

# Crawley

Local Plan

## Crawley Borough Local Plan Examination

Crawley Borough Council Response to Inspectors' Matters, Issues and Questions

### Matter 9: Environment and Green Infrastructure

December 2023



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## Issue 1: Whether the approach to Environmental Protection is justified, effective and consistent with national policy.

- 9.1 Question 9.1: Is the update to the Strategic Flood Risk Assessment likely to have any soundness implications for Policy EP1 on Development and Flood Risk?
- 9.1.1 Crawley Borough Council (CBC) considers Policy EP1 as drafted to be sound, and does not consider there to be any soundness implications for the policy arising from the updated 2023 Strategic Flood Risk Assessment (Post Submission Document Reference PS/ES/EP/17).
- 9.1.2 CBC has liaised with the Environment Agency (EA) throughout the Local Plan process. In its most recent representation to the Crawley Borough Local Plan Regulation 19 Consultation, May-June 2023, the EA comments (REF 062 2023) that Policy EP1 and its supporting Reasoned Justification appear sound, with the Reasoned Justification as drafted reflecting the updated (August 2022) PPG definition of Flood Zone 3b (functional floodplain).
- 9.1.3 The EA has confirmed that the 2020 SFRA remains fit for purpose, though advised that consideration should be given to re-running the model to determine the 3.3% Annual Exceedance Probability (AEP) event (1 in 30 year), as this has increased from the 5% AEP (1 in 20 year) event that was previously used to define the functional floodplain.
- 9.1.4 Therefore, CBC commissioned a 2023 SFRA update in response to EA feedback and changes in national guidance. Throughout this process, CBC and its consultants have liaised with the EA to agree the study requirements and methodology.
- 9.1.5 Through the course of updating the SFRA, it was found that the hydrology associated with the Upper Mole flood model was outdated, meaning that new hydrology and a re-run of all other events may be required. Through discussion with the EA, it was agreed that a full re-run of the model would not be proportionate. As an alternative, the EA agreed that it would be appropriate for the 2023 SFRA to use existing 2% AEP outputs to derive Flood Zone 3b (1 in 50 year), providing a more precautionary approach to identifying the functional floodplain. The EA has agreed this approach, advising that the modelled 2% AEP event would offer an extent that would be the same as, or in most areas, greater than a modelled 3.3% AEP extent. As such, the EA has advised that the 2023 SFRA method represents a reasonable alternative and sufficiently precautionary approach.
- 9.1.6 The EA has advised that the 2023 SFRA should set out a detailed explanation of how the extent of functional floodplain has been determined. This is made clear within the SFRA, though for clarity, CBC suggests a modification to the Policy EP1 Reasoned Justification, adding an additional sentence to the end of paragraph 16.15, third bullet point, as follows:
- [The 2023 SFRA applies a precautionary approach, as agreed with the Environment Agency, using the 2% AEP output to derive Flood Zone 3b.](#)**
- 9.1.7 This suggested modification is set out in the Schedule of Suggested Modifications, version 5, 15 December 2023 (Examination Document Reference: CBC/CBLP/07e).

- 9.2 Question 9.2: Is the policy justified in restricting development sensitive to aviation transport noise to the 60dB contour (57db at night)? What has informed the change in thresholds since the 2015 Plan and does Topic Paper 7 provide a cogent explanation?
- 9.2.1 Crawley Borough Council (CBC) considers that the policy restriction to the 60dB daytime contour and the 57dB night contour is appropriate based on review and consideration of the effects of noise on quality of life and health. This is in the context of noise sensitive development in proximity to a designated airport whose operation is already of national significance, and in the context of national aviation policy. The Local Plan approach is also steered by the ongoing requirement to safeguard land to the south of Gatwick Airport for a possible wide spaced southern runway to be brought forward – this necessitates a need to have regard to possible future noise, resulting in the need for a policy approach to reduce uncertainty for all parties.
- 9.2.2 Submission Crawley Borough Local Plan, May 2023 (Submission Document Reference: CBLP/01) Policy EP4 was formulated with regard to the principles of the National Planning Policy Framework (NPPF), 2021 (Post-Submission Document Reference: PS/DS/NPPF/01) and associated guidance, the Noise Policy Statement for England (Submission Document Reference: ES/EP/05), national aviation policy, findings of research published since the adopted Crawley Borough Local Plan 2015-2030 (Submission Document Reference: CBLP/02), planning applications increasing noise impacts by reference to airport expansion and the introduction of noise sensitive residential development in proximity to an airport near Manchester Airport (Case Reference: APP/R0660/W/15/3027388).
- 9.2.3 Due to the complexity and the particular issues posed in consideration of residential and other noise sensitive development in proximity to the airport, through the adopted Local Plan 2015-2030, the council has exercised its discretion to produce local noise standards. The Submission Local Plan updates these local noise standards based on more recent information, with the approach remaining in accordance with paragraph 7 of the Planning Practice Guidance on Noise:
- “Plans may include specific standards to apply to various forms of proposed development and locations in their area. Care should be taken, however, to avoid these being applied as rigid thresholds, as specific circumstances may justify some variation being allowed.”*
- 9.2.4 Local Plan Policy EP4 seeks to ensure that NPPF paragraph 187 is satisfied, ensuring that *“new development can be integrated effectively with existing businesses...”*. The NPPF also contains obligations on sustainable development, particularly in paragraph 8a) *“an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*
- 9.2.5 Aviation policy is an important consideration in this process. UK policy acknowledges the importance of aviation to the national economy and sets aspirations for the sustainability of the airports. This is summarised in Section 3 of Topic Paper 7: Noise (Post-Submission Document Reference: PS/DS/TP/07b). Incorporated in policy is the

International Civil Aviation Organisation's (ICAO)<sup>1</sup> "Balanced Approach", discussed further at Section 9 of Topic Paper 7. To manage noise this sets out a hierarchy of control of noise: control of noise at source; land use planning and management; noise abatement operational procedures; and operating restrictions. Operating restrictions and procedures are a last resort for an airport. It also seeks to ensure that noise improvements resulting from quieter fleet are not eroded by the encroachment of noise sensitive development onto an airport.

- 9.2.6 Topic Paper 7: Development and Noise Technical Appendix, updated December 2023 (Post-Submission Document Reference: PS/DS/TP/07b) sets out the research and reasoning that informs the council's decision on the values that it assigned to the noise thresholds. The research relates to effects of noise on health (both direct effects on the cardio-vascular system and indirect effects on brain health due to awakenings), quality of life, cognition and learning. The Topic Paper has been updated to include available recent research published since adoption of the existing Local Plan. In particular, the paper by *Smith et al* (2019) (Post-Submission Document Reference: PS/ES/EP/19) which highlights that the Environmental Noise Guidelines 2018 underestimate the effects of noise, which are greater than had been realised.
- 9.2.7 However, the Topic Paper is to an extent limited by delays to updated national policy, particularly a fully revised aviation noise policy which was due to be published before the end of 2023. Two domestic cross-dimensional studies, one on aviation night noise effects and the other an aviation noise attitudes study being conducted by the Civil Aviation Authority, are nearing completion, but are not published at this time.
- 9.2.8 The updating of thresholds in the Submission Local Plan has been driven in part by planning decisions cited in relation to encroachment on an airport (Manchester Airport as referenced above), and recognition in Aviation 2050: The Future of UK Aviation (Submission Document Reference: EGSM/GA/03) of the need to reduce the minimum sound level at which dwellings qualify for noise insulation. This is reflected in new scheme proposals, policy proposals and in planning decisions such as Manston aerodrome in 2022 (Post-Submission Document Reference: PS/ES/EP/18).
- 9.2.9 Recently published research (Smith et al, 2019) shows that noise is now recognised as having an impact at lower levels than previously thought and in the light of growing evidence new work has been commissioned in the UK. Whilst it appears that the research is suggesting noticeable effects at lower levels than before, the Topic Paper acknowledges the weaknesses of the research to date, recognising this as giving rise to uncertainty in decision making. Given this uncertainty, it is consistent with national policy to take a precautionary stance in setting local noise thresholds.
- 9.2.10 Aviation policy is acknowledging the night period is of increasing importance, the council considers it appropriate to include within the Local Plan Noise Annex a plan through which to reference night noise standards. The council notes that the Gatwick Airport Master Plan 2019 (Submission Document Reference: EGSM/GA/06) does not include a set of night contours relating to the operation of the airport in a southern runway scenario. At this time, the only plans that show night contours for the wide spaced runway are those prepared by Jacobs to assist the Airports

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<sup>1</sup> ICAO is an agency of the United Nations.

