New Hybrid Theatres Project

Construction Management Plan (CMP) For RFL Hybrid Theatre Extension

At

Royal Free Hospital NHS Foundation Trust

September 2024

Delivering Quality | Safe & Sound

BLUE SKY BUILDING
founded on excellence

Contents

Blue Sky Building
Level 5
7-8 Market Place
London W1W 8AG

T: +44 (0)20 7831 5950
E: info@blueskybuilding.com

www.blueskybuilding.com

REGISTRATION NO. 07816133

1. Introduction

Overview

This Construction Management Plan (CMP) has been prepared by Blue Sky Building in support of a planning application proposing the following works at the Royal Free London Hospital, Pond Street, London (the Site):

"Proposed extension to hospital at second and third storey level (above ground) with undercroft area beneath to deliver extension to hybrid theatres alongside roof-level plant and enclosure and associated works."

It has been prepared in accordance with best practice principles and London Borough of Camden (LBC) guidelines. These procedures will ensure that the interests of local residents, businesses and the public are given special attention by the Contractors when appointed. LBC guidelines and standards can be viewed at: https://www.camden.gov.uk/, we have taken those requirements as the minimum standards to be achieved.

This report outlines how the critical construction activities will be undertaken, and covers the environmental, public health and safety aspects of the proposed development. When appointed, Contractors will be required to follow the procedures set out in this document, to inform their own detailed Method Statements for the project. They will also be required to up date this CMP to reflect those chosen methodologies. The detailed Construction Management Plan will show how they will manage all phases of the project works.

Given the projects locality, it is essential that all demolition/deconstruction/soft strip and construction works are managed in a manner that minimizes their impact on the Royal Free London Hospital by recognising and understanding the operational processes in place to the live element's of the Hospital as well as importantly taking account of hospital visitors, in addition to the amenity of local residents, businesses and other stakeholders within the surrounding area.

This report is based on the current design information for the proposals available at planning application stage. As the project progresses, and detailed design stages are undertaken, this document may require updates following the grant of planning permission (and a final version of this document will be prepared and submitted to discharge relevant planning conditions in due course.

1. Introduction

Key Reference Documents

There is a large body of environmental and safety requirements relevant to construction projects, in the form of primary legislation (Acts of Parliament), secondary legislation (Statutory Instruments, including Regulations and Orders) and statutory guidance and Codes of Practice. The Contractor will be responsible for identifying new legislation and regulation and complying with all prevailing legislation at the time of construction including any requirements under Health and Safety regulations. We have included for guidance, a summary of current legislative and regulatory documents in the rear of this document.

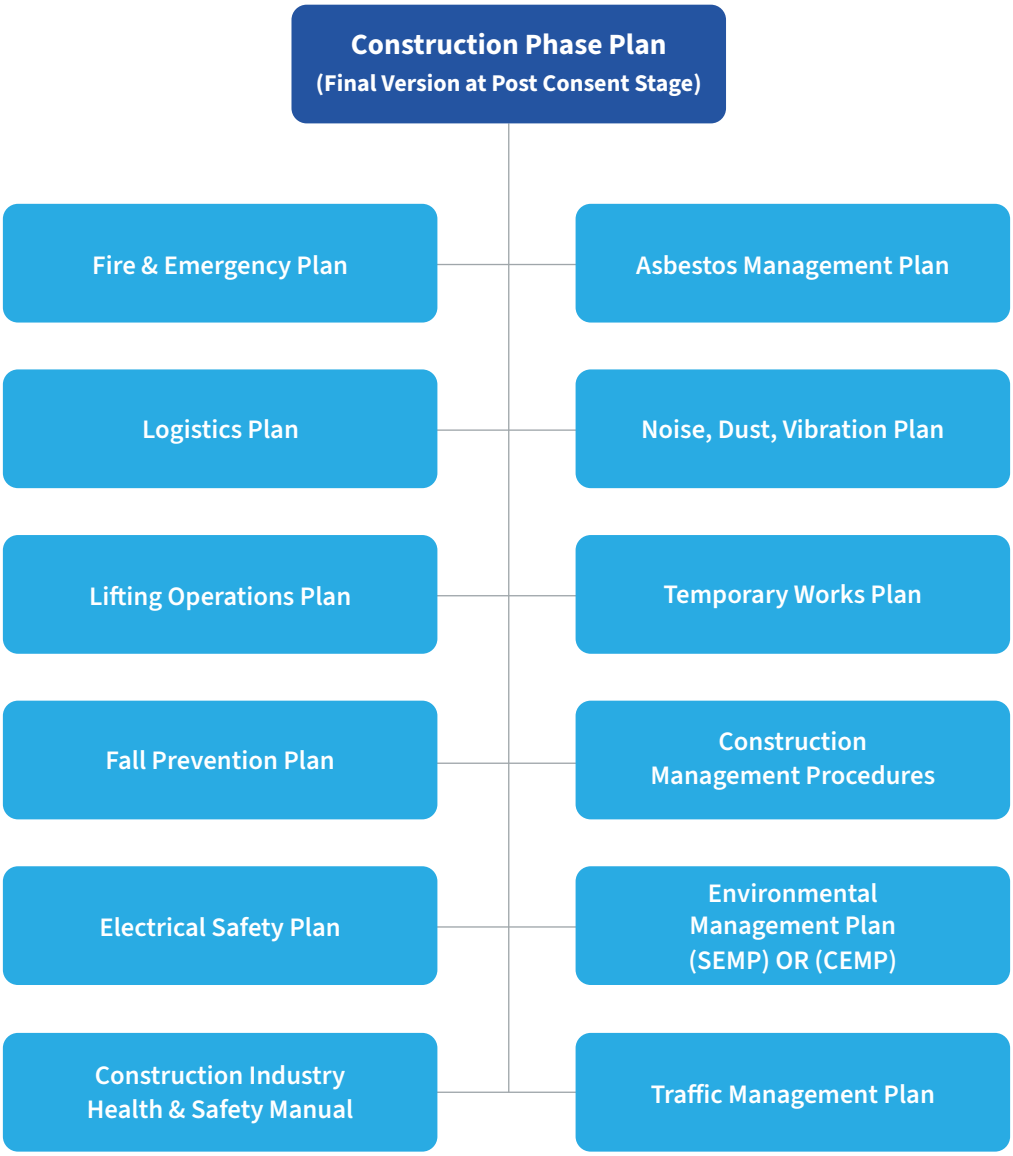
In addition to the environmental requirements described, the Contractor will be responsible for obtaining licences from the local authority before erecting any scaffolding, hoardings, gantries, temporary crossings or fences or depositing a skip on the highway. It would be strongly recommended that dialogue is opened with LBC and the NHS Trust on this matter at theearliest opportunity, to ascertain their requirements for these works in respect of licenses and to coordinate with the operational elements of the hospital.

