

Wellington City District Plan – Omnibus Plan Change

Appendix 5 - Fixed Plant Noise

Scope of Proposed Change

To make the following amendments to Appendix 5 - Fixed Plant Noise:

1. Remove measurement location from the note at the top of the Appendix, so each table is reliant on the location identified within the chapeau.
2. Add the following note to top of chapter to assist with situations where the regular measurement location is impractical:

Where it is impractical to measure outside the building on any site within any zone, measurements may be made indoors within habitable receiver rooms (with windows closed). Where indoor measurements are undertaken, compliance with the above noise limits shall be determined by adopting the above limits reduced by 15dB.

3. Amend the wording in Table 24 to make it clear that the table applies to receiving zones only.

Background

Appendix 5 provides noise limits for fixed plant noise. It includes three tables, which address different categories of zones generally.

The format of the chapter is receiving zone focused, meaning that it sets limits for noise as *received* in a zone. It does this by listing out zones where the noise will be received, then listing out limits to measure in these zones. It does not concern itself with where the noise is being emitted from; if an activity is generating noise that is received in a defined zone above the limits, it will be in breach of the noise limits.

The appendix also defines where in the zones the noise will be measured from.

Issue

That Appendix 5 requires minor amendments to improve its clarification and implementation.

This issue has three parts, as detailed below.

Issue 1: Each table, and the note at the top of Appendix 5, have different locations from which the noise measurements should be taken

There is differing direction on where the measurements should be taken.

There is an overarching 'note' which gives one direction on where to take measurements, whilst the chapeau for each table has its own direction. This is demonstrated in the table below.

Location	Measurement location
Note at top of appendix	<i>as measured within the boundary of any site within the specified receiving zones.</i>
Table 22 High Density Residential Zone Medium Density Residential Zone	<i>at any point within any other site in the following receiving zones</i>
Table 23 General Rural Zone Future Urban Zone Large Lot Residential Zone	<i>within the notional boundary of any building housing a noise sensitive activity in the following specified receiving zones</i>
Table 24 General Industrial Zone Quarry Zone Commercial and Mixed Use Zone Group Hospital Zone Tertiary Education Zone Stadium Zone Waterfront Zone	<i>at the outside wall of any building on any site</i>

This issue is creating confusion on how measurements for fixed-plant noise are supposed to be taken as it is unclear whether the measurement should be done according to the note, or according to the title in the table.

Note that the 'Commercial and Mixed Use Zone Group' is defined in Appendix 4 – Permitted Noise Standards, and includes the Neighbourhood Centre Zone, Local Centre Zone, Mixed Use Zone, Metropolitan Centre Zone and City Centre Zone. This list also refers to the Commercial Zone; however, this zone has subsequently been deleted from the 2024 District Plan.

Issue 2: The chapeau of Table 24 has incorrect wording on how the table works

The chapeau wording for Table 24 incorrectly frames the way the table works:

“Noise emitted by fixed plant located on any site within the following zones, shall not exceed the stated noise limits at the outside wall of any building on any site, other than the site from which the noise is emitted:”

This incorrectly states that noise emitted by fixed plant *within the following zones*, when the table is intended to be listing the *receiving* zones. Like the other tables, the location of emission of the noise is irrelevant. This is an error in drafting.

Issue 3: There is no direction in Appendix 5 on what to do when the defined measurement spots are inaccessible

In some situations, it is impractical to take measurements from the required locations (such as outside of the building with no access). The appendix is unclear on how the measurement should be taken in such circumstances.

Appendix 4 – Permitted Noise Standards addresses this through inclusion of a note to clarify that measurements can be taken from inside, with further direction on how to account for this.

Assessment of options

Relevant options

The relevant options for addressing each of the identified issues are set out in the assessment below.

Cost/Benefit Assessment

The options are assessed below. The assessment is additional to information in the [Section 32 Evaluation Report. Part 2: Noise](#), and is limited to the effect of the changes.

Issue 1: Each table, and the note at the top of Appendix 5, have different locations from which the noise measurements should be taken

For the purposes of this evaluation, the following options have been considered for **Issue 1**:

1. **Option 1:** Retain the status quo
2. **Option 2:** Remove measurement locations from chapeau of each table, relying on the measurement location in the note
3. **Option 3:** Remove the measurement location from chapeau of the note and rely on the measurement location in the chapeau of the tables

Option 1: Retain the status quo

Costs

Retaining the status quo will retain the inconsistency between the chapeau within each table and the note. This could lead to an inconsistent and unclear approach to fixed-plant noise measurement, resulting in additional costs associated with development, including consenting and compliance costs.

Benefits

There are no identified benefits for this option.

Option 2: Remove measurement locations from chapeau of each table, relying on the measurement location in the note (Measuring within the boundary of any site)

Costs

There are no identified costs to this option.

Benefits

There is only one source of truth for the measurement locations for each of the tables, increasing clarity and reducing potential consenting and compliance costs.

Option 3: Remove the measurement location from the note and rely on the measurement location in the chapeau of the tables

Costs

There are no identified costs to this option.

