

Technical Addendum

Site Address:	29-31 Drake Street, Rochdale, OL16 1RX
Project Reference No:	NP-009489
Subject:	Addendum to Previous Noise Impact Assessment (Ref. 6940CD)
Client:	Campbell & Dumville (NW) Ltd.
Reported By:	R Whitfield, MSc, AMIOA
Checked By:	M Caley, MSc, MIOA
Date:	08/06/2023

Introduction

NOVA Acoustics Ltd was commissioned by Campbell & Dumville (NW) Ltd to prepare a noise impact assessment (NIA) in support of a planning application to Rochdale Borough Council for a residential development at 29-31 Drake Street, Rochdale, OL16 1RX ('the Site'). Following submission of the NIA, it has now been proposed that the layout of the development is changed to incorporate the installation of new windows to the second-floor front façade of the building, overlooking Drake Street. As such, the Council have requested that it is confirmed that the sound insulation specifications outlined in the original NIA are still appropriate, and that they will continue to protect future residents from noise ingress. This addendum report is intended to be considered in conjunction with the previously submitted assessment (Ref. 6940CD).

Proposal Brief

The proposal is for the change of use of the existing building's upper floors from a training centre to 3no. residential flats. The figure below shows the amended scheme including the proposed additional windows at the second-floor level.

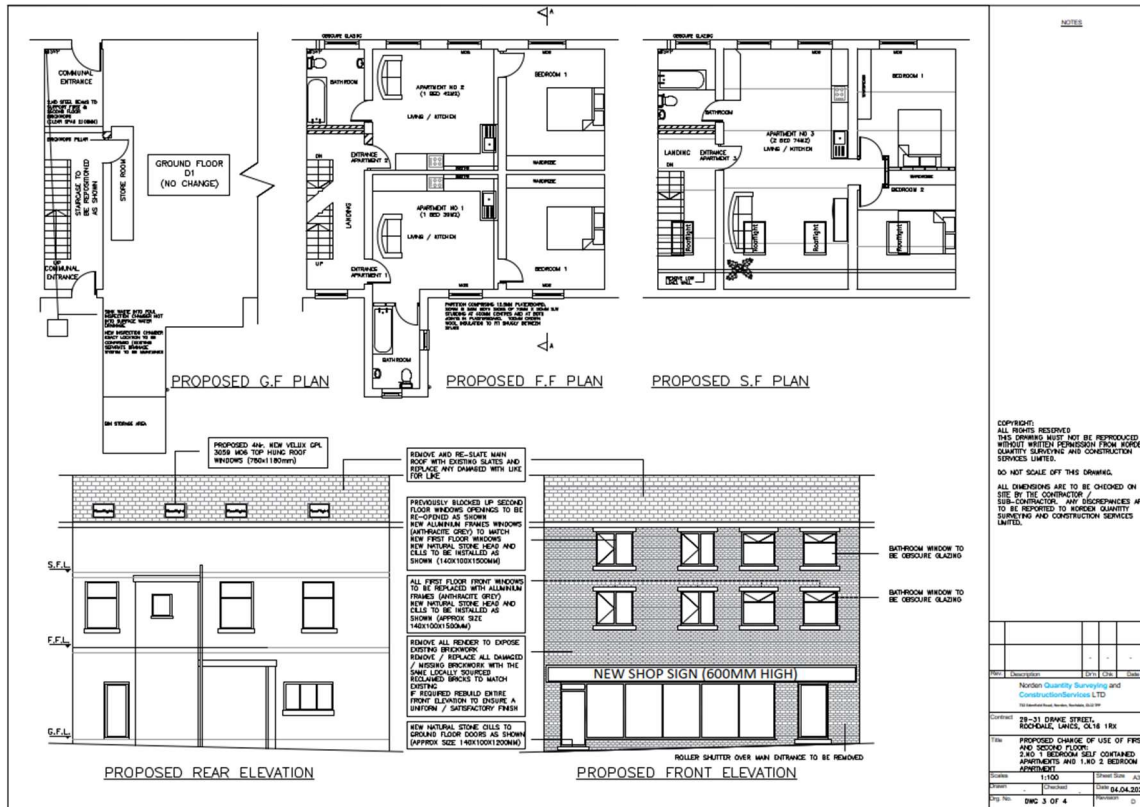


Figure 1 – Proposed Development Layout – Drawing Ref No. DWG 3 of 4 - D from ‘Norden Quantity Surveying and Construction Services Ltd.’

As can be seen in the figure above, the dimensions of the additional windows will be approximately the same as the windows on the first floor of the building. Room layouts and dimensions within the development will not change from those proposed in the initial drawings provided by the applicant which were submitted alongside the original planning application.

Noise Break-In Assessment and Sound Insulation Scheme

Glazing and Background Ventilation Specification

The following section outlines the glazing and background ventilation specifications that were proposed in the original NIA.

Façade Allocation

The sound levels measured at the façades of the property vary significantly. In order to correctly specify the required sound reduction, the façades are divided into three colour groups, yellow, red and green. Each colour group is inclusive of all residential levels on each façade. Appropriate models of glazing and ventilation for each façade colour are shown in Tables 1 to 3.

