CONSTRUCTION PHASE PLAN, SITE WASTE MANAGEMENT PLAN, AND CODE OF CONSTRUCTION PRACTICE (COCP)

IN ACCORDANCE WITH REGULATION 2 OF

THE CONSTRUCTION (DESIGN AND MANAGEMENT)

REGULATIONS 2015

FOR

WOOLWICH ROAD LIMITED

Date: 6th November 2023

BUILDING EVERY VISION

We use our expert knowledge to simplify the construction process, adding value and providing imaginative solutions to bring our customers' visions to life.

BPM Project Management Ltd is a construction management company working across the residential, commercial, student accommodation and hotel sectors on projects of £5m+. From tight inner-city sites to complex logistical challenges, we use the ability of our motivated and respected teams to effectively deliver any type of project through a variety of construction methodologies.

As a dynamic, forward-thinking business, our philosophy is very simple: we seek repeat business at every opportunity by ensuring we do not only meet but exceed customer expectations. We don't shy away from complex projects or challenges and will work hard to deliver your unique vision.

AMMENDMENT RECORD

DATE	DESCRIPTION	BY	SIGNED

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Introduction

This Construction Phase Health and Safety Plan, Site Waste Management Plan & Code of Construction Practice (COCP) has been compiled by the construction management team to

1. Support the detailed planning application for the redevelopment of the site to deliver a new football stadium and facilities, commercial space, and residential units and
2. Comply with regulation 12 of the Construction Design and Management Regulations 2015 (CDM). The Plan forms the basis of health and safety management on the site and allows the Client to comply with regulation 4 of CDM.

The plan is a "live document" to be supplemented as the project develops by the introduction of supporting documents such as sub-contractor method statements, risk assessments or any documentation relevant to the health and safety of the project.

1. Project Details

Prior to commencement of construction works the record information provided by the client will be checked against the proposed drawings and any significant variations will be notified to the design team and client and further instruction sought.

a. Project Address

Park View Road Football Stadium and 1-3

Park View Road, Welling DA16 1SY.

b. Scope of Works

The site sits within the London Borough of Bexley. The site itself is not within a conservation area. The buildings on site are not listed.

The Local Plan Policies Map shows the site has no specific designations.

The existing structures are to be demolished & the site cleared to provide new and improved Welling United FC facilities and constructing 3 blocks rising up to 8 storeys (plus basement) and providing a mix of commercial/community space & residential apartments.

The blocks are formed from piled foundations, concrete frame structures, with the facades infilled with Light Gauge Steel Framing & sheathing board & faced with brick, stone & glazing.

The Site is bounded by Park View Road, Roseacre Road, Danson Park and Bexleyheath Cricket Club, with existing residential properties along Roseacre Road and retail/residential properties in the surrounding area.

c. Site Opening Times

- Monday to Friday 08:00 - 1800
  Saturday 08.00 – 13.00
- Sunday & Bank Holiday No Works to Take Place Without Prior Agreement from the Local Authority

Any programmed/expected work required outside the standard site hours will require permission from LB Bexley Environmental Protection Team under S61 of the Control of Pollution Act 1974 (e.g., regular extensions for set-up

and clean down periods, extended concrete pours, the delivery and collection of abnormal loads, etc)

d. Programme

The current construction programme assumes that:

- Construction works between July 2024 and September 2026.

These programme periods are subject to alteration, confirmed and notified separately.

Licenses, Road and Footpath closures and diversions will be required for specific durations only.

It is anticipated that the following will be required & these will be progressed with LB Bexley

- Hoarding to the site boundary
- Footpath closure
- Parking bay suspension (Delivery Vehicle overflow parking)
- Road closure (Crane installation and removal)

Further details to be made on application of individual licences. All periods assume licences will be made available timeously.

e. The Site

The overall area of the site, excluding road and pavement works etc. is approximately 1.19ha and the boundaries are adjacent to: -

East	Bexleyheath Cricket Club pitch
North	Park View Road
West	Roseacre Road and residential properties fronting onto Roseacre Road
South	Danson Park

f. Site Access / Existing Traffic Systems

See Construction Logistics & Traffic Management & Delivery Plans provided.

For Ease of reference the Site layouts are included for the project and further updates will follow as the site management plan changes to reflect the progress of the works, i.e., the shell and core commercial spaces shall be utilised by the main contractor for material storage and sub-contractor office and welfare.

We shall maintain communication with the LB Bexley Transport Management Group, attend regular meetings and provide all relevant information to this information forum.

Construction Phase

Management of Deliveries

Deliveries will be on a 'just in time' basis with all deliveries needing to be booked in one week prior to the day of delivery. This will assist in the minimum amount of materials being stored within the site at any one time. Construction traffic will avoid peak hours.

The appointed contractor will attend any required meetings with the LB Bexley Highways department & will meet them onsite to discuss the scheme.

The delivery of the materials will be received from the "unloading area" in one of the unloading areas within the site as identified on the Logistics Plan.

There are no holding areas in the borough. The contractor will discuss the 'Holding' location at their attendance at the CTMG. During the demolition, groundworks & Concrete Frame Phases there will be no requirement for an offsite holding facility as there will be sufficient allocation on site. These Phases are due to be completed in the Autumn of 2025. BPM will at the appropriate time apply for the suspension of a number of Parking bays to provide a waiting area.

The "unloading area" will be identified and used for unloading of vehicles by the use of the tower cranes (when erected) where deliveries can be transferred directly from vehicles to the building.

Storage of Plant and Materials

Plant and materials delivered to site will be stored behind hoarding / within the "unloading area" until distribute to the building areas.

g. Site Set Up

See Logistics Plan – Demolition & Construction Phase for the locations, and shall comprise of:

- Site Offices
- Meeting Room
- Toilet Blocks
- Canteens
- Changing Rooms

h. Security Hoarding

We will enter formal Highways agreements with the LB Bexley to maintain hoardings. Any scaffolds on the public highway, to allow for vehicles loading and unloading whilst ensuring the safety of the public will be agreed prior to commencement of the relevant works**.**

We maintain photographic surveys in conjunction with the LB Bexley to identify the current condition of all surrounding paths, roads and services and where necessary which street furniture is to be removed and replaced on completion.

Any damage caused by our works will be repaired at the completion of the project.

Hoardings are provided and maintained, in accordance with the conditions of the licence issued by the Local Authority.

All hoardings are to be painted in the Woolwich Road Limited branded colour. The client's logo is to be fixed until a later date when sales branding is to be provided.

To ensure an acceptable appearance is maintained the hoarding will be repainted every six months or earlier if required as a result of vandalism or graffiti etc.

Hoardings are to be 2.4m high plywood with a surface density of not less than 7kg/m2.

It may be necessary to increase the minimum height to protect buildings from noise in some areas.

During the construction of the project di bond branding to the perimeter (2.4m wide panels will be provided in sections across the hoarding. The exact location of such branding has not yet been agreed. We will be responsible for obtaining any permissions for the di bond advertising panels.

Bulkhead lights are to be fitted.

Hoardings are to be inspected weekly by Site Management to ensure they are structurally sound and clean. Fly posters are to be removed immediately and any graffiti is to be removed or painted over.

Controlled access for vehicles and a separate one for pedestrians will be constructed within the hoarding. Access and egress from the site are to be via these designated entry points only.

The gates shall be positioned and constructed to minimise the noise transmitted to nearby noise sensitive buildings from the worksite or from plant entering or leaving the site. The gates will be closed and locked when there is no site activity and site security provisions will be set in motion.

Vision panels will be provided along Park View Road during the works in accordance with the public consultation strategy.

Any areas that are to cover the footpaths surrounding the site will be double boarded and sheeted to provide suitable protection to the Public.

Inspections

Regular inspections of the hoarding will be undertaken to ensure that the safety of any vehicle or pedestrians is not compromised.

i. Fire Brigade Access

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. In general, the provisions of guidance note GN29 will cover their needs.

The LB Bexley Highways department will be consulted & will meet them onsite to discuss the scheme & the LFB will be notified of the scheme & invited to attend site once the scheme has commenced. The site-specific Fire Risk assessment will be issued to LFB.

j. Vehicle Parking

We have reviewed the immediate area to ascertain how tradesman and labour will travel to site to carry out their works.

There is no car parking provided on the building site, there is controlled parking in the public roads with Metered parking available. The workforce will be encouraged to use Public Transport with rail and bus routes being available close to the site.

Tradesmen with tools and valuables small items will be provided secure storage on site so they can use public transport daily thereby reducing the need to rely on the car park areas within the Town Centre.

Wherever possible, we will endeavour to use local sub-contractors and recruit labour locally to reduce journey times, potential transport and parking issues.

k. Control of Emission of Dust & Dirt During Construction

Traffic both on and off site will be managed in order to minimise the impact to site operations and the local community.

The traffic management plan will be posted in the site office and the canteen. It will clearly mark the routes in and out of the site. Warnings to both drivers and pedestrians to be positioned by each entrance.

All traffic movements on and off the site will be controlled and guided by a gateman/ banksman/ Traffic Marshall.

- Use of bowsers to dampen work areas.
- Controlling the speed of mobile plant crossing un-surfaced areas.
- Removing mud, tracks and spills on public roads by use of a mechanical road sweeper
- Adequate screening and damping down during all periods of demolition, clearance works and other site preparations.
- Paved roads near site exits will be kept clean and vehicles transporting dusty materials onto, and off site will be covered.
- All vehicles leaving the site shall be inspected and cleaned as necessary, and suitable wheel wash equipment will be provided at site entrance and exit.
- Storage of potentially dusty materials will be located away from site boundaries.
- Site vehicles will, as far as possible, have vertically mounted exhausts to avoid re-entrainment of surface dust.
- All vehicles on site or associated with the site during the works will be switched off when not used / required.
- All vehicles delivering / collecting plant or material to site, will as far as possible, be switched off during off / on loading.
- Scaffold will be suitably sheeted to prevent dust emanating from the building site and onto the adjacent area.
- A road sweeper onsite every day during the substructure works when vehicles need to drive onto to site to ensure that the road remains clean.
- Works should avoid tracking / spillage of mud, soil etc. by construction vehicles onto public roads.
- Should mud be deposited on the highways immediately adjacent to site this will be either swept up or jet washed off, whichever is deemed appropriate at the time.
- Preparation of hard standing

- Scheduling of deliveries
- Removing mud from public roads carried on by construction vehicles, by use of road sweeper.
- All traffic movements on and off the site will be controlled and guided by a gateman / banksman.
- Contractor vehicles should include sidebars, blind spot mirrors and detection equipment to reduce the risk and impact of collisions with cyclists and other road users and pedestrians on the capital's roads.
- Co-Ordination will take place with other construction sites / businesses if found to be necessary when larger vehicles are required to deliver to site.

Where practicable stockpiles will be located at least 10m from the site boundaries and as close to the centre of the site as possible.

Stockpiles heights will be less than that of the site hoarding; stockpiles of dusty materials (e.g., sand, spoil and other granular matter) will be no taller than 1.5m. Stockpiles of non-dusty materials (e.g., glass, metal, timber, cladding etc.) will be up to 1.75m tall. Where practicable, all stockpiles will be covered to help to further reduce the potential for dust mobilisation.

The effectiveness of these strategies will be monitored by visual inspection and/or the deployment of PM10 monitors, and the dust management plan will be updated in accordance with the latest Control of Dust and Emissions during Construction and Demolition Supplementary planning guidance.

Additional details can be found in the Project Specific Noise & Dust reports.

l. Security Arrangements

The intention is to maintain plywood hoarding around the site. Controlled access for vehicles and a separate one for pedestrians will be constructed.

Access and egress from the site are to be via the designated entry points only.

Full time site security is planned prior to the Demolition commencing and CCTV cameras already in place will be retained, albeit relocated as the works progress.

Outside of normal working hours the site will be left locked and secure.

In addition, the site will require various other means of protection to protect persons from injury this will include the following:

- Protection of excavations.
- Protection against illegal access to scaffold.
- Protection against illegal use of plant.
- Protection against injury by damaged services.
- Toolbox Talks and Briefings.
- Signage – warning and directional.

m.

Welfare

Welfare arrangements will consist of the following:

- Suitable and sufficient number of toilets.
- Wash basins of adequate size with warm (hot and cold) water, soap and towels for hygiene purposes.
- Facilities for changing, drying and storing clothes.
- Supplies of drinking water.
- Adequate accommodations to sit and take meals, make drinks, and prepare hot food.

At the height of the construction the total persons on site are not expected to exceed 75 on any one day, therefore the toilet facilities will consist of 3 urinals, 3 toilets and washing facilities, separately 2 toilets with washing facilities for female staff and visitors in accordance with: **Schedule 2** of the **Construction (Design & Management) Regulations 2015** and **INDG293.**

If the figure of 75 is permanently exceeded additional facilities will be provided in accordance with the stated regulations and guidance.

Waste from welfare facilities shall be discharged into a suitable foul water collection system.

Where employees are exposed to health risks from activities e.g., handling concrete, exposure to sewerage etc. then additional facilities such as showers may be required.

All welfare facilities provided by the contractor will be maintained in a clean and orderly condition, any defects or damage are to be immediately reported to site management.

n. Existing Site Constraints

Existing site constraints have been assessed along with a number of Pre- Commencement reports providing site constraints information and risk profile. We have engaged the services of survey companies & will retain on site a current pack of site condition drawings & information along with the site condition report.

Utilities searches have been completed & these are retained on site.

Geotechnical investigations are being undertaken to provide a detailed assessment of the ground conditions in response to initial surveys.

This information will be issued to each contractor prior to commencement. In addition, Devices (scanner etc) will be used to identify the locations of water, electricity, gas, telecoms, and drainage and mark the locations on site (including services buried by the contractor). If required additional assistance from one of the existing service suppliers will be sought to ensure all services are correctly identified. Exact locations are to be marked and recorded on a site plan in the site office.

This information will be readily available, and location of information clearly stated. This information is to be supplied to the Principal Designer for inclusion in the Health & Safety File.

o. Hazardous Materials

Manufacturers Safety Data Sheets are to be obtained for all materials that are used in the works. COSHH Assessments are to be carried out on all hazardous products in compliance with COSHH Regulations. Statements covering their management and use are to be produced and retained on site for reference.

Persons on site will receive toolbox talks on materials they may come in contact with. Additional warning notices and information sheets are to be posted in site accommodation.

Sub-Contractors will have to provide evidence that operatives within their employment have been suitably briefed.

Information on any hazardous materials will be supplied to the Principal Designer at the completion of construction for including in the Health & Safety File.

p. Asbestos

Asbestos records and reports for the site and buildings will be provided to contractors so they are aware of Asbestos locations.

Should substances which are known or believed to be asbestos be discovered all work in that area will be stopped and the area cordoned off until samples of the substance have been taken an analysed by a UKAS accredited laboratory.

If the results come back as positive for asbestos, all removal will be carried out by a suitable licensed asbestos removal contractor. If the results are negative for asbestos work will commence as before.

q. Waste Disposal

All waste materials generated on site will be treated in accordance with the Site Waste Management Plan, **See Appendix 3** making full utilisation of material reuse and recycling where possible.

Due to the restricted nature of the site segregation of materials on site will, with the exception of any Hazardous materials are not carried out on site. This will all be carried out at the Waste Transfer station as set out in the SWMP. The SWMP is site specific & sets out all the recycling targets for the scheme.

It is anticipated that during the fit-out stage of the construction Gypsum will be segregated.

Any materials that are deemed hazardous are to be handled and transported by the relevant guidelines specific to the material type. Records are to be kept of loads leaving site, detailing the type, weight and final destination.

Tickets issued at the final disposing point are to be returned to the site and held with the Site Safety file.

The site will provide suitable PPE for this work for employed operatives, sub-contractors will be expected to provide appropriate PPE.

r. Extent & Location of Existing Records & Plans

Existing records and plans are as detailed in the Pre-Construction Information Pack. The Pre-Construction Information Pack should be read in conjunction with this safety plan.

s. Issue & revision

An electronic version of this plan will be issued and held by the project team leader. This plan will be maintained and updated regularly by the project team leader with assistance from the compliance manager. This will be in accordance with the implementation of the contract, or after any changes to regulations and / or corporate

procedures.

This provides a framework to manage the construction and environmental issues associated with the project, to ensure compliance with relevant client environmental policy statements, and contractual and legal obligations. It is a bespoke plan designed to minimise our impact and ensure the best service through construction.

t. Responsibilities

The project team leader approves and supports this Construction Management Plan as the principal document demonstrating a planned and systematic approach to implementing environmental policy through an effective environmental management system.

The project team leader is responsible for authorising and maintaining this document and ensuring it is implemented. The site manager is responsible in ensuring it complies with legal and contractual amendments and ensures that all project personnel are aware of the contents of this Construction Management Plan and understand their role in fulfilling the project's obligations. They are responsible for ensuring that the client is informed of any amendments.

The compliance manager is responsible for ensuring it complies with all relevant environmental legal requirements and offering advice in best practice.

The project team will comply with the requirements of this plan.

2. Project Directory

A copy of the Project Directory is kept at Appendix 11.

3. Completed F10

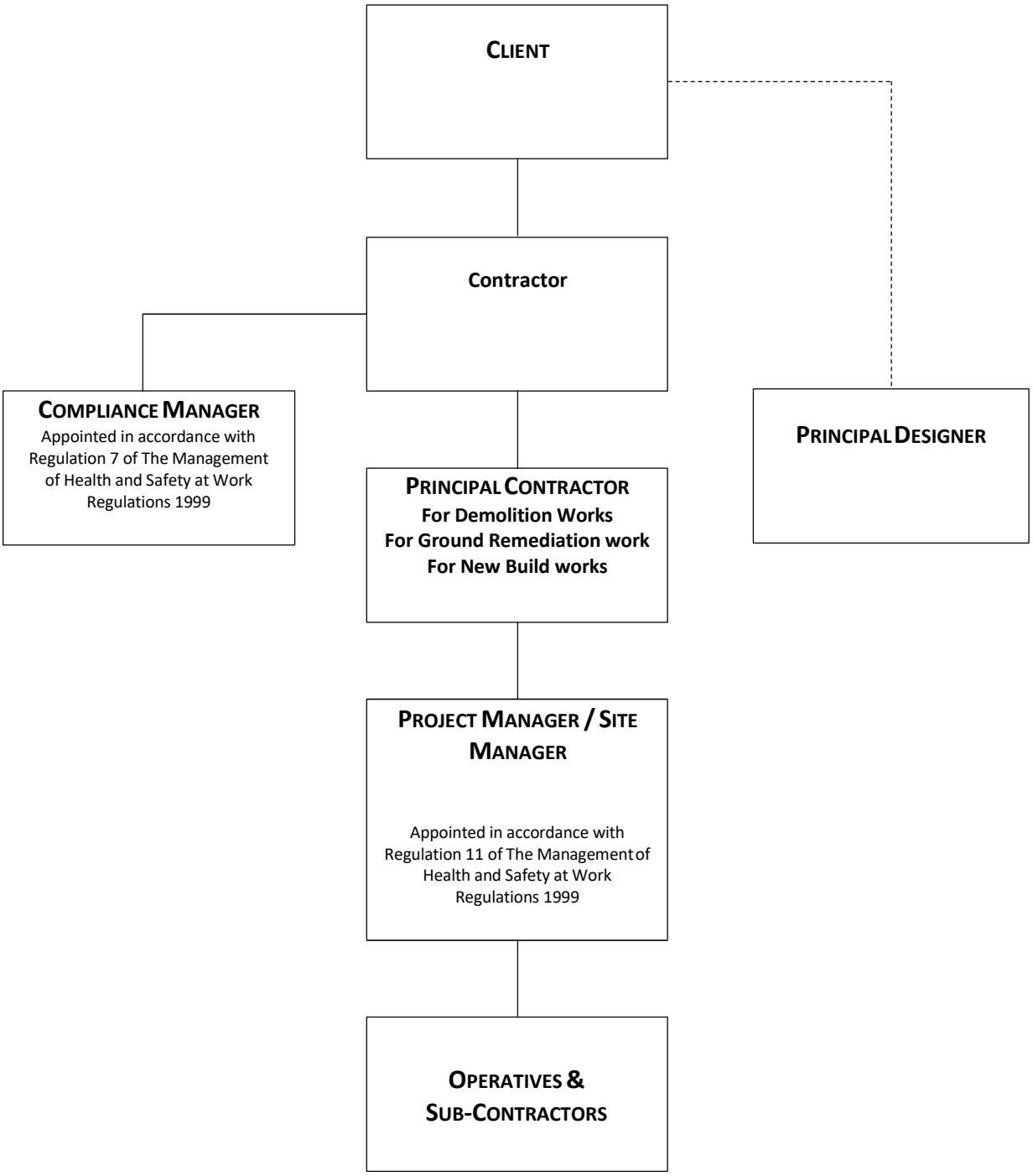
The completed F10 is to be displayed in a prominent location on site.

4. Communication & Liaison

a. Management Structure & Responsibilities

The works will be supervised at all times by the contractor Site Manager who will be appointed in accordance with Regulation 11 of The Management of Health and Safety at Work Regulations 1999 to co-ordinate the activities in progress.

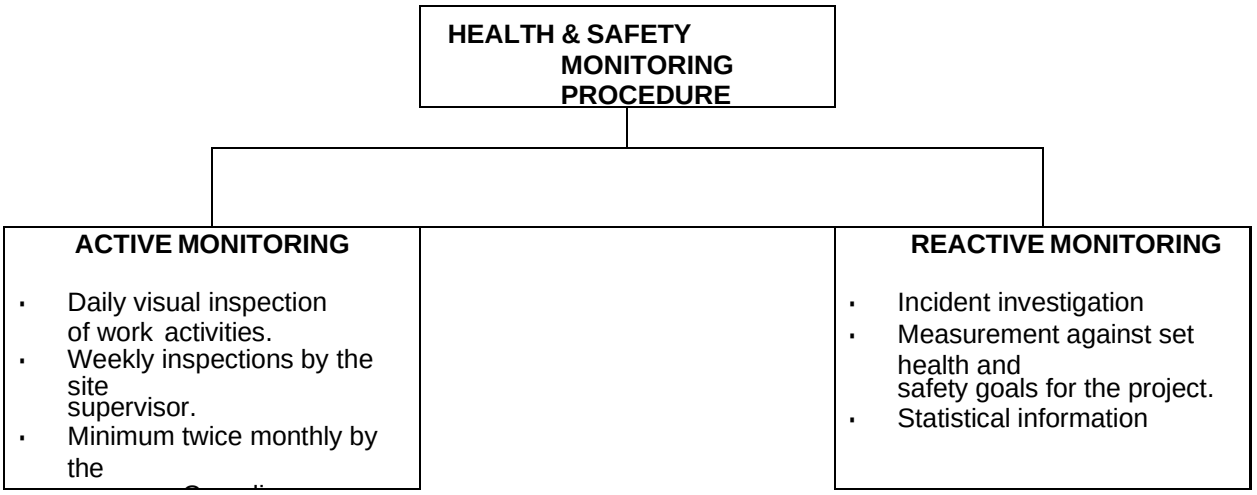
In addition, the BPM construction manager and site inspection team shall visit site at least three times a week to inspect and monitor progress of the works.


CLIENT
Contractor
COMPLIANCE MANAGER
Appointed in accordance with Regulation 7 of The Management of Health and Safety at Work Regulations 1999
PRINCIPAL DESIGNER
PRINCIPAL CONTRACTOR
For Demolition Works
For Ground Remediation work
For New Build works
PROJECT MANAGER / SITE MANAGER
Appointed in accordance with Regulation 11 of The Management of Health and Safety at Work Regulations 1999
OPERATIVES & SUB-CONTRACTORS

b. H&S Aims & Arrangements for Monitoring & Review of H&S Performance

Our health and safety aim for the project is to complete the project with a minimal risk to both our employees and other persons within the vicinity of the works.

Our health and safety performance will be monitored by our Compliance Manager and the review process will be by health and safety meetings held at our main office and on site as required. Site Safety Audits are undertaken weekly and reviewed every two weeks or twice a calendar month. Additional visits will take place as required.



c. Monitoring

The monitoring of health and safety on the project will be based on guidance contained in H.S.E. guidance "Successful Health and Safety Management" HS (G) 65 and active monitoring systems i.e., identification of potential risks before things go wrong.

The following levels of monitoring will be implemented on the project:

Level 1*:*

Evaluation of effectiveness of Company Policy for Health, Safety and Welfare at Work together with the availability and compliance with risk assessments. A Safety Audit is carried out not less than 2 times a month. In the early stages up to 4 times a month. These visits are random and unannounced by the Company Compliance Manager. Copies are held in the company safety file on site for inspection.

Audit Items:

- Registers, Notices, Certificates etc.
- Health, Welfare and First Aid.
- Fire Precautions.
- Protective Equipment.
- Lifting Appliances and Lifting Gear.
- Noise Assessments.

- Plant and Site Transport.
- Small Tools and Abrasive Wheels.
- Electrical Distribution and Services.
- Hazardous Substances.
- Temporary Works Procedures.
- Demolition.
- Scaffolding and Access.
- Excavations
- Roof work and Edge Protection.
- Training.
- Asbestos.
- Falsework.
- Steel Erection.
- Contractors Procedures.

Level 2:

Site Safety Supervisors Weekly Inspection Report to be completed at a frequency not exceeding 7 days and forwarded to the Project Manager.

Project Manager reviews against his list of checks completes his level 1 and checks level 2 report and actions as required. Then forwards these to the Company Compliance Manager.

d. Regular Liaison between Parties on Site.

Liaison between the Principal Contractor and others will be via Site Meetings and Design Meetings. These are to be agreed by both parties but will normally take place at a weekly and monthly level. Dates and times have not been agreed at this time. The meetings are to be recorded and the minutes displayed in the site cabins and held on file (any sensitive materials are to be excluded) additional circulation is to be agreed at this first meeting.

Liaison with the persons employed on site will be via the Site Manager. He will in turn take any points raised to the appropriate meeting and the response to the points relayed back to him/her. These points are to be kept for inclusion in the Health & Safety File.

