

NYMNPA

26/10/2018

From:
Sent: 26 October 2018 13:21
To: Andrew Muir
Subject: CVC Check for Manor Farm, Normanby -

Dear Mr Muir

Please find attached update on the conditions for Gibbon Brothers @ Skelder View, Normanby. Apologies this has taken some time, Mr Gibbons manager has recently suffered a heart attack and this has meant further challenges for the business.

In addition, I attach a copy of a revised Acoustic report for your information.

Kind regards

Cheryl Ward

Cheryl Ward Planning
MSc MRTPI

Referrals welcomed



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ACOUSTIC ASSESSMENT IN SUPPORT OF PLANNING APPLICATION NYM/2018/0384/FL

GIBBON BROS. METAL FABRICATION SHOP – SKELDER VIEW

October 2018

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ACOUSTIC ASSESSMENT GIBBON BROS. METAL FABRICATION SHOP – SKELDER VIEW

Preamble

Gibbon Bros. operate a metal fabrication workshop at Skelder View. The workshop is used to fabricate and repair bespoke equipment in support of local industries. The workshop is in use only during normal day hours and only for approximately 40% of the working week with the remaining 60% of the week being spent at client premises.

The workshop walls and ceiling has been constructed with panels commonly used for cold rooms. The panels are made with 100 mm rigid polyurethane foam covered and encapsulated on both side with metal sheets. The large front entrance and the small rear door are both made with the same materials. The work shop is built effectively like a cold room and is expected to have good sound insulation properties.

This report assesses the impact of noise from the premises on the nearest residential locations. It is intended for an acoustically qualified readership and consequently detailed explanation of noise parameters and standards have been excluded for the sake of brevity and clarity.

Locations

Key locations are show in Figure 1



Figure 1 Key locations

Methodology

Noise measurements were made in the workshop over a period in excess of 1.5 hours when normal activities were being carried out in order to establish the source noise levels. Figure 2 displays the 1 second time history of the noise measurement.

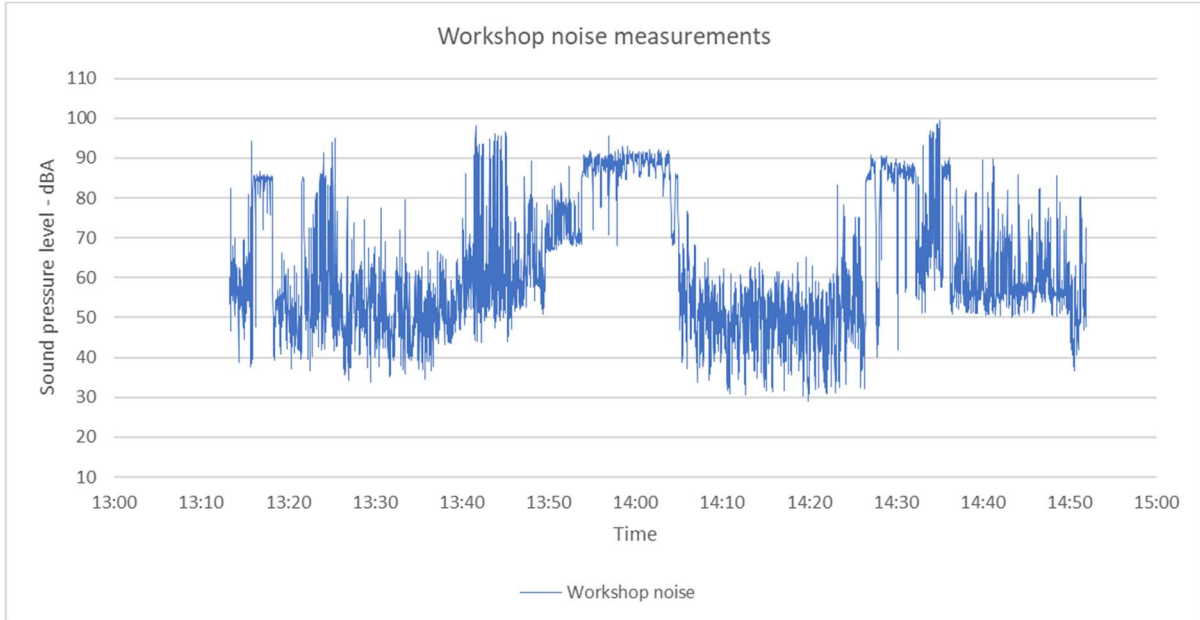


Figure 2 Workshop noise levels during normal activities

High internal pink noise levels (98.5 dBA) were generated in the workshop and the consequent external levels measured at 11 m distance (location M) – see Figure 3. The measured 1/3 octave data enabled the calculation of the building attenuation which could then be used to derive the external noise resulting from the workshop activities. Simple noise propagation calculation (distance only) then permitted the estimation of the noise impact on the sensitive locations.