Commission (Post-Submission Document Reference: PS/ES/EP/20) and as such these are the most recent night contours. To assist with policy interpretation, the council suggest that these night contours are included in the Local Plan Noise Annex (Appendix A sets out proposed modifications to the Noise Annex).

- 9.2.11 The Local Plan has been updated to reflect minor referencing changes and a typographical error in relation to the base of Lowest Observed Adverse Effect Level (LOAEL). None of these are material to the consideration of the matter raised in Local Plan representations. Policy EP4 has been amended slightly to make it clear that noise sensitive development proposed in a location where the effects of noise exposure are within the Significant Observed Adverse Effect Level (SOAEL) or a sound generating source causing a sensitive properties to be within SOAEL must first demonstrate that there is no other location more suitable to avoid exposure and only then that the development be permitted when all reasonably practicable steps have been taken to avoid exposure in accordance with good acoustic design. These modifications, relating to Policy EP4 and the Local Plan Noise Annex, are detailed in full at Appendix A of this document, and in the Schedule of Suggested Modifications, version 5, 15 December 2023 (Examination Document Reference: CBC/CBLP/07e).
- 9.2.12 Overall, as discussed above, and set out in greater detail through the updated Topic Paper 7, the council's approach to noise has evolved since the adopted 2015 Local Plan, based on new policy and studies, and an improved technical understanding of the health implications of noise exposure. Therefore, the council considers that the Local Plan approach, restricting development sensitive to aviation transport noise to the 60dB daytime contour and the 57dB night contour, is appropriate.
- 9.3 [Question 9.3: Would the policy potentially inhibit otherwise sustainable locations for residential development in the Borough?](#)
- 9.3.1 The council recognises that Crawley is a land constrained borough, and this restricts the scope for the Local Plan to accommodate housing needs in full within the borough boundary. The Submission Crawley Borough Local Plan, May 2023 (Submission Document Reference: CBLP/01) supports development in sustainable locations, and this means managing the relationship between development and noise to ensure that an appropriate noise relationship is achieved to ensure the health and quality of life of future occupants.
- 9.3.2 The council reluctantly accepts that, until such time that there is confirmation that it is no longer required, the principle of safeguarding land for a possible southern runway will remain. This necessitates a need to consider noise on the basis of contours associated with a southern runway, given the possibility that one could come forward, so as to ensure that development is planned sustainably to avoid exposure to future aviation noise. There is at present little information available to confirm how a southern runway might affect Crawley, with considerable uncertainty as to how the airport may be reconfigured and also in the many other factors that can cause changes in air noise including fleet mix (age, size and engine type), mode of operation, changes to combustion characteristics as a result of new fuels and volumes of aircraft. Such uncertainty reinforces the need to apply a precautionary approach in planning for future noise.

- 9.3.3 The council notes that some Local Plan representations are promoting sites on land to the north of the 60dB contour as identified in the Local Plan Noise Annex, advancing an argument that a southern runway may not happen. Whilst these locations could represent sustainable development should safeguarding for a southern runway not be required, the Local Plan is continuing to safeguard and must therefore consider future noise from a possible southern runway.
- 9.3.4 As set out in the council's response to the Inspectors' Question 9.2, above, and detailed further through the updated Topic Paper 7, in Aviation Policy there is increasing recognition of the impact of noise on health, with the night noise metric of equal importance to that during the day because of the more direct consequence of sleep disturbance. Both day and night periods need to be considered individually and jointly to understand the impacts. The submission Local Plan recognises this, with the 60 dB standard now listed as unacceptable being derived from recent published research that highlights the increasing sensitivity to noise with improved understanding. The council is of the view that to expose future occupiers to noise considered to be unacceptable could result in long-term health implications and should be avoided. To do otherwise would be contrary to the principles of sustainable development that underpin the National Planning Policy Framework (NPPF).
- 9.3.5 As discussed above, the Local Plan noise standards are based on an improved understanding of the impacts of noise since adoption of the 2015 Local Plan. These are set within the context of a possible southern runway at Gatwick Airport. Based on these considerations, the council is of the view that the submission Local Plan approach will help ensure that noise sensitive development is not exposed to unacceptable aviation noise, thereby helping to avoid health and quality of life impacts for future occupiers. As such, it is considered that the approach would not inhibit sustainable locations for residential development but would quite rightly prevent residential development in areas where there is risk of unacceptable future noise exposure.
- 9.4 [Question 9.4: Have alternative thresholds for aviation transport sources been tested including: \(i\) the scope for allowing development within a specified higher dB range subject to demonstrating effective mitigation that would reduce noise levels to acceptable readings in habitable areas; and \(ii\) not having a dB threshold in Policy and so assessing each proposal on its own merits subject to the acoustic evidence and mitigation provided?](#)
- 9.4.1 Crawley Borough Council (CBC) considers that the principle of having in place locally specific noise standards has previously been considered and found to be sound through examination of the adopted Crawley Borough Local Plan 2015-2030 (Submission Document Reference: CBLP/02). Whilst the Submission Crawley Local Plan revises the noise standards to reflect improved understanding of noise impacts since 2015, the council considers that the use of clear standards, as set out in the Local Plan Noise Annex, ensures a consistent approach to planning applications in the borough.
- 9.4.2 Through the examination hearings for the adopted Local Plan 2015, a local standard of 66dB was established as the threshold for the 'unacceptable' noise impact. The



council had proposed an overarching standard of 66dB for the ‘unacceptable’ noise level but considered at the time that for some infill development adjacent to existing dwellings, a higher threshold of 69dB may have been acceptable. The Local Plan Inspector, in his Inspector’s Report 2015 (Submission Document Reference CBLP/03) was clear that residential development should not be allowed beyond the 66dB noise contour, stating at Paragraph 109:

*“Detailed technical guidance on the application of policy ENV11 is provided in the Noise Annex at the end of the Plan. In terms of transport noise, the Council points to evidence that suggests that unacceptable adverse effects on health could occur at a threshold of 66dB, a figure that was supported in the Secretary of State’s decision on the North East Sector development (now Forge Wood). Despite this, a figure of 69dB was included in the Noise Annex to allow for the possibility of infill development in existing high noise locations. There was no evidence to justify a figure above the 66dB threshold, and the fact that some existing dwellings may be exposed (either now or in future) to higher levels is not sufficient reason to add to them. In these circumstances an upper limit of 66dB is appropriate.”*

- 9.4.3 In this regard, there is an established position that it is appropriate for Crawley to include local noise standards within the Local Plan. Through the 2015 Local Plan examination, an alternative threshold of 69dB was tested and found not to be an appropriate level of noise exposure for residential development. As set out in the council’s response to Questions 9.2 and 9.3 and explained in greater detail through Topic Paper 7 (Post-Submission Document Reference: PS/DS/TP/07b), the understanding of noise impacts on health has continued to evolve since 2015. The direction is to reduce noise exposure, hence the updated noise standards set out in the Submission Local Plan.
- 9.4.4 Through setting out clear noise standards, the adopted 2015 Local Plan has secured appropriate development, with appropriate design in appropriate locations. The updated noise standards set out in the Submission Crawley Borough Local Plan (Submission Document Reference: CBLP/01) will continue to ensure this is achieved, with its noise thresholds lowered reflecting actual and emerging evidence of a need for progressive reduction in noise exposure.
- 9.4.5 It should be noted that the contour levels on the aviation noise contour maps have also receded, this being a reflection of improvements in fleet technology. For clarity, the Local Plan assesses aviation noise based on the Summer Day 2040 contours set out at Plan 31 of the Gatwick Airport Master Plan 2019 (Submission Document Reference EGSM/GA/06) and the night noise contours prepared by Jacobs to assist the Airports Commission (Post-Submission Document Reference: PS/ES/EP/20) which are proposed for inclusion as a modification to the submission Local Plan (as discussed in the council’s response to the Inspectors’ Question 9.2 above).
- 9.4.6 With the noise contours having reduced from the version used for the adopted 2015 Local Plan, the revised thresholds encompass land that was in any case previously protected from noise sensitive development given its predicted exposed to higher noise levels based on the adopted Local Plan contours. If the Local Plan were to remain with adopted Local Plan thresholds (i.e. with 66dB as the threshold for unacceptable noise) this would potentially allow some supply of new land, but would

also have the effect of pushing noise sensitive development closer to the airport, which is contrary to the approach of the National Planning Policy Framework (NPPF) and the ICAO Balanced Approach. Thus, in practice the area of effect of the Local Plan's updated metrics is limited in terms of land supply, and although it applies to the whole borough, it exerts influence where it needs to do so, which is at the location of potential further airport development where future noise would be at levels that are not considered appropriate.