Additional information will be posted in the canteen for all persons on site relating to work issues on site with any additional advice.

e. Consultation with the Workforce.

Workforce consultation will take place by initial induction training when starting on site. This will then be supplemented by the provision of toolbox talks. This consultation will be recorded as part of the site documentation. Additional matters will be dealt with as per Paragraph d.

If the Site Manager has concerns as to the ability of an operative to understand instructions due to English not being their first language and not to a suitable level to allow easy communications, then Section **"HS104 – Migrant Workers"** of the Company Health and Safety Manual is to be implemented.

f. Exchange of Design Information.

The Principal Designer will be kept informed of any significant risk discovered throughout the project that may have implications for future works.

g. Handling Design Changes during the Project.

Works will be carried out in accordance with the contract specification and drawings supplied, however in the event of changes with a Safety Impact the Principal Designer is to be consulted first. The Principal Contractor is responsible for the day-to-day Health & Safety within the site.

h. Selection & Control of Contractors.

Contractors' proposals are evaluated in accordance with our Health and Safety Policy by their responding to the project questionnaire which is assessed to ensure their strategy meets expectations prior to appointment by the Client.

i. Exchange of Health & Safety Information between Contractors.

Main Contractors and Subcontractors are to be provided with health and safety information relating to the site prior to commencement. Free access is provided to any method statements and risk assessments on the site. Access to the Pre-Construction Information Pack will be afforded to them.

All information is to be collated by the Site Manager for final inclusion in the Health & Safety File. During the contract the Principal Designer will be kept up to date on any additional information it is deemed relevant for him to be informed of.

j. Security, Site Induction & On-Site Training.

The work location will be maintained in a secure condition in accordance with HSE ***Guidance HSG 151 "Protecting the public your next move"***. We will utilise a banksman to supervise vehicular movements at the work location.

Checks will be made on arrival on site on the correct level of training for persons undertaking relevant tasks, examples include operation of plant and equipment together with specific training requirements where the equipment may be used i.e., abrasive wheels and tower scaffolds.

Information relating to persons working on site will be displayed in the relevant notice boards. This information is to include Site Regulation, First Aid, Fire and Traffic Plans and any additional relevant information.

During construction additional risk assessments will be carried out by the principle contractor. Depending on the recommendations, the appropriate control measures and protection recommended will be applied in accordance with HSE recommendations and legal requirements.

Sub-Contractors will also have to provide their own assessments and their method of reducing the risks.
These may be read in conjunction with the principle contractor's safety plan and risk assessments.

The annual Training Plan relating to directly employed work force is tailored to the individual as required. The training involves the CITB and local approved trainers. Training normally takes place off site as required. All sub-contractors have been requested to provide training plans for their work force on site to ensure they are suitably qualified and competent in their areas.

5. Risk Assessments & Method Statements

Risk assessments and method statements for undertaking the work form an integral part of this health and safety plan. Where necessary additional method statements will be provided which will then be approved by the Project Manager / Site Manager and added to this section of the plan.

These method statements will be kept in a separate file or filed with the relevant Sub-Contractor's correspondence.

All documentation including all files is controlled within the ISO system. A dedicated system is in use on each site and is job specific with a standard framework for each site with a filing system provided forming the final safety file. These include all documentation relating to the contract.

The following registers are to be completed to form a record of all Risk Assessments and Method Statements used on the project.

Each method statement received from specialist sub-contractors employed by the Principal Contractor to undertake specific operations on the project must be approved by the Construction Manager prior to works commencing on site. A record of this is to be kept using the Method Statement Appraisal Form.

A copy of the Method Statement Appraisal Form can be found at the end of this section and when completed is to be attached to relevant method statement.

Our strategy for Assessing & managing the risks associated with underground services. This Guidance Note HS 083 details the main hazards associated with underground services & the Monitoring & control measures to be implemented by the Site Management. –

a. Hazard Identification

The basis of the following hazard identification table is that all employees are competent and aware of standard Health & Safety risks associated with works on site. Where no general assessment is shown to be required this assumes standard practices and risks are evident from the information provided by the Principal Designers pre-construction Information Pack. Should the information provided identify abnormal conditions then site-specific assessments will be produced for the more commonplace elements of site hazards.

The Principle Contractor shall develop the Risk Register as Risks are mitigated and new risks identified. The evolving Register shall be maintained and reported regularly to the project team.

The Archaeological and remediation method statements identify the hazards and risk assessments of working within the anticipated contaminated soils identified within the previous geotechnical reports.

	WORK STAGE	HAZARD	RISK ASSESSMENT NORMALLY		RISK ASSESSMENT PROVIDED	
			YES	NO	YES	NO
HEALTH & SAFETY	General	Trip hazards through general site congestion	X		X	
		Falls from height – ladders, steps, towers	X		X	
		Dropping tools & materials from height	X		X	
		Use of general PPE (Hats/boots)		X		X
		Other PPE – harness, goggles, ear defenders	X			X
		Manual handling	X		X	
		Confined spaces	X			X
		Proximity of public and staff	X		X	
		Use of hired plant	X		X	
		COSHH	X			X
		Scaffolding	X		X	
		Hot Works	X		X	
	External Works	Use of elevating platforms	X		X	
		Weather conditions	X			X
	Demolition	Contact with live services	X		X	

	WORK STAGE	HAZARD	RISK ASSESSMENT NORMALLY		RISK ASSESSMENT PROVIDED	
			YES	NO	YES	NO
		Asbestos	X		X	
		Sharps	X		X	
	Installation	All Sub-contract				
	Commissioning	General operations	X			X

	WORK STAGE	HAZARD	RISK ASSESSMENT NORMALLY		RISK ASSESSMENT PROVIDED	
			YES	NO	YES	NO
ENVIRONMENTAL	General	Dust	X		X	
		Contaminated Land	X		X	
		Fumes from Machinery	X		X	
		Noise	X		X	
		Oil / Diesel	X		X	
		Services	X		X	
		Traffic	X		X	
		Waste to Landfill	X		X	
		Working Hours	X		X	
		Light	X		X	
		Nuisance Odours	X		X	

b. Risk Assessments

Risk assessments are being provided for the previously identified hazards that contain elements of work beyond the knowledge of competent site operatives. Specific areas of works containing hazardous operation have been identified and the risks associated with these are assessed on the following forms:

	Hazard	ASSESSMENT FORM	Completed	
			Y/N	DATE
HEALTH & SAFETY	Trips etc	PC 01	Y	
	Falls from height	PC 01	Y	
	PPE	PC 01	Y	
	Manual handling	PC 01	Y	
	Portable tools	PC 01	Y	
	Voids etc	PC 01	Y	
	Hired Plant	PC 01	Y	
	Cutting Drilling opening of structure	PC 01	Y	
	Proximity of the public	PC 01	Y	
	MEWP's	PC 01	Y	
	Asbestos	PC 01	Y	
	Hot Works	PC 01	Y	
	Scaffolding	PC 01	Y	
	Vehicle Movements	PC 01	Y	
	Hazardous Substances	PC 01	Y	
	Contact with Live Services	PC 01	Y	
	Underground Services	PC 01	Y	
	Overhead Services	PC 01	Y	
	Excavation	PC 01	Y	
	Demolition	PC 01	Y	
	Sharps	PC 01	Y	
	Vermin	PC 01	Y	
	Waste Disposal	PC 01	Y	
	Lifting	PC 01	Y	
	Flooring	PC 01	Y	
ENVIRONMENTAL	Dust	PC 02	Y	
	Contaminated Land	PC 02	Y	
	Fumes from Machinery	PC 02	Y	
	Noise	PC 02	Y	
	Oil / Diesel	PC 02	Y	
	Services	PC 02	Y	
	Traffic	PC 02	Y	
	Waste to Landfill	PC 02	Y	

Construction Phase Plan and Code of Conduct Practice (rev 5)

	Working Hours	PC 02	Y	
	Light	PC	Y	

6. Environmental Management Policy

a. Environmental Policy

The project will comply with the Environment Policy. The project shall ensure that the policies and their requirements are made known to all relevant personnel. This will be undertaken through a number of methods including site inductions, method statements and risk assessment briefings and toolbox talks.

All contractors will be made aware of the environmental requirements at the pre-contract meetings.

b. Environmental Risk Assessment

An Environmental Risk Assessment identifying significant Aspects and Impacts identified for the construction phase has been produced and will form part of the project risk register.

The register shall be reviewed and revised on a regular basis as or as required e.g., due to changes in thescope of work. Any new environmental aspects and their impacts will be updated accordingly.

The risk scoring system allows the impacts to be prioritised and the most significant identified. For eachof the aspects the potential impact is scored for the situation where no mitigation measures are employed and again where mitigation measures are employed.

The register considers the likely environmental impacts from activities being carried out on the projectwith respect to:

Air	Flora – Trees & Hedgerows	Ground	Material Use
Archaeology	Energy Use	Indirect	Waste
Contaminated Land	Finite Resource	Noise & Vibration	Water
Ecology - General	Fuel Storage	Nuisance	

This considers those activities that are likely to arise because of both normal construction activities andemergency incidents or accidents.

c. Environmental Risk Assessment Legislation, Regulation & Other Requirements

The Project will comply with all relevant legislation, regulations and client standards and additionally, obtain and comply with all necessary consents to ensure the construction works meet all current legislation.

The Project Team Leader is responsible for ensuring that the project complies with all applicable environmental legislation, regulations and other requirements.

The legislation register is maintained by the Compliance Manager and is updated following any changesto applicable

legislation. Any applicable changes will be evaluated and communicated to the relevant project personnel through Environmental Alerts, Newsletter, briefings or toolbox talks. The project specific procedures will also provide guidance to activity specific legislation.

Other requirements and regulations from Local Authorities, Highways Agencies or other Statutory Bodies will be reviewed and applied where applicable.

All work carried out on the project will be conducted with due cognizance of client Standards, obligations and best practice.

This site includes the requirements for demolition within the first phase of the works. We will adopt and implement the ICE Demolition protocol and the GLA Best Practice Guidance.

d. Environmental Objectives & Targets

Project specific Objectives and Targets will be formulated. These reflect the issues and requirements ofthe project, together with the client and our corporate Objectives and Targets. The Key Performance Indicators (KPIs) detailed in form the basis of these environmental and sustainability targets.

Objectives and Targets are communicated through a variety of media on a regular basis, this includes, though is not limited to, monthly Project Review Meetings, supply chain progress meetings and regularreporting.

e. Training, Awareness & Competence

All personnel, whose work may cause a significant impact on the environment, will receive environmental training. Environmental training includes, but is not limited to:

TRAINING	PARTICIPANTS
Environment & sustainability element of company induction	All new starters
Environment & sustainability element of site induction	All those working on site

TRAINING	PARTICIPANTS
Site Safety Plus - Site Environmental AwarenessTraining Scheme (Seats)	Delegated Duty Holders (Site Based)
Sustainable Timber and Chain of Custody	Delegated Duty Holders (Site Based) and those responsible for timber purchase where necessary
Ecology & Biodiversity	Delegated Duty Holders
Site Waste Management Plan	Delegated Duty Holders
Pollution Prevention & Emergency Spill Response	Delegated Duty Holders (Site Based)
Toolbox Talks on spillage, noise prevention, and other issues relevant to the works	Workforce

The Compliance Manager will document the training provided and will maintain records of the quantityand type of training received so that progress against training targets can be measured. Where relevant,the competency of the attendees will be assessed at the end of the training via an examination.

Where additional training or briefings such as Toolbox Talks are conducted by a third-party labour force,they will be responsible for supplying evidence in the form of copies of certification and/or signed attendance sheets to Site Management.

f. Internal Communication

Communication of environmental issues within the Project will be maintained through combined monthly project review meetings, chaired by the Project Manager.

The environmental section of the agenda for the monthly meetings will primarily address the future month's activities and will review events and actions arising from the previous month's activities. Otheritems on the monthly agenda will include:

- Progress with consents
- Progress with Work Package Plans
- Public consultation
- Reporting of monitoring results
- Actions arising from site inspections, incidents, complaints and audits.

- Planned work and risks associated with this.

Newsletters, bulletins, posters etc. will be produced and displayed throughout site offices on a regular basis to raise awareness of current issues both within the Project team and throughout the local community.

It is recognised that benefits can be gained from close co-operation with the client, and other contractors in achieving best practice. Access shall be given to the client Representatives for carrying out audits and/or site inspections to monitor compliance with this document.

g. External Communication

The Project Manager will agree with the Client a process for public consultation. The agreed process will be documented either in a Community Liaison Procedure or within this document.

The procedure is required to clearly demonstrate to the Client the manner in which impacted residents,landowners, schools etc. will be informed of the consequences of work activities and how the Project will mitigate any impact.

The project consultation and liaison arrangements will be maintained throughout the Contract period and will include but not be limited to:

- Consultation with the relevant statutory bodies (e.g., Local Authority, Environment Agency) in conjunction with the Client in accordance with the communication strategy.
- Monthly updates to local residents and businesses and other interested parties regarding the programme of works, this will be carried out via Newsletters.
- Advance notification to those most affected by particular environmental effects will be notified including letter drops to the local community if deemed appropriate. All necessary programming information will be passed to the Client in sufficient time for advance notification to be effective.

Where disturbance to local residents, or businesses is likely, the Project, in conjunction with the Client, will inform occupiers prior to any works starting, the Principle Contractor shall take steps to inform occupiers of all properties which may be affected by noise, dust or vibration arising from construction works of the nature of the works, proposed hours of work and their expected duration.

The steps that the principle will take include the followings that are appropriate to the disturbance:

- Hold a meeting with local residents / business prior to works commencing. Introduce key site staffand give a point of contact in case of complaint. Give Head Office Details.
- Supply local residents / business with an information sheet about the company, the developmentand the expected timetable of works.
- Keep in contact with residents / business and notify them, in advance, of any events that may bedifferent to normal operations.
- Plan work to minimise nuisance. Take steps to control noise, dust and smoke arising from operationson site.
- Keep roads leading off the site clean and tidy.
- Implement a formal complaints procedure.
- Ask site staff not to park in residential roads and implement effective access and traffic managementmeasures for all site vehicles.

The strategy for external communication will be agreed between the Project team and the Client. Closeliaison ensures effective communication and close out of issues. Typical third parties include, but are not limited to:

- Local Authority; Environmental Health, Environment and Planning Department, Highways Engineer
- Environment Agency
- Internal Drainage Board
- Natural England
- Statutory Utilities – Gas, Electric, Water, Telecoms
- Third party Landowners/Neighbours

The Project team will, in partnership with the client, consult with third parties where it is considered the works will cause any impact or where access or storage may be required.

Where a Complaint is made or received, PC 19 – Non-Conformance Procedure should be used. SHEQ 084 is the **Principle Contractor** Complaints Form & this should be sent to the Project Director or Compliance Managerat Head Office. A copy of PC 19 & SHEQ 084 are included in the Construction Logistics & Traffic Management Plan

h. Records

This document is the principal operating document for environmental management of the Project. This defines policies and arrangements for the main environmental issues.

All documents will be established and maintained in registers as part of the Project records.

i. Management Review

The Project Team Leader will undertake a review of the project and include the following for input intothe management review:

- Results of internal audits and evaluations of compliance with legal and other requirements
- Communication(s) from external interested parties, including complaints.
- The extent to which objectives and targets have been met.
- KPI data
- Status of corrective actions
- Follow-up actions from previous management reviews
- Changing circumstances, including developments in legal and other requirements related to the environmental aspects
- Recommendations for improvement

The results of the review will be documented and presented to the client at the monthly projectmeetings.

7. Environmental Site-Specific Controls

There is a need to ensure that the public, residents and businesses are protected from environmental disturbance during the construction,

This document has been prepared to assist the Principle Contractor and their sub-contractors to ensure that works are undertaken in at considerate manner, to reduce the impact of the work on local communities.

Environmental nuisance can also be controlled through the prior consent principle under the Control of Pollution Act 1974 Sections 60 & 61 and through the Environmental Protection Act 1990 Section 80. The main contractors report IE22/001 dated 28/7/22 Rev 1 responds the environmental and air quality issues expected to be addressed during the archaeology and remediation works.

The Local Authority may serve a legal notice imposing noise requirements (including vibration) as to the way in which the works are to be carried out. The person served with a notice is guilty of an offence under the relevant Act if, without reasonable excuse, any requirement of the notice is contravened.

Adherence to this document will demonstrate a positive attitude and commitment towards minimising environmental disturbance.

The Principle Contractor will ensure compliance with the provisions of:

- The Control of Pollution Act 1974 Part IV
- The Health & Safety at Work Act 1974
- The Clean Air Act 1993
- The Environmental Protection Act 1990

The Principle Contractor will ensure that measures are taken to:

- Protect residents, users of buildings close by and passers-by from nuisance or harm.
- Protect buildings from physical damage caused by vibration.

a. Hours of Work

- Where residential occupiers are likely to be affected by noise, the hours of noisy works shall be restricted to:

Monday – Friday	8.00 a.m. - 6.00 p.m.
Saturday	9.00 a.m. - 1.00 p.m.
Sunday & Bank Holidays	No noisy activities on site

- Instructions will be issued to ensure that vehicles and plant arriving at and leaving the site comply with the stated hours of work.

b. Variation from Normal Working Hours

- The Principal Contractor may progress a S61 application with LB Bexley to address working hours, noise parameters etc, however.
- It is recognised that there may be circumstances where the restriction on hours of work cannot be adhered to. In these circumstances the Principal Contractor will provide written justification for theproposed deviation to the local authority before any works start outside normal hours.
- LB Bexley will confirm all agreed variations in writing with the Principal Contractor.
- In any instance where it is necessary or desirable to deviate from the agreed times the Principal Contractor should be able to demonstrate that all reasonable steps have been taken to minimise disturbance from the works. Where appropriate, consideration shall be given to:
- Screening to reduce noise levels.
- Publicised “rest periods” during which noisy operations are temporarily ceased.
- Prior agreement for works involving any deviation from agreed times should be sought from the local authority, preferably at least 3 days prior to the works commencing.
- In the absence of prior agreement for noisy works, the local authority may serve a notice under Section 60 of the Control of Pollution Act 1974 to prohibit or restrict works in accordance.
- In exceptional circumstances, where works being carried out on the Public Highway would cause severe disruption to traffic, permission to work outside the hours may be given by the Highways Engineer / Transportation Group in conjunction with the Environmental Health Department.

c. Emissions, Monitoring & Measurement

The project recognises that a distinction needs to be made between the different types of monitoring. For the purposes of this Project, a clear distinction has been made between active and reactive monitoring as follows:

ACTIVE	REACTIVE
Site Management	Incident reporting
Compliance Managers Site Inspection	Complaint recording and investigation
Senior Managers Tours	Dust
Internal audits	Noise & vibration monitoring
	Water sampling where necessary)

Emissions

EMISSIONS	POTENTIAL RECEPTOR	MONITORING & CONTROL MEASURES	LEVELOF EMISSIONS
Oil / fuel	Land& Water	Monitor the amount coming onto site to ensure it is kept to a minimum. Materials to be stored in line with the oil storage regulations. See details below.	Low
Paints	Land& Water	Water based paints to be used and when not in use stored in a locked container.	Low
Other chemicals	Land& Water	Control of Substances Hazardous to Health (COSHH) assessment to be undertaken for all chemicals and control measures applied. Specific monitoring regimes to be implemented as required	Low
Silt run off	Land & Water	Measures to be put in place to prevent run off into the watercourse.	Low
Dust	Land, Water Air	Damping down to take place as appropriate. Dust to be monitored as required.	Low
Wheel borne mud & soils	Roads	Road condition to be monitored on ongoing basis by site management. Wheel wash to be used during earthworks. Road brush to be used as required.	Medium
Concrete wash water	Land &Water	Designated area to be established for the washing out of concrete	Low
Plant & vehicles	Air	Maintenance regime in place and monitored for all plant and vehicles. All to be turned off when not in use	Low

The emissions that the project produces will form a significant proportion of the potential for environmental impact during the works.

d. Vermin & Pest Control

Welfare facilities (canteens, changing rooms, locker rooms, toilets etc.) will be provided by the project. These will be cleaned daily and maintained in a good condition. It is expected that the users behave properly towards the facilities provided. Anyone found to be abusing welfare facilities will be dismissed from the site.

Toilets will be located as indicated on the Site Set Up plan. Anyone found urinating or defecating elsewhere will be dismissed from the site immediately.

All food and drink are to be consumed within the canteen or off the construction site. Consumption of food outside of welfare facilities encourages the spread of vermin causing further potential occupational health risks, e.g., leptospirosis (Weil's disease). If required, rodent control measures will be put in place.

All food and drink will be disposed of in a lidded container and emptied on a weekly basis.

e. Prevention, Containment & Cleaning Up Spillages

Liquid Storage

Best practicable means will be employed to prevent polluting materials from entering the hydrological systems. This will include specific measures to prevent silt from escaping from excavations.

All oils and fuels will be stored in compliance with the Control of Pollution (Oil Storage) Regulations 2001.

- Fuel shall be stored in dedicated bunded, impervious storage areas, away from drains and watercourses.
- Drums over 200 litres shall be stored on drip trays capable of holding 25% of the drum's maximum capacity.
- Fuel tanks shall be stored within a bund capable of holding 110% of their capacity. All pipes and gauges shall be within the wall of the bund.
- Bowsers shall be double skinned and shall be stored in a bund capable of holding 110% of the volume of the bowser.
- All valves / triggers should be protected from vandalism and un-authorised interference; they must be securely locked when not in use. Tanks and drums should be kept in a secure container or compound.
- Vehicles must never be left unattended during re-fuelling, nor must the delivery valves be jammed open. Prior to the commencement of re-fuelling all hoses and valves are to be inspected to ensure they are in good order, any defects noted must be reported to Site Management immediately.
- Small mobile plant shall be placed on drip trays.
- Spill kits will be available at various points around the site and located next to bowsers and drums.

Consideration will be given to any required surface coatings which contain bitumen or related materials as being delivered in a hot and ready to lay format. This will avoid the bituminous materials being heated on site.

Solids

Spillages of dry and dusty materials will be avoided by good housekeeping methods including storing under cover and on hard standing. Skips will be covered where there is a risk of material becoming airborne.

Wheels of site vehicles will be cleaned before they leave site. This will be supplemented by a road brushto clean roads as required; this will prevent tracking of mud and debris onto surrounding routes.

Dealing with Spills

Spill kits will be available at various points around the site and located next to bowsers and drums. Should a spill occur, the following will be implemented:

- Work will be stopped immediately.
- All possible ignitions will be extinguished if the spilt material is flammable.
- The spill will be contained using spill kits.
- The source will be identified and sealed as practical.
- Granules / pads will be used to mop up as much spill as possible.
- The Project Team Leader will be informed of the spill.
- The granular material and pads and any containment items will be treated as hazardous waste anddisposed of accordingly.

An incident report form will be produced and sent to the Compliance Manager within 24 hours of the incident occurring. If the incident is significant a full investigation will be carried out by the ComplianceManager.

f. Treatment of Effluents

Any connections or discharges to drains and/or controlled waters will not be undertaken withoutapproval and, where required, the necessary consent being issued.

In order to protect drainage systems, they will be drawn up on the Site Plan showing the nature and course of the drainage on site. Surface water drainage will be marked BLUE and foul water drainage willbe marked RED. Measures will also be taken to prevent silting of such waters and pollution spill kits made available on site in case of emergency or accidental spillage.

Discharges will only be made to drains and sewers with appropriate consents providers and regulators.

g. Ground Water

Where possible silty water should be disposed of to the foul sewer. Any discharges to a stream, watercourse or soak-away will require Thames Water approval in advance and will at least require filtering prior to discharge.

h. Nuisance to Neighbours & Pollution to the Local Environment

The site will be registered to the Considerate Constructor Scheme and managed in accordance with theirguidelines.

The Environmental Risk Assessment will highlight the potential environment impacts will be and how they will be effectively mitigated.

Where a Complaint is made or received, PC 19 – Non-Conformance Procedure should be used. SHEQ 084 is the Complaints Form & this should be sent to the Project Director. A copy of PC 19 & SHEQ 084 are included in the Construction Logistics & Traffic Management Plan

Once these have been dealt, they will be recorded, and the details passed onto the Compliance Manager for record.

i. Traffic & Transportation

Traffic both on and off site will be managed in order to minimise the impact to site operations and the local community. Full Traffic Management Plans will be implemented and reported to the Council, the particular working methods, sub-contractors and specialists identified.

On site, the following would be implemented:

- Switching off vehicle engines when not required
- Use of a form of wheel washing processes as appropriate
- Preparation of hard standing
- Scheduling of deliveries
- Site speed limits on access roads
- Removing mud from public roads carried on by construction vehicles, by use of road sweeper.
- All traffic movements on and off the site will be controlled and guided by a gateman / banksman.
- Co-Ordination will take place with the shops that use the service road for deliveries.
- Contractor vehicles should include sidebars, blind spot mirrors and detection equipment to reduce the risk and impact of collisions with cyclists and other road users and pedestrians on the capital's roads.

Works should avoid tracking / spillage of mud, soil etc. by construction vehicles onto public roads.Where this does occur, measures are to be taken to clear up excessive spillage/tracking.

The project will adopt Construction Logistics and Community Safety (CLOCS) standards for all deliveryvehicles. (CLOCS Standard for construction logistics, V1.2 2014)

Fleet Operator Recognition Scheme (FORS) Bronze accreditation as a minimum will be an objective.

Where FORS Bronze operators are appointed, written assurance will be sought from contractors that allvehicles over 3.5t are equipped with additional safety equipment (as per CLOCS Standard P13), and thatall drivers servicing the site will have undertaken approved additional training (e.g., Safe Urban Driving
+ 1 x e- learning module or Work-Related Road Risk Vulnerable Road User training + on-cycle hazard awareness course + 1 x e- learning module etc.). CLOCS Compliance will be included as a contractual requirement.

Desktop checks will be made against the FORS database of trained drivers and accredited companies asoutlined in the CLOCS Standard Managing Supplier Compliance guide. These will be carried out as per arisk scale based on that outlined in the CLOCS Managing Supplier Compliance guide.