Applications forms for all required licences are available by calling 020 7974 6956 or in person at the 5th Floor Reception in the Town Hall Extension Argyle Street (Opening hours: Monday to Friday 9am to 5pm; Thursdays 9am to 7pm). The Contractor can also download an application form or apply online at the LBC website: www.camden.gov.uk/buildinglicences

It is expected that this Construction Management Plan, will be dovetailed into the appointed Contractors construction phase management plans, in due course. The table overleaf is an indicative indication of the hierarchy of plans that would be expected to be in place on a project of this nature.

1. Introduction

Hierarchy of Expected Management Plans



2. Nature of the Project/ Scope of Works

Overview

This section highlights the location of the development, within the context of the local community and surrounding area, in addition to providing a high level view of the scope and intent of the proposed development.

Site / Location

Royal Free Hospital NHS Foundation Trust, Pond Street, London, NW3 2QG, please refer to **https://www.royalfree.nhs.uk/our-locations/royal-free-hospital** to locate the hospital

The Site forms part of the wider Royal Free Hospital complex on Pond Street which offers a range of vital in-patient and clinical services.

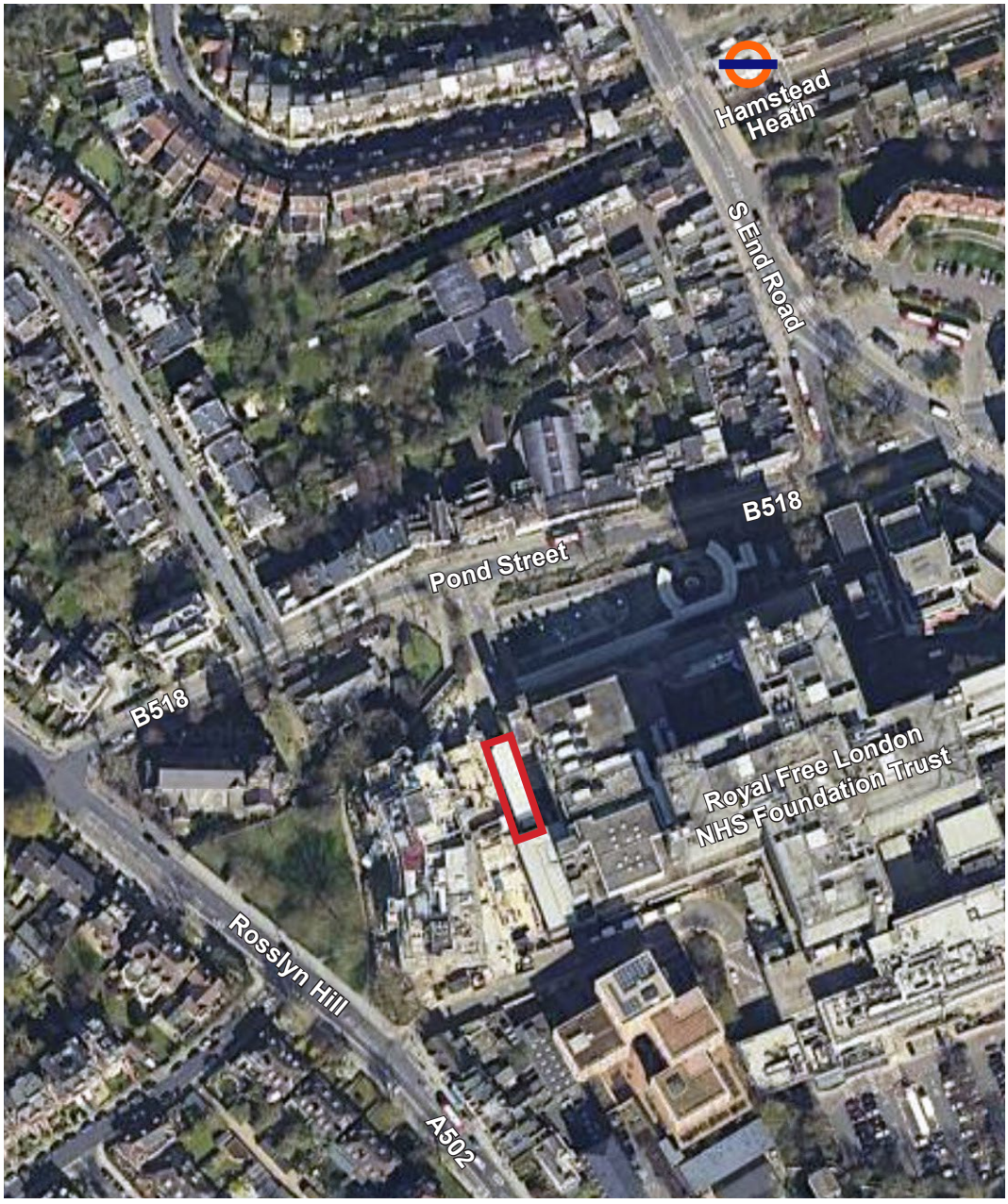
The Royal Free Vascular Surgery department provides tertiary vascular services to North Central London (NCL) as the Vascular Surgical Hub. Vascular surgery is a critical co-dependency for major specialist services at the Royal Free including Intensive Care Unit (ICU), renal transplantation and cancer. The Trust has a single vascular theatre (surgical theatre equipped with advanced medical imaging devices) which does not meet modern space standards, has outdated and obsolete imaging equipment that is unreliable and the cause of regular cancellations which cannot meet the demand for complex vascular surgery.

The proposed planning application seeks permission for two new Hybrid theatres at the Royal Free. The Investment in two new Hybrid theatres will future proof the service, ensure recovery from the post-COVID backlog and enable expansion for the future. The business case approved by RFL Group in August 2023 provides a compelling argument for such an investment in line with Getting It Right First Time (GIRFT national programme) recommendations and will enable innovation and upscaling of highly specialist vascular services whilst facilitating translational research in cardiovascular disease, enhancing clinical & academic synergies with UCL Surgical Biotechnology, as well as expanding national and international training programmes for vascular surgery.

