

ANNEX 2

APPLICANT'S RESPONSE ON REQUIREMENT 18 (RECEPTOR BASED NOISE MITIGATION)

1. THE SOS' REQUEST

1.1 [SoS Consultation 1](#) sought comments on the ExA's revised form of requirement 18 (receptor based noise mitigation).

1.2 In its [Dec Response](#), the Applicant submitted that the ExA's form of requirement would not satisfy the criteria for requirements in paragraph 4.9 of the Airports National Policy Statement (ANPS) and paragraph 4.11 of the National Networks National Policy Statement (NNNPS). The Applicant explained why its Noise Insulation Scheme ("**NIS**"), considered during the examination, remained appropriate but also proposed an alternative requirement given the SoS' direction to consider alternative wording that achieved the same level of protection as the ExA's.

1.3 In the MTL the SoS does not expressly state that she is minded to accept the ExA's wording for requirement 18. However, MTL 159 provides the direction that:

"the mitigation offered should ensure that the Proposed Development avoids significant adverse effects on health and quality of life in line with the NPSE [ER 6.2.8] and that where possible contribute to the improvement of health and quality of life in line with the ANPS [ER 6.2.1]. The Secretary of State therefore needs to be satisfied that all reasonable steps are taken to mitigate and minimise such impacts and that the internal living standards do not exceed unacceptable levels of noise resulting from the Proposed Development."

1.4 The Applicant therefore puts forward a position, outlined below, on the basis that the SoS is willing to consider a reformulation of requirement 18 as suggested by the ExA that meets policy and the requirements in MTL 159.

2. SUMMARY OF THE APPLICANT'S POSITION

2.1 Draft requirement 18, as recommended by the ExA, is unprecedented in the history of aviation planning decisions, or other infrastructure consents for road, rail or other projects involving noise insulation mitigation, and is manifestly unreasonable because:

2.1.1 It establishes a threshold for full noise insulation at noise levels far below levels considered appropriate elsewhere and far below levels recommended in policy or even draft policy;

2.1.2 Rather than setting out a noise insulation scheme for the Applicant to implement through engagement with householders (which is the normal approach), it requires the Applicant to agree with the local planning authority ("**LPA**") the precise detail of bespoke mitigation measures for every single property in the affected area;

2.1.3 Whilst the ExA's intention is unclear from the drafting, it appears to require all noise mitigation to be installed before CDRO, contrary to the normal approach, which is to ensure installation for properties most affected, followed by phased contributions to installation in less affected areas.

2.1.4 No financial limits are set for the extent of insulation works to any property, in contrast to other schemes which define the necessary works and provide for full insulation for properties most affected but tiered, reduced contributions at lower levels of noise. The requirement, as drafted, is potentially open ended.

2.1.5 If agreement is not reached on any property about the precise detail of noise insulation, no clear recourse is provided (e.g. for bespoke appeal or expert determination). Instead, the Applicant is obliged to offer to buy the property.

Given that c. 4,000 properties are caught by this requirement, this represents an extremely significant potential financial liability. No consent has ever required this.

- 2.1.6 Again, due to unclear drafting, it could be interpreted that the nationally significant infrastructure to be consented in this case cannot be operated until all noise insulation has been agreed and installed in every property, notwithstanding that the Applicant has no clear right to appeal any disagreement about any detail of installation. This introduces a significant potential for delay.
- 2.2 The SoS appears to recognise that this is an unusual draft requirement but states in MTL 158:
- “Whilst noting the reference to mitigation offered at other airports by all parties, the Secretary of State considers it important that any financial assistance mitigates significant impacts and is considered on a case by case basis based on the particular circumstances of an application.”*
- 2.3 It is important that the SoS recognises, however, that the ExA's justification for its suggested approach, including the ExA's identification of what it considers to be appropriate LOAEL and SOAEL levels, is not based on any characteristic of air noise at Gatwick. It is based on its questioning of policy from first principles and findings, for instance, derived from its interpretation of British Standards (BS) 8233 and 4142 and from its interpretation of national surveys of community annoyance. This approach was not put to the Applicant during the examination or subsequently and, importantly, has nothing to do with the circumstances of the case at Gatwick. It is a generic conclusion which resets policy, reached in the abstract, and, if adopted, it would have universal application.
- 2.4 If it is concluded here to be the appropriate basis for aviation noise mitigation, it is an approach that would have to be adopted elsewhere – not just for aviation but for all infrastructure (and all development) that relies on noise insulation to make it acceptable. The consequences for the national growth agenda would be severe – including not just for other aviation projects but, for example, for government road and rail schemes.
- 2.5 For these reasons the ExA's proposed requirement is entirely unworkable and should not be adopted by the SoS. The Applicant has revisited the amended form of requirement it proposed in its Dec Response and has further enhanced this to provide even greater comfort that it *“avoids significant adverse effects on health and quality of life”* and ensures that *“internal living standards do not exceed unacceptable levels of noise resulting from the Proposed Development”*, as per the SoS' direction in MTL 159 and therefore satisfies the policy set out in the Noise Policy Statement for England (NPSE) and ANPS. The Applicant commends this drafting to the SoS for inclusion in the DCO.
- 2.6 The Applicant's position is further detailed in the following sections:
- 2.6.1 **Section 3** – flaws in the ExA's justification for its proposed requirement;
- 2.6.2 **Section 4** – concerns with the drafting of the ExA's form of requirement;
- 2.6.3 **Section 5** – the Applicant's enhanced proposal.

3. FLAWS IN THE EXA'S JUSTIFICATION FOR ITS PROPOSED REQUIREMENT

- 3.1 It is common ground that the relevant policy test is set out in paragraph 5.68 of the ANPS, which states:

“Development consent should not be granted unless the Secretary of State is satisfied that the proposals will meet the following aims for the effective management and control of noise, within the context of Government policy on sustainable development:

- *Avoid significant adverse impacts on health and quality of life from noise;*
- *Mitigate and minimise adverse impacts on health and quality of life from noise; and*
- *Where possible, contribute to improvements to health and quality of life.”*

- 3.2 The SoS' conclusion at MTL 159 is a restatement of this policy. It does not establish that the ExA's draft requirement is necessary to achieve policy compliance. To determine that, it is necessary to look at the justification for the requirement and the detail of the requirement and to test this against the requirements of policy.
- 3.3 As part of its application, the Applicant carefully developed a NIS that was based on providing adequate mitigation by reference to a clear assessment of LOAEL and SOAEL, which was translated into the following zones (see the summary at ExAR 6.3.18):

Table 1: Zones for the Applicant's examination NIS

Inner zone (LAeq 16 h 63 dB and LAeq 8 h 55 dB)	c. 400 homes
Outer zone 1 (LAeq 16 h 60 to 63 dB)	c. 100 homes
Outer zone 2 (LAeq 16 h 57 to 60 dB)	c. 700 homes
Outer zone 3 (LAeq 16 h 54 to 57 dB)	c. 2,700 homes

- 3.4 The ExA concluded that the Applicant's proposals were "*insufficient to achieve the first aim of the ANPS at paragraph 5.68 to avoid significant adverse impacts on health and quality of life*" (ExAR 6.4.80). Central to this finding was the ExA's conclusion that the Applicant had overstated both LOAEL and SOAEL.
- 3.5 Again, it is common ground that the definition of these key terms is set in paragraphs 2.20 – 2.21 of the NPSE, as follows:

"LOAEL – Lowest Observed Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected."

"SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur."

- 3.6 The differences between the LOAEL and SOAEL applied by the Applicant and the ExA for the Proposed Development are summarised below:

	LOAEL LAeq 16 h	LOAEL LAeq 8 h	SOAEL LAeq 16 h	SOAEL LAeq 8 h
Applicant	51	45	63	55
ExA	45	40	54	48

LOAEL

- 3.7 It is necessary in the interests of clarity in aviation planning and decision-making that the SoS is clear in her findings on LOAEL. For the purposes of this response, however, these matters are addressed briefly – not because the ExA's conclusion on LOAEL is not important but because it was not the driving factor in the ExA's decision on the threshold for noise insulation and therefore its form of requirement 18, which is determined by the ExA's finding on SOAEL (discussed below).
- 3.8 In brief, however:
- 3.8.1 The Applicant's LOAEL values of 51 dB LAeq 16 h (day) and 45 dB LAeq 8 h (night) were taken directly from Government policy set out in its 'Consultation Response on UK Airspace Policy: A Framework for Balanced Decisions on the

Design and Use of Airspace' (October 2017) (the "**2017 Consultation Response**") at paragraph 2.72;

