TECHNICAL NOTE

Job Name: 217 High Street, Yiewsley

Job No: 46187

Note No: ATN/01 Rev02

Date: 8 July 2020

Prepared By: Paul Taylor

Subject: **Stantec's Response to Anderson Acoustics' Comments on Stantec's NIA**

Item	Subject
1.	**Introduction** Stantec issued a Noise Impact Assessment report dated February 2020, to support the detailed planning application for the mixed-use development at 217 High Street, Yiewsley. The London Borough of Hillingdon has since instructed Anderson Acoustics to undertake a review of the Noise Impact Assessment report. Anderson Acoustics' review is provided within their Noise Impact Assessment Review dated 28 May 2020. This technical note provides Stantec's responses to comments raised by Anderson Acoustics. To aid understanding we have grouped comments and recommendations made by Anderson Acoustics under relevant headings.
2.	**London Borough of Hillingdon Design Comments dated 25 June 2020** Following design comments received from London Borough of Hillingdon dated 25 June 2020, we understand that the scheme has been amended since our acoustic assessment. The total number of dwellings now proposed is 233 (previously 235) and it is proposed to set back elements at 5th floor level on the buildings closest to the canal. We have reviewed the revised proposals and consider that the changes should not result in any impact on Stantec's noise assessment submitted with the planning application.
3.	**ProPG, Ventilation and Overheating** Anderson Acoustics' recommended action in Section 3.2 of their note states: *"Update of the NIA to follow ProPG guidance and assessment including the consideration of internal noise levels during periods where the windows are required to be open for ventilation and/or cooling."* In addition, a recommended action in Section 3.3 of their note states: *"Assessment of the indoor noise levels with the measures for ventilation and cooling in place, with the proposed design noise level to be clearly defined."* **Stantec Response:** The Professional Practice Guidance on Noise and Planning (ProPG) was jointly published by the Institute of Acoustics, the Association of Noise Consultants and the Charted Institute of Environmental Health in May 2017.

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	It is not a mandatory requirement to refer to ProPG and a requirement to refer to this document was not highlighted during preliminary discussions with the Local Planning Authority. In addition, reference to this document would not alter the selection of the assessment criteria in the report, nor alter the outcome of the assessment. As per Section 5.2 of our report, background ventilation will be provided by trickle ventilators and therefore windows should not need to be opened to provide background ventilation. The assessment of internal noise levels with open windows for ventilation purposes is therefore not necessary. Resultant internal noise levels during overheating conditions have not been assessed as they were not identified as a requirement during preliminary discussions with the Local Planning Authority. If an assessment is required, the proposed internal noise level design criteria should be based on the overheating assessment, taking into account the frequency of which the overheating condition is likely to occur. This detailed assessment is not currently available and would need to be undertaken to understand the frequency which overheating is likely to occur around the development. If the Local Planning Authority now considers that this assessment is required, then this can be conditioned.
4.	**Tesco Plant and Deliveries** Anderson Acoustics' second recommended action in Section 3.3 of their note states: *"BS4142:2014+A1:2019 assessment of noise from the plant and activities at the adjacent Tesco store"* Anderson Acoustics' first recommended action in Section 3.5 of their note states: *"The NIA survey details should be updated to include the observations on delivery noise and consideration of noise exposure at height from the Tesco plant and delivery activities."* Anderson Acoustics' first recommended action in Section 3.6 of their note states: *"Update of the NIA to include assessment of the internal noise levels with the windows and doors open to meet the requirements of the overheating strategy. Assessment of the noise levels from the Tesco plant and deliveries should be to BS4142:2014+A1:2019 methodology."* Anderson Acoustics' third recommended action in Section 3.6 of their note states: *"BS4142:2014+A1:2019 assessment of the commercial noise from Tesco, including on balconies, the podium amenity area and at dwellings, to be carried out."* **Stantec Response:** As per paragraph 3.5.1 of our report, environmental sound measurements at Position 3 were dominated by Tesco rooftop plant which was noted to operate continuously during our time on site. In this situation Section 8.5 of BS 4142:2014 advises that: *"Where a new noise-sensitive receptor is introduced and there is extant industrial and/or commercial sound, it should be recognized that the industrial and/or commercial sound forms a component of the acoustic environment. In such circumstances other guidance and criteria in addition to or alternative to this standard can also inform the appropriateness of both introducing a new noise-sensitive receptor and the extent of required noise mitigation."*