There is therefore a fundamental need to increase and modernise theatre provision on-site whilst ensuring that the operation of the existing theatres and wider hospital is not impacted. As such, the Trust is seeking to deliver additional high-quality theatre space on-site. This will comprise an extension to existing theatre accommodation to help provide for a variety of procedures (including cardiology and vascular related services).

2. Nature of the Project/ Scope of Works

The location of the proposed Hybrid Theatres extension within the hospital complex is outlined in red as indicated on the image below:



Site Location

2. Nature of the Project/ Scope of Works

Scope of works

The proposed works include, but are not limited to:

The provision of an extension to the west side of Levels 2 and 3 of the main hospital building (where the existing theatre accommodation is located) to provide the following accommodation:

- 2No Hybrid Theatres each with an anaesthetic room, scrub room, technical room and shared control room;
- Recovery Area with a minimum 6 bed spaces but as many as practicable to fit into the available space as there is currently a shortfall of recovery beds across the department;
- Support facilities for recovery area;
- Additional storage

The extension is proposed to be constructed over the existing road, and entrance to the Radiotherapy Department at Ground Floor level.

Constituting piled foundations, columns, new structural steel frame, new floor plates external cladding and a roof plant area to serve the extension, and any displaced services that cannot remain below the extension at Ground and 1st floor level, internal fit out.

The scope within this CMP is outline only for indicative purposes, for a fully detailed assessment of the scope, please refer to the suit of stage two reports issued by the Design Team, which, at the time of formulating this CMP, were being upgraded to stage three.

Orientation

Proposed site fully enclosed on two sides (east & south), and partially on third (west). Open to the north, overlooking RFH main road entrance.

Principal open elevations will be west & north facing, which are overlooked by upper storeys of the recently completed Pears Building with lower-level rooftop garden between.

Access

Once completed, vehicular access will be via Pond Street to A&E entrance and Under-croft at lower ground floor, main entrance parking and Pears Building lower parking level at ground floor.

Vehicular access from Rosslyn Hill to rear service areas, Pears Building main entrance and Pears Building upper parking level at ground/first floor.

Pedestrian access to perimeter, also footpath linking Pond Street with Rosslyn Hill between Pears Building and St Stephen's Church.