- 9.4.7 By reference to mitigating habitable areas: It is quite possible that internal levels could be achieved through appropriate design and construction of buildings. However, it is probable that this would require windows to be closed to achieve a necessary standard, resulting in an oppressive internal living environment. There would be little relief offered by the external environment due its acoustic character (whereby the source of noise – aviation – comes from above and cannot readily be mitigated, meaning that outdoor space cannot be enjoyed as intended).
- 9.4.8 Acoustics is not considered in isolation but alongside ventilation, overheating and climate change. Indoor air quality and appropriate ventilation becomes an important factor where reliance is placed on windows being closed. Mechanical ventilation and heat recovery systems consume energy, thereby increasing costs to the householder as well as carbon emissions. Systems of that nature are generally not able to cope with overheating episodes and are regularly turned off due to expense (operational and maintenance) or operational noise. Passive systems are becoming available, but they are yet to fully mature in the market and it is to be demonstrated that they are capable of reducing overheating. This goes back to the point regarding the poor quality of life for occupiers where residential development is permitted in locations that are not appropriate in noise terms.
- 9.4.9 In addition to indoor air quality, overheating is a material consideration for the planning process. Overheating is a serious issue for planning authorities as prevention and mitigation influence appearance, internal design and sustainability of development. It is not unknown for noise and overheating assessments to be completed without reference to one another, the former recommending windows remain closed due to noise with the latter recommends no action required because ventilation is satisfactory with windows open. The 2010 Building Regulations Approved Document on Overheating (Post-Submission Document Reference: PS/ES/EP/21) only considers a limited future period, which is inconsistent with planning considerations about sustainability. Hence for these reasons it is important to consider both aspects at the planning stage. Further reference is made to this in the recently revised Planning Noise Advisory Document for Sussex (2023) (Post-Submission Document Reference: PS/ES/EP/22).
- 9.4.10 Returning to the question regarding the possible removal of a dB threshold, the council would reiterate that the dB levels provide a means to zone land around the airport. This is consistent with the *requirement* of national aviation policy, as per the "Balanced Approach" discussed further at Section 9 of Topic Paper 7 (Post-Submission Document Reference: PS/DS/TP/07b). The approach, as set out in the Local Plan, facilitates integration between the airport land use planning and the local authority land use planning. The policy, and the use of local noise thresholds, therefore, provides certainty to land owners, developers, the airport operator and

the council as a Local Planning Authority. Individual site assessment of the impact of an airport operation is more specialist and complex than most other facilities. The variability in operation, effects and unpredictability means that it would be inappropriate for site consideration on an individual basis. Forecasting future impacts would be even more difficult. It is highly unlikely that any reliable judgement could be formed on such an assessment.

9.4.11 Based on the above, the council considers that it is appropriate for the Local Plan to set out locally specific dB noise threshold, as the approach provides the necessary certainty and consistency of approach for all stakeholders involved in the planning process. As discussed, the council is of the view that residential and other noise sensitive development should not be allowed beyond a certain noise threshold, as this cannot be appropriately mitigated without impacting upon people's quality of life.

9.5 Question 9.5: Is Policy EP6 justified and effective in relation impact of external lighting on highway safety? Are the proposed changes in document CBLP07 necessary for plan soundness?

9.5.1 CBC considers Policy EP6 as drafted to be justified and effective in relation to highway safety, as this matter is already covered by the third bullet point of the policy.

9.5.2 However, the council has suggested this proposed modification (to avoid significant harm to public highway safety) in response to feedback from National Highways and is willing to make this amendment.

**Issue 2: Whether the approach to recreational space provision is sound.**

9.6 Question 9.6: Would there be appropriate provision for recreation, including reserved space for Oakwood Football Club?

9.6.1 Crawley Borough Council (CBC) considers that the Submission Crawley Borough Local Plan, May 2023 (Submission Document Reference: CBLP/01) ensures that there would be appropriate provision for recreation, including reserve space for Oakwood Football Club.

9.6.2 In relation to open space need and provision, CBC acknowledges the importance of protecting existing sites. The National Planning Policy Framework (NPPF), July, paragraph 99 (Post-Submission Document Reference: PS/DS/NPPF/01) sets out that: *'Existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless:*

- a) an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or*
- b) the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or*
- c) the development is for an alternative sports and recreational provision, the benefits of which clearly outweigh the loss of the current or former use.'*

- 9.6.3 Policy OS1: Open Space, Sport and Recreation in the submission Local Plan follows the NPPF approach for protecting against the loss of existing open space, sport and recreational land and buildings. The Policy ensures that where there is proposed to be a loss or impact on existing open space, appropriate provision for recreation is provided. Criterion b of the policy establishes *'The loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location.'*
- 9.6.4 The requirements for re-provision (including community use arrangements) are set out in the submission Local Plan Policy H2: Key Housing Sites, which allocates Tinsley Lane as a Housing and Open Space Site. These are considered to be achievable and would meet relevant policy tests for allowing the loss of existing facilities. The Tinsley Lane Development Brief Supplementary Planning Document, April 2017 (Post-Submission Document Reference: PS/H/HD/15) reflects the Local Plan policy requirements and expands upon these in relation to the evidence and progress made with the site discussions at the time of its production.
- 9.6.5 An updated strategic analysis of supply and demand for playing pitches has been provided in the Crawley Playing Pitch Strategy Stage C (Submission Document Reference: WC/OSSR/03). The study was published in 2021.
- 9.6.6 As set out in paragraph 3.4.15 of the Stage C report, Sport England will oppose the granting of planning permission for any development which would lead to the loss of, or would prejudice the use of:
- All or any part of a playing field, or
  - Land which has been used as a playing field and remains undeveloped, or
  - Land allocated for use as a playing field.
- 9.6.7 Within this study, Tinsley Lane was identified as a disused/lapsed site. Reflecting its allocation as a Housing and Open Space Site in the adopted Crawley Borough Local Plan, December 2015 (Submission Document Reference: CBLP/01).
- 9.6.8 However, the provision of sport pitches at Tinsley Lane proposed to be delivered as per the Tinsley Lane Development Brief are included in the Playing Pitch Assessment, as set out in section 7.2.7 of the Playing Pitch Strategy Stage C report and in Playing Pitch Strategy Stage D, pages 43-44 (Submission Document Reference: WC/OSSR/04), under scenario 6.
- 9.6.9 The adopted Local Plan Policy H2 Housing and Open Space allocation for Tinsley Lane, requires an adult grass pitch and an artificial junior pitch are provided on-site, alongside the replacement of Oakwood Football Club.
- 9.6.10 However, based on updated information regarding the use of Oakwood Football Club at the time of preparing the Development Brief, this identified the need for the provision of a full sized adult Artificial Grass Pitch (AGP) pitch and a grass 9v9 pitch on-site. The development of a full sized AGP pitch is deemed to be better provision than the existing pitch as greater levels of play can take place of the pitch in comparison to a grass pitch. This is set out in section 7.1.2 of Stage C of the Playing Pitch Assessment, as these pitches can support intensive use for playing matches and training.

