

The control of dust and emissions from the site preparation, demolition and construction works.

The Bungalow Henblas Road Rhostyllen Project



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Position: Health & Safety Advisor

Date: 20th March 2023

Statement:

This document is to be submitted allow for the discharge of any condition within the Wrexham Council Planning Authority application P/2023/0118 Decision Notice, (*Prior Demolition notice of the Bungalow Henblas Road Rhostyllen*).

By following this Best Practice Guidance, M & JT Davies as the appointed demolition contractor will ensure compliance with all relevant statutory duties and identifying best practice in the methodology for the demolition, the site clearance and the construction works.

The site will be secured by Hoarding and Heras fencing with debris netting attached, temporary double opening security gates with a pedestrian gate will be constructed at the Henblas Road site entrance. Additional Heras security fencing will be erected at the site boundaries with the neighbouring properties and school fields.

Warning Notices and the M & JT Davies company information will be displayed at the site entrance.

The following information will be displayed at the site entrance and will be made available to members of the public;

- Contractors Contact Details
- Site Managers Contact Details
- Design Team Contact Details

The site operating hours will be restricted to 0730 to 1730 hours on Monday to Friday, 0800 to 1300 hours on Saturday, with no work at any other time including Sundays and Public Holidays.

In the event of any public complaints, M & JT Davies will keep a record of all such complaints and respond to them as soon as practicable possible. The log of complaints and action taken will be brought to the attention of the Project Design Team and made available to the local authority on request.

Nb:

M & JT Davies accept that compliance with this document does not necessarily offer exemptions from prosecution under any of the legislation impacting upon demolition and construction, though it should be recognised that using Best Practicable Means (BPM) could be used as a defence from prosecution under the S.80 of the Environmental Protection Act 1990.

A copy of this document will be kept within the site office and be available for inspection by Wrexham Local Authority Officers should the need arise.

Control Measures

Demolition activities dust and emissions control measures

We are an experienced insured contractor and will ensure compliance with Regulation 20 (Demolition or Dismantling) Construction Design and Management Regulations 2015 and industry best practice according to BS 6187:2011 Code of Practice for full and partial demolition, which includes how potential dust hazards can be assessed and the management from demolition techniques to re-using or recycling materials.

All waste will be recycled and disposed of in compliance with current statutory duties and current best practice.

Best Practice

- All legal duties complied with all permissions granted and in place.
- All utilities disconnected and protected
- All ACM,s removed in compliance with the Control of Asbestos Regulations 2012 and it,s ACOP & Guidance.
- Temporary Works assessment undertaken
- Transport Management Plan in place
- Site fencing/hoarding in place- Debris netting to be fixed to fencing.
- All ecology conditions complied with
- All Invasive species removed under license.
- Water Suppression during breaking, cutting up of cementitious materials.
- No Works during windy conditions that could impact the local residents
- Haul Roads to be wetted during dry conditions
- Wheel Wash facility at the site exit onto Henblas Road
- No Open Fires- NO Burning of waste materials
- All loads leaving site will be covered.
- The site will be hard cored to reduce the transfer of dirt and debris.
- In the event of the public highway Henblas Road being affected we will enter into an agreement with a local supplier to ensure the affected area is cleaned.

Asbestos

The property will be subject to a Demolition Asbestos Survey and any Asbestos Containing Materials will be removed in compliance with the Control of Asbestos Regulations 2012 and its Approved Codes of Practice & Guidance.

Not: If during the course of the demolition works our appointed demolition contractor locates suspected asbestos materials, they will ensure that the materials properties are identified by an accredited laboratory and then if the materials are confirmed asbestos, they will make the necessary arrangements to have the materials removed in compliance with the Control of Asbestos Regulations 2012. Any asbestos must be dealt with by a HSE registered licensed contractor at all times and removed according to appropriate regulations and approved codes of practice/HSE guidance.

General Dust Controls – Protection of Neighbours, General public and the Environment

General precautions that will be taken to minimize dust generated on the site will include, Water Suppression during all demolition activities, Haul roads wetted during dry/windy periods, the use of pre formed materials, minimise on site cutting, Use of On Tool Extraction, fixing of debris netting to all site boundaries, the covering waste skips, all vehicles carrying waste will be sheeted, materials stored undercover, good on-site housekeeping.

The site road will initially be hardcore/crushed material construction and can be sprayed to minimize dust. Once surface bound, they will be swept on a regular basis, the Site Manager will decide the necessary frequency based on the conditions on site. This will allow delivery trucks to be kept relatively clean and significantly reduce the likelihood of dust on roads outside the site.

