

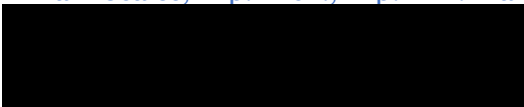
**Re-development of former Bakery Building at Ramsgreave
Business Park, Pleckgate Road,
Blackburn. BB1 8RP.**

Demolition and Environmental Impact and Method Statement



Scales Architecture

Iain Scales, Dip. Arch., Dip. Env. Planning, Reg. Architect



Introduction

This Demolition and Construction Environmental Impact and Method Statement has been prepared for the for the purpose of assisting in defining suitable environmental noise dust and vibration control measures to be adopted during demolition and construction at Ramsgreave Business Park, Pleckgate Road, Blackburn.

The report has been compiled in support of the planning application for the above development of 7 industrial units, arranged in two blocks, and to advise on the measures, in accordance with the best practicable means, to be used to minimize construction noise, vibration and dust that could arise as a result of these works.

The purpose of the report is to provide information on the potential sources of noise, vibration and dust that may arise from the demolition of the existing buildings and the construction of the new development together with recommendations for mitigating or preventing potential nuisance.

Once planning permission is granted, the appointed contractor will be fully responsible for the implementation of this plan and it will be necessary to resubmit this plan on the basis of changes that may arise following the detailed engineering design of the works; the actual construction programme and proposed methodology; or conditions prevailing at that time.

Whilst the contractors who will be undertaking the demolition and construction works have not been appointed and the detailed engineering design has not been undertaken, this document provides details of the likely works and best practice methods that will be adopted in order to minimise the potential for the demolition and construction to result in dust or noise and vibration impacts.

This document should be read in conjunction with the Planning Application drawings

The project consists of the demolition of a part single storey part two storey steel framed structure with brick external walls.

The site is in proximity to a number of potentially sensitive noise dust and vibration receptors and these include:

- Residential properties on Pleckgate Road;
- Commercial Property adjoining the property within the Business Park;
- The general public

The most sensitive time periods are likely to be normal working hours for the commercial uses, night-time for residential uses.

Subject to Planning Permission being granted, an indicative construction programme for the works is as follows:

Preliminary Programme

Demolition works, including substructure, superstructure and roof – 5/6 weeks

Setting out and construction of Industrial Units -35 weeks

Soft landscaping – within the first available planting season

A specialist demolition contractor will be responsible for the demolition of the superstructure.

The contractor will be responsible for determining the most appropriate method of demolition and finalising the plant and equipment to be used. This document, however, draws on information from the Scales Architecture Design Team who have provided information on the likely approach to demolition and construction.

This report is divided into the following sections:

- Legislation, Planning Policy and Guidance;
- Description of site setting and receptors and current conditions;
- Description of works - Key Activities;
- Mitigation and best practice methods.

Various strands of national, regional and local planning policy and guidance are relevant to the demolition works. These include (but are not limited to) the following:

Environmental Protection Act 1990 and Pollution Prevention and Control (England and Wales) Regulations 2007

Noise and Dust nuisance is defined as a statutory nuisance in Part III of the act, Sections 79-82 address Statutory Nuisance

Control of Pollution Act 1974

The principal legislation relating to noise is derived from the Control of Pollution Act 1974, although law related to both Statutory and Common Law can be relevant in the event that excessive noise nuisance is caused by an activity.

Powers are given to local authorities under the Control of Pollution Act 1974 (COPA) for the control of noise from construction sites. Sections 59A, 60 and 61 of COPA 1974 allow councils to serve notices imposing requirements about the way in which work is conducted.

Although it is a criminal offence to contravene such a notice without a reasonable excuse, it is a defence that the work was carried out under a consent issued under Section 61 of the Act. Such consents may be applied for in advance of construction work being carried out. Regulations can be made to control noise from plant or machinery under Section 68 of COPA 1974, but the policy preference has been to use codes of practice, which have been issued under Section 71 to minimise noise. Although breach of a code of practice is not a criminal offence, these may be taken into account in legal proceedings.

Under COPA 1974 a local authority may designate all or part of its area as a noise abatement zone. The consequence of this is that noise levels are recorded and entered into a public register. Noise levels may only be exceeded with the authority's consent, in effect setting an upper limit on noise levels.

The Noise Emission in the Environment by Equipment for Outdoor Use Regulations 2001

The intention of the legislation is to control and monitor noise of equipment for use outdoors so as to reduce noise nuisance. The scope of the Outdoor Noise Directive comprises a wide range of construction plant and equipment, equipment for gardens, for lifting, pumps, drills, saws etc.

