Demolition Environmental Management Plan

14, 16, 18 Pield Heath Road and 2 Pield Heath Avenue Uxbridge,UB8 3NF

Wessex Downs Golf Course,
Cods Hill, Reading,
Berkshire. RG7 5QH.

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Date	8th May 2024	
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Related Documents:

- Construction Logistics Plan
- Construction Phase Health and Safety Plan
- Site Waste Management Plan
- Traffic Management Plan
- Section 61
- Project Risk Assessments and Method Statements

CONTENTS

1. INTRODUCTION

1.1 General Site Information and Scope

1.1.1 Demolition of 4no Dwellings (no. 14, 16, 18 Pield Heth Road and and 2 Pield Heath Avenue) work to consist of:

- Isolation of existing electrical services, purging of gas system within structures – to be co-ordinated by The Client. Water to be left live for dust suppression.
- Erection and maintenance of 2.4m timber hoarding or Heras Fencing for segregation & protection of public (to be agreed with Local Authority)
- Soft strip of fixtures and fittings
- Licensed asbestos removal (ASB5 Notification to be submitted by Licensed Contractor)
- Non-Licensed Asbestos removal – undertaken by JSDR and Reclamation (JSDR)
- Demolition of structures using machine demolition and remote dust suppression

1.1.2 The buildings are located on the junction between Pield Heath Road and Pield Heath Avenue and forms a plot of 3 dwellings and Waterside B&B which consists of outbuildings, swimming pool and guest accommodation. Site will be accessed off Pield Heath Avenue and egress onto Pield Health Road. Pedestrian access into site welfare set up, will be located off Pield Heath Avenue and will be segrated from vehicxle access onto site. Dwellings are of traditional brick and block construction, with bay windows. The site has residential properties on all elevations. All due consideration will be given to our neighbours during the demolition phase. A specific traffic management plan (TMP), Construction Logistics Plan (CLP) and Demolition Environmental Plan (DEMP) will be in place and controlled by Bellbridge Structures Ltd (BSL) as Principal Contractor. See Appendix 3 for TMP

1.2 Preparation, Equipment Delivery and Access to Site

1.2.1 Prior to starting work, all JSDR operatives and sub-contractors will receive a site safety induction from the BSL Site Manager and a specific briefing on this Method Statement. All personnel will then sign in and be authorised to commence work.

1.2.2 Plant and material delivery vehicles and lorries removing demolition arisings, will drive into the protected waste loading area, off Pield Heath Road, which will be formed to the left within the Avenue entrance. This will be under the control of a Traffic Marshall who will control the vehicle into and off site. The protected loading area will be formed by using 1.8m metal mesh panels which will be double clipped for security and will have entry gates to the West elevation and exit gates to the Southern elevation.

1.2.3 A secure entrance for pedestrians will be located off Pield Heath Avenue, onto the site welfare compound.

1.2.4 All plant, equipment and vehicles will be delivered to site and located directly in the compound stores area.

1.2.5 The welfare and compound facilities will be located in the south west corner of site. Welfare facilities will consist of a self-contained Oasis Unit for the demolition phase.

1.2.6 All existing services will be terminated or isolated under separate RAMS. The Client will confirm in writing that all services are dead prior to JSDR commencing work. Water supply will remain live to supply dust suppression measures as required.

1.2.7 All equipment will be checked for serviceability prior leaving our plant depot and before being put to use for the first time.

1.3 Aims of this Demolition Environmental Management Plan (DEMP).

1.3.1 This DEMP lays down how we will comply with the requirements of Hillingdon London Borough Council (HLBC) Code of Construction Practice - (CoCP). It sets out controls and procedures for managing the environmental impacts of the demolition and

subsequent construction project. It covers the environmental, public health and safety aspects of the project that may affect the interests of local residents, businesses, the general public and the surroundings in the vicinity of the demolition site.

1.3.2 This DEMP identifies how we will comply with the main legal responsibilities and requirements placed upon us as the demolition contractor and our sub-contractors on our project. The DEMP aims to assure residents, business owners and other affected parties that the mitigation of impacts to the environment are being taken into account according to best practice. Overall, it aims to minimise nuisance and disturbance to the public and to safeguard the environment.

1.4 Purpose and Scope of the Demolition Environmental Management Plan

1.4.1 The purpose of the DEMP is to lay down how we will undertake the assessment and management of the identified significant demolition and subsequent construction phases and the environmental impacts associated with the development. One of the main control measures for any environmental impacts during the demolition and subsequent construction phase of the development are the consents granted under the Control of Pollution Act 1974 (CoPA) Section 60/61. This DEMP shall implement the requirements of the Section 60/61 consents, to ensure that we manage the environmental impacts of the development.

1.4.2 As well as full compliance with the HLBC CoCP and this DEMP, we will fully comply with all current Environmental, Safety and Health legislation relating to our demolition and construction activities. We will apply for section 61 consents to HLBC, in accordance with the provisions of CoPA.

1.4.3 This DEMP sets out:

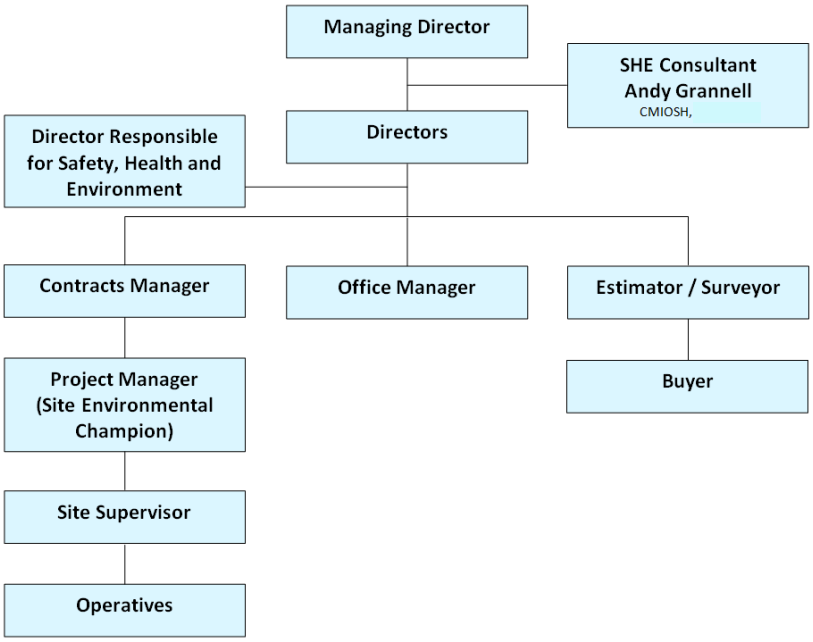
(i) the general principles and controls / mitigation measures we will apply during demolition and construction.

(ii) the general provisions for demolition site operations; and the particular environmental issues that need to be controlled throughout the demolition work.

1.5 Compliance with the CoCP and DEMP

1.5.1 Current HLBC practice is that the CoCP Section 60/61 is a condition of development during the planning process. We will as a minimum, comply with this DEMP, and will ensure that our contractors and sub-contractors comply with it.

1.6 Project Organogram – Responsible Persons



1.7 Best Practicable Means

1.7.1 To control noise from the demolition site, JSDR will use the 'Best Practicable Means' to minimise noise from our activities.

1.7.2 This will include, but not limited to;

- prohibition of the use of radios on site
- proper and regular maintenance of plant and equipment.
- choice of appropriate low noise emission plant
- installing noise barriers or acoustic screens as required, based on our Dynamic Noise Risk Assessment.

1.7.3 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. So, we will use lower-noise equipment wherever reasonably practicable.

1.7.4 We will use mains powered electrical equipment via transformer (rather than using generators) so far as reasonably practicable. Where this is not practicable, due to lack of Temporary Building Supply being available, we will use Silent Run Generators for power supply.

1.7.5 Hydraulic shearing or bursting techniques are preferable to impact breaking methods for demolition. We will seek to avoid the use of breakers on this project, as far as reasonably practicable. However, the removal of concrete foundation will require the use of a hydraulic breaker attachment fitted to the 360 demolition machine.

1.7.6 Refer to various sections within this DEMP for further details of controls measures to implement **Best Practicable Means**

2 APPLICABLE CODES, STANDARDS AND LEGISLATION

2.1 Applicable Legislation

2.1.1 It is BSL's responsibility as the Principal Contractor for the demolition phase to monitor the project and ensure the implementation of environmental legislation and regulations and to use the appropriate standards prevailing at the time of works being undertaken. JSDR, as the Demolition Contractor, will comply with all prevailing legislation at the time of demolition, including any requirements under Health and Safety legislation.

The following list of SHE Legislation and Codes of Practice will be fully complied with:

- The Environmental Protection Act 1990
- The Control of Pollution Act 1974
- The Pollution Prevention and Control Regulations 2000
- The Environmental Protection (Duty of Care) Regulations 1991
- The Hazardous Waste Regulations 2005
- The Health and Safety at Work etc. Act 1974
- The Management of Health and Safety At Work Regulations 1999
- The Construction (Design and Management) Regulations 2015
- The Work at Height Regulations 2005
- The Control of Asbestos Regulations 2012
- The Control of Substances Hazardous to Health Regulations 2002
- The Electricity At Work Regulations 1989
- The Health and Safety (First Aid) Regulations 1981
- The Health and Safety (Safety Signs and Signals) Regulations 1996
- The Dangerous Substances and Explosive Atmospheres Regulations 2002
- The Manual Handling Regulations 1992 (as amended)
- The Control of Noise At Work Regulations 2005
- The Control of Vibration at Work Regulations 2005
- The Personal Protective Equipment Regulations 1992
- The Reporting of Injuries, Diseases & Dangerous Occurrences Regulations 2013
- The Confined Spaces Regulations 1997
- The Lifting Operations and Lifting Equipment Regulations 1998
- The Provision and Use of Work Equipment Regulations 1998
- The New Roads and Street Works Act 1991
- The Highways Act 1980
- Hillingdon London Borough Council – Code of Construction Practice
- Section 60 / 61 Conditions
- BS 6187 (2011) Code of Practice for Demolition

2.2 Planning Conditions

2.2.1 We will fully comply with the conditions laid down in the planning permission imposed under the Town and Country Planning Act 1990 in relation to working hours and demolition methodology. Via adherence to this DEMP we will comply with these conditions.

2.3 Licences

2.3.1 If applicable, we will obtain the necessary permits and licences from the HLBC before:
(i) erecting any scaffolding, hoardings, temporary crossing, or fence on the highway. Hoarding will be erected along Pield Heath Road and Avenue on the footpaths to provide protection to passing pedestrians.
(ii) We will use a skip and 8-wheeled tipper lorries for waste away, the waste lorries will pull into the waste loading area, they will then be allowed out on to the highway under control of a Traffic Marshall.

2.3.2 We will inform local residents and business owners, likely to be affected by our demolition activities, at least 14 days prior to undertaking the works, this will be via

distributing newsletters. The newsletters will update neighbours on site progress and projected activities that may cause loss of amenities.

2.4 Demolition Environmental Management Plan

2.4.1 This DEMP has been developed to demonstrate how the requirements of the HLBC CoCP will be met. The DEMP clarifies environmental management responsibilities and activities, monitoring and auditing processes, complaints response procedures, and community and stakeholder liaison processes. The DEMP makes reference to all legislation relevant to the demolition and subsequent construction phase. This will be updated if new legislation is introduced.

2.4.2 The DEMP will be developed in liaison with the Environmental Health Department of the HLBC, and for the approval of HLBC.

2.5 Incident Reporting Procedures

2.5.1 BSL's Site Manager will advise HLBC within 24 hours of any Environmental incidents of non-compliance with the CoCP and DEMP and will respond to any reports referred by HLBC within 24 hours, or as soon as reasonably practicable. In the event of working practices being deemed dangerous either by HLBC or the Health and Safety Executive, immediate remedial action will be taken.

2.5.2 We will maintain on site, and collate in a timely manner, a system for recording any incidents and any corrective action taken for inspection by HLBC representatives. This will be forwarded to the HLBC on a regular basis.

2.5.3 Any reports forwarded by HLBC, Police or other agencies will be dealt with by the Contract Manager, Site Manager and JSDR Company SHE Consultant as soon as practicable, preferably within one hour but always within 24 hours of receipt from the relevant Agency. We will monitor and ensure that the appropriate action has been taken. Where appropriate, remedial action will be agreed with HLBC. Procedures will be put in place to ensure, as far as is reasonably practical, that necessary action has been taken and steps to avoid recurrence have been implemented. These procedures are detailed within the Company SHE Policy Manual and the Construction Phase Health and Safety Plan for the Project.