- 3.8.2 That statement of policy (and those values for LOAEL) have been examined and used consistently in recent aviation planning decisions – for instance at Bristol, Luton, Stansted and London City Airports;
- 3.8.3 The ExA explains, however, that it (uniquely) derives its LOAEL values from the guidelines for internal noise levels in residential properties set out in BS 8233 with a 5 dB reduction drawn from BS 4142 (ExAR 6.4.17 – 6.4.19, 6.4.34), and expresses concern that the number of people highly annoyed would be "*above zero*" if a daytime LOAEL of 51 dB was adopted (ExAR 6.4.25);
- 3.8.4 The ExA is concerned that the response curve in CAP 1506 (Survey of Noise Attitudes 2014: Aircraft Noise and Annoyance, Second Edition) shows that 7% of the population are likely to be highly annoyed at the level of 51 dB or less. However, this is not new information. The Government and the industry have been fully aware of the findings of CAP 1506 since its publication in 2017. Policy, however, is based on assessing effects to people living within contours at "population" or "community" level, rather than a small number of individual responses whose responses are not "average". The same rebuttal applies to the ExA's reliance on some "*data points*" below 45 dB in CAP 2161 in setting its LOAEL LAeq 8 h (ExAR 6.4.33). The two data points below LAeq 8 h 45 dB show 2% highly sleep disturbed at 44 dB and 1% at 39 dB.
- 3.8.5 The ExA justifies developing its own approach to aviation noise assessment at ExAR 6.4.15. Here it refers to paragraph 5.53 of the ANPS and the requirement in that paragraph that "*operational noise*" be assessed "*using the principles of the relevant British Standards*". On that basis the ExA places particular emphasis on BS 8233 and BS 4142.
- 3.8.6 However, a proper reading of paragraph 5.53 of the ANPS makes clear that it draws a distinction between (a) operational noise, (b) construction noise and (c) aircraft noise. Use of the British Standards is encouraged when considering operational and construction noise (first and second sentences, respectively) but paragraph 5.53 is explicit that (third sentence):
- "In assessing the likely significant impacts of aircraft noise, the applicant should have regard to the noise assessment principles, including noise metrics, set out in the **national policy on airspace**"* (emphasis added)
- 3.8.7 If the ExA had followed that requirement, it would not have attempted to reinvent the LOAEL.
- 3.9 It is important to note that the ExA's justification for its LOAELs has nothing to do with the characteristics of Gatwick – it derives an opinion about the necessary internal environment of any residential property (and from it the consequent external environment) based on BS 8233 (which is applicable to the design of new buildings) and then applies a 5 dB reduction that it derives from BS 4142 (which relates to industrial and commercial sound), and national data relating to community responses to noise. If the SoS adopts the ExA's conclusion here, it would have precedential application to a wide range of projects across the UK and effectively reset existing national noise policy.

SOAEL

- 3.10 It is the level at which SOAEL is set that caused the ExA to conclude that the Applicant's proposals during the examination did not meet the first aim of paragraph 5.68 of the ANPS.
- 3.11 There is no dispute that SOAEL is the level at which significant adverse effects on health and quality of life occur or that noise insulation is necessary and effective at that level and above to avoid those effects. The dispute relates to the numerical level at which SOAEL is set.

- 3.12 If the SoS adopts the ExA's conclusions that SOAEL LAeq 16 h and LAeq 8 h for aviation noise are 54 dB and 48 dB respectively (rather than 63 dB and 55 dB as submitted by the Applicant), this would be a significant departure from established noise policy and a wealth of aviation planning precedent, on the basis of unsound analysis by the ExA. It would have significant and wide-reaching consequences for other planning applications where noise insulation is required.

Established policy

- 3.13 As the ExA notes at ExAR 6.3.9, the Applicant in part defined SOAEL by reference to Government expectations of compensation and noise insulation schemes. As a starting point, that cannot be unreasonable. The Government has set out what noise insulation it considers necessary in order to meet its own policy. In this respect, the Aviation Policy Framework (APF) remains the only definitive statement of Government policy, and it provides at paragraph 3.39:

*“As a minimum, the Government would expect airport operators to offer financial assistance towards acoustic insulation to residential properties which experience an increase in noise of 3dB or more which leaves them exposed to levels of noise of **63 dB LAeq,16h or more.**”* (emphasis added)

- 3.14 The APF remains Government policy and, whilst it specifies that applicants should offer contributions at this level as a minimum, if the Government considered that SOAEL should be less than 63 dB such that full insulation must be provided at a lower level to meet the aims of the ANPS and avoid SOAEL, the Applicant would expect it to have withdrawn the APF and made very different decisions on other aviation projects than those that it has reached in recent years (see below from paragraph 3.18).
- 3.15 The ExA notes at ExAR 6.4.37 that the SoS agreed that aviation daytime SOAEL was 63 dB in the 2017 Heathrow Airport inquiry decision but attaches no weight to that on the basis that it predated the publication of CAP 1506, which was also first published in 2017.
- 3.16 However, the ExA does not grapple with the subsequent publication by the Government in December 2018 of 'Aviation 2050: The Future of UK Aviation', with full knowledge of CAP 1506, in which it consulted on the proposition that it should “*extend the noise insulation policy threshold **beyond the current 63dB LAeq 16hr contour to 60dB LAeq 16hr***” (emphasis added). This consultation document did not itself redefine daytime SOAEL at 60 dB but asked whether the established APF policy should be modified so that noise insulation contributions should be offered from 60 dB, rather than 63 dB. That policy remains in draft. However, the Applicant's NIS already significantly exceeded that draft policy expectation, providing contributions for mitigation measures for properties in the 54 dB LAeq 16 h contour.
- 3.17 If Government thought that its noise policy should be revised because daytime SOAEL should be anything other than 63 dB it has had eight years to do so since the publication of CAP 1506. It is not unreasonable for the Applicant to expect the ExA to apply existing and well-established Government policy rather than to seek to question and reinvent it through an individual DCO recommendation.

Precedent

- 3.18 The novelty of the ExA's recommendation (that SOAEL occurs at, and thus full noise insulation must start at, 54 dB LAeq 16 h rather than 63 dB) can also be seen in the context of the following wealth of precedent to the contrary:
- 3.18.1 In ExAR 6.4.46, the ExA asserts in support of its 54 dB SOAEL that paragraph 35 of the **Stansted Airport** appeal decision dated 26 May 2021¹ establishes that the 54 dB LAeq 16 h contour “*should be the basis for future daytime noise restrictions*”. However, a correct reading of that paragraph of the Stansted decision would have shown that it is not discussing SOAEL – it is discussing the

¹ Appeal ref. APP/C1570/W/20/3256619, available here:
[https://www.uttlesford.gov.uk/media/10878/Decision-letter-Stansted-Airport-Appeal/pdf/Appeal Decision - 3256619A.pdf?m=1622040655847](https://www.uttlesford.gov.uk/media/10878/Decision-letter-Stansted-Airport-Appeal/pdf/Appeal%20Decision%20-%203256619A.pdf?m=1622040655847)

contour to be used in the noise envelope (see condition 7 of the resulting planning permission). At Gatwick, 51 dB is used as the relevant control for air noise limits (see both the Applicant's and ExA's requirement 15) but that is a completely distinct consideration from determining the level above which noise effects should be avoided. Though SOAEL was not reported in the Stansted decision letter, the Stansted application in fact set SOAEL at 63 dB LAeq, deriving it from previous planning cases at London City and the 2017 Heathrow Airport inquiry decision.² The daytime SOAEL level of 63 dB LAeq was not disputed between Stansted and the LPA, and, even at this level, full insulation is not offered in Stansted's Sound Insulation Grant Scheme.

3.18.2 In their decision on **Bristol Airport** expansion dated 2 February 2022³, the panel of Inspectors agreed with SOAEL values which are identical to those used by the Applicant here (see paragraphs 240 and 251 of the decision).

3.18.3 In the recovered appeal decision regarding **London City Airport** expansion dated 19 August 2024⁴, the Secretaries of State agreed with the Inspectors' report, which recorded at paragraph 7.3.4 agreement on levels for LOAEL and SOAEL which again were consistent with those used by the Applicant in the present application. At paragraph 8.186 the Inspectors confirmed:

*"The LOAEL adopted for the purpose of the EIA is 51dB LAeq,16h for day time air noise and 45LAeq,8h for night-time air noise. The adopted SOAEL is 63dB LAeq,16h for daytime air noise and 55dB LAeq,8h for night time air noise. **These levels are consistent with policy and have been widely used in recent decision-making.**" (emphasis added)*

3.18.4 In the **Luton** DCO examination, agreement is recorded in the Statement of Common Ground between the applicant in that case and Luton Borough Council ([REP11-034](#), referencing the relevant ES Chapter at [REP9-011](#)) on LOAEL and SOAEL values identical to those used by the Applicant in the present application. These matters are reported in the Recommendation Report and the SoS' decision letter of 3 April 2025 as appropriate and agreed.