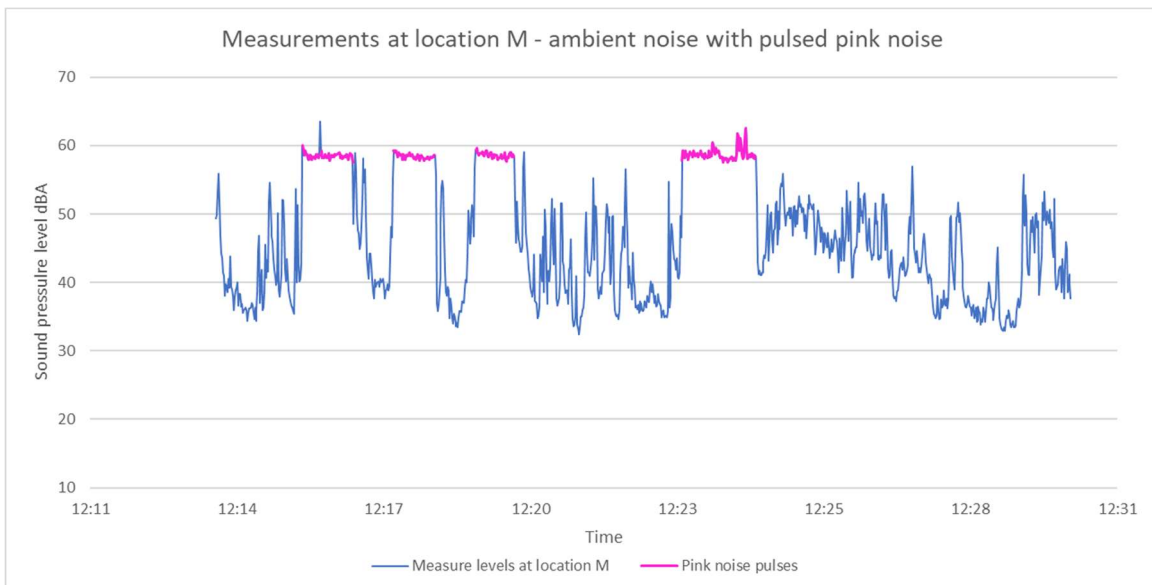


Figure 3 Pink noise bursts

In the first instance attempts were made to measure the direct impact of the high level pink noise at Location 2 (Figure 1) but the barrier effect of the intervening (non-residential) buildings rendered the noise inaudible and it was concluded that there would be no adverse noise impact at Location 2. Further consideration was not therefore given to Location 2.

Ambient and background noise

Figure 4 displays the ambient and L90(5 min) sound pressure levels at Locations 1 and 2. The main noise source is traffic on the A171.