Clean Air Act 1993 Emitting dark smoke from bonfires is an offence under this act

Building Act 1984 Applies to demolition of buildings and requires prior notification to the local authority and production of a method statement before the work begins

Environment Act 1995 and Air Quality Regulations 2010

The Air Quality Strategy set standards and objectives for air pollutants under Part IV of the Environment Act 1995.

Health and Safety at Work Act 1974 The purpose of this act is to secure the health, safety and welfare of person at work and to protect against risk to other persons from these activities. Under this act the Health and Safety Executive (HSE) issue sets of guidance notes,

Control of Asbestos Regulations 2012 Activities involving asbestos must be reduced to as far below the control limit asbestos (0.1 asbestos fibres per cubic centimetre of air) as possible.

The Non-Road Mobile Machinery (Emissions of Gaseous and Particulate Pollutants) (Amendment) Regulations 2011

Sets out requirements to reduce emissions from diesel engines of non-road mobile machinery

Policy

National Planning Policy Framework

States that planning policies should sustain compliance with and contribute towards values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas.

Guidance

BS 6069 Part 2 'Characterization of air quality' Dust is the generic term which the British Standard document BS 6069 (Part Two) uses to describe particulate matter in the size range 1 – 75µm (micrometers) in diameter.

BS 7445: 2003 'Description and Measurement of Environmental Noise, Part 2: Guide to the Acquisition of Data Pertinent to Land Use'

Defines parameters, procedures and instrumentation required for noise measurement and analysis.

BS5228-1: 2009 Noise and Vibration Control on Construction and Open Sites Part 1 Noise, Part 2 Vibration.

Part 1 Annex C provides guidance on noise levels produced by site equipment and activities and Part 1 Annex D provides a method for estimating noise from construction sites; Part 2 provides a guide to vibration levels produced by site equipment and activities

BS 8233:2014 'Guidance on sound Insulation and Noise Reduction for Buildings-Code of Practice'.

Provides criteria for the assessment of internal noise levels for various uses including dwellings and commercial properties and recommended internal noise levels.

BS 6472-1:2008 'Guide to Evaluation of Human Exposure to Vibration in Buildings, Part 1: Vibration Sources Other Than Blasting'

Presents recommended frequency weighted vibration spectra (for continuous vibration) and vibration dose values (VDV) (for intermittent vibration) above which adverse comment is likely to occur in residential properties.

BS 5228:2009 Part 1 Noise, Part 2 Vibration 'Noise and Vibration Control on Construction and Open Sites'

Provides an industry accepted guide for noise and vibration control and includes sound level data for individual plant as well as a calculation method for noise from construction activities. The standard also provides advice on potential noise limits from construction sites.

BS 7385:1993: 'Evaluation and Measurement for Vibration in Buildings - Part 2: Guide to Damage Levels from Ground Borne Vibration'

Presents guide values or limits for transient vibration, above which there is a likelihood of cosmetic damage.

Standards to be adopted

Preliminary target criteria are proposed below for dust, noise and vibration, however, it is acknowledged that best practice methods should be adopted at all time to minimise the potential dust, noise and vibration.

Dust is the generic term which the British Standard document BS 6069 (Part Two) used to describe particulate matter in the size range 1 – 75µm (micrometers) in diameter. Dust nuisance is the result of the perception of the soiling of surfaces by excessive rates of dust deposition.

There are currently no standards or guidelines for dust nuisance in the UK and this reflects the uncertainties in dust monitoring technology, and the highly subjective relationship between deposition events, surface soiling and the perception of such events as a nuisance.

Under provisions in the Environmental Protection Act 1990, dust nuisance is defined as a statutory nuisance. Complaints about excessive dust deposition would have to be investigated by the local authority and any complaint upheld in law for a statutory nuisance to occur.

The regulation of dust deposition is, however, generally managed by suitable on-site practices and mitigation rather than by the determination of statutory nuisance and/or prosecution or enforcement notice(s).

An informal criterion for dust deposition of 200 mg/m²/day (as a 30 day mean) is however often applied in the UK as an indicator of potential nuisance for sensitive receptors.

Noise, in the context of this study, can be defined as unwanted or undesirable sound derived from sources such as road traffic, industries or construction works, for example, that interferes with normal activities, including conversation, sleep or recreation. Vibration is related to noise resulting from the transmission of low frequency energy through, typically,

the medium of ground or buildings. It results in small movements of the transmitting medium, which can cause discomfort if the movements are large enough. In this document the potential for noise and vibration to be generated during demolition and construction is considered.

