

The Proposed Auckland Unitary Plan (notified 30 September 2013)

1.2 Aircraft Noise

1. Activity table

1. The following table specifies the activity status of activities in the Aircraft Noise overlay for the North Shore Airfield, Kaipara Flats Airfield and Whenuapai Airbase.

Activity	Activity Status
Development	
ASAN located within the L ^{dn} 55 and 65dBA noise contours	RD
Alterations or additions to existing buildings accommodating ASAN located within the L ^{dn} 55 and L ^{dn} 65dBA noise contours	RD
ASAN located within the L ^{dn} 65dBA noise contour	Pr
Alterations or additions to existing buildings accommodating ASAN located within the L ^{dn} 65dBA noise contour	NC
Subdivision	
Subdivision of land to create a new site within the L ^{dn} 65dBA noise contour	Pr
Subdivision of land to create a new site within the L ^{dn} 55dBA and L ^{dn} 65dBA noise contour	NC

2. The following table specifies the activity status of activities within the Aircraft Noise overlay for Ardmore Airport.

Activity	Activity Status
Activities within the Air Noise Boundary (ANB) area L^{dn}65dBA	
New ASAN	Pr
Alterations or additions to existing buildings accommodating ASAN that do not involve alterations or additions to a habitable room	P
Alterations or additions to existing buildings accommodating ASAN, including alterations or additions to habitable rooms and sleeping areas or rooms for convalescing and learning that comply with clause 3.1.1 or 3.1.2 below.	D
Alterations or additions to existing buildings accommodating ASAN including alterations or additions to habitable rooms and sleeping areas or rooms for convalescing and learning that do not comply with clause 3.1.1 or 3.1.2 below.	Pr
A new single dwelling on a site where a title was issued prior to 17 October 2007 that complies with clause 3.1.1 below.	D
Activities within the Inner Control Boundary (ICB) area i.e. between L^{dn}60dBA-65dBA noise contours	
New ASAN that complies with clause 3.1.1 below.	D
ASAN that does not comply with clause 3.1.1 below.	NC
Alterations or additions to existing buildings accommodating ASAN that do not involve alterations or additions to a habitable room	P
Alterations or additions to existing buildings accommodating ASAN that involve alterations or additions to habitable rooms and sleeping areas or rooms for convalescing and learning that comply with clause 3.1.3 and 3.1.5 below	RD