Cleaning of surfaced site roads will be carried out weekly by a contracted road sweeper, however frequency will increase or decrease as the manager feels necessary. This would include site entrances and the immediate highway. It is important to recognise that this needs to be monitored consistently throughout the contract, in light of site operations and weather conditions and not just in the early stages.

The Site Manager must monitor dust production at regular intervals during the day and record their findings, records to be kept on file in the site office. These records must be made available to the EHO upon request.

Materials will be stored on site. These will include reclaimed materials, and this will be closely monitored to reduce the potential for airborne dust. Material intended for the filling of the low area will be placed as soon as practical. In prolonged periods of dry weather, measures will be taken to keep the material in a damp condition by water spraying.

Dust suppression can be implemented on small plant when operations are being carried out adjacent to existing properties. Cutting and grinding on site should be kept to a minimum but where necessary; it should be carried out using equipment fitted with silencers and water suppression devices.

We will minimise creation of dust by Elimination – Substitution – Isolation – Control measures. This will be done by shutting plant down when not in use to eliminate the problem. If excessive dust was still a problem, then the problem should be isolated by moving plant to another area of site so as to isolate the problem away from neighbours. If the plant cannot be moved anywhere else, we will then control by erecting screens or enclosures.

In the event of a complaint however received, the Site Manager will be responsible for following the complaint through to resolution and initiating any necessary enforcement or corrective action. Remedial action will then be taken to reduce levels and the Site Manager will check and verify that the corrective action has been successful in reducing dust production.

Control measures to control dust for the project also covers other emissions to air, including fumes and smoke. Prior to starting any works which would create excessive dust, site management will notify neighbours as to what activities we plan to do and for how long.

Ref: BRE Guidance Control of dust from construction and demolition activities

Fire Safety

A specific Fire Risk assessment for the project will be compiled for the undertaking of all construction related activities.

There will be NO waste burnt on site.

Vibration

Prior to starting any works which would create excessive vibration, site management will notify neighbours as to what we plan to do and for how long. Generally, there shouldn't be any operations that create excessive vibration. However, In the event of a complaint however received, the Site Manager will be responsible for following the complaint through to resolution and initiating any necessary corrective action. Prior to starting any works which may affect surrounding properties, site management will carry out an existing condition survey of adjacent buildings externally and boundary structures to ensure the existing condition is maintained.

So far as is reasonably practicable all crushers and breakers will be sited upon crushed or soft materials to reduce the effects of vibration.

Noise Control

We will always employ the Best Practicable Means.

The other method we use to control noise from construction sites is to require that all contractors use the 'best practical means' to minimise noise from their activities. This is a very broad (and complicated) area and can include matters ranging from the prohibition of the use of radios on site to the proper maintenance of plant and equipment. It can also include matters such as the choice of appropriate plant for a particular task or putting up noise barriers or screens.

Poorly maintained plant and equipment can give rise to excessive noise and the failure to use the built-in noise control shielding on plant can cause problems.

We encourage the use of mains powered electrical equipment (rather than using generators) and hydraulic breaking or bursting techniques are preferable to impact breaking methods for demolition.

The choice of equipment for a particular task is important in noise reduction. For example, bored piling is usually a lot less disturbing than hammered piling. We therefore insist on the use of bored piles whenever possible. However, sometimes it is necessary to use hammered piling techniques for engineering reasons.

Simple Purpose-Built Screens and Enclosures

Materials such as plywood or chipboard panels can be lined with sound-absorbing material such as mineral wool to create noise containing screens or enclosures. The length of the barrier should be greater than its height. If possible, the noise source should not be visible, and the barrier located as close as possible to either the source or the receiver. Simple portable screens, located very close together, can effectively reduce the effects of noisy work in small areas, including jack hammering or plate compaction.

Screening may be essential when any noisy work is proposed outside of standard construction hours.

Concrete Pouring

Concrete pouring starting before 0800am is not normally permitted unless there are good road control reasons. The noise from concrete pumps is likely to cause complaints from nearby residential sites when the neighbourhood is otherwise very quiet, even in the central city. It pays to place concrete orders early so that suppliers can offer a choice of delivery times after 7.30am. To avoid the need to extend construction hours, architects and engineers may be able to incorporate reduced slab sizes in the design. The use of accelerants and heaters should also be considered to reduce setting times. Concrete pumping should be located away from sensitive boundaries.

Breaking of Concrete

Use of traditional rock breakers attached to excavators is one of the most common causes of noise complaints, especially if it takes place on or near to a common, or shared wall of an occupied building. Where possible use equipment that breaks concrete by crushing it rather than drilling through it. Always consult the occupants of adjoining properties before work starts. Hydraulic and chemical expansion methods are less noisy methods worth considering. Even explosive methods can be tailor-made for the job and may be appropriate.

