



Construction Noise & Vibration Management Plan

Former Neath Working Men's Club

July 2023

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July 2023

Castell Group

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1. Introduction

- 1.1 Phlorum Limited has been commissioned by Castell Group to provide a Construction Noise & Vibration Management Plan for the demolition of the existing building and the construction of residential accommodation at the Former Neath Working Men's Club (NWMC). The property is located within the administrative boundaries of Neath Port Talbot County Borough Council (NPTCBC).
- 1.2 The construction noise has been established by predicting the effects against national guidelines on construction noise. Where necessary, mitigation measures have been recommended so that a noise climate suitable for the proposed development can be achieved.
- 1.3 Whilst reasonable efforts have been made to produce a report that is easy to understand, it is technical in nature. To assist the reader, an introduction to noise, and an explanation of the terminology used in this report are contained in Appendix A.

2. Site & Development Description

Project Overview

- 2.1 The site was previously occupied by the Neath Working Men's and Social Club (NWMC), a large building with access from High Street. Site boundaries are defined by High Street to the north, Wind Steet to the south, a car park to the east and commercial buildings to the west. It is proposed that NWMC is to be demolished to construct 35 affordable social homes on the outskirts of Neath town centre. The method of build is to use Metsec light steel framing, with external finishes of masonry and cladding. The site location is shown in Figure 1.
- 2.2 The scope of works is shown below:
- ☞ Secure site boundary;
 - ☞ Apply for temporary footpath closure to extend temporary fencing for scaffold & demolition;
 - ☞ Apply for utility disconnections;
 - ☞ Existing sewer Diversion;
 - ☞ Logistical plans;
 - ☞ Internal asbestos removal;
 - ☞ Soft strip demolition;
 - ☞ Scaffolding;
 - ☞ External asbestos removal;
 - ☞ Hand demolition (extent TBC);
 - ☞ Hard demolition down to ground level;
 - ☞ Excavate basement and existing foundations;
 - ☞ Fill excavations;
 - ☞ Removal of contaminated soil;
 - ☞ Site clearance;
 - ☞ Piling mat & piling (CFA);
 - ☞ Groundworks 1st visit – beams, drainage internal & external, service ducts, subs blockwork, oversite;
 - ☞ Superstructure – scaffolding, metsec frame, masonry, cladding, roof and cover;

- 🕒 Groundworks 2nd visit – utilities, amenities, soil capping, hard landscape, top soil, permeable areas drives and roads, landscaping;
- 🕒 Internal 1st fix trades – Carpentry, Sprinkler, Plumbing, electrics, PV, telecoms;
- 🕒 Drylining - Plaster boarding, plaster skim;
- 🕒 Internal 2nd fix trades – Plumbing, electrics, carpentry, tiling, kitchens, decoration;
- 🕒 Internal final trades – sprinkler, electrics, TV, PV, telecoms, plumbing , carpentry, cleans, flooring, sealant;
- 🕒 Commissioning trades – electrics, plumbing, PV, sprinklers, air test;
- 🕒 Client Snagging; and
- 🕒 Handover.

2.3 The schedule of construction works is shown in Appendix B.

3. Guidance

Council Construction Guidance (NPTCBC)

- 3.1 NPTCBC have provided the following guidance regarding construction noise in the Local Development Plan 2011-2026, Pollution – Supplementary Planning Guidance, October 2016.

"[...] 4.2.9 Developments that could have unacceptable adverse effects through noise generation during their construction phase may be required to submit a noise impact assessment to cover this issue. Normally this will need to include an assessment of the likely noise generation and its impacts during the construction phase, together with proposed measures to address these issues, generally as part of a construction management plan. Further information on these requirements can be obtained from the council."

- 3.2 Based on the above statement the noise assessment has considered both national guidance and Codes of Construction Practice with regard to construction noise and vibration, as discussed below.

