further below.
A5	Care centres in sub-precinct C	Assuming childcare centres then potential for reverse sensitivity effects. Discussed further below.
A6	Public amenities	No reverse sensitivity effect because public amenities are not noise sensitive.
A7	Offices up to 1000m ²	No reverse sensitivity effect because offices are typical of the zone and compliance at the boundary would ensure an acceptable internal noise level within the office.

Food and beverage

Australian/New Zealand Standard AS/NZS 2107:2016 '*Acoustics – Recommended design sound levels and reverberation times for building interiors*' provides recommended internal design levels for food and beverage venues. It recommends that cafeterias, coffee shops, restaurants, and similar establishments are designed to achieve an internal noise level of 40 – 50 dB L_{Aeq}. Food courts are recommended to achieve an internal noise level of 45 to 55 dB L_{Aeq}.

We consider that with typical façade constructions providing at least 25 decibel of attenuation, the internal noise levels can be readily achieved with windows closed (i.e. 65 – 25 = 40 dB L_{Aeq} internal noise level). With windows open and providing at most 15 decibels of attenuation across the façade, we predict that the upper limit of 50 dB L_{Aeq} can be achieved. As such, we predict that there would unlikely be any reverse sensitivity effects from a food and beverage venue. Additionally, this is similar to the existing situation already provided for by Activity Table H17.4.1 (9) in the AUP.

Community and Recreation facilities

Table 2 shows our understanding of the potential use and activities within sub-precinct C. It also shows the recommended internal noise levels from AS/NZS 2107 which we recommend are incorporated into the Precinct Provision.

Table 2: Internal noise levels

Use	Internal noise levels (dB L _{Aeq})
Shop	Up to 55
Libraries	40 – 45
Function areas	40 – 45
Pools	50 – 60
Indoor sports	Up to 45

Use	Internal noise levels (dB L _{Aeq})
Arts and cultural centres	40 – 45
Places of worship	30 – 40
Community centres	40 – 45
Halls	40 – 45
Marae (maraes are at times used for sleeping).	-

Noise control measures in AUP Standard E25.6.10

We consider that the above internal noise levels can be achieved for all relevant venues with windows closed.

For an indoor environment with an upper design noise level of 45 dB L_{Aeq}, the internal noise levels can only be achieved with windows closed which means that a mechanical ventilation system will be required. For shops, pools, and halls, with higher upper design levels, indoor noise levels can be achieved with windows open.

Care centres

We assume care centres relate to early childhood education centres (ECECs). We understand that ECECs are required to have outdoor play areas. The outdoor play areas are required to be exposed to noise levels below 55 dB L_{Aeq (15min)} from external noise sources, both on and off-site (including traffic and nearby industry), at all times of operation including busy periods².

Therefore, an ECEC can give rise to reverse sensitivity effects on neighbouring industrial uses due to the required low external noise level in an outdoor play area compared to the higher permitted noise level of the zone (i.e. 55 dB versus 65 dB).

This can be mitigated by design at the preliminary design stage so that the outdoor noise level of 55 dB L_{Aeq (15min)} can be achieved. For example, the ECEC layout could be such that the outdoor play area is located centrally within a courtyard so that the ECEC's buildings shield it from external noise (within the Precinct and from external sites).

There is no reverse sensitivity effect on Auckland Airport

The Precinct is currently zoned as *Business – Light Industry* (see Appendix B). The plan change does not seek to change the zoning. The zoning maps also shows the Aircraft Noise Overlay in relation to the location plan. Goodman has shown this overlay on their master plan (see Appendix C). We consider that the Aircraft Noise Overlay does not cover any of the proposed building areas. We consider that there will be no reverse sensitivity effect on Auckland Airport.

² ENASS Appendix 4 dated October 2022

We recommend minor additions to the Precinct Provisions

We recommend the Precinct Provisions are updated to include the following:

- Internal noise limit criteria of:

Use	Internal noise levels (dB L _{Aeq})
Shops	Up to 55
Libraries, Function areas, Arts and cultural centres, Community centres, Halls, Indoor sports	40 – 45
Pools	50 – 60
Places of worship	30 – 40

- Where the above internal noise levels can only be achieved with windows closed, then mechanical ventilation must be provided to comply, at a minimum, with section G4 of the New Zealand Building Code. The mechanical ventilation must be designed to ensure the above internal noise levels are not exceeded.
- Care centres must be located and designed to ensure that the outdoor play areas are not exposed to noise above 55 dB L_{Aeq (15min)} noting that the permitted activity noise level of the zone is 65 dB L_{Aeq}.