- 9.6.11 The Crawley Playing Pitch Strategy Stage C identified that there was an already existing capacity within Crawley for football pitch typologies for adult football and youth (9v9) and mini (7v7) with there being sufficient existing capacity to meet grass football pitch demand (assuming some use of the under-used adult pitches by youth teams). However, the existing capacity would be insufficient in meeting the projected future demands. In the future it is expected that there is still capacity on adult football pitches and mini (7v7) pitches. Strategy Stage C Table 10 (page 49) shows that Youth 11v11 and Mini 5v5 pitches are currently operating at a deficit and will continue to do so in the future. Similarly for artificial grass pitches (AGP), the assessment concluded that a further 3 AGP provisions are required, and with future demand it would increase to 4, this is shown in section 7.6 AGP summary of the Playing Pitch Strategy Stage C.
- 9.6.12 The Playing Pitch Strategy Stage D includes a scenario for the potential development at Tinsley Lane. Scenario 6: Completion of proposed developments at Oakwood FC, page 43-44. Playing Pitch Strategy Stage D, Table 4.9, page 43, identifies the current provision of football pitches and the demand for the pitches, as well as the proposed provisions if the proposed development is completed at Tinsley Lane. The overall spare capacity for grass pitches that was identified at the existing site as part of the analysis is converted into a deficit when taking into consideration the new provision at Tinsley Lane. This is because the table has only taken into account grass pitches, and the provision on-site is for a full sized adult AGP pitch. The Playing Pitch Strategy Stage D also makes reference to all demand for other pitch typologies is expected to be accommodated on the proposed full sized 3G AGP, with potential for some Mini Soccer demand to be placed on the grass pitch through overmarking and the utilisation of mobile goals.
- 9.6.13 The Playing Pitch Strategy Stage D, paragraph 4.7.6, raises the point that, using the FA calculations it is suggested that a full sized 3G AGP can accommodate demand from 38 teams during peak times of demand.
- 9.6.14 The council believes that there are opportunities for meeting the additional demand for sports pitches at Tinsley Lane which has arisen since the preparation of the Development Brief, through securing commensurate financial contributions which would offset any residual loss at the Tinsley Lane site. These could be directed towards improvements to other sites within the borough. This potential eventuality is considered to be covered by the first criteria of the Tinsley Lane allocation policy in H2, i. which requires the replacement of Oakwood Football Club, in addition to the specific on-site requirements. This is supported by the requirements of Local Plan Policy OS1 and the NPPF.
- 9.6.15 A planning application at Three Bridges Football Club has been permitted (Case Reference: CR/2023/0118/FUL), for the conversion of a grass pitch into a full sized AGP pitch, with smaller pitches to be marked within. Conversations between the club and the council suggest that the club would no longer need to use other pitches within Crawley, thus creating greater capacity at other sites within the borough. The committee report for Three Bridges Football Club planning application (considered at Planning Committee on 4 December 2023) identified the existing occupancy use and the proposed occupancy use. There is expected to be an increase in the occupation use of the site across all age ranges. Three Bridges have nine teams across a range of

age groups, of which seven out of the nine teams book pitch usage on a weekly basis across the football season. The club use pitches across the borough, including 9v9 pitches at Loppetts Road or the pitches at Grattons Park. Cherry Lane pitches are used for other pitch size typologies.

- 9.6.16 Combining the spare capacity within Crawley for pitches and the provision of a full size AGP pitch at Tinsley Lane and the potential for another 3G AGP to be installed at Three Bridges FC, the council believes the open space needs of the Football Club can be accommodated within the borough.
- 9.6.17 The council's response to Inspectors' Matter 6, Question 6.5 proposes some modifications to Policy H2: Key Housing Sites in relation to the Tinsley Lane Housing and Open Space allocation. These seek to address the changes in the requirements of the Football Club and introduce some flexibility for any further changes to be considered through the decision-making process, in order to ensure the requirements of Policy OS1 are also met and remove any potential for contradiction. These are set out below.

Policy H2: Key Housing Sites

- Tinsley Lane, Three Bridges (deliverable) 120 dwellings, mixed use recreation/residential. Development of this site must include, at least:
  - the replacement of Oakwood Football Club;
  - senior **3G** football pitch and facilities;
  - a junior **3G** football pitch;

Insert new final sentence to paragraph 12.53:

*The layout of these sites has been considered in more detail to ensure they can deliver the quantum of housing within the constraints identified by the open space study for meeting recreational open space needs<sup>2</sup>. A development brief has been prepared for both sites to ensure their development adheres to the requirements of the Open Space, Sport and Recreation Study and Playing Pitch Study (2014); critical elements of these are set out in the Policy<sup>3</sup>. **For Tinsley Lane this will involve consideration into the needs of the football club.***

- 9.6.18 These suggested modifications are set out in the Schedule of Suggested Modifications, version 5, 15 December 2023 (Examination Document Reference: CBC/CBLP/07e).

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<sup>2</sup> In accordance with paragraphs 98 and 99 of National Planning Policy Framework (2021) MHCLG

<sup>3</sup> [Breezehurst Drive Playing Fields Development Brief \(June 2018\).pdf](#) and [Tinsley Lane Development Brief \(April 2017\).pdf](#)

## Appendix A: Proposed Modifications to Policy EP4 and the Local Plan Noise Annex

Proposed Modification to Policy EP4:

### Policy EP4: Development and Noise

People's health, quality of life and cognitive ability and development will be protected from unacceptable noise impacts by managing the relationship between noise sensitive development and noise sources. To achieve this, Policy EP4 should be read in conjunction with the Local Plan Noise Annex, and development is required to adhere to the provisions and standards contained within it.

#### A. Noise Sensitive Development

Residential and other noise sensitive development will **only** be permitted where it can be demonstrated that users of the development will not be exposed to unacceptable noise impact from existing, temporary or future uses. **In the case of development likely to experience noise or effects within the Significant Observed Adverse Effects Level, only when it is first proven that it is necessary to develop in that location having taken all circumstances into account will permission be considered.**

Noise sensitive uses proposed in areas that are exposed to noise above the Lowest Observed Adverse Effect Level (LOAEL) or at **and above** the Significant Observed Adverse Effect Level (SOAEL) from existing or future industrial, commercial or transport (air, road, rail and mixed) sources will **only** be permitted where: **in the case of effects within SOAEL there is no alternative; and in all cases** it can be demonstrated good acoustic design has been considered early in the planning process, and that all appropriate mitigation, through careful planning, layout and design, will be undertaken to ensure that the noise impact for future users will be made acceptable. Noise sensitive uses proposed in areas that are exposed to noise at the Unacceptable Adverse Effect level will not be permitted.

For surface transport noise sources, the Unacceptable Adverse Effect Level is considered to occur where noise exposure is above 66dB  $L_{Aeq,16hr}$  (57dB  $L_{Aeq,8hr}$  at night).

For aviation transport sources the Unacceptable Adverse Effect is considered to occur where noise exposure is above 60dB  $L_{Aeq,16hr}$ . (57dB  $L_{Aeq,8hr}$  at night).

#### B. Noise Generating Development

Noise generating development will be permitted where it can be demonstrated that nearby noise sensitive uses (as existing or planned) will not be exposed to noise impact that will adversely affect the amenity of existing and future users. Proposals will adhere to standards identified in the Local Plan Noise Annex to establish if the proposal is acceptable in noise impact terms, and where required will, through good acoustic design, appropriately mitigate noise impacts through careful planning, layout and design. Noise Generating Development that would expose users of noise sensitive uses to Unacceptable Adverse Effect noise will not be permitted.

#### C. Noise Impact Assessment

A Noise Impact Assessment will be required to support applications where noise sensitive uses are likely to be exposed to significant or unacceptable noise exposure. The Noise Impact Assessment will:

- i. assess the impact of the proposal as a noise receptor or generator

as appropriate; and

- ii. demonstrate in full how the development will be designed, located, and controlled to mitigate the impact of noise on health and quality of life, neighbouring properties, and the surrounding area.

In preparing a Noise Impact Assessment, applicants will adhere to Planning Noise Advice Document: Sussex (~~2021~~ 2023 or latest revision) and ProPG (Professional Practice Guidance on Planning & Noise for New Residential Developments) for further guidance. Where there is conflict between these documents and the Local Plan, the Local Plan documents take precedent.

#### D. Mitigating Noise Impact

Where proposals are identified as being in the Lowest Observed Adverse Effect Level (LOAEL) or the Significant Observed Adverse Effect Level (SOAEL) categories, either through noise exposure or generation, all reasonable mitigation measures must be employed to mitigate noise impacts to an acceptable level that is as low as is reasonably achievable. Appropriate mitigation must be delivered as part of the development to ensure that the impacts of existing or known potential future noise sources are acceptable on the use being applied for by the applicant.