3.18.5 The Luton ExA reported that "*The assessment was based on industry standard methodologies including relevant British Standards*" (paragraph 3.18.30) and that the applicant's assessment there (which uses the same metrics and thresholds as the Applicant's at Gatwick) was "*appropriate for the purposes of decision making and consistent with the requirements of national policy*" (paragraph 5.2.16) Those metrics and thresholds were said to be derived from government policy (paragraphs 3.18.3 – 30).

3.18.6 Similarly, the package of noise insulation at Luton used the same metrics and thresholds as the Applicant's proposals in the present application and the Luton ExA concluded:

"When compensatory noise mitigation in the form of noise insulation is taken into account, the Proposed Development would avoid significant adverse effects on health and quality of life due to aviation noise in future. This is consistent with the aims of the MBU, ANPS, the NPSE and OANPS." (paragraph 5.2.29)

² Stansted 35+ Planning Application, Appendix 7.3, Air Noise, para.10.12

³ Appeal ref. APP/D0121/W/20/3259234, available here: <https://acp.planninginspectorate.gov.uk/ViewCase.aspx?caseid=3259234>

⁴ Appeal ref. APP/G5750/W/23/3326646, available here: https://assets.publishing.service.gov.uk/media/66c33ed4057d859c0e8fa728/24-08-19_-_LONDON_CITY_AIRPORT_HARTMANN_ROAD_SILVERTOWN_LONDON_E16_2PX_-_App_No_3326646.pdf

- 3.18.7 The Secretary of State agreed and found that Luton Airport's package of noise insulation measures met the requirements of policy and were acceptable - see for example paragraph 520 of the decision letter:

"Like the ExA, the Secretary of State recognises that the Applicant applied an eligibility criterion of 63dBLAeq16hr or above but also adopted criteria of 60 dBLAeq16hr in scheme 2 and 54dBLAeq16hr in Scheme 5 as consistent with the recommendations of Aviation 2050. The ExA concluded that the Compensation Policies were substantially enhanced compared with the current London Luton Airport policy and considered that the Applicant had provided an appropriate package of measures, relevant to planning consistent with the requirements of the ANPS (paragraph 5.240) which recognises that airport expansion will have negative impacts on local communities and that an appropriate community compensation package, relevant to planning is expected [ER 3.18.322 and ER 3.18.226]. The Secretary of State agrees."

- 3.19 The SoS should therefore seriously scrutinise the ExA's recommended requirement for this DCO against the terms of Government policy to ensure the integrity of that policy and a fairness and consistency in decision making, particularly given the very recent decision on the Luton DCO that has been made by the same SoS.
- 3.20 For completeness, whilst the ExA has not attempted to argue that a different conclusion can be reached at Gatwick because it is perceived to be more rural than other airports, this would not be a valid distinction. Whilst large parts of the area affected by aircraft noise from Gatwick can be considered rural, this is also true of most other airports in the UK (e.g. Bristol, Luton, Stansted and for the area affected by westerly landings and take-offs at Heathrow).
- 3.21 In 2018 the Applicant undertook a study for the Noise Management Board – the Gatwick Airport: Ambient Noise Study (December 2018), submitted into the examination within **The Applicant's Response to Actions - ISH5 Aviation Noise** [REP1-066]. This study showed that there was no clear evidence to indicate that aircraft noise is more annoying in areas of low ambient noise. This result supports current practice to assess and manage aircraft noise across all UK airports equally, with similar standards and consistent mitigation measures.

Unsound analysis

- 3.22 The mistakes made by the ExA are apparent from the ExAR:
- 3.22.1 At ExAR 6.4.43 the ExA references the APF and CAP 1506 to identify either 57 dB or 54 dB as the daytime "approximate onset of significant community annoyance."
- 3.22.2 At ExAR 6.4.45, the ExA then state this:
- "....we consider that it could be regarded as the point where someone who is highly annoyed at the daytime LOAEL, becomes significantly adversely affected."*
- 3.22.3 That statement of opinion clearly cuts across the opinion reached on the same point in Government policy and in all the decisions cited above. In the 2017 Consultation Response the Government acknowledged 54 dB as the onset of community annoyance, but at the same time the Government has consistently endorsed 63 dB as SOAEL and the level above which noise insulation must be provided so that SOAEL (and significant adverse effects on health and the quality of life) is avoided.
- 3.22.4 It also misses the point that the relevant test is not just a significant adverse effect on someone but an effect so significant that it has a significant adverse effect on health and quality of life of a community. If 54 dB is the onset of significant community annoyance, it cannot also be the level at which noise has a significant

adverse effect on health and quality of life and must be avoided. The two concepts are fundamentally different.

- 3.22.5 The ExA's decision has the effect of reinventing rather than applying policy and the paragraphs that follow the above excerpt erroneously rely on the 2021 Stansted decision – see above - and wrongly dismiss the 2017 Heathrow decision, whilst overlooking the numerous recent precedents where the Planning Inspectorate and the SoS have applied policy consistently and determined schemes accordingly (see above).

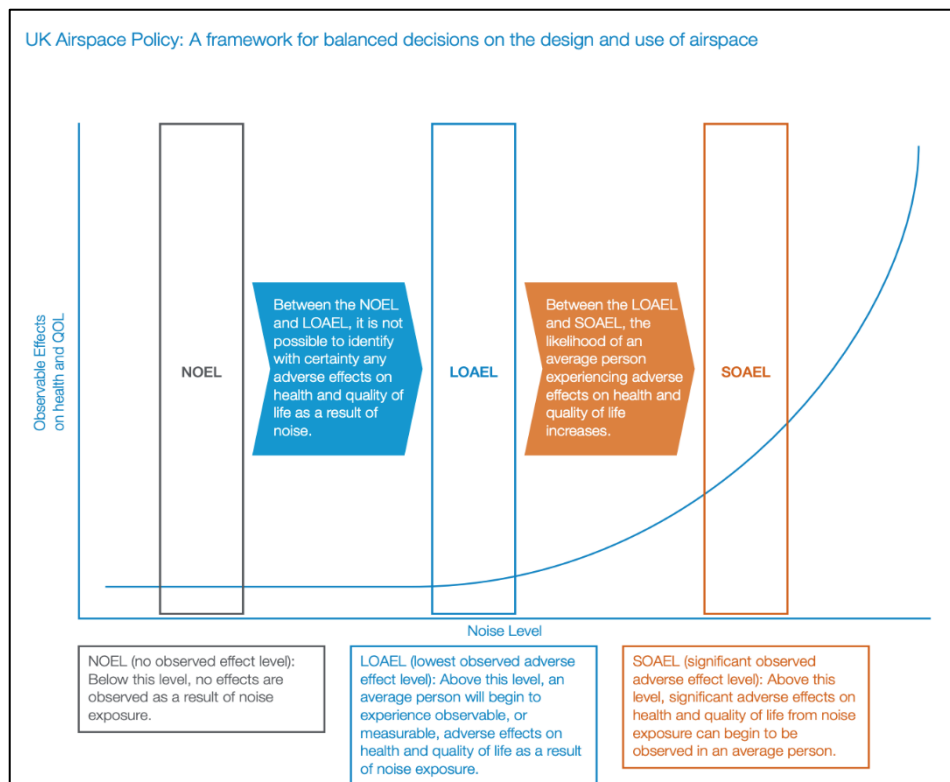
3.23 The Government's approach to assessment of the effects of aviation noise is demonstrably based on evidence from extensive public attitude surveys.

3.24 The Government consultation 'UK Airspace Policy: A framework for balanced decisions on the design and use of airspace' (February 2017) (the "**APC**") (which was followed by the 2017 Consultation Response noted above) referred to the then Government policy on aviation noise at paragraph 5.24 as follows:

"The Government's overall policy on aviation noise is to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise as part of a policy of sharing benefits of noise reduction with industry."

3.25 The APC discussed the onset of significant community annoyance and then explained how the concepts of NOAEL, LOAEL and SOAEL could be applied in an aviation context. At paragraph 5.39 the APC states:

"The LOAEL can therefore be regarded as the point at which adverse effects begin to be seen on a community basis. At any noise level above the LOAEL, there will be a proportion of the population adversely affected. As noise increases further above the LOAEL, there will be an increased risk that someone will suffer significant adverse effects. In line with this increase in risk, the proportion of the population likely to be significantly affected can be expected to grow as the noise level increases over the LOAEL. The SOAEL is the point at which the average person would be expected to begin to experience significant adverse impacts on health and quality of life. The diagram below explains this concept in more detail."



- 3.26 That analysis uses the same data as the ExA but properly comes to a different conclusion, based on the understanding that the onset of annoyance for a small proportion of the population is not the test for SOAEL, which must be based on the average or community response and a much more significant effect.
- 3.27 As above, the 2017 Consultation Response set the aviation LOAEL at 51 dB (paragraph 2.72), in line with the value adopted by the Applicant in the present application.
- 3.28 Importantly, whereas both the 2017 APC and 2017 Consultation Response refer to the level at which the onset of significant community annoyance occurs (54 dB) they do not relate this as being the aviation SOAEL.