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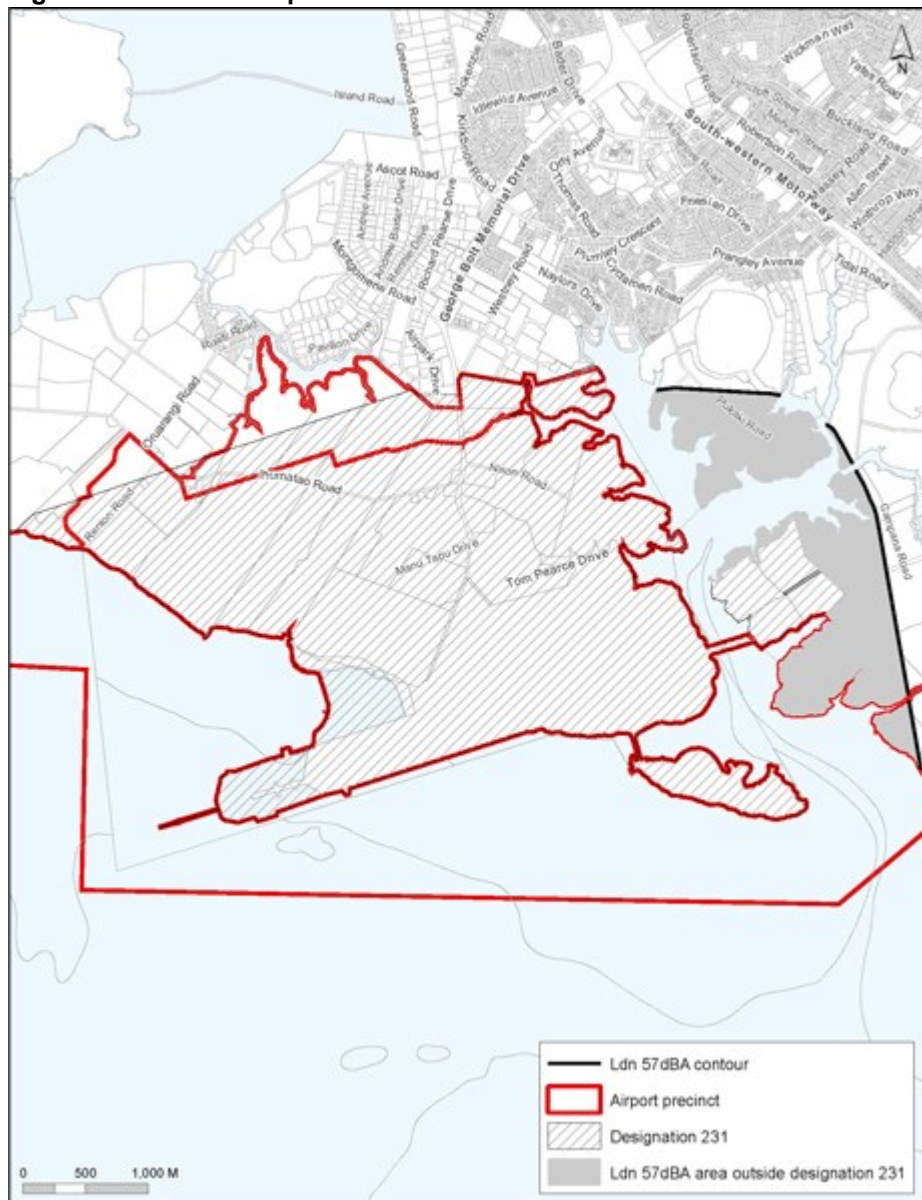
Alterations or additions to existing buildings accommodating ASAN that involve alterations or additions to habitable rooms and sleeping areas or rooms for convalescing and learning that do not comply with clause 3.1.3 or 3.1.5 below	D
A single dwelling on a site where a title was issued prior to 17 October 2007 that complies with clause 3.1.3 below	D
Activities within the Inner Control Boundary (OCB) area i.e. between L_{dn}55dBA-60dBA noise contours	
ASAN that complies with clause 3.1.4 and 3.1.5 below	RD
ASAN that does not comply with clause 3.1.4 and 3.1.5 below	NC
Alterations or additions to existing buildings accommodating ASAN that do not involve alterations and additions to a habitable room	P
Alterations or additions to existing buildings accommodating ASAN including alterations and additions to habitable rooms and sleeping areas or rooms for convalescing and learning that comply with clause 3.1.4 and 3.1.5 below.	P
Alterations or additions to existing buildings accommodating ASAN including alterations and additions to habitable rooms and sleeping areas or rooms for convalescing and learning that do not comply with clause 3.1.4 and 3.1.5 below.	D
A new single dwelling on a site where a title was issued prior to 17 October 2007 that complies with clause 3.1.4 below.	P
Subdivision	
Subdivision within the ANB where the application identifies legal mechanisms on any land title(s) to permanently avoid the establishment of any additional ASAN	D
Subdivision within the ANB where the application does not identify legal mechanisms on any land title(s) to permanently avoid the establishment of any additional ASAN	NC
Subdivision within the ICB and OCB area	RD

3. The following table specifies the activity status of activities within the Aircraft Noise overlay for the Auckland Airport.