Construction Noise & Vibration

- 3.3 The guidance for the construction noise and vibration assessment is based on both the methodology provided in BS5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites. Noise and BS5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites. Furthermore, many councils have published a 'Code of Construction Practice', which consider issues around noise and vibration, as well as the full range of issues that residents have about the impact of construction. The guidance provided by the Royal Borough of Kensington & Chelsea's 'Code of Construction Practice, April 2019' has been adopted for the Construction Noise and Vibration Management Plan.
- 3.4 The key elements of the adopted Code with respect to Noise and Vibration are:
-  Noise Limits – Construction noise must be within a daily level of $L_{Aeq,10\text{ hr}}$ 70 dB for airborne noise when measured (or predicted) at the nearest noise sensitive premises/site boundary. A first Action Level Trigger of $L_{Aeq,1\text{ hr}}$ 73 dB must be used to ensure daily levels are within the $L_{Aeq,10\text{ hr}}$ 70 dB.
 -  Vibration Limits - The vibration levels must not exceed the trigger action level of 3 mm/s PPV.

- 🌱 Permitted Hours of Work – All works that can be heard at the site boundary must be carried out only between 8am and 6pm Monday to Friday and not on Saturdays, Sundays or Bank Holidays.
- 🌱 Noise & Vibration - All sites will be subject to control through a notice/consent under s60 or s61 of COPA 1974. The use of powered, percussive breaking equipment shall be avoided.

3.5 The following noise and vibration trigger levels and general requirements taken from both BS5228 and the adopted Code are discussed below.

General requirements - Noise Levels

- 3.6 Unless existing ambient noise levels are already high ($>65 \text{ dB } L_{Aeq,10 \text{ hr}}$), such as sites in mixed commercial/residential areas or those that are close to major roads, noise levels from all sites must be within a daily level of $L_{Aeq,10 \text{ hr}}$ 70 dB for airborne noise when measured (or predicted) at the nearest noise sensitive premises/site boundary. A first Action Level Trigger of $L_{Aeq,1 \text{ hr}}$ 73 dB must be used to ensure daily levels are within the $L_{Aeq,10 \text{ hr}}$ 70 dB.
- 3.7 It is acknowledged that structure-borne noise, such as that generated by works directly on to party walls or internal floor slabs shared by multiple properties, is difficult to accurately predict and that there are few mitigation measures that can be implemented. Additionally, measurement of structure-borne noise levels at the site boundary (or within the nearest occupied premises) poses a number of practical difficulties.
- 3.8 For these reasons, the noise levels and monitoring regimes detailed within this section apply only to airborne noise as measured at the site boundary or free-field one metre from the façade of the nearest occupied premises (or at some other location as agreed with the Council). The impact of structure-borne noise must be mitigated by employing low-impact techniques and by limiting works to the 'restricted hours' for high impact activities. It is understood that the use of percussive demolition and piling equipment will only be for short durations during the construction process.

Predicting Construction Noise Levels

- 3.9 Prior to any works starting on a site that require noise monitoring, a noise survey must be carried out to establish existing ambient noise levels during the hours of construction. This data will allow the likely effects of the various construction activities to be assessed and will determine whether ambient noise levels exceed $L_{Aeq,10 \text{ hr}}$ 65 dB.

- 3.10 Annex F of BS5228-1 sets out a number of methods for predicting noise levels from construction activities. These should be used to estimate the likely daily noise level ($L_{Aeq,10\text{ hr}}$) at the nearest noise sensitive premises; a report should also be prepared which includes the details of any predictions and which must include a statement advising whether the $L_{Aeq,10\text{ hr}}$ 70 dB level will be met or not. Any noise predictions, noise survey and report must be prepared by a competent acoustician who is a member of the Institute of Acoustics. The author of this report has been a Member of the Institute of Acoustics for over 30 years.

General Requirements – Vibration Prediction and Limits

- 3.11 Annex E of BS 5228-2 provides a method for predicting vibration from vibratory/percussive piling and ground compaction works. However, in the absence of any guidance on vibration prediction for other types of work, examples of situations where vibration monitoring is likely to be necessary are:

“Heavy demolition and/or concrete breaking works (using percussive breaking equipment) for in excess of 6 weeks, and where there is a structural connection between the development site and a noise-sensitive property.”