Wider implications

- 3.29 The SoS should also consider the wider implications of agreeing with the ExA that SOAEL should be set significantly differently to all of the above-cited cases in reliance on the ExA's novel and unsound analysis. For example, if a different approach to SOAEL is taken here, the Noise Action Plans for designated airports recently signed off by the Government will all be out of date and potentially unlawful – because, contrary to Government policy, they could be argued to not prevent significant adverse effects to health and the quality of life on the basis of the level set by the ExA in this case.
- 3.30 As is the case for its LOAEL, the ExA's recommended SOAEL is based on its analysis of national data that is not specific to London Gatwick. Hence, the acceptance here of daytime SOAEL at 54 dB rather than the previously established 63 dB (and the equivalent reduction in the night-time SOAEL) would have fundamental consequences not just for airport expansion but for the approach to SOAEL for all other infrastructure projects requiring noise insulation.
- 3.31 For example, the table below shows the daytime and night-time SOAELs that have been established for road traffic noise (in the Design Manual for Road and Bridges (LA111 Noise and Vibration, May 2020)) and rail noise (for the HS2 project consistent with the Noise Insulation (Railways and Other Guided Transport Systems) Regulations).

SOAEL – LAeq 16 h day and LAeq 8 h night

Period	Road	Rail	Aircraft in Applicant's ES	Aircraft Proposed by ExA
Day	65	65	63	54
Night	55	55	55	48

- 3.32 Given the similarity of the established levels for aviation noise prior to the present decision and the established levels for road and rail, a novel approach here would have consequential precedential effects for road and rail projects.
- 3.33 If SOAEL was set at 54 dB for aviation, unacceptable adverse effect levels ("UAEL") would also have to be rethought with significant implications, for example, on the acceptability of housebuilding, which would have to be "prevented" in extensive areas around airports, including Heathrow, in accordance with Planning Practice Guidance (PPG) on noise and the Noise Exposure Hierarchy Table.

Conclusion on the ExA's justification for its form of requirement 18

- 3.34 For the above reasons, the ExA's justification for imposing its form of requirement 18 is flawed and its criticisms of the Applicant's examination NIS were unfounded. In accordance with the aims of the NPSE and paragraph 5.68 of the ANPS, that NIS:
- 3.34.1 provided for full noise insulation above SOAEL (63 dB daytime and 55 dB night time) to avoid significant adverse effects on health and quality of life;

- 3.34.2 together with the multiple additional measures which the Applicant employs to drive down aircraft noise at Gatwick⁵ would mitigate and minimise adverse effects on health and quality of life; and
- 3.34.3 increased the area covered by the existing airport scheme, by starting with a lower qualifying contour (54 dB rather than 60 dB) and significantly increased the scale of the insulation grants in tiered contours starting from 54 dB, resulting in noise levels within thousands of homes that would be lower with the Proposed Development and hence meet the third (non-mandatory) objective of the ANPS, to improve health and quality of life for those affected by aircraft noise at Gatwick.
- 3.35 The NIS proposed by the Applicant, therefore, met and substantially exceeded the expectations of published and draft policy and significantly exceeded any existing package of noise mitigation at other airports.
- 3.36 The SoS should bear this in mind in considering the appropriate form of drafting to adopt for the DCO and, the Applicant submits, weigh this to favour the Applicant's enhanced proposal set out in **Section 5** of this Annex 2.

4. **CONCERNS WITH THE DRAFTING OF THE EXA'S FORM OF REQUIREMENT**

- 4.1 In addition to the above concerns at the ExA's analysis that led it to recommend its revised requirement 18, the Applicant also has significant concerns at the provisions of that requirement.
- 4.2 The Applicant submitted a detailed NIS which takes and codifies best practice from Gatwick's existing successful NIS and other up to date NIS at other airports [REP9-059]. It is comparable in every relevant respect, for example, with the equivalent Strategy which the SoS has just approved with the Luton DCO.
- 4.3 In [REP9-059] the Applicant summarised the current Gatwick NIS. The current scheme has operated successfully since 2014, providing noise insulation to over 1,000 homes. The Applicant reviewed the scheme in 2019 and found the majority of homeowners who had taken the scheme found it easy to access, were happy with the products supplied, and reported that it had reduced noise disturbance. In many cases the homeowners had topped up the amount spent to treat additional rooms. In response the Applicant increased the grant amount to £4,300 plus VAT.
- 4.4 During the examination, the Applicant submitted a response to the then emerging thoughts of the ExA on the NIS (Annex A to [REP9-111]). That response appears not to have influenced the ExA's final proposed form of requirement (in fact, its final recommended approach is even more onerous) but the case made by the Applicant there is commended again to the SoS.
- 4.5 Paragraph 4.9 of the ANPS reiterates that requirements should only be imposed that are *inter alia* necessary, enforceable, precise and reasonable in all other respects. This principle is well-established for planning conditions and DCO requirements. For the reasons set out in this section, the Applicant considers that the ExA's proposed requirement 18 fails to meet any of these tests.

Potentially eligible premises

- 4.6 The ExA defines "*potentially eligible premises*" as:

"a main residence, school or college, hospital, library, place of worship, or community facility, where, following the commencement of dual runway operations, air noise, ground noise or combined air and ground noise is predicted to exceed 54 dB LAeq 16 h, and for main residences where, following the commencement of dual runway operations, air noise, ground noise or combined air and ground noise is predicted to exceed 48 dB LAeq 8 h"

⁵ Item 6 of the Applicant's response to the Procedural Decision issued on 1 December 2023 [AS-115] summarises the existing noise controls for Gatwick Airport

- 4.7 The Applicant has three concerns with this:

SOAEL threshold

- 4.8 The ExA defines a single group of properties by reference to its chosen SOAELs, at 54 dB LAeq 16 h and 48 dB LAeq 8 h, and provides for full noise insulation for all of these properties. As set out above in paragraphs 3.10 to 3.33, the ExA's SOAEL is unprecedented and unjustified. Relying on this to establish a threshold for full noise insulation means that an uncapped value of insulation is required below levels considered appropriate elsewhere and far below levels recommended in policy or even draft policy. This does not meet the test of necessity or reasonableness.

- 4.9 Further, the number of properties captured by this definition is c. 4,000. The time periods in the requirement (e.g. surveying all eligible premises within 12 months of commencement of airfield works – sub-paragraph (3)) apply to this whole group, with no prioritisation of those that will experience higher noise levels earlier. This approach does not meet the test of reasonableness.

Community buildings

- 4.10 The Applicant's Annex A to [\[REP9-111\]](#) explains why the ExA did not need to extend the NIS to other community buildings apart from schools (which were already fully included) because no significant noise impacts were found on other community buildings in the Environmental Statement. Their inclusion does not meet the test of necessity.

Ground noise

- 4.11 The Applicant has previously explained why ground noise need not be included in the Gatwick NIS, in part because ambient noise from mainly road traffic in much of the relevant area near Gatwick Airport is higher (**Closing Submissions** [\[REP9-112\]](#) from para. 11.4.112).

- 4.12 The Applicant agreed in its Dec Response to account for ground noise in its revised receptor-based noise mitigation provision if required by the SoS. However, given the reality about ambient noise in the area surrounding the airport, it is important that this is reflected in the requirement.

- 4.13 In this regard, the Applicant notes that in their [17 January 2025 submission](#) the JLAs welcomed the Applicant's further offerings in the NIS and (on page 9) accepted the principle of allowing for ambient noise if the SoS is minded to extend the NIS to address combined air and ground noise. The JLA's submission states as follows:

"The Applicant proposes that a property would only be eligible for noise insulation if the combined air and ground noise level was above the ambient noise level. The JLAs' position is that this is acceptable in practice; however, the JLAs are of the opinion that the method used to define baseline ambient noise levels at sensitive receptors in the ES ground noise assessment is too coarse."

- 4.14 The Applicant welcomes the JLA's acceptance that a property should only be eligible for noise insulation if the combined air and ground noise level is above the ambient noise level. As noted in its further submissions the Applicant would, if the SoS concludes that ground noise must be included in the NIS, undertake an extensive road traffic noise modelling exercise to quantify ambient noise.

- 4.15 Failing to account for ambient noise in the final requirement would not meet the test of reasonableness.

Involvement of the LPA

Scale of involvement

- 4.16 The ExA's form of requirement requires that the list of potentially eligible premises be approved by the LPA (definition of "*eligible premises*" in requirement 1), that the LPA be consulted upon regarding the steps to notify eligible premises (sub-paragraph (2)) and, most onerously, that the LPA approve the specific mitigation package design for each

eligible premises (sub-paragraph (3)). Nowhere in the ExAR does the ExA justify this level of involvement by the LPA.