Proposed Modification to Local Plan Paragraph 16.35:

*Where a Noise Impact Assessment is required, consideration should be given to Planning Noise Advice Document, Sussex (~~2021~~ 2023 or latest revision) which has been produced on a joint basis by East and West Sussex local authorities. This has been produced to provide clear and consistent guidance as to the level of information that should be submitted with planning applications for noise generating developments or noise sensitive developments, including guidance on when it is appropriate to submit a noise report and the required content of such a report.*

Proposed Modifications to Crawley Local Plan Noise Annex:

### CRAWLEY LOCAL PLAN NOISE ANNEX

#### **1.0 Introduction**

- 1.1 Crawley is home to Britain's largest single-runway airport, a key sub-regional employment destination at Manor Royal Business District, and a major motorway (M23). Noise, therefore, represents an important planning consideration in the town.
- 1.2 The revocation of Planning Policy Guidance 24 (Planning and Noise) has resulted in an absence of detailed technical guidance at the national level to guide the relationship between development and noise. This Annex and the supporting Noise Topic Paper, therefore, draws upon evidence to provide policy context and establish locally specific guidance through which the approach of Local Plan Policy EP4: Development and Noise should be applied.
- 1.3 The council also recognises the inter-relationship between acoustics, ventilation, overheating and carbon minimisation. Good design needs to consider all these factors together and ensure that a solution to one single aspect is not to the detriment of the other three.



## 2.0 Planning Policy Context

### 2.1 National Policy Objectives

- 2.1.1 The National Planning Policy Framework (NPPF) sets out the Government's key planning objectives, recognising the need to reduce pollution as one of its 12 key principles. It requires the planning system to prevent new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of pollution (paragraph 170). Paragraph 180 provides more detail, outlining that local plan policies and development management decisions should avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development. Where conflict does arise, impacts must be mitigated and reduced to a minimum.
- 2.1.2 The NPPF supersedes previous national level Government planning guidance. This included Planning Policy Guidance 24: Planning and Noise, which outlined measurable numeric noise categories through which the relationship between development and noise could be assessed.
- 2.1.3 With PPG24 having been revoked, the NPPF identifies the Explanatory Note of the Noise Policy Statement for England (DEFRA, 2010) as guidance for interpreting the level at which noise is considered to give rise to significant adverse impact. However, this does not identify measurable noise values to identify the 'Significant Observed Adverse Effect Level', the noise exposure level above which significant adverse effects on health and quality of life occur.
- 2.1.4 The government has since published *Planning Practice Guidance: Noise* (MHCLG, 2019). This outlines that local authorities should take account of the acoustic environment in plan making and decision taking, and in doing so should consider:
- whether or not a significant adverse effect is occurring or likely to occur;
  - whether or not an adverse effect is occurring or likely to occur; and
  - whether or not a good standard of amenity can be achieved.
- 2.1.5 In line with the Explanatory Note of the Noise Policy Statement for England, this would include identifying whether the overall effect of noise exposure is, or would be, above or below the Significant Observed Adverse Effect Level (SOAEL), and the Lowest Observed Adverse Effect Level for the given situation (LOAEL). The Planning Practice Guidance does not provide technical guidance to establish the levels at which SOAEL or LOAEL occur. It does, however, identify that local planning authorities may produce local plan specific noise standards to apply to various forms of proposed development and locations in their area.
- 2.1.6 ~~Section 130 of the NPPF states 'Permission should be refused for development of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions, taking into account any local design standards or style guides in plans or supplementary planning documents'.~~  
Paragraph 134 of the NPPF states "Development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes. Conversely, significant weight should be given to:
- a) development which reflects local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes; and/or

*b) outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area, so long as they fit in with the overall form and layout of their surroundings.'*

- 2.1.7 **Paragraph 130** ~~Section 127a~~ of the NPPF states that '*Planning policies and decisions should ensure that developments... will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development*'.
- 2.1.8 ProPG: Planning & Noise – New Residential Development (May 2017) sets out principles of good acoustic design. It recognises the importance of designing out the adverse effects of noise at an early stage, using a holistic design process that creates places that are both comfortable and attractive to live in, where acoustics is considered integral to the living environment.

## 2.2 Local Policy

- 2.2.1 The key objective of Local Plan Policy EP4 is to guide the relationship between noise sensitive development and noise sources to ensure that a good quality of life **and health** is maintained for current and future residents.
- 2.2.2 This Local Plan Noise Annex identifies locally specific noise thresholds comprised of measurable value ranges through which noise impact from transport sources can be determined in order to support Policy EP4. These are based on the noise exposure hierarchy set out in *Planning Practice Guidance: Noise* and are discussed in detail in Section 4.1 of this Annex.
- 2.2.3 This Annex also provides guidance where proposals for noise sensitive development may be affected by industrial/commercial noise sources (Section 4.2), and on Noise Generating Development (Section 4.3).
- 2.2.4 Local Plan Policy EP4 also refers to the '*Planning Noise Advice Document: Sussex*' (2023~~4~~ or latest revision), to assist in the preparation of Noise Impact Assessments. This document has been produced on a joint basis by East and West Sussex local planning authorities to provide clear and consistent guidance as to the level of information that should be submitted with planning applications for noise generating developments or noise sensitive developments, including guidance on when it is appropriate to submit a noise report and the required contents of such a report.

## **3.0 Understanding When Noise Could Become a Concern**

- 3.1 *Planning Practice Guidance: Noise* identifies a noise exposure hierarchy which provides broad guidance on the levels at which noise exposure could become a concern. For consistency with national policy, this Noise Annex applies the noise hierarchy set out by the PPG, drawing upon technical evidence to assign measurable noise standards to each of its noise exposure categories.
- 3.2 At the lowest extreme, when noise is not noticeable, there is by definition no effect. As noise exposure increases, it crosses the **No Observed Effect Level**. This is the stage at which noise becomes noticeable, though it has no adverse effect as it does not cause any change in behaviour or attitude. If the noise is at this level, no specific measures are required to manage the acoustic environment.
- 3.3 As noise exposure increases it crosses the **Lowest Observed Adverse Effect Level**; and **at this point it is an observed adverse effect** ~~may reach the Observed Adverse Effect Level~~. At this level noise can start to cause small changes in

behaviour, ~~and~~ [attitude or other physiological response](#). For example, this could cause people to turn up the volume on the television or needing to speak more loudly to be heard. [There may be some reported sleep disturbance. Where noise is identified as falling within the lowest observable adverse effect level but below the significant observed adverse effect level then it should be mitigated and reduced to a minimum. As noise approaches the significant observed adverse effect level, greater effort is likely to be required to mitigate and reduce it to a minimum proportionate to the effect.](#) ~~The noise level starts to have an adverse effect and steps need to be taken to mitigate and minimise those effects.~~

- 3.4 Continued increase in noise exposure will at some point cause the **Significant Observed Adverse Effect Level** to be crossed. Above this level, noise causes a material change in behaviour, [attitude or other physiological response](#), for example necessitating that windows are kept closed most of time. If noise exposure is above this level, the planning process should be used to prevent this effect from occurring, by use of appropriate mitigation, for example through design and layout.
- 3.5 At the highest extreme, the **Unacceptable Adverse Level**, noise exposure would cause extensive and sustained changes in behaviour, [attitude or other physiological response](#), without an ability to mitigate the effect of noise. At this level, the impacts on health and quality of life are such that regardless of the benefits of the activity causing the noise, noise exposure to sensitive uses should be prevented from occurring.
- 3.6 Although the word 'level' is used here, this does not mean that the effects can only be defined in terms of a single value of noise exposure. This annex states locally adopted evidence based levels for specific circumstances. However, this is not appropriate or possible in all circumstances. Compliance with World Health Organization levels or requiring sound to be at no more than background level is not a guarantee that the noise exposure would not result in a statutory nuisance, which can be said within planning terms to unreasonably affect amenity.
- 3.7 The NPSE and PPG recognises that level of effect can ~~also~~ be described in terms of behavioural responses such as having to have windows closed or the person having to make adaptations as a result of noise. These effects can often not be described by a single or combination of sound values. In such circumstances subjective criteria may be required whether supported or not by specific sound indices.

## 4.0 Managing Noise in Crawley: Guidance to Support Local Plan Policy EP4

### 4.1 Noise sensitive development affected by noise from transport sources

- 4.1.1 Local Plan Policy EP4 outlines that noise sensitive uses will only be permitted where users of the development will not be exposed to unacceptable noise disturbance from existing or proposed uses.
- 4.1.2 This section provides guidance to determine the threshold at which noise exposure from transport-based sources (air, road, rail, and mixed sources) is considered to become significant or unacceptable in a Crawley context.
- 4.1.3 Building on the noise exposure hierarchy identified in *Planning Practice Guidance: Noise*, and using the previous guidance in PPG24 and evidence identified in [Topic Paper 7 Section 6](#), the Annex identifies measurable local values through which to determine the acceptability of noise sensitive proposals where noise exposure from transport is a factor.