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	It is for this reason that other guidance and alternative criteria were adopted. The resultant assessment considers internal noise levels, and is based on the stringent LOAEL criteria, to minimise noise impact to residents overlooking Tesco roof plant. In addition, BS 4142:2014 clearly states that it should not be used to assess internal noise levels and therefore the suggestion to use this is not appropriate. The Tesco plant is largely surrounded by standard weather louvres which provide little acoustic attenuation, if any, between the rooftop plant and measurement location 3. In order to ensure a worst-case and robust assessment we have assumed that some screening was provided by the roof edge between the rooftop plant and measurement location 3. Our noise break-in calculations to the proposed dwellings assume no screening is provided by the roof edge. Noise from Tesco deliveries was not discernible during the survey and the assessment undertaken is considered appropriate. If the LPA considers it necessary, a planning condition could be included with the planning permission which requires assessment of noise arising from Tesco deliveries.
5.	**Noise Levels in External Amenity Areas** Anderson Acoustics' third recommended action in Section 3.3 of their note states: *"Revision of the LOAEL and SOAEL to reflect guidance in BS8233:2014 and update of the external amenity areas."* Anderson Acoustics' second recommended action in Section 3.6 of their note states: *"Update of the external amenity area noise assessment to use LOAEL and SOAEL in line with BS8233:2014 and WHO guidance."* **Stantec Response:** The reference provided within Anderson Acoustic's review is incorrect, as they have taken a quotation from ProPG and suggested that it is derived from BS 8233:2014. The WHO guidance referred to by Anderson Acoustics within their review for external sound levels has been superseded. However, BS 8233:2014 is considered to provide more appropriate guidance on external noise levels within the UK than the WHO Environmental Noise Guidelines for the European Region, which is why this is referred to in our assessment. The LOAELs and SOAELs provided within our report are consistent with BS 8233:2014 and are considered suitable. These levels have been applied successfully to a large number of residential assessments to support planning applications across several different local authorities.
6.	**Plant Noise Emission Criteria** Anderson Acoustics' recommended action in Section 3.4 of their note states: *"Update of the NIA to include the LBH criteria of a rating level 5 dB below the background sound level."* Anderson Acoustics' fourth recommended action in Section 3.6 of their note states: *"BS4142:2014+A1:2019 assessment of the noise from the plant associated with the proposed development demonstrate compliance with the LBH criteria of the rating level to be 5 dB below the background sound level, to be secured through planning condition."*

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	Stantec Response: The LBH Supplementary Planning Document on Noise published in 2006 states that the rating level should be 5 dB below the background sound level when assessed in accordance with BS 4142:1997. This standard has since been superseded by BS 4142:2014. During preliminary discussions Monica Mulowoza, ASB & Environment Officer at LBH stated that the assessment methodology should refer to BS 4142:2014 and not BS 4142:1997. It would be inappropriate to apply the same criterion of 5 dB below the background sound level when assessing with BS 4142:2014 as BS 4142:2014 advises in Section 11 that: *"Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."* Therefore, the proposed criterion within our report is considered relevant and suitable.
7.	**Background Sound Levels** Anderson Acoustics' second recommended action in Section 3.5 of their note states: *"The NIA should consider the potential for lower background sound levels at the weekend (in particular during the night period) and variation in sound levels over the week. A planning condition should be set to ensure a robust survey to inform the BS4142 assessment and design internal noise levels."* **Stantec Response:** Noise levels at measurement position 3 were largely dominated by Tesco rooftop plant noise which was noted to run continuously over the survey period. It is therefore considered that there will be low variability of the background sound level during the weekend and other periods of the night. The assessment undertaken is considered to represent the environmental sound climate around the site. Additional long-term surveys could be conducted conditioned as part of the planning permission if considered required by the LPA.

DOCUMENT ISSUE RECORD

Technical Note No	Rev	Date	Prepared	Checked	Approved (Project Director)
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T: 0161 245 8900 E: pba.manchester@stantec.com