2.5.4 The requirements of the Reporting of Injuries Diseases and Dangerous Occurrences Regulations 2013 will also be fully complied with.

2.5.5 Any complaints received directly from local residents will be investigated at the earliest opportunity with a suitable resolution implemented to all parties' satisfaction.

2.6 Liaison with Local Residents

2.7 BSL will engage in the following liaison and information provision activities:

- Undertake an initial letter drop informing the residents and business owners of our planned works and timescales.
- Seeking to personally speak to residents on an ongoing basis to engage with and inform them – build relationships.

2.6 Review Timetable

2.7.1 The Contract Manager and / or SHE Consultant will attend monthly reviews with HLBC, or as requested, to discuss our responsibilities under the CoCP and those of our sub-contractors.

2.7.2 We will permit and facilitate where necessary HLBC's officers to undertake regular planned inspections of the site to check compliance with the CoCP and this DEMP.

3 ENVIRONMENTAL ASPECTS AND IMPACTS

3.1 Environmental Aspects and Impacts have been identified and included in this project DEMP prior to the start of works. JSDR will actively seek details of environmental assessments carried out from the client's representative and the pre-construction information, if none are provided, we shall take account of information on specific project environmental risks. The significance of an aspect will be determined through the assessment of key drivers including legal requirements; level of risk to the environment; level of risk to the business. Where any residual risks are judged to be significant the Project Team, headed by Contracts Manager, shall ensure that there are emergency plans in place that define the action to be taken and appoint the person responsible for doing so. Environmental impacts and aspects for the Demolition Phase are located within Appendix 3 to this DEMP:

4 ROADS AND FOOTPATHS

4.1 Regulatory Overview

4.1.1 The Highways Act 1980 (particularly Part IX) sets out requirements relating to construction work on or near the highway. The meaning of 'highway' for the purposes of the 1980 Act is defined as the whole or part of a highway, other than a ferry or waterway. The actual definition of a highway is set in common law, to be a way over which the public have the right to pass and repass. In practice, highways are classified as Special Roads, Trunk Roads, Classified Roads, Unclassified Roads, Public Footpaths and Bridleways. Key requirements of the 1980 Act include:

- Permission by formal agreement from the Highway Authority (HLBC) will be obtained for any works to highways. During the demolition phase there will be no requirement to any works on the highway.
- Licences obtained for permission to place temporary obstructions on the highway (e.g. hoardings, fenced storage areas, temporary crossovers, scaffolding and skips)
- Prior notification to the Highway Authority will be obtained for construction of a vehicle cross-over on a highway.
- Any generation of mud or other such materials on the highway during the demolition phase will be cleaned away daily, with the provision of wheel wash facilities.
- Surface drainage from site will not be allowed to run across the footway part of the public highway.

4.1.2 For the subsequent construction phase (which is outside the scope of this document) and in accordance with the New Roads and Street Works Act 1991, prior notification will be made to the Highway Authority before commencing construction of the new highway crossing. A Street Works licence issued by the local authority will be obtained prior to excavation of the highway.

4.1.3 As per the Town & Country Planning Act 1990 (Part X), the Public Right of Way will not be obstructed or diverted without an Order permitting it. In addition, the Highways Act 1980 also makes it an offence to obstruct a highway (including a Public Right of Way) e.g. with building material that results in a public danger / nuisance. The Act also provides for planning permission to be subject to planning conditions which relate to off-site activity, such as parking or loading on the highway.

4.1.4 In compliance with common law, as a contractor working on or over a highway, we owe a duty of care to other users of the highway. We are liable for any personal injuries or property damage that may arise from a breach of that duty.

4.1.5 In compliance with the Highways Act 1980 we will not deposit on the highway anything that is a nuisance. We will clear any arisings which is washed onto, or falls

onto, the highway and we will take all reasonable measures to prevent demolition arisings being deposited on the highway.

4.2 Temporary and Permanent Closures and Diversions

4.2.1 If applicable, we will carry out initial consultation with the HLBC concerning the stopping up of roads and footpaths and the posting of notices informing local residents, business and organisations.

4.2.2 Footpath diversions will not be required as hoarding will contain all works within the compound of the site.

4.3 Work Affecting Carriageways and Footways

4.3.1 All JSDR works will be managed in order to minimise inconvenience to the public (Highways Act 1980). All necessary consents and licenses will be obtained in advance.

4.3.2 All temporary and diverted footways will be designed for access for wheelchairs and pushchairs where reasonably practicable, reasonable pedestrian routes will be provided throughout the construction period and will meet the following requirements:

(i) Temporary footways and carriageways will be constructed to the reasonable requirements of HLBC and will have uniform surfaces; there will be no steps and any gradients will be no greater than 1 in 20. In the event where steps are unavoidable, an alternative route will be identified for people with mobility impairments or disabilities.

(ii) Pavement ramps will be provided at all junctions of footways with carriageways. Gradients will not exceed 1 in 20 and the base of the ramp will be flush with the carriageway.

(iii) All temporary footways and ramps will be surfaced in non-slip materials to the satisfaction of HLBC and kept free of mud and debris.

(iv) So far as is reasonably practicable, all footways and carriageways will be kept free from mud and other loose materials arising from the works.

(v) Existing pavement widths around work sites will be maintained except where this exceeds 2 metres when HLBC may accept a reduction to a clear width of not less than 2 metres or to a minimum clearance between street furniture, obstructions and temporary measures of 1.5 metres.

(vi) Clear signing will be provided at all times for each pedestrian route with the minimum number of changes to all temporary layouts in order to reduce confusion. Advance warning will, if possible, indicate alternative existing wheelchair-accessible routes.

(vii) All openings or obstructions on the carriageway and footway will be barricaded with a continuous rail (lit at night) strong enough to offer necessary resistance should a blind person walk into it; a tapping rail will be provided.

(viii) Headroom clearance over footways will be minimum of 2.3m. A preferred clearance of 2.5m to soffit will be provided if possible. A horizontal clearance of 0.6m will be provided from kerb-line, where practicable, for any hoarding projection under 5.1m high, to avoid fouling by vehicles. If any projection is over the highway, the clearance will be more than 5.41m. For permanent structures the clearance will be more than 6.45m.

(ix) All pedestrian routes diverted onto the carriageway will be clearly defined by continuous barriers, constructed to the reasonable requirements of the Highway Authority – <u>not applicable to this project</u>

(x) Where a temporary footway is provided, it will conform to all reasonable requirements of the Highway Authority.

(xi) Lorries entering or leaving the site will only be allowed to cross footways under the control of competent Traffic Marshal. This will not be applicable during the demolition phase, as vehicles will enter the unloading bay on Pield Heath Avenue.
(xii) Roll-on-roll-off containers will not be allowed on the highway (outside of the loading bay).
(xiii) After completion of the works all material arising from the works will be cleared from the highway leaving it in clean and tidy condition
(xiv) All vehicles will enter and leave the site in a forward direction

4.4 Maintenance and Repair of the Highway

4.4.1 Where works traffic has to use public highways, we will take the necessary precautions to prevent damage to roads and footpaths. We will comply with relevant legislation with regard to vehicle licensing and operation.

4.4.2 We are responsible for any damage caused by our activities to roads, kerbs or footpaths in the vicinity of the site and will carry out the temporary or permanent reinstatement as required, of such roads, kerbs or footpaths and in a manner approved by HLBC to their specification and reasonable satisfaction. Permanent reinstatement will be carried out by HLBC or by ourselves in accordance with HLBCs' specification and reasonable requirements.

4.5 Street Furniture

4.5.1 Any street furniture (electrical or non-electrical) will not be removed or relocated by JSDR or any of our contractors. This work will only be carried out by HLBC or its appointed contractor. If the street furniture is electrical, allowances of up to eight weeks will be given to allow for any electrical works that may be required.

4.5.2 No street furniture will be relocated or removed by JSDR or any of our contractors; these works will be carried out on a recharge basis by HLBC or its approved contractor.

4.5.3 All street furniture, traffic lights etc, will remain fully visible to all road and footpath users.

4.6 Lorry Movements

4.6.1 We will implement the use of a ‘planned route’ for lorries travelling to and from site as agreed with HLBC. See Appendix 3 for Construction Logistics / Traffic Management Plan and Routes to and from site.

4.6.2 Vehicles arriving or leaving site will do so during normal working hours as specified within the Planning Conditions. A Swept Path Analysis will be undertaken by a Traffic Management Consultant, as instructed by BSL as the Principal Contractor.

4.6.3 We will abide by the London Boroughs' Transport Scheme.

4.6.4 Access to site will be located to ensure the minimum of disturbance from vehicles entering or leaving the site to persons in nearby noise sensitive buildings. The number of lorry movements, hours of operation and any lorry holding areas will be agreed in advance with HLBC and the Police. Access to site will be via Pield Heath Avenue, into the Waste loading area. Exit from site will be onto Pield Heath Road

4.6.5 We will apply to HLBC for approval for all temporary road signs on the public highway that indicate routes to site. The application for approval will be submitted at least six weeks in advance of the requirement for signage.

4.6.6 All egress from the site onto the highway will be controlled by the Traffic Marshall.

4.6.7 Traffic signs in accordance with the Traffic Signs Regulations 1994 and General Directions will be provided for the site access with advance warning of the approach to the entry. For control of traffic leaving the Site, ‘Give Way’ signs will be provided. The precise location of each sign will be determined to the satisfaction of HLBC.

4.6.8 Traffic signs and temporary road works signs will comply with the Traffic Signs Regulations & General Directions 2002 and with BS873.

4.6.9 Lorries waiting to enter or leave the site will switch off their engines.

4.7 Mud / Demolition Arisings on Roads

4.7.1 This is one of the main environmental nuisance problems arising from demolition sites. We will implement suitable control measures to minimise this problem. These will include, but not limited to:

(i) The provision of easily cleaned hard standings for vehicles entering, parking and leaving the site.

(ii) The provision of wheel washing facilities (operative with jet wash gun).

(iii) The use of an approved mechanical road sweeper to clean the site hard standing and any mud or debris deposited by site vehicles on roads or footpaths in the vicinity of the site. The road sweeper will be readily available whenever the need for cleaning arises and will be properly used and maintained.

(iv) The complete sheeting of each lorry load of spoil removed to prevent spoil falling off during its journey to the tip.

4.7.2 We will comply with the requirements regarding dust outlined in Section 7 below.

4.8 Avoidance of Fly-tipping

4.8.1 Fly tipping will not be permitted. Loads will only be deposited at authorised landfill sites. Disposal will be in accordance with the requirements of the Environment Agency and the 'Duty of Care' provisions of the Environmental Protection Act 1990 and any other relevant Regulations.

4.8.2 'Duty of Care' Documentation will be retained and provided to HLBC upon request. To prove the correct depositing of demolition arisings and excavated material and to prevent the occurrence of fly tipping, a ticket system will be operated at our site. We will provide to HLBC's satisfaction a sequentially numbered system for our site to confirm that each lorry load of arisings or spoil is deposited at an approved site.

4.8.3 We will ensure that fly tipping by others does not take place on site by ensuring adequate site security.

4.8.4 There will be a Site Waste Management Plan in operation for this project, although no longer required due to the legislation being revoked, it is deemed good practice and is embraced by BSL.

4.9 Marking of Lorries - Site Identification

4.9.1 We will provide (to HLBC's approval), lorry stickers uniquely identifying the worksite. For identification purposes we will fix these in a prominent position on all lorries frequently serving the site. The identification will be sufficiently large to be easily read from a distance of 20 metres.

4.10 Responsibility for Enforcement

4.10.1 We will be responsible for all the lorries delivering to or exiting from our site and will ensure that the requirements of Clause 4.6 above are met.

5 PROTECTION OF THE WATER ENVIRONMENT

5.1 Regulatory Overview

5.1.1 The Water Resources Act 1991 states it is an offence to knowingly discharge any poisonous, noxious or polluting matter or solid waste matter to any controlled waters (including either surface or groundwater) without a discharge consent issued by the

Environment Agency. In addition, general good site management practice is essential to protect surface water and groundwater from accidental contamination.