Checks of FORS ID numbers will form part of the periodic checks and will be carried out as per an appropriate risk scale. Random spot checks will be carried out by site staff on vehicles and drivers servicing the site at a frequency based on the aforementioned risk scale. These will include evidence offurther training, license checks, evidence of routing information, and checks of vehicle safety equipment. Results from these checks will be logged and retained and enforced upon accordingly.

Collision reporting data will be requested from operators and acted upon when necessary.

j. Site Traffic

Routes will be carefully considered, and risk assessed, taking into account the need to avoid where possible any major cycle routes and trip generators such as schools, offices, stations, public buildings, museums etc.

Consideration will also be given to weight restrictions, low bridges and cumulative impacts of construction (including neighbouring construction sites) on the public highway network. The route(s) to and from the site will be suitable for the size of vehicles that are to be used.

Normal Deliveries will be planned so that they do not inconvenience other road users and will not beoutside of the permitted hours of: -

Monday to Friday 8am to 6pm
Saturdays 8am to 1pm
None on, Sundays or bank holidays as far as possible.

Abnormal Loads

The normal restrictions for Abnormal vehicle loads are that vehicles are not permitted in Londonbetween the following times:

Monday to Friday: 07:00 to 19:00
Saturday: 10:00 to 19:00

k. Storage of Materials

We will operate a ‘just in time’ delivery system with all deliveries needing to be booked in one week prior to the week of the delivery. These will ensure that that there will be minimal storage within the building.

l. Plant & Equipment

The Principal Contractor shall sign up to the **Non-Road Mobile Machinery Register**.

The development shall be carried out in accordance with the NRMM Regulations and the inventory of all NRMM used on site shall be maintained and provided to the Local Planning Authority upon request to demonstrate compliance with the regulations.

m. Noise, Dust & Odours

The works shall be completed in accordance with the contractor’s method statements.

Noise

BS 5228: 2009 Code of Practice for Noise & Vibration Control on Construction & Open Sites – Part 1: Noise gives guidance on calculating noise levels from construction works and assessing the likely effectsit will have on the neighbouring premises. The Principle Contractor shall ensure that the works are carried out in accordance with the guidance detailed in BS 5228: Part 1, so that the most practical measures possible to control noise are followed.

A background noise survey was carried out to determine the pre-construction ambient noise levels for the site. This survey also identified surrounding properties and the nearest property where construction noise could cause a problem. Average noise levels will be measured across one and ten hours, 8.00am–6.00pm.

The Principle Contractor shall employ an Acoustic consultant to prepare Construction Noise assessments for the construction phases in support of the Section 61 application & to discharge the relevant planning conditions. That assessment will review the construction methodologies, plant etc. The duration of the works and the proposed equipment, the % work times and the noise levels in dBA.

The Predicted Noise levels will be assessed at the Key Receptors to ensure the construction activities donot exceed the Noise limit. The Acoustician will then review the Predicted noise levels and provide guidance and best practical means.

In order to monitor the noise levels the Principle Contractor will provide Noise monitoring equipment on site & will as partof the S61 will report monthly.

Noise levels will be monitored throughout the project in accordance with the methods set out in BS 5228: Part 1. All measurements shall be made on a sound level meter complying with BS 7580: 1997 Part 1 (Type 1).

The Principle Contractor shall install Sound Monitor including enclosure.

The Noise levels are all set out in the Noise Report & and are to be agreed with LB. Bexley

Noisy plant or equipment shall be situated as far as possible from noise sensitive buildings. Barriers(e.g. site huts, acoustic sheds or partitions) to reduce noise reaching noise sensitive buildings shall be employed where practicable. Old buildings around the site perimeter waiting to be demolished can provide effective noise screening.

The following provisions shall be adhered to wherever practicable:

- Vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers, maintained in good and efficient working order and operated in such a manner asto minimise noise emissions. The sub-contractor shall ensure that all plant complies with the relevant statutory requirements, prior to being brought on to site.
- Plant shall be maintained in good working order so that extraneous noise from mechanical vibration,creaking and squeaking is kept to a minimum.
- Machines in intermittent use shall be shut down or throttled down to a minimum when not in use.
- Compressors shall be fitted with properly lined and sealed acoustic covers which will be kept closedwhenever in use. Pneumatic percussive tools are to be fitted with mufflers or silencers of the type recommended by the manufacturers.
- Equipment which breaks concrete, brickwork or masonry by bending or bursting or “nibbling” shallbe used in preference to percussive tools where practicable.
- Where practicable, rotary drills and breakers activated by hydraulic or electrical power shall be used for

excavating hard or extrusive material.

- Where practicable, equipment powered by mains electricity (via 110v transformers) shall be used inpreference to equipment powered by internal combustion engine or locally generated electricity.
- Neither any part of the works nor any maintenance of plant shall be carried out in such a manner asto cause unnecessary noise or vibration except in the case of an emergency when the work is absolutely necessary for the saving of life or property or the safety of the works.
- Noise emitting machinery, such as generators for tower cranes etc, which are required to run continuously, shall be housed in a suitable acoustic lined enclosure wherever practicable.
- Care should be taken to reduce noise when loading or unloading vehicles or dismantling scaffoldingor moving materials etc.
- BS 5228: 2009 Code of Practice for Noise & Vibration Control on Construction & Open Sites – Part 2:Vibration gives guidance on calculating vibration levels from construction works and assessing the likely effects it will have on the neighbouring premises. The Principle Contractor shall ensure that the worksare carried out in accordance with the guidance detailed in BS 5228: Part 2, so that the most practicalmeasures possible to control vibration are followed.

Dust

It is an offence under the Environmental Protection Act 1990 to cause nuisance to the inhabitants of theneighbourhood by generating dust.

The Dust Risk Assessment report and site-SpecificDust Management Plan shall be implemented.
A copy of the Air Quality Dust Risk Assessment & the associated Construction Dust Management is provided.

The Dust monitor is located at the site boundary, The receptors most likely to be affected by dust emissions are located to the northeast due to thedirection of the prevailing winds. This was the location chosen to comply with best practice guidance and to be as close as practicable to sensitive receptors. The monitor is to be installed before works start, so that baseline measurements could be obtained over a period of two weeks.

This monitor is currently scheduled to remain in place and collect data for the duration of the construction phase period. Should new dust-sensitive receptors be introduced to the area, potentially affected by construction dust emissions from the proposed development, this Dust Management Plan will be reviewed. It will consider the impact of these changes and advise appropriate mitigation measures, which could include potential new locations for monitors.

Monitoring data will be reported quarterly. These reports will include mean concentrations, the number of alert level exceedances, and data capture rates (per month assuming continuous operation). Where possible the cause of exceedances will be identified. These reports will also be issued quarterly to LB Bexley for information.

Construction dust may be generated as a consequence of ground excavation works in preparation of the foundations for the development, and if the weather is dry during the construction period, then dust may be generated by the movement of vehicles on the site, remediation works, site clearance, cut and fill operations and grading works.
The potential for unacceptable impacts resulting from the deposition of construction dust is primarily dependent on the duration of exposure (i.e., construction duration) and separation distance from the source to receptor.

To prevent unacceptable impact from dust re-suspended by construction vehicles, mitigation measures will be employed if necessary (on the road network, for example). These would include as appropriate: damping down dusty surfaces; controlling the speed of mobile plant crossing un-surfaced areas; mechanical road sweeper on public road;

covering HGVs carrying dusty materials. The residual impact at the nearest residential properties is expected to be negligible. These procedures will be written into the plan.

Should any activity associated with the project cause or appear likely to cause visible dust to be carried towards any sensitive boundary, particularly at nearby residential properties, the activity giving rise to the emissions will be modified or suspended until the conditions giving rise to the emissions have been resolved. Similar procedures already apply to windblown litter that may arise on site.

The following mitigation measures are listed as potentially being appropriate to control dust and pollutant emissions on site. These mitigation activities will be updated and/or modified as required.

Measures Specific to Dust	Notes
Emphasis should be placed on the following to minimise the risk of air pollution: • Using processes which do not generate hazardous fumes and hazardous dust. • Ensuring that airborne hazards do not escape from the site to affect members of the public and surrounding environment	
Buildings or structures being demolished, or small areas of land being prepared for development, will be damped down using high pressure hoses which are adequate in size and number for this purpose. Depending upon weather and site conditions this may need to be a continual task with one or more personnel dedicated to it.	Bowsers will be used to dampen work areas.
Suitable water bowsers should be used on large areas and on-site roads.	
Existing features of the site, such as boundary walls, should be utilised to provide screening where practicable. The erection of suitable screening may also need to be considered.	
On sites where a large amount of dust has been generated and is laying on the ground, the services of a specialist vehicle to remove dust (by vacuuming) prior to damping down should be employed.	

There will be co-ordination will with other constructionsites / businesses if found to be necessary when larger vehicles are required to deliver to site.	
Storage of potentially dusty materials will be located awayfrom site boundaries	Potentially dusty materials will be stored at least 15 m away from the site boundary where practicable or as close to the centreof the site as possible
Stockpiles of earth shall be damped down or otherwise suitably treated to prevent the emission of dust from site. Stockpiles should be planned and sited to minimise the potential for dust generation. The handling of spoil should be kept to a minimum and when materials are deposited onto a stockpile it should be from the minimum height possible.	Stockpile heights will be below the hoarding (approx. 1.5 m for dusty material).
Where plant movements generate dust, effectively managed speed limits should be imposed, and work rescheduled, if necessary. If the nature of the developmentis such that numerous plant movements are planned acrossopen land, a suitable made-up track should be constructedto minimise the amount of dust generated.	Bowsers will be used to dampen work areas. All traffic movements on and off the site will be controlled and guided by a gateman/ banksman/ Traffic Marshall. Site vehicles will, as far as possible, have vertically mounted exhausts to avoid resuspension of surface dust
The Contractor will ensure that the area around the site, including the public highway, is regularly and adequately swept to prevent any accumulation of dust and dirt. Wheel washing may be necessary to prevent dirt and dust from being spread onto roads near the site.	Removing mud, tracks and spills on public roads by use of a mechanical road sweeper. Should mud be deposited on the highways immediately adjacent to site this will be either swept up or jet washed off, whichever is deemed appropriate at the time.
All cutting and grinding operations should incorporate the best available techniques to suppress dust. Standard angle grinders, without appropriate water suppression should not be used to cut materials, such as bricks, slabs and tilesor to rake out mortar joints.	
Chutes used to drop materials to ground level should be enclosed and skips covered. Regular water spraying shall be undertaken where necessary to prevent dust emission.	

Skips and waste removal vehicles shall be properly covered when leaving the site. Spoil should be handled in such a way that it does not give rise to excessive dust.	Paved roads near site exits will be kept clean and vehicles transporting dusty materials onto, and off site will be covered

Specific Method Statements for Demolition and Piling will follow.

The Principal Contractor will conduct a regular noise monitoring programme in accordance with BS 5228: 2009 Code of Practice for Noise & Vibration Control on Construction & Open Sites – Part 1: Noise to ensure noise levels do not exceed acceptable limits.

Where works are likely to cause noise and vibration nuisance, the site will consult with the local authority and where necessary submit a Section 61 application under the Control of Pollution Act 1974.

no. Air Pollution

Air pollution, arising from odour, fumes and smoke, may arise from the following activities:

- Use of heavy plant and machinery
- Road vehicles, particularly HGVs
- Remedial ground works

The Contractor will take all necessary precautions to prevent smoke emissions or fumes from plant or stored fuel oils from drifting into residential areas. In particular, measures will be taken to ensure that all plant is well maintained and not left running for long periods when not in use.

The Contractor will register all Non-Road Mobile Machinery as required.

The Clean Air Act 1993, subject to certain specific exemptions and control provisions, prohibits the emission of “dark” smoke from any industrial or trade premises. In addition, the Environmental Protection Act 1990 empowers a Local Authority to take action when smoke of any type is causing or is likely to cause a Statutory Nuisance to the inhabitants of a neighbourhood.

The contractor should demonstrate best practice by adopting the recommendations of the BRE Pollution Control Guide - Controlling particles, vapours and noise pollution from construction sites.

Pollution to air will be managed to reduce impacts to a minimum, and to eliminate where practicable. Management will be achieved through:

Measures Specific to Air Pollution	Notes
No fires permitted on site.	
All fuels, oils and other Volatile Organic Compounds (VOCs) will be stored in secure, sealed, labelled containers.	

Consideration will be made to using prefabricated materials where possible so that localised air pollution is minimised.	
Vehicles and plant will be switched off when not in use.	All vehicles delivering / collecting plant or material to site will be switched off duringoff / on loading where practicable
Ensure vehicles and plant are not overloaded to prevent labouring.	
Modern, well-maintained plant and equipment is used.	
Mains electricity supply will be used in preference to generators where practicable.	

All work will be carried out in accordance with relevant Legislation and statutorily issued guidance.

The Principal Contractor will conduct a regular air monitoring programme where there is evidence of volatile or airborne hazardous materials or there is a risk of fumes or dust affecting the local area and take any necessary corrective action to ensure air quality levels do not fall below acceptable limits.

The Principal Contractor will provide monthly reports to evidence the control & mitigation of Dust and odours.

Remedial ground works shall be completed in accordance with the contractors detailed method statements in Report IE22/001 28/7/22 Rev 1 submitted for approval of planning condition 16 and 17.

p. Archaeology & Built Heritage

In the event that any archaeological remains are found during the course of the Site Investigation or the works, the works shall stop, and the Principal Contractor and Construction manager shall liaise with the Archaeologist consultant to determine and maintain a watching brief with the Planning Authority and progress the works.

The site monitoring strategy will be implemented alongside the demolition and remediation works.

Any Archaeological findings may alter the remediation strategy, piling and foundation designs.

q. Ecology

An Ecology report has been prepared. No known protected species, sites or invasive of indigenous species have been identified as being affected by the works. The site is devoid of trees.

Any disturbance or unexpected discovery of protected or invasive species will be reported in line with the Emergency Response Plan. In all cases, works must stop until guidance has been sought.

9. Landscape & Visual

The Principal Contractor will take measures to control the visual impact of the works, were reasonably practicable.

Where lighting is needed overnight for security purposes, this will be low level lighting, directed away from sensitive areas, where directed light could impact on local residents.

Standard plywood hoardings will be used instead of Heras fencing except were indicated on the Logistics Plan. These will assist in noise attenuation and ensure public safety (including uninvited intruder entrance to the site). Site information and contact details will be displayed in compliance with the Clients requirements, any damage or graffiti will be rectified as soon as reasonably practicable. The hoarding will be maintained to an acceptable standard.

The Project will endeavour to prevent significant environmental impacts beyond the boundaries of the work sites.

All reasonably practicable measures to control the visual impact of the works and to preserve and restore any damage to landscape will be taken, including:

- Considerate positioning of new structures
- Selection of most appropriate materials and sympathetic construction practices
- Avoidance of unnecessary tree and vegetation removal
- Good housekeeping arrangements, keeping all sites in a tidy manner and prevent release of litter and mud accumulation on public roads.
- Restrictions on lighting to prevent intrusion.

On completion, all construction materials will be removed, and the site left in a tidy manner.

10. Waste

Whilst the Site Waste Management Plan Regulations have been repealed it is company policy that all projects produce a Waste Management Plan which will describe how waste shall be managed on site and identifies:

- The wastes, and their category, which will be generated by the project.
- Opportunities for reuse and / or recycling
- Proposed methods of storage, segregation, handling and transportation of waste
- Means of disposal including licensing requirements of carriers and destination sites
- Recording of all waste movements from the site
- Reporting and monitoring process

All waste will be handled and disposed of in line with current “Duty of Care” Regulations. It is the responsibility of all persons on site to dispose of waste in the correct receptacles and to report any waste being stored incorrectly or escaping from the site area.

Copies of waste transfer notes shall be collated for the duration of the works and shall be stored within the Site Waste Management Plan, at a suitable location.

Any materials considered hazardous are to be handled and transported in accordance with the relevantguidance applicable to the materials type. Records are to be kept of loads leaving site, detailing the type,weight and final destination. The site will provide suitable PPE for this work for site operatives, and subcontractors will be required to provide appropriate PPE for their operatives.

All demolition waste will be removed by licenced carrier or in the case of left over materials by Principle. contractor's vehicles. Archaeological and remediation waste shall be completed in accordance with the contractors detailed method statement Report.

s. Waste Management

During construction works the building will be kept free from the build-up of combustible materials. Pedestrian routes through the building will be kept clear of stored materials. Offending subcontractors willbe issued with Clean Up and Obstruction Notices.

t. Waste Minimisation

It is the Project's policy to minimise the amount of waste generated and sent to landfill.

Waste elimination (through design) and minimisation shall be an integral part of the process. All waste streams will be assessed against the waste hierarchy to determine the most effective waste management option.

8. Fire Control

a. General

The project will ensure that operations are carried out in compliance with the Regulatory Reform (Fire Safety) Order 2005 "Joint Code of Practice on the Protection from Fire on Construction Sites and Buildings Undergoing Renovation".

A full fire management plan will be produced in conjunction with the nominated Responsible Person and relevant parties as appropriate. This will be based on the requirements set out in the "Code of Practice on Fire Prevention on Construction Sites". This document will identify duty holders, defines responsibilities and establishes procedures on fire prevention.

The Principal Contractor will invite LFB to attend site once the scheme has commenced & the site specific Fire Risk assessment will be issued to LFB.

A Site Fire Safety Coordinator will be appointed to ensure adherence to the Site Fire Safety Plan. In addition, they will coordinate the issues below:

- General Housekeeping
- Fire extinguishers fire detection & alarms
- Hot Work Permit regime
- Fire escapes and communications (evacuation plans and procedures for calling the fire brigade)
- Fire brigade access, facilities and coordination

- Fire drills and training
- Effective security measures to minimise the risk of arson.
- Materials storage and waste control regime

An initial fire risk assessment of each area will be undertaken and updated as the risks change. In addition, weekly inspections of all areas will be carried out and the findings recorded on a weekly inspection report.

All areas will be kept clean and tidy and stored materials will be properly coordinated and controlled.

b. Fire Points

Fire Points will be located throughout the site and the constructed buildings at key strategic positions for example Stairwells, main corridors and open / communal areas.

Each Fire Point will consist of:

- Water extinguisher
- Powder extinguisher
- You Are Here plan.
- Push Button Alarm

The Fire Points will be checked daily by appointed persons and weekly by the site Fire Safety Co-Ordinator.

Evacuation signage is installed and maintained by the Fire Wardens as the build process progresses.

c. Fire Drills & Training

The evacuation sounders will be tested once a week. Periodic toolbox talks will be issued to contractor'smanagers in order that their personnel are aware of the evacuation procedure. Signed acceptances of these briefings will be returned to the project.

u. Risk of Fire Water Run Off

In the case of a fire being attended by the Fire service, significant volumes of water, foam and burnt matter may be washed onto the ground. There is a risk that this may run off into drainage and the watercourse.

In this case, the site management will monitor fire water runoff and ensure that contaminants are prevented from entering water systems by use of booms and bunds. The existing drainage pipework will be removed or sealed up during the demolition works.

9. Fire & Emergency Procedures

a. Responsible Persons / Officers:

Site Manager
Fire Safety Co-ordinator: _____
TBA
Designated Fire Marshalls: _____

_____

_____

b. Fire Action:

On the sounding of the alarm all operatives to congregate at Roseacre Road.

The site will be provided with easily identifiable fire extinguisher and alarm points located one at each entry to the building. These are provided with manual bell alarms that can be sounded to raise the alarm and evacuate the building.

The signing in book will be utilised as a means of identifying that all persons have evacuated the site. No operative to re-enter site until advised by the site manager that it is safe to do so.

Operations are to be planned to ensure that all fire escape routes are kept clear at all times.

If required a specific fire watch will be implemented, should it become necessary due to any hot workingrequirements. A hot working permit will be required in these cases. This will only be undertaken following full consultation with the Site Manager.

c. Environmental

In the event of a spillage or discharge to either the local drainage system or watercourse, Site Management are to be notified immediately and appropriate action must be taken to prevent further contamination.

The Environment Agency must be contacted on the **INCIDENT HOTLINE: 0800 – 807060** immediately.

d. Fire Evacuation Plan

In the event fire report, it to the site manager and/or the fire Marshall and evacuate the site and dial 999. The evacuation point is located at Park View Road.

e. Medical Emergency

In the event of a medical emergency report it to the site manager and/or the first aider and dial 999.

10. Accident Reporting & Investigation

a. All Accidents

All accidents / incidents will be reported and where necessary investigated in accordance with company safety management system and statutory procedure. All accidents including those to subcontractor's workers will be entered in the site accident book.

This includes all cases where first aid is provided, regardless of how minor the injury is considered. Where an investigation is carried out, the Site Manager and Project Manager will ensure that any followup action required or recommended is carried out promptly and that information is relayed to all on sitewho may be affected by findings.

All incidents "near miss" and those categorised as dangerous occurrences under statute, and those causing major damage whether or not injuries occur will be reported and investigated.

If possible, the person involved in the accident should complete the form, the First Aider should specify what treatment or advice was given and sign the form.

The details that must be recorded in the Accident Book are:

- Name of the person suffering the injury.
- Date and time of the injury.
- Name of person reporting the injury.
- Cause of the injury.
- Any action taken as a result of the injury.
- Whether the injury is reportable to the enforcing authority (Health and Safety Executive) or not.
- Nature of the injury (e.g.: part of the body affected).

The Site Manager is required to report the accident to the Compliance Manager, who will decide if the accident is reportable or not and to ensure that it is investigated as soon as is reasonably practicable and that remedial measures are put into place to prevent a reoccurrence.

b. Reportable Accidents

It is a requirement of The Reporting of Incidents, Diseases and Dangerous Occurrence Regulations that certain type of accidents, dangerous occurrences and diseases are reported to the Health and Safety Executive.

If the accident is reportable to the HSE then a member of management will fill in the details required onthe official reporting form (F2508, F2508A) and send it to the HSE within the time period specified. Alternatively, reports can be made over the phone, fax or via the HSE web site. Seven-day accidents must be reported to the HSE within fifteen days. Major injuries and dangerous occurrences must be reported immediately to the HSE by telephone with a report issued within fifteen days.

c. Investigation

Following any reportable accident or dangerous occurrence an investigation must be carried out. The Site Manager

will ensure that once immediate risks have been dealt with; the injured person has been taken to hospital, First Aid has been administered, that the site is made safe. Where possible the area the accident occurred will be segregated so that a full investigation on the causes of the accident can becarried out. Photographs of the scene of the accident should be taken and witnesses to the accident asked to make statements. An Accident Investigation Report shall be produced which will document the cause or causes of the incident and recommend steps to be taken to prevent the incident reoccurring.

Any remedial actions to be taken such as training requirements, modifying systems of work etc shall beimplemented and monitored to confirm their effectiveness.

d. Definitions of Major Injuries, Dangerous Occurrences and Diseases.

EXAMPLES OF MAJOR INJURIES:

- Fracture other than to fingers, thumbs or toes.
- Amputation.
- Dislocation of the shoulder, hip, knee or spine.
- Loss of sight (permanent or temporary).
- Chemical or hot metal burn to the eye or any penetrating injury to the eye.
- Injury leading to unconsciousness or requiring resuscitation; or requiring admittance to hospital formore than 24 hours.
- Injury leading to hypothermia, heat induced illness or unconsciousness.
- Unconsciousness caused by asphyxia or exposure to harmful substances or biological agent.
- Acute illness arising from absorption of any substance by inhalation, ingestion or through the skin.

EXAMPLES OF DANGEROUS OCCURRENCES:

- Collapse, overturning or failure of load-bearing parts of lifts and lifting equipment.
- Explosion, collapse or bursting of any closed vessel or associated pipework.
- Plant or equipment coming into contact with overhead power lines.
- Electrical short circuit or overload causing fire or explosion.
- Any unintentional explosion, misfire, failure of demolition to cause the intended collapse, projection of material beyond a site boundary, injury caused by an explosion.
- Accidental release of a biological agent likely to cause severe human illness.
- Collapse or partial collapse of a scaffold over five meters high or erected near water where therecould be a risk of drowning after a fall.
- Unintended collapse of any building or structure under construction, alteration or demolition whereover five tonnes of material falls.
- Explosion or fire causing suspension of normal work for over 24 hours.
- Accidental release of any substance, which may damage health.

11. Site Induction & Site Rules

In order to secure the health and safety of all operatives, the Site Manager will provide health and safety induction training to all operatives upon their arrival to site for the first time.

Operatives are prohibited from commencing work on site until this training has been given and they have produced evidence of task training (CSCS, CPCS, First Aid etc...) of which the Site Manager will take copies. Once this is done the operatives are to sign the induction record sheet to confirm that they havebeen advised of the hazards on site and that they are aware and agree to abide by the site rules.

Upon induction the Site Manager will counter sign the induction record sheet and enter the operatives name and induction number in the induction register.

a. Site Rules

- A Copy of these site rules will be displayed on site and issued to each operative at the site induction. All operatives will comply with their requirements. Failure to do so will result in dismissal from site. All operatives will be made aware of any site-specific amendments during the project.

- The site working hours are:

  - Monday to Friday 0800 - 1800
  - Saturday 8am – 1pm.
  - Sunday & Bank Holiday working will not be allowed, unless otherwise agreed in writing.

- Instructions will be issued to ensure that vehicles and plant arriving at and leaving the site comply with the stated hours of work.

- All site personnel should hold a current CSCS registration card appropriate to their role, responsibilities, and activities.

- No smoking is permitted on site (including external areas) apart from the designated area.

- No alcohol is permitted on site under any circumstances. The use of non-prescription or prescriptiondrugs, which may affect your ability to work in a safe manner, is prohibited. Do not attempt to entersite if under the influence of these substances.

- No radios, personal Walkman with headphones or mobile phones are permitted on the site. Use ofthese is restricted to the office and welfare areas only.

- The site is designated as a hardhat area at all times. Safety boots, Gloves and High visibility clothingwill be worn at all times. In addition, other suitable Personal Protective Equipment will be worn as instructed by the site management.