4.1.4 In particular, it identifies measurable threshold metrics for the Lowest Observed Adverse Effect Level (LOAEL), i.e. the level at which noise exposure can bring about changes in behaviour, and for the Significant Observed Adverse Effect Level (SOAEL), i.e. the noise level at which significant adverse effects on health and quality of life occur. It also outlines a measurable threshold to identify the Unacceptable Adverse Effect, this being the level at which noise exposure can cause extensive and regular changes in behaviour, attitude, and an inability to mitigate effect of noise, leading to psychological stress.

4.1.5 In determining the acceptability of noise sensitive proposals where noise exposure from a transport source is a factor, the standards set out in Table 1 (below) will be applied.

**NOISE ANNEX TABLE 1:**  
Standards for exposure at the façade<sup>4</sup> for all habitable rooms<sup>5</sup> of noise sensitive development affected by noise from transport sources.

	Examples of Outcomes	Daytime (07:00 – 23:00) Threshold	Night time (23:00 – 07:00) Threshold
<b>No Observed Adverse Effect Level (NOAEL)</b>	<b>Present and not intrusive:</b> Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area, but not such that there is a change in the quality of life.	<u>&lt;51dB LAeq,16hr</u>  <u>&lt;55dB LAFmax</u>  <del>&lt;51dB LAeq,16hr</del>  <del>&lt;65dB LAFmax</del>	<u>&lt;40dB LAeq,8hr</u>  <u>&lt;48dB LAFmax</u>  <del>&lt;45dB LAeq,8hr</del>  <del>&lt;60dB LAFmax</del>
<b>Lowest Observed Adverse Effect Level (LOAEL)</b>		<del>51dB LAeq,16hr</del>  <del>65dB LAFmax</del>	<del>45dB LAeq,8hr</del>  <del>60dB LAFmax</del>
<b>Lowest Observed Effect Level (LOAEL)</b>	<b>Present and intrusive:</b> Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	<u>Surface Transport Between 51dB and 55dB LAeq,16hr</u>  <u>Aviation Transport 51 to 54dB LAeq,16hr</u>  <u>All Transport Sources &gt;= 55dB LAFmax</u>  <del>Between 51db and 55dB LAeq,16hr (51 to 54dB LAeq,16hr for aviation transport sources)</del>  <del>&gt; 65dB LAFmax</del>	<u>Surface Transport Between 40dB and 48dB LAeq,8hr</u>  <u>Aviation Transport, Between 40dB and 48dB LAeq,8hr</u>  <u>All Transport Sources &gt; 48dB LAFmax</u>  <del>Between 45dB and 48dB LAeq,8hr for surface and aviation transport sources.</del>  <del>&gt; 60dB LAFmax</del>
<b>Significant Observed Adverse Effect Level (SOAEL)</b>	<b>Present and disruptive:</b> The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the	<u>Surface Transport Between 55dB and 66dB LAeq,16hr.</u>  <u>Aviation Transport 54 to 60dB LAeq,16hr</u>	<u>All Transport Sources Between 48dB and 57dB LAeq,8hr.</u>  <u>60dB to 82dB LAFmax</u>

<sup>4</sup> This is the predicted free-field level at the proposed façade and not the final 'façade' level.

<sup>5</sup> Habitable rooms includes living/dining rooms, bedrooms, kitchen diners and studies.

	Examples of Outcomes	Daytime (07:00 – 23:00) Threshold	Night time (23:00 – 07:00) Threshold
	time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening, and difficulty getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	<b>All Transport</b> <b>65dB to 82dB L<sub>AFmax</sub></b>  For surface transport sources, between 55dB and 66dB L <sub>Aeq,16hr</sub> (54dB to 60dB L <sub>Aeq,16hr</sub> for aviation transport sources)  65dB to 82dB L <sub>AFmax</sub>	<del>Between 48dB and 57dB L<sub>Aeq,8hr</sub> for surface and aviation transport sources, 60dB to 82dB L<sub>AFmax</sub></del>
<b>Unacceptable Adverse Effect</b>	<b>Present and very disruptive. Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening, loss of appetite, significant medically definable harm, e.g. auditory and non-auditory.</b>	<b>Surface Transport</b> <b>Greater than 66dB L<sub>Aeq,16hr</sub></b>  <b>Aviation Transport</b> <b>Greater than 60dB L<sub>Aeq,16hr</sub></b>  <b>All Sources</b> <b>&gt;82 L<sub>AFmax</sub></b>	<b>All Sources</b> <b>Greater than 57dB L<sub>Aeq,8hr</sub></b>  <b>All sources</b> <b>&gt; 82dB L<sub>AFmax</sub></b>
<b>Unacceptable Adverse Effect</b>	<del><b>Present and very disruptive</b> Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening, loss of appetite, significant medically definable harm, e.g. auditory and non-auditory.</del>	<del>For surface transport sources, greater than 66dB L<sub>Aeq,16hr</sub>  For aviation transport sources, greater than 60dB L<sub>Aeq,16hr</sub></del>	<del>greater than 57dB L<sub>Aeq,8hr</sub> for surface and aviation transport sources.  &gt; 82dB L<sub>AFmax</sub></del>

4.1.6 All the above levels would include the predicted noise from any proposed or required changes in transportation noise including the potential additional southern wide spaced runway at Gatwick Airport, for which land is required to be safeguarded in the 2013 Aviation Policy Framework. The predicted noise contours associated with a possible wide-spaced southern runway at Gatwick Airport are set out in Figure 1 **and 2** of the Local Plan Noise Annex. These contours **in Figure 1, which** are the same as those identified in Plan 31 of the Gatwick Airport Master Plan 2019 (Air Noise Map – Additional Runway – Summer Day - 2040). **The night contours in Figure 2 were produced by Jacobs in 2014 to inform the Airports Commission. These figures** will be used for the purpose of determining planning applications where aviation noise is a consideration, unless otherwise indicated by the Local Planning Authority. Should the contours shown in Noise Annex Figure 1 **or 2** be superseded by more up-to-date noise contours, it will be for the Local Planning Authority to decide whether these are appropriate for use in planning decisions. In the event that updated noise contours are confirmed, notification of these changes will be published on the council’s website.

4.1.7 In interpreting the categories for the purposes of Local Plan Policy EP4, noise exposure is considered to be acceptable where the internal noise climate achieves standards set in BS8233 or replacement guidance. (N.B. the noise levels provided in BS8233 refer to steady noise sources only). It is also expected that to achieve an acceptable internal noise climate that individual noise events shall not exceed 45dB L<sub>AFmax</sub> ~~on a frequent basis. The acceptability of the frequency of events will depend on the level of exceedance of the 45dB L<sub>AFmax</sub> criteria. Up to 10 events may be~~



~~acceptable for small exceedances (<5dB), whilst for high exceedances (>10dB) less than 5 events will be acceptable.~~