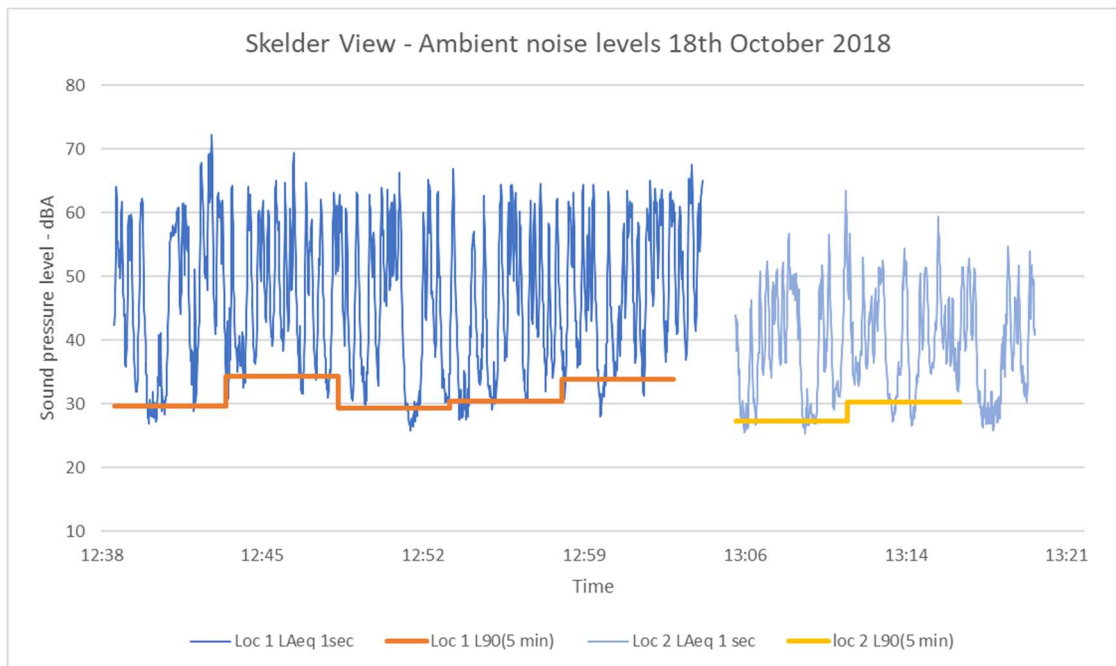


Figure 4 Ambient and background noise levels

The measurements for Location 1 were taken at an equivalent position on the opposite side of the road whereas those for Location 2 were taken at Location 2. Location 2 benefits from the screening provided by roadside buildings. At the time of measurement all the ambient noise was due to road traffic noise.

It can be seen from Figure 4 that the 5 min background level is in the region of 30 dBA which might be expected in the absence of traffic in a relatively remote location on the moors. The L90 background level for the entire recording period was determined as 31.4 dBA. Figure 4 also clearly illustrates that there is a significant impact from traffic noise.

Calculations

Detailed calculations are appended. The 1/3 octave external pink noise was summated and averaged from the data identified by the pink noise regions marked in Figure 3. No corrections were made to this data for ambient noise (worst case). Simple subtraction allows the attenuation achieved at location M to be calculated which then allows the calculation of workshop activity noise at the same location.

The attenuation due to distance has been calculated based on the source being at the centre of the workshops which allows for the area of the wall emitting noise to the measurement location (20 m). Thus the additional attenuation at Location 1 is given by:-

$$20 * \log_{10}(50/20) = 8 \text{ dB}$$

Where 50 is the distance of Location 1 from the workshop centre.

The calculations show that the specific noise (workshop noise) at Location 1 is 33 dBA LAeq(1 hour).

Noise environment (Location 1)

The noise environment is exceptional in that the ambient noise levels are relatively high LAeq 56.4 dB whilst the background level is extremely low L90 31.5 dBA. The situation is best illustrated by plotting the workshop noise impact on the typical ambient noise, Figure 5.

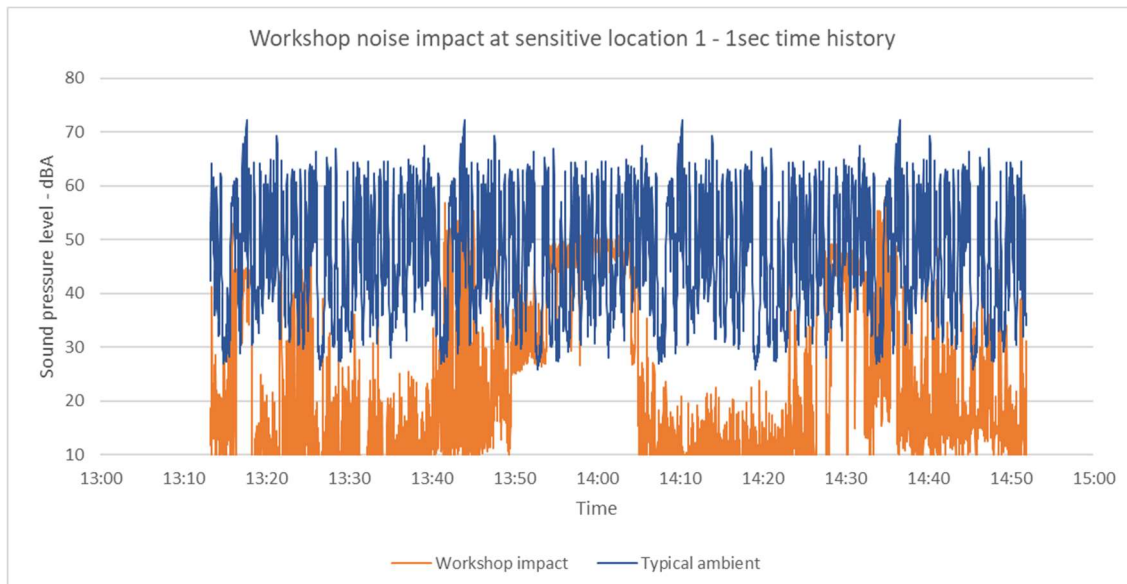


Figure 5 Calculated workshop noise impact cf. typical ambient noise

It is clear that for most of the time the workshop noise will be inaudible. For short periods the highest levels of workshop noise may be audible but the noise will be 'lost' within the general road traffic noise. Furthermore, there will be no set pattern to the workshop noise and the character will not include significant persistent tones. Workshop noise will only be generated during 40 % of the week and for these reasons a noise character penalty is considered inappropriate.