- All operatives will sign in and out of the site at the designated area. All new visitors and operatives M**UST** be inducted into the site rules prior to accessing the working area. BPM reserves theright to prohibit access to any unscheduled deliveries or sub-contractors.

- All operatives must be competent to carry out the task intended and certified to operate plant, equipment and small tools as necessary.
- Operatives must wear long trousers, shirts / tops at all times whilst on site.
- Operatives are prohibited from shouting, swearing or engaging in horseplay whilst on site (this includes members of the public passing site).
- All plant and equipment will be visually checked prior to use. Any damage or unauthorised alterations are to be reported to the site management. The equipment shall not be used until it is returned to a safe condition.
- Ladders and stepladders are no longer permitted to be used unless identified as a necessary piece of equipment via a site-specific risk assessment and permit to work system.
- First aid facilities are available at the site office. All accidents and incidents will be reported to the site manager and recorded.
- Should the fire alarm sound all operatives will immediately vacate the site by the quickest route and congregate in the designated assembly point. Re-entry to the site will only be permitted once the fire brigade has designated all clear.
- All power tools to be 110v or battery operated. PAT certification will be required for all tools and leads used on site. No damaged or altered equipment is permitted to be used.
- All operatives are made aware that the site management has the right to inspect all vehicles enteringor leaving the site.
- On site vehicles must maintain a speed of not more than 5 mph.
- All persons entering and exiting the site must give priority to Pedestrians and vehicle users.
- Any vehicle-leaving site must have any excess mud removed prior to leaving site.
- All vehicles must be booked in with logistics/security department prior to arrival on site and times and dates agreed. The logistics/security personnel will direct the vehicle from the site entry gates tothe site- specific lay-down areas or vehicle discharge area. Vehicles are not to be reversed in construction areas unless under the control of an authorised banks man.

12. Pre-Construction Information Pack

See Appendix 3

13. Health & Safety File

The following needs to be included in this section:

Layout & Format.

Information will be provided to the Principal Designer for inclusion in the health and safety file. This will be in accordance with the contract specification together with the pre-tender health and safety plan. The format will be hard copy format and when possible, an electronic version. The documentation is constructed in word. The documents will be complied during the construction project at the head office and on site. As previously stated, this company is ISO9001-2015 accredited all documentation is kept asper our QA system complete with drawings.

b. Arrangements for the Collection & Gathering of Information

This will be forwarded on completion of the project in the format contained within the approved code of practice 'Managing Health and Safety in Construction'. As previously stated, this company is ISO9001-2008 accredited all documentation is kept as per our QA system complete with drawings. All sub- contractors are requested to supply the appropriate information on each project, and this is included inthe main file.

c. Storage of Information.

BPM will provide the Principal Designer all the documentation and assistance for him to complete the file. The Principal Designer will be responsible for forwarding the information to the clienton completion of the works.

Appendix 1 Demolition Method Statement

1 Scope and Detail of Works

The works detailed in the following Method statement are for the:

- Site Setup
- Erection of hoarding
- Demolition and clearance
- Concrete frame, cladding and internal fir out of residential apartments
- Construct new sports club facilities.
- New spectator facilities
- Refurbish the retained sports club facilities.
- 3G pitch

2 Location and Limitations

2.1 Working Hours

Monday to Friday 08:00 to 17:00 hoursSaturday – 08.00 to 13.00 if required
Sunday – No work permitted.

3 Method of Working

The works contained in this method statement will be undertaken during normal working hours Monday to Friday only. Should works be required to be undertaken on a Saturday, then the Demolition Contractor will obtain the necessary permissions from the relevant parties. All operatives will be briefed as to the contents of this method statement prior to any workcommencing and will sign the briefing register at the end of this document.

3.1 Deliveries, offloading/loading of plant and removal of materials

All demolition vehicles to access the site are to do so, by the designated site entrances Park View Road at all times.
A designated banksman will direct all traffic, in and out of the site, at all times.
All loads of materials removed from the site will be recorded along with the details of theirdestinations.

4 Hazards and Risks

The following hazards have been identified and risks assessed on a site wide basis:Please see attached Risk Register & Risk Assessments

4.1 Environmental Protection Measures – Noise, Dust, Smoke and Vibration

It is anticipated that there will be low levels of noise and vibration generated by the activity.The dust will be kept to a minimum by spraying a fine mist over the areas being demolished by using a Dust boss. Refer to Risk Assessment for further information.

4.2 Disposal of Waste

All waste materials are to be segregated and loaded into the roll on and off baulk skips and removed from site to the appropriate licenses tipping / recycling facility, any waste removedfrom site must be recorded and copies of these disposal tickets and details of the destinations supplied at the end of the project to demonstrate a chain of custody.

Exceptions for removal from site:

All concrete & hardcore materials are to be crushed onsite and reused for the piling mat, allother waste materials are to be removed off site.

4.3 Contaminated Materials

A Refurbishment/Demolition asbestos survey will be carried out to the existing buildings prior to the commencement of works, asbestos identified will be removed from withinthe buildings prior to demolition works commencing.

All Demolition operatives have Asbestos Awareness training and during our works if any further suspicious material considered to contain ACM's work will be stopped and thearea cordoned off and made safe and the R&D asbestos survey will be checked to see if this material was previously sampled, if it hasn't been sampled, then the surveying company willbe contacted and requested to return to site to take a sample, which is to be analysed in an independent UKAS approved laboratory under current HSG 264 guidelines.

4.4 Pollution Control

Generation of pollutants is not anticipated for this work activity. Possible pollutants are fuels and oils. Pollution control measures for fuels and oils are dealt with in section 4.5. Site supervision will be trained in dealing with pollution control.

4.5 Fuels and Oils – Storage and Containment

Fuel will be stored in 110% bunded fuel tanks, all fuel recharging will be undertaken by themachine being driven to the fuel bowser and refuelling, appropriate spill kits will be available on the fuel bowser to deal with any spillages. To further enhance the protection from spillages, all compressor, lighting sets etc will have adrip tray located beneath with absorbent granules and spill kits available to hand.

The Demolition Contractor shall have COSHH sheets for all COSHH material which they intend to use, these will beavailable for review on site by any interested party.

4.6 Archaeological

Archaeological finds will be notified to LB Bexley and the watching brief strategy approved prior to proceeding with the works.

5 Management and Supervision

Director		
Director		
Site Manager		
First Aider		

Note: the list of Demolition Personnel is accurate at the time of writing this document, if there are any changes then all parties will be notified with immediate effect.

5.1 Labour

- 1 No Site Supervisor
- 1 No Assistant Site Supervisor
- 1 No Banksman
- 3 No Machine operators
- 4 No labourers
- 1 No burner

5.2 Plant

- 2 No Rotating Grapple Attachment
- 1no Shear attachment
- 2no hydraulic breakers
- 1no hydraulic pulveriser
- Grading and Digging Buckets for Excavators
- 2 No 21T excavator
- 1no 34 T Excavator
- Baulk Skip Lorries

5.3 Portable Tools and Equipment

- Small Hand-held Tools
- Cordless Reciprocating Saw
- 110v Breaker
- Access/Podium Towers

All electrical equipment will have a current 3-month Pat test, prior to use.All tool vibration information is covered within section 5.6.

5.4 Lifting Equipment

No lifting is anticipated, however if required a mobile telescopic crane will be utilised, this will be covered under a separate Method statement which will formed upon a contract liftbasis.

5.5 Temporary Lighting

Works will be undertaken during daylight hours, but background lighting is to be suppliedand installed by the Demolition contractor.

5.6 Hand and Arm Vibration

All tools which vibrate and carry a risk of hand and arm vibration health impact will only beused by persons who have been briefed on the risks associated with vibrating tools.
Those persons will be informed of the time they are permitted to use the tool in one dayand must not exceed this limitation.

5.7 Live Working

Live working is frowned upon No live working will be undertaken; isolation certificates of all exiting services are to be provided by The Employer prior to works commencing.

6 Competency and Training

All operatives will undergo a full site/company induction on Health, Safety and theEnvironment, where training and competency of individuals can be validated.
All personnel employed will be fully trained and competent toundertake the task at hand.
Training for the specified tasks will be identified as part of the precautionary measuresidentified in the risk assessments, i.e., for any manual handling tasks, manual handling training may be required, or Excavator drivers require a CPCS card +/- 10T Tracked etc.
All plant operatives to have CPCS cards and accreditations and appropriate authorisations.

6.1 Welfare, Toilets and First Aid

Welfare facilities for this work will be located on site in accordance with the Health and Safety and Welfare Regulations and will provide enough capacity/facilities in accordancewith legislation.
A qualified First Aider and a First Aid Kit to include eye wash will be available on site at alltimes.

6.2 Working at Height

All work at height will be strictly carried out in accordance with the Working at HeightRegulations 2005. Where possible, work at height will be avoided where possible.
Where work at height cannot be avoided access, equipment will be used. Where alloy towers are to be used, they will be erected, dismantled, modified and checked by PASMAtrained operatives only.

All working platforms will be fitted with edge protection with the top guardrail being a minimum of 950mm with no gap exceeding 470mm. Toe boards of adequate dimensionsfor the work being undertaken will also be fitted.
In line with the requirements under the Work at Height Regulations 2005 The Principal Contractor will plan for any rescue arrangements as required.

6.3 Hot Works

Applicable to any areas were burning or cutting of steel is required.
A permit procedure is to be followed always, a permit is to be obtained prior to commencing any Hot Works activity and closed out once the workface has been inspectedfor 60 mins after completing the works. Do NOT take shortcuts.
Furthermore, any compressed fuel kits (Oxygen/propane bottles) will be inspected using the check sheet prior to their use, by trained and competent persons to ensure there are no visual faults.

6.4 Manual Handling

Manual handling operations will be avoided were reasonably practicable, by the use ofmechanical or automatic aids.
However, where manual handling operations cannot be avoided, operatives will beinstructed in load reduction and suitable lifting and team lifting techniques.

6.5 Storage and Handling of COSHH Items

Arrangements will be made for safe handling, storage, and transport of any

hazardoussubstance and of waste containing substances.
COSHH assessments will be retained on site for any substances we intend to use on the project. Persons who are required to use a COSHH substance, or potentially exposed will bebriefed on the hazards relating to the substance.

6.6 Personal Protective Equipment – PPE

All project personnel: Sub-Contractors and Visitors will be required to wear as a minimumthe following equipment:

- High Visibility Vests – EN471
- Safety Boots – EN345
- Safety Helmets – EN397

As Required

- Safety glasses/goggles – EN166
- Gloves – EN420
- Dust Masks – EN149
- Overalls – EN533
- Gauntlet Gloves – EN12477

6.7 Method Statement Briefings

The demolition supervisors will ensure that all operatives are briefed on all relevant methodstatements and task briefings for the works they are to undertake. Attendance at the briefings will be recorded on the attendance sheet at the end of this document.

6.8 Toolbox Talks

The demolition supervisor will undertake toolbox talks as necessary. All attendees will be expected to sign to confirm attendance and agree to all recommendations set out within thetoolbox talk. For the works covered within this Method Statement, the toolbox talks relevant and most likely to be undertaken will include Demolition, Working at Height, Hot Works, Live Working, Asbestos, Health, Environment and PPE.

6.9 Non-English-Speaking Operatives

Although it is intended that all operatives are English speaking, at times this may not be so, therefore the supervisor is to ensure that these persons are supervised by a bi- lingual speaker per working group of four operatives.

7 Methodology

7.1 Site Set up.

Site welfare facilities will be set up as within the site boundary, and these will consist of Sitetoilets, site canteen and site office the site toilets will have hot and cold running water all inaccordance with the Health & Safety welfare regulations. The welfare facilities will be powered by mobile generators within the welfare units. Demolition signs will be erected to the fencing around the perimeter of the site informing allpersons of the works being carried out, along with emergency contact numbers for key personnel employed by The Principal Contractor.

An emergency / fire procedure plan will also be set up and a location agreed for the muster point. This information will be displayed in the site office andall employees and visitors will be inducted on the procedure prior to entering the site.

All vehicles entering and leaving the site will do so via the existing access roads. All vehicles will report to the site manager prior to entering the demolition zones. All vehicles reversing onto / off site will have banksmen guiding them onto / off site. A dedicated gate person will be located at the site entrance to prevent any unauthorised persons entering the site.

All employees and visitors will sign the daily register prior to entering and on leaving the siteon a daily basis. They will also be inducted on the Demolition Health and Safety plan along with the demolition Method Statements should this be necessary. At the end of each working day the site will be fully secured, and plant demobilised and parked over the main entrance to prevent and unauthorised persons / vehicles entering thesite during out of hours.

A log will be kept off the dates and times of all, vehicles entering and leaving the site on adaily basis by the gate man.

7.2 Existing services

Prior to any Strip out / demolition works commencing all existing services entering theexisting buildings will have been terminated by the Employer. Disconnection certificates will be issued by the Employer as conformation of termination.

7.3 R & D Asbestos survey

An R & D asbestos survey has been carried out prior to the works commencing to identify the presence of any asbestos within the building this will be removed by contractors prior to works commencing.

7.4 Scaffolding & Protection Decks

Scaffolding will be erected as deemed necessary during the programmed works. The scaffold will be erected by approved and competent scaffolders only. They will work tomodern scaffold standards and guidelines and will work to detailed method statements provided by them which will be approved prior to their commencement of works.

7.5 Erection of Site Hoardings

Secure timber hoarding is erected to the existing site boundary and maintained on completion of the demolition works, pair of site hoarding access gates and 1no pedestrian gate will be erected within the hoarding line.

7.6 Erection of scaffolding

Scaffolding will be erected along Park View Road and Wick Lane as required to complete the demolition works.

The scaffolding contractor will provide detailed Method statements / risk assessments prior to any scaffolding works commencing.

7.5 Removal of rubbish & Internal soft strip of all buildings.

All rubbish within the existing buildings will be cleared by operatives loading it directly intobaulk skips, all loose materials to all floors will be removed by the operatives.

Every effort will be made to segregate the rubbish i.e., plastics, glass, cardboard paper etc.,and these materials will be loaded into separate skips ready for removal off site.

Once the rubbish has been cleared out of the existing buildings the softstrip works will commence. Skips will be positioned within the site boundary, once skips have been positioned operatives will commence the internal soft strip of the buildings. The soft strip works will consist of the removal of all light fittings, doors, floor finishes etc. These will be removed by operatives using small hand-held tools and loaded directly into the appropriate skip.

All mechanical and electrical plant and equipment will also be removed from within the buildings, these works will be carried out by using hot oxygen / propane cutting equipment,Hot works permits will be issued by the Site Supervisor at the start of the works, all hot works will cease 1 Hr. prior to the end of the day and a fire check will be carried out prior toleaving site.

Any high-level areas will be accessed by mobile access towers.

Upon completion of the soft strip works the main demolition works will commence.

7.6 Demolition of Buildings

Prior to the works commencing dust boss machines will be set up around the perimeter ofthe building to reduce the escape of dust whilst carrying out the building demolition.

As we are proposing to utilise munchers/ Pulveriser / grapple attachments for thedemolition vibration will be greatly reduced during the demolition works.

Scaffolding will be erected to the elevation as required to ensure safe demolition,

Once roof coverings and structures are removed the brickworks will be demolished by the excavators using pulverise or attachments down to slab level.

The lower-level brickwork will then be pulled into the building slab using the excavator.

This operation will be repeated across the buildings and free-standing external walls.

7.7 Removal of slabs and foundations

Prior to the slab removal works commencing, dust boss machines will be set up at the perimeter of the existing site to reduce the escape of dust whilst carrying out the works. All exiting manholes / pipe runs will be traced back to the existing site boundary and thesewill be plugged.

Excavators equipped with hydraulic breakers will commence to break up the existing concrete slabs, these will be broken out in small increments, the machine equipped with abucket will pull back the slab to expose the building foundations below, all concrete from the slab removal will be stockpiled onsite ready to be crushed.

Once the foundations have been exposed these will then be broken out using theexcavators with the hammers and removed from within the ground.

Any foundations along the existing footpaths will be checked and should the removal ofthese undermine the footpath these will be left in situ.

Once the removal of foundations has been completed, all concrete / hardcore materials willbe crushed to a 6F2 specification and stockpiled on site.

A Pegson 1100 X 650 tracked crusher fitted with an overband magnet will be employedalong with the excavators to crush the materials and stockpile them for future re-use.

All foundation removal voids will be backfilled as works progress.

Finally, the concrete hardstanding will be lifted and removed from site, all manholes anddrains will also be removed. Any pipework towards the river Lea permanently sealed and removed.

On completion of the slab / foundation removal works, the existing ground will be levelled dusing the excavators.

7.8 Remediation

The existing reports already commissioned, and the proposed site investigations are designed to reveal more information that will influence the remediation strategy.

The remediation proposals identify the Risks to Human Health and propose solutions to each zone within the site area. The Principal Contractor will design a zonal specific solution to be implemented.

The communication strategy informs how they will manage the public interface with the works on site.

7.9 Laying of piling mat

A terram geotextile separation membrane will be laid before the 6F2 crushed is laid down in200mm layers to levels set out by the Principal Designer. Each layer will be tracked in by the 21t excavator.

7.10 Changes to This Method Statement

It is essential that during the work the above method is strictly adhered to and only varied inextreme circumstances, to accommodate unforeseen conditions.
This must only follow, after agreement with the planning department and their consultants. Only after all aspects of the change have been fully considered and the method statement amended in writing and employees briefed, should works

re- commence.

1 Method Statement Briefing Register

Date	Name	Company	Signature

Appendix 2 Site Waste Management Plan

1. Project information and responsibilities

This section is an overview of the project and details all the main information and the persons responsible for each element.

This will list: -

- The principal contractor, client, project manager and site manager.
- A description of the construction works along with the **floor area in m², projectcost** and construction type.
- The location of the project, the start date, estimated end date, who will be responsible for implementing the SWMP and who will be the waste champion.

2. Resource Minimisation Opportunities

This is a list of all the waste minimisation statements detailing how the production ofwaste from the project will be minimised.

3. Forecasts of Resource Usage

This section is where the forecasting of how much waste will be produced by the projectduring demolition, groundworks and construction is recorded.

The automated forecast data generated by Site Plan is based on **project type and floorarea** and is calculated from many previous projects.

4. Waste Hierarchy Routes

This section is a table with a breakdown of each of the waste types per project phase and displays the percentages for Reduce, Reuse, Recycle, Recover and Dispose for each waste stream. This table also shows if the waste is managed on or off site.

This table includes all waste types accepted by a disposal site and should include those relevant to the project.

5. Duty of Care Compliance Checks

This section ensures that the Waste Holders Duty of Care responsibilities are satisfied. All waste contractorsremoving waste from site **MUST** be logged in this section, or waste data cannot be uploaded into the project.

All waste contractors must have a valid, up to date Waste Carrier's Licence and the transfer station being used must have the relevant Permits and Licences for the wastebeing received.

When a waste transfer station is selected the type of waste that can be received,together with the recycling rates for that waste stream are displayed.

Regardless of any anticipated waste classification, it is made clear that any hazardous waste will be stored separately from non-hazardous waste and also from other hazardous waste streams prior to and during disposal.

If a Water Discharge Permit is required, this is the section where it can also be included.

6. Training and Communicating the SWMP on Site

This section identifies any SWMP Training / Communications that will be implemented forthe project.

To help with the implementation of the SWMP there are downloadable resources in this section including:

- Induction sample

- EWC Code toolbox talks
- Posters and signage

- Subcontractor agreement sample

- Waste contractor agreement sample

7. Resource Data

This section displays the overall summary for the waste data uploaded (the Waste Arisings) for the project.

As data is added it will feed into the totals for the project and update the company graphs.

In addition, the total waste disposed, and the total diverted from landfill (as both a weightin Tonnes and as a percentage of the total waste produced) are shown.

Also, a graph is generated showing totals of waste produced by waste stream and a tableis generated showing the current actual quantities versus forecasted quantities.

If the waste, water and carbon box has been ticked on the Project Overview page a tablewith water meter readings that have been uploaded will be displayed in this section, together with graphs showing actual tonnages of carbon used for electricity, waste collection mileage and staff and visitor mileages for each month.

8. Ongoing Review

This section is the Audit Trail for the Plan, automatically detailing what actions were carried out when and by whom. This data / information cannot be amended or altered bya user.

9. Project Completion Review

This section is completed after the project has finished and the last waste data entry hasbeen uploaded.

This section shows the 'Lessons Learnt' for the project by comparing the forecasted data. against the actuals.

The Costs and Benefits section compares the predicted and actual waste disposal costsfor the project to assist with future tenders and waste disposal / resource budgeting.

The Appendices

Appendix 1. Copies of Waste Licence(s) and Environment Agency Check(s)

This section is where all the licence(s) for each waste contractor and waste transfer station are shown. Each contractor and transfer station has been checked against theEnvironment Agency register before being added to the Site Plan database.

Appendix 2. Site Inspection Reports

This section accommodates the storing of any SWMP Site Inspection reports in the hardcopy site folder.

Appendix 3. Sub-Contractor Agreements

In the hard copy site folder, this is where the agreements with sub-contractors removingtheir own waste may be filed.

Appendix 4. Waste Data Lists

In the hard copy site folder this section is used to file the waste reports for the project.

Appendix 5. Waste Transfer Notes (WTN)

This section of the hard copy site folder is where the actual Waste Transfer Notes arefiled.

Appendix 6. Site Floor Drawing

This is where the site plan layout is filed in the hard copy site folder. It denotes the location of waste disposal 'areas or containers and their allocated waste stream usage, with colour coding of labels. It also denotes site security information, such as fences andlockable gates to prevent inward fly tipping.

Appendix 7. Waste Actuals

This section is a record of all the Waste Transfer Notes that have been uploaded intoSite Plan for this project.

Contents

1. Project information and responsibilities

Project name	Welling United FC
Project ref.	
Principal Contractor	
Client	
Contractor	
Site manager	
Description of construction works	The demolition of the existing structures, replace football pitch flood lighting and facilities and construct 104 apartments.
Project floor area	12,668 sq.m.
Construction type (i.e., masonry, timber?)	Concrete Frame
Location	
Estimated project cost	
Project timescales	Start date: July 2024 End date: September 2026
Who is responsible for drafting the SWMP	
Who is responsible for implementing the SWMP	
Will there be a waste champion on site? If so, pleaseidentify the individual	
Where will the SWMP be kept?	Site & Head Office

Declaration statement:
The Client and Principal Contractor will take reasonable steps to ensure that-
(a) all waste from the site is dealt with in accordance with the waste duty of care in section 34 of the Environmental Protection Act 1990 and the Environmental Protection(Duty of Care) regulations 1991; and
(b) materials will be handled efficiently, and waste managed appropriately.

☑Tick box to agree.

Client signature:	Print name:	Date:
Principal Contractor signature:	Print name:	Date:

1. Waste Minimisation opportunities

Minimisation Type	Decision Type	Waste Minimisation Decision Taken	By Whom	Intended Results
Waste	Design	Concrete frame. Use specialist trade input to detail to suit the method of construction, reinforcement, etc...	Sub-Contractor(s)	Divert from Landfill
Waste	Design	Crush masonry from demolition to use as piling mat.	Sub-Contractor(s)	Divert from landfill
Waste	Design	Concrete frame. Use specialist trade input to agree on maximum use offormwork whilst maintaining the quality.	Sub-Contractor(s)	Divert from landfill
Waste	Design	Use developed standard details to the drywall. Procure pre-cut boards in the factory and agree to collect/recycle any plasterboard waste. Retain large off cuts to be reused where possible.	Designer	Divert from landfill
Waste	Construction Method	Internal tiling. To walls and floors. If cut tiles required, look to detail to 35-50% soother parts can be used.	Sub-Contractor(s)	Divert from landfill
Waste	Construction Method	Suspended Ceilings. Standard layouts to minimize cuts, use blocking. pieces to edge detail to obviate scuffing to edge ofcut tiles. Standardise on tile throughout.	Sub-Contractor(s)	Divert from landfill

Waste	Construction Method	Doors, frames, architravesand skirting. Use door-setsand pre-packaged architrave and skirting setsfor each room.	Principal Contractor	Divert from landfill
Waste	Construction Method	Ironmongery. Have ironmongery sorted at suppliers into door packsand sub packs to suit theflow of works.	Principal Contractor	Divert from landfill
Waste	Project Nature	Packaging. Agree with all suppliers a range of standard robust pallets and agree on free collection.	Principal Contractor	Divert from landfill

1. Forecast of waste types and amounts

Waste Forecasts

Work Package	**Type of Waste**	**Estimate amount(tonnes)**
Construction	Bricks (17 01 02)	
Construction	Timber (17 02 01)	
Construction	Gypsum (17 08 02)	
Construction	Plastics (17 02 03)	
Construction	Paper and cardboard (20 01 01)	
Demolition	Inert (17 01 07)	
Demolition	Hazardous (17 09 03*)	
Demolition	Mixed (17 09 04)	
Groundworks &Excavation	Inert (17 01 07)	
Groundworks &Excavation	Hazardous (17 09 03*)	
Groundworks &Excavation	Mixed (17 09 04)	
Construction	Inert (17 01 07)	
Construction	Hazardous (17 09 03*)	
Construction	Mixed (17 09 04)	
Demolition	Bricks (17 01 02)	
Demolition	Insulation (17 06 04)	
Demolition	Metals (17 04 07)	
Demolition	Packaging (15 01 06)	
Demolition	Soils (17 05 04)	
Demolition	Timber (17 02 01)	
Demolition	Plastics (17 02 03)	
Total:		

1. Waste Hierarchy Routes

Waste type	Location	Reduce	Reuse	Recycle	Recover	Dispose
Bricks (17 01 02)	On-Site Off-Site					
Timber (17 02 01)	On-Site Off-Site					
Gypsum (17 08 02)	On-Site Off-Site					
Plastics (17 02 03)	On-Site Off-Site					
Paper and cardboard (20 01 01)	On-Site Off-Site					
Inert (17 01 07)	On-Site Off-Site					
Hazardous (17 09 03*)	On-Site Off-Site					
Mixed (17 09 04)	On-Site Off-Site					
Inert (17 01 07)	On-Site Off-Site					
Hazardous (17 09 03*)	On-Site Off-Site					
Mixed (17 09 04)	On-Site Off-Site					
Inert (17 01 07)	On-Site					

	Off-Site					
Hazardous (17 09 03*)	On-Site Off-Site					
Mixed (17 09 04)	On-Site Off-Site					
Bricks (17 01 02)	On-Site Off-Site					
Insulation (17 06 04)	On-Site Off-Site					
Metals (17 04 07)	On-Site Off-Site					
Packaging (15 01 06)	On-Site Off-Site					
Soils (17 05 04)	On-Site Off-Site					
Timber (17 02 01)	On-Site Off-Site					
Plastics (17 02 03)	On-Site Off-Site					
Overall target						
Total tonnes						

1. Duty of care compliance checks

Waste carrier details:

Waste CarrierName	Waste Carrier Licence Number	Issue Date Expiry Date	Copy Licence	Waste SiteTaken To	Waste ManagementLicense/ Issue Date	Waste Transfer Note Storage Location	Recycling rate	Copy Licence
								☑
								☑

Recycling rates:

Destination Waste Site	Waste Type	Recycling Rate (%)

2. Training and communicating the SWMP on site.

Training

Everyone on site should receive relevant training which should include:

- The SWMP
- Roles and responsibilities
- Waste procedures on site
- Hazardous waste
- Duty of care / responsibilities
- Materials storage.