Plant and Machinery

The rating level (LAeq, T) from any plant and equipment associated with the development, when operating simultaneously, shall not exceed the background noise level (LA90, T) at any time when measured at the nearest noise sensitive premises at the quietest time that the equipment would be operating/in use. Noise measurements and assessments will be compliant with BS 4142:2014 "Rating industrial noise affecting mixed residential and industrial areas".

Do not leave engines running when not in use, noisy mufflers on plant and noisy site radios. Make sure that unnecessary metallic impact noise is avoided from dropping scaffolding poles, placement of roading plates, moving metal fencing and the clanking of chains on crane hoists. Ensure that machines are maintained regularly – they will be quieter. Simple maintenance can reduce noise levels by as much as 50 per cent. Check for noise problems if you notice workers having to shout at arms-length to converse. This indicates that the noise level may be above 90 dBA at this location.

Move static plant and equipment as far as possible from sensitive boundaries, as work allows. A distance of four times further away lowers the noise by 12 dBA. A reduction of 10 dBA will sound half as loud. In some cases, quiet plant and machines are available which are specifically designed to produce less noise. Examples are muffled breakers (the noise of a typical silenced breaker can be reduced by 16 dBA if a purpose-made muffler is fitted) and silenced diesel generators and compressors (some units are up to 15 dBA quieter). Generally, electrically powered equipment such as chain saws and cranes are noticeably quieter than diesel-powered equipment and hydraulically powered equipment is quieter than pneumatic power.

Cutting metal using gas cutters is far less noisy than using grinding methods to dismantle metal structures. When replacing exhaust and intake mufflers, ask for quieter options which are often available. Similarly, specified plant and equipment such as excavators can also operate at very different noise levels. Keep machinery covers and panels closed and well-fitted. Bolts and fasteners should be done up tightly to avoid rattles. Avoid equipment that is either over or under powered.

Saw Cutting of Pavers and Pavement Slabs

A cutting station should be established with the saw enclosed in an acoustic enclosure. A simple screen is unlikely to be effective in residential streets due to reflected noise effects. A water supply should always be made available, and the saw blade changed regularly to avoid an annoying high pitched “whining” noise from developing. For any saw cutting choose a saw blade with the greatest number of teeth and of the smallest width. Choose a blade with gullets as small as possible. Choose a blade with built in vibration dampening slots.

Pilling Works to include Auger/Sheet Piling/hammer Piling

Due to the sensitivity of the area, we will use the Silent Piling methodology. Our contractor will be one who has worked on equally sensitive projects and has the requisite skills knowledge and experience.

General comment we will choose quieter types such as augured or vibratory piling as a first option. Unless it is shown that there are good engineering reasons to confirm that the ground conditions are not suitable, the choice of drop hammer rigs should be a last resort. Where drop hammer piling is shown to be the only suitable type, other noise reducing techniques should be adopted. These options include reducing the noise from the contact of the hammer with the pile helmet by using purpose-made dollies or blocks of plywood. The design of the equipment and the pile helmet should ensure that damping can be utilised in this way. It is also possible to add shrouds to help contain noise at the hammer or enclose the entire pile and hammer. Planned breaks may be necessary to fit in with the business or activities happening in neighbouring properties.

We will inform our neighbours of any Piling Operations and will ensure the following actions are undertaken.

1. Notice of the commencement date of the piling work
2. Days / hours of work
3. Duration of the pile driving operations (i.e. the expected completion date)
4. Full contact details of a responsible person (e.g. site manager / office) who could be contacted in the event of a complaint.

Statutory Working Hours for Piling Operations only

Monday – Friday 09:00 – 17:30 hrs

Saturday 09:00 – 13:00 hrs

Sunday and Public Holidays Nil

Conclusion

It is considered that with the controls recommended within the Project Dust Management Plan & Piling Operations Plan there will be a considerable reduction in risk of environmental and nuisance incidents to our neighbours and the wider environment.

The site will be planned to be capable of allowing the safe movement of project vehicles/plant and with the minor changes will not put at risk, site operatives, the occupants of neighbouring properties, public highway users and the general public.

M & JT Davies as the appointed principal contractor will ensure that if circumstances change which result in changes to this proposed management plan, they will enter into discussions of the proposed changes with the local authority and ensure that the necessary permissions are granted to allow for those changes to take place.

A copy of this document will be kept within the site office and be available for inspection by Wrexham Council Local Authority Officers should the need arise.

Name: Tony Williams



Position: M& JT Davies Health and Safety Advisor

Date: 20th March 2023