3. The Construction Site

Overview

This section outlines the requirements relating to site management practices, ranging from the location of accommodation and equipment to the operation of equipment on site. It outlines a number of procedures that should be implemented during site operations. These relate to working hours, site layout & appearance, and good housekeeping. The Contractor is to liaise fully with the Royal Free London NHS Trust & LBC in respect of all matters appertaining to the construction site which impact or have potential for an impact on the hospital's day to day activities.

Representatives from the Contractor and LBC should regularly inspect the construction site to ensure that these procedures are followed. The Contractor must follow a 'good housekeeping' policy at all times.

The specific measures to be implemented by the Contractor will include but not be limited to:

Working hours

Working Hours will be as directed by LBC and the hospital and are expected to be:

08.00 to 18.00 Monday to Friday

08.00 to 13.00 Saturday

No works will be undertaken on Sundays or Bank Holidays.

Good housekeeping

The Contractor will follow a 'good housekeeping' policy at all times. This will include, but not necessarily be limited to the following. The Contractor will:

- Ensure considerate site behaviour of the Contractor's staff;
- Ensure the noise from lorry reversing alarms and the like are kept to minimum levels;
- Prohibit open fires;
- Ensure that appropriate provisions for dust control and road cleanliness are implemented;
- Remove rubbish at frequent intervals, leaving the site clean and tidy;
- Frequently inspect, repair and re-paint as necessary all site hoardings to comply with the conditions of the LBC Licence – all flyposting and graffiti is to be removed as soon as reasonably practicable and within 24 hours of notice from LBC;
- Maintain toilet facilities and other welfare facilities for its staff;
- Remove food waste;
- Prevent vermin and other infestations; and
- Undertake all loading and unloading of vehicles in a safe manner, ensuring the safety of pedestrians, cyclists and road users as identified on the logistics drawings.

3. The Construction Site

Hoardings, Site Layout and Facilities

The site and or any work face, will have to be completely secure to deter public access and to ensure the safety of both the staff and public attending the attending the hospital. The proposed hoarding line and gates are shown on the enclosed plans in the logistics section of this document. It is intended to provide protection from noise and dust at all times through the erection of encapsulating scaffolds and physical barriers as appropriate to the task. For a more detailed view of our initial indicative assessment, please refer to the IHP Logistics plan within Appendix A of this document.

Because of the nature of the works and their location, it is our opinion that any logistical solution will undoubtedly severely disrupt the hospital's day to day activities whilst they are ongoing.

We would therefore recommend that logistical workshops with the NHS Trust are held to finalise logistical solutions.

As noted elsewhere, the current logistical proposals are outlined within the IHP Logistics proposals, within appendix A of this document.

Site accommodation will be as indicated within the IHP Logistics plan, the current proposal, open to discussion and confirmation is an intention to use the vacant day nursery for the site accommodation.

Public Information

The site entrance notice board will display all necessary health & safety material. Contractor's emergency contact details will be posted on the site hoarding.

Site Access and Egress

The site or any work face will be fully bounded by a 2.4m high timber panel hoarding or lockable movable hoarding panels. This will be painted and branded in accordance with the client's and local authority requirements.

The hoarding vehicle gates will normally be kept closed, opening only to allow the entry and egress, the gates will be manned and controlled by banksmen/gatemen/ traffic marshals provided by the Logistics Contractor.

An access control system for all site personnel and visitors will be implemented by and under the control of the Logistics Contractor. All site personnel will be required to undertake a site-specific induction and will have their swipe card/ biometric details logged to use as site access.

Turnstile access gates will be established at entry to the site and site facilities and only those in possession of a valid pass will be able to enter the site and facilities. Full PPE will be required to access the site.

An appropriate valid CSCS card will be required before an induction can be undertaken and a pass issued. Personnel will not be permitted access to the site until they have been given the site induction and also given a copy of the relevant RAMS by their employer which they have read and signed to say they understand their RAMS.

Visitors will be required to be accompanied by a passholder at all times and before going on site receive a visitors' induction and given the requisite PPE.

The use of CCTV cameras will be investigated for feasibility for use within the site boundary to monitor the project including the entry gates and loading/unloading areas.

3. The Construction Site

Information for Contactors and Visitors

All subcontractors and visitors to the site will be made aware of the CMP and all other critical plans and the controls applicable to their presence and activities on site including but not limited to:

- Method statements
- Site induction
- Environment briefings
- Toolbox talks

The Contractors Site Management team will be responsible for monitoring communications between all relevant parties involved in the project. This will ensure that all environmental and safety matters relating to the development are discussed and managed with all observations and communications documented in regular meetings and, if necessary, issued via email. All applicable records and correspondence will be retained on site by the Contractor.

Relevant site layout and location plans/development drawings detailing the location and construction of the site offices, storage locations and car parking (where applicable), are to be displayed on an information board at both the main site entrance to the site.

Security

The Contractor will ensure that the site is secure and will prevent unauthorised entry to or exit from the site. Site gates will be closed and locked when there is no site presence.