BS 5228 provides practical information on noise and vibration reduction measures and promotes a 'best practice means' approach to control noise and vibration. The calculation method provided in BS 5228 is based on the number and types of equipment operating, their associated sound levels, and the distance to receptors, together with the effects of any screening.

The types and numbers of construction plant will be finalised following the completion of the engineering design and during the tender period. Ultimately there will be a trade-off between maximising the number of plant and equipment on site within the constraints of the site and project programme.

BS 5228 provides further guidance on acceptable levels of construction noise within Annex E and provides example criteria for the assessment of significance of construction noise impacts. One of the potential suggested criteria within BS 5228 refers to the DoE Leaflet AL72: Noise Control on Building Sites from 1976. Whilst this was published in 1974 and out of print, it is often still used to define suitable target values. Facade Target Noise Levels for Occupied Buildings during Core Working Hours:

Period	Hours	Time Period (T)	LAeq,T (dB)
Monday-Friday	08.00-18.00	10 hours	75
Saturday	08.00-13.00	5 hours	75

NOTES:

(a) The LAeq,T noise level is the A-weighted equivalent continuous sound level, measured over the relevant time period quoted above.

(b) The above noise limit relates to noise from the construction process at a point 1m in front of the facade of any occupied building.

The above targets are recommended for this assessment as the basis for identifying potential construction noise impacts, where the typical 'worse case' daily noise level prevails for a period greater than one month, and where the baseline ambient noise level is predicted to increase by 3 dB or more due to construction noise.

The correct timing of construction operations is expected to be critical in avoiding noise and vibration nuisance to surrounding areas and premises. The contractor will be responsible for identifying particularly sensitive periods in the works so that the potential problems can be minimised and that early and good public relations with the adjacent tenants and occupants of buildings are essential.

DESCRIPTION OF SITE SETTING AND RECEPTORS

The site is occupied by a former Bakery which is part two storey and part single storey, and a surface yard area.

A brook runs through the site on the south-west boundary, canalised throughout its length. The proposals involve the demolition of the Bakery , the construction of two blocks of industrial units and the formation of a service yard, car parking, and landscaped areas

The site is in proximity to a number of potentially sensitive noise dust and vibration

receptors and these include:

- Residential properties fronting onto Pleckgate Road;
- Commercial Property adjoining the development site;
- The general public.

The overall setting of the site is considered to be a non-active commercial area, with an external surface occasionally used by tenants from the remainder of the business park. The most sensitive time periods are likely to be normal working hours for the commercial office uses, night-time for residential uses.

METHOD STATEMENT FOR DEMOLITION

- Fencing will be erected on the site boundary, with sturdy lockable gates. (Exact style of fencing to be determined by the contractor)
- Safety signs will be displayed, road and pedestrian traffic to be taken into consideration.
- All existing services will be disconnected from the property and confirmation obtained that all services are no longer live by licensed professionals only.
- If asbestos is located, then further investigation and safe work method will be determined. If no asbestos is found, then the works will start with a soft strip of all fixtures and fittings including window frames and floors. These items will be recycled if possible.
- The mechanical excavator will then methodically and safely demolish the building from the roof level and work down.
- A dust suppression system consisting of a fine mist water spray will be available if required.
- Due care and attention will be taken to protect the adjoining property, a supervisor shall observe all works and be in visual contact with the excavator operator at all times.
- The demolished materials will undergo sorting and salvage once the property has been demolished. All waste products will be disposed of by licensed waste carrier.
- All drainage connections to public sewers to be exposed and capped off.

Risk Reduction

- All persons working on the site must wear hi-vis clothing at all times, full PPE shall be issued and worn, and gloves suitable for handling glass and other sharp materials will also be worn.
- A banksman will be present during the loading of demolition materials onto trucks, and ensure that traffic management is arranged if required.
- Whilst carrying out the soft strip stage of the works the structural stability will be assessed. If any section of the building is deemed at risk then all persons will be evacuated and mechanical means used to remove and make safe any required areas of the building.
- The work area will be kept tidy to reduce the risks of trips and falls.

MITIGATION

At this pre-planning stage the contractors who will be undertaking the project have not been selected. It is anticipated that a list of suitable contractors will be drawn up from those whom Scales Architecture and the design team have a previous working experience or knowledge.