The following types of training are being undertaken:

Method	Undertaken
Induction	Yes
Toolbox Talks	Yes
Workshop	No
Other Training	No

Communication

The plan is being communicated by:

Method	Undertaken
Meetings	Yes
Posters	Yes
Feedback	No
Other Communication(s)	No

1. Waste Data

This section will be updated once waste is removed from site.

Tonnage		
Total tonnage of waste generated to date		
Tonnes of waste per 100/1 sq.m. of floor area (tonnes/100 sq.m.)		
Tonnes of waste per £100K of project cost (tonnes/£100K)		
Reused on site		
Reused off site		
Total reused	0.00 tonnes	
Recycled on site		
Recycled off site		
Total recycled	0.00 tonnes	
Sent for recovery off site at licensed facilities		

Total recovered off site at licensed facilities		
Total recovered		
Disposed of site		
Disposed from licensed facilities		
Total disposed		
Total waste diverted from landfill		

Current actual quantities versus forecastedquantities

Waste type	**Forecasted quantity(tonnes)**	**Actual (tonnes)**
Bricks (17 01 02)		
Gypsum (17 08 02)		
Hazardous (17 09 03*)		
Inert (17 01 07)		
Insulation (17 06 04)		
Metals (17 04 07)		
Mixed (17 09 04)		
Packaging (15 01 06)		
Paper and cardboard (20 01 01)		
Plastics (17 02 03)		
Soils (17 05 04)		
Timber (17 02 01)		
TOTAL:		

1. Ongoing review

Date	**Name**	**Summary/ Actions carried out**
		Project created
		Project overview updated Responsibility updated Waste minimisation updatedForecast updated Responsibility updated. Waste management contractorupdated. Training and communicationupdated
		Project overview updated
		Forecast updated Forecast deleted Forecast updated Forecast deleted Forecast updated Waste minimisation updated

		Waste management contractorupdated Forecast updated
		Waste management contractorupdated
		Waste actual updated

Appendix 3 Preconstruction Health and Safety Pack

Appendices

Appendix A: Project Hazard Register / Risk

assessmentsAppendix B: Schedule of Existing

Record Information
(drawings of existing buildings and site, services, previous health and safety file etc.)

Appendix C: Clients' Code of Practice/Site Rules for Contractors

Appendix D: Surveys & Reports

Appendix E: Health and Safety File Brief

Introduction

A Client must provide pre-construction information, as soon as is practicable, to every designer and contractor appointed or being considered for appointment, to the project.

Pre-construction information provides the health and safety information needed by:

- designers and contractors who are bidding for work on the project, or who have already been appointed to enable them to carry out their duties.

- principal designers and principal contractors in planning, managing, monitoring and co-ordinating the workof the project. Pre-construction information provides a basis for the preparation of the construction phaseplan. Some material may also be relevant to the preparation of the health and safety file (see Appendix E).

Pre-construction information is defined as information about the project that is already in the Client's. possession or which is reasonably obtainable by, or on behalf of the Client. The information must: -

- be relevant to the particular project.

- have an appropriate level of detail; and

- be proportionate to the risks involved.

Pre-construction information should be gathered and added to as the design process progresses and reflect new information about the health and safety risks and how they should be managed. Preliminary information gathered at the start of the project is unlikely to be sufficient.

When pre-construction information is complete, it must include proportionate information about: -

- the project, such as the Client brief and key dates of the construction phase.

- the planning and management of the project such as the resources and time being allocated to each stage of the project and the arrangements to ensure there is co-operation between duty holders and the work isco-ordinated.

- the health and safety hazards of the site, including design and construction hazards and how they will be addressed.

- any relevant information in an existing health and safety file.

The information should be in a convenient form and be clear, concise and easily understandable to help other duty holders involved in the project to carry out their duties.

- **PROJECT TEAM AND NATURE OF PROJECT**

- **Client:**
- Contact: Tel No:
  E-mail:

Contract Administration: *Employer's Agent*:

- Contact:
  Tel:
  Email:

- **Structural Engineer:**
  Tel No:
  E-mail:

Geotechnical Engineer
Tel No:
E-mail:

Drainage Engineer
Tel No:
E-mail:

Archaeologist
Tel No:
E – mail:

- **Project Milestones:**

	Start	Finish
Mobilisation Period:	July 2024	Nov 24
Construction Period:	Nov 24	Sept 26

- **Address of the Project:**
  Welling United FC
  Park View Road

- **The Scheme**

  The scheme comprises of the demolition of existing buildings, retention of some stands and the design andconstruction of 104No. new residential apartments, comprising of new build apartment blocks, and associated commercial and community spaces together with associated hard and soft landscaping works, new 3G football pitch new stands and football facilities.

- **Planning Permission**

  The Application is being considered by LB Bexley.

- **Nature of Construction Works**

  Please see above.

- **End Users**

  On completion of the works the properties will be for residential and commercial use.

- **EXISTING ENVIRONMENT**

- **Safety Hazards**

Surrounding Land Uses and Related Restrictions

The site is situated in a mixed residential and commercial area with two busy main roads running longthe site boundary, with a main-line railway track forming one of the other boundaries.

There are various public amenities present within the surrounding roads and the Principal Contractor must be aware of the close proximity of members of the public/children and take all reasonable precautions to prevent unauthorised access onto site.

The Principal Contractor should carry out these works with due care and consideration and ensure all necessary protective measures are in place.

Services

It is understood the site is served by the following Services: -

Electricity (Over ground)
Electricity (Underground)Mains
Gas
SewersWater
BT Overhead/UndergroundTV and
Cable
Others

Approximate positions of services are shown on Statutory Authority Drawings. The Principal Contractor is responsible for making himself aware of the locations of existing services prior to works commencing on site. The accuracy of this information cannot be guaranteed, and the Principal Contractor shall providea Site-Specific Method Statement demonstrating how he will avoid any damage to “live” services during the works in accordance with the recommendations of HS(G) 47 “Avoiding Damage from Underground Services”.

The Principal Contractor must protect all existing services. For any drainage works, the Principal Contractorshould carry out a survey using tracing equipment to determine and mark the location of any undergroundor exposed services before carrying out any works.

If you are digging or disturbing the earth, you should take care to avoid damaging underground services. Underground electricity cables can be particularly hazardous because they often look like pipes, and it is impossible to tell if they are live just by looking at them.

The site is bounded on the north/south boundary by a Public Roads and Park areas.

Existing Structures

The existing structures comprise of existing football facilities and also the stands now in poor condition.

Boundaries, Access and Egress

Site access and egress will be in Park View Road

Other Restrictions

The Client has stipulated that working hours are to be from TBA Monday to Friday, and Saturdays TBA (subject to Planning Conditions). There shall be no working at other times on the weekends or public holidays unless by prior agreement with the Client.

- **Health Hazards**

Demolition

There are existing structures to be demolished on this part of the project. The Principal Contractor must ensure his Method Statement includes the sequence of demolition, protection, security etc., and is prepared as part of his Construction Phase Health and Safety Plan. As demolition is a high-risk activity, this must be carefully planned, managed and monitored.

Asbestos

All works with asbestos containing materials (ACMs) should only be undertaken by competent individuals/organisations.

No construction works should commence that have the potential to disturb any unidentified/hidden ACMs until a suitable asbestos refurbishment/demolition survey is in place. Any identified ACMs should be dealt with according to the recommendations of the survey and "The Control of Asbestos Regulations 2012" prior to any construction works commencing.

All licenced ACMs removal works should be undertaken by licenced asbestos contractors and in full accordance with "The Control of Asbestos Regulations 2012". All works with ACMs should be undertaken in full accordance with current HSE guidance and best practice.

Any works (including surveying works) that require mobile or fixed scaffolding to be utilised in the vicinity of identified or suspected ACMs must use an asbestos licenced scaffolding company.

All site operatives must be able to demonstrate suitable asbestos awareness training proportionate to their job roles as required by the "The Control of Asbestos Regulations 2012".

Should any suspected or unidentified ACMs be discovered or disturbed during construction, then the Principal Contractor should cease works immediately and contact the Client/Client's representative and the Principal Designer/Adviser to Principal Designer. He should ensure the area is suitably sealed to prevent further contamination and suitable signage should be put in place warning as to the presence of asbestos.

A Refurbishment and Demolition survey for the existing buildings and associated surrounding land will need to be undertaken for the site and the Principal Contractor given this information in good time and certainly well before any site activity commences.

Weil's Disease

There is existing drainage on site and as such there may be a risk of Leptospirosis (Weils Disease), Hepatitis B and C.

Lyme Disease (Borrelia burgdorferi)

Lyme disease is spread by tick bites. The ticks feed on birds and mammals that carry the bacterium in their blood and then transmit the bacterium to a human when they have a blood meal. The tick needs to be attached to a person for about 24 hours before the disease can be transmitted. In the UK, the risk of tick bites is highest from April to October, when the ticks are most active. This risk is low on this project.

Ornithosis

The Contractor is to be aware that during the opening up of existing roof spaces that the risk of Ornithosis, a microbiological hazard due to the presence of pigeons, may be present. Respiratory protection may be required to protect against infection from inhaling dusty, dried faeces containing zoonoses. This may also be a consideration where windows have been broken to buildings that have fallen into dereliction and pigeons have been able to gain access.

Contaminated Soils and ground structure

The Principal Contractor is to be aware of the presence of contaminated soil/land on site and isto take measures to protect his operatives and the general public from exposure and work within the Remediation Method Statement Report IE22/001 dated 28/7/22 Rev!
The British Geological Survey indicates that the site is directly underlain by superficial deposits of the Kempton Park Gravel. These superficial deposits are underlain by solid deposits of the London Clay Formation. Superficial deposits of Alluvium are also reported to encroach into the site.

The superficial deposits underlying the site are identified as a Secondary an Aquifer with the underlyingsolid deposits identified as Unproductive.

Potential for contaminated ground associated with previous site use. Potential for Made Ground associated with previous development operations. Potential hydrocarbon impacted ground from previous industrial use.
Current and previous industrial use.
Potential soil gas generation within Made Ground and alluvial deposits.

Unexploded Ordnance (UXO's)

A desk top UXO report is to be commissioned prior to commencement.

Weather Conditions

Whilst the site is not in a particularly exposed location, the weather should be considered as potential risk factor where extremes of weather could pose additional hazards e.g., high winds may affect craning operations or working at height, wind-chill factors or areas where there is no shelter from extremes of weather – rain or sun.

Exposure to UV radiation (from the sun)

Where there is the potential risk of exposure to the sun, operatives are to comply with following HSE guidance - The sun protection six-point code and 'Keep Your Top On - Health Risks from Working in the Sun' – indg147.

Lead

The exposure of operatives to lead should be prevented. This may occur during blast, removal and burning of old point from windows and doors. Where applicable, reference should be made to the Control of Lead at Work Regulations 2002.

Lime Plaster

Lime is an extremely caustic material when wet, with a pH of 12 (Lime, when carbonated, can be up to pH 8.6), as such, the use of protective goggles, gloves, and clothing is necessary when working with lime.Clean water should also be kept readily accessible for first aid purposes when working with lime in case of accidental eye or skin exposure.

First aid for cases of skin exposure to lime involves neutralisation with very mild acid such as vinegar or lemon juice.
First aid for cases of accidental eye exposure consists of repeatedly flushing the eye for several minutes with fresh water. Medical attention should be sought in such cases.

Anthrax

Anthrax is a potentially fatal infection caused by the bacterium Bacillus anthracis. Humans become at risk of incidental infection through contact with diseased animals, their secretions, hides, hair or other products.

Construction workers may be at risk during demolition of old buildings. There can be a risk of anthrax spore

contamination where infected animal hair was used to bind the plaster of walls – see below: Latheand Plaster.

Lathe and Plaster

Hair has been used as an ingredient in internal plaster for centuries. Ox, cow, goat and horsehair haveall been used.

There have been no recorded cases of occupationally acquired anthrax caused by handling hair- reinforced plaster. The risk of contracting any form of anthrax, whilst carrying out remedial works to an historic building, is exceedingly low.

Simple, effective precautions and good hygiene practices on site, will be adequate to maintain the risk ata negligible level, the Contractor is to refer to the Control of Substances Hazardous to Health (COSHH) Regulations 2002 and the Construction (Design and Management) Regulations 2015 (CDM Regulations).

Silica Dust

Where the works involve the cutting of bricks, paving slabs, kerb stones or other concrete products, thereis the potential for generating silica dust, which can lead to respiratory illness' including silicosis. Silica dust generated by works needs to be adequately controlled by 'wet' systems or LEV/vacuum systems, PPE should be a last resort.

Oak Processionary Moth (OPM)

Oak processionary moth (OPM) was first accidentally introduced to Britain in 2005. The larvae, or caterpillars, of OPM are a pest because they can affect the health of oak trees, people and animals.

OPM caterpillars are most easily recognised by their distinctive habit of moving about in late spring and early summer in nose-to-tail processions, from which they derive their name and the fact that they live and feed almost exclusively on oak trees. They can sometimes be seen processing across the ground between oak trees, and clustering together as they feed on oak leaves.

The caterpillars have thousands of tiny hairs which contain a urticating, or irritating, substance called thaumetopoein, from which the species derives part of its scientific name. Contact with the hairs can cause itching skin rashes and, less commonly, sore throats, breathing difficulties and eye problems. This can happen if people or animals touch the caterpillars or their nests, or if the hairs are blown into contactby the wind. The caterpillars can also shed the hairs as a defence mechanism. The areas of infestation should be segregated, and a contractor should advise all operatives and visitors of the restriction. The contractor should advise the Client/representative of any suspected infestation and remain vigilant throughout the works due to the presence of mature trees on and around the site.

Hazard associated from Previous Site Use

There are known hazards from previous site use that have been brought to the attention of the Principal Designer for inclusion within this Information Pack. And are clearly set out in the attached reports.

Sharps/Needle Stick Injuries

As the site has been partially left vacant for some time there is the likelihood of drugs paraphernalia including used syringes being discarded on site and its environs. These pose a high risk of needle stick injuries with the associated risk of Hepatitis B and C infection.

Any workers involved in clearance works within the building, should be made aware and appropriate precautions taken, these can include a walk round and look at areas prior to site clearance. Common places to find drugs

paraphernalia are in fluorescent light fittings, false ceilings (one tile lifted up and items 'thrown' into ceiling space) in and behind toilet cisterns and behind ventilation grills. It has also known to be found where squatters are evicted, and stair rails are 'booby trapped' with syringes taped underneath.

Litter pickers/grippers are a preferred option over puncture resistant gloves as they avoid the hands coming into contact with sharps. Bins rather than bags will better contain sharps, which will need to be disposed of in a safe manner.

Mould/Spores

In certain locations significant amounts of mould can be found to be present, particularly in old the ceilingand wall coatings, and these moulds often contain Cladosporium and Aspergillus. These moulds are known to cause respiratory problems in humans, including allergy, asthma and infections. Demolition oralterations to the building fabric/ventilation systems can release spores into the atmosphere. When thesecoatings are stripped out, dust suppression and suitable respiratory protective equipment must be used to prevent respiratory problems.

Carbon Monoxide Poisoning

Carbon Monoxide (CO) gas is produced by the incomplete burning of fuel. It is poisonous and even breathing in a small amount can cause loss of consciousness or death. In the UK, more than 50 people die from accidental carbon monoxide poisoning every year and 200 people are seriously injured. During the course of the works no fluke, condensate discharge or ventilation (e.g., window ventilators, airbricks, etc.) should be modified, adjusted or blocked without reference to the scheme designer. Any circumstance that potentially alters the burning conditions of gas must be fully assessed by the Principal Contractor before being implemented on site. All works are to be carried out in accordance with the Gas Safety (installation and use) Regulations 1998 (2013) and approved code of practice, L56 4thedition.

The symptoms of CO poisoning can resemble those of food poisoning and flu because they have similar symptoms. However, unlike flu, CO poisoning does not cause a high temperature.

How to prevent CO poisoning

A carbon monoxide detector/alarm can provide added protection but is no substitute for proper use andupkeep of appliances that can produce CO. Make sure appliances are installed according to manufacturer's instructions and local building codes. Most appliances should be installed by a professional Gas Safe Registered Installer.

It is recommended to have any heating system (including chimneys and vents) inspected and serviced every 12 months. The inspector should also check chimneys and flues for blockages, corrosion, partial and complete disconnections and loose connections.

The Principal Contractor must ensure any residents in occupation are informed of the works to be carriedout and all associated hazards.

Japanese Knotweed

Japanese Knotweed (scientific name Fallopia japonica) was introduced into the UK in the mid nineteenthcentury as an ornamental plant. Since then, it has become a serious problem in a range of habitats, particularly roadsides, riverbanks and derelict land by displacing native flora and causing structural damage.

The plant bears creamy-white panicles of flowers in late summer and the stems die back in winter and are unsightly, taking up to three years to decompose.

Early identification of contaminated areas is essential. Plans must be prepared to contain, control and remove Japanese Knotweed with clear methods of working to prevent its spread.

Any excavated soil from areas where Knotweed has established must be disposed of at a licenced landfillsite and not reused in further construction or landscaping. When disposing of contaminated soil, it is essential that the landfill operator is made aware of the presence of Knotweed and that the soil is not used for landscaping or restoration works at the tip site.

- **Record Information**

CLIENT CONSIDERATIONS AND MANAGEMENT REQUIREMENTS

- **General Requirements**

Prior to construction works commencing, the Client will require the Principal Contractor on this projectto establish suitable arrangements to achieve the following: -

- **Adequate welfare facilities on site.**

The Principal Contractor will be responsible for providing all the welfare facilities required by current healthand safety legislation, including but not limited to:

- First-aid cover.
- Sanitary conveniences.
- Washing facilities.
- Drinking water.
- Accommodation for clothing.
- Facilities for changing clothing.
- Facilities for rest.

Provide and manifest adequate security on site preventing unauthorised entry.The

Principal Contractor must review the following details:

- The Principal Contractor will be responsible for security of the works and materials on site.
- The Principal Contractors operatives will wear ID photo cards throughout the contract period and sign in and out in order that a record is kept of all operatives and visitors to site during the project.
- The type of entrance into the pavement for scaffold access, a procedure and drawing on the standard expected is available, this standard includes for a lockable wooden hoarding around the access point.

Promote co-operation and co-ordination amongst project team members.

Promote the implementation of the “General Principles of Prevention” during design and construction.

Effectively plan and manage Health and Safety on this project.

Provide all relevant information for inclusion within the Health and Safety File.

- **Client Specific Requirements**

The Client has not stipulated any specific requirements on the Principal Contractor during the Construction Phase, however, please refer to the Contract Documents for further clarification.

- **Communication**

Good, timely communication is essential for co-operation and co-ordination of activities on this project. Drawings should be used to highlight hazards or unusual work sequences, if required.

Induction training and toolbox talks help to ensure workers understand the risks and precautions and are a good opportunity to inform workers of site rules or any special risks relating to the project.

Site induction, training and information are vital to securing health and safety on site. The Principal Contractor has to ensure, so far as is reasonably practicable, that every worker has:

a. A suitable induction.
b. Any further information and training needed for the particular work they will be carrying out.
c. Communication between residents, operatives and site management.

- **Security**

The Principal Contractors operatives will wear ID photo cards and clothing bearing the company's logo.

The Principal Contractor will ensure that temporary fencing hoarding is provided to all boundaries of the site that do not already have permanent fencing, and to provide a defined and specific boundary between the demise of the other Principal Contractor for the entire duration that that either or both contactors are on site. Where existing permanent features such as walls, fences etc., are to remain, these may be used, provided they are structurally sound.

Any temporary fencing should take the form of a hoarding or proprietary fencing not less than 2m high and be of a sufficiently solid construction to prevent access to the site by unauthorised persons, particularly children, and should be difficult to climb*, whilst also ensuring children cannot gain access through gaps under any temporary fencing.*

The entrance gates to the site must be secure, kept locked at all times when not in use and of the same height as the hoarding.

The Principal Contractor shall review the effectiveness of the site perimeter, including arrangements for maintaining the perimeter, particularly where there is evidence that persons can breach the fencing.

The perimeter of the site shall be lit at night (as applicable), should suitable illumination not already be present.

The site is to be kept secure and will be locked outside normal working hours. Access to and egress from the site is to be strictly controlled at all other times.

Where the public are at risk from falling materials, all walkways, footpaths and entrances etc., shall be provided with overhead protection such as pedestrian tunnels, crash decks, fans etc., including lighting as appropriate.

The Principal Contractor is to also provide appropriate information on the site rules, hazards and special precautions. Informative, mandatory and warning signs should be clearly displayed outside and within the site.

Visitors must not be allowed to walk around the site unaccompanied, unless they are familiar with the site and the risks they may be exposed to. The Principal Contractor is to provide personal protective equipment for visitors where applicable.

- **SIGNIFICANT RESIDUAL HAZARDS**

- **Design Hazards**

In accordance with the CDM 2015 Regulations, Designers are required to provide the Client, Principal Contractor,

Principal Designer and other members of the project with satisfactory design information in respect of a project and this should be an ongoing process to assist the project team discharge their obligations under the Regulations.

The Principal Contractor should ensure adequate risk control measures are established to address significant hazards within the design.

- **Construction Hazards**

The Principal Contractor should ensure adequate risk control measures are established to address the following hazards identified by the project team with respect to the Construction Phase of the project:

Oversailing by tower cranes by the railway line boundary (as previously detailed).

Demolition

There are specific health and safety implications from undertaking the works adjacent to occupied areas and, therefore, the Principal Contractor is to provide details within a safety method statement for the protection/segregation of demolition activities from the surrounding properties, members of the public etc., as well as emissions of dust and/or harmful substances, excessive noise, unauthorised access and heavy plant etc.

The Principal Contractor must carefully consider planning, organisation and risk control measures for the demolition works, taking account of sequence and method of demolition, protection/segregation of adjacent vehicular/pedestrian access routes, residential units, access for demolition plant and equipment, structural stability and any temporary support works, working in confined spaces, hot works, existing services, noise, dust, vibration, hazardous substances, manual/mechanical handling, working at heights, restricted zones for operation of demolition plant and lowering of waste materials and waste management etc.

The Principal Contractor is to demonstrate his control of the inherent risks of removing existing glazed windows.

As previously, stated the Principal Contractor is to be aware that during the opening up of roof spaces or other areas, that the risk of ornithosis may be present.

Site Fire Safety and Management

The Principal Contractor should demonstrate in his Construction Phase Plan how he will comply with the requirements of the Regulatory Reform Fire Safety Order 2005. This will include the production of a suitable and sufficient site fire risk assessment for the initial stages of the work.

The Principal Contractor should ensure the site and all construction works meet the standards specified in the health and safety guidance document HSG168 "Fire Safety in Construction" and "Fire Prevention on Construction Sites" the joint code of practice on the prevention from fire on construction sites and buildings undergoing renovation.

Site Fire Safety Plan should include the following arrangements (where applicable).

a) A site fire safety plan (including diagram) including communications and means of escape.

b) Fire brigade access arrangements and procedures for calling the fire brigade.

c) Fire drills, fire points and the site assembly point.

d) Storage in flammables and any waste storage area.

e) Permit arrangements, such as for hot works.

f) Security arrangements to minimise the risk of arson.

g) Location of smoking areas, where necessary.

Where the project involves timber frame construction, the Principal Contractor must ensure that the recommendations contained in "Fire Safety on Timber Frame Construction Sites" issued by the UK TimberFrame Association are given due consideration.

Asbestos

If during the course of the works the Principal Contractor discovers or suspects any asbestos materials onsite, he shall immediately notify the Client/Principal Designer/Adviser to Principal Designer and cease working on the affected areas.

Working in around Occupied Properties

The Principal Contractor must be aware when working around occupied properties of the likelihood of tenant's residents who may be elderly, violent, disabled - mentally or physically etc., and all precautions must be taken to protect operatives and visitors during the works.

The Principal Contractor must ensure the working area is sufficiently secured with adequate barriers andsignage to prevent tenants/visitors from gaining access into the working area.

All emergency access routes, i.e., doorways, stairways, corridors and communal areas etc., must be keptclear at all times and not obstructed with operative's materials/vehicles at any time.

Pre-stressed Concrete

We have not been advised of any building containing pre-stressed concrete, but should the Principal Contractor consider that a building to be demolished contains pre-stressed concrete, then he shall prepare a detailed Method Statement for dealing with this hazard.

Working at Height

Where there is a residual risk of persons/materials falling from working at height, risk control measures should be implemented in accordance with the Working at Height Regulations 2005.

Where reasonably practicable, the Principal Contractor must take adequate steps to: -

a) Manage working at height.

b) Prevent a fall from height.

c) Control and manage the consequence of any remaining fall risks.

Please refer to Appendix A for further details.