Benefits

The measurement locations within the chapeau of each of the tables are fit-for-purpose for the zones in each table.

There is only one source of truth for the measurement locations for each of the tables, increasing clarity. The economic benefit will be reduced consenting and compliance costs.

Effectiveness and efficiency

Option 3 is considered to be the most effective and efficient option as it provides clarity as to how the noise emission standard is applied.

Overall evaluation of Issue 1

Overall, Option 3 is the recommended option.

Issue 2: The chapeau of Table 24 is incorrectly worded to say that noise emitted from the zones listed in the table is measured in the same zones listed

For the purposes of this evaluation, the following options have been considered for **Issue 2**:

1. **Option 1:** Retain the status quo
2. **Option 2:** Amend the wording in the chapeau of Table 24 to clarify that *any* noise that is received in the listed receiving zones is subject to the limits and that noise emissions *must* comply with the table.

Option 1: Retain the status quo

Costs

The table is potentially interpreted to mean that only noise coming from the zones listed in Table 24 is subject to the noise limits in the table. This would exclude noise from any zone not listed in the table, potentially enabling noise from those zones to exceed the limits as received in the zones listed in the table. The environmental effect is adverse noise effects within the receiving zone. The use of shall, rather than must (as used in the other tables) adds uncertainty and is not considered best practice.

Benefits

There are no identified benefits for this option.

Option 2: Amend the wording in the chapeau of Table 24 to clarify that any noise that is received in the listed receiving zones is subject to the limits within the table and that noise emissions *must* comply with the table

Costs

There are no identified costs associated with this option.

Benefits

Option 2 will ensure that noise from zones outside of those listed in the table are properly assessed against the noise limits listed in the table. This option will provide increased clarity and alignment with the approach of the other tables, where all noise is assessed against the limits for the listed receiving zones. This has the potential economic benefit of reduced consenting and compliance costs.

Effectiveness and efficiency

Option 2 is considered to be the most effective and efficient option as it provides clarity as to how the noise emission standard is applied. It is more efficient because it will reduce the opportunity for there to be confusion in the process on how the measurements are taken, potentially saving time.

Overall evaluation of Issue 2

Overall, Option 2 is the recommended option. This is the most effective option as it remedies the identified error. It is the most effective option to manage fixed plant noise in the relevant zones for Table 24.

Issue 3: There is no direction in Appendix 5 on what to do when the defined measurement spots are inaccessible

For the purposes of this evaluation, the following options have been considered for **issue 3**:

1. **Option 1:** Retain the status quo
2. **Option 2:** Add the following note to Appendix 5 to provide direction on where to take measurements when the regular location is inaccessible:

Where it is impractical to measure outside the building on any site within any zone, measurements may be made indoors within habitable receiver rooms (with windows closed). Where indoor measurements are undertaken, compliance with the above noise limits shall be determined by adopting the above limits reduced by 15dB. Where habitable rooms have been noise insulated to protect noise-sensitive uses, then compliance determined indoors shall not allow activities to increase noise emission levels above those that would apply if the noise insulation had not been undertaken.

Option 1: Retain the status quo

Costs

Retaining the status quo will leave a gap in the provision for the Council's Compliance Monitoring Officers, as there is no guidance on how to take measurements when the defined location is impractical. This has potential to result in an ad hoc and inconsistent approach and will increase consenting and compliance costs associated with development.

Benefits

There may be discretion for officers to decide where to take the measurements from which could be an environmental benefit if there are situations where one option may be beneficial than the other. The likelihood of this being a benefit in practice is very unlikely given the minor difference between the two methods.

Option 2: Add a note to Appendix 5 to provide direction on where to take measurements when the regular location is inaccessible

Costs

There are no identified costs associated with this option.

Benefits

Option 2 provides a method to account for situations where measurements from the defined locations are impractical. It will also account for any noise insulation applied to the building. This option aligns with the approach taken in Appendix 4, which has proven effective and useful in applying noise limits from that Appendix.

There will be economic benefits to developers due to reduced consenting and compliance costs.

Effectiveness and efficiency

Option 2 is considered to be the most effective and efficient option as it provides clarity as to how the noise emission levels are measured when the defined measurement spot is inaccessible.

Overall evaluation of Issue 2

Overall, Option 2 is the recommended option. This is the most effective option as it remedies the identified error and provides guidance for those measuring the limits in Appendix 5.

Risk of acting/not acting

There is sufficient information to analyse the appropriateness of acting or not acting.

As the noise measurement locations that are not fit-for-purpose, not acting will retain the potentially overly prescriptive requirements of the appendix.

The proposed changes are for clarification and do not change the intent of how the appendix is applied. Hence the risk of acting is negligible.

Consultation

The Council's Environmental Noise Team has advised that they are supportive of the proposed changes.