- 3.12 Based upon the guidance within BS5228-2, sites where significant vibration from work activities is likely to be significant, Table 3.1 shows that Action Trigger Levels (ATL) 1 and 2 which must be adopted (unless otherwise agreed) to monitor and manage vibration generation.
- 3.13 Vibration levels will usually be measured within or at the site boundary and not at dwellings/sensitive receptors. However, it is possible to derive a transfer function between any adjacent dwellings and the associated ATL monitoring position. Transfer functions should be agreed with the Council.

Table 3.2: Action Trigger Levels for Vibration

Action Trigger Level (ATL) Measured Within or at the Site Boundary (PPV)	Action
3.0 mm/s	<i>Stop and review works and methodology; reduce work periods before work restarts.</i>
5.0 mm/s	<i>Stop works, review incident, look at work programme, and agree with Council on a revised methodology where available before restarting work.</i>

4. Construction Noise Assessment

- 4.1 Details of the plant and equipment to be used during the construction works at the NWMC and the percentage on-time of this equipment have been estimated based on our experience with similar projects. This information has been combined with the source noise level data from BS5228, manufacturers data and our database of construction noise levels for the proposed plant and equipment. The information used for the construction noise predictions is shown in Table 4.1, below.

Table 4.1: Construction Plant and Equipment

Plant/Equipment	Number of Items	Noise Level, dB $L_{Aeq,T}$ at 10m	Reference BS5228 or Manufacturers	Hours of use per day	Estimated on-time %
DEMOLITION, GROUNDWORKS & PILING					
Skill Saw	2	78	MAKITA 5903R SKILL SAW	4	20%
Electric Breaker	2	82	Hilti TE80ATC 110V	3	20%
Conveyor	1	53	Easikit 600	5	50%
360 Mechanical Excavator - 8t	3	82	C.1.12	6	30%
Piling Rig	1	76	Takeucji TB135P	5	25%
Concrete Pump	1	67	Schwing SP500	5	50%
Air Compressor	1	70	INGERSOLL RAND 7/41	5	50%
Air Breaker	1	83	SULLAIR MDT-22	4	20%
Excavator	1	82	TAKEUCHI TB16	6	30%
Electric Grinder	2	73	HILTI DAG230D	4	20%
Vibration Poker	1	59	WACKER NEUSON IRFU45	4	20%
Grab Lorry	1	77	Volvo FE818	2	20%
Concrete Vehicle	1	75	Volvo FE 6x4 Bride Mixer	1	10%
Pile Cropper	1	68	C.3.34	2	20%
Dumper - 6t	2	73	D.3.98	4	20%
Ride on Roller	1	80	C.5.19	4	20%
Pressure Washer	1	80	Karcher Manufacturers Data	4	20%
Mixer, disc cutter, Whacker Plate and miscellaneous hand tools	4	72	Manufacturers Data for DeWalt- DCF787D2T	6	30%

Plant/Equipment	Number of Items	Noise Level, dB $L_{Aeq,T}$ at 10m	Reference BS5228 or Manufacturers	Hours of use per day	Estimated on-time %
SUPERSTRUCTURE					
Skill Saw	2	78	MAKITA 5903R SKILL SAW	4	20%
Electric Grinder	2	73	HILTI DAG230D	4	20%
Vibration Poker	1	59	WACKER NEUSON IRFU45	4	20%
Concrete Pump	1	67	Schwing SP500	5	50%
Air Compressor	1	70	INGERSOLL RAND 7/41	5	50%
Concrete Vehicle	1	75	Volvo FE 6x4 Bride Mixer	1	10%
Skip Lorries	1	78	Volvo FE	1/week	10%
Crane	1	78	D.7.103	2	20%
Cherry Picker	1	67	C.4.57	2	20%
Impact Driver	4	72	Manufacturers Data for DeWalt- DCF787D2T	4	20%
Petrol Generator	1	70	D.7.48	10	100%
Mixer, disc cutter, Whacker Plate and miscellaneous hand tools	4	72	Manufacturers Data for DeWalt- DCF787D2T	6	30%
FIT OUT					
Timber Chopsaw	2	75	DeWALT DW872-QS	4	20%
Metal Chopsaw	2	75	DeWALT D28730-QS	4	20%
Impact driver	4	72	Manufacturers Data for DeWalt- DCF787D2T	4	20%
Petrol Generator	1	70	D.7.48	10	100%
Mixer, disc cutter, Whacker Plate, Tile Cutter, Gas burner Hammer drill and miscellaneous hand tools	7	72	Manufacturers Data for DeWalt- DCF787D2T	3	30%