Excavations

The Principal Contractor is to ensure that all excavations are adequately secured with barriers, signage etc., and measures are in place to prevent operatives, vehicles and members of the public, from falling inand the sides collapsing. Vigilance should be maintained at all times to guard against potential strikes of buried UXOs.

Site transport Arrangements or Vehicle Movement Restrictions

The Principal Contractor must assess the best traffic management route that will not put pedestrians andothers at risk to site activities due to area being largely residential, especially when working on or adjacent to the public highway and detail this in the site Transport Management Plan. The Principal Contractor must provide adequate signage, lighting and barriers.

Restrictions on Deliveries or Waste Collection or Storage

The delivery of plant and equipment must be considered. The management of the traffic for all deliveriesand waste from the site is to be covered within a risk assessment and method statements.

A suitable time for these should be discussed, as the area will be busy due to commerce and residents withinclose proximity.

The Principal Contractor will need to prepare a detailed site layout drawing showing perimeter fencing, access provisions, location of stores and storage areas, and welfare facilities, for inclusion in his Construction PhaseHealth and Safety Plan.

Site Transport Arrangements or Vehicle Movement Restrictions

Barriers, means of separation or permits-to-work are required to keep all sub-contractor construction workers away from hazards created by others and other people away from hazards created by the construction work.

The Principal Contractor will also be expected to manage and record the following: -

d) Traffic management plan as part of H&S Plan prepared, implemented, updated and enforced.

e) Pedestrians are separated from movements e.g., at site entrance/exit and during plant slewing and loading.

f) Reversing minimised and controlled e.g., by one-way systems and the use of trained banksmen.

g) Safety and warning devices e.g., ROPs, seat belts, mirrors, CCTV, radar and reversing alarm etc.

h) Maintenance systems for checking brakes, steering, lights etc., and all safety/warning devices.

i) CTA Training card or equivalent held by drivers or operators and a verification system in place.

j) High visibility clothing provided to and worn by all persons as risk.

The Principal Contractor shall take all precautions necessary to eliminate, as far as possible, the danger to the public arising from the transportation of materials to and from the site. This shall include, for the duration of the works, efficient watching during the entry and exit of all vehicles and efficient warning ofthe movement of such vehicles to members of the pubic on the public highway and to persons within thesite as necessary. Alternative pedestrian routes (as applicable) should be clearly signposted ensuring segregation of the operatives and public from the site and moving vehicles/plant.

The Principal Contractor is to ensure that no vehicle access routes are blocked or left inaccessible due to the contractor's vehicles etc., being left unattended within such access ways.

The Principal Contractor's procedures for delivery and removal of material, plant and equipment are to be managed to limit the inconvenience to the local residents.

The Principal Contractor should provide facilities to ensure vehicles and plant leave the site free from mud, i.e. wheel washing routines to be incorporated to ensure no mud or debris is left on the public highway and take all other precautions necessary to maintain and keep public and private roads free frommud, debris etc., arising from the works throughout the duration of the contract.

Control of Dust and Noise

Due to the site being situated within a predominantly residential area, noisy works must only take placeduring the hours of TBA hours, and TBA hours Saturdays (subject to Planning conditions).

The Principal Contractor is to also take reasonable steps to prevent the spread of dust throughout the construction phase.

Construction

k) Site set up, welfare provision and site security.

l) Segregation of construction from the occupied existing residential properties.

m) Noise, dust and vibration generated by construction (see above).

n) Falls from Height (see above).

o) The movement of construction vehicles - pedestrians, children etc.

p) The presence of contaminated soils and handling protection and transportation measures required when dealing with contaminated soils.

q) The use of heavy plant, machinery and construction vehicles with residential areas.

r) Working with existing live services and hazards associated i.e., electrocution, explosion etc.

s) Excavations - protection from materials, machinery, operatives etc. falling in, collapse etc.

Please refer to the Risk Assessments for further details.The

Construction Phase Health and Safety Plan

The Principal Contractor's Initial Construction Phase Plan in response to this document shall include the following: -

t) Description of the project.

u) Proposals for planning, managing (including site rules) and monitoring construction works without risk to health or safety in compliance with CDM 2015. Due consideration should be given to Part 4 (duties relating to health and safety on construction sites) of the Regulations.

v) Arrangements for controlling significant site risks such as safety and health risks with the designs, surrounding environment, the site, during the construction phase, materials to be used and work sequences to include site specific Method Statements and Risk Assessments.

w) The layout and format of the Health and Safety File and the arrangements for collection and gathering of information and the subsequent storage of the information.

- **HEALTH AND SAFETY FILE**

The Principal Designer is required to liaise with the Client, Principal Contractor, Designers and other project team members to prepare the Health and Safety File in respect of this project.

The Principal Contractor, in accordance with Regulation 12(7) shall liaise with Contractors on the projectto collate

and issue to the Principal Designer relevant information required to complete the Health and Safety File.

Requirements for the Health and Safety File have been detailed in Appendix E - Health and Safety File Brief.

Pre-Construction Information Pack

Construction (Design and Management) Regulations 2015

GUIDANCE NOTES - HEALTH AND SAFETY FILE INFORMATION

Specification for the Health & Safety File

One hard copy and one electronic copy of the Health and Safety File are required.

All documentation must be clear, clean and legible; folders should be well presented with enough space sothat pages can be turned without damage. The following are NOT acceptable:

- Faxes or copies of faxes
- Documents copied so often that text "breaks up".
- Background shading, black edging or colouration from photocopies
- Hand-written material
- Use of sales literature is to be avoided as far as possible, where a manufacturer's literature, model or parts sheet is used, the relevant parts are to be underlined and/or highlighted. Details of the company's QA systems, history or certifications have little relevance to the Health and Safety File.

Layout of Health & Safety File for This Project:

3 Index

4 **Principal Designer's information** - To be provided by the Principal Designer

5 Description of the project

A brief description of the works, this may be taken from the original scope of works, however, it must include details of any changes or additions to the original scope so that the description accurately reflects the project 'as built'.

In addition to the description the file should contain details of the design concepts behind various elements of the structure. A useful checklist might include the following broad headings:

5.1 Structural frame/load bearing walls

5.2 Cladding/infills.

5.3 Curtain walling, window systems etc

5.4 Floor structures

5.5 Roof structures/covering.

5.6 Mechanical services' design concept, e.g., whether natural ventilation or air-conditioning

5.7 Electrical services' design concept, e.g., whether all electric lighting is on one circuit or on a

floor-by-floor basis.

6 Parties involved in the project, including name, addresses & contact details, i.e.:

a) Client
b) Contract Administrator
c) Quantity Surveyor
d) Principal Designer
e) Principal Contractor
f) Statutory Authorities
g) Other contractors

7 Schedule of materials used on the project.

These can be combined.

8 List of suppliers

9 General details of the construction methods and finishes schedule.

The file should identify any specific sequence which was used in the erection of the building, and which might need to be reversed during any alterations or demolition. This is a particular reference with regard to prefabricated buildings or structural elements, such as portal frames, which are inherently unstable in isolation during erection and have specific temporary propping requirements. Another example may be detailing the sequence in which external cladding panels were assembled, which would indicate how they might therefore be most safely disassembled.

For the materials used, this would particularly refer to any substances, which were potentially hazardous, such as flammable finishes or various types of insulating materials. These may be identified on the drawings or as a separate piece of documentation.

10 Description of equipment/facilities installed.

The file needs to set out the various elements within the building, which are provided for maintenance and have health and safety implications for those using them, for example:

4 Facilities for roof access
5 Gantries
6 Window cleaning cradles
7 Remote window opening gear.
8 Permanent fixings for fastening ladders, eyebolts etc.

11 Description of the maintenance procedures for the structure

The file needs to outline health and safety issues with regard to the overall structure and its finishes. This might include procedures for:

1 External decoration
2 Gutter clearing
3 Air conditioning unit filter renewal etc
4 Window/glass cleaning

These procedures should include details of required frequency of cleaning, types of cleaning materials to be used and those to be avoided etc.

12 Mechanical and Electrical O&M Manuals

Although the HSE advise that this information is not included within the Health and Safety File, it is often at the request of the Client that this information is provided.

Manuals are required with regard to any specialist plant or equipment, including maintenance schedules with appropriate references for re-ordering replacements and central heating installations etc. These would include general mechanical and electrical items, such as lifts and air conditioning units. The manuals would obviously need to be extensive as is necessary in order to adequately maintain specialist plant or equipment.

13 Hazard data sheets for materials used & details of any residual hazards.

Details of any hazardous materials used (for example lead paints; pesticides; special coatings which should not be burnt off), safety data sheets should only be included for materials, which pose a hazard in their final state, once the building is complete.

Details of residual hazards which remain and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated ground which has been capped rather than fully remediated; water bearing strata; buried services; any special access requirements etc).

14 Certificates

Although the HSE advise that this information is not included within the Health and Safety File, it is often at the request of the Client that this information is provided. Certificates applicable to the project, including those that certify plant & equipment as having been installed in a safe state (where applicable):

1 Electrical installation
2 Gas installation
3 Chlorination certificate
4 Contaminated ground remediation certificates
5 Asbestos/Hazardous waste remediation & Clearance certificates
6 Fire alarm
7 Sprinkler systems
8 Lift Commissioning
9 Practical completion
10 Building control
11 Secure by Design'
12 Fensa registration for the installation

Supplier's and contractors QA/trade accreditation certificates are NOT to be included.

15 Details of any utilities known, incoming positions etc

Information on services should be included within the file; these could be incorporated into the 'as built' drawings. A useful checklist would include: -

15.1 Mains distribution, e.g.

- Location, size and termination of gas, electric mains
- Location, size and termination of water main, wastewater drains/sewers.
- Location, size and termination of telecommunications

15.2 Emergency back-up facilities, e.g., standby generators, UPS systems

15.3 Security alarms

15.4 Firefighting systems e.g.

- Sprinkler systems
- Drencher systems
- Fire shutters etc

16 Any record or 'as built' drawings:

1. Architect
2. Structural Engineer
3. Mechanical Engineer
4. Electrical Engineer
5. Piling Layout
6. Windows/Roof lights

The drawings should be the final 'as built' or 'as installed' version, i.e., as amended from the originals through the construction process. These will represent the final structure as it actually exists and not just as it was conceived, 'Preliminary issue', 'For planning' or 'Construction issue' drawings are NOT acceptable. The drawings should indicate:

16.1 The position of incoming services and distribution (any or all of which may be concealed).

16.2 The location and details of various building materials used etc.

The drawings are able to convey a lot of information and are likely to cross-refer to the information on hazards under the various headings above.

17 Residents Manual (if applicable)

17. **Site Controls.**
18. **Health & Safety.**
19. **Site Operatives / Training.**
20. **Supplied Plant & Equipment.**
21. **Central Piling Requirements.**
22. **Mobilizing on Site.**
23. **Equipment & Plant Set Up.**
24. **Fabricating Steel Reinforcement:**
25. **Priming & Pumping Concrete**
26. **Piling Procedures.**
27. **Cleaning Concrete System.**
28. **Securing Site Plant & Equipment.**
29. **Plant & Equipment De-Rigging.**
30. **De-Mobilizing from Site.**
31. **Environmental Procedures.**
32. **Quality Procedures.**
33. **Site Specific Information.**

Appendix 4 - Noise Strategy

- **Overview**

d. The Principal Contractors have adopted a pro-active response to controlling noise and vibration during construction by following British Standards and European Directives, adopting Best Practicable Means and being aware of current legislation.

e. Baseline noise levels were measured as part of the reports supporting the planning application.

f. Within this document, sensitive receptors potentially affected by noise and vibration from the proposed works are identified.

g. Best Practicable Means has a legal definition (Control of Pollution Act 1974) and will be adhered to at all times. Mechanisms are in place to demonstrate compliance.

h. Monitoring will include continuous unattended noise and vibration monitoring at designated receptors, plus attended noise and vibration monitoring if required.

i. The Principal Contractor will have appropriate procedures in place to address any complaints about noise and/or vibration from the works.

- **Legislative Requirements and Guidance**

Reference documentation and guidance notes taken into consideration include:

h) Control of Pollution Act 1974 (CoPA)

i) Environmental Protection Act 1990 (EPA)

j) British Standard BS 5228-1:2009 *Code of practice for noise and vibration control on construction and open sites*
• *Noise*

k) British Standard BS 5228-2:2009 *Code of practice for noise and vibration control on construction and open sites*
• *Vibration*

l) British Standard BS 6472-1: 2008 *Guide to evaluation of human exposure to vibration in buildings*

m) British Standard BS ISO 4866: 2010 *Mechanical vibration and shock - vibration of fixed structures - Guidelines for the measurement of vibrations and evaluation of their effects on structures*

n) British Standard BS 7385-2: 1993 *Evaluation and measurement for vibration in buildings. Guide to damage levelsfrom ground borne vibration.*

o) British Standard BS 7445: 2003 *Description and measurement of environmental noise - Part 1: Guide to quantities and procedures*

Equipment and plant used on site will comply with relevant EC Directives and UK legislation on noise emissions. This includes:

p) European Commission Directive 2000/14/EC/United Kingdom Statutory Instrument (SI) 2001 /1701.

Consents

Planning Application

The planning application applies to all site works under the responsibility of the contractor and its sub-contractors. The consent for noise and vibration requires consideration of the following:

q) location of works.

r) methodology of proposed works.

s) intended hours of operation.
t) baseline noise levels; and
u) noise and vibration mitigation.

Control of Pollution Act 1974, Section 61 Consent

The development will be subject to Control of Pollution Act 1974, Section 61 Consent in which noise and vibration mitigation will also be a fundamental consideration.

All building work which can be heard at the boundary of the site will be carried out within the following hours (except for piling, excavation and demolition work):

208.00 to 18.00 Monday to Friday.

308.00 to 13.00 on Saturday.

4Not at all on Sundays, Bank Holidays and Public Holidays.

Pilling, excavation and demolition work will only be carried out within these hours:

508.00 to 18.00 Monday to Friday.

6Not at all on Saturdays, Sundays, Bank Holidays and Public Holidays.

Start-up and shutdown enabling periods to have been applied for in the application, including a discrete list ofactivities that can be completed in these periods. This includes but is not limited to:

6.1 Arrival and departure of workforce and staff on site
6.2 Deliveries and unloading
6.3 Maintenance and checking of plant and machinery.
6.4 General refuelling
6.5 Site inspections and safety checks prior to commencing work.
6.6 Site meetings
6.7 Site clean-up.

These activities are not seen as an extension to the working day but are up to an hour either side of core workinghours to allow for enabling activities.

Source levels for plant will be provided as referenced in BS5228: 2009+A1:2014 or using manufacturer's information if available, or measured data from other projects held by the Acoustic Consultant.

Construction noise and vibration levels will be predicted to the façade of sensitive receptors as agreed with the local authority using the procedures set out in BS5228: 2009+A1:2014.

Works may not start until consent is given by the LB Bexley resolving each of the conditions.

Where a change occurs in the construction method, programme or equipment that may give rise to higher noiselevels than predicted, BPM will consult with the London Bexley to vary any consent given.

- **Best Practicable Means**

The contractor will demonstrate this has been adopted throughout the construction works.

Best Practicable Means is defined under Section 72 of the Control of Pollution Act 1974.

"Practicable "means reasonably practicable considering amongst others:

6.8 local conditions and circumstances
6.9 current state of technical knowledge

6.10 financial implications.

And the “means to be employed” to the construction methodology, the installation, operation and maintenance ofplant and the periods that they operate for.

Sec.61 applications will define the measures taken and those specific measures adopted on an activity-by-activity basis. Details of noise/vibration mitigation that can and will be adopted will be given to London Borough Bexley to consider.

The following order of priority shall be considered as the general principle for following Best Practicable Means:

6.11 Control at source, selecting quiet and low vibration emitting equipment, the location of plant within the site, operational hours and enclosing by suitable and effective means.

6.12 Screening by either site perimeter, site welfare offices or specific hoarding or enclosure

A list of typical generic measures will be given in Sec.61 applications, and these will be adopted. The Sec.61 applications will also develop these further by detailing activity specific mitigation for the individual site and activity.

- **Construction Noise and Vibration Criteria**

Construction Noise

Threshold levels for construction airborne noise are to be agreed with the London Borough of Bexley throughthe Sec.61 application process. Levels will depend on the sensitivity of the receptors.

Threshold levels are not to be seen as a “limit” but rather to be agreed as a point at which additional mitigation needs to be considered and justification for the adopted method of working needs to be re-evaluated. Plant on- times may need to be reduced and/or additional shielding may need to be introduced, but mitigation considerations will not be limited to these. The project at all times will be working to Best Practicable Means in allactivities, methodologies and choice of plant to mitigate noise from construction.

Non-residential buildings

For non-residential buildings the threshold level will be designed taking into account the use of the building (e.g., office, factory) the time of day/night, and the level of sound insulation afforded by the receptor façade.

Mitigation may include careful programming of works, so they do not have a significant impact on any commercial buildings. Currently it is not anticipated that predicted construction noise or vibration levels will have a significant effect on the use of the surrounding commercial receptors. However, if levels are predicted above the threshold levels for residential then a Trigger Action Plan that includes external threshold levels will be completed for relevant receptors. This will be forwarded to the London Borough of Bexley for information.

Residential buildings

We propose adopting threshold levels from large infrastructure projects. These values reflect the requirements of the Government’s noise policy as defined in Defra’s Noise Policy Statement for England (NPSE).

Table 4: Construction noise thresholds

Day	Time Period	Averaging Time T	*Threshold Level (dB LAeq, T)
Monday to Friday	07:00 – 08:00	1 hr	70
	08:00 – 18:00	10 hr	75
	18:00 – 19:00	1 hr	70
	19:00 – 22:00	3 hr	65
	22:00 – 07:00	1 hr	55
Saturday	07:00 – 08:00	1 hr	70
	08:00 – 13:00	5 hr	75
	13:00 – 14:00	1 hr	70
	14:00 – 22:00	3 hr	65
	22:00 – 07:00	1 hr	55
Sunday and Public Holidays	07:00 – 21:00	1 hr	65
	21:00 – 07:00	1 hr	55

*The threshold level is the values in this column or where the total noise (construction noise plus ambient noise)is 5dB above the pre-existing baseline noise level for the corresponding time of the day, whichever is the higher. The threshold being the level at which it is recognised that additional noise mitigation or programming is requiredto address noise levels so that where practicable they are reduced to below the threshold level.

Construction Vibration

The following criteria are provided for construction vibration.

Table 5: Threshold levels for human response to vibration

Place and time	Low probability ofadverse commentVDV ms $^{-1.75}$ (Vibration Dose Value)	Adverse comment possible VDV ms $^{-1.75}$ (Vibration Dose Value)	Adverse comment probable VDV ms $^{-1.75}$ (Vibration Dose Value)
Residential buildings16-hour	0.2 – 0.4	0.4 – 0.8	0.8 – 1.6
day Residential buildings8-hour night	0.1 – 0.2	0.2 – 0.4	0.4 – 0.8

Note for offices and retail, multiplying factors of 2 and 4 respectively (as specified in BS 6472) should be applied to
the above vibration dose value ranges for ‘16-hour day’.

Table 6: Threshold levels for cosmetic damage in buildings

Category of building	Threshold of potential cosmetic damage (PPV at building foundation)	
	Transient vibration mms^{-1}	Continuos vibration mms^{-1}
Structurally sound and non-protected buildings	12	6
Protected or potentially vulnerable buildings	3	3

Construction Ground borne Noise.

There are no UK legislative standards or criteria that define when ground borne noise becomes significant. Wepropose adopting a design criterion for ground borne noise in residential properties of 40dB LAmax, slow.

- **Monitoring Protocol for Noise and Vibration**

Noise and Vibration Monitoring Scope

Monitoring will be a mixture of unattended and attended measurements throughout the duration of the project.Attended monitoring will be planned and delivered as part of the Sec.61 application process, if necessary.

Long term noise / vibration monitoring

The aim is for noise and vibration to be monitored long term in locations where meaningful results can be obtained and easily interpreted, free from influence from other external sources we will report suitability of receptors identified for long term unattended noise and/or vibration monitoring at 33-35.

At this stage, it is envisaged that a noise monitor and a vibration monitor will be located at the boundary of the site as confirmed with the London Borough Bexley pollution management. Monitors will be able to operate outdoors and have the appropriate weather protection system installed. As security may be an issue for unattended equipment, monitors can only beleft in secure and safe locations, and this will be a contributing factor to the suitability of locations chosen.

Monitors will continuously monitor noise and vibration. In this area, it is likely any construction site noise measured by the monitors will be the result of activities associated with on-site works at this development.

The following noise parameters will be measured continuously as a minimum; dB LAeq and dB LAmax. And vibrationparameters VDV ms $^{-1.75}$ and PPV mms ^{1}. The measurement period will be set at 5 minutes and the reporting period set to 1 hour.

Currently a web-based system is proposed to store and provide results online with remote downloading.

Trigger levels will be set on the monitors to generate alerts. This may require evaluation of transfer functions andthe trigger level(s) will be agreed with The London Borough of Bexley. The monitors will have the capability of sending text alerts to mobile site operatives to warn if the construction noise and/or vibration level is approaching or at the threshold level. This will allow an immediate investigation of what is causing the elevated level and the opportunity to take action to remedy this.

If a threshold exceedance occurs, we will investigate and determine if this was likely to have been due to the works. If it is concluded that it was, then we will check to make sure that Best Practicable Means (BPM) were/are being used to control noise and vibration.

A review will take place to consider:

6.13 the plant being used.
6.14 the methodology
6.15 the location of the works
6.16 that incorporated mitigation is being used correctly.
6.17 whether investigation by the Acoustic Consultant is required.

An incident report will be provided by the contractor reporting on the exceedance and the follow-up findings.

Attended noise / vibration monitoring.

As a commitment in the Sec.61 application and compliance with planning consent, attended noise and/or vibration monitoring will be done at representative locations and times:

6.18 in response to complaints
6.19 at the request of the London Borough of Bexley.

Attended monitoring locations will be discussed and agreed with the London Borough of Bexley.

Sample noise monitoring periods where practicable will be a minimum of 5 minutes duration but typically 15 minutes. Microphones will be positioned at least 3m from the facade of any building where practicable, at 1.2m to1.5m from the ground and will be fitted with appropriate weather protection. For vibration sampling, this again where practicable will be a minimum of 5 minutes duration but typically 15 minutes.

Such monitoring will be done by a suitably competent person. All measurements will comply with current best practice. The principle Contractor will retain all monitoring results (tabulated in electronic format) for at least 6 monthsafter the contract end date. These will be made available to the London Borough of Bexley on request.

Specification and Calibration of Noise and Vibration Monitoring Equipment

Measurements of noise levels will be done with sound level measuring equipment conforming to BS EN 616 72-1(IEC 61672-1), Type 1. The sound level meters will be capable of real time analysis giving statistical level measurements and will measure LAeq. Measurements of vibration will be done using measuring equipment conforming to BS EN ISO8041:2005.

Instruments and calibrators will be calibrated every two years by a calibration laboratory whose measurements are traceable to national or international standards, by a UKAS approved (or equivalent) test laboratory and have test certificates available.

The calibration of the unattended monitors will be checked periodically. Where it is found that calibration has drifted by more than 1dB, calibration will be repeated for validation. If the drift is maintained the monitor will be removed and replaced. The London Borough of Bexley will be notified of the procedure.

Complaints from Sensitive Receptors

Complaints about noise and/or vibration from site activities will come direct to the site or via the London Boroughof Bexley. The Principal Contractor will complete the initial investigation and if the cause is not immediately obvious, they will call upon their Acoustic Consultant to assist. The Acoustic Consultant will respond by investigating the source of the complaints, taking noise and/or vibration readings where appropriate. These measurements will be compared to predicted noise levels; plant listing and methodology utilised. Checks that BestPracticable Means is being employed will also be made. The Acoustic Consultant will provide a written report of their investigation to The Principal Contractor, and this will be made available to local authority if required.

Request of Local Authority

If required, attended noise monitoring will be done at the request of the London Borough of Bexley. Thismay be as the result of complaints received or as a request for validation of predicted noise levels. The completedassessment will be provided as a technical letter for the Principle Contractor to forward to the local authority.

Further Contractor's Actions

A checklist will be completed by site personnel at least once a week. This audit is to check the Sec.61 applications is being correctly implemented.

If any non-compliances are found, action will be taken to correct this and noted on the report. Where alternative mitigation is used on site to that detailed in the Sec.61 application (e.g., due to site conditions), this will be providedon the checklist. The example given will vary depending on the

construction activity and the programme.

Reporting

For long term noise/vibration monitoring it is proposed at this stage that a “live” online system will be used, which will allow the contractor access to real time data for each of the installed noise/vibration monitors. The web-basedsystem will also be set up to store historical data. Weekly reports will be provided to the local authority.

For attended monitoring (noise and vibration) such as for the investigation of complaints and the validation of theprediction model, a technical letter will be issued for each visit. This will be provided to the contractor. It is proposed to use forms to report on attended monitoring - see Appendices 2 and 3.