Alarms will incorporate an appropriate cut-out period. Access and egress will be via controlled security gates.

3. The Construction Site

Site Security Duties

Security is the responsibility of the Contractor.

Security duties should be provided by the Logistics Contractor and should include:

- A security guard/traffic marshal will be provided.
- Opening and securing the site during site hours. 8:00 am – 6.00pm
- Ensuring that the site and gates are always controlled and secure.
- Carrying out regular site inspections.
- Responsibility for ensuring all access ways are kept clear.
- The logging in and checking of site operatives and visitors.
- Informing Contractor and recording of security breaches, including alcohol and drugs use
- Control of site lockers.
- Retaining an updated fire plan and full knowledge of the fire safety plan.
- Completion and issuing of daily visitor's register, weekly reports and delivery vehicle log.

It will be the responsibility of security personnel and trade contractors to ensure that all the emergency exits and loading areas are always closed and clear of debris and materials.

Deliveries will be made into the site unloading area or off loaded straight to the work face, (see logistics section).

Each trade contractor will need to book in their own deliveries in the logistic management system as controlled by the logistics contractor. A security guard/traffic marshal will be provided to manage the deliveries with the logistic manager.

Material will be stored in allocated areas as defined by the manager.

NO PERSON TO BE ALLOWED ON SITE WITHOUT A PASS OR PRIOR AUTHORITY OF MANAGEMENT AND APPROVAL.

3. The Construction Site

Management of Contractors

Contractors will be required to provide method statement(s) and risk assessments covering all their activities and state the environmental aspects and impacts of their activities along with the associated control and mitigation measures. This information must be issued to the Contractor prior to their commencement to allow for suitable review and scrutiny.

Contractors will be instructed that their method statement(s) should include as a minimum:

- A description of the works being undertaken.
- Descriptions of the impacts to the environment caused by their works based on a review of surveys and information available for the development. The impacts should consider areas such as hazardous substances, waste, noise, dust, and vibration etc.
- Details of the activities to be undertaken, equipment to be used, hours of operation, site access arrangements, vehicle movements and details of waste and emissions expected to be generated.
- Management and mitigation measures.
- Monitoring and measurement processes.
- Emergency preparedness and response procedures.

The method statement(s) must also confirm that the following specific control measures are incorporated into their work activities:

- All waste to be segregated (where applicable) and placed in a suitable waste container.
- All fuel to be stored in suitable double skinned bowsers, tanks or within a bunded area.
- Drip trays or absorbent blankets to be placed under all static plant.
- All hazardous chemicals to have an up-to-date COSHH assessment, be appropriately labelled and be stored in a locked container.
- Emergency arrangements for spill response.
- Spillages to be reported immediately.
- Vehicle and plant engines to be turned off when not in use.
- All excavations work to cease immediately if unknown contamination and waste hotspots are identified.

3. The Construction Site

Training & Competency

Site operatives, either working directly for the main Contractor or for Sub- Contractors, will be competent to perform their respective roles especially those which have the potential to cause significant environmental impacts. Competence is defined in terms of appropriate qualifications, training, and work experience.

Assessment of Contractor competency will form part of the Contractors safety and environmental pre-qualification process. All site operatives will receive an environmental induction prior to the commencement of any site works and this induction will include:

- Summary of the CMP and its contents.
- Project duty holders & management structure.
- Key roles & responsibilities.
- Details of the applicable environmental aspects and impacts of the development.
- Air Quality (dust and odour emissions).
- Noise & vibration.
- Traffic & transport management.
- Waste management.
- Hazardous substances.
- Pollution prevention & control measures.
- Emergency preparedness & response (use of spill kits, reporting of incidents, incident investigation, non- conformance/corrective actions).
- General environmental awareness.
- All Health & Safety information applicable to this project.

Site Induction Information

Anyone working on site will be required to attend the Contractors site induction, completing the necessary induction forms and producing an up-to-date CSCS card, or equivalent evidence of CSCS certification. All Supervisors will be required to produce an up-to-date copy of their SMSTS or SSSTS certification. Once the induction has been undertaken and proof of certification validated, a site security pass will be issued/site access will be activated.

3. The Construction Site

Induction Roles and Responsibilities

- It is the responsibility of trade contractors' supervisors to ensure site security are aware of any new starter or visitors 24hrs in advance.
- All operatives must have attended their own company induction before attending Contractors induction.
- It is the responsibility of trade contractors' supervisors to ensure they have checked that new operatives have proof of the required certification. The supervisors must have signed the Contractors induction form before the operative attends that induction.
- The Contractor is responsible for developing and updating their site induction which shouldinclude a virtual tour of the project.
- Site security will be responsible for processing the induction forms and issue of site access passes/biometric site access.
- It's the responsibility of site security to ensure all personnel data is kept in each trade contractor's folders within a lockable cabinet

A record of all the inductions undertaken will be kept by management, this will include the names and signatures of each delegate and their respective organisation, along with the date the induction was completed. This will form part of all the records generated as a result of the implementation of this CMP.