- 4.1.8 For surface transport sources, the Lowest Observed Adverse Effect Level (LOAEL) is 51dB  $L_{Aeq,16hr}$  and 45dB  $L_{Aeq,8hr}$  at night. The Significant Observed Effect Level (SOAEL) is between 55dB and 66dB  $L_{Aeq,16hr}$  and between 45dB and 57dB  $L_{Aeq,8hr}$  at night. The Unacceptable Adverse Effect occurs where noise exposure is above 66dB  $L_{Aeq,16hr}$  (57dB  $L_{Aeq,8hr}$  at night).
- 4.1.9 For aviation transport sources, the Lowest Observed Adverse Effect Level (LOAEL) is 51dB  $L_{Aeq,16hr}$  and the Significant Observed Adverse Effect Level is between 54dB and 60dB  $L_{Aeq,16hr}$ . The Unacceptable Adverse Effect occurs where noise exposure is greater than 60dB  $L_{Aeq,16hr}$  (57dB  $L_{Aeq,8hr}$  at night). The lower standard for the day period is required as aviation noise affects the whole neighbourhood and not just a single façade as with surface transport. This is less of an issue at night so the level is the same as for surface transport.
- 4.1.10 For private amenity areas (private and communal gardens), the upper limit of noise exposure is considered to be 50dB  $L_{Aeq,16hr}$ , so that they can be enjoyed as intended. Where this is not possible to achieve despite implementing all reasonable mitigation measures, the standard can be relaxed by 5dB so that the sound level in private and communal gardens (including balconies) does not exceed 55dB  $L_{Aeq,16hr}$ . In very high noise areas where the less stringent standard of 55dB  $L_{Aeq,16hr}$  cannot reasonably be achieved, with careful design it should be achieved in some parts of the amenity space. In the case of balconies then the use of winter gardens must be considered.
- 4.1.11 Where noise exposure is likely to be of a material concern (LOAEL or SOAEL), a Noise Impact Assessment will be required in support of planning applications to demonstrate how noise impact will be made acceptable. For further information on the requirements of a Noise Impact Assessment, please see Section 5 of this Annex, ProPG and *Planning Noise Advice Document: Sussex (2023<sup>4</sup> or latest version)*.
- 4.1.12 Any development where an acceptable internal noise climate cannot be achieved with windows opened must employ all reasonable mitigating steps with regards to window and façade design to allow the dwelling to be ventilated naturally. Where this is not possible alternative natural forms of ventilation must be provided by use of acoustic louvres or ventilators of adequate size to effectively deal with the effects of summer over-heating without the necessity to open the windows. The need for ventilation as a result of overheating (giving rise to discomfort and health effects) shall be minimised in the design, layout and features of the building having regard to the cooling hierarchy in Policy SDC1: Sustainable Design and Construction.
- 4.1.13 If it can be clearly demonstrated that this cannot be achieved, then as a last resort, in exceptional circumstances, alternative mechanical ventilation may be acceptable. Any mechanical forms of ventilation must achieve an internal Noise Rating Curve of 25 (NR25) or lower. Where Mechanical Ventilation and Heat Recovery (MVHR) is used it will be expected to have a 100% fully automated, modulated, summer bypass. Furthermore, when operating at maximum boost the in duct velocity shall be kept as low as reasonably practicable but in any event no greater than 3.5 metres per second and the motor capacity at no more than 70% of operating capacity unless it can be demonstrated that an alternative design criteria can deliver a suitable internal acoustic environment. The fan unit shall not be sited within bedrooms and any air inlets and outlets shall be acoustically treated to prevent noise ingress. The use of sealed windows will not be acceptable as they do not create a suitable living environment for the occupants.

4.1.14 Evidence of satisfactory implementation of the agreed mitigation will be required for developments in the SOAEL category. This would be the form of a post completion report to be submitted to and agreed by the LPA once the development has been completed and prior to occupation or sale.

#### 4.2 Noise sensitive development affected by industrial or commercial noise sources

4.2.1 Local Plan Policy EP4 outlines that noise sensitive uses proposed in areas that are exposed to noise from existing or planned industrial or commercial sources, will only be permitted where future users will not be exposed to an unacceptable noise impact. For example, the creation of a statutory nuisance. This reflects the approach of NPPF Para 170(e).

4.2.2 This is based on the recognition that to introduce new noise sensitive receptors into locations where they may be affected by noise from established businesses can create conflict between those two uses and may prejudice the existing and future industrial or commercial operations.

4.2.3 NPPF paragraph 182 expands, recognising that existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

4.2.4 It is also recognised that some industrial or commercial uses may be planned, in the sense that they are subject to an extant planning permission, or have been identified for economic use through the Local Plan. For this reason, the policy approach also has regard to future planned developments.

4.2.5 To ensure that proposed noise sensitive uses do not conflict with existing or planned industrial/commercial uses, noise sensitive development will only be considered acceptable where future users would not be exposed to noise impact that would result in, for example, a statutory nuisance.

4.2.6 To ensure that proposals are acceptable in noise terms, an assessment should be made using BS4142:2014 + A1:2019 *Method for Rating and assessing industrial and commercial sound*, or any replacement guidance.

4.2.7 Where there is risk that noise sensitive proposals would be affected by noise that may, for example, create a statutory nuisance, a Noise Impact Assessment will be required in support of planning applications to demonstrate how that noise impact will be made acceptable. For further information on the requirements of a Noise Impact Assessment, please see Section 5 of this Annex, and *Planning Noise Advice Document: Sussex* (2021 or latest revision).

4.2.8 If it cannot be demonstrated that appropriate mitigation will be provided to manage significant or unacceptable noise impacts to an acceptable level, the proposal will be refused.

4.2.9 Where it is proposed to have a mixed-use development of residential and commercial units combined then there must be adequate sound insulation between the commercial and residential uses. In such circumstances a minimum DnTW of 65dB would be required.

### 4.3 Noise generating development

- 4.3.1 Local Plan Policy EP4 outlines that noise generating development will be permitted where it can be demonstrated that any nearby noise sensitive uses (as existing or planned), will not be exposed to noise impact that will adversely affect the amenity of users of surrounding noise sensitive premises.
- 4.3.2 To ensure that proposals are acceptable in noise terms, development should comply with BS4142:2014 + A1:2019 *Method for Rating and assessing industrial and commercial sound*, or any replacement guidance.
- 4.3.3 When assessing the noise impact using BS 4142 the Noise Rating level must be equivalent to the background ( $L_{A90}$ ) level. BS4142 advises that there are locations where existing noise levels are high and might result in adverse impacts themselves. Therefore when existing noise levels exceed 50dB  $L_{Aeq,1hr}$  during the day or 40dB  $L_{Aeq,15mins}$  during the night the Noise Rating Level must be at least 3dB below the background ( $L_{A90}$ ) level.
- 4.3.4 The daytime figure relates to the upper limit for external amenity areas and the night time figure relates to the maximum external noise level required to achieve the 30dB  $L_{Aeq,8hr}$  level specified in BS8233 for undisturbed sleep with windows wide open.
- 4.3.5 Where there is risk that development would adversely affect the amenity of users in surrounding noise sensitive premises, a Noise Impact Assessment will be required in support of planning applications, to demonstrate how noise impact will be made acceptable. For further information on the requirements of a Noise Impact Assessment, please see Section 5 of this Annex, and *Planning Noise Advice Document: Sussex (2023 4 or latest revision)*.
- 4.3.6 If it cannot be demonstrated that appropriate mitigation will be provided to manage noise impact to an acceptable level, the proposal will be refused.

### **5.0 Noise Impact Assessment**

- 5.1 As identified in Part C of Local Plan Policy EP4, a Noise Impact Assessment will be required to support applications where noise sensitive uses are likely to be exposed to significant or unacceptable noise exposure.
- 5.2 The Noise Impact Assessment will be required to assess the impact of the proposal as a noise generator or receptor, as appropriate.
- 5.3 It will also be required to demonstrate in full how the development will be designed, located, and controlled to mitigate (as appropriate) the impact of noise on health and quality of life, neighbouring properties, and the surrounding area.
- 5.4 In some circumstances, reliance on a third party structure may not be acceptable as a part of a noise control proposal.
- 5.5 In all cases, the best practical means (or 'all reasonable steps') of mitigation will be required to mitigate noise impact to an appropriate level, and in liaison with Crawley Borough Council Environmental Health. In some circumstances this may include the use of alternative sites to the one proposed.
- 5.6 If it cannot be demonstrated that appropriate mitigation will be provided to manage significant or unacceptable noise impacts to an acceptable level, the proposal will be refused.



5.7 In preparing a Noise Impact Assessment, applicants should adhere to *Planning Noise Advice Document: Sussex* (2023<sup>4</sup> or latest revision), which supports Local Plan Policy EP4 and this accompanying Annex. Where there is any disagreement between that document and the Crawley Local Plan documents, the Local Plan documents take precedence.