- 4.17 The Applicant notes that the ExA has not identified any precedent for this level of involvement, and the Applicant is not aware of any such precedent. Further, the ExA has not taken account of the fact that the Applicant's existing NIS for the airport was rolled out successfully and with high levels of satisfaction without such intensive LPA involvement.
- 4.18 The standard approach, repeated through numerous (DCO and non-DCO) planning decisions is for the consent to set out the terms of the insulation scheme, and to require its implementation in terms which are enforceable. Ordinarily implementation would involve engagement with individual homeowners, rather than case-by-case negotiation with the LPA. The scheme approved for the Luton DCO is no exception.
- 4.19 In circumstances where the Government is committed to cutting red tape, the Applicant queries the need or benefit for LPA approval of each package of measures to be provided to a particular premises. To impose that requirement exceptionally here would require a specific justification if it is to meet the relevant tests of necessity and reasonableness.
- 4.20 There are more than 4,000 properties in scope. The Applicant asks the SoS to consider the scale of resources that the local authorities would need to undertake this task in a timely manner and ask whether that is proportionate and necessary. The SoS should also be conscious not to set a precedent approach that may lead to severe cost, time and resource implications at other airports with a denser noise footprint, such as London City or Heathrow. For instance, if the ExA's formulation and requirement were to be applied to Heathrow, some 193,000 homes would be affected (see ERCD 2001, 'Heathrow Airport 2019 Summer Noise Contours and Noise Action Plan Contours') (and likely many more if a third runway is brought forward).

Extent of discretion

- 4.21 Sub-paragraph (4) requires submitted mitigation designs to "*have due regard*" to certain specified guidance but also "*other guidance as relevant*". This is unhelpfully vague and does not specify to what degree that guidance must inform the designs, nor does it indicate what types of material may constitute "*other guidance*", leaving significant scope for disagreement.
- 4.22 Further, sub-paragraph (5) indicates that the LPA can refuse to approve a design for a main residence "*because it considers internal living conditions would be unacceptable*". This confers unacceptably broad and unconstrained discretion on the LPA, allowing it to refuse a design (with the severe consequence, as discussed below, that the Applicant must purchase the property) based on its own consideration.
- 4.23 On both counts, such drafting fails the tests of precision and enforceability required of planning conditions and requirements.
- 4.24 Potential differences of opinion could relate, for example, to solar gain. The ExA did not accept the Applicant's proposal to install acoustic ventilators (as used very successfully in areas around Heathrow or London City Airport) as necessarily a sufficient response to solar gain (ExAR 9.3.20).

Timing and process

Completing insulation before CDRO

- 4.25 It is not clear from the ExA's drafting in sub-paragraph (6) whether it envisages all insulation being installed and commissioned before commencement of dual runway operations for all eligible premises identified before that date.
- 4.26 To the extent it does, it is clearly unfeasible to insulate more than 4,000 properties in the approximately 4 years before CDRO, particularly if extensive time is required to agree the mitigation package for every home individually with the LPA. As a result, this nationally significant infrastructure would inevitably be seriously delayed.

- 4.27 Evidence was presented to the Luton DCO examination hearings by the applicant there (Luton Rising) of delivery programmes and other companies' experiences for roll-out of noise insulation schemes. The largest scheme identified by Luton Rising involved insulation works to 450 homes per year. Luton Rising identified issues with contractor availability and quality, provision of specialist glass and timescales for owners to engage as risks to any delivery programme. Importantly, Luton Rising's scheme did not require full insulation to all buildings within the scheme boundary or require LPA approval of all installations. Despite these differences, Luton Rising estimated that to insulate 3,800 properties could take up to 7 years.
- 4.28 In summary, the scale of this work would pose an unacceptable risk to the DCO programme. The ExA has failed to explain to the SoS what it considers the costs or timescales would be, or even whether it considered those matters or the proportionality of its recommendations.

Procedural time limits

- 4.29 Sub-paragraph (3) of the ExA's drafting requires the Applicant to have surveyed all eligible premises within 12 months of the commencement of the airfield works (and the Applicant would have less than 12 months in practice as it must first submit the list of potentially eligible premises for approval, then consult on the means of notifying premises and then do so). Given the more than 4,000 properties involved, this is an ambitious requirement which does not appear thoroughly considered. The ExA makes a sweeping assumption at ExAR 6.4.73 that many will already comply with BS 8233, without justifying this. The Applicant considers it preferable to prioritise those properties that will experience higher noise levels sooner, rather than unrealistically requiring a survey of all properties above the 54 dB contour within the same timescale.

Financial limits

- 4.30 No financial limits are set by the ExA for the extent of insulation works to any property, in contrast to other schemes which define the necessary works and provide for full insulation for properties most affected and tiered, reduced contributions at lower levels of noise. The ExA's requirement, as drafted, is potentially open ended and goes far beyond the requirements of paragraph 5.68 of the ANPS, which requires only that significant adverse impacts are avoided and other adverse impacts are mitigated and minimised.

Dispute resolution

- 4.31 If agreement is not reached on any property about the precise detail of noise insulation, no clear recourse is provided (e.g. for bespoke appeal or expert determination). Instead, the Applicant is obliged to offer to buy the property. Given that more than 4,000 properties are caught by this requirement, this represents an extremely significant potential financial liability.

The requirement to buy property

- 4.32 Sub-paragraph (5) of the ExA's drafting provides that, if agreement is not reached with the LPA on the design of receptor-based mitigation (as above, based on the LPA's own *consideration* of acceptability), the Applicant must offer to buy the premises at open market rate and pay reasonable moving expenses, fees and costs incurred by the owner. No cap is put on those costs and no process is provided for mediating disputes over it being justified to mandate purchase, nor the value or costs of the purchase.
- 4.33 No requirement has ever been imposed of this nature on any planning or infrastructure consent of which the Applicant is aware. The ExAR does not acknowledge the exceptionally onerous nature of this provision and indeed contains no acknowledgement at all that it has been added to the requirement, never mind explanation as to why it is considered necessary and reasonable. It is an entirely unjustified recommendation with no policy basis – it is well-established that planning conditions (and therefore requirements) that place unjustifiable and disproportionate financial burdens on an applicant will fail the test of reasonableness ('Use of planning conditions', MHCLG (updated July 2019)).

- 4.34 Even if the ExA's unique and unprecedented conclusion that SOAEL should be set at 54 dB were adopted, the policy requirement of the ANPS and NPSE is that significant adverse effects from noise should be "avoided". It is well-established and industry standard that impacts above SOAEL are avoided through noise insulation.
- 4.35 It is only at the highest levels of noise impact (unacceptable adverse effect level – "UAEL") that the PPG requires noise impacts to be "prevented".⁶ Even at this level, the well-established industry standard approach is to offer a home relocation assistance scheme, not a property purchase scheme.
- 4.36 Noise levels at Gatwick do not reach UAEL (see **Closing Submissions** [REP9-112] from para. 11.4.30), so there should be no obligation for even a relocation assistance scheme, although the Applicant is willing to offer such a measure (see sub-paragraph (14) of the Applicant's proposed requirement 15). In this context, the Applicant considers it entirely unjustified for the ExA to recommend such a vaguely defined and potentially far-reaching property purchase obligation in its ExAR. The consequences at Gatwick are extreme but the SoS is asked to consider the consequences for airports with greater noise impacts. Airport expansion would be stopped in its tracks. There is no basis in policy or precedent that justifies such a recommendation.

Conclusion on ExA's form of requirement 18

- 4.37 The ExA's draft requirement 18 is completely inappropriate and is not necessary, enforceable, precise or reasonable. It is contrary to paragraph 4.9 of the ANPS and established planning policy on conditions and requirements. It is also not based on an analysis that is specific to Gatwick. If it is imposed here, it would logically and reasonably have to be imposed elsewhere.

5. APPLICANT'S ENHANCED FORM OF REQUIREMENT

- 5.1 Notwithstanding the Applicant's view that its submission NIS, as developed through the examination, is fully compliant with policy, the Applicant has considered what further enhancements it can make to the form of requirement it proposed in its Dec Response to give comfort to the SoS that the proposal meets (or the Applicant would submit, greatly exceeds) the policy requirement in paragraph 5.68 of the ANPS (and therefore MTL 159).
- 5.2 The Applicant recognises that the Government's noise insulation policies set out in the APF are expressed as a minimum. Whilst there is no policy requirement to go even further than the Applicant has already proposed once the aims of the ANPS and the NPSE are met, the Applicant does recognise that the weight to be attached to adverse noise effects of the Proposed Development in the overall planning balance would be reduced if it was able to offer further enhancements of its noise mitigation proposals.

