

**External Patio Area
Stanley House
Further Lane
Mellor, Blackburn**

Acoustic Assessment Report
1064/AAR2

27 August 2024

For:

Monte Blackburn Ltd



2nd Floor 3 Hardman Square
Spinningfields Manchester M3 3EB



Acoustic Assessment Report

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Registered Office: 2nd Floor 3 Hardman Square Spinningfields Manchester M3 3EB
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1.0 Introduction

Lighthouse Acoustics has been appointed by Monte Blackburn Ltd to undertake an assessment of patron noise from the existing external patio area to the nearest noise sensitive receptors.

The assessment is presented in this report.

2.0 Objectives

To undertake an assessment of patron noise from the existing external patio area to the nearest noise sensitive receptors and provide comments on the likely acceptability.

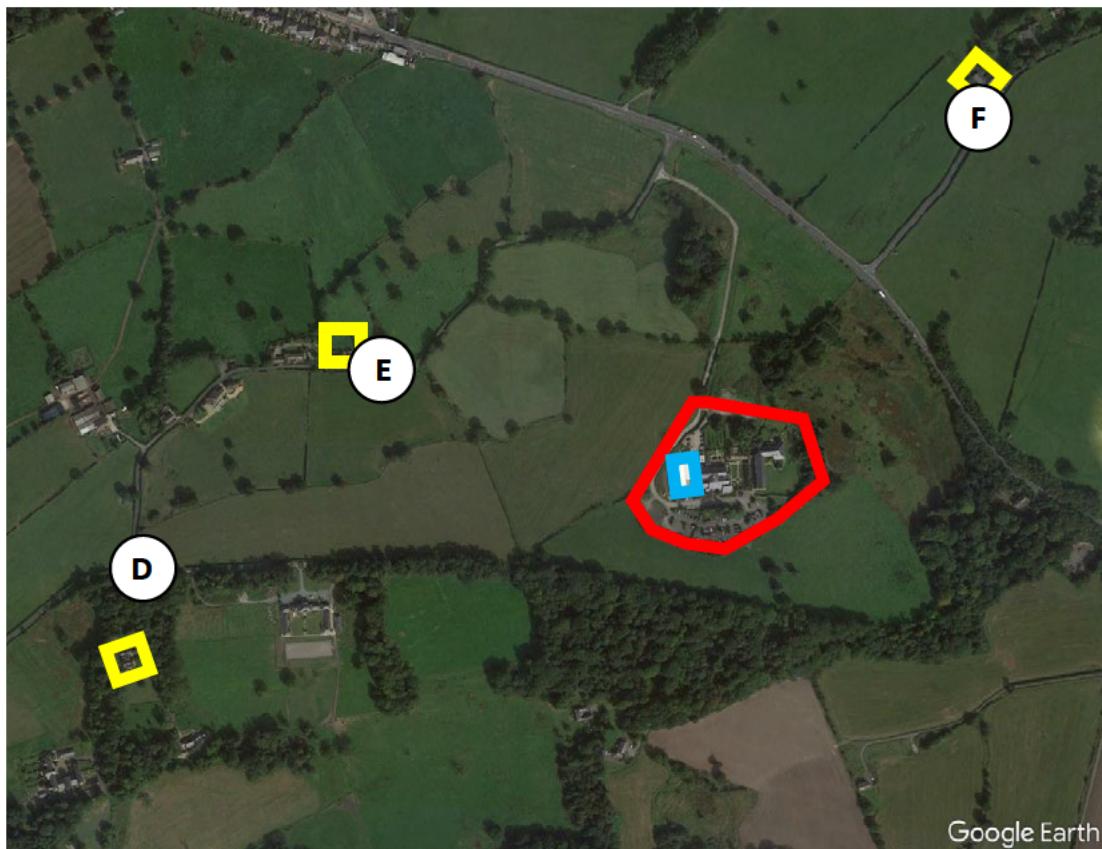
If required, to propose mitigation measures in order to minimise patron noise from the existing external patio area to the nearest noise sensitive receptors.

3.0 Site Description

Stanley House hotel and spa is situated off Further Lane, Mellor, Blackburn. The site comprises numerous hotel and spa buildings and car park along with an Events Marquee and external patio area. The site is bound by fields in all directions and is situated to the south of Preston New Road (A677).

The nearest noise sensitive receptors are understood to be residential properties situated to the north east along Mire Ash Brow, to the south west off Further Lane and to the north west along Further Lane.

The site plan overleaf indicates the site boundary, nearest noise sensitive receptors and the surrounding environment.