Yours faithfully

MARSHALL DAY ACOUSTICS LTD



Micky Yang

Acoustician

APPENDIX A LOCATION PLAN



1 LOCATION PLAN
1:10000 A1 Plan

REV	DATE	REVISION DETAILS	CONSULTANT
1	28.10.22	ISSUE FOR INFORMATION	PLANNING FOCUS LTD - info@planningfocus.co.nz
2	28.10.22	ISSUE FOR INFORMATION	
3	28.10.22	ISSUE FOR INFORMATION	
4	28.10.22	ISSUE FOR INFORMATION	

CLIENT GOODMAN NZ
PROJECT WAITOMOKIA
ADDRESS 118 Montgomerie Road, Mangere



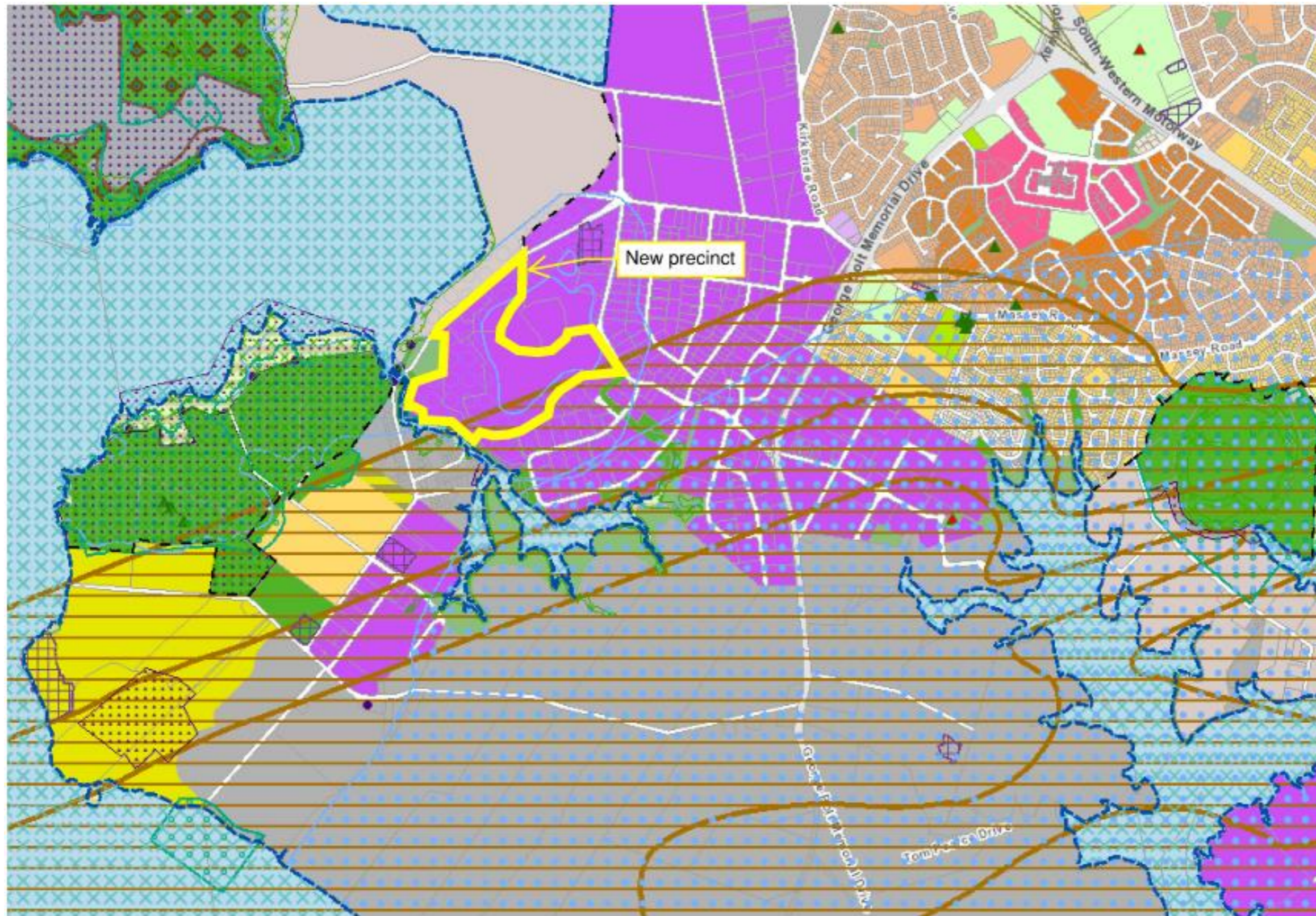
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PROJECT NUMBER