Activity	Activity Status
Activities in the HANA	
ASAN	Pr
Additions or alterations to an existing dwelling	RD
Activities in the HANA within Residential zones	
Commercial services	P
Dairies up to 100m ² GFA	P
Food and beverage services up to 100m ² GFA	P
Show homes	P
Storage and lock-up facilities	P
Activities within the MANA and L_{dn} 57 dBA area	
New dwellings in a residential zone	P
Additions or alterations to an existing dwelling in a residential zone	P
ASAN not otherwise listed in this activity table	D
ASAN that does not comply with clause 4.1 below.	D

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Figure 1: Auckland Airport Ldn 57dBA Contour



2. Notification

1. The following activities will be subject to the normal tests for notification under the relevant sections of the RMA:
 - a. North Shore Airfield, Kaipara Flats Airfield, Whenuapai Airbase
 - i. ASAN located within the Ldn65dBA noise contour
 - ii. alterations or additions to buildings accommodating ASAN located within the Ldn65dBA noise contour
 - iii. subdivision of land to create a new site within the Ldn65dBA noise contour
 - iv. subdivision of land to create a new site within the Ldn55dBA and Ldn65dBA noise contour.
 - b. Ardmore Airport
 - i. alterations or additions to existing buildings accommodating ASAN including alterations and additions to habitable rooms and sleeping areas or rooms for convalescing and learning in the ANB, ICB and OCB that do not comply with clause 3.1.1 to 3.1.5 below as appropriate.
 - ii. ASAN that does not comply with clause 3.1.1 and 3.1.2 and 3.1.4 below.

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- iii. ASAN that does not comply with clause 3.1.5 below.
 - iv. subdivision within the ANB where the application does not identify legal mechanisms on any land title(s) to permanently avoid the establishment of any additional ASAN.
 - v. ASAN located within the ICB Ldn60dBA-65dBA
 - vi. subdivision within the ANB where the application identifies legal mechanisms on any land title(s) to permanently avoid the establishment of any additional ASAN
 - vii. subdivision within the ICB and OCB area.
- c. Auckland Airport
- i. additions or alterations to an existing dwelling within the HANA
 - ii. ASAN within the MANA and the Ldn57dbA area

3. Development controls - Ardmore Airport

1. The following development controls apply to activities within the Aircraft Noise overlay for Ardmore Airport:

3.1 Acoustic insulation and ventilation for ASAN in the ANB, ICB and OCB

1. New ASAN in the ICB and OCB and additions and alterations to an existing building accommodating ASAN including alterations and additions to habitable rooms and sleeping areas and rooms for convalescing and learning in the ANB, must provide sound attenuation and related ventilation and/or air-conditioning measures to ensure:
 - a. the internal noise environment of habitable rooms and sleeping areas and rooms for convalescing and learning do not exceed a maximum of L_{dn}40 dBA
 - b. the related ventilation and/or air conditioning system(s) satisfies the requirements of New Zealand Building Code Rule G4 with all external doors of the building and all windows of the habitable rooms closed.
2. Additions and alterations to an existing building accommodating ASAN including additions and alterations to habitable rooms and sleeping areas and rooms for convalescing and learning in the ANB and a single dwelling unit on a site where a certificate of title for the site was issued prior to 17 October 2007 in the ANB must:
 - a. be constructed from materials and use construction methods and insulation to achieve at least a 30dBA noise reduction in all such rooms with all external doors of the building and all windows of these rooms closed
 - b. be certified by a suitably qualified and experienced person as meeting that standard to the council's satisfaction prior to its construction, and
 - c. provide a ventilation system that:
 - i. complies with the mechanical ventilation requirements of Part G4 of the New Zealand Building Code for buildings where all external windows and doors are closed
 - ii. creates no more than 40 dB L_{Aeq(1min)} in the principal living room, no more than 30 dB L_{Aeq(1min)} in the other habitable rooms, and no more than 40 dB L_{Aeq(1min)} in any hallway, in each building. Noise levels from the mechanical system(s) must be measured at least 1m away from any diffuser
 - iii. on completion of construction, the owner must provide the council with certificates prepared by suitably qualified and experienced persons certifying the acoustic treatment, sound attenuation measures and ventilation measures have been done to achieve compliance with this clause.