Enhanced requirement

- 5.3 The Applicant's proposed enhanced requirement 18 is set out in **Appendix 1** to this Annex 2. In relation to changes already made in the Dec Response, the Applicant reiterates its reasoning set out at page 22 onwards of the Dec Response. In respect of further revisions the Applicant proposes, these are explained as follows:
- 5.3.1 References to forecasts have been specified to be the "*most recent available forecast at that time*" to ensure that any developments in noise modelling are incorporated as the Applicant proceeds through the mitigation process and when it carries out modelling post-CDRO to identify any additional impacted properties.
- 5.3.2 The package of measures proposed for each eligible residential premises following its survey must be reasonably expected to achieve a defined standard (sub-paragraph (7)(a)), this standard being set out in the revised 'Noise Insulation Scheme Document' ("**NISD**") (explained below). The standard draws on relevant guidance and will ensure suitable living conditions and therefore meet the SoS' stated aim in MTL 159. Each package of measures will be compiled to best suit

⁶ PPG Noise Exposure Hierarchy Table

the needs of the individual premises from the long list of potential measures set out in section (b) of the NISD (sub-paragraph (7)(a)). If a homeowner considers that the offered package does not meet the standard set out in the NISD, they can refer this to a new independent dispute resolution panel (detailed further below). This strikes a proportionate balance between ensuring oversight and accountability on the measures offered by the Applicant to eligible premises, whilst not requiring unduly burdensome and resource-intensive LPA approval of each package of measures.

- 5.3.3 Specific mitigation packages for non-residential premises continue to need to be approved by the relevant LPA, with the relevant standard also being defined in the NISD (sub-paragraph (3)). Specific approval for these packages is workable given the much smaller number of eligible non-residential premises.
- 5.3.4 The Applicant has removed the financial cap for insulation for all eligible residential premises in the LAeq 16 h 60 dB contour or above (which is now defined as the "inner zone", alongside the LAeq 8 h 55 dB night contour which also continues to render properties as within the inner zone) (sub-paragraphs (4) and (16)(c)). This ensures that there is no financial limit for the mitigation for all residential premises at or above SOAEL (on the Applicant's position of this value, at 63 dB) but also for those in the 60 dB contour (that the Applicant submits are below SOAEL). This seeks to provide additional comfort that significant adverse effects will be avoided and, even where there are not *significant* adverse effects, that the Applicant will contribute to the improvement of health and quality of life by providing uncapped mitigation to those in the 60 dB contour. This reflects the SoS' direction in MTL 159 and paragraph 5.68 ANPS.
- 5.3.5 For similar reasons, the time period within which the undertaker must survey eligible premises has been accelerated from 24 months to 12 months for premises in the 60 dB contour or above, to reflect the new wider scope of the "inner zone" as redefined (sub-paragraph (6)).
- 5.3.6 It is now expressly clarified that measures will only be installed where agreed by the relevant homeowner, as must be the case (sub-paragraphs (6) and (8)). Only the homeowner can decide if they wish to take up measures that are offered to them by the Applicant, not the LPA or any external body.
- 5.3.7 A dispute resolution mechanism independent of the Applicant or the LPA and distinct from the standard DCO requirement appeal mechanism is proposed to be established (sub-paragraphs (10) and (11)). The Applicant, homeowners and/or the relevant LPA can refer specified matters to this "noise insulation scheme independent panel" where there is disagreement, allowing independent arbiters with relevant expertise to determine what is required by reference to the terms of the requirement and the NISD. For the avoidance of doubt, the panel cannot mandate that certain measures are installed at a homeowner's property – it can only confirm that the measures offered comply with the Applicant's obligations under the requirement.
- 5.3.8 Subject to a homeowner having made a timely application and agreed the package of measures, as well as any necessary consents, sub-paragraph (12) clarifies that the measures must be installed and commissioned before the later of CDRO or the year in which the premises is forecast to experience the level of noise that renders it a potentially eligible premises. This ensures that no premises will experience significant adverse effects from noise due to a delay in installation of mitigation measures (unless said delay was caused by the homeowner). This again provides additional comfort that the Applicant's scheme complies with the ANPS and meets the SoS' aims in MTL 159.
- 5.3.9 The Applicant has accepted the inclusion of ground noise (alone or in combination with air noise) as a factor in eligibility for mitigation, provided that this is only where above ambient noise (sub-paragraph (16)(j) and (k)). The

assessment of ambient noise is now detailed further in the NISD (sub-paragraph (16)(a)).

- 5.3.10 To note, for completeness, the Applicant has ensured consistency in the notation of noise contours throughout the requirement– e.g. "LAeq 16 h". This is a presentational change only.

Noise Insulation Scheme Document

- 5.4 The Applicant's proposed requirement is accompanied by a new NISD (**Appendix 2** to this Annex 2). The NISD supplements the requirement on certain areas of technical detail which, if included on the face of the DCO, would make the requirement unwieldy. However, taking the ExA and SoS' steer, the full procedure for the Applicant's revised mitigation scheme is now set out in the requirement, providing clarity of operation to stakeholders.
- 5.5 The NISD contains:
- 5.5.1 **Section (a)** – the standard for eligible residential premises to meet with the package of mitigation installed. This draws on relevant guidance to define a standard that, when met, will ensure that the policy objectives of paragraph 5.68 of the ANPS are met. The Applicant explained how British Standards have informed this exercise from page 14 onwards of its Dec Response.
 - 5.5.2 **Section (b)** – the potential list of measures for eligible residential premises from which specific packages will be drawn;
 - 5.5.3 **Section (c)** – the standard for eligible non-residential premises. As for the standard in section (a), but drawing on the relevant guidance for non-residential premises;
 - 5.5.4 **Section (d)** – the potential list of measures for eligible non-residential premises from which specific packages will be drawn;
 - 5.5.5 **Section (e)** – details how the Applicant and the relevant LPAs will model noise levels post-CDRO to identify additional potentially eligible premises post-CDRO;
 - 5.5.6 **Section (f)** – how ambient noise will be assessed; and
 - 5.5.7 **Section (g)** – details of the composition, appointment and decision-making of the NIS Independent Panel.
- 5.6 Utilising a requirement supplemented with a technical document is consistent with the formula adopted in this and other DCOs for matters which require clear technical detail to be implemented (such as the way in which other draft requirements rely on more fulsome documents such as the Design Principles, the Code of Construction Practice and the oLEMP).

Conclusion on Applicant's requirement

- 5.7 The Applicant has had particular regard to the SoS' commentary in the MTL, particularly MTL 159, and the requirements of paragraph 5.68 of the ANPS. It has further enhanced its offering on receptor-based mitigation from the requirement that it advanced in its Dec Response to ensure that it meets (and the Applicant submits, greatly exceeds) that policy, addressing the significant concerns that remain with the ExA's form of drafting. Together, the Applicant's revised requirement and NISD represent an offering significantly more generous than those in place or proposed at any UK airport. The Applicant commends its amended form of requirement to the SoS for inclusion in the DCO.

APPENDIX 1 TO ANNEX 2
APPLICANT'S PROPOSED REQUIREMENT 18

Receptor-based noise mitigation

18.—(1) Within not more than 3 months following the commencement of any of Work Nos. 1 (repositioning existing northern runway), 2 (runway access track) or 18 (replacement western noise mitigation bund) the undertaker shall submit for approval by the relevant local planning authority—

- (a) a list of premises forecast to be potentially eligible premises at or after the commencement of dual runway operations (using the most recent available forecast at that time); and
- (b) details of how the provision of a package of receptor-based noise mitigation measures is to be promoted to those potentially eligible premises and how an owner (or occupier with the owner's prior written consent) of such premises may apply for such a package.

(2) Within not more than 3 months following the approval of the list and details in sub-paragraph (1) the undertaker must take the steps approved under sub-paragraph (1)(b) to notify the owners and occupiers of all eligible premises that the premises are eligible for the design and installation of a package of receptor-based mitigation measures.

(3) The undertaker shall submit for approval by the relevant local planning authority details of the specific receptor-based mitigation measures for each eligible non-residential premises. The details submitted to the relevant planning authority must—

- (a) be reasonably expected to achieve the standards set out in section (c) of the noise insulation scheme document; and
- (b) be comprised of measures selected from the list set out in section (d) of the noise insulation scheme document.

(4) The maximum sums of money to be provided by the undertaker towards the package of receptor-based mitigation measures for eligible residential premises are as follows (plus VAT)—

- (a) inner zone – no limit;
- (b) outer zone 1 – £6,500; and
- (c) outer zone 2 – £4,500.

(5) The maximum sum of money to be provided by the undertaker towards the package of receptor-based mitigation measures for eligible non-residential premises is £250,000 (plus VAT) per applicant, per building or group of buildings in the same occupation and location.

(6) Within not more than—

- (a) 12 months (for eligible premises within the inner zone); or
- (b) 24 months (for eligible premises within outer zone 1 or outer zone 2),

of receipt of a valid application for receptor-based mitigation measures from an owner (or occupier with the owner's prior written consent) of eligible premises, the undertaker must, subject to access being granted to the premises, carry out a survey of those premises and submit for the agreement of the owner a specific package of receptor-based mitigation measures proposed to be installed at those premises.