**6.0 Further Reference**

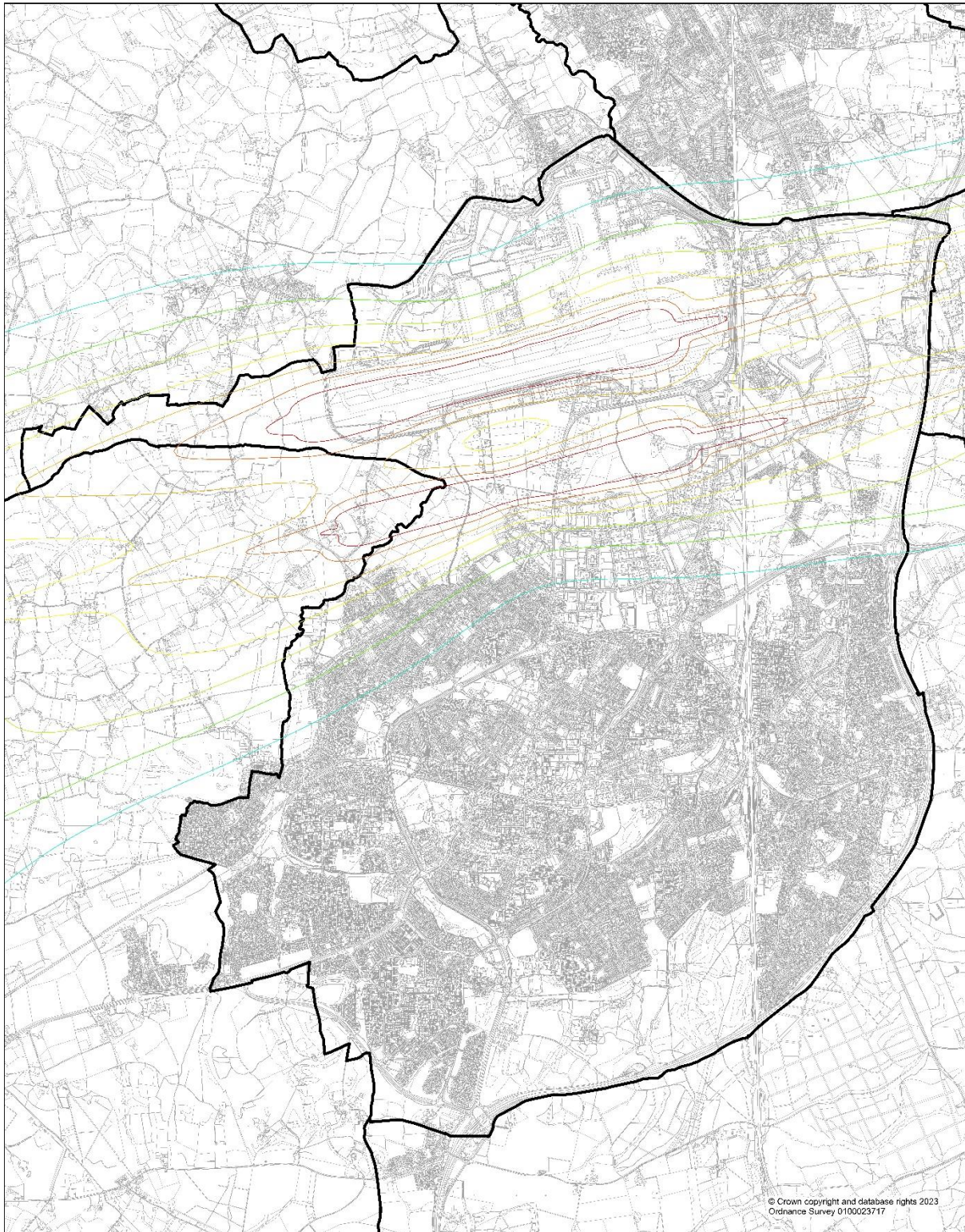
6.1 Where development proposals are likely to be affected by noise, either as a source or receptor, applicants are strongly encouraged to liaise with Crawley Borough Council Environmental Health prior to submitting an application.

6.2 To contact Environmental Health please email [environmentalservices@ Crawley.gov.uk](mailto:environmentalservices@ Crawley.gov.uk).

**NOISE ANNEX SUMMER DAY (07:00 – 23:00) WIDE-SPACED 2040 NOISE CONTOURS (L<sub>Aeq, 16hr</sub>) TAKEN FROM PLAN 31 OF THE GATWICK AIRPORT MASTER PLAN 2019**

**Summer Day Wide Spaced 2040 (Gatwick Airport Master Plan 2019)**

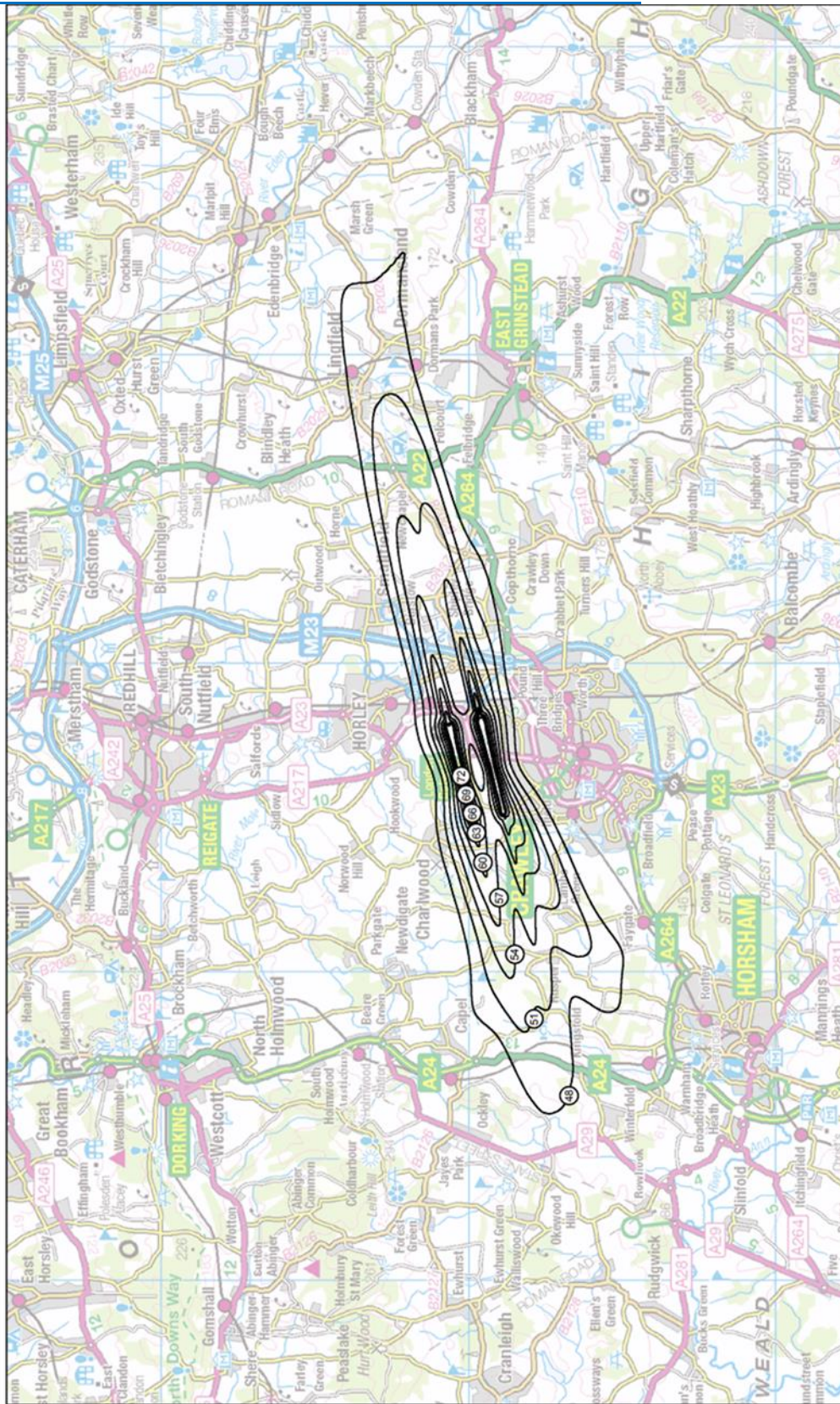
— 72dB — 69dB — 66dB — 63dB — 60dB — 57dB — 54dB



**Figure 1: Noise Annex Summer Day Wide-Spaced 2040 Noise Contours**



**NOISE ANNEX FIGURE 2: SUMMER NIGHT (23:00 – 07:00) WIDE-SPACED 2040 NOISE CONTOURS (L<sub>Aeq</sub>, 8hr) TAKEN FROM PAGE E-83 AIRPORTS COMMISSION COMPENDIUM PRODUCED BY JACOBS<sup>6</sup>**



G40-2R-X-C: Gatwick 2040 do-something, GAL - no sensitivity test, Carbon Traded  
Summer average 8-hour night-time L<sub>Aeq</sub>,8hr

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<sup>6</sup> (<https://assets.publishing.service.gov.uk/media/5a809e34e5274a2e87dbad69/airports-commission-compendium-of-results-part-E-06.pdf>)