- 4.2 The construction noise levels for each construction phase have been predicted at the nearest receptor locations, as shown in Figure 1. The noise predictions take the source noise levels, % on-time, number of items of plant in operation, distance, and any intervening barriers/buildings into account. The sources with 'extra high impact' during demolition (hydraulic breakers) will only be used between 09:00-12:30 hours and 14:00-17:30 hours. It is understood that the use of percussive demolition and piling equipment will only be for short durations during the construction process. The calculations have taken into account the brick wall at the front of the building, with the taxi rank on the far side and have assumed that a 2m site hoarding will be located on northern boundary of the construction site between the works and the Presbyterian Church of Wales located on the far side of the High Street (prediction location 2).
- 4.3 The predicted noise levels are shown in Table 4.2.

Table 4.2: Predicted Construction Noise Levels, dB

Receptor Location	Predicted Facade Noise level, $L_{Aeq,10\text{ hr}}$ dB		
	Demolition, Groundworks & Piling	Superstructure	Fit Out
1 Residential on Wind Street	67	62	61
2 Church oh High Street	70	66	65
3. Residential on Pem-Y-Dre	68	63	62

- 4.4 With the 2m site hoarding in place, on the northern boundary, the predicted construction noise levels for Demolition Groundworks & Piling, Superstructure and Fit-out are at or below the daily level of $L_{Aeq,10\text{ hr}}$ 70 dB limit for airborne noise; when predicted at the nearest noise sensitive premises as required by the adopted Code.

Baseline Noise and Associated Noise Limit

- 4.5 Noise measurements taken at the site on the 3rd and 4th July 2023 indicated that the existing noise climate is below $L_{Aeq, 10\text{ hr}}$ 65 dB at the front and side elevations of the site. The daytime noise level on the front elevation was $L_{Aeq,16\text{ hr}}$ 61 dB and on the side elevation (Wind Street) was $L_{Aeq,45\text{min}}$ 61 dB (measured between 13:15-14:00 hours on 4th July 2023). It follows that the noise limit will not be affected by the existing noise climate and the limit at the nearest noise sensitive properties will be $L_{Aeq, 10\text{ hr}}$ 70 dB. The noise levels will be monitored and reported against the trigger level of $L_{Aeq, 1\text{ hr}}$ 73 dB or if the levels are reaching the daily noise limit of $L_{Aeq, 10\text{ hr}}$ 70 dB.

5. Construction N&V Management Plan

Construction Noise & Vibration Management Plan

- 5.1 BS5228-1:2009+A1:2014 requires that 'Best Practicable Means' should be employed throughout the construction process to reduce the likelihood of noise and vibration complaints.
- 5.2 Contractors will be required to ensure that works are carried out in accordance with Best Practice Measures (BPM). To control the impact of noise during all periods of construction of the proposed development, contractors will ensure that works are carried out in accordance with the following:
- 🌱 Where possible, 'silenced' plant and equipment will be used;
 - 🌱 Where vehicles are standing for a significant period of time, engines will be switched off;
 - 🌱 Plant will operate at low speeds, where possible, and incorporate automatic low speed idling;
 - 🌱 Where possible, electrically driven equipment will be selected in preference to internal combustion powered, hydraulic power in preference to pneumatic and wheeled in lieu of tracked plant;
 - 🌱 All plant will be properly maintained (greased, blown silencers replaced, saws kept sharpened. Teeth set and blades flat, worn bearings replaced etc); and
 - 🌱 All contractors will be made familiar with the guidance in BS 5228 (Parts 1 & 2) which will form a pre-requisite of their appointment.
- 5.3 A good communication strategy is required with occupiers of neighbouring premises. Liaison is required before works takes place to consult and inform residents for each phase of works. Information regarding noise and vibration should include the anticipated start and end date of the work, hours of work, principal stages, operations that could cause noise and vibration, dates of noisy works and site contacts.