(7) The specific package submitted under sub-paragraph (6) must be—

- (a) for eligible residential premises, reasonably expected to achieve the standard set out in section (a) of the noise insulation scheme document and comprised of measures selected from the list set out in section (b) of the noise insulation scheme document; or
- (b) for eligible non-residential premises, in accordance with the specific package approved pursuant to sub-paragraph (3).

(8) The undertaker shall not be obliged by anything in this requirement to install any receptor-based mitigation measures that are declined by an owner of eligible premises.

(9) Where any eligible premises is a listed building the undertaker shall submit (at the cost of the undertaker) the necessary application for the required consents following any requirements of the local conservation officer and Historic England's guidance Energy Efficiency and Historic Buildings, Secondary Glazing for Windows, 2016 (or successor guidance).

(10) If—

- (a) a relevant local planning authority refuses to approve the list of premises or promotion details pursuant to sub-paragraph (1) or fails to communicate a decision within 6 weeks of the submission of the list and/or details by the undertaker;
- (b) a relevant local planning authority refuses to approve details of the specific receptor-based mitigation measures pursuant to sub-paragraph (3) or fails to communicate a decision within 6 weeks of the submission of the details by the undertaker; or
- (c) an owner rejects the specific package of receptor-based mitigation measures proposed by the undertaker pursuant to sub-paragraph (6) on the basis that they consider that the package does not comply with sub-paragraph (7),

the undertaker, the relevant local planning authority or the owner (as relevant) may refer the matter to the noise insulation scheme independent panel.

(11) Upon a referral pursuant to sub-paragraph (10), the noise insulation scheme independent panel may—

- (a) make a decision to approve details in place of the relevant local authority pursuant to sub-paragraph (1) or (3); or
- (b) confirm that the package of measures proposed to an owner pursuant to sub-paragraph (6) complies with sub-paragraph (7) or otherwise specify a revised package of measures that complies with sub-paragraph (7) that the undertaker shall be required to submit to the owner.

(12) Subject to—

- (a) a relevant owner or occupier having made a valid application to the undertaker not less than two years from the date on which they were notified of their eligibility for receptor-based noise mitigation measures under sub-paragraph (2); and
- (b) agreement by the owner or occupier of the eligible premises to the specific package of measures pursuant to sub-paragraph (6); and
- (c) if the eligible premises is a listed building, the grant of the necessary consents not less than 12 months prior to the relevant event,

the agreed package of receptor-based mitigation measures shall be installed and commissioned before the later of the commencement of dual runway operations or the year in which the premises is forecast to be within the relevant contour that rendered it a potentially eligible premises (using the most recent available forecast at that time).

(13) Subsequent to the commencement of dual runway operations the undertaker and the relevant local planning authority shall carry out modelling to identify additional potentially eligible premises or adjustments to the specification of the measures provided, in the manner set out in section (e) and section (f) of the noise insulation scheme document. With regard to any such premises the undertaker shall offer, design, install and commission a package of receptor-based mitigation measures that accords with the other provisions of this requirement as soon as reasonably practicable.

(14) The undertaker must notify each owner or occupier of an eligible residential premises which is within the LAeq 16 h 66 dB air noise contour (as modelled based on actual operations of the previous summer following the commencement of dual runway operations) of their eligibility to receive a payment covering reasonable moving costs, estate agent fees up to 1% of the sale price and stamp duty (up to a maximum combined total of £40,000) where requested by the owner, subject always to such entitlement being strictly limited to one claim per eligible residential premises.

(15) Any dispute as to the costs offered or sought under sub-paragraph (14) may be referred by the undertaker or the relevant homeowner to the noise insulation scheme independent panel, which can decide whether the amount offered or sought is compliant with that sub-paragraph.

(16) In this requirement—

- (a) "ambient noise" means the ambient noise levels assessed in the manner set out in section (f) of the noise insulation scheme document;
- (b) "eligible premises" means premises approved in writing by the relevant local planning authority pursuant to sub-paragraph (1) after its consideration of potentially eligible premises provided by the undertaker (and "eligible residential premises" and "eligible non-residential premises" shall mean the same as regards "potentially eligible residential premises" and "potentially eligible non-residential premises" respectively);
- (c) "inner zone" means the area which is predicted to be within the LAeq 8 h 55 dB contour or the LAeq 16 h 60 dB contour following the commencement of dual runway operations;
- (d) "noise insulation scheme independent panel" means the panel of experts that shall be established by the undertaker prior to the commencement of any of Work Nos. 1 (repositioning existing northern runway), 2 (runway access track) or 18 (replacement western noise mitigation bund), the composition, appointment and operation of which are described in section (g) of the noise insulation scheme document;
- (e) "noise insulation scheme document" means the document of that description certified by the Secretary of State under article 52 (certification of documents, etc.);
- (f) "outer zone 1" means the area which is predicted to be within the LAeq 16 h 57 dB to 60 dB contour following the commencement of dual runway operations;
- (g) "outer zone 2" means the area which is predicted to be within the LAeq 16 h 54 dB to 57 dB contour or within the LAeq 8 h 48 dB to LAeq 16 h 54 dB contour following the commencement of dual runway operations;
- (h) "potentially eligible premises" means potentially eligible non-residential premises and potentially eligible residential premises;
- (i) "potentially eligible non-residential premises" means:
 - (i) a school or college where, following the commencement of dual runway operations, (a) air noise or (b) ground noise alone or in combination with air noise which is above ambient noise, is predicted to exceed LAeq 16 h 51 dB; or
 - (ii) a hospital, library, place of worship or noise sensitive community building where, following the commencement of dual runway operations, (a) air noise or (b) ground noise alone or in combination with air noise which is above ambient noise, is predicted to exceed LAeq 16 h 63 dB.
- (j) "potentially eligible residential premises" means a main residence where, following the commencement of dual runway operations, (a) air noise or (b) ground noise alone or in combination with air noise which is above ambient noise, is predicted to exceed LAeq 16 h 54 dB or LAeq 8 h 48 dB; and
- (k) all monetary amounts shall be subject to indexation annually in accordance with the Consumer Price Index (or in the event this is no longer being updated, a suitable alternative index) from the date on which this Order is made.

APPENDIX 2 TO ANNEX 2

APPLICANT'S NOISE INSULATION SCHEME DOCUMENT

INTRODUCTION

1. This document sets out certain noise standards, mitigation measures and procedures required to be implemented pursuant to requirement 18 (receptor-based noise mitigation) of the Gatwick Airport (Northern Runway Project) Development Consent Order ("DCO").

SECTION (A) NOISE INSULATION STANDARD – RESIDENTIAL PREMISES

2. The Noise Insulation Scheme is aimed at providing a reduction in aircraft noise from outside a home to inside of 35dB(A), so as to ensure that even in the noisiest locations acceptable levels are achievable inside with windows closed and acoustic ventilators operating.
3. In order for the Noise Insulation Scheme to provide a reduction in aircraft noise from outside a home to inside of 35dB(A), the following acoustic performance will apply to the relevant acoustic measures that will be provided:
 - i. **Acoustic double glazing:** To noise sensitive rooms, with acoustic performance of at least $R_w+C_{tr} \geq 35$ dB tested to *BS EN ISO 10140-2:2021 – TC Acoustics. Laboratory measurement of sound insulation of building elements - Measurement of airborne sound insulation*. For properties where replacement acoustic double glazing is not suitable, such as some listed buildings, acoustic secondary glazing will be available. In such cases the secondary glazing will be subject to the design of the particular property but will generally be in the form of a separate frame at least 100mm from the external glazing.
 - ii. **Acoustic ventilators:** Will be available for noise-sensitive rooms with an acoustic performance to reduce aircraft noise from outside to inside by at least 40dB(A) and to provide both passive and active fresh air supply, controllable from zero to at least 170 m³/h. This would allow for at least two air changes per hour to be provided for the vast majority of rooms treated. The acoustic ventilators are provided to allow windows to remain closed more often in warmer weather, but not to completely negate the need to open windows in certain circumstances.
 - iii. **Acoustic doors:** Where external doors to noise sensitive rooms provide at least 5dB(A) less sound attenuation than the acoustic windows provided, an acoustically superior door or where appropriate and practicable a secondary door will be available. Where this cannot be demonstrated by calculation it will be based on the judgement of the acoustic specialist surveyor.
 - iv. **Lofts over-boarding:** Where ceilings to bedrooms provide at least 5dB(A) less sound attenuation than the building fabric with acoustic windows provided, the property owner can request an acoustic survey by Gatwick Airport's contractor to determine if there is a practicable design to upgrade the ceiling or roof space insulation to reduce noise ingress from above.
4. These specifications have regard to guidance including Sound Insulation and Noise Reduction for Buildings BS 8233 British Standards Institution (2014) and Planning and Noise: Professional Practice Guidance on Planning and Noise, New Residential Development, Association of Noise Consultants, Institute of Acoustics and Chartered Institute of Environmental Health (2017).