Wellington International Airport Limited provided feedback on Note 2:

Intent of last sentence of note 2 is unclear. This sentence implies existing knowledge of the sound insulation performance of a building in the absence of acoustic insulation upgrades. This may not be the case, especially for internal spaces not under the control of the application. WIAL therefore considers the second sentence should be deleted, and instead reliance placed on the 15dB adjustment providing the outcomes sought.

Internal noise levels can be managed through the degree of acoustic insulation . However this also means that if internal noise levels are used, that the level of acoustic insulation can effectively direct what the fixed-plant noise limits are. The intention of this note was to ensure that where acoustic insulation is undertaken, this isn't used as a means to effectively allow a higher fixed-plant noise limit.

Following receipt of this feedback the sentence identified by WIAL was removed. As applicants will need to meet these limits at all relevant sites, their measurements will inherently need to account for the 'worst-case scenario' in the area.

Kevin Collins on behalf of Design Network Architecture Limited provided feedback on the fixed-plant noise limits themselves, noting that the current limits cannot be met because of the units required to meet the internal ventilation requirements.

Whilst the fixed-plant noise limits are not within the scope of this plan change, I do note that the proposed changes to the ventilation standard do lower the maximum required ventilation rates to the NZ Building Code requirements which may assist in meeting the fixed-plant noise limits.

Recommended Option

Following the assessment above, the following amendments are recommended:

- **Issue 1** - Remove the measurement location from chapeau of the note and rely on the measurement location in the chapeau of the tables ([Option 3](#)); and
- **Issue 2** - Amend the wording in the chapeau of Table 24 to clarify that *any* noise that is received in the listed receiving zones is subject to the limits and that noise emissions *must* comply with the table ([Option 2](#)); and
- **Issue 3** - Add the following note to Appendix 5 to provide direction on where to take measurements when the regular location is inaccessible ([Option 2](#)):

Where it is impractical to measure outside the building on any site within any zone, measurements may be made indoors within habitable receiver rooms (with windows closed). Where indoor measurements are undertaken, compliance with the above noise limits shall be determined by adopting the above limits reduced by 15dB.

Consequential amendments

The Future Urban Zone has been deleted from the District Plan. Consequently it is recommended that references to this zone are deleted from Appendices 4 and 5.

Recommended changes

1. Amend Note 1
2. Add a new Note 2
3. Amend the chapeau of Table 24
4. Consequential amendment to remove Future Urban Zone from Appendix 4 and 5

Appendix 5 – Fixed Plant Noise Standards

Note ~~1: The tables below set out limits for noise generated by fixed plant as measured within the boundary of any site within the specified receiving zones.~~ Sound levels to be measured in accordance with New Zealand Standard 6801:2008 Acoustics - Measurement of Environmental Sound and assessed in accordance with New Zealand Standard 6802:2008 Acoustics - Environmental Noise.

<u>Note 2: Where it is impractical to measure outside the building on any site, measurements may be made indoors within habitable receiver rooms (with windows closed). Where indoor measurements are undertaken, compliance with the noise limits shall be determined by adopting the limits reduced by 15dB.</u>			
Table 22 – APP5:		Noise emitted by fixed plant located on any site must not exceed the following limits at any point within any other site in the following receiving zones:	
Receiving Zone	All days 7:00am to 10:00pm	All days 10:00pm to 7:00am	All days 10:00pm to 7:00am
High Density Residential Zone	45 dB LAeq (15 min)	40 dB LAeq (15 min)	65 dB LAFmax
Medium Density Residential Zone			
Table 23 – APP5:		Noise emitted by fixed plant on any site must not exceed the following limits within the notional boundary of any building housing a noise sensitive activity in the following specified receiving zones:	
Receiving Zone	All days 7:00am to 8:00pm	All days 8 pm to 7:00am	All days 10:00pm to 7:00am
General Rural Zone	45 dB LAeq (15 min)	35 dB LAeq (15 min)	60 dB LAFmax
Future Urban Zone			
Large Lot Residential Zone			
Table 24 – APP5:		Noise emitted by fixed plant located on any site within the following zones, shall must not exceed the stated noise limits at the outside wall of any building on any site, other than the site from which the noise is emitted:	
Receiving Zone	At all times	All days 10:00pm to 7:00am	
General Industrial Zone	65 dB LAeq (15 min)	85 dB LAFmax	
Quarry Zone			
Commercial and Mixed-Use Zone Group: (as defined in APP4 Table 13)	55 dB LAeq (15 min)	75 dB LAFmax	
Hospital Zone			
Tertiary Education Zone			
Stadium Zone			
Waterfront Zone			
Appendix 4 – Permitted Noise standards			
Table 13 – APP4:	Noise from activities within the: Commercial and Mixed Use Zone Group (defined as listed below) <ul style="list-style-type: none">Waterfront ZoneGeneral Industrial ZoneTertiary Education ZoneStadium ZoneHospital ZoneCorrections Zone		

		<ul style="list-style-type: none"> • Quarry Zone • Future Urban Zone (see Note 1) • Medium and High Density Residential Zones (see note 2) • Large Lot Residential Zone (see note 2) • General Rural Zone (see note 3) 		