Assessment

Any adverse environmental noise impact at Location 2 has been discounted.

An assessment in accordance with BS4142 has been appended for Location 1. The assessment shows that the excess of rating over the background level is 1.5 dB which might normally give rise to a small degree of concern, however, when considered in the context of the noise environment (see

above) and the low absolute level of the noise impact, LAeq 33 dB, there is not considered to be an environmental noise issue.

NYMNPA

26/10/2018

Geoff Taylor BEng PhD CEng MiMechE MIOA
GT Acoustics

Addendum

All sound measuring instrumentation used in this assessment was of type 1 and within its calibration period and was checked calibrated before and after use.

Weather conditions were fine and dry with a measured wind speed of 2 m/s

BS4142 Assessment at Location 1

Assessment to BS4142		
PROJECT GIBBON BROS. SKELDER VIEW		
RESULTS		
Measured ambient sound level	56.4 dBA	
Residual sound level	56.4 dBA	
Background sound level	31.5 dBA	
Reference time interval	1 Hour	
Specific sound level	33 dBA	
Acoustic feature	0	Based on the variability of activities and the context.
Rating level	33 dBA	
Excess of rating over background sound level	1.5 dB	
Indications	Low expectation of adverse reaction	Based on the context and the low absolute levels of noise involved
Uncertainty	Variability of workshop activities	



25 October 2018

Skelder View (Manor Farm), Normanby – Decision No. NYM/2018/0384/FL

Condition 1 – Timetable for completion of works

<i>Item</i>	<i>Description</i>	<i>Timescale (of letter)</i>	<i>Update</i>
1.	Erect the remaining part of the structure in line with the approved plans and materials to match the main building (steelwork authorised to be made)	3 months	Steelwork ordered Dec18/Jan 19 completion
2.	Stain fence dark brown	1 month	Completed
3.	Install lighting	1 month	Completed
4.	Discussion with Highway Improvement Manager (HIM) (Helen Watson) in relation to Conditions 11, 12, 13, 14 & 15	Actioned & is on-going	Request for an engineer site visit awaited
5.	Specification for Highway works to be drawn up with HIM	On-going	Request for an engineer site visit awaited
6.	Implementation of Highway improvement works	To be completed within 6 months	Request for an engineer site visit awaited
7.	Site clearance and tidy – incl. composite panels to be used in build. + digger	1 month after completion of build	1 month after completion of build – Dec 18 /Jan 19
8.	PROW diversion - NYCC	On-going – up to 1yr	On-going – up to 1yr
9.	Stock proof fencing – highway works will determine where this will be located	On-going	On-going pending the above

Table 1 – Implementation timetable

Condition 8 – Lighting

Installation complete.

Condition 9 – Noise assessment

See attached document.

Condition 11, 12, 13 – Highway improvement works

Detailed plans for highway improvements remain outstanding until after highway engineer visit

John Noble will be appointed to carry out the works to the site frontage

Condition 15 – Delivery vehicle

Is confirmed to be: Non-HGV rigid 7.5 tonne, 7 metre long wagon (small truck) – similar to the one shown below.



Condition 16 & 18 – Landscaping to offset CO2 emissions

See attached landscaping specification at **Appendix B**. No grant money available from Potash funds.

Currently await confirmation from NYM planning whether the additional planting can be used to offset the predicted CO2 emissions condition.

Condition 19 – PROW update

NYCC Highway have commenced the process to divert the adjacent footpath. The process is likely to take 1 year to complete as guided by the highway officer. A copy of the route suggested by NYCC was enclosed with the last documentation.

Appendix B

Landscaping specification – Skelder View, Manor Farm, Normanby – NYM/2018/0384/FL – to be formalised

Dwg No.	Description	Quantity	Species	Density	Height and Spread	Conservation value	Planting season
	Native tree planting field to north in assoc. with Cond. 18	6 acres of land	Advice to be taken – what might successfully grow in coastal location – i.e. Oak, Ash, Beech, Sycamore, Silver Birch	More than 2 – 3 metres apart	After 10 yrs: 6m x 3m After 20 yrs: 12m x 8m	High	Mid Nov to late March
	New hedge row to be situated between proposed footpath and fence in situ immediately west of buildings (see footpath plan NYCC)	6 plants per metre	Hawthorn (majority) Holly Blackthorn Guelder rose Hazel	45 – 60cm in staggered row at 30 – 50 cm	Close planting to encourage establishment and growth	High	Mid Nov to late March