- 5.4 The adopted Code acknowledges that structure-borne noise, such as that generated by works directly on to party walls or internal floor slabs shared by neighbouring properties, such as the residential on Wind Street, is difficult to accurately predict and that there are few mitigation measures that can be implemented. Additionally, measurement of structure-borne noise levels at the site boundary (or within the nearest occupied premises) poses a number of practical difficulties.
- 5.5 As discussed in the adopted Code, the impact of structure-borne noise must be mitigated by employing low-impact techniques and by limiting works to 'restricted' hours for high impact activities.

Noise and Vibration Limits

- 5.6 Noise levels from all sites must be within a daily level of $L_{Aeq,10\text{ hr}}$ 70 dB for airborne noise when measured (or predicted) at the nearest noise sensitive premises/site boundary. A first Action Level Trigger of $L_{Aeq,1\text{ hr}}$ 73 dB must be used to ensure daily levels are within the $L_{Aeq,10\text{ hr}}$ 70 dB.
- 5.7 The vibration levels must not exceed the trigger action level of 3 mm/s PPV.

Noise and Vibration Monitoring

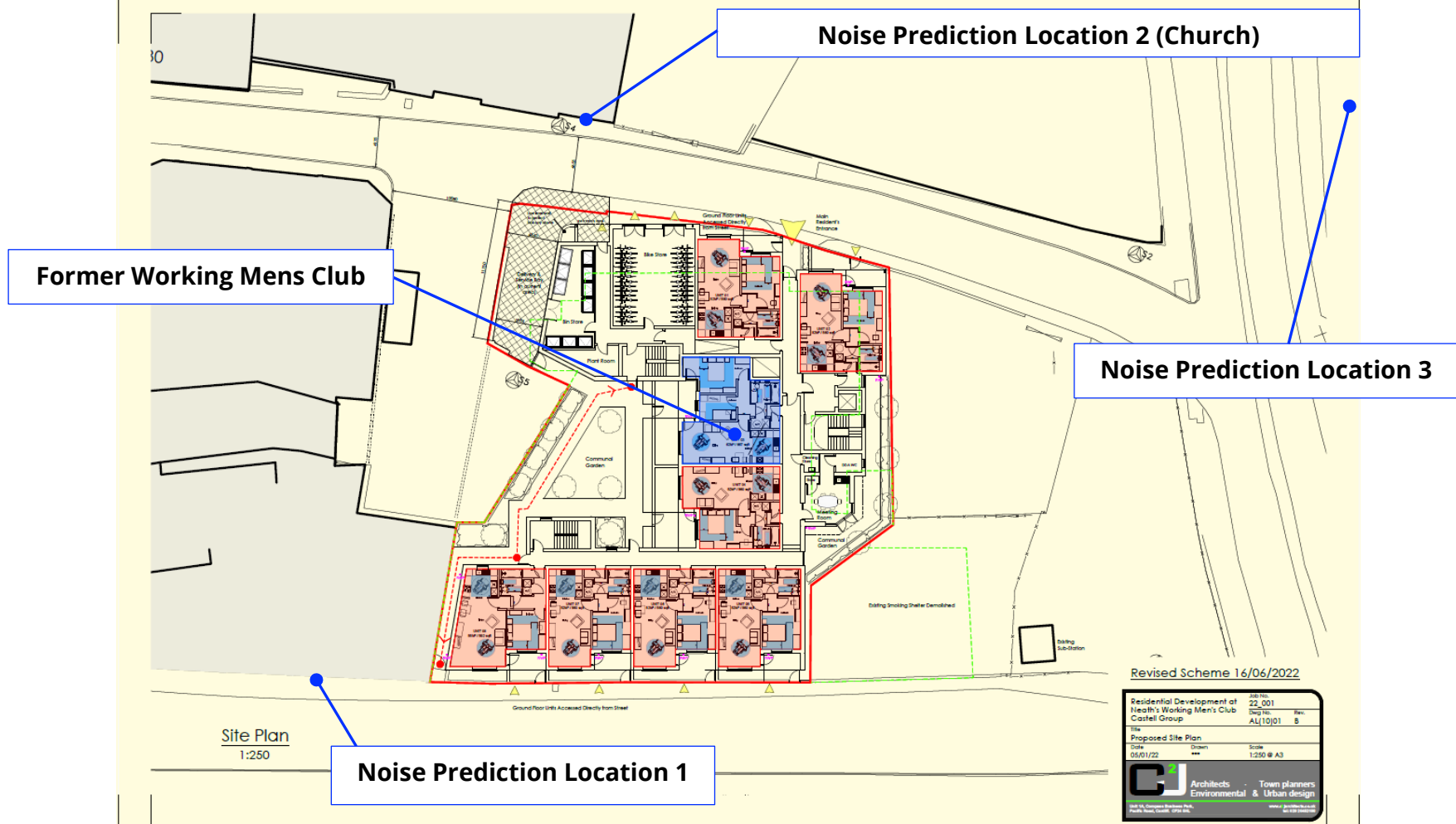
- 5.8 The predicted construction noise levels are at or below the daily level of $L_{Aeq,10\text{ hr}}$ 70 dB for airborne noise or predicted at the nearest noise sensitive premises. It is therefore considered that noise and vibration monitoring is not required as the construction noise predictions indicate that the noise limit will not be exceeded.
- 5.9 However, if noise complaints are received from the nearest residents, then these should be investigated, and short term noise and vibration monitoring undertaken to either show that the limits are being achieved or that changes are required to construction process to reduce the noise levels to with the noise limits.
- 5.10 The noisiest phases of the works are predicted to be during the Demolition, Groundworks and Piling phase of the works and noise monitoring may be required during this stage of the construction process if noise complaints are received. For equipment security the optimum location for any noise monitoring is on the front boundary wall. Measured noise levels at the selected monitoring location would then need to be adjusted to represent the noise levels at the nearest noise sensitive receptors.
- 5.11 The adopted Code states that where noise limits and monitoring are to be carried out, a noise (and where necessary, vibration) monitoring protocol and specification must be agreed with the Council prior to the works starting on site. The protocol will seek to agree the following information:

- 👁️ Noise and vibration monitoring locations – Any noise monitoring would take place within the site boundary just behind the front boundary wall. The noise limit at this location would be adjusted to represent the limit at the nearest receptor locations and would be agreed with the Council. Any vibration monitoring would be undertaken adjacent to the residential properties on Wind Street;
- 👁️ If any exceedances of the trigger levels occur during any noise and vibration monitoring the contractor will be alerted and must mitigate the works appropriately;
- 👁️ Any noise and vibration monitoring results will be reported to both the contractor and the Council; and
- 👁️ The noise and vibration equipment will be fully calibrated prior to and after any monitoring and would be installed, checked and reported by a suitably qualified acoustic consultant.

6. Conclusion

- 6.1 This report provides a Noise Assessment and a Construction Noise & Vibration Management Plan for the demolition of the existing building and the construction of residential accommodation at the Former Neath Working Men's Club. The property is located within the administrative boundaries of Neath Port Talbot County Borough Council.
- 6.2 The predicted construction noise levels for all phases of the works are at or below the adopted noise limit of a daily level of $L_{Aeq,10\text{ hr}}$ 70 dB for airborne noise when predicted at the nearest noise sensitive premises, when the noise mitigation measures detailed in this report are implemented.
- 6.3 Noise and vibration limits have been set for the site, and if noise complaints are received, then short term noise and vibration monitoring will be undertaken and appropriate changes to the construction methodology will be implemented; if required.
- 6.4 With the implementation of the noise mitigation measures outlined in this report, it is considered that noise and vibration will be within acceptable levels at the nearest noise sensitive receptors.