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3. Additions and alterations to an existing building accommodating ASAN including additions and alterations to habitable rooms and sleeping areas and rooms for convalescing or learning in the ICB must:
 - a. be constructed from materials and using construction methods and insulation to achieve at least a 30dBA noise reduction in all such rooms, with all external doors of the building and all windows of these rooms closed
 - b. be certified by a suitable qualified and experienced person as meeting that standard to the council's satisfaction prior to construction, and
 - c. provide a ventilation system that:
 - i. complies with the mechanical ventilation requirements of Part G4 of the New Zealand Building Code for buildings where all external windows and doors are closed
 - ii. creates no more than 40 dB $L_{Aeq(1min)}$ in the principal living room, no more than 30 dB $L_{Aeq(1min)}$ in the other habitable rooms, and no more than 40 dB $L_{Aeq(1min)}$ in any hallway, in each building. Noise levels from the mechanical system(s) must be measured at least 1m away from any diffuser
 - iii. on completion of construction, the owner must provide the council with certificates prepared by suitably qualified and experienced persons certifying the acoustic treatment, sound attenuation measures and ventilation measures have been done to achieve compliance with this clause.
4. ASAN and additions and alterations to an existing buildings accommodating ASAN including alterations and additions to habitable rooms and sleeping areas and rooms for convalescing and learning in the OCB must:
 - a. be constructed from materials and using construction methods to achieve at least a 25dBA noise reduction in all such rooms, with all external doors of the building and all windows of these rooms closed
 - b. be certified by a suitably qualified and experienced person as meeting that standard to the council's satisfaction prior to construction and
 - c. provide a ventilation system that:
 - i. complies with the mechanical ventilation requirements of Part G4 of the New Zealand Building Code for buildings where all external windows and doors are closed, and
 - ii. creates no more than 40 dB $L_{Aeq(1min)}$ in the principal living room, no more than 30 dB $L_{Aeq(1min)}$ in the other habitable rooms, and no more than 40 dBA $L_{Aeq(1min)}$ in any hallway, in each building. Noise levels from the mechanical system(s) must be measured at least 1m away from any diffuser
 - iii. on completion of construction, the owner must provide the council with certificates prepared by suitably qualified and experienced persons certifying the acoustic treatment, sound attenuation measures and ventilation measures have been done to achieve compliance with this clause
5. Educational facilities, care centres and additions to existing educational facilities and care centres in the OCB and ICB must be constructed and maintained to achieve an interior noise environment in classrooms and all other places of learning not exceeding 35 dB $L_{Aeq(15min)}$ 8.30am-3.30pm Monday to Friday (inclusive).

4. Development controls - Auckland Airport

The following development controls apply to permitted activities and restricted discretionary activities within the Aircraft Noise overlay for Auckland Airport.

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4.1 Acoustic insulation and ventilation