SHEET TITLE LOCATION PLAN	PROJECT YEAR 2017	PROJECT NAME WAITOMOKIA
ISSUED FOR INFORMATION		

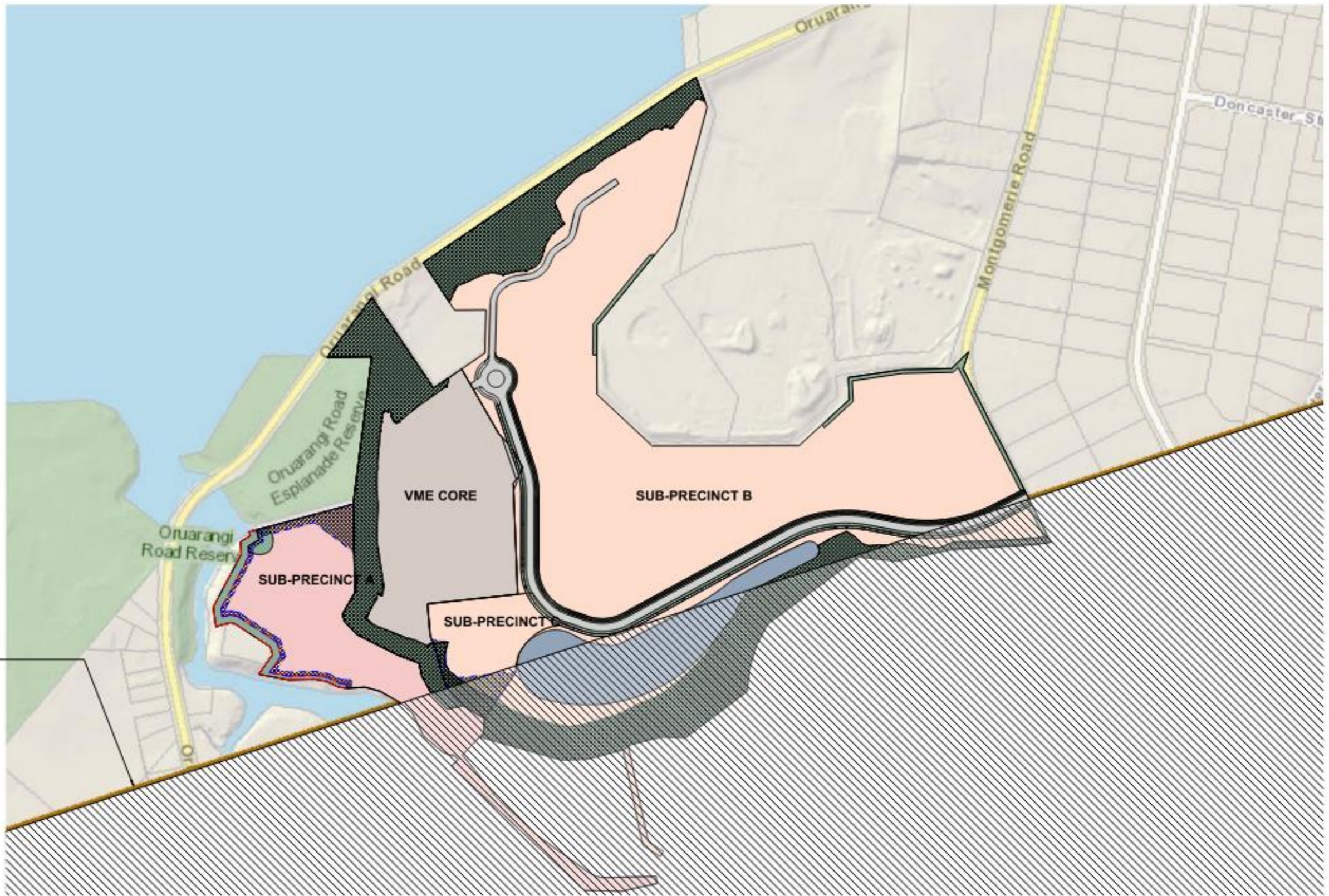
C001	REV 2
SCALE @ A1 1:10000	SCALE @ A0 28.10.22

APPENDIX B ZONING



- Aircraft Noise Overlay
- Open Space - Conservation Zone
- Open Space - Informal Recreation Zone
- Open Space - Sport and Active Recreation Zone
- Open Space - Civic Spaces Zone
- Open Space - Community Zone
- Business - City Centre Zone
- Business - Metropolitan Centre Zone
- Business - Town Centre Zone
- Business - Local Centre Zone
- Business - Neighbourhood Centre Zone
- Business - Mixed Use Zone
- Business - General Business Zone
- Business - Business Park Zone
- Business - Heavy Industry Zone
- Business - Light Industry Zone
- Future Urban Zone
- Green Infrastructure Corridor (Operative in some Special Housing Areas)

APPENDIX C MASTER PLAN WITH AIRCRAFT NOISE OVERLAY



NOISE CONTOUR
AUCKLAND COUNCIL GEOMAP
SHOWING EXTENT OF
AUCKLAND AIRPORT NOISE
CONTOURS IMPACT ON
WAITOMOKIA SITE

REV	DATE	REVISION DETAILS	COMMENTS

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