Figures & Appendices



Proposed Site Plan showing Noise Prediction Locations

Job No. 12326A
Figure No. 1

Appendix A: Introduction to Noise and Glossary of Terminology

Appendix A: Introduction to Noise and Glossary of Terminology

Noise is defined as unwanted sound. The human ear is able to respond to sound in the frequency range 18Hz (deep bass) to 18,000Hz (high treble) and over the audible range of 0dB (the threshold of perception) to 140dB (the onset of pain). The ear does not respond equally to different frequencies of the same magnitude, but is more responsive to mid-frequencies than to lower or higher frequencies. To quantify noise in a manner that approximates the response of the human ear, a weighting (filtering) mechanism is used. This reduces the importance of lower and higher frequencies, approximating the response of the human ear.

Furthermore, the perception of noise may be determined by a number of other factors, which may not necessarily be acoustic. Noise can be perceived to be louder or more noticeable if the source of the noise is observed; e.g. roads, trains, factories, building sites etc. In general, the impact of noise depends upon its level, the margin by which it exceeds the background level, its character and its variation over a given period of time. In some cases, the time of day and other acoustic features such as tonality may be important, as may the disposition of the affected individual. Any assessment of noise should give due consideration to all of these factors when assessing the significance of a noise source. Various noise indices have been derived to describe the fluctuation of noise levels that vary over time. Usually, these noise indices relate to specific types of noise, and as such different noise indices are used to describe road traffic noise, background noise, construction noise, etc.

The weighting mechanism that best corresponds to the response of the human ear is the 'A'-weighting scale. This is widely used for environmental noise measurement and the levels are denoted as dB(A) or L_{Aeq} , L_{A10} , etc, according to the parameter being measured.

Noise is measured on the decibel scale, which is logarithmic rather than linear. As a result of this, a 3dB increase in sound level represents a doubling of the sound energy present. Judgement of sound is subjective, but as a general guide a 10dB(A) increase can be taken to represent a doubling of loudness, whilst an increase in the order of 3dB(A) is generally regarded as the minimum difference needed to perceive a change. Table A.1 sets out examples of noise levels typically experienced during everyday activities. Table A.2 sets out an explanation of the terminology used in this report.

Table A.1: Typical Sound Levels Found in the Environment

Sound Level	Location
0 to 10dB(A)	Threshold of hearing
10 to 20dB(A)	Broadcasting studio
20 to 30dB(A)	Quiet bedroom at night
30 to 40dB(A)	Living room during the day
40 to 50dB(A)	Typical office
50 to 60dB(A)	Inside a car

Sound Level	Location
60 to 70dB(A)	Typical high street
70 to 90dB(A)	Inside a factory or noisy pub
100 to 110dB(A)	Burglar Alarm at 1m
110 to 130dB(A)	Pneumatic drill at 1m away
140dB(A)	Threshold of Pain

Table A.2: Terminology Relating to Noise

Term	Description
Sound Pressure	Sound, or sound pressure, is a fluctuation in air pressure over the static ambient pressure.
Sound Pressure Level (Sound Level)	The sound level is the sound pressure relative to a standard reference pressure of $20\mu\text{Pa}$ (20×10^{-6} Pascals) on a decibel scale.
Decibel (dB)	A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s_1 and s_2 is given by $20 \log_{10} (s_1/s_2)$. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is $20\mu\text{Pa}$.
A-weighting, dB(A)	The unit of sound level, weighted according to the A-scale, which takes into account the increased sensitivity of the human ear at some frequencies.
Noise Level Indices	Noise levels usually fluctuate over time, so it is often necessary to consider an average or statistical noise level. This can be done in several ways, so a number of different noise indices have been defined, according to how the averaging or statistics are carried out.
$L_{Aeq,T}$	A noise level index called the equivalent continuous noise level over the time period T. This is the level of a notional steady sound that would contain the same amount of sound energy as the actual, possibly fluctuating, sound that was recorded.
$L_{max,T}$	A noise level index defined as the maximum noise level during the period T. L_{max} is sometimes used for the assessment of occasional loud noises, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
$L_{90,T}$ or Background Noise Level	A noise level index. The noise level exceeded for 90% of the time over the period T. L_{90} can be considered to be the "average minimum" noise level and is often used to describe the background noise.
$L_{10,T}$	A noise level index. The noise level exceeded for 10% of the time over the period T. L_{10} can be considered to be the "average maximum" noise level. Generally used to describe road traffic noise.

