

NOISE IMPACT ASSESSMENT

Lime Square Unit 17-18, Ashton Old Road, Openshaw M11 1DA

1.0 INTRODUCTION

1.1 Overview

This statement is in support of the above site for:

Full Planning: Proposed installation of 5no. new outdoor AC condensing units to rear service yard.

Use: The unit is situated within the high street. Following the minor refurbishment works the unit will continue to trade as Specsavers Opticians.

1.2 Noise Assessment, Guidance

The proposed design and location of the AC units are not viewed as a 'more significant scheme' as the proposal will not generate 'significant noise by way of an industrial process such as grain drying, energy generation such as wind turbines or biomass boilers' as the proposals are only for the net gain of 5no small modern AC units to serve the retail store interior. Therefore planning guidance asks that we provide the following information for consideration as a part of the required noise assessment:

- 1) Plans & Elevations showing the location of any external equipment.
- 2) Detailed drawings of the design of the equipment, pipework and flues, including full details of its external appearance.
- 3) The acoustic characteristics of the equipment (whether internal or externally mounted) and measures proposed to minimise the impact of noise on neighbours (including noise insulation and hours of operation.)

2.0 DETAILS OF THE PROPOSAL

2.1 Plans

Please refer to project relevant drawings for plans, elevations and details of the proposals.

2.2 Details

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Amount – 5no. new outdoor condenser units, wall mounted externally.

Layout – 5no. units mounted to wall, in a row, above rear access door to shared service yard.

Scale – See specification below for details.

AC Units Specification - <https://www.daikin.co.uk>

C/U – 1 Daikin RXYSCQ4T – Dims: H823 x W940 x D480 Weight 89kg, Sound Pressure 51dba @1m
C/U - 2-4 Daikin RZAG 35A – Dims: 734 x W870 x D375 Weight 52kg, Sound Pressure 48dba @1m
C/U - 5 Daikin RZAG-125L – Dims: H990 x W940 x D320 Weight 70kg, Sound Pressure 49dba @1m

2.3 Justification

The proposed AC units are essential to ensure temperature and fresh air flow is maintained within the medical test rooms. Individual units are required for each test room and the customer circulation spaces to ensure the interior temperature is kept constant for the delicate equipment used throughout. This requirement is part of the NHS contract agreement for keeping their store up to the correct standards.

The 5 units are required for the large site to serve all the test rooms and the circulation spaces throughout over 2 floors. This site will be a large store with multiple test room areas, hence the requirement for 5 units.

Our client always seeks the advice of independent Air Conditioning specialists, to provide the most efficient AC installation, aiming to use the minimum units possible to comply.

2.4 Noise Impact Assessment

The proposed outdoor AC units are to be positioned at the rear of the property, to an existing shared service yard, and this area can be quite busy/noisy during working hours with vehicles coming and going throughout the day due to the car park and road directly behind and in front of the application site.

There are no clear residential properties in close proximity that overlook the rear of the application site, only commercial and retail properties, as they are located within the shopping / retail district.

There are also many other AC units installed to the rear of the neighbouring units, to both sides and the proposed units are much smaller and modern designs that are much more efficient and quieter as reflected in the noise data provided in this document.

The Units will be wall mounted on cantilever brackets. The brackets are fitted with rubber anti-vibration pads that are standard to all modern AC mountings to help reduce vibration output.

The proposed units will only operate during the units working hours 08:00 – 18:30 and will not operate overnight. The fans within the AC units also do not operate continuously, only when heating or cooling, therefore they are not operational for much of the working hours specified.

The condenser units only circulate fresh air, they do not ventilate any chemical by-products. The new units will be significantly quieter than any older units as they are modern energy efficient designs and they are only small daikin installations, with a max noise pressure of 51dba when measured at 1m distance, which is significantly lowered at 10m distance.

2.5 Summary

It is therefore our belief that there will be no significant noise impact created by the installation of the new units to the rear of the building, due to the modern equipment that is being proposed, the fact the units will only be operational during working hours (not in the evening) and the careful consideration for the units locations within existing shared service areas, adjacent to busy roads and car parks, and the installation area being enclosed / not in any direct public view.

2.6 Photos

Please see AC Elevations drawing for photo of the rear service yard.