

# **Former All Souls Rectory Every Street Manchester**

Acoustic Review Report  
1132/ARR1

10 April 2024

For:

McCaul Property Management Ltd



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# Acoustic Review Report

## 1132/ARR1

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## 1.0 Introduction

Our Acoustic Planning Report 1132/APR1 dated 12 September 2023 provided internal and atmospheric acoustic requirements to be achieved by the proposed ventilation system.

Lighthouse Acoustics has been appointed by McCaul Property Management Ltd to undertake a review of the ventilation proposals for the development with regard to achieving the acoustic requirements. The review is presented in this report.

## 2.0 Objectives

To undertake an assessment of internal noise transfer from the proposed MVHR units to internal spaces and to propose mitigation measures if required in order to achieve the requirements of the Local Authority.

To undertake an assessment of atmospheric noise emissions from the proposed MVHR units to the nearest noise sensitive receptors and to propose mitigation measures if required in order to achieve the requirements of the Local Authority.

## 3.0 Acoustic Requirements

Our Acoustic Planning Report 1132/APR1 dated 12 September 2023 provided internal and atmospheric acoustic requirements to be achieved by the proposed ventilation system.

The ventilation system should achieve noise levels of  $L_{Aeq} \leq 30\text{dB}$  in living rooms and bedrooms and  $L_{Aeq} \leq 35\text{dB}$  in kitchens and bathrooms where providing continuous background ventilation.

The ventilation system should be assessed in accordance with BS 4142:2014 and achieve a rating level of 5dB below the lowest representative background sound levels ( $L_{A90}$ ) as detailed in the table below at the nearest noise sensitive receptors.

| Nearest Noise Sensitive Receptor | Lowest Representative $L_{A90,15\text{min}}$ Background Sound Levels (dB) |            |
|----------------------------------|---------------------------------------------------------------------------|------------|
|                                  | Daytime                                                                   | Night-time |
| Front<br>(Every Street)          | 51                                                                        | 39         |
| Rear/Sides                       | 41                                                                        | 29         |

## 4.0 Ventilation Proposals

The assessment has been based on the following drawings.

| Author                            | Drawing No.              | Revision | Date     |
|-----------------------------------|--------------------------|----------|----------|
| Harris Infrastructure<br>Advisory | 1077-HAR-AP-00-DR-M-5000 | P3       | 04.08.23 |
|                                   | 1077-HAR-AP-ZZ-DR-M-5001 | P2       | 04.08.23 |
|                                   | 1077-HAR-AP-ZZ-DR-M-5002 | P2       | 04.08.23 |
|                                   | 1077-HAR-AP-ZZ-DR-M-5003 | P2       | 04.08.23 |
|                                   | 1077-HAR-AP-03-DR-M-5004 | P2       | 04.08.23 |

The proposals include an MVHR unit (Nuair MRXBOX-ECO2) serving each flat with Intake and Exhaust air ducted to air bricks in the facade. It is understood that the use of an MVHR unit negates the need for trickle ventilators in the façade of the rooms. The MVHR units are situated in a cupboard within each flat.

It is understood that the MVHR units operate at 75% (Curve 2) for background ventilation and 100% (Curve 1) for user controllable rapid/summer cooling ventilation.

## 5.0 Mitigation Measures

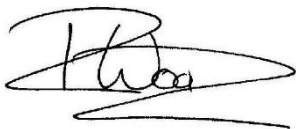
Based on the manufacturers noise data it is recommended that the following attenuation measures are implemented in order to achieve the requirements of the Local Authority.

| Inlet/Outlet | Attenuation Measure                                                         |
|--------------|-----------------------------------------------------------------------------|
| Intake       | Manufacturers PVCSIL-500 (204mm x 60mm) or equal approved attenuators       |
| Supply       | Manufacturers PVCSIL-1500 (204mm x 60mm) or equal approved attenuators      |
| Extract      | Manufacturers PVCSIL-1000 (204mm x 60mm) or equal approved attenuators      |
| Exhaust      | Manufacturers PVCSIL-1000 (204mm x 60mm) or equal approved attenuators      |
| Casing       | Cupboard door to the MVHR units is well fitting with seals to the perimeter |

## 6.0 Conclusions

An assessment of internal noise transfer from the proposed MVHR units to internal spaces has been undertaken and mitigation measures have been proposed where required in order to achieve the requirements of the Local Authority.

An assessment of atmospheric noise emissions from the proposed MVHR units to the nearest noise sensitive receptors has been undertaken and mitigation measures have been proposed where required in order to achieve the requirements of the Local Authority.



**Robin Wood**  
**LIGHTHOUSE ACOUSTICS**