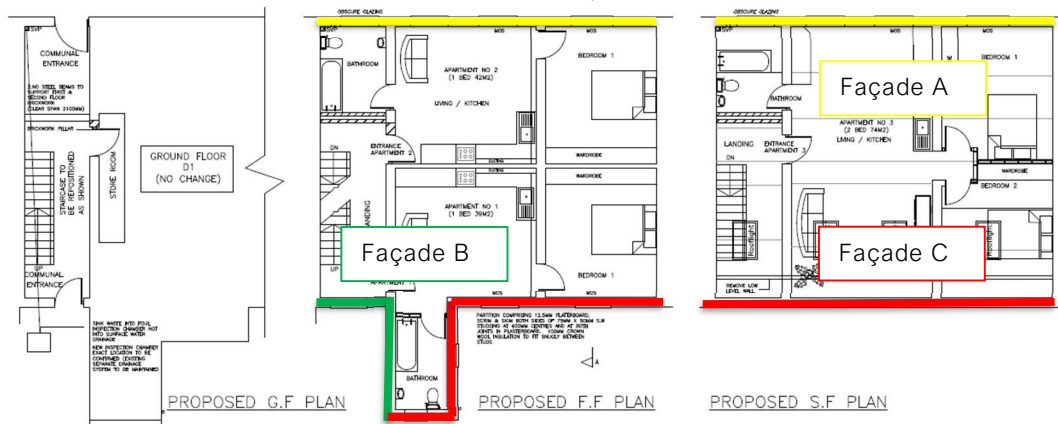


Figure 2 - Façade Allocation – All Floors

Sound Insulation Scheme – Façade A - Living Rooms & Bedrooms									
Description	Octave Frequency Band (Hz, dB)							Overall (dB)	Overall (dB)
	63	125	250	500	1k	2k	4k		
Living Room: 8mm Glass / 16mm Air Cavity / 4mm Glass (SRI)*	21	22	21	28	38	40	47	33 (R _w)	28 (R _w + C _{tr})
Bedroom: 10mm Glass / 16mm Argon Cavity / 8.8mm Optiphon Glass (SRI)*	25	28	31	42	45	50	58	44 (R _w)	38 (R _w + C _{tr})
Greenwoods 2500EA.AC1 (2 No. Trickle) (D _{ne})*	31	41	40	37	47	43	46	42 (D _{ne})	40 (D _{ne} + C _{tr})

Table 1 – Glazing and Ventilation Specification – Façade A (Yellow)

Sound Insulation Scheme – Façade B - Living Rooms & Bedrooms									
Description	Octave Frequency Band (Hz, dB)							Overall (dB)	Overall (dB)
	63	125	250	500	1k	2k	4k		
Living Room: 6mm Glass / 16mm Air Cavity / 4mm Glass (SRI)*	20	21	20	26	38	37	39	31 (R _w)	27 (R _w + C _{tr})
Bedroom: 8mm Glass / 16mm Air Cavity / 6mm Glass (SRI)*	20	20	21	33	40	36	48	34 (R _w)	29 (R _w + C _{tr})
Greenwoods 2500EA.AC1 (2 No. Trickle) (D _{ne})*	31	41	40	37	47	43	46	42 (D _{ne})	40 (D _{ne} + C _{tr})

Table 2 – Glazing and Ventilation Specification – Façade B (Green)

Sound Insulation Scheme – Façade C - Living Rooms & Bedrooms									
Description	Octave Frequency Band (Hz, dB)							Overall (dB)	Overall (dB)
	63	125	250	500	1k	2k	4k		
Living Room: 10mm Glass / 16mm Argon Cavity / 8.8mm Optiphon Glass (SRI)*	25	28	31	42	45	50	58	44 (R _w)	38 (R _w + C _{tr})
Bedroom: 12.8mm Glass / 20mm Argon Cavity / 16.8mm Optiphon Glass (SRI)*	28	35	45	49	50	54	65	51 (R _w)	46 (R _w + C _{tr})
Greenwoods MA3051 (2 No. Trickle) (D _{ne})*	30	46	45	50	55	65	67	55 (D _{ne})	52 (D _{ne} + C _{tr})

Table 3 – Glazing and Ventilation Specification – Façade C (Red)

*Any other window or ventilation specification capable of providing this attenuation will be suitable provided the glazing suppliers can provide an acoustic test report in accordance with BS EN ISO 10140-2:2010 or an evidence-based calculation.

Discussion

As the dimensions of the rooms have not changed and the additional windows will have approximately the same dimensions as those found elsewhere in the building, the addition of new windows is not thought to affect or materially change the originally specified sound insulation scheme. As such, it is assumed that the glazing and ventilation specifications proposed in the original NIA (ref: 6940CD), would still be appropriate to mitigate against noise ingress and provide suitable levels of residential amenity.

DOCUMENT END

Disclaimer

This document has been prepared for the Client only and solely for the purposes expressly defined herein. NOVA Acoustics Ltd owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by NOVA Acoustics Ltd in signed writing, NOVA Acoustics Ltd hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law. This report has been solely on the specific design assumptions and criteria stated herein.

All works undertaken by NOVA Acoustics Ltd are carried out in accordance with NOVA Acoustics Ltd.'s terms and conditions found at www.novaacoustics.co.uk.

Contact Details

NOVA Acoustics Ltd,
Suite 13, Crown House,
94 Armley Road,
Leeds,
LS12 2EJ

0113 322 7977

www.novaacoustics.co.uk
technical@novaacoustics.co.uk