PPE

In respect of Personal Protective Equipment (PPE), we would expect the following to be a minimum provision.

The Contractor should implement a 5-point PPE policy. This will include hard hat, Hi-Vis vests, gloves, safety footwear (trainers are not permitted) and safety glasses. All trade contractors must have the correct company name on Hi-Vis vests before entering site.

PPE must be kept in good condition, and replaced when needed. Supervisors shall be required to wear black hats and fire marshals red.

Hard Hat & Lanyards must be used while working at height.

This is the required 5 point PPE for this site:

Considerate Contractor's Scheme

The site will be registered with the 'Considerate Constructors Scheme', this can be done via their web site at https://www.ccscheme.org.uk/

This scheme ensures that contractors carry out their operations in a safe and considerate manner with due regard to neighbours, passing pedestrians and road users. It is the Contractors responsibility to ensure that the registration process is executed and put in place.

The relevant requirements of LBC under the scheme can be found within section 1.3 of their Codes for Construction Practices, accessible via:
https://www.camden.gov.uk/about- construction-management-plans

4. Programme, Construction Methodology

Overview

This section of the document will discuss programme and the methodology of the project, which may be subject to change as the design is further developed and once a Contractor has been appointed and they develop their own methodologies and programmes.

Programme

The design in our view, is not sufficiently developed to formulate a detailed programme at this stage. As the design is further developed and a Contractor is appointed, a detailed programme will be established, using the output of the aforementioned workshops.

There is a strategic programme currently contained within the planning pack, currently showing an overall construction period of sixty-five weeks. When sufficient information is available, we believe this period should be interrogated, particularly around the enabling, sub-structure and commissioning and validation stages.

4. Programme, Construction Methodology

Proposed Construction Methodology

This section of the document identifies the outline demolition and construction sequencing and methodology of the project. Note, this methodology is a high level general outline of the methodology required and is not a detailed methodology statement. Detailed methodology and specific task method statements will be and have to be both formulated and managed by the contractor, via the umbrella of their Construction Phase Health & Safety Management Plan. The IHP Logistics plan within appendix A of this document, contains an indicative pictorial evaluative of the proposed sequencing and construction methodology.

Pre-Commencement

Prior to commencement of works on site a period of pre- construction planning and activities are required to ensure works can commence.

- Production of a detailed task specific Method Statements;
- Neighbour liaison before the commencement on site to explain the nature of works;
- Formulation of project Construction Phase Plan and risk assessments under Construction Design and Management Regulations 2015 (CDM);
- Undertaking of a full Refurbishment and Demolition Asbestos survey and submission of Safe system of work and licence applications for removal of Asbestos Containing Materials (ACMs);
- Production of detailed works programmes and sequencing;
- Highways condition surveys to be carried out prior to commencement on site;
- Surveys and approvals for local diversions of pavement services if necessary;
- Surveys, design and agreement of HV substation strategy including temporary provision if required;
- Liaison with LBC, TfL and neighbours regarding vehicle movements and any proposed parking bay suspensions;
- CCTV surveys of existing drainage;
- LBC licence applications and approvals for hoardings and scaffolds;
- Baseline environmental monitoring; and
- Mobilisation of selected plant and operators.

Site Establishment

For information regarding how the site will be established, please refer to the IHP Logistics Plan within appendix A of this document. As stated elsewhere the current proposal is identified as utilising the vacant nursery for use as site accommodation. Site establishment works will comprise the securing the construction site, specific Site Establishment activities will include:

- Establish construction site office and welfare facilities for the workforce within the site boundary. Erect hoardings to the site perimeter and any open workfaces at the interface with existing facilities. Hoardings will be 2.4m high, solid timber, with clear warning signs. Hoardings and gates will be in accordance with LBC licencing rules;
- Make safe/ isolate existing services and utilities affected by the works;
- Contractor's contact details to be provided on the site hoarding;
- Vehicle and pedestrian access to the works will be established and be controlled by fully trained gatemen and traffic marshals;
- Installation of site temporary electrics, lighting, water and fire alarms. Where possible the site and area will operate from connections to permanent utility supplies rather than generators;
- Establishment of site security provisions to ensure that the site is protected against unauthorised or unlawful entry and potential theft from site;

4. Programme, Construction Methodology

Enabling Works

There will be a period of enabling works, comprising, the diversion of any existing services and drainage within the new building footprint, removal of any existing plant and the establishment of the site boundary at the interface with the existing buildings, including the erection of any internal partitions required to facilitate the interface with the proposed new building. In addition, any back propping (if required), all hoardings, barriers, signage and pedestrian diversions should be put in place. Again, this element should be discussed at the propose logistics workshops and the output put into the site logistical plans.

Other enabling works, notably related to the relocation of existing quench pipes on-site, and the temporary relocation of existing chiller units, will also be undertaken. Please note that these works are the subject of a separate detailed planning application submitted to the London Borough of Camden (which also seeks approval for new CRF-related plant).

