

Memo Report

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Project Reference JAR2056 Albion Street, Manchester

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Implications of Proposed Amendments to the Albion Street, Manchester Development on Air Quality

- 1.1 This Note has been prepared by Kathryn Barker, Senior Air Quality Consultant of RPS, in support of an application to vary the planning permission for Viadux as approved by the LPA on 27 July 2017 (Application Reference: 115871/FO/2017) in light of minor amendments proposed by the Applicant. These are explained in full within the application documentation but principally consist of: alterations to a phasing plan, rationalisation of the building's massing, footprint, and layout; alteration to the structural strategy; reduction in number of car parking spaces; alterations to the elevations; and refinement of the energy strategy. The commencement of development also means that the construction programme has extended, with the Phase 1 residential building now expected to be occupied in 2024 rather than 2022.
- 1.2 In light of the proposed amendments there are no changes to the original report/s produced by RPS, as follows:
- ES Chapter 14 – Air Quality;
 - Appendices 14.1 to 14.4; and
 - Figures 14.1 to 14.4.

- 1.3 In addition, the minor nature of the changes will not cause any additional significant effects and, as a result, the conclusions of EIA deliverables in the original application remain the same with no further work required.
- 1.4 When considering the amendments, it is noted that there are three changes that could affect air quality:
1. the changes in the layout and elevations;
 2. the changes to the energy strategy; and
 3. the changes to the opening year from 2022 to 2024.
- 1.5 The 2017 air quality assessment predicted future air quality concentrations of nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}) at proposed receptors to determine the suitability of the site for its proposed use. Receptors were selected at the facades of the residential block on a variety of floors. The maximum predicted annual-mean NO₂ concentration across the modelled proposed receptors was 34.6 µg.m⁻³. This is below the annual-mean NO₂ Air Quality Strategy (AQS) objective of 40 µg.m⁻³. For PM₁₀ and PM_{2.5}, the maximum predicted concentrations were 17.1 µg.m⁻³ and 12.1 µg.m⁻³ respectively which are both well below the annual-mean AQS objectives of 40 µg.m⁻³ and 25 µg.m⁻³. Therefore, the site was deemed suitable for its proposed use and no mitigation measures were recommended.
- 1.6 The proposed changes to the site layout and elevations of each floor are minimal and whilst the exact concentrations could change slightly. Given the substantial headroom between the maximum predicted pollutant concentrations and their respective AQS objectives, it is highly unlikely that these changes would result in the predicted concentrations exceeding the relevant air quality objectives. On that basis, the changes to the layout and elevations will not cause any additional significant effects and no additional mitigation measures are recommended.
- 1.7 The 2017 air quality chapter noted that the precise details of the energy scheme were not available at the time of assessment but it was expected to comprise a combination of natural gas-fired combined heat and power units and a natural gas-fired boiler in the residential block and a natural gas-fired boiler in the office block. The emissions were expected to be released from two stacks; one on the residential block and one on the office block. The updated Energy Strategy proposes that heat and hot water for the development is generated using an all electric system rather than the originally proposed energy centres. This is beneficial for air quality as it means that emissions from the site will be less than those modelled in the 2017 air quality

assessment. On that basis, the changes to the energy strategy are not expected to cause any additional significant effects.

- 1.8 The opening year for the proposed development is likely to be 2024, rather than 2022 as assessed in 2017. Emissions from road vehicles are forecast to decrease over time. This is because less polluting, newer vehicles will become an increasing proportion of the traffic using the local road network. Therefore, if emissions decrease over time, the predicted change in pollutant concentrations at modelled receptors for a 2024 opening year will be lower than predicted in the original air quality assessment for 2022. While a small increase in traffic flows on the local road network can be expected between 2022 and 2024, this is likely to be more than offset by the decrease in emissions expected over the same period. On that basis the changes to the opening year are not expected to cause any additional significant effects.
- 1.9 Overall the amendments to the proposed development are not expected to cause any additional significant effects and the conclusions of the 2017 air quality assessment are unchanged.
- 1.10 This Note should be read in conjunction with the Covering Letter prepared by Deloitte and its enclosures submitted as part of this application.