5.1.2 Where discharge of polluting matter to controlled waters has occurred or the EA considers that such discharge is likely to occur, it can either carry out works to clean-up the pollution and recover its costs from the polluter or can serve a works notice on the polluter requiring .them to clean-up the pollution at their own expense.

5.1.3 The Control of Pollution (Oil Storage) Regulations 2001, they have the objective of minimising the pollution of controlled waters that results from spillage or leaking of oil. The regulations impose a requirement on anyone storing more than 200 litres of oil based liquids outdoors to have in place storage facilities that comply with a comprehensive range of requirements, including but not limited to:

- The oil container must be of sufficient strength to ensure it is unlikely to leak.
- The container must be situated within a secondary containment system (SCS), which will prevent the release of any leaked oil.
- All static plant (generators / compressors) will have plant 'nappies' under them when operating, to catch any fuel / oil leaks and prevent contamination.
- The diesel tank for refuelling plant will be bunded and will have a drip tray under the refuelling point.
- Spill kits for containment of oil spills will be located and available on site.

5.2 Waste Water and Ground Water

5.2.1 Whenever possible, we will seek to minimise the amounts of wastewater that need to be discharged and find alternative means of disposal. Such alternatives might be discharge to foul sewer subject to trade effluent obligations or disposal through a licensed waste management contractor in accordance with duty of care obligations.

5.2.2 All waste water and site discharges will only be permitted where the effluent quality and discharge location is acceptable to the Environment Agency or Thames Water (as appropriate). Effluent will pass through treatment facilities such as sediment traps and/or settlement lagoons, as appropriate, before being discharged. We will ensure that all treatment facilities are regularly inspected and maintained and that a full record is kept of inspection, maintenance and measures to sustain equipment performance.

5.2.3 Seepage and wastewater arising from the works will be collected and discharged via a settlement tank. The standards for treatment, prior to discharge, will be agreed in advance with HLBC and, where applicable, satisfy the EA requirements.

5.2.4 Soakaway discharge will only be permitted where the effluent is proved to be acceptable to the Environment Agency. With the consent of Thames Water, contaminated water or water of a dubious quality can be discharged into sewers by tankers or by other approved means.

5.2.5 Prior to any excavation below the water table, including any site de-watering, we will inform the Environment Agency, Thames Region, of the works to be conducted. Cut-off ditches may be used to prevent water from entering excavations. The de-watering and disposal measures will be agreed with the Environment Agency and an Abstraction Licence will be obtained.

5.2.6 We will also comply with BS 6031: 1981 Code of Practice for Earthworks, regarding the general control of site drainage.

5.2.7 We will ensure that any water that has come into contact with contaminated materials will be appropriately disposed of in accordance with the Water Industries Act 1991 (if discharged to sewer) and the Water Resources Act 1991 (if discharged to controlled waters) and all other related regulations and to the satisfaction of the Environment Agency - Thames Region

5.2.8 We will prepare a full management plan if contaminated land is identified on site in order to comply with all relevant handling and disposal legislation.

5.2.9 We will apply for consents and approvals as follows:
(i) A consignment note system will be applied to all discharges.
(ii) For any discharge into a watercourse or river, approval will be obtained from the Environment Agency – not applicable to this project.
(iii) For any discharge into a sewer, a Trade Effluent Consent will be obtained from Thames Water.

5.2.10 We will make provisions to ensure that all hazardous substances including oil drums and containers, or other potential contaminants stored on site are controlled in accordance with Control of Substances Hazardous to Health Regulations 2002 and are properly isolated and bunded so that no oil or other contaminants are allowed to reach watercourses or ground water, including aquifers. Storage locations for such materials should be positioned away from watercourses and agreed with the Environment Agency. All surface water or other contaminated water, which accumulates in the bund, will be removed by manually controlled positive lift pumps and not by means of a gravity drain. This water will be removed from site and discharged in a public sewer in consultation with Thames Water.

5.2.11 Foul water and sewage effluents produced by the site must be contained in temporary foul drainage facilities that will be installed and subsequently disposed of off-site by a licensed waste contractor.

5.2.12 We will ensure continuous compliance with all the above conditions under the monitoring of the Site Project Manager.

5.2.13 Surface water run-off from demolition activities (dust suppression and wheel washing) will be filtered before entering the surface drains with permeable membrane placed over the drains.

5.3 Protection of Aquifers

5.3.1 We will have due regard for underlying aquifers and adhere to the Environment Agency's Groundwater Protection Policy. In all instances, appropriate protection of aquifers will be undertaken, following liaison with the Environment Agency regarding the piling and construction techniques to be employed. Details of appropriate measures to prevent groundwater contamination (including monitoring) will be agreed with the Environment Agency, in writing, prior to commencement of the works.

5.4 Drainage Routes to Water Courses

5.4.1 Drainage to water courses will not be permitted without prior agreement with the EA. The EA will require identification of the source and quality of the water.

5.5 Spill and Leak Protection

5.5.1 Suitable precautions will be taken to prevent the entry of pollutants into any waterway to the satisfaction of HLBC in liaison with the EA. Specific measures, such as placing oil stores at a distance from the water course and putting in place additional secondary containment system (SCS) measures. Emergency procedures to ensure containment and treatment in the event of a spill must be agreed in advance of any works with HLBC and the EA.

5.6 Identification of Water Receptors

5.6.1 All surface drains will be identified on the site by undertaking a thorough investigation. They will be marked up on the site plan and communicated to all site personnel.

6 NOISE

6.1 Introduction

6.1.1 Noise monitoring will be undertaken while JSDR undertake demolition work at the Pield Heath development site. The frequency and means of reporting to HLBC will be agreed as part of the Section 61 requirements.

6.1.2 Noise measurements are to be taken at 2no proposed locations i.e. at noise receptors on each street bordering the site, noise and vibration monitors to be located at the North Site boundary wall off Pield Heath Avenue (Row of guest accommodation) and on the South corner meets Pield Heath Road (no14 plot) - (exact locations to be agreed on site) and the results related to the baseline levels recorded and limits provided for in the contract based on initial noise surveys that are to be undertaken.

6.1.3 A specification sheet for the Noise Monitor to be used during demolition works is contained within the project Method Statement Appendix 6.

6.2 Regulatory Overview

6.2.1 The principal legislative controls on noise which includes vibration are contained within the Control of Pollution Act 1974 (COPA 1974). In addition, statutory nuisance provisions contained within the Environmental Protection Act 1990 also apply to noise.

6.2.2 Key issues relating to noise from construction sites include:

(i) Prior consent may be sought from the council relating to noise from construction activities (Section 61).

(ii) If no prior consent is sought, the authority may serve a notice on the site/works, setting conditions of permitted work (Section 60).

(iii) An action in statutory nuisance can be brought by a member of the public even if the works are being carried out in accordance with a prior approval or a notice (s.82 of Environmental Protection Act 1990)

6.2.3 British Standard 5228 part 1: Noise Control on Construction Sites and Open Sites will be complied with to ensure noise control during demolition and construction work.

6.3 Noise Control – General

6.3.1 Baseline noise surveys will be carried out prior to any works commencing in order to provide a basis for determining acceptable noise levels for the site. These noise levels will be included in any formal agreement between HLBC and the Principal Contractor BSL and JSDR as the Demolition Contractor. A programme of on-site noise monitoring will be implemented to demonstrate compliance with agreed standards. Survey procedures and locations are to be agreed with HLBC in advance.

6.3.2 The noise criteria will be utilised by JSDR in determining our method of work, type of plant to be used and noise mitigation measures for the site. Prior to commencement of work on site, we will be required by HLBC to demonstrate the efficacy of the proposals.

6.3.3 BSL will apply to HLBC for formal consent in accordance with Section 61 of the Control of Pollution Act 1974. The application under Section 61 of the Act will contain particulars of the works, noise predictions for the various phases of work, methods by which the works are to be carried out and details of the measures proposed to minimise noise resulting from the works. We will also be required to comply with the other provisions of the Control of Pollution Act 1974, Part 3 Noise.

6.3.4 We will follow the controls set out in BS5228: 2009, Code of Practice for Noise and Vibration Control on Construction and Open Sites; Part 1 Noise & Part 2 – Vibration.

6.3.5 We will comply with the Control of Noise at Work Regulations 2005 and Control of Vibration at Work Regulations 2005 to ensure the protection of site personnel.

6.3.6 Sound levels will be monitored in accordance with the methods set out in BS 5228: Part 1. All measurements shall be made on an appropriate sound level meter. Noise levels may be monitored by HLBC during the course of the works.

6.3.7 See Appendix 4 for locations of noise monitoring stations. Permission will be sought from building owners prior to positioning the monitoring stations on their properties.

6.4 Noise Control - Detailed Provisions

6.4.1 The site will be totally surrounded by fencing or hoarding to the required height and density appropriate to the noise sensitivity of the location.

6.4.2 Damage to fencing or hoarding surrounding site will be immediately repaired.

6.4.3 Site gates will be controlled to give the minimum amount of time open for passage of vehicles, in order to minimise stray noise to the external surrounding area.

6.4.4 Fixed items of demolition or construction plant may be electrically powered and not diesel or petrol driven. Where this is not practicable, suitable noise attenuation measures will be provided such acoustic baffle screens around the plant working area and silenced generators and compressors etc.

6.4.5 Vehicles and mechanical plant used for the purpose of the works will be fitted with effective exhaust silencers, will be maintained in good and efficient working order and operated in such a manner as to minimise noise emissions. We will use plant that complies with the relevant UK noise limits applicable to that equipment or is no noisier than would be expected from the noise levels quoted in BS 5228: 2009.

6.4.6 Plant shrouding will be in accordance with the recommendations set out in BS 5228.

6.4.7 Moveable screens consisting of Herras fence panels with heavy duty rubber matting attached to them will be placed around the noisy items of plant and demolition activity as required. The Traffic Marshal will reposition the panels as work progresses.

6.4.8 To minimise environmental noise disturbance, compressors will be 'sound reduced' models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use, and pneumatic percussive tools will be fitted with shrouding or silencers of the type recommended by the manufacturers.

6.4.9 Machines in intermittent use will be shut down in the intervening periods between work or throttled down to a minimum. Noise emitting equipment, which is required to run continuously, may be housed in a suitable acoustic enclosure.

6.4.10 Equipment that breaks concrete by munching or similar, rather than by percussion, will be used as far as is practicable during the demolition of existing structures.

6.4.11 We will always seek to use hydraulic shears to demolish elements of the structure as opposed to pecker attachments.

6.4.12 Noisy plant or equipment will be sited as far away as is practicable from noise sensitive buildings. The use of barriers, e.g, acoustic panels / partitions to deflect noise away from Noise Sensitive Areas will be employed wherever practicable.

6.4.13 Care will be taken when loading or unloading vehicles or dismantling scaffolding or moving materials, etc. to reduce impact noise.

6.4.14 Noisy work will be undertaken on a 2-hours on and 2-hour off basis.

6.4.15 Prior to commencement of works on site, we will submit to HLBC for approval the following information:

(i) A method statement (in accordance with the principles described in BS5228) stating the type of plant to be used and the proposed noise control methods.

(ii) A programme of works indicating the sound power level and location for each activity on the programme.

(iii) Literature from manufacturers establishing the sound power level of plant.

(iv) Calcs of LAeq and maximum levels at specified buildings as requested by HLBC, displayed, where practicable as a 'Noise Map' for the various phases of the works.

6.4.15 If we wish to change the type of plant or programme of work, we will submit to HLBC for prior consent the proposed alteration and information required.

6.4.16 The use of any plant or equipment required for any emergency situation which causes a departure from Section 6.3 will be notified to HLBC as soon as is practicable. We will accordingly advise if previously agreed noise levels are likely to be exceeded due to the adoption of alternative working methods.

6.5 Hours of Working

6.5.1 The hours of working will be: Monday-Friday 0800 – 1800. No work on Saturdays, Sundays, Bank or Public Holidays, unless approved in writing by HLBC.

6.5.2 No work and ancillary operations, which are audible at the site boundary, will be permitted outside these hours unless fully justified to HLBC on the grounds of engineering necessity or for reasons of health and safety. Any such works will be kept to an absolute minimum.

6.5.3 During normal working hours, as defined above, the maximum LAeq, noise level at the site boundary is set at 70 dB(A) LEQ for a 9-hour period, and 75 dB(A) LEQ for a 1-hour period.