The evaluation of the suitability of the contractors to undertake the project will include an assessment of the ability of the contractors to manage their works in an environmentally responsible manner that preserves the reputation of the Client and is protective of the public and the surrounding neighbourhood.

It is anticipated that the project will be broadly divided in to two main contracts. Firstly, a demolition contractor will demolish the existing building before passing the site over to a main contractor who will manage the construction phase. It is anticipated that this contractor will in turn employ a series of subcontractors to undertake particular specialist activities, (e.g. ground works, steel frame, masonry, roofing, soft and hard landscaping, etc.).

This Demolition and Construction Environmental Method Statement will be provided to contractors tendering for the works and they will be required to adopt the recommendations of this document. In the event that changes to the working method are proposed by the contractors; the contractor will, following authorisation of the Client team, submit and agree the changes with Scales Architecture, and, if required, Preston City Planning.

As part of the tender requirements the contractor will be required to conform to all relevant legislation and guidance including British Standards. Particular reference will be made to BS5228. All relevant measures identified in this document should be followed including but not limited to the below.

Neighbourhood Liaison

It is recognised that early liaison and effective communication with people who may be affected by the works is essential to maintain good neighbourhood relations.

The maintenance of good relations with neighbours and implementation of a programme of ongoing liaison and respect with regards to the local environment and residences will form an important aspect of the successful management of the project.

The contractor will identify a dedicated Community Liaison Manager who will be focused on engaging with the community to provide the appropriate information and to be the first line of response to resolve issues of concern. The names and contact telephone numbers and email addresses of all Site personnel with responsibilities for both supervision and management of the Works will be displayed on the site hoarding.

The following actions will be taken:

- Once planning consent has been obtained, formal contact will be established with residential neighbours and those who could potentially be affected by demolition of the existing buildings on site and the construction / build out of the Proposed Development. This will include consultation on this Demolition and Construction Environmental Method Statement and include identifying any particularly sensitive times of day.
- Outside normal working hours, site security will act as the main point of contact .
- Any complaints will be logged, fully investigated, and responded to quickly, advising what action has been taken.

Conclusions

The proposed works are of a medium scale and the dust emission magnitude is considered to be Small/Medium. However due to the proximity of the neighbours and without mitigation measures they could result in nuisance at a local level and present a cumulative impact.

Demolition – The scale of the demolition is medium (<4829m³, <8m above ground) however it is acknowledged that the construction material has some potential for dust to be generated;

Earthworks- The scale of the earthworks is Small (the site area to be worked on is <2248m²), the soil type is sand, gravels and silts;

Construction - The scale of the construction is small (4292m³);

Trackout – The potential impact is Small as the materials are to be directly transferred into skips and no tracking on road is to be carried out by any excavation plant.

The **Sensitivity** of the receptors are considered to be Medium due to the immediate proximity of residential uses (with >2 receptors <40m from the property).

The **Human Health Impact** sensitivity is considered to be Low.

The **Ecological Sensitivity** of the area is considered to be Low.

The risk categories are considered to be as follows:

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium Risk	Low Risk	Low Risk	Low Risk
Human Health	Low Risk	Low Risk	Low Risk	Low Risk
Ecological	Low Risk	Low Risk	Low Risk	Low Risk

Training

The contractors operating on site will be expected to demonstrate that they have undertaken appropriate training of their staff to ensure that they are aware of the measures that are to be taken on site to minimise noise, vibration and dust generation.

All employees should be advised regularly of the following, as part of their training:

- The proper use and maintenance of tools and equipment and in particular, sound-reduction equipment;
- The positioning of machinery on site to reduce the emission of noise to the neighbourhood and to site personnel;
- The avoidance of unnecessary noise when carrying out manual operations and when operating plant and equipment;
- The protection of persons against noise;
- The operation of sound measuring equipment (selected personnel).

General Measures to be adopted

Hours of Work

The following standard permitted hours would be followed for Site work:

08:00 to 18:00 hours (Monday to Friday);

08:00 to 13:00 hours (Saturday); and

No working is permitted on Sundays or Bank Holidays.

Lorry Movements

- There shall be no Lorry movements to and from and at the Site outside the following hours: Between 09:00 hours and 15:00 hours Mondays to Fridays; and from 08.00 to 13.00 on Saturdays;
- There shall be no lorry movements on Sundays and Public Holidays;

Waste Disposal / Burning

- No bonfires;
- Segregate waste at source and recycle/dispose of in accordance with legislation.

View of the property from Pleckgate Road



Internal view of upper floor