1. In buildings containing ASAN, except care centres and educational facilities, acoustic insulation and related ventilation and/or air conditioning system/s must be installed to achieve an internal environment in all habitable rooms, with all external doors of the building and all windows of the habitable rooms closed, of Ldn40dBA. The mechanical ventilation system and/or air conditioning system(s) must include:
 - a. a mechanical kitchen extractor fan ducted directly to the outside to serve any cooking hob, if not already installed and in sound working order and,
 - b. a mechanical ventilation system or mechanical ventilation systems capable of:
 - i. providing at least 15 air changes of outdoor air per hour in the principal living room of each building and five air changes of outdoor air per hour in the other habitable rooms of each building, with all external doors and windows closed except windows in non-habitable rooms that need to be ajar to provide air relief paths
 - ii. enabling the rate of airflow to be controlled across the range, from the maximum airflow capacity down to 0.5 air changes (plus or minus 0.1) of outdoor air per hour in all habitable rooms
 - iii. limiting internal air pressure to not more than 30 Pascals above the ambient air pressure
 - iv. being individually switched on and off by the building occupants, in the case of each system
 - v. operating at a noise level of no more than 40 dB $L_{Aeq(1min)}$ in the principal living room, no more than 30 dB $L_{Aeq(1 min)}$ in the other habitable rooms, and no more than 40 dB $L_{Aeq(1min)}$ in any hallway, in each building. Noise levels from the mechanical system(s) must be measured at least 1m away from any diffuser, or
 - c. air conditioning plus mechanical outdoor air ventilation capable of:
 - i. providing internal temperatures in habitable rooms not greater than 25 degrees Celsius with all external doors and windows of the habitable rooms closed
 - ii. providing 0.5 air changes (plus or minus 0.1) of outdoor air per hour in all habitable rooms
 - iii. each air conditioning and mechanical ventilation system must be capable of being individually switched on and off by the building occupants
 - iv. operating at a noise level of no more than $L_{Aeq(1min)}$ 40 dB in the principal living room, no more than $L_{Aeq(1min)}$ 30 dB in the other habitable rooms, and no more than $L_{Aeq(1min)}$ 40 dB in any hallway, in each building. Noise levels from the mechanical system(s) must be measured at least 1m away from any diffuser.
2. For care centres, acoustic insulation and related ventilation and/or air conditioning systems must be installed to achieve an internal acoustic environment in each learning area (with all external doors and windows of the learning areas closed) of Ldn 40 dB. To achieve this, the care centre must provide:
 - a. a mechanical ventilation system or mechanical ventilation systems for each learning area:
 - i. designed to achieve indoor air temperatures not less than 16 degrees Celsius in winter.
 - ii. when all external doors and windows of the learning area are closed, capable of providing outdoor air ventilation at the rate of 15l/second/m² for the first 50m² and 7.5l/second/m² of remaining area
 - iii. capable of enabling the rate of air flow to be controlled across the range, from the maximum air flow capacity down to 8l/second/person for the maximum number of people able to be accommodated in the learning area at one time
 - iv. otherwise complying with the New Zealand Standard on Ventilation for Acceptable Indoor Air

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Quality (NZS 4303:1990)

- v. each ventilation system must be capable of being individually switched on/off by the building occupants
 - vi. capable of creating no more than 35 dB LAeq(1min) in each learning area, and no more than 40 dB LAeq(1min) in any hallway or corridor. Noise levels from the mechanical system(s) must be measured at least 1m away from any diffuser, or
- b. air conditioning plus mechanical outdoor air ventilation designed to provide 8l outdoor air/second/person and internal air temperatures in each learning area not greater than 27 degrees Celsius. The mechanical system must create no more than 35 dB LAeq(1min) in each learning area, and no more than 40 dB LAeq(1min) in any hallway or corridor. Noise levels from the mechanical system(s) must be measured at least 1m away from any diffuser. These systems must otherwise comply with the New Zealand Standard on Ventilation for Acceptable Indoor Air Quality (NZS 4303:1990).
3. For educational facilities, acoustic insulation and related ventilation and/or air conditioning systems must be installed to achieve an internal acoustic environment in each classroom, library and hall, with all external doors and windows of the classrooms, libraries and halls closed, of Ldn 40 dB LAeq(1min). To achieve this, the educational facility must provide:
- a. in the case of classrooms and libraries, air conditioning and/or mechanical ventilation systems for each library that are:
 - i. designed to achieve indoor air temperatures not less than 16 degrees Celsius in winter and not greater than 27 degrees Celsius in summer.
 - ii. capable of providing outdoor air ventilation at the rate of 8 litres of air per second per person for the maximum number of people able to be accommodated in any such room at one time (“the required airflow”);
 - iii. capable of enabling, (in the case of classrooms or libraries in which only mechanical ventilation systems are used to satisfy the above temperature and outdoor air requirements), the outdoor airflow to be controlled across the range, from the maximum airflow capacity down to the required airflow when all external doors and windows of the classroom or library are closed;
 - iv. otherwise complying with the New Zealand Standard on Ventilation for Acceptable Indoor Air (NZS 4303:1990); and
 - v. operating at a noise level of no more than 35 dB LAeq(1min) in each classroom, no more than 40 dB LAeq(1min) in each library, and no more than 40 dB LAeq(1min) in any hallway or corridor. Noise levels from the mechanical system(s) must be measured at least 1 metre away from any diffuser.
 - b. in the case of halls, either a mechanical ventilation system or mechanical ventilation systems for each hall capable of:
 - i. providing at least 12 litres of outdoor air per second per square metre with all external doors and windows of the hall closed;
 - ii. enabling the outdoor airflow to be controlled across the range, from the maximum airflow down to the rate of 8 litres of outdoor air per second per person for the maximum number of occupants able to be accommodated in the hall at one time;
 - iii. otherwise complying with the New Zealand Standard on Ventilation for Acceptable Indoor Air Quality (NZS 4303:1990); and
 - iv. operating at a noise level of no more than 35 dB LAeq(1min) in each hall, and no more than 40 dB LAeq(1min) in any hallway or corridor. Noise levels from the mechanical system(s) must be