6.5.4 Noise levels in terms of LAeq,T where T = 9 hours for Monday to Friday.

6.5.5 Local circumstances may prevent these limits from being used. We shall liaise with the Local Authority to ascertain whether any unusual circumstances exist.

6.5.6 If we propose any additional or alternative working hours for demolition reasons, we will obtain the prior agreement of HLBC. A minimum of 14 day's notification is required by HLBC except in case of emergency, safety reasons, unforeseen circumstances or occasional major demolition or construction operations. Regarding the latter, as much notice will be given as possible.

6.5.7 Alternative working hours needed for emergency reasons will be advised to HLBC as soon as reasonably practicable that the works are taking place and their likely duration.

6.6 Predictive Noise Levels / Noise Receptors

6.6.1 Predictive noise surveys have been undertaken on previous demolition projects in the by Acoustics Consultants to ascertain predicted noise levels of demolition plant, to be used on projects, at the closest noise receptors. This assessment was based on British Standard BS5228.

6.6.2 **Noise Emissions Calculations**:

	Frequency, Hz								
	63	125	250	500	1k	2k	4k	8k	dB(A)
Sound Pressure Level (at 1m)									
250cfm compressor									99
Correction due to on-time									-3
Correction due to distance to boundary (min. 30m)									-30
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**61**
MK250 heavy breaker									94
Correction due to on-time									-3
Correction due to distance to boundary (min. 15m)									-24
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**62**
SK12 demolition picks									96
Correction due to on-time									-3
Correction due to distance to boundary (min. 30m)									-30
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**58**
20 tonne tracked excavator fitted with concrete pulveriser									84
Correction due to on-time									-3
Correction due to distance to boundary (min. 15m)									-24
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**52**
35 tonne tracked excavator fitted with concrete pulveriser									90
Correction due to on-time									-6
Correction due to distance to boundary (min. 15m)									-24
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**55**
Impact breaker for 35 tonne tracked excavator									99
Correction due to on-time									-8
Correction due to distance to boundary (min. 15m)									-24
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**63**
5 tonne tracked excavator with concrete pulveriser									85
Correction due to on-time									-3
Correction due to distance to boundary (min. 25m)									-28
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**49**
ZX470 High Reach									99
Correction due to on-time									-3
Correction due to distance to boundary (min. 30m)									-30
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**61**
85 tonne hi-reach fitted with universal processor									102
Correction due to on-time									-3
Correction due to distance to boundary (min. 30m)									-30
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**64**
Mini hi-reach fitted with universal processor									86
Correction due to on-time									-3
Correction due to distance to boundary (min. 30m)									-30
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**48**
Concrete crusher									92
Correction due to on-time									-3
Correction due to distance to boundary (min. 40m)									-32
Attenuation provided by screening etc.									-5
Total sound pressure level of equipment									**52**
Total of all equipment									**70**

6.6.3 The predictions shown in the above table represent a worst-case scenario and the main assumption is that that all equipment will be running simultaneously at the nearest point to the receivers.

6.6.4 Mitigation measures will inherently include Best Practicable Means (BPM) related to the control of noise. The following measures will be employed by JSDR to mitigate noise at the receptor:

- Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974, employed at all times to reduce noise (including vibration) to a minimum, with reference to the general principles contained in section 8 of BS5228: 2009 'Noise and Vibration Control on Construction and Open Sites'.
- Quietest & newest vehicles / plant machinery used at all times where practicable. All vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers, shall be maintained in good and efficient working order and operated in such a manner as to minimise noise emissions.
- Tools shall be inspected to ensure they are safe and good working order and not causing unnecessary noise through ill maintenance.
- Prior to commencing on site, adjacent properties will be mail-dropped to provide them with information about the upcoming works, and expected duration of the phases (demolition and construction). This will contain contact details for the site manager during site hours, as well as a contact email for out of hours contact.
- If residents consider noise levels to be too high during works and contact the site, the site manager will investigate the source of the noise. If noise levels are considered to be too high, the activity will cease immediately, and a new methodology will be investigated to minimise noise levels to nearby receivers. Noise events will be investigated, and measures taken to reduce noise levels, with the site manager reporting back to the complainant within 24 hours."

6.7 Noise Monitoring

6.7.1 At each agreed measurement point a Type 1 Sound Level Meter (or similarly approved) is installed together with an outdoor microphone unit. These are integrating sound level meters which measure the standard sound level parameters of Leq, Max, Min, Pk, UnwPk and Lns. In the case of noise the baseline levels recorded provide us with a reference to which all subsequent recorded noise levels can be compared. The results of this subsequent monitoring will show the increase in levels (if any) above ambient and above the limits provided for in the contract. This will allow the JSDR to take whatever measures are deemed to be necessary to minimise this increase and thus minimise the effect on the nearby residents.

6.7.2 At regular agreed intervals the monitors are interrogated, data is downloaded, batteries are changed, and a report is produced on the levels recorded.

6.7.3 Typical values of Lep which should not be exceeded during demolition processes are 70dB for urban settings. Where this isn't possible, every effort will be adopted by JSDR in order to reduce the propagation of noise from these demolition activities on site.

6.8 Contingency Measures

6.8.1 Whilst the demolition sequence method have been developed to account for the specific requirements of the adjoining structures, it is important that suitable contingency measures are available to deal with any movements / noise that reach agreed limits and to prevent / limit and control any further movements / noise.

6.8.2 Should contingency measures be required then methods of works and support will be reviewed and additional works provided were necessary.

7 VIBRATION & STRUCTURAL MONITORING

7.1 Introduction

7.1.1 Vibration monitoring will be undertaken while JSDR undertake demolition work at the Pield Heath Road development site. It is envisaged that structural monitoring will

not be required as this DEMP relates to the demolition of all few standing structures, which are not inter-dependent on adjacent structures for stability.

7.1.2 Vibration measurements are to be taken at suggested locations (exact locations to be agreed on site) and the results of these measurements can then be related to recognised standards and limits for potential damage to buildings as well as limits provided for in the contract.

7.1.3 JSDR will ensure that measures are taken to:
(i) protect residents, users of buildings close by and passers-by from nuisance or harm;
(ii) protect buildings from physical damage.

7.1.5 Compliance with vibration levels set by HLBC. Following factors will be considered:
(i) Human Exposure: We will comply with the requirements of BS5228:2009, Part 2
(ii) Protection of Structures: Demolition and construction activities will be carried out in such a way that vibrations arising will not cause significant damage to adjacent structures, in accordance with BS7385 Evaluation and Measurement of Vibration in Building Part 2: Guide to damage levels from ground-borne vibration.

7.1.6 Specific controls to minimise vibration levels include:

- Vibration levels will be minimised by the use of a 20t and 13t 360 demolition machines fitted with hydraulic munchers and grab attachments. The grab will lower arisings to the ground under control, walls will not be pushed over and allowed to impact on the ground.
- Dust suppression using Dust Boss positioned to suppress dust leaving the site.

7.1.7 Noise Sensitive Areas: It should be noted that the nearest residential premises is located beyond the north wall, approximately 20 feet away. It should be noted that the majority of noise producing activity will be generated to the west elevation (along Pield Heath Avenue) and East elevation (private garden) when demolition is taking place

7.2 On-Site Monitoring

7.2.1 A programme of on-site vibration monitoring will be implemented to demonstrate compliance with agreed standards with HLBC. Proposed location of noise and vibration monitors can be found at Appendix 5.

7.3 Vibration Standard

7.3.1 We will select and use methods of working and items of plant so that the maximum measured ground vibrations do not exceed a peak particle velocity of 1mm per second at any occupied residential property and 3mm per second at any other property in any orthogonal direction.

7.3.2 Vibration Trigger and Action levels

7.3.2.1 Vibration above Trigger Levels:

- Where the measured vibration levels are above the Trigger level of 1mm/s PPV for residential and other sensitive receptors and 3mm/s PPV for commercial receptors, or in the event of a complaint of vibration, an investigation shall be carried out to ascertain the cause of the exceedance and/or complaint and to check that Best Practicable Means are being used to control the vibration. Vibration levels shall be reduced further if it is reasonably practicable to do so. Further vibration monitoring may also be required and undertaken as appropriate and directed by the Council.

7.3.2.2 Vibration above Action Levels:

- Where the measured vibration levels are above the Action Level of 3mm/s PPV for residential and other sensitive receptors and 5mm/s PPV for commercial

receptors, or in the event of a complaint of vibration being substantiated by the Council, the work activity which is likely to be causing the exceedance and/or complaint shall cease and an investigation shall be carried out to ascertain the cause of the exceedance and/or complaint and to check that Best Practicable Means are being used to control the vibration. If it can be demonstrated that the above Action levels will not be exceeded again within the remaining shift, then work is permitted to proceed following agreement with the Council. Once the 10 Hour shift has concluded the requirement to cease work will be lifted so that work can restart during the next 10 hours shift.

7.4 Vibration Monitoring Methodology

7.4.1 At each agreed measurement point an Instantel Mini-Mate (or similar specification vibration monitor) Plus vibration monitor or similar approved is installed together with a GSM alarm module or similar approved.

7.4.2 These monitors are triaxial velocity meters which measure peak particle velocity (ppv) in mm/sec together with the frequency at peak. This allows for the calculation of acceleration and displacement at peak.

7.4.3 A metal enclosure Model ENV 010 is attached to the wall or floor at each measuring point. This enclosure has a special section cut out at the back to allow for the geophone sensor to be bolted directly to the wall or floor. The remainder of the Instantel Vibration monitor Model MiniMate Plus is then installed in the enclosure together with a battery and alarm module. The monitor is set up in 'Histogram' mode '5 min intervals' and start monitor is pressed. This monitor then records the Peak Particle Velocity (PPV) in mm/sec together with its frequency at Peak for each of the 3 vectors, Transverse, Vertical and Longitudinal at each measuring point for every five minutes of the monitoring run.

7.4.4 Should the vibration levels exceed a specified level then an alarm is activated. This GSM alarm generates texts to a number of nominated people. An alarm activation alerts the machine operator and Site Manager and others to allow them to take immediate action to reduce the source of vibration.

7.4.5 The alarm levels are set below the allowed vibration limit for each monitoring point. This gives confidence to the client that should vibration levels increase on the site then remedial action is taken before they breach the allowed limit.

7.4.6 At agreed intervals, monitors are interrogated, data downloaded, batteries are changed, and a report is produced on the levels recorded. This report relates the levels recorded to BS 7385 Part 2, 1993 Evaluation and measurement for vibration in buildings which is the BS which describes the levels of vibration required to have potential for cosmetic damage to buildings as well as limits provided for in the contract.

7.4.7 If existing adjacent structures contain existing structural defects, then limits should be reduced by 50%. This will need to be confirmed following condition surveys.

7.5 Structural Monitoring

It should be noted that it is envisaged that structural monitoring will not be required due to the nature of the dismantling and minor demolition work that is being undertaken. However, if the scope of work changes, or there are revised conditions as a result of the Party Wall agreement, the following procedure will be followed:

7.5.1 The frequency of reading should be as per table below, based on recommendations of CIRIA guide C579

Activity	Frequency
Initial Readings	Commence readings once survey points have been established. Repeat readings weekly until two consecutive readings are stable and then fortnightly until demolition/temporary works.
Demolition / temporary works	Immediately after installation (and prior to loading) of temporary works and then weekly after.
Piling, excavation, underpinning and construction of pile caps, raft	Weekly where activity is adjacent to monitoring points and then fortnightly thereafter.
Construction of new Structure	Weekly until 4 weeks after completion of demolition and then fortnightly.
Remainder of contract period	Every 3 months
Defects Liability (assumed 12 months)	Twice (6 months apart)

7.5.2 Increase frequency of readings if movements are accelerating or if the trend of movements changes unexpectedly.

7.5.3 Additional monitoring to occur for the following situations below. Take a set of additional readings immediately (within 24hrs) following:

- Exceptional High winds.
- Impact on existing wall or supporting structure.
- Unauthorised or significant authorised amendment of temporary works.
- Over dig locations

7.5.4 In conjunction with movement monitoring, it is also important that a full and detailed condition survey of the internal and external fabric of the adjacent structures is carried out prior to work being undertaken on site. A final condition survey will be undertaken following completion works.

7.5.5 Daily visual monitoring shall also be carried out during certain types of work as described elsewhere in this DEMP.