Term	Description
Free-field	Far from the presence of sound reflecting objects (except the ground), usually taken to mean at least 3.5 metres
Façade	At a distance of 1 metre in front of a large sound reflecting object such as a building façade.
Fast Time Weighting	An averaging time used in sound level meters. Defined in BS EN 61672.

Appendix B: Schedule of Construction Works

Task Name	Start Date	Finish Date	Duration
1 Pre Demo Works	17/07/2023	17/07/2023	7w 2d
2 Asbestos and Demo	12/08/2023	18/08/2023	12w 6d
3 Piling	20/08/2023	20/08/2023	4w 2d
4 Groundworks	19/08/2023	19/08/2023	9w 2d
5 Brickwork based on 2 gangs	19/08/2023	19/08/2023	47w 7d
6 Scaffolding	27/05/2023	27/05/2023	56w 18d
7 Floor Planks	13/02/2024	13/02/2024	34w 3d
8 Roof Cover and PV	19/05/2024	19/05/2024	10w 3d
9 Window Fit	24/02/2025	24/02/2025	3w 3d
10 External Cladding	23/04/2025	23/04/2025	8w 2d
11 Juliet Balconies	12/05/2025	12/05/2025	2w 2d
12 External snag and clean	16/04/2025	16/04/2025	8w 2d
13 1st Fix Trades	04/07/2025	04/07/2025	21w 3d
14 Dryliner Stud & MF	04/07/2025	04/07/2025	21w 3d
15 Carpentry	15/05/2025	15/05/2025	14w 2d
16 Plumbing	21/05/2025	21/05/2025	14w 2d
17 Sprinkler	23/05/2025	23/05/2025	14w 2d
18 Electricals & PV	25/05/2025	25/05/2025	14w 2d
19 Pre-Plaster Works	02/06/2025	02/06/2025	14w 2d
20 Pre-Plaster Inspections	02/06/2025	02/06/2025	13w 4d
21 Drylining & 1st Coat	05/08/2025	05/08/2025	22w 3d
22 Plasterboard	05/08/2025	05/08/2025	14w 2d
23 Plaster Slim	04/08/2025	04/08/2025	14w 2d
24 1st Coat	05/08/2025	05/08/2025	21w 3d
25 2nd Coat	05/08/2025	05/08/2025	20w 3d
26 2nd Fix Trades	25/08/2025	25/08/2025	22w 1d
27 Carpentry	13/08/2025	13/08/2025	21w 3d
28 Plumbing	15/08/2025	15/08/2025	21w 3d
29 Electricals	18/08/2025	18/08/2025	21w 3d
30 Paving and Slag	21/08/2025	21/08/2025	20w 4d
31 Kitchen Fit	25/08/2025	25/08/2025	20w 4d
32 Pre & Post Decoration	04/09/2025	04/09/2025	22w 1d
33 Pre-Plaster Inspection	25/08/2025	25/08/2025	20w 4d
34 Pre-Plaster Cleans	27/08/2025	27/08/2025	20w 3d
35 Internal Painting	02/09/2025	02/09/2025	21w 1d
36 Post Paint Snag	03/09/2025	03/09/2025	20w 3d
37 Post Paint Works	04/09/2025	04/09/2025	20w 3d
38 Fruits All Trades	20/10/2025	20/10/2025	24w 1d
39 Floor Coverings	01/10/2025	01/10/2025	21w 3d
40 Plumbing Fash & Commissioning	07/10/2025	07/10/2025	14w 2d
41 Electric and PV Commissioning	21/08/2025	21/08/2025	3w 3d
42 Carpentry Finales	13/10/2025	13/10/2025	14w 2d
43 Sprinkler Commissioning	13/08/2025	13/08/2025	2w 3d
44 Build Clean	15/10/2025	15/10/2025	3w 3d
45 Mastic Sealant	15/10/2025	15/10/2025	3w 3d
46 Build Snag and T-Ups	20/10/2025	20/10/2025	3w 3d
47 Client Handover Process	11/12/2025	11/12/2025	6w 4d
48 Communal Areas	04/10/2025	04/10/2025	12w 2d



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