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measured at least 1 metre away from any diffuser, or

- v. air conditioning plus mechanical outdoor air ventilation designed to provide 8 litres per second per person of outdoor air, and internal air temperatures in each hall not greater than 27 degrees Celsius. The mechanical system must create no more than 35 dB $L_{Aeq(1min)}$ in each hall, and no more than 40 dB $L_{Aeq(1min)}$ in any hallway or corridor. Noise levels from the mechanical system(s) must be measured at least 1 metre away from any diffuser. These systems must otherwise comply with the New Zealand Standard on Ventilation for Acceptable Indoor Air Quality (NZS 4303:1990).
4. The required acoustic treatment measures to achieve the acoustic noise environment specified in clauses 4.1.1 – 4.1.3 above, must in each case be determined by using the Future Airport Noise Contours contained in designation 1100.
 5. Upon the completion of the installation of the acoustic treatment measures in clauses 4.1.1 – 4.1.3 above, the owner must provide the council with certificates prepared by:
 - a. a suitably qualified and experienced acoustical consultant certifying that the acoustic treatment measures specified for the activity in this control are sufficient to achieve compliance with this control and have been undertaken in accordance with sound practice.
 - b. a suitably qualified and experienced ventilation engineer certifying that the ventilation measures specified for the activity in this control are sufficient to achieve compliance with this control and have been undertaken in accordance with sound practice.

5. Assessment - Restricted discretionary activities

5.1 Matters of discretion

The council will restrict its discretion to the matters below for the activities listed as restricted discretionary in the zone activity table.

1. ASAN and alterations or additions to existing buildings accommodating ASAN in the area between the Ldn55 and 65dBA noise contours at North Shore Airfield, Kaipara Flats Airfield and Whenuapai Airbase
 - a. The location of ASAN.
 - b. The measures taken to ensure occupants are adequately protected from aircraft noise.
2. ASAN in the OCB and alterations or additions to existing buildings accommodating ASAN within the ICB at Ardmore Airport
 - a. The internal noise environment of the proposed and any existing structure.
 - b. The internal ventilation standards for the proposed or any existing structure.
 - c. Measures for or relating to the attenuation of aircraft noise arising in connection with Ardmore Airport.
 - d. The imposition of an obligation to ensure any required acoustic treatment measures are not removed without the council's consent, including requiring the obligation to be registered as a covenant on the certificate of title.
 - e. The nature, size and scale of the proposed development.
3. Subdivision within the ICB and OCB area at Ardmore Airport
 - a. Measures for or relating to the attenuation of aircraft noise arising in connection with Ardmore Airport.
 - b. The imposition of an obligation not to remove any required acoustic treatment measures without the airport operator's consent, including requiring the obligation to be registered as a covenant on the certificate of title.
 - c. The nature, scale and intensity of the proposed development.