5. As below in Section (E), where ground noise in combination with air noise exceeds the relevant qualifying levels, and is higher than ambient noise, the package of receptor-based mitigation measures will only be offered on relevant facades of the building.

SECTION (B) PACKAGE OF MEASURES TO BE OFFERED – RESIDENTIAL PREMISES

6. Noise insulation and overheating measures will be offered to noise sensitive habitable rooms i.e. bedrooms, living rooms, and dining rooms, in residential buildings, as set out below, with needs varying between properties:
 - i. Acoustic double glazing
 - ii. Acoustic secondary glazing - for properties where replacement acoustic double glazing is not suitable, such as some listed buildings
 - iii. Low solar gain glass – within acoustic double glazing to windows in full sun to reduce overheating
 - iv. Acoustic ventilators
 - v. Blinds - for acoustically upgraded windows exposed to direct sunlight
 - vi. Acoustically superior doors
 - vii. Thermal insulation - above ceilings in lofts
 - viii. Lofts over-boarded - with additional lining

SECTION (C) NOISE INSULATION STANDARD – NON-RESIDENTIAL PREMISES

Schools

7. A new Schools Noise Insulation Scheme is proposed for all schools, with noise sensitive teaching spaces, within the forecast LAeq 16 h 51 dB noise contour. Where schools are concerned that aircraft noise could be affecting teaching, each classroom area will be surveyed to assess the effects of all types of noise including local road traffic.
8. The scheme will apply only to classrooms used for teaching, including within nurseries or pre-schools, for rooms where formal teaching requiring low ambient noise conditions is undertaken. It will also be limited to schools where noise levels are forecast to increase as a result of the Proposed Development within the LAeq 16 h 51 dB noise contour.
9. For any school applying for noise insulation, the Applicant will arrange an acoustic study to determine if remedial works are necessary and appropriate. The first stage will involve establishing if teaching areas are currently compromised by noise intrusion. This would involve surveys to compare internal noise levels with the standards set out in Building Bulletin 93, Acoustic design of schools: performance standards, 2015, such as the recommendation for aircraft or train noise to be no louder than 60 dB LA1, 30 minutes or internal ambient noise levels to be no higher than 40 dB LAeq 30 minutes. Schools meeting the standards would not require improvement.
10. The second stage would involve analysing the internal noise levels to establish whether aircraft noise was contributing to the exceedance of the preferred standards. Where aircraft noise is at least as loud as other external noise sources, the need for remedial measures to be considered would be established.

Other Noise Sensitive Non-Residential Buildings

11. In addition to schools, the non-residential scheme includes hospitals, libraries, places of worship and noise sensitive community buildings. The same survey process as described for schools above will apply, but using the following noise standards.
12. The external noise level to trigger a noise impact study is LAeq 16 h 63 dB. As at the drafting of this NISD, there would be no hospitals, three places of worship and no community buildings experiencing air noise above LAeq 16 h 63 dB.

13. The preferred internal noise standard for places of worship is likely to vary considerably from building to building and will be developed in consultation with the building users and the local planning authority.

SECTION (D) PACKAGE OF MEASURES TO BE OFFERED – NON-RESIDENTIAL PREMISES

14. Where a building is identified for consideration of improved noise insulation GAL will work with the owner to deliver a suitable noise insulation package. In these cases, measures to improve the internal noise environment would be identified where practicable. In many cases this is likely to involve improving ventilation to allow windows to remain closed in warmer weather, or it could include upgrading the acoustic performance of glazing and would not normally include air conditioning or cooling.
15. Following the acoustic survey process provided for in requirement 18, the package of measures, if required, will be developed in consultation with the building owner and the local planning authority.

SECTION (E) REVIEW OF ACTUAL NOISE LEVELS

16. GAL will review, and if necessary update, eligibility for the noise insulation scheme on the basis of the noise contours produced under requirement 15 (air noise limits) of the DCO.
17. GAL will carry out an audit of the noise insulation measures installed to ensure they have been installed as specified and agreed with the building owner.
18. GAL will develop a programme for testing the performance of the noise insulation measures provided in consultation with the Noise Insulation Scheme Independent Panel (see below) for agreement with the local planning authority. Testing will be undertaken for a representative sample of typical building types in accordance with British Standard BS EN ISO 16283-3:2016, Acoustics – Field measurement of sound insulation in buildings and of building elements – Part 3: Façade sound insulation. Results will quantify the sound reduction performance of the insulation package with commentary on the implications (if any) of the results on the quality control and improvement of the scheme going forward.

SECTION (F) AMBIENT NOISE ASSESSMENT

19. Where ground noise adds to the levels of air noise at a particular noise sensitive receptor that may be eligible for noise insulation, the total predicted levels of air and ground noise are compared to ambient noise (primarily road traffic noise) in determining eligibility. This will require further refinement of the ground and road traffic noise models used in the Environmental Statement as follows.
20. The noise assessments reported in the Environmental Statement used three noise models that were developed in consultation with the local planning authorities' Noise Topic Working Group and other stakeholders including National Highways, as follows:
 - i. Air Noise – see ES Appendix 14.9.2 Air Noise Modelling [[APP-172](#)]
 - ii. Ground Noise – see ES Appendix 14.9.3 Ground Noise Modelling [[APP-173](#)]
 - iii. Road Traffic Noise – see ES Appendix 14.9.4 Road Traffic Noise Modelling [[APP-174](#)]
21. The Air Noise Model is the CAA ERCD's ANCON model. It is subject to annual calibration with noise and track keeping data from Gatwick. Verification of the model will be undertaken as required by requirement 17 (verification of air noise monitoring equipment).
22. The ground noise model was developed from a series of noise surveys both within the airport and in the surrounding area. The model will be refined through further long term noise surveys including in areas most likely to be affected if practicable, to predict 92 day average

summer LAeq 16 h and LAeq 8 h night noise levels. Survey locations and procedures will be agreed with the local planning authority.

23. The road traffic noise model was developed based on traffic information for the road network and noise surveys in the Horley area where the Proposed Development's surface access works are required. The model will be refined through further long term noise surveys including in areas most likely to be affected if practicable, to predict 92 day average summer LAeq 16 h and LAeq 8 h night noise levels. Survey locations and procedures will be agreed with the local planning authority.
24. If there is reason to believe another source of ambient noise is significant at a particular property it will be quantified for example by modelling in the case of railway noise.
25. The refined ground and road traffic noise models will allow a more granular level assessment of predicted levels of cumulative air and ground noise from the airport to be compared to predicted ambient noise to determine eligibility for noise insulation at individual building level. Where ground noise contributes it will be necessary to consider separate facades of a building to determine eligibility for noise insulation. Where ground noise in combination with air noise exceeds the relevant qualifying levels, and is higher than ambient noise, the package of receptor-based mitigation measures will only be offered on the relevant facades.

SECTION (G) NOISE INSULATION SCHEME INDEPENDENT PANEL

26. Requirement 18 provides for a Noise Insulation Scheme Independent Panel (the "**NIS Panel**") to which the matters specified in sub-paragraphs (10) and (15) of that requirement may be referred for determination in the manner specified in sub-paragraphs (11) and (15).
27. The NIS Panel must be established by GAL prior to the commencement of any of Work Nos. 1 (repositioning existing northern runway), 2 (runway access track) or 18 (replacement western noise mitigation bund) under the DCO.
28. The NIS Panel shall be constituted of not less than 5 individuals with expertise in at least one of the following areas:
 - a. Noise and vibration
 - b. Building design
 - c. Building surveying
 - d. Public health (noise)
29. The NIS Panel shall be funded by GAL. The appointment and/or removal of panel members shall be agreed between GAL and the Chair of the Gatwick Airport Consultative Committee (GATCOM).
30. Once established, the NIS Panel shall meet to establish its procedural rules and how it shall discharge its functions under requirement 18. This shall include consideration of the number of panel members required to make a decision on matters referred to the NIS Panel under requirement 18 and any quorum or majority requirements for decisions made by multiple panel members. Quorum for this initial meeting shall be all panel members and decisions must be made by simple majority (with a tie-breaking vote by the Chair of GATCOM if required).
31. Alongside the functions conferred on the NIS Panel by requirement 18, the NIS Panel shall also:
 - a. Assist GAL in deciding the priority of premises to be provided with mitigation measures (within the provisions of requirement 18), considering any special cases and overseeing the delivery of the programme to ensure GAL remains on programme;

- b. Review annual reporting by GAL on the homes to which mitigation has been provided and the acoustic performance achieved;
 - c. Monitor feedback from homeowners on the delivery of the scheme;
 - d. Assist GAL with how to maximise uptake of the scheme.
32. If the NIS Panel considers that it should assume any additional responsibility or function, it shall resolve accordingly (pursuant to the procedural rules established at its initial meeting) and submit this proposal for the agreement of both GAL and the Chair of GATCOM.