Sub-Structure/Super-Structure

It will a required, to close the access road in order for these works to be carried out in a productive, safe manner. The new building foundations require tied pilecaps constructed across the roadway so as to locate the new columns on cantilever nibs extending from the pilecaps so as to position the columns as close as practical to the existing building faces. Therefore, it will be necessary to divert and relay existing services to coordinate with the new foundations to maintain the services live and facilitate the new piled foundation construction.

The superstructure steel columns will sit on piled foundations, which consist of 2-pile and 3-pile reinforced concrete (RC) pile caps with RC ground beams tying them. Due to the proximity of the proposed development to the Pears Building, on one side, and to the RFH on the other side, the piles of the new building will have to be offset, as shown indicatively in the picture below, to comply with the minimum spacing required between piles.

The RC ground beams will then cantilever to provide adequate support to the new steel columns, set out as close as possible to the external face of the existing buildings.

The erection of the steel superstructure, composite slabs and structural works associated with the formation of new cores/lift shafts can the take place.

Note: The existing roadway/ambulance route to Radiotherapy, between gridlines A and B, will be severely disrupted during the piling operations and construction of the RC ground beams. A suitable alternative will have to be found until the foundations are complete and the existing pavement reinstated.

Once complete, should there be a requirement to re-open the Radiotherapy access road, then this will have to be done with full cognisance of the Contractors delivery regime, as materials will have to be unloaded in front of the proposed new building footprint, to avoid oversailing issues. This element should be discussed and agreed prior to any works commencing.

4. Programme, Construction Methodology

Envelope

Glazing and Cladding systems are at an early stage of design, a selection of Frameless Plant Screen Louvres, Tensile Fabric Panels, System Glazing/Curtain Walling and Textured Fibre Cement/ Composite Cladding will be used. As the detail design is developed and agreed, the most optimum sequencing and methodology should be adopted, to ensure fit out and external works can be started and progressed. That sequence will be integrated with the superstructure sequence.

Where practical the SFS inner skin will be constructed as the frame elements complete to ensure the earliest watertight date. As the vertical cladding reaches roof level then high- performance roof membranes will be applied, followed by roof finishes at the appropriate time. Its at this time, any roof plant requires can be installed.

Fit-Out and External Works

Finishes and services fit out will commence once a level of temporary or permanent water tightness has been achieved. Core services and distribution will be progressed first.

This is expected to be carried out once the main structure nears completion.

As the new works reach conclusion the temporary site accommodation and hoardings will be cleared from the site. Pavements and roads will be reinspected and reinstated, and all necessary remedial work carried out.

A detailed analysis of the above, including testing, commissioning and validation, should be incorporated into the construction works programme, which the Contractor will be required to formulate, once appointed.

5. Site Logistics

Overview

The efficient management of the site logistics will be vital to the success of the project. A key strategy of logistics for a construction project is to ensure that the products and materials arrive on site at the time and in the quantities that are required.

The Contractor will ensure that the necessary pre-planning is undertaken and that the quality of the communication between those planning the project and those supplying the products and materials is maintained throughout the duration of the project.

The above is essential on this project given its location, within the Royal Free London NHS Trust complex and the works will undoubtedly effect the operations of the Trust, whilst they are ongoing. In order for logistics plans to work, they need the buy in of all stakeholders, therefore we would propose as part of the development of the plans required, a series of workshops be held to discuss, formulate and agree logistical strategies that will ensure the maintenance of the operations of the Trust to an acceptable level, whilst allowing the works to proceed and complete.

The current logical proposals are contained within the IHP Logistics plan within appendix A of this document, this plan can and will be developed as the site moves into the operational phase.

Radiotherapy Access Road

During the initial stages of the project and through the Sub-Structure works and Super-Structure works period, there will be no alternative but to close this road to allow the works to be carried out in a safe manner. Please refer to Design Information and Logistical Plans for access road location.

Once complete, it will be possible to re-open the road, but only with liaison with the Contractors delivery regime, as any materials will have to be unloaded in front of the new construction, in order to ovoid oversailing issues. This topic should be on the agenda for the series of proposed logistical workshops. All should be aware however, that restricting delivery times, will have an effect on programme and methodology of working.

Use of Consolidation Centres

As part of the over all logistics strategy, linked to the Traffic Management Plan, the use of consolidation Centre's, for the storage of materials prior to delivery, should be encouraged. This allows for more concise management of deliveries and as a result is more effective in respect of managing the Environmental impact of construction activities.

Construction Consolidation Centres can reduce construction and delivery costs, increase supply security and tackle poor air quality and emissions.

More information and the current directory of London Construction Consolidation Centres can be viewed on the TfL website: https://tfl.gov.uk/info-for/deliveries-in-london/delivering-efficiently/consolidating-deliveries

6. Traffic Management

Overview

This section highlights the measures by which the Contractor will avoid nuisance to the Royal Free London NHS Trust and the public that may arise from increases in traffic flows and temporary rearrangements of the road network associated with the construction works. Measures have been considered in relation to access routes, site access, timing of movements, environmental standards and parking.

The site being housed within the Royal Free London NHS Trust complex, therefore by definition, it is essential that detailed planning of all traffic movements is at the forefront of all day-to-day activities at the Hybrid Theater's Project.

Timing of deliveries will be strictly controlled to avoid peak traffic periods. Deliveries and collections for the site will be restricted to 09.30 to 16.00 where possible.

Traffic and transport activities associated with any development can lead to several environmental and logistical issues, some of which have already been considered in this document, these include:

- Noise.
- Dust.
- Traffic congestion.
- Safety hazards from moving vehicles.

In addition to the measures outlined within this document by which the Contractor will avoid nuisance to the public that may arise from increases in traffic flows and temporary rearrangements of the road network associated with the construction works. The contractor will be required to formulate and implement a Traffic Management Plan (TMP), (see below) which will dovetail into all other site management plans.

6. Traffic Management

Operational Traffic Management Plan

A detailed Traffic Management Plan (TMP) will be implemented on site. The TMP will outline the routes and timings of deliveries to be taken by hauliers to minimise disruption to visitors, local residents and businesses. In addition to containing information in respect of predicted traffic numbers throughout the duration of the project, as well as clearly demonstrating how traffic and deliveries will be managed to mitigate the impact on the Environment. This includes the potential risk for noise disturbance as well as minimising additional traffic during peak periods.

When formulating the plan, the Contractor is to consider all the information contained within this document and is to fully liaise with all stakeholders in respect of the content of the proposed Traffic Management Plan.

The Contractor will use agreed designated construction traffic routes for deliveries to the site and removal of waste etc. Access routes to and from the site to be used by heavy goods vehicles (HGVs) will be agreed with the aforementioned authorities and Transport for London (TFL) prior to initiation of the construction programme, to minimise disruption to the road and pedestrian network.

The Contractor is expected to attend all consultation group meetings called in relation to the works in order to manage and coordinate the cumulative construction impact of the project in conjunction with other developments.

In addition detailed logistics plans will be developed as part of the Contractor's Logistics Management Plans (LMP) and Traffic Management Plans, when procurement will be further advanced, and more knowledge of vehicle origination and routes can be planned.

In order to reduce the number of vehicles attending the site the Contractor will target the following best practice suggestions:

- Procurement of local Trade-Contractors and labour;
- Procurement of local suppliers;
- Combined deliveries;
- Install a delivery regime of "just in time";
- Use of off-site storage hubs';
- Advocate the use of public transport, timetable and routes should be available to all operatives at the site;
- Ensure a regime of no construction traffic parking on the site or in the area of the Site is implemented;

6. Traffic Management

Roads/Highways/Footpaths

The Contractor is to maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris. The Contractor will make good any damage, to the satisfaction of the Employer, Local Authority and or any other owner, caused by site traffic or otherwise consequent upon the works.

Roads and pavements surrounding the site should be cleaned at least twice during the working day, at the end of each working day, and before weekends and public holidays.

The Contractor shall uphold and protect all road, footpath or bridleway on the site, together with any verges, gullies, pipes, ducts, sewers, service mains, overhead cables, street lighting, tree planting and statutory undertakers' apparatus and make good at their own expense any damage caused thereto.

Damage to any highways caused by vehicles used in connection with the works shall be made good at the expense of the Contractor. The Contractor shall indemnify the Employer against any liability, loss, claim or proceedings whatsoever arising under any statute or at common law in respect of any such damage. No materials shall be stored on the highway.

A risk assessment should be carried out relating to the safe movement of any plant, site vehicles, cyclists and pedestrians prior to commencing on site and the interface regularly reviewed.

Signage will be erected highlighting any risks including plant, vehicles and general health and safety to pedestrians. Banksmen will guide pedestrians, particularly during deliveries to the site, along the safest route.

Cyclist activity is to be unhindered, during site deliveries a banksman will be utilised to ensure cyclist safety in conjunction with other road users, whilst vehicles are accessing and egressing the site. Any cycle lanes must be left open and precautions taken not to endanger cyclists must be taken.

Pedestrian routes will not be blocked during deliveries and collections unless a temporary road or footway closure is in operation. In such circumstances appropriate alternative routes and signage will be provided.

Site management will conduct routine daily/weekly checks to ensure the safety and security of pedestrians around the Site. This will form part of the overall monitoring strategy.

6. Traffic Management

Access Routes

The Contractor will use designated construction traffic routes for deliveries to the site and removal of waste. Access routes to and from the site to be used by heavy goods vehicles (HGVs) will be agreed with LBC and TfL prior to initiation of the construction programme, to minimise disruption to the road and pedestrian network. The Transport for London Road Network (TLRN) will be used as far as possible to reach the site.

At this stage it is uncertain which wider direction specific traffic will approach from but that will become clearer when a contractor is appointed and is able to place supply orders.

The contractor will provide further details when ultimately appointed, and when the source of specific materials is better known. The routing is therefore subject to Contractor confirmation.

We would suggest vehicles approach site from the A502 Rosslyn Hill, (part of SRN) turning directly onto Pond Street, see proposed local context traffic routing below in this section.