Site plan indicating the site boundary, nearest noise sensitive receptors and the surrounding environment

4.0 Local Authority Requirements

Ribble Valley Borough Council have requested that a noise impact assessment is undertaken for the existing external patio area by an independent suitably qualified and competent person.

5.0 Qualifications

The survey, assessment and report has been undertaken by Robin Wood of Lighthouse Acoustics who has over 23 years experience in acoustic consultancy. Qualifications include BEng (Hons) in Electroacoustics, Member of the Institute of Acoustics (MIOA), Member of the Association of Noise Consultants (ANC) and Member of the ANC Pre-Completion Testing Registration Scheme.

6.0 Assessment

6.1 Operating Hours

It is understood that the existing external patio area has the potential to be used between 18:00 and 23:00 hours 7 days a week.

Typical patron sound levels from the existing external patio area are therefore assessed against the lowest $L_{A90,5\text{min}}$ background sound level at the nearest noise sensitive receptors.

6.2 Sound Sources

It is understood that the existing external patio area has a capacity of up to 100No. patrons and will not feature any amplified music.

6.3 Lowest Background at Receptors

Our Acoustic Commissioning Report 1064/ACR1 dated 25 May 2023 details the environmental sound survey methodology and results. The lowest background $L_{A90,5\text{min}}$ sound levels measured at the nearest noise sensitive receptors are presented in the table below.

Receptor	Description	Lowest Background $L_{A90,5\text{min}}$ (dB)
D	Residential to the south west of the site	33
E	Residential to the north west of the site	34
F	Residential to the north east of the site	34

6.4 Distance to Receptors

The distance between the existing external patio area and the nearest noise sensitive receptors is presented in the table below.

Receptor	Description	Distance (m)
D	Residential to the south west of the site	690
E	Residential to the north west of the site	420
F	Residential to the north east of the site	600

6.5 External Sound Data

For the existing external patio area, it is assumed that half of the people in the space will be talking at any one time. Of these people it is assumed that half will be talking with a normal voice whilst half will be talking with a raised voice. The sound pressure levels for 1No. person talking with normal and raised voices at 1m are detailed below and will each be applied to a quarter of the total number of seats in the space.

Source Description	L _{eq} Sound Pressure level (dB) at Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
1No. person talking with normal voice at 1m for external seating area	42	47	57	60	54	49	44	39	60
1No. person talking with raised voice at 1m for external seating area	46	51	62	66	62	57	51	43	67

6.6 Calculation

The sound pressure level radiated from the existing external patio area due to people talking has been calculated using the following formula:

$$L_p = L_{p1m} + 10 \log N - 20 \log R$$

Where:

L_p is the sound pressure level at the receiver, dB;

L_{p1m} is the sound pressure level of 1No. person talking at 1m, dB;

N is the total number of people talking within the external space, m²;

R is the distance in meters between the external space and the receiver, m.

6.7 Results

The calculated L_{Aeq} typical patron sound levels from the existing external patio area incident upon the nearest noise sensitive receptors are presented in the table below.

Receptor	Description	Calculated L _{Aeq} (dB)
D	Residential to the south west of the site	25
E	Residential to the north west of the site	29
F	Residential to the north east of the site	26

The assessment indicates that L_{Aeq} typical patron sound levels from the existing external patio area incident upon the nearest noise sensitive receptors are likely to achieve a level of at least 5dB below the lowest L_{A90,5min} background sound level at the nearest noise sensitive receptors.

This is a good indication that patron sound levels from the existing external patio area are likely to have a low impact at the nearest noise sensitive receptors.

7.0 Good Practice Guidance

The following measures should be considered in order to minimise the likelihood of complaints at the nearest noise sensitive receptors:

- External patio area to be vacated by patrons prior to 23:00 hours;
- External doors from events marquee to external patio area to be fitted with automatic closers to ensure doors are kept closed during functions;

- Live/amplified music to be prohibited in the external patio area;
- Door supervisors or staff should regularly monitor and manage external areas to ensure that patrons are not causing a disturbance to local residents. Rowdy behaviour from patrons should not be tolerated and anyone behaving in an anti-social way should be asked to leave the premises.

8.0 Conclusions

An assessment of patron noise from the existing external patio area to the nearest noise sensitive receptors has been undertaken and comments have been provided on the likely acceptability.

Mitigation measures to minimise patron noise from the existing external patio area to the nearest noise sensitive receptors have been proposed.



Robin Wood
LIGHTHOUSE ACOUSTICS