Appendix 1: Example of Checklist

Generic		Comment / Example

All vehicles and plant will be switched off when not in use.		
All plant being used is included within the Section 61 consent application		
Plant is being operated in a manner which minimises noise and vibration (i.e., engine covers closed, airlines not leaking, joints suitably lubricated)		
Plant is maintained in a good condition		
Good housekeeping on site		
Site operatives suitably informed of the consent requirements, their responsibilities to minimise noise and vibration, and the approved working hours.		
Design and use of site hoardings and screens, where necessary, to provide acoustic screening at the earliest opportunity. Where practicable, doors and gates will not be located opposite occupied noise-sensitive buildings.		
Specific		
The use of mufflers on pneumatic tools.		
Rubber protection matting within the jack up working area to eliminate metal on metal impact noise		

Compliance with Section 61: YES/NO

If NO, ACTIONS REQUIRED:

Signed (Surveyor): ……PRINT NAME): ……Date: ……

BPM
Project Management Ltd

Worksite: Contract ref.: Plan of Monitoring Location attached: YES/NO			Weather Conditions:			Date:
Survey Location (free field/facade) Start Time: Finish Time:			Sound Level Meter Type: Serial Number: Time Response: Fast/Slow			Calibration Reading: Start: Finish:
Time	Activity/Equipment	Measurement Distance [m]	Measurement Duration [min]	L_{Aeq} [dB]	L_{Amax} [dB]	Comments/Events

Compliance with Section 61: YES/NO

If NO, ACTIONS REQUIRED:

Signed (Surveyor): …… PRINT NAME): …… Date: ……

App

Worksite: Contract ref.: Plan of Monitoring Location attached: YES/NO			Vibration Meter Type: Serial Number: Date last Calibrated:					
Date	Detailed Location	Activity /Equipment	Measurement Distance [m]	Measurement Duration [min]	Vibration Level			
					VDV / eVDV [m/s$^{1.75}$]	PPV [mm/s]		
						X	Y	Z

Compliance with Section 61: YES/NO

If NO, ACTIONS REQUIRED:

Signed (Surveyor): …… PRINT NAME): …… Date: ……

App
Appendix 5 - Site Fire Safety Plan

App

AMENDMENT RECORD

All changes to this document must be listed and recorded in the following table. Authority for amendment or alteration of this document is to be obtained from the Site Fire Safety Co-ordinator.

ISSUE NO.	DETAILS	DATE	AUTHORISED BY

App **INTRODUCTION**

This Site Fire Safety Plan (hereinafter referred to as the Plan) seeks to demonstrate the willingness of the Principal Contractor in the implementation of measures to minimise and control, in so far as is reasonably practicable,the risks from fires on their construction site at Welling United Football Club.

This Plan is prepared and issued in accordance with guidelines set out in the following legislation and guidance:

- Fire Precautions Act 1971
- Construction (Design & Management) Regulations 2015
- The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation (Jan 2012)
- Health & Safety (Safety Signs & Signals) Regulations 1996
- Approved Document B Building Regulations 1991

17.1 **ORGANISATION & RESPONSIBILITY FOR FIRE SAFETY**

17.2 The Principal Contractor shall be responsible for the following duties regarding the firesafety of the site:

- Assessing the degree of fire risk.
- Ensuring that a Plan is formulated and produced.
- Monitoring and ensuring that the Plan is understood, followed and put into practice.
- The regular updating of the Plan as and when this becomes necessary either by the marking up of controlled site drawings or by the appending of relevant information to the Plan.
- Provide training for the nominated competent person(s), hereafter referred to as the Site Fire Safety Co-ordinator (SFSC).

17.3 The Principle Contractor shall appoint a Site Fire Safety Coordinator (SFSC). The SFSC shall ensure that:

- All persons on site are aware of, and shall comply with, the measures standards and controls contained in the Plan.
- Daily visual checks are carried out on all fire escape routes, signage, firefighting equipment and alarm devices.
- The Weekly Site Fire Inspection Register (**SHEQ – 034**) is maintained. See also checklist **Appendix B** tothis Plan.
- There is a good standard of liaison with the local Fire Brigade and that all necessary and reasonable tours and inspections are arranged.
- Site security personnel, especially those employed during non-working hours are familiar with site fire procedures as described in the Plan.
- During an alarm or fire related incident that there is a safe evacuation of site to the specified Assembly Point and to identify from a nominal roll that all persons known to be on site are identified as having vacated the premises.
- A Hot Work Permit system is established, implemented and monitored See also **Section 5** of this Plan and **Appendix C**.

17.4 The SFSC will, with the agreement of the Principle Contractor appoints a Site Fire Warden(s) who shall be responsiblefor:

- All duties of the SFSC as described in 2.2 above in the event of the extended absence from site of the SFSC for any reason.
- To undertake all reasonable duties to assist the SFSC in the implementation of the Plan.

App 17.5 Appointments:

POSITION	APPOINTEE	APPOINTED BY.	ACCEPTED (SIG)	DATE
SFSC		**Principle Contractor**		
Site Fire Safety Wardens		**Principle Contractor**		

- **SITE PRECAUTIONS, WARNING ALARMS & EXTINGUISHERS**
- Due to the nature of the' building's construction and type of works undertaken the SFSC will enforce a strict NO SMOKING policy.
- To each floor of each separate part of the works; dedicated Fire Points shall be established which shall meet with the following requirements:
  - The Fire Points shall be located as indicated on plan (**Appendix E Fig1**). Where work necessitates the movement of such Fire Points, these shall be located in such a position as to be within or directly adjacent to, the dedicated fire escape route/s. It shall in no way be situated so as to obstruct or in any other way confine the escape routes.
  - Each Fire Point shall be clearly identified with a sign (**Appendix E Fig1**).
  - Fire Points shall contain the equipment and information as indicated and specified in the following sections as may become relevant and apparent. A typical layout for a Fire Point is shown in **Appendix F**
- Fire Points will be established in the Temporary Accommodation Units (TAU).
- Written Fire Orders shall be produced and displayed at prominent locations on site. This may be at each Fire Point and/or at each entrance and exit to the site. Copies of the Fire Orders should be available on request to all persons on site and must contain the following information:
  - Method of raising the alarm in the event of fire.
  - Method of calling Fire Service.
  - Action to be taken upon hearing alarm.

  * An example of Fire Orders may be found at **Appendix A** of this Plan.
- Manual call points and sounders linked to the alarm panel (located in the Security Hut) shall be mounted at the Fire Points; additionally heat detectors will be positioned at critical points throughout the site to. Operablealarms shall not be more than 30 metres travel distance from any part of the works.
- The primary fire risks to the site have been identified as
  - Class A Carbonaceous (Wood, Paper, Cloth etc.).
  - Class B Flammable Liquids (Adhesives, Bitumen, Paints etc.) and Electrical.
- Portable Fire Extinguishers of the appropriate types shall be located at each Fire Point. These shall be situated in red boxes or mounted on brackets generally at hand height where practicable.
  - The numbers and types of extinguishers to be supplied are detailed in **Appendix D**
- Signage is to be displayed at each Fire Point detailing the safe usage of each extinguisher type (**Appendix E Fig5**).
- A clearly identified Assembly Point shall be established as identified on the site plan as detailed in **Appendix E**

App **Fig 2**.

- Emergency lighting is provided in the TAUs and escape routes as indicated on the plan drawing (**Appendix E Fig 4**). The system will be linked to the lighting system and provide sufficient illumination to enable escape.

8.1 FIRE ESCAPE ROUTES

8.2 The site shall have clearly identified emergency escape routes to be used in the event of a fire or other emergency. These routes shall be clearly identified by means of signage. These escape routes as indicated on the plan drawing (**Appendix E Fig 4**). The final exit shall be as indicated on the plan drawing (**Appendix E Fig 3**).

8.3 Fire escape routes shall be kept clear of all obstructions including plant, materials, cables, scaffoldings and access equipment and shall be kept clear of debris arising from the works.

8.4 In the event of a dedicated escape route becoming blocked due to necessary works, an alternative and viable temporary escape route shall be identified and indicated as such by adequate signage. All emergency equipment from fire points shall be transferred to as near as possible to the temporary route whilst the main route is out of use. The main escape route shall be re-established as soon as is reasonably practicable following completion of the necessary works.

8.5 The SFSC or Fire Warden shall inspect the escape routes on a minimum of twice daily basis. Where known works likely to affect escape routes are identified, inspections should be undertaken prior to works starting and following the completion of such works.

App

e. HOT WORK PERMITS

f. Works on site which shall include welding and cutting, brazing, the use of blow lamps, soldering equipment, bitumen and asphalt boilers and heaters and any other equipment which may produce heat, sparks or having naked flames shall be controlled on site by the use of a Hot Work Permit system.

g. The SFSC shall be responsible for the issue of the permit to carry out hot works on site. An example of a Hot Work Permit (**SHEQ – 019**) is demonstrated at **Appendix C** to this Plan.

h. The Permit shall be for a specified time period limited so as to control adequately the risk from hot working and to ensure that all hot work and associated equipment, apparatus and materials are in a safe condition prior to works, during the works and at close of business each night.

i. Prior to issue of the permit, the SFSC shall ensure that the area of the proposed works shall be as clear as is reasonably practicable of any and all combustible materials. All fabric, fixtures and fittings which by their nature may not be removed shall be adequately protected against the risks from combustion by sheathing, shrouding or other adequate, suitable and practicable means.

j. Portable extinguishers of the correct type and specification shall be at hand during the works which shall be monitored at all times by competent trained persons.

k. Welding works which may give rise to flash bums, arc eye or similar associated hazards shall be adequately screened using non-combustible materials.

l. If bitumen boilers or asphalt heaters are taken onto roofs, these must be fully insulated against the risks of combustion to the roof surfaces upon which they are to be located during the works. LPG feeder bottles shall be limited to the minimum necessary to carry out the works and shall be situated at no less than 3 metres from the burners and only armoured feeder hose used.

m. All hot works are to cease at least one clear hour (two hours for timber frame projects) prior to close of business. During this period the SFSC shall check the works and ensure that all equipment is shut down and that there is no smouldering or other fire related hazards resultant from the works.

n. The procedure to be followed in the operation of a Hot Work Permit System is as follows:

1. The Permit to Work must be completed in duplicate with a copy retained with the record book by the person responsible for the issue of the documents.
2. The unique number of each document must be written in ink in the box and the document should be completed in ink and in BLOCK CAPITALS for legibility.

PERMIT DETAILS

b. The location of the work area must be entered and defined in sufficient detail.

c. The plant/equipment/area to be worked on/in must be clearly defined.

d. A specific description of the work to be done must be entered describing any limitations.

e. Where a time limitation restriction needs to be incorporated the authorised person should complete.

App

f. The control measures taken to ensure that dangers to the working party from the plant/equipment systems and or area in which the work is to be undertaken should be specified in detail including actions taken to dissipate or control stored energy.

g. On-going control measures required to control risks arising from the systems/areas where the work is to be undertaken should be specified e.g., on-going gas testing, ventilation, specialised equipment, trapped fluids etc.

AUTHORISATION

Once the control measures have been implemented / specified the authorised person responsible for the preparation and issue of the document must sign and date the document.

RECEIPT

h. The person receiving the document will ensure by discussion with the authorised person who has prepared the document, and by reading the document that he fully understands the limits, restrictions, additional control measures and conditions identified in the document. By signing and dating the document he accepts responsibility for undertaking the work, ensuring that all persons under his control are informed and understand the requirements and that general safety precautions are implemented to control the risks introduced by the work/work processes.

i. **Note: <u>The permit holder must remain on site in-charge of the working party</u>**. If the permit holder must leave the site, then the permit must be cleared and cancelled, and another person nominated to receive a fresh permit.

j. If the permit holder is not satisfied in any way with the precautions and conditions which apply at any time during the operations. All persons under his control must be withdrawn and the permit returned to the person who issued it with details of any difficulties, unsafe conditions etc. encountered.

CLEARANCE

5 When the permit time limit is reached, the work is complete, permit holder leaves site etc., then this section must be signed and dated before returning the permit.

6 If the work has been completed and all tools and equipment have been removed, guards and access doors replaced, loose materials removed, then the permit can be cleared away noting any exceptions on the document.

7 The permit can only be cleared by the permit holder.

App

CANCELLATION

6 The permit cannot be cancelled unless all copies are with the person who issued the permit and the person to whom the permit was issued has cleared the permit by completing the Clearance Section.

7 Normally, only the person who issues a permit should cancel it but, in some cases, it may be necessary toauthorise other persons to cancel permits. The permit record book must be maintained up to date.

8 When a permit is cancelled, both sides of each copy must be marked with a clear bold diagonal line from corner to corner and all copies must be filed in a cancelled permit file.

6.10 SITE ACCOMMODATION

6.11 Site accommodation is provided by way of Temporary Accommodation Units (TAUs).

6.12 The location of the TAUs will be in excess of the 6 metres from the works.

6.13 Additional TAUs provided by subcontractors will be located in excess of 6m from the works.

6.14 In the event that new site accommodation is within 6m from the works, the following criteria must be met:

- Ability to achieve resistance to Class 1 surface spread of flames to all internal wall and ceiling surfaces and to all external wall surfaces. Roofs are to achieve Class AA rating.
- Walls and roof to achieve 30 minutes fire resistance.
- Doors and windows to achieve 30 minutes fire resistance.
- All support members to stacked units to achieve 30 minutes fire resistance.
- Fire Points as indicated appropriate to the other parts of site to be installed to include at least 1 off, hand operated alarm bell or klaxon and 1 off of each water and C02 portable fire extinguishers, fire orders and adequate signage to identify escape route/s; Fire Points shall be located at both upper andlower levels of the escape route in a position so as not to obstruct that route.

6.15 Flammable materials and items shall not be stored inside nor underneath these portable buildings.

6.16 Where a portable building is to be used as a drying room, coat stands, and drying racks must be positioned at a safe distance from heaters which shall be thermostatically controlled with enclosed elements and be securely fixed.

6.17 Any other heating units within portable buildings shall be securely fixed in position, preferably above floor level and with guards affixed as necessary.

6.18 Furnishing and fittings to portable buildings shall be of such a type as to be fire resistant and to be of a type which does not release toxic or harmful fumes if combustion should occur. Synthetic materials in furnishing shall be limited in as much as is reasonably practicable.

7.7 FIRE SERVICE ACCESS, FACILITIES &CO-ORDINATION

7.8 The Principle Contractor shall either by means of their Site Management and their appointed SFSC make contact withthe local Fire Service and make them aware of the site and the nature of the works.

7.9 The Fire Service shall also be made aware of the site procedures during non-working hours and security staff in occupation during these times shall be trained and made aware of site fire procedures and the means of summoning the Fire Service and allowing them the necessary access.

7.10 The Principle Contractor shall undertake to supply the Fire Service with such information regarding the site and natureof the works as is deemed necessary for the Fire Service to adequately provide the support and levels of

App assistance required this may include:

- Site visits and walkthroughs.
- Site inspections of fire arrangements and escape routes.
- Emergency contact details for silent and non-working hours.
- The Principle Contractor will ensure, as so far as is reasonably practicable, the early installation andcommissioning of the dry riser system.

7.11 FIRE TRAINING

7.12 The Principal Contractor shall undertake to ensure that staff and operatives are trained to follow and implement sitefire safety procedures as detailed in this Plan.

7.13 All sub-contractors and their staff and visitors to site shall be given induction training to ensure that they are aware of escape routes, Fire Point locations, Fire Orders, Assembly Points and all other fire associated implementations on site in accordance with this plan. This induction training will be given by the SFSC or Fire Warden.

7.14 All staff, operatives, sub-contractors and visitors shall be required to sign in and out of site in order that the SFSC may adequately and correctly be in possession of the knowledge of who is on site in the event of fire. This will be by means of a system of signing in and out sheets which will allow the SFSC to compile an accurate nominal roll to be checked at the Assembly Point in the event of fire.

- **COUNTERING ARSON**

- The principal Contractor shall undertake to ensure in as far as is reasonably practicable that all persons working on orvisiting site shall be identified as having required access to the site by their Site Management Team.

- The site shall be enclosed in as much as is possible so that access points to and from the site may be adequately controlled.

- During non-working hours a site security guard shall occupy the premises and shall have full access to all necessary emergency equipment and a means of notifying the Fire Service in the event of fire caused by arson or otherwise.

- The site security guard may also be required by the SFSC to inspect areas where hot work has taken place in order that combustion due to hidden smouldering or similar may be avoided.

- **MATERIAL STORAGE & WASTE**

- All flammable materials used on site shall be identified to the SFSC as soon as they are brought to site. The SFSC will monitor the quantities of flammable materials and restrict their use so far as is reasonably practicableto the bare minimum.

- Flammable materials shall be stored in dedicated non-combustible containers such as metal shipping containers or similar. These containers shall be secured unless materials are being moved into or taken from them.

- Flammable materials of incompatible types shall not be placed into mixed storage (i.e., chlorinated paints andsolvents and isocyanates with standard oil based paints).

- LPG cylinders and highly flammable liquids shall preferably be stored in open air compounds which are dedicated to that purpose. The compounds shall be securely fenced and shaded from direct sunlight and shallbe situated not less than 4 metres (10 metres for timber frame projects) from any building or boundary fenceunless the boundary is a wall with 30 minutes fire resistance the wall to extend at least one metre above the tops of any drums or cylinders in storage.

- Storage units and compounds should be provided with fire extinguishers to the level indicated in **Appendix D**.

- Any electrical lighting or fittings located in the areas occupied by stored flammable and gasses shall be intrinsically safe in operation to avoid spark related ignition.

- All flammables used on site shall be removed from the works area at close of business each night and taken to the dedicated storage areas. Flammables shall not be left within the site building areas out of working hours.

- The site shall be kept in a clean and reasonable condition with all waste materials, such as wood shavings andPVC cable off cuts etc., being cleared up as regularly as practicable but at least once per day to leave the site clear and clean at close of business.

Appendix 6 – Air Quality Dust Risk Assessment

Contents

1.0 Summary

Woolwich Road Ltd are building a mixed-use development with commercial units and new football pitch and facilities in LB Bexley, London. The development will consist of 2 main buildings containing a total of residential dwellings and commercial units and football facilities either side of the new pitch.

The risk of dust impact due to construction activity associated with the proposed development is assessed to be:

- High risk for dust soiling
- High risk for human health effects
- Medium risk for ecological effects.
- High risk for odour nuisance.

Through general good site practice and by adopting suitable mitigation measures outlined in **Appendices A** and **B**, we do not expect adverse effects related to construction dust whilst the contractor applies suitable mitigation measures as outlined in the appendices.

This AQDMP should be reviewed to address changes to any construction or demolition activities, or to any dust or NOx emitting activities. For example, a works method statement is not currently available. When one becomes available, this AQDMP should be reviewed and updated if necessary.

2.0 Introduction

The existing structures are to be demolished and the site to be cleared to provide 2no 5 and 6-storey blocks, providing a mix of commercial and residential apartments. The site is bordered by Park View Road Danson Road, Roseacre Road and Danson Park in an area that is predominantly residential buildings. Access to the site can be obtained from the A2 and Park View Road for vehicle and pedestrian

The potential air quality impacts associated with the proposed development relate to:

- dust and particulate matter generated by construction activities.
- increase in concentrations of oxides of nitrogen (NO_X) and particulate matter (PM_{10}) due to emissions from construction activities on site.
- NOx dust and particulate matter generated from the movement of vehicles to and from the site.
- Odours and emissions from the site remediation works.

This Air Quality Dust Management Plan (AQDMP) will be put in place to attain minimal emissions from site activities during the duration of the work. This plan covers the existing air quality conditions aroundthe site the impacts of construction activity within a dust risk assessment considers the localand national policy context.

3.0 Relevant Policy and Guidance

The Control of Dust and Emissions During Construction and Demolition

The Greater London Authority's 2014 guidance, *The Control of Dust and Emissions During Construction andDemolition*[1] details the need for an AQDMP, what it should contain and the need to keep the document under review to reflect any timetable changes. The guidance states that:

"An AQDMP should be produced prior to any construction of demolition works after the planning application phase.

The AQDMP should be kept under review to address any changes to the demolition/construction timetable orassociated dust or NOx emitting activities.

The focus of the dust and pollution control measures to be outlined in the AQDMP should be to reduce health anddust annoyance impacts on existing local receptors. Potential health impacts from dust emissions to site personnel should be addressed."

The Air Quality Strategy

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland[2] sets out air quality objectives and policy options to improve air quality in the UK. The main aim of the Strategy is to ensure that ambientair quality is of an acceptable level to protect human health and the environment. It takes account of the Limit Values set out in EU legislation.

Local Air Quality Management (LAQM)

The Environment Act 1995 introduced the LAQM system, whereby local authorities have a duty to reviewand assess air quality within their areas against the air quality objectives defined in the Air Quality Strategy.Where exceedances of the objectives are identified during this process, the authority must then declare anAir Quality Management Area (AQMA) and define the measures which will be implemented to improve airquality.

National Planning Policy Framework (NPPF)

The NPPF (2019)[3] sets out the Government's planning policies for England and outlines how they are expected to be applied to achieve the Government's aim of sustainable development. The NPPF states that:

> "*Planning policies and decisions should also ensure that new development is appropriate for its location, taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that couldarise from the development.*"
>
> *"Planning policies and decisions should sustain and contribute towards compliance with relevant limit values ornational objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement… Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."*

Odours and Emissions from ground remediation works.

The Principal Contractors method statement report will set out the air quality monitoring and necessary responses to any trigger levels recorded on site. The contractor shall manage odours and emissions in accordance with the Report.

Construction Programme

- Working Hours

Working hours on site are:

- Monday to Friday – 08:00-17:00
- Saturday – 08:00-13:00
- Sunday – No work permitted.

- Demolition Method Statement

The Demolition contractor will prepare the demolition method statement for this project.

- Site Setup

Site welfare facilities will be set up which will include toilets, a canteen and an office.

- Existing Services

Prior to works, all existing services entering the existing buildings will be terminated.

- R&D Asbestos Survey

An R&D asbestos survey was carried out prior to the beginning of works; no asbestos was flagged for immediate removal. Full details are available in the report: *Asbestos Refurbishment Survey Report, B-05865*,dated 05/08/2019.

- Scaffolding and Protection Decks

Scaffolding will be erected as deemed necessary during the programmed works.

- Erection of Site Hoardings

Secure timber hoarding will be erected along the site boundary upon completion of the demolition works. Heras fencing will be used during the demolition phase.

- Erection of Scaffolding

Scaffolding will be erected along the boundary as required to complete thedemolition works.

- Removal of Rubbish and Internal Soft Strip of all Buildings

All rubbish within the existing buildings will be cleared. Following this, soft strip works will commence. The soft strip works will consist of the removal of all suspended ceilings, light fittings, wall linings, doors, floor finishes etc. These will be removed using small handheld tools.

All mechanical and electrical plant and equipment will also be removed from within the buildings, using hot oxygen/propane cutting equipment.

Once the rubbish has been cleared out of the existing buildings the softstrip works will commence. Skips will be positioned within the site boundary, once skips have been positioned operatives will commence the internal soft strip of the buildings. The soft strip works will consist of the removal of all light fittings, doors, floor finishes etc. These will be removed by operatives using small hand-heldtools and loaded directly into the appropriate skip.

All mechanical and electrical plant and equipment will also be removed from within the buildings, these works will be carried out by using hot oxygen / propane cutting equipment, Hot works permits will be issued by the Site Supervisor at the start of the works, all hot works will cease 1 Hr. prior to the end of the day and a fire check will be carried out prior toleaving site.

Any high-level areas will be accessed by mobile access towers.

Upon completion of the soft strip works the main demolition works will commence.

7.15 Demolition of Buildings

The buildings will be demolished.

7.16 Removal of slabs and foundations

Prior to the slab removal works commencing, dust boss machines will be set up at the perimeter of the existing site to reduce the escape of dust whilst carrying out the works. All exiting manholes / pipe runs will be traced back to the existing site boundary and thesewill be plugged. Any pipes leading towards the river Lea will be located and permanently sealed.

Excavators equipped with hydraulic breakers will commence to break up the existing concrete slabs, these will be broken out in small increments, the machine equipped with abucket will pull back the slab to expose the building foundations below, all concrete from the slab removal will be stockpiled onsite ready to be crushed.

Once the foundations have been exposed these will then be broken out using the excavators with the hammers and removed from within the ground.
Any foundations along the existing footpaths will be checked and should the removal ofthese undermine the footpath these will be left in situ.
Once the removal of foundations has been completed, all concrete / hardcore materials willbe crushed to a 6F2 specification and stockpiled on site.

A Pegson 1100 X 650 tracked crusher fitted with an overband magnet will be employedalong with the excavators to crush the materials and stockpile them for future re-use.

All foundation removal voids will be backfilled as works progress.

Finally, the concrete hardstanding will be lifted and removed from site, all manholes anddrains will also be removed.

Below ground tanks and pits located during the SI will be broken down and crushed.
Contaminated material from the tanks and pits and surrounding areas shall be safely set aside and stored for removal to specialised tips.

Material to be retained on site and encapsulated shall be treated within the remediation strategy.

On completion of the slab / foundation removal works, the existing ground will be levelled dusing the

excavators.

- Laying of Piling Mat

A terram geotextile separation membrane will be laid before the crushed material is laid down in 200mm layers to levels set out by the **Principal Contractor**. Each layer will be tracked in by a 21t excavator.

- Construction Activities

The main construction activities include:

- Piling
- Capping beams
- Groundworks
- Masonry façade
- Concrete frame
- Internal fitout
- Soft and hard landscaping

- Water Supply

An adequate water supply is necessary on site for damping down purposes, which will allow for the implementation of several mitigation measures in **Appendices A** and **B**. Temporary water supplies will be provided by 2 metered sources on site.

- Drainage

The Construction Phase Plan and Code of Construction Practice document states that:

- Any discharges to drains will not be undertaken without approval, and where required, the necessary consent being issued.
- Any discharges to a stream, watercourse or soak-away is prohibited and will not be allowed during the works.
- In the event of a spillage or discharge to either the local drainage system or watercourse, Site Management are to be notified immediately and appropriate action must be taken to prevent further contamination.

- Dust Risk Assessment

- Dust Emission Magnitude

During the construction phase, activities may generate dust and particulate matter, as well as exhaust emissions from construction vehicles and plant, which could result in complaints of nuisance and human health effects.

The likely level of risk has therefore been assessed following guidance published by the Institute of Air Quality Management (IAQM) and the Greater London Authority (GLA). The assessment considers the nature and scale of the activities undertaken and the sensitivity of the surrounding area. Mitigation measures proportionate to the level of risk identified are then set out.

Additionally, exhaust emissions from construction vehicles and plant may have an impact on local air quality adjacent to the routes used by these vehicles to access the site and near the site itself. As precise information on the number of vehicles and plant associated with each part of the construction phase is not yet known, a qualitative assessment of their impact on local air quality has been done using professional judgement and by considering the following:

- The likely number and type of construction traffic and plant.
- The number and proximity of sensitive receptors to the site.
- The likely duration of the construction period; and
- The nature of the activities undertaken.