7.5.6 Following the condition survey, any visible cracks to be recorded and monitoring to be carried out in the form of locating Demec studs (or similar approved) in a triangular formation to allow movement to be recorded both horizontally and vertically. Movement to be recorded using a digital caliper.

7.6 Monitoring Method

7.6.1 Three-dimensional reflective targets will be fixed securely to agreed points on the adjacent structures and surveyed using a total station. Refer to Appendix 5 for proposed locations.

7.6.2 Reference stations will be established at locations unaffected by the project works and all movement monitoring will be consistently recorded relative to these stations. Both vertical and horizontal movement is to be recorded for all targets.

7.6.3 A baseline of readings prior to work commencing will take place to establish consistent values for the monitoring points.

7.6.4 The reference stations will be checked periodically to ensure their accuracy.

7.6.5 The locations of all reference stations and monitoring points are to be recorded on a series of drawings.

7.6.6 Daily Visual Monitoring:

7.6.6.1 During demolition work daily visual monitoring should be carried out in the vicinity of the works. This should be carried out at the start and end of the day, recorded

formally on a check sheet (by same person). If cracks exist or appear these should have Avon guard crack gauges added and read daily. Alternatively, Demec studs can be used as detailed above. Visual monitoring should also be used in those areas where it is not possible to install targets.

7.6.6.2 Visual monitoring must be carried out following a formal and thorough method.

- The area to be monitored is to be clearly identified, perhaps on elevation drawings, along with the duration of the monitoring in relation the relevant nearby construction activity.
- Inspections are to take place at the start and end of each working day, during the period of monitoring.
- They should be undertaken by the same person, or 2 people, to ensure consistency, and carried out from a safe vantage point.
- A periodic inspection review by another person should also be carried out, as a check and so that gradual change is not missed.
- 'No damage' should be positively recorded.
- Checks should be made for all signs of movement including cracks, dislodged bricks, cracked windows, out of plumbness etc.
- If cracks exist or appear these should have Avonguard (or similar approved) crack gauges applied, and these should be read during each inspection. They should be recorded by marking the position of the cross hairs on an image of the gauge.
- Each inspection should be neatly and formally recorded with date, time, inspector, and observations on an agreed proforma, which could usefully include a drawing of the elevation.

7.6.7 Movement Criteria & Limits

7.6.7.1 Movement limits will be agreed between parties and in line with Party Wall Awards.

7.6.7.2 In principle we intend to operate a 'traffic light system' of monitoring trigger values to indicate when movements are deemed to be approaching an agreed limit and with appropriate actions to be taken for each level.

7.6.7.3 Suggested trigger levels below (to be agreed):

	Trigger level (in mm)					
Element being monitored	Green	Action	Amber	Action	Red	Action
Party Wall/facade – horizontal displacement	0-6	Acceptable level of movement, continue to monitor at specified frequency, no specific action required	7-9	Instigate team meeting to assess cause of movement and prepare to deploy contingency measures. Increase frequency of monitoring.	10	Instigate team meeting, stop any activity associated with causing level of movement and deploy contingency measures prior to continuing work. Maintain increased frequency of monitoring until such time as movement trend appears to be under control.
Party Wall/facade – vertical displacement	0-4		5-9		10	
Tower / Chimney	0-6		7-9		10	
Existing retaining walls (including vaults) – horizontal displacement	0-5		6-9		10	
Surrounding pavement levels (vertical settlement)	0-7		8-11		12	

7.7 Contingency Measures

7.7.1 Whilst the demolition sequence, method and temporary works solutions have been developed to account for the specific requirements of the adjoining structures, it is important that suitable contingency measures are available to deal with any movements that reach agreed limits and to prevent / limit and control any further movements.

7.7.2 Should contingency measures be required then methods of work and support will be reviewed and additional temporary works provided where necessary.

7.8 Reporting

7.8.1 Surveying Monitoring:

7.8.1.1 Each set of readings will be recorded in spreadsheet format and graphically represented in a chart showing readings for a point in relation to all previous readings for that point, so that trends can be established.

7.8.1.2 The results will be reviewed by the site engineer and provided there is no cause for concern, a summary report will be produced and issued within 2 days of the monitoring data being collected.

7.8.1.3 Report is to include graphical and tabulated representation of the movements together with a summary of key construction activities undertaken in the period being reported.

7.8.1.4 Distribution of the report is to be agreed but as a minimum will include the site project manager, site engineer, resident engineer, the client and the Local Authority.

7.8.2 Visual monitoring:

7.8.2.1 Each inspection should be formally recorded with date, time, inspector and observations on an agreed proforma, which could usefully include a drawing of the elevation.

7.8.2.2 Results of the visual inspections should be distributed weekly as above.

8 DUST AND AIR QUALITY

8.1 Regulatory Overview

8.1.1 The main regulatory controls over dust are the 'statutory nuisance' provisions contained in the Environmental Protection Act 1990. Dust can give rise to a statutory nuisance if it is considered to be 'prejudicial to health or a nuisance'.

8.1.2 Smoke, for example from burning waste on site, can also result in a statutory nuisance and is also controlled by the Clean Air Act 1993. – there will be no burning of materials on the project.

8.1.3 The Air Quality Strategy for England, Scotland, Wales and Northern Ireland contains national air quality standards and objectives established by the Government to protect human health. The objectives for seven pollutants have been prescribed within the Air Quality (England) Regulations 2000 and the Air Quality (England) (Amendment) Regulations 2002 (benzene, 1,3-butadiene, carbon monoxide, lead, nitrogen dioxide, sulphur dioxide and particulates).

8.2 Dust

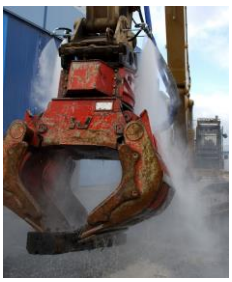
8.2.1 We will take all necessary measures to avoid creating a dust nuisance during demolition works.

8.2.2 Background dust levels will be measured over a 48-hour period using suitable dust measuring equipment at monitoring stations. These levels will be recorded. There will permanent dust monitoring stations set up at the perimeters of the site – Proposed locations are indicated within Appendix 5 - locations to be agreed with HLBC.

8.2.3 Results of dust monitoring will be reported to HLBC on an agreed frequency.

8.2.4 Proposed dust control measures include:

- **Demolition:** Damping down with light water spray during demolition activities (water dust suppression if crushing demolition arisings on site). This will either be by a water hose attached to the boom-arm of the demolition machine or by an operative directing a water hose on to the demolition activity. We will also use a



misting machine (Dust Boss) to trap any migrating dust at the site perimeter to prevent dust contamination leaving site.

- **Cutting Timber:** (i) Dust extraction attachment fitted to saw. (ii) Clean up every day by wetting and then sweeping up or dry vacuuming all dust and putting it into a covered container. (iii) Clear as you go policy to be implemented.

8.2.2 Before any work starts. Dust levels within enclosed areas will be measured with appropriate equipment to compare to the relevant Occupational Exposure Limits under the Control of Substances Hazardous to Health Regulations 2002 and published annually in EH40, and any other relevant guidelines.

8.2.3 Measures to prevent dust shall include the following control measures:
(i) The provision of easily cleaned hard-standings for vehicles.
(ii) The enclosure of material stockpiles at all times and damping down of dusty materials using water sprays during dry weather.
(iii) The hard surfacing of heavily-used areas which will be kept clean by brushing and water spraying regularly.
(iv) Control of cutting or grinding of materials on site. Dust-generating machinery e.g. disk cutters will be fitted with vacuums.
(v) The complete sheeting of the sides and top of all vehicles carrying waste and other dusty materials.

8.2.4 During demolition operations: watering at rubble chutes and drop zones, covering skips and screening of buildings with debris screen / sheets, as appropriate. Materials will be stored away from the site boundary wherever possible. Use of water spray attached to the demolition machine and use of misting machine to provide a mist curtain preventing dust migration at site perimeter.

8.2.5 Unsurfaced haul routes and verges to receive regular damping down and cleaning where located close to sensitive locations. In certain cases, permanent surfacing will be considered.

8.2.6 Establishment and enforcement of appropriate 5 mph site speed limits over all unmade surfaces.

8.2.7 Completed earthworks to be sealed as soon as reasonably practicable.

8.2.8 Mixing of large quantities of concrete or Bentonite slurries to be carried out in enclosed / shielded areas where necessary.

8.2.9 Stockpiles of material shall be damped down or otherwise suitably treated to prevent the emission of dust from the site. Stockpiles will be planned and sited to minimise the potential for dust generation (as far from site boundaries as possible). The handling of material should be kept to a minimum and when deposited onto a stockpile it should be from the minimum possible height.

8.2.10 Skips and removal vehicles will be properly covered when leaving the site. Materials will be handled in such a way so that it does not give rise to excessive dust. Watering of rubble chutes shall be undertaken where necessary to prevent dust emission.

8.2.11 We will ensure that the area around site, including the public highway, is regularly and adequately swept to prevent any accumulation of dust and dirt. The use of wheel cleaning facilities and road sweeping equipment may be required.

8.2.12 Where dust generating works (e.g. demolition, excavation, piling,) are undertaken particularly close to buildings such that there is a potential for soiling of windows and ledges with dust, we will clean the windows and ledges during periods of dust generating work activities, as appropriate and on completion of works.

8.2.13 We will comply with the Buildings Research Establishment's Guidance on the Control of Dust from Construction and Demolition Activities.

8.2.14 We will also refer to the 'London Code of Practice, Part 1: The Control of dust from Construction'.

8.2.15 The effectiveness of these measures will be monitored and reported to HLBC.

8.3 Air Quality

8.3.1 JSDR will comply with the provisions of the Environment Act 1995, Clean Air Act 1993, the Health and Safety at Work Act 1974, the Environmental Protection Act 1990 and the UK Air Quality Strategy.

8.3.2 We will comply with the Control of Substances Hazardous to Health Regulations 2002. The Contractor will comply with Health and Safety Executive Guidance Note EH 40 Workplace Exposure Limits. We will also comply with the Control of Lead at Work Regulations 2002 during the demolition phase.

8.3.3 The burning of materials on the site will not be allowed. We will take all necessary precautions to prevent the occurrence of smoke emissions or fumes from the site plant or stored fuel oils for safety reasons and to prevent such emissions or fumes drifting into residential areas. Plant will be well maintained, and measures taken to ensure that it is shut down in the intervening periods between work or throttled down to a minimum.

8.3.4 Off-road mobile vehicles e.g. excavators and loaders, with compression ignition engines will comply with emission standards set in EC Directives. Where possible. Off-road mobile vehicles should be run on low sulphur diesel.

8.3.5 On-road vehicle emissions are regulated through the Road Vehicles (Construction and Use) Regulations, and the Motor Vehicles (Type Approval) Regulations made under the Road Traffic Act 1988.

8.3.6 Demolition vehicles will be required to comply with relevant EURO standards. Drivers will be required to switch off their vehicle's engine when stationary to prevent exhaust emissions (and noise); and as required under The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002.

8.3.7 Drivers will also be required to:

- Keep their engines in tune and their catalytic converters working efficiently.
- In practice, emissions are controlled through the MOT. All vehicles used by contractors must comply with MOT emission standards at all times.

8.3.8 There will be no activities on site causing the release of any odour.

NB: Sections 8.2 and 8.3 above, relating to minimisation of dust and ensuring good air quality, will be in accordance with the following guidance:

- Mayors SPG ‘The Control of Dust and Emissions during Construction and Demolition’, July 2014
- Guidance on the assessment of dust from demolition and construction, Version 1.1, IAQM October 2018
- Guidance on Monitoring in the Vicinity of Demolition and Construction Sites, Version 1.1, IAQM, October 2018
- Best in Class ‘Guidance on Dust and Emissions from Construction’ LLECP, March 2019

8.4 Special Precautions for Asbestos

8.4.1 Special precautions shall be taken if materials containing asbestos are encountered. A full Refurb / Demolition Asbestos Survey has been undertaken by Bellspire Ltd document ref: 2213.

8.4.2 Floor tiles, asbestos cement roof sheets and ceiling sheets along with asbestos flash guards to electrical consumer units were identified – this is all non-licensed work and will be removed under semi controlled conditions as laid down in the JSDR RAMS: See Full Report in Appendix 6. All ACM's will be removed in accordance with the Control of Asbestos Regulations 2012. If during demolition, we subsequently find further suspected ACMs, work will cease, and the Licensed Asbestos Contractor will undertake the asbestos removal work in full compliance with the CAR 2012.

8.4.3 Licensed asbestos on the site includes Asbestos Insulation Board to Soffits and asbestos rope within an attic space. The licensed contractor will hold an in-date ASB2 Licence issued by the HSE and will notify the removal work to the HSE 14-days in advance of the work taking place using the ASB5 Notification. All work will be undertaken in accordance with their Plan of Works.

9 DISPOSAL OF WASTE AND CONTAMINATED MATERIALS

9.1 Regulatory Overview

9.1.1 The Environmental Protection Act 1990 (s.34) imposes a duty of care on any person who produces, imports, carries, keeps, treats or disposes of controlled waste. Details of how to comply with this duty are set out in the Waste Management; the Duty of Care - Code of Practice March 1996 and includes the use of registered waste carriers to transport the waste and the use of waste transfer notes.

9.1.2 The identification and clean-up of contaminated land is governed by the Environmental Protection Act 1990 (Part 11A) which was enacted by Section 57 of the Environment Act 1995. The regime provides an explicit statutory definition of contaminated land. The Contaminated Land Regulations 2000 allow developers or contractors carrying out construction and associated activities, to be shown to have caused, or knowingly permitted, substances to be in, on or under the land, so that the land is classified as contaminated land (defined in Part 11A of the Environmental Protection Act 1990). If this is the case, the regulator may seek to take action against those responsible, whether that is the design engineer, contractors or the owner/occupier or developer of the land, depending on the particular circumstances. Definitions contained within the Contaminated Land (England) Regulations 2000, indicate conditions which are deemed to be contaminated and which must be developed in accordance with the Environmental Protection Act (Part 11A) 1990.

9.1.3 Pollution Prevention & Control Regulations 2000 are designed to prevent, reduce & eliminate pollution at source by efficient use of natural resources. Implementation is intended to help operators move towards greater environmental sustainability and the regulations contain guidelines for the storage and transfer of contaminated material under a system designed to minimise the impact of contamination.

9.2 Waste

9.2.1 We will carry out the works in such a way that as far as is reasonably practicable the amount of spoil and waste (including ground-water, production waters and run-off) to be disposed of is minimised, and that any waste arising from the site is classified, transported and disposed in accordance with the Controlled Waste (Regulation of Carriers and Seizure of Vehicles) Regulations 1998 and any amendments, Environmental Protection (Duty of Care) Regulations 1991, and the Hazardous Waste (England and Wales) Regulations 2005.

9.2.2 The waste stream will be managed so far as reasonably practicable to maximise the re-use of surplus materials and, in circumstances where off-site disposal to licensed landfill is unavoidable, minimise any adverse environmental effects resulting from disposal. Materials requiring treatment or recycling, such as scrap metal or crushed concrete, are likely to be classified as waste and will be subject to the waste management legislation and any other statutory guide referred to above.

9.2.3 Disposal sites and routes will be identified inconsultation with HLBC and the Environment Agency. When assessing the most suitable option for landfill disposal, the operator should consider the mode of waste transportation and alternatives to reduce adverse environmental impacts, transport times, landfill capacity and license conditions (including hours of operation etc).

9.2.4 We will comply with all legislation, technical guidance & Regs in the identification, handling, storage, recovery and disposal of waste. We will comply with the measures set out in Section 4 regarding discharges to controlled waters &wastewater.

9.2.5 We will have a suitably qualified &experienced environmental consultant to identify any 'hazardous waste' as defined in the Hazardous Waste Regulations 2005, so that the materials can be appropriately managed and disposed of during works.

9.3 Contaminated Land

NB: This DEMP relates to the demolition of all structures on the site footprint. The following controls will be implemented:

9.3.1 A site investigation / soils survey will be undertaken before work commences in order to identify the history of the site and surrounding land and potential contaminants of concern. A walkover survey will also be undertaken to identify any potential on-site or off-site sources of contamination (i.e. underground storage tanks). The results of the desk study and walkover survey will determine the necessity for any intrusive site investigation works and the scope of such works.

9.3.2 The scope of the site investigation will be sufficient to determine as far as is reasonably practicable the ground conditions at the site and the nature and extent of any contamination within the substrate and will be agreed with HLBC before the commencement of the works. The results of the investigation will then form the basis of a Remediation Method Statement (RMS), which will outline the proposals for mitigating the risks posed by any contamination identified at the site. The RMS will be agreed with HLBC before the proposed remedial works are commenced on site.

9.3.3 A validation report will be submitted to HLBC following completion of the remedial works at the site. The validation report will confirm that the remedial works undertaken at the site have been completed as agreed with HLBC.

9.3.4 Where contamination is identified at a site during ground works, a procedure for the handling and disposal of the material will be agreed by HLBC. We will comply with these procedures during the development of the site.

9.3.5 Empty containers, originally containing Hazardous Waste, will be treated as Hazardous Waste unless they hold less than 0.1% of their original contents. If the contents are of a very toxic or carcinogenic nature, that limit is further reduced to 0.01%.

9.4 Demolition and Excavation Materials

9.4.1 We will comply with the provisions of the Environmental Protection Act 1990 and, if applicable, the Hazardous Waste (England and Wales) Regulations 2005. The removal and disposal of contaminated materials will be conducted under a strict consignment system. Disposal sites will be agreed with the Environment Agency.

9.4.2 We will comply with the COSHH Regulations 2002 and HSE Guidance Note EH/40, Workplace Exposure Limits, to ensure that contaminated excavated materials are

handled and disposed of safely and properly. We will take measures to prevent the contamination of watercourses and aquifers during excavation works.

9.5 Re-use of Demolition Materials

9.5.1 We will endeavour to reuse and recycle demolition waste from our project. The project will be subject to the requirements a Site Waste Management strategy. The aim of the site waste management strategy is to reduce wastage of demolition materials; encourage re-use and recycling that reduces demand for primary materials; and reduce the illegal disposal of waste.

9.5.2 Demolition arisings and waste provide a significant opportunity to reclaim, recycle and segregate materials on site. The following measures will, where practicable, be implemented in respect of demolition activities on site:

(i) concrete, brick from walls, foundations, floor slabs etc. will be processed on site but not crushed. They will be crushed off site to minimise dust generation from this process. They will be crushed off site, returned to site and reused for the piling mat / temporary site roads and / or capping of permanent roads.

(ii) Crushed concrete, foundations etc will be used to back fill the disused swimming pool and create a temporary area for loading demolition arisings and all other demolition materials removed to an external yard for processing.

(iii) live vegetation will be removed for composting.

(iv) suitable inert earth spoil will be stockpiled for reuse in landscaping or general fill.

(v) all metal components will be segregated for recycling.

(vi) existing strip-out materials will be segregated for resale/reuse off-site.

9.5.3 The reuse of materials will also reduce the number of vehicle movements to site.

9.5.4 Measures to reduce waste arising during construction will include the following.

(i) allocate storage space for materials which can be reused to avoid disposal.

(ii) avoid over-ordering of materials.

(iii) avoid damage on delivery by using a well laid-out storage and off-loading area;

(iv) use prefabrication, if feasible.

(v) avoid repetitive handling.

(vi) segregate materials for recycling, such as timber and cardboard wrapping

(vii) salvage top soil for re-use;

(viii) recycle municipal waste from temporary welfare accommodation on site.

9.5.5 Arisings will be crushed on site and re-used in the piling mat for the subsequent construction phase.

10 URBAN ECOLOGY

10.1 Regulatory Overview

10.1.1 Protection of ecology is provided for by the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats &c) Regulations 1994.

10.1.2 The Countryside and Rights of Way (CRoW) Act 2000. CRoW Act makes it an offence to recklessly disturb a place of rest or shelter of a protected animal or a nest site.

10.1.3 Wild Mammals (Protection) Act 1996 gives protection for wild mammals against a wide variety of acts of deliberate harm. Town and Country Planning (Trees) Regs 1999 provide for local authorities to protect trees by means of 'tree preservation orders'. Consent of local planning authority is required before any tree protected by an Order may be cut down, topped, lopped, uprooted, damaged or destroyed. Certain trees are exempt from this requirement, e.g. those dying, dead or have become dangerous.

10.2 Protection of Habitats

10.2.1 We will comply with the provisions of the Wildlife and Countryside Act 1981

11 ARCHAEOLOGY

11.1 Regulatory Overview

11.1 The Ancient Monuments and Archaeological Areas Act 1979, as amended by the National Heritage Act 1983

11.2 Archaeological Features

11.2.1 We will allow for prior archaeological excavation of 'sites of particular interest'; alternatively, an archaeological 'watching brief' may be authorised during initial surface layer stripping.

11.2.2 Any worksite investigation required by condition or planning agreement will be carried out by a recognised archaeological institution.

12 BUILT HERITAGE

12.1 There are no listed buildings within the curtilage of the site boundaries.

13 SITE BOUNDARIES &HOARDINGS

13.1 Fencing and Hoardings

13.1.1 The site will be completely fenced in from public ingress. Our proposed method of securing the site will be by the use of Standard Hoardings. This will consist of:

- A 2.4m minimum height, plywood faced, timber framed boundary hoarding, of a surface density of not less than 7kg/m2 for normal security and noise limitation requirements. It may be necessary to increase the minimum height to protect buildings from noise.
- Hoardings erected causing poorly lit walkways will have bulkhead lights fitted.
- Gates in the fencing or hoarding will should be positioned and constructed to minimise the noise transmitted to nearby noise sensitive buildings from the site or from plant entering or leaving the site
- The hoardings will be maintained by BSL and the Conditions of Licence issued by HLBC.
- Adequate security will be in place to prevent unauthorised entry into the site. Site gates will be closed and locked when there is no site activity.

13.2 Painting and Hoardings

13.2.1 We will ensure that all hoardings are painted on both faces. This will be in a plain uniform manner. We may decide to use approved murals to a high standard, where they will not distract drivers on the adjacent highway.

13.3 Fire Brigade Access

13.3.1 The requirements of the London Fire and Emergency Planning Authority (the LFEPA) will be followed in the provision of site access and will be monitored by the London Fire Brigade's local superintendent. We will follow the provisions of note FP/GEN/20 to ensure the LFEPA requirements are met.

13.4 Temporary Structures on the Public Highway

13.4.1 All materials will be loaded / unloaded from within the unloading area within the site compound.

14 SITE ACTIVITIES

14.1 Good Housekeeping

14.1.1 We will follow a 'good housekeeping' policy at all times. This will include, but not be limited to, the following requirements:

- A Smoking area will be provided within the site compound area complete with bins for cigarette butts – smoking will be prohibited in all other areas on site
- Open fires will be prohibited at all times.
- Rubbish will be removed at frequent intervals, and the site kept clean and tidy.
- Hoardings will be frequently inspected, repaired and re-painted as necessary to comply with the conditions of HLBC's Licence.
- Toilet and welfare facilities will be kept clean and tidy.
- Food waste will be removed to reduce the risk of rodents being attracted.
- The wheel washing facilities area will be brushed clean frequently.

14.1.2 Lorries will enter and exit the site in a forward direction except in special cases where space restriction does not permit this. These conditions will be subject to prior discussions with the Highway Authority and the Police before implementation.

14.1.3 All loading and unloading of vehicles will take place off the public highway wherever this is practicable.

14.2 Site Inspection

14.2.1 HLBC are invited to undertake worksite inspections.

14.3 Living Accommodation

14.3.1 No living accommodation will be located on site except with the approval of the HLBC (on-site security arrangements). Mess rooms, locker rooms, toilets and showers will be provided in accordance with the CDM Regulations 2015.

14.4 Information Boards

14.4.1 Information boards will be erected containing information on the progress of the works and contact details for the JSDR Head Office along with the JSDR Site Manager's contact details, for reporting complaints of public interest.

14.5 Clearance of Site on Completion

13.5.1 On the completion of the works we will clear away and remove from the site all plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site clean and in a condition to the satisfaction of HLBC.

14.6 Pest Control

14.6.1 We will ensure that the risk of infestation by pest or vermin is minimised by adequate arrangements for disposal of food waste or other material attractive to pests. If infestation occurs, we will take such action to deal with it as required by HLBC's Environmental Health Officer.

14.6.2 Control measures will include informing all site personnel during their site induction and on-going Toolbox Talks as required, that food will only be consumed within the canteen. Food consumption in any other areas on site will be prohibited. The Canteen will be cleaned daily by the Site Labourer / Cleaner. Adequate bins with lids will be provided for food waste. Bins will be regularly emptied.

14.7 Considerate Contractors Scheme

14.7.1 Not applicable to this project, however, JSDR will comply with all requirements laid down under the CCS. We value the benefits the scheme brings to our workforce our contractors, the project, the local environment and our company as a whole, even if the Scheme is not in force for the project concerned.

14.7.2 We will continue to embrace the principles of the Considerate Constructors Scheme by implementing the following:

- Consideration - positive consideration of neighbours at all times and recognising our neighbours' needs.
- Environment - minimising disturbance from dust, noise or traffic congestion and sustainable use of materials
- Cleanliness - keeping sites clean and tidy
- Good Neighbour - regular communication with the local community and businesses nearby regarding our site activities and progress.
- Respectful - not tolerating rude behaviour/language
- Safe - activities will be carried out with care and consideration to workers and general public. This will be monitored by our Project Manager, assisted and advised by our Company SHE Adviser.
- Responsible - all personnel will understand and operate within the code

15 SAFETY

15.1 General

15.1.1 Safety provisions in this document cover aspects of safety likely to affect people outside the site. They do not cover safety provisions affecting demolition workers on site. Those provisions and control measures are covered within the Construction Phase H&S Plan and the Site SHE Management Files.

15.2 Emergency Contacts Procedures

15.2.1 We will prepare and provide a current Emergency Contacts Set of Procedures for the project. These Procedures will be contained within our Fire and Emergency Plan (which forms part of the Site SHE Management Files) and will be followed in any site emergency.

15.2.2 They contain emergency phone numbers and the method of notifying HLBC services for action by JSDR. Copies of the Procedures will be issued to the Local Authorities, Fire Brigade, Police, Ambulance Service and Statutory Authorities etc.

15.2.3 Emergency telephone numbers for the Project's key personnel will also be included for HLBC use, should the need arise.

15.3 Health and Safety at Work Act 1974

15.3.1 All work on site will be in accordance and full compliance with the Act and all subsidiary legislation, in particular the Construction (Design and Management) Regulations 2015. The project will be notified to the HSE who will be at liberty to visit the site at any reasonable time without prior notice.

15.4 Contaminated Materials (Special Precautions)

15.4.1 If contaminated material is encountered during demolition and excavation work, the SHE Manager will ensure that a Workers' Safety Information Sheet is prominently displayed in the canteen area. All operatives will be informed via their site induction of the required control measures to ensure their health, which will cover; hygiene, work practices, PPE requirements etc.

15.4.2 For general provisions concerning disposal of contaminated materials - see Section 8.

15.5 Crane Arcs

15.5.1 These will be confined within the site periphery unless agreed otherwise with HLBC and the Police.

15.6 Unexploded Bombs

15.6.1 As a Demolition Contractor that has worked extensively in this area of London we are fully aware of the fact that there may be unexploded bombs, shells and incendiary devices buried on site that have been left undisturbed since World War II. We will warn all operatives of this possibility and should any such items be uncovered during the works the Metropolitan Police will be notified immediately. We will take such action as directed by them.

15.7 Lighting

15.7.1 Section 79 of the Environmental Protection Act 1990 as amended by the Clean Neighbourhoods and Environment Act 2005, includes artificial light emitted from premises to be statutory nuisance. We will consult with HLBC on our lighting proposals and will be subject to their approval.

15.7.2 Lighting to site boundaries will be provided with illumination sufficient for the safety of the passing public, including disabled people. Wherever possible, such lighting will be fed from an electricity mains supply.

15.7.3 In particular, precautions will be taken to avoid shadows cast by the site hoarding on surrounding footpaths and roads.

15.7.4 Site lighting will also be positioned and directed as so to minimise nuisance to residents or adjacent buildings and land uses, or to cause distraction or confusion to passing traffic on the adjoining roads.

15.7.5 We will comply with the Institute of Lighting Engineers Guidance Notes for Reductions of Light Pollution 2000 (revised 05/03).

16 REVIEW AND UPDATE

16.1 Periodic review of this DEMP is necessary to ensure that it is sufficiently current and robust. The Company SHE Consultant will review its efficacy on a monthly basis during his regular site monitoring inspections and audits.

Any comments on or required changes to the content of this DEMP should be directed to the undersigned. For and on behalf of JSDR Ltd

Andy Grannell CMIOSH
Company SHE Consultant

Appendix 1

HILLINGDON LONDON BOROUGH COUNCIL
POLICY ON NOISE AND VIBRATION
FROM CONSTRUCTION AND DEMOLITION SITES

(A) All works and ancillary operations which are audible at the site boundary, or at such other place as may be agreed with the Council, shall be carried out only between the hours of 0800 and 1800 on Mondays to Fridays and between the hours 0800 and 1300 on Saturday and at no time on Sunday, Bank and Public Holidays. At all other times noise from working on the site should not be audible at the site boundary. Noise levels may be set according to local conditions and circumstances.

(B) Where it is proposed by the contractor for reasons of safety and/or engineering practicality it is not possible to comply with the above conditions, the contractor may apply to the Council for a dispensation.

(C) Such application shall be made 14 days in advance, or as determined appropriate by the Council, of the activity concerned for dispensation from the above conditions. In the dispensation request, adequate information will be required, which may include the following:

1. Full details of the operation in question
2. Rationale for requiring extensions in working hours
3. Proposed working hours
4. Predicted noise levels at sensitive locations - -
5. Measures being adopted to reduce noise to a minimum, and site supervision
6. Measures being taken to inform residents of the activity, the reasons for it and operational complaint telephone number with guarantees that appropriate action will be taken in the event of complaints.

(D) On receipt of the information, the Local Authority will consider the request and if justified may grant a dispensation, which will specify hours of work and noise levels which must not be exceeded. The additional safeguards will be set in accordance with local conditions and circumstances with the objective to minimise disturbance to residents. A dispensation will apply exclusively to that operation and may be limited in duration.

(E) The best practicable means, as defined in section 72 of the Control of Pollution Act 1974, to reduce noise to a minimum shall be employed at all times. The Council recognises the British Standard BS5228 Noise Control on Construction and Open Sites as guidance for noise control with respect to this matter.

(F) Ground vibration levels shall be specified depending on local circumstances and conditions with due regard both to protection of residents from disturbance and protection of property from damage.

Appendix 2

Site Layout Plan

Key:

- Plant Storage
- Access and Egress
- Site Boundary
- Waste Processing Area
- Welfare Compound
- Assembly Point
- Demo Direction
- Party Wall
- Traffic Direction (in / out)

Appendix 3

Register of Environmental Aspects and Impacts

No.	Phase	Issue	Aspects resources, waste emissions air, water & land	Impact(s) (normal & emergency conditions)	Sig Y/ N	Control Measures	References (Legislation Documents)	Action by
01	Welfare	Water and CO2	Water and emissions	CO2 emissions leading to climate change, and air pollution	Y	Energy efficient specification for site accommodation including plunger taps for auto turn off, Thermostatic control of heaters. Timer switches on water boilers in kitchens to avoid keeping water boiling out of hours. Best practice to be followed by staff in minimising energy use in the office (details to be communicated at Environment Tool Box Talks, by posters, and during site induction)	Climate Change Levy	Site Manager All staff
02	All Site Activity	CO2	Energy use on site (Plant and Lighting)	CO2 emissions leading to climate change, and air pollution	Y	Temporary electrics on contract spec to include energy efficient features & ensure bespoke switching controls to avoid lighting/heating areas unnecessarily; Signage, Toolbox talks and site induction to encourage switching off appliances. Monitor CO2 emissions based on diesel consumption, display performance in high profile location (BREEAM requirement) and display information alongside to reinforce good practice in reducing emissions; Regular maintenance/servicing of plant;	Temp electrics standard scope of works Toolbox talk on climate change CO2 monitoring database	JSDR Site Manager Environment Coordinator Nominated Supervisor
03	Site Establishment	Nuisance	Transport/ Vehicles to / from site	Air pollution	Y	Switch off engines to reduce air pollution use of signage. Implement Traffic Management Plan identifying routes / times /restrictions - based on local circumstances (e.g. schools, and advice from local authority and emergency services). Communicate traffic management plan to suppliers and sub-contractors as part of SEMP	SHE Climate Change Levy Climate Change Levy	Site Manager Site Banksman Site Manager
04	All Site Activity	CO2, Noise, Air Pollution	Vehicle use - deliveries	CO2 emissions leading to climate change local traffic congestion	Y	Vehicles to have full loads; Consolidate orders to ensure fewer deliveries; Consolidate orders to ensure fewer deliveries;		Site Banksman Site Supervisor
05	Site Establishment	Water	Water: Foul Water and Sewage discharges	Contamination of land, Contamination of watercourse surface water drains. Contamination	Y	Storage to be in marked containers, in good condition, bunded and/or on drip trays/plant nappies, well away from drains (10m+). All fill pipes, draw pipes and sight gauges to be enclosed within the bund. Tank Vent pipes should be directed down into the bund. Bunds should be 110% of volume of single drums or 25% of total volume of multiple	Water Resources Act 1991 Control of Pollution Regs 2001	Site Manager

				of rivers.		drums. Drip trays or plant nappies to be used when transferring liquids		
06	All Site Activity	Water	Storage and fueling	Risks of spillage, ground contamination and run-off into water systems	Y	Spill kits available at appropriate locations. Refueling of bowsers and/or storage tanks on site will be supervised at all times. Refueling point min 15m away from open drains Bunded hazardous waste bin for spill kits rom spillages and for drip tray contents. Staff trained in correct procedures (Toolbox talks/induction and supervisor reinforcement). Emergency response plan covering spillages, communicated to relevant staff. Interceptors on drains. Water efficient spec for site accommodation, including the following features: • water flow restrictors if background water pressure is above 2 bar, • push taps, spray taps, • cisterns 6l maximum size. Consider sanitary waterless urinals or presence sensors on urinals to avoid unnecessary flushing. Staff trained to report leaks reinforce with appropriate signage	Water Resources Act 1991 Water Industry Act 1991 Control of Pollution (oil storage) regulations	Site Banksman
07	Site Establishment	Water	Water demand at Site accommodation	Pressure on existing supply, low flow, depletion of water	Y	Sensible use of water for washing cups etc. - mention at Environment Launch. Staff signage in kitchens	Water Resources Act 1991 Water Industry Act 1991	Site Manager Environment Coordinator
08	Site Activity	Water	Water demand on site: mixing concrete, concrete wash out, damping down, wheel washing	Pressure on existing supply, low flow, depletion of water resources	Y	Ensure water hoses kept out of vehicle paths to avoid breakage & leaks Hoses to be trigger hoses. Jet washers to be used for vehicle wheel washing instead of hoses. Smart valve on water supply to site to control timings of supply and automatically detect big leaks. Check valves and water points regularly. Staff trained to report and repair leaks – reinforce with appropriate signage	Control of Pollution (oil storage) regulations	Site Manager
09	All Site Activity	Waste	Waste production	Impacts of waste: landfill, transport, recycling processes	Y	See Site Waste Management Plan (SWMP). Emphasis on waste hierarchy to prevent, reduce re-use, re-cycle and dispose waste from site	EPA1990 Pt II EP (Duty of Care) Regs	See SWMP Roles and responsibilities
10	All Site Activity	Waste	Hazardous Waste: Storage	Increased	Y	Prepare Dedicated SWMP. Identify waste and approved hazardous waste disposal contractor; Gain a copy of the	As above	See SWMP