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- d. The location of proposed activities, including ASAN.
- e. Potential effects on Ardmore Airport.
- 4. ASAN not otherwise listed in activity table 1.3 and alterations or additions to existing dwellings within the HANA at the Auckland Airport
 - a. The objectives and policies of the Unitary Plan relating to ASAN.
 - b. The nature, size and scale of the proposed development.
 - c. Measures for or relating to the attenuation of aircraft noise arising in connection with the airport.
 - d. The imposition of an obligation to ensure any required acoustic treatment measures are not removed without the council's consent, including requiring the obligation to be registered as a covenant on the certificate of title.

5.2 Assessment criteria

- 1. ASAN and alterations or additions to existing buildings accommodating ASAN in the area between the Ldn55 and 65dBA noise contours at North Shore Airfield, Kaipara Flats Airfield and Whenuapai Airbase
 - a. Whether acoustic insulation measures are provided in the design and siting of the ASAN to achieve an internal noise environment in habitable rooms that does not exceed Ldn40dBA.
 - b. The application should contain sufficient detail on the acoustic insulation measures to show how an internal noise environment in habitable rooms, sleeping areas and classrooms not exceeding Ldn40dBA can be met.
- 2. ASAN in the OCB and alterations or additions to existing buildings accommodating ASAN within the ICB area at Ardmore Airport
 - a. The internal noise environment of the proposed and any existing structure should provide satisfactorily levels of health and amenity values to occupants.
 - b. The internal air quality of the proposed or any existing structure should provide satisfactory health, and amenity values to occupants.
 - c. The proposed measures for attenuation of aircraft noise arising in connection with Ardmore Airport should satisfactorily avoid, remedy or mitigate those effects.
 - d. Mechanisms should be put in place to ensure there is an on-going obligation on owners to ensure that required acoustic treatment measures are not removed without the Council's prior consent.
 - e. Having regard to all the circumstances, including location in relation to the Aerodrome, likely exposure of the site to aircraft noise, noise attenuation and ventilation measures proposed, and the number of people to be accommodated, the nature, size and scale of the proposed activity should not be likely to lead to potential conflict with and adverse effects upon the operation of the Aerodrome.
- 3. Subdivision within the ICB and OCB area at Ardmore Airport
 - a. Refer to assessment criteria 5.1.3 above.
- 4. ASAN not otherwise listed in activity table 1.3 and alterations or additions to existing dwellings within the HANA at the Auckland Airport
 - a. The proposal should be consistent with the objectives and policies of the Unitary Plan relating to the economic importance of the Auckland Airport and the need to protect it from the reverse sensitivity effects associated with ASAN.
 - b. The nature, size and scale of the proposed development should not be likely to lead to reverse sensitivity effects on the Auckland Airport. In considering this, the Council will consider whether:
 - i. the numbers of people to be exposed to aircraft noise in the external environment as a result

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of the proposal and the amount of aircraft noise received at the site now and in the future will result in large numbers of people becoming highly annoyed by that noise

- ii. the development includes amenity areas or other features that raise expectations of high levels of outdoor amenity
 - iii. the nature of the development recognises the likelihood of an external environment heavily dominated by aircraft noise
 - iv. there will be frequent use of the building or the external environment for sleeping, convalescing, relaxing or learning purposes where quiet environments and the ability to leave windows and doors open are valued.
- c. Mechanisms should be put in place to ensure there is an on-going obligation on owners to ensure that required acoustic treatment measures are not removed without the Council's prior consent.
- d. The development should achieve an acceptable internal noise environment for habitable rooms and sleeping areas and rooms for convalescing or learning having regard to:
- i. the extent of any infringement of the requirements of clause 4.1 above and whether the non-compliance is insignificant.
 - ii. where alternative measures are proposed, the design, construction and materials of any structure to be used would achieve an acceptable internal noise environment for habitable rooms and sleeping areas and rooms for convalescing or learning with all external doors and windows of the building/s closed.
 - iii. whether alternative measures are proposed to ensure adequate ventilation and the removal of cooking smells.
 - iv. whether it is reasonable to require acoustic treatment measures (including measures for internal air quality purposes) in existing rooms, or whether such measures should be limited to the addition.

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