IAQM and GLA assessment methodology has been used to determine the potential dust emission magnitude for the following four different dust and PM_{10} sources: demolition, earthworks, construction, and track out.

- Demolition

Before construction works begin, the existing buildings have been demolished. Demolition activitiesinclude the removal of sheeting, the removal of steel framework and the breaking out of existing floor slab. Concrete and hardcore will be crushed on site. The area of the buildings to be demolished is approximately6,000m^2. The heights of these buildings are estimated to be approximately 10m; therefore, the total demolition volume is approximately 60,000m^3. No demolition work is likely to occur at over 10m height.
Given all this information, the dust emission magnitude due to demolition is judged to be **large**.

- Earthworks

The site is located on an area with both peaty clay and sand to sandy loam[10]. and made ground. Clay is made of very fine particles that are prone to suspension in the air when dry. Sand is made of more coarse particles which areless prone to this suspension. Earthworks activities occurring over a large area of the site. Therefore, the potential dust emission magnitude from earthworks is judged to be **medium**.

- Construction

A mix of residential and commercial units are to be constructed, with a total building volume of 25,000m^3. Most of the construction material is expected to be concrete, meaning there is potential for dust. Concrete batching is not expected to take place on site. The potential dust emission magnitude from construction is judged to be **medium**.

- Track out.

It is anticipated that the maximum number of the **Principle Contractor team** visiting site per week will be 77 (Weeks 77-80). This is approximately 14 **Principal Contractor**s visiting site per day, based on 5.5 working days on site. **Principle Contractors** will likely travel overan unpaved road length of less than 50m. Therefore, the potential dust emission magnitude from track out is judged to be **medium**.

- Summary of Dust Emission Magnitude

Table 1. Dust Emission Magnitude

Activity	Dust Emission Magnitude
Demolition	Large
Earthworks	Medium
Construction	Medium
Track out	Medium

- Sensitivity of the Study Area

The site is surrounded by commercial receptors, which can be considered as having medium sensitivity to dust effects. The adjacent residential dwellings are considered to be highly sensitive to dust effects. Dust Soiling Effects

A detailed study of the area will be undertaken prior to commencing works and monitoring strategy implemented.

- Summary of Sensitivity to Dust Effects

Table 4 summarises the sensitivities assessed for the area. The highest sensitivities assessed are recordedwithin the table and will be taken forward in the assessment.

Table 4. Sensitivity of Area

Potential Impact	Sensitivity of Area			
	Demolition	Earthworks	Construction	Track out
Dust Soiling	High	High	High	High
Human Health	Medium	Medium	Medium	Medium
Ecological	Low	Low	Low	Low

- Overall Dust Impact Risk

The predicted dust emission magnitude (**Table 3**) has been combined with the sensitivity of the area (**Table 4**) to determine the risk of impacts during the construction phase, prior to mitigation. **Table 5** summarises the risk of dust impacts for the proposed development. The risk category identified for each construction activity has been used to determine the level of mitigation required.

Table 5. Summary of Anticipated Dust Risk Impacts

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Track out
Dust Soiling	High Risk	Medium Risk	Medium Risk	Medium Risk
Human Health	High Risk	Medium Risk	Medium Risk	Low Risk
Ecological	Low Risk	Low Risk	Low Risk	Low Risk

6.0 Fuel Storage

Fuel will be stored in small quantities with spillage trays. Gas bottles will be stored externally in cages.

The amount of oil and fuel coming into the site will be monitored to ensure that it is kept to a minimum,and this will be stored in line with the Control of Pollution (Oil Storage) Regulations 2001[11]. This states that:

- Tanks, drums or other containers must be strong enough to hold the oil without leaking or bursting.
- If possible, the oil container must be positioned away from any vehicle traffic to avoid damage from collision.
- Secondary containment, such as a bund or drip tray must be provided to catch any oil leaks from the container of its ancillary pipework and equipment.
- The secondary containment must be sufficient to contain at least 11% of the maximum contents of an oil tank, mobile bowser or Intermediate Bulk Container
- Where more than one container is stored, the secondary containment should be capable of storing 11% of the largest tank or 25% of the total storage capacity, whichever is greater.
- The secondary containment base and walls must be impermeable to water and oil.
- Any valve filter, sight gauge vent pipe or other ancillary equipment must be kept within the secondary containment when not in use.
- No drainage valve may be fitted to the secondary containment for draining out rainwater.
- Above-ground pipework should be properly supported.
- Underground pipework should be protected from physical damage and have adequate leakage detection. If you are installing pipes with mechanical joints, they must be easy to inspect.

7.0 Air Quality On-Site: Responsible Person

Woolwich Road Ltd have identified the potential risks especially from earthworks and the groundworks contractor method statement IE22/001 fully responds to these risks. The contractor will nominate a “responsible person” for air quality on-site. This person will needto be adequately trained to be responsible for air quality on-site and will need suitable knowledge of pollution monitoring, control methods and vehicle emissions.

The “responsible person” will have access to the on-site monitoring information, so that they are aware of limit exceedances and can implement mitigation measures to resolve the issue.

8.0 Monitoring Protocol

If the mitigation measures are implemented, then dust and other pollutant emissions during demolition and construction activities will be minimised.

Monitoring helps manage the generation of dust and pollutants and can also assess whether mitigation measures are being implemented effectively. Without attention, it is possible that the emissions from the demolition and construction activities could further worsen the air quality in the existing AQMA.

Anticipating the site is likely to be high risk (**Table 5**), the following monitoring protocol is recommended as per the *Control ofDust and Emissions During Construction and Demolition: Supplementary Planning Guidance*:

- Determine prevailing wind direction using data from a nearby weather station or by setting up a weather station on site to measures local wind direction and speed. If measuring along a line
  - Set up a line across the site according to the direction of the prevailing wind; and
  - Operate a minimum of two automatic particulate monitors to measures PM_{10} levels at either end of

the transect – either inside or outside the site boundary. These instruments should provide data that can be downloaded by the local authority.

- LB Bexley may also require monitoring at sensitive receptors, if this is the case:
  - Identify locations that need to be monitored and set up an automatic particulate monitor at each of these to measure representative PM_{10} levels. These should provide data that can be downloaded in real-time by the local authority.
  - If applicable, supplement with automatic monitors or hand-held monitors, particularly focusing on any sensitive locations such as schools.
  - Carry out dust deposition and soiling rate assessments following recommended procedures.
  - Carry out a visual inspection of site activities, dust controls and site conditions and record in a daily dust log.
  - Identify a responsible trained person on- site for dust monitoring who can access real-time PM_{10} data from automatic monitors (e.g., at hourly or 15-minute intervals). Ensure that adequate quality assurance/quality control is in place; and
  - Agree a procedure to notify the local authority, so that immediate and appropriate measures can be put in place to rectify any problem. Alert mechanisms could include email, texts or alarm systems.
- It is recommended a trigger level of 250µg/m^3 is set as a 15-minute mean for concentrations of PM_{10} close to construction sites. This trigger level was devised from measurement near a construction site in London using TEOM measurements with a multiplier of 1.3 (Fuller and Green, 2004). The multiplier of 1.3 was designed to allow for the loss of volatile PM from the TEOM which would not be an issue with construction dust. An updated correction method is now available (www.volatile-correction- model.info). The trigger level of 250µg/m^3 would approximate to 200µg/m^3 as a 15-minute mean without the multiplier. However, some PM_{10} reference instruments cannot measure a 15-minute mean. As an alternative, 50µg/m^3 is suggested as a 1-hour mean having subtracted background concentrations (to account for regional pollution episodes etc). A 1-hour mean of 50µg/m^3 from local sources is equivalent to a 15-minute mean of 200µg/m^3 and would be a compromise, taking into account the longer averaging period. The 1-hour limit is designed to prevent any complaints from people living or working close to the site.
  IAQM Guidance on Monitoring in the Vicinity of Demolition and Construction Sites recommends different site action levels depending on the method of PM_{10} monitoring used. A site trigger level of 190µg/m^3 averaged over a 1-hour period is recommended for automatic continuous monitoring. Frisbee-type deposition gauges are subject to a site trigger level of 200µg/m^2/day. The final method must be decidedwith agreement from LB Bexley.
- Where the site threshold for PM_{10} is being significantly breached developers should stop work immediately and ensure best practice measures are in place before restarting. Where there are breaches of the PM_{10} threshold local authorities can use their powers to prevent the statutory nuisance.

An AER-DS-C Dust Sentry Complete monitor has been acquired to measure dust emissions from the site. This monitor is MCERTS certified and provides real-time continuous dust monitoring for PM_{10}, $PM_{2.5}$, PM_1, or total suspended particulates (TSP). Measurements will be uploaded to a cloud-based system to enable data retrieval and reporting.

As a continuous monitoring method is to be used on-site, the recommendation within the *IAQM Guidance on Monitoring in the Vicinity of Demolition and Construction Sites* will be followed and a site action trigger levelof 190µg/m^3, averaged over a I hour period, will be set. The monitor has an alert system that can notify responsible persons of exceedances via. SMS and email.

If there is an exceedance, an SMS and/or email alert will be issued. At this point, dust generating activities will stop and the cause of the exceedance investigated. Once identified, action should be taken to rectify the source of pollution immediately. The actions taken to prevent the exceedance will be recorded in the site logbook and LB Bexley will be notified.

If practicable, training/toolbox talks will be delivered to the site team to inform of causes of dust emissions,

- Mitigation

The assessment of potential construction phase impacts has found that the proposed development is:

- **High risk** for dust soiling effects
- **High risk** for human health effects
- **Medium risk** for ecological effects

Appendix A lists committed mitigation measures that will be used on site.

With regards to stockpiles on site, given the proximity of nearby sensitive receptors, where practicable stockpiles will be located to the rear or to the centre of the site as possible.

Stockpile heights will be less than that of the site hoarding; stockpiles of dusty materials (e.g., sand, spoil andother granular matter) will be no taller than 2m. Stockpiles of non-dusty materials (e.g., glass, metal, timber, cladding etc.) will be up to 2m tall. Where practicable, all stockpiles will be covered to help to further reduce the potential for dust mobilisation.

The effectiveness of these strategies will be monitored by visual inspection and/or the deployment of PM_{10} monitors, and the dust management plan will be updated in accordance with the Greater London Authority's 2014 *Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance*. It is likely that there will be no residual dust impact from stockpiles if these measures are implemented alongside the measures in **Appendix A**.

Appendix B presents IAQM mitigation measures that should be used to reduce the risk of air quality impacts during the construction phase of the proposed development. **Appendix C** presents mitigation measures from the Greater London Authority that should also be used to reduce the risk to local air quality.

Appendix A - Committed Mitigation

In the Construction Phase Plan and Code of Construction Practice, the following mitigation measures are listed as potentially being appropriate to control dust and pollutant emissions on site. These mitigation activities will be updated and/or modified as required.

Measures Specific to Dust	Notes
Emphasis should be placed on the following to minimise the risk of air pollution: • Using processes which do not generate hazardousfumes and hazardous dust. • Ensuring that airborne hazards do not escape from the site to affect members of the public and surrounding environment	
Buildings or structures being demolished, or small areas of land being prepared for development, will be damped down using high pressure hoses which are adequate in sizeand number for this purpose. Depending upon weather and site conditions this may need to be a continual task with one or more personnel dedicated to it.	Bowsers will be used to dampen work areas.
Suitable water bowsers should be used on large areas andon-site roads.	
Existing features of the site, such as boundary walls, should be utilised to provide screening where practicable. The erection of suitable screening may also need to be considered.	
On sites where a large amount of dust has been generated and is laying on the ground, the services of a specialist vehicle to remove dust (by vacuuming) prior to damping down should be employed.	
There will be co-ordination will with other construction sites / businesses if found to be necessary when larger vehicles are required to deliver to site.	
Storage of potentially dusty materials will be located away from site boundaries	Potentially dusty materials will be stored away from the site boundary where practicable or as close to the centreof the site as possible

Measures Specific to Dust	Notes
Stockpiles of earth shall be damped down or otherwise suitably treated to prevent the emission of dust from site. Stockpiles should be planned and sited to minimise the potential for dust generation. The handling of spoil should be kept to a minimum and when materials are deposited onto a stockpile it should be from the minimum height possible.	Stockpile heights will be below the hoarding (approx. 2 m for dusty material).
Where plant movements generate dust, effectively managed speed limits should be imposed, and work rescheduled, if necessary. If the nature of the development is such that numerous plant movements are planned acrossopen land, a suitable made-up track should be constructed to minimise the amount of dust generated.	Bowsers will be used to dampen work areas. All traffic movements on and off the site will be controlled and guided by a gateman/ banksman/ Traffic Marshall. Site vehicles will, as far as possible, havevertically mounted exhausts to avoid resuspension of surface dust
Contractor will ensure that the area around the site, including the public highway, is regularly and adequately swept to prevent any accumulation of dust and dirt. Wheel washing may be necessary to prevent dirt and dust from being spread onto roads near the site.	Removing mud, tracks and spills on public roads by use of a mechanical road sweeper. Should mud be deposited on the highways immediately adjacent to site this will be either swept up or jet washed off, whichever is deemed appropriate at the time.
All cutting and grinding operations should incorporate the best available techniques to suppress dust. Standard angle grinders, without appropriate water suppression should not be used to cut materials, such as bricks, slabs and tilesor to rake out mortar joints.	
Chutes used to drop materials to ground level should be enclosed and skips covered. Regular water spraying shall be undertaken where necessary to prevent dust emission.	
Skips and waste removal vehicles shall be properly coveredwhen leaving the site. Spoil should be handled in such a way that it does not give rise to excessive dust.	Paved roads near site exits will be kept clean and vehicles transporting dusty materials onto, and off site will be covered

Measures Specific to Air Pollution	Notes
No fires permitted on site.	
All fuels, oils and other Volatile Organic Compounds (VOCs) will be stored in secure, sealed, labelled containers.	
Consideration will be made to using prefabricated materials where possible so that localised air pollution is minimised.	
Vehicles and plant will be switched off when not in use.	All vehicles delivering / collecting plant or material to site will be switched off during off / on loading where practicable
Ensure vehicles and plant are not overloaded to prevent labouring.	
Modern, well-maintained plant and equipment is used.	
Mains electricity supply will be used in preference to generators where practicable.	

Appendix B - Construction Phase Mitigation Measures

The following mitigation measures are recommended to reduce the identified risk associated with dust soiling and human health effects during the construction phase. Further information on mitigation strategies may be found in the Greater London Authority's 2014 *Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance*. As the site is predominantly **high** – **medium** Risk, the corresponding mitigation is recommended in this section.

Mitigation Measures for All Sites
Communications
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
Display the head or regional office contact information.
Site Management
Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
Make the complaints log available to the local authority when asked.
Record any exceptional incidents that cause dust and/or air emissions, either on or off site, and the action taken to resolve the situation in the logbook.
Hold regular liaison meetings with other high-risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/ deliveries which might be using the same strategic road network routes.
Monitoring
Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100 m of site boundary, with cleaning to be provided if necessary.
Carry out regular site inspections to monitor compliance with the DMP, record inspection results, andmake an inspection log available to the local authority when asked.

Mitigation Measures for All Sites
Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dryor windy conditions.
Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.
Preparing and maintaining the site
Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period.
Avoid site runoff of water or mud.
Keep site fencing, barriers and scaffolding clean using wet methods.
Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
Cover, seed or fence stockpiles to prevent wind whipping.
Operating vehicle/machinery and sustainable travel
Ensure all vehicles switch off engines when stationary - no idling vehicles.
Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

Mitigation Measures for All Sites
Operations
Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems.
Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
Use enclosed chutes and conveyors and covered skips.
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon asreasonably practicable after the event using wet cleaning methods.
Waste management
Avoid bonfires and burning of waste materials.

Measures Specific to Demolition
Soft strip inside buildings before demolition (retaining walls and windows in the rest of the buildingwhere possible, to provide a screen against dust).
Ensure effective water suppression is used during demolition operations. Hand-held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
Avoid explosive blasting, using appropriate manual or mechanical alternatives.
Bag and remove any biological debris or damp down such material before demolition.

Measures Specific to Earthworks
Ensure effective water suppression is used during demolition operations. Hand-held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground. Groundworks shall be controlled to enable pollution spikes to be identified and controlled.
Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soonas practicable
Only remove the cover in small areas during work and not all at once.

Measures Specific to Construction
Avoid scabbling (roughening of concrete surfaces) if possible.
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.

Measures Specific to Track out
Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any materialtracked out of the site. This may require the sweeper being continuously in use.
Avoid dry sweeping of large areas.
Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
Record all inspections of haul routes and any subsequent action in a site logbook.
Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinklersystems, or mobile water bowsers and regularly cleaned.
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permit.
Access gates to be located at least 10 m from receptors where possible.

Appendix C - Control of Dust and Emissions During Construction and DemolitionSPG

Relevant mitigation measures are from, or are based on, the *Control of Dust and Emissions During Constructionand Demolition SPG* are listed below. These should be adopted together with the IAQM mitigation measures. Measures that have not been specified in the IAQM mitigation measures (**Appendix A**) are listed here.

Reducing Emissions from Vehicles
All mobile vehicles associated with the demolition / construction should comply with the standards of the London Low Emission Zone. For the **Principal Contractor**, the standard is Euro IV for PM and for heavier vans and minibusesit is Euro 3. Local authorities may introduce tighter emission standards for particular sites should local circumstances require these.
The site should be managed so that vehicles do not have to wait to park safely. However, should vehicles have to wait they should not idle. Generally, if a vehicle is stationary for more than a minute, turning off the engine will reduce emissions and fuel costs.
Deliveries to construction sites can contribute greatly to congestion and emissions at and around sites. Larger sites should develop and implement Construction Logistics Plans (CLPs) / Construction Traffic Management Plans as part of wider transport assessments. A CLP is a framework that allows deliveries and removals to be managed so that they are made when they are most needed, at times when they will contribute less to congestion and at locations where loading and unloading can take place safely. CLPs can help site managers to: • Cut congestion in the local area, reducing the environmental impact of deliveries and inconvenience to local road users. • Save time and money. • Improve the safety of deliveries. • Improve delivery reliability.
Every CLP needs to be tailored to a site's requirements and its local context, including the location of sensitive receptors. Things to consider include: • Looking at where legal loading can take place. • Using freight operators who can demonstrate their commitment to best practice. • Consolidate deliveries so fewer journeys are needed. • Use sustainable delivery methods such as via canal or railway.
Plan deliveries to site carefully to avoid congestion and the emissions that result. For example: Find suitable loading locations. Use freight operators who can demonstrate their commitment to best practiceConsolidating deliveries so fewer journeys are needed. Using sustainable delivery methods.

Where construction sites are located close to waterways or railways, developers are strongly encouragedto assess the viability and feasibility for construction materials to be delivered or removed by these means, rather than by road. The benefit of this is the reduction in the number of trips made by the **Principal Contractor**s on local roads, reducing local emissions.

Sites that will be employing large numbers of workers for long periods may require the development of workplace travel plans which aim to reduce the emissions from workers and visitors travelling to and from the site. Measures set out in travel plans include schemes that encourage workers not to use single-occupancy cars to travel to and from work but instead to cycle, walk, use public transport or car share. Reducing car miles not only reduces emissions but can produce financial benefits and productivity improvements, saving both the business and its staff money and time.

Even modern diesel- or petrol-powered plant items emit higher levels of PM and NOx than electric equivalents. Therefore, wherever possible, renewable, mains or battery powered plant items should be used.

Operations

Ideally, cutting, grinding and sawing should not be conducted on-site and prefabricated material and modules should be brought in where possible. In cases where such work must take place, spraying water, preferably from a water efficient spray pump, over the material as it is being cut greatly reduces the amount of dust generated.

Scabbling is the process of grinding concrete using a machine tipped with steel or carbide material to rapidly pound it. The following measures should be in place at all sites to comply with best practice:

- Pre-wash work surfaces
- Screen off work areas
- Sweeping away.

Using mobile crushing plant is inherently dusty and will often take place on the sites normally classed as medium- or high-risk dust emission sites. Developers should:

- Notify the local authority if a crusher is to be used. Mobile crushing plants are authorised as Part B processes under the Environmental Protection Act (see Appendix 2 for more details), by the authority where they are registered (rather than the authority in whose area they are used), even if they are only temporary.
- Keep a copy of the permit on-site and adhere to the conditions of their use at all times, and
- Use best available techniques in accordance with the Process Guidance note PG 3/16 (04)12 at all times(see Appendix 5 for more information).

Construction sites with concrete batching plants will often be categorised as medium or high risk. Developers should treat such plant as authorised Part B processes (see Appendix 6 for more details) even iftemporary, and employ the following best practice:

- Notify the local authority a concrete batcher is to be used on site.
- Use best available techniques identified in the Process Guidance note PG 3/1 (04)12 (See Appendix 6 for more details)
- Carry out these processes in an enclosure, wherever possible.

Skips, chutes and conveyors should be completely covered and, if necessary, completely enclosed to ensurethat dust does not escape. Similarly, drop heights should be minimised to control the fall of materials.

Waste Management

Across London local authorities set conditions that prevent bonfires on-site. Taking into account the CleanAir Act 1993 and nuisance legislation (Environmental Protection Act 1990), it is recommended that:

- No burning of any material is permitted on-site.
- Any excess material should be reused or recycled on or off-site in accordance with appropriate legislation.

For larger development sites, developers should produce a waste and/or recycling plan. The Environment Agency suggests that a waste plan includes the following best practice procedures:

- Identify the waste types that are likely to be produced and aim to reduce the amount of waste as much as possible, through identifying routes to reuse or recycle materials.
- Control access to storage areas to minimise risk of theft or damage.
- Set up a dedicated store for timber, from which workers can re-use supplies;Store
- any materials away from sensitive locations in fenced off areas.
- Label all waste storage areas and skips, detailing the type of waste.
- Employ a just-in-time policy to deliver materials in order to reduce the storage time on-site.
- Consider using recycled materials and recycle any materials used on site rather than disposing of them
- (including timber, aggregates, soil, tarmac, bricks, masonry, concrete and glass). The BRE Smart Waste management tool (www.smartwaste.co.uk) is an online template contractors can use to input data on the amount and type of waste and it will be sorted by the tool. CIRIA provides lists of recycled materialsthat companies will accept. Any materials re-used, however, should be suitable for purpose, for exampleany suspected contaminated soil should not be re-used until it has been tested first; and
- If practicable, remove materials for recycling from buildings prior to demolition or from demolition spoil.

Measures Specific to Earthworks
Following earthwork activities, it is important to reduce the generation and resuspension of dust through re-vegetating exposed areas and soil stockpiles to stabilise surfaces. Where this is not possible, use hessian and/or mulches to re-vegetate or cover with topsoil.

Measures Specific to Construction
It is important that cement, sand, fine aggregates and other fine powders are sealed after use and if necessary stored in enclosed or bunded containers or silos. Some materials should be kept damp to reduce the risk of drying out.

Measures Specific to Track out
Unpaved haul routes can account for a significant proportion of fugitive dust emissions, especially in dry or windy conditions, when the generation of dust through the movement of vehicles is exacerbated. It is recommended that to comply with good practice, developers should as far as possibly ensure that hard surfaces or paving are used for all haul routes, even if routes are temporary.
It is important that haul routes and local access roads are kept free of dust as far as possible and are swept regularly. Where possible, this should be water-assisted to increase damping down. However, care should be taken to not to contaminate sewers or local waterways.

Appendix 7 - Underground Services

HAZARDS

The main hazards associated with underground services include:

- Contact with electricity cables or gas pipes.
- Flooding
- Drainage - Contact with raw sewage
- Gas leaks with explosion/asphyxia risk.

MONITORING & CONTROL

The Site Manager will ensure that:

- Before any excavation work commences, all information on existing underground services has been obtained and that either all services are physically located and marked by means of location equipment and / or carefully hand dug trial holes are carefully excavated along the line of the proposed trench or area of excavation.
- Full consultation will be carried out at all stages with representatives of the various service authoritiesto agree any precautions required.
- All supervisory staff, machine operators and banksmen are instructed in the procedures to befollowed. Any sub-contractors involved in excavation work will be issued with full information obtained from service authorities and will also be involved in any consultation procedures. All personson site will be instructed in the operation of a permit-for-work system if applicable.
- Any service installed as temporary supplies or as part of the permanent works is accurately plotted on a site plan and, if temporary, is physically marked along its route by means of timber stakes and notices, or other appropriate means.
- All control measures identified in the risk assessment(s) have been implemented.
- Plans and locating equipment are available before any excavation work begins.
- It is not assumed that the plans are accurate or to scale, but use them as an indicator for position,layout and numbers of services.
- Use the locating devices provided. Training will be arranged for those persons required to use thisequipment by the Compliance Manager when requested.
- Reliance is not placed upon the locating equipment alone. Physical indicators such as previous excavations, junction boxes, manholes, cable transmission poles, lamp posts etc. will also be used.
- Trial holes are carefully dug, using hand tools only, to confirm the location of

services. If pointedimplements have to be used, then do so carefully and avoid thrusting spikes into the ground.

- The line of services is marked with paint, crayon, wooden pegs etc. and place signs to indicate theirpresence.
- It will not be assumed that services will be at their recommended depth. Continue to use the locatingequipment as excavations proceed.
- Mechanical tools or excavators are not used within 0.5m of any service.
- All services are treated as hazardous until safely proved otherwise. Electricity cables and gas pipes canlook like water services and both electric and gas services have been known to be laid in pipes or ductsetc.
- Where services are believed to be encased in solid material such as concrete etc. then arrangementswill be made for the service to be isolated before excavation or breaking away commences.
- If any service is damaged, then it will be reported immediately, and the area cleared. If a cable is struckby a machine, the operator should stay in the cab. DO NOT climb down.
- Safe exits are provided from the excavations containing water mains or sewers in case of flooding.
- All services crossing an excavation are adequately supported and services must not be used asstepping points for access.

Appendix 8 - Non-Road Mobile Machinery

Refer to Motion Traffic Management Plan.

Appendix 9 Project Directory

The project directory is attached.

Appendix 10 Site Hoarding Plan