			and disposal.	Landfill loss of landfill space; contamination of land/ water		operator's licence to handle hazardous waste; Maintain Hazardous Waste Log	Environmental	
11	All Site Activity	Air / Dust	Dust (General)	Disturbance of public: neighbours and residents.	Y	Visual monitoring of dust levels on site and from transport leaving site. Damp down when required. Use sheets on skips likely to cause dust. Monitor debris on local carriageways & maintain with road sweep as appropriate; Communicate good practice to site operatives (induction, Toolbox Talks and Daily Task Briefings as needed) Consider temporary screening, as well as dust suppression, if appropriate. Dust inspections to be conducted as a minimum once daily and recorded Dust control measures as mentioned above in Section 8 'Dust Control and Air Quality' and within the project Method Statement.	Climate Change Act 2008 EP Controls on Ozone Depleting Substances) Regs 2011	Site Manager
12	Groundwork, Substructure, Piling	Contamin-ated land	Potential disturbance of Existing contaminated land.	Variety of possible health and ecological impacts from spread of contamination	N	It is possible that parts of ground on site are contaminated; however, ground disturbance is currently limited to removal of foundations and as such should not result in removal of contaminated ground. Whenever pre-information of possible contamination is provided, ensure land is characterised as thoroughly as necessary in advance, through geotechnical report, with recommendations on further action. Keep watching brief for contaminated soil.	EPA 1990 Env Act 1995, Contaminated Land Regs 2006, Hazardous Waste Regs 2005	Client / Site Manager
13	All Site Activities	Noise	Noise producing activities	Disturbance of public (and particularly nearby neighbours) leading to statutory nuisance.	Y	Design-in noise attenuation measures, avoid percussive techniques if alternatives are available. Use tight fitting, sealed acoustic enclosures on noisy equipment when possible (e.g. hoods and doors on generators, jackets on pneumatic drills). Arrange main electricity supply as early as possible to avoid generator use. Maximise efficiency of deliveries by arranging full loads and where possible at off peak times. Co-ordinate deliveries to minimise waiting times. Instruct that engines to be turned off while waiting Good maintenance of plant and vehicles. Operations to be in accordance with Section 61 an as per agreed working hours with HLBC. For necessary works to be carried outside agreed hours, optimise sequencing to minimise	EPA 1990 Part III - CPA Clean Environmental Noise (England) Regs 2006 Sections 61 or TBT on Noise and Vibration	Site Manager

						duration, seek dispensation or variation from the Local Authority and inform neighbours as early as possible.		
14	All Site Activity	Traffic		Dust / dirt deposited by transportation vehicles and plant travelling to/from site or around site perimeter to alternative access points	Y	Visual inspection of lorries by banksman prior to leaving site to ensure that vehicles will not leave mud on the public highways. Plan site layout to minimise site traffic travelling outside of site boundary and minimise movement not on hard standing. Cover skips/lorry loads which could cause deposits or dust	Vehicles (Construction and Use) (Amendment) Regs 2010	Site Manager
15	All Site Activity	Light / CO2	Light emitting from temporary site lighting systems	Disturbance of public and wildlife. Stress and loss of sleep. CO2 emissions	Y	Minimise lighting to that required for security and safety, and maximise other aspects of security to minimise need for lighting Consider location /fit light shields if Needed. Switching and timer controls to be specified Lighting to be focussed downwards/ inwards to minimise impact on residents Specify for energy efficient lighting	EPA1990 CPA Sections 60/61 BS7909:2011 Temp Electrical Sys	JSDR / Others
16	All Site Activity	Contamin ated Land	Disposal of ground water	Silt in Sewage system. Health Ecological risks from airborne exposure, contamination of watercourse	N	Groundwater issues not anticipated as there are no excavations within the scope of works. In the event that excavations are included within the scope of works and the groundwater is encountered: Obtain consent to discharge. Dispose of water in accordance with consent. Use sedimentation tank if required. Encapsulate area and contain groundwater for remediation/special disposal if contaminated. Restrict access until remediated if contaminated. Monitor water quality for compliance with discharge consent	EPA Part IIA Contaminated Land Regs 2012 TBT Contaminated Land	Site Manager
17	General	Heritage		Damage to built heritage	N	Any heritage finds that might be of heritage value will be reported to the Site Manager who will then advise the Project Manager and seek further instruction from a qualified specialist.		Site Manager
18	General	Arch-aeology		Damage to archaeological resources	N	No archaeological issues on site for the works to be carried out under the scope of this document		

Appendix 4

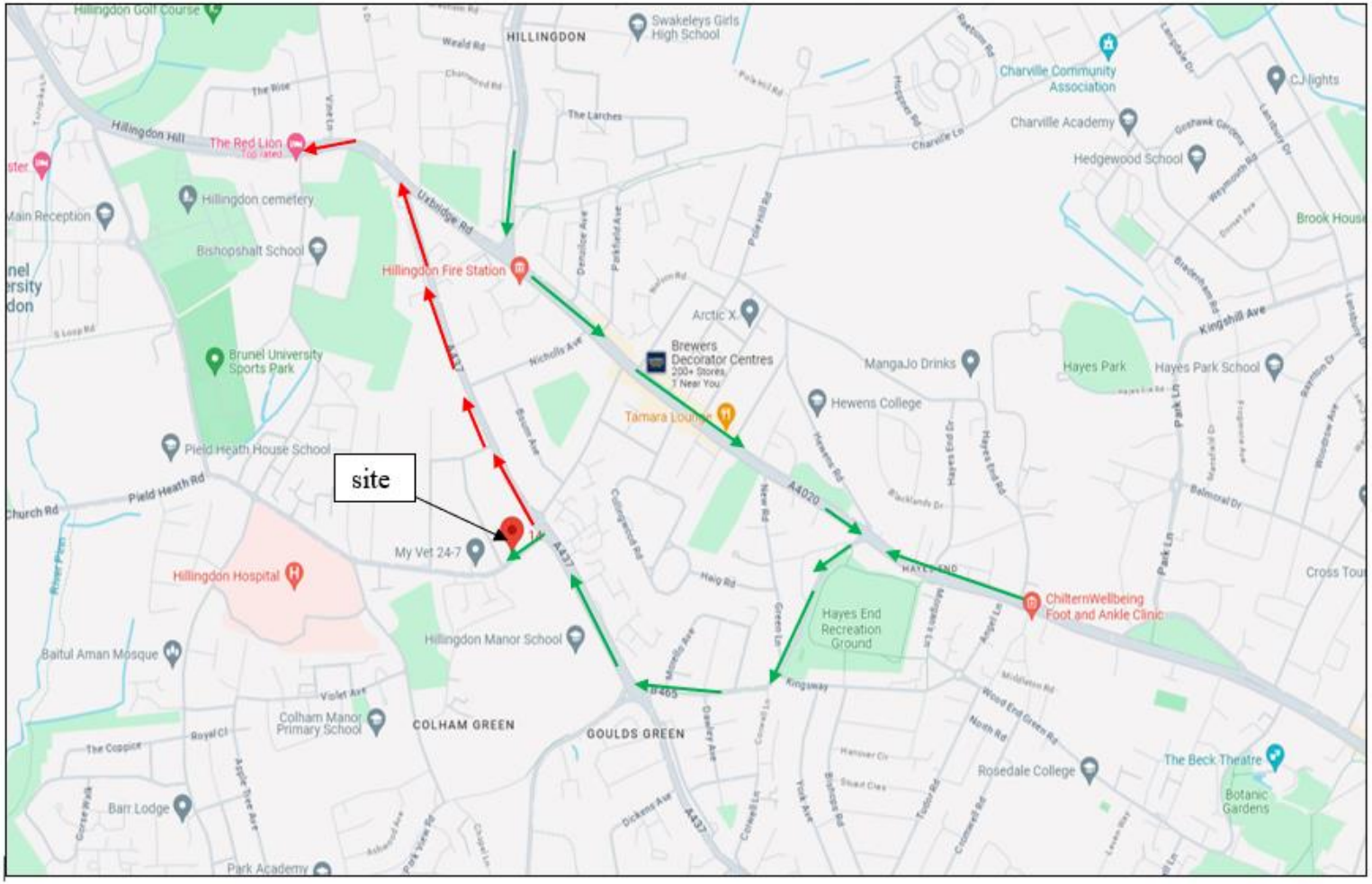
Construction Logistics & Traffic Management Plan

Logistics Traffic Management Routes

Traffic Route

Primary Route in:
Enter off A4020.
Cross W. Drayton Road B465
Right on to A437 (3rd Exit onto Harlington Road)
Left onto Pield Heath Road
First right on Pield Heath Avenue

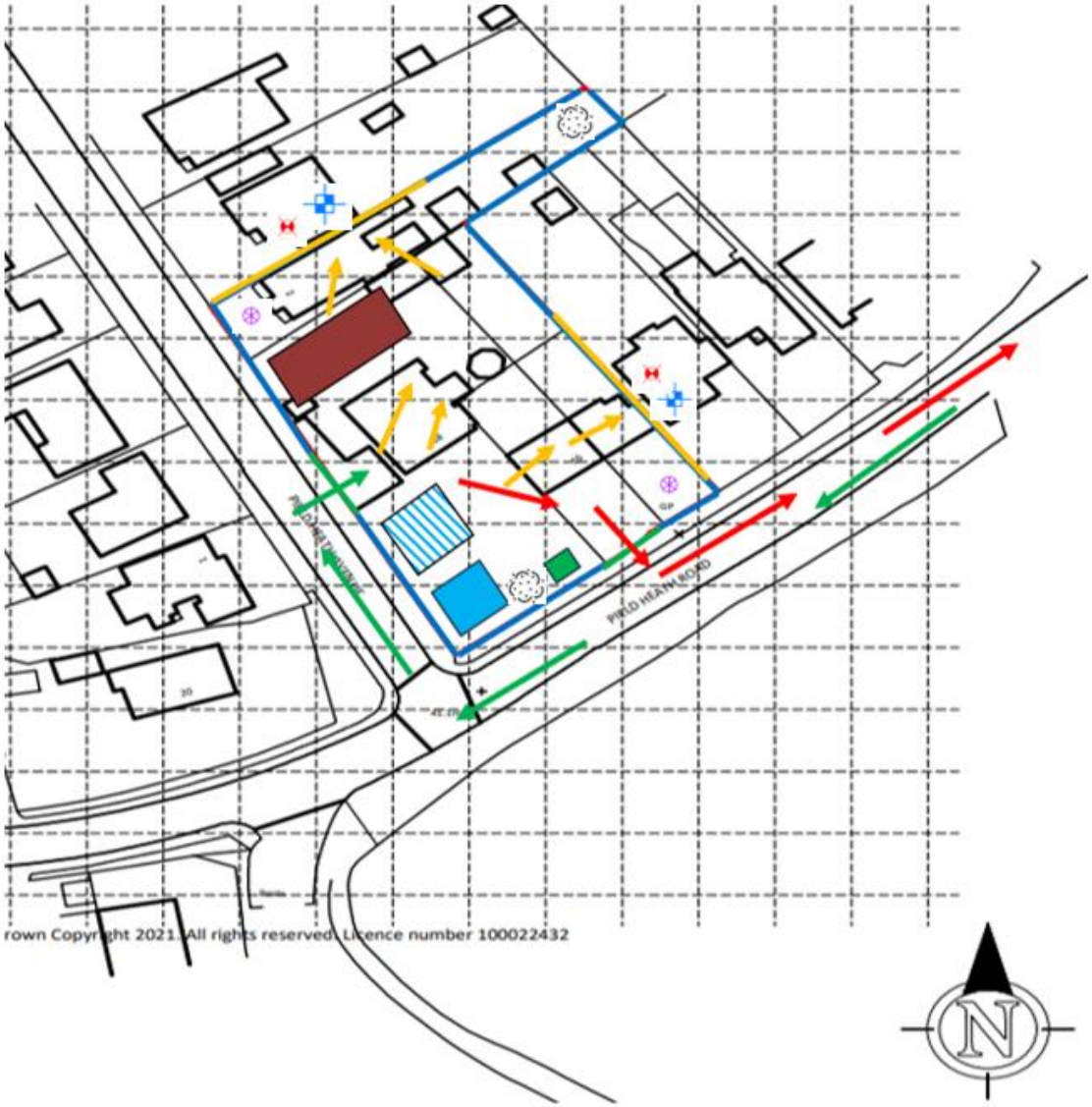
Exit Routes Out:
Turn Left onto Pield Heath Road and left onto the A437
Continue onto Uxbridge Road A4020



Appendix 5

Locations of Noise, Vibration and Dust Monitoring Stations

Positions of Noise, Dust & Vibration Monitors & Location of Movement Target



	Noise Monitors
	Vibration Monitors
	Dust Monitors
	Movement Targets

Key:

- Plant Storage
- Access and Egress
- Site Boundary
- Waste Processing Area
- Welfare Compound
- Assembly Point
- Demo Direction
- Party Wall
- Traffic Direction (in / out)

Appendix 6

Demolition Risk Assessments & Method Statement

Appendix 7

Party Wall Agreements

Appendix 8

Liaison / Consultation with Neighbours

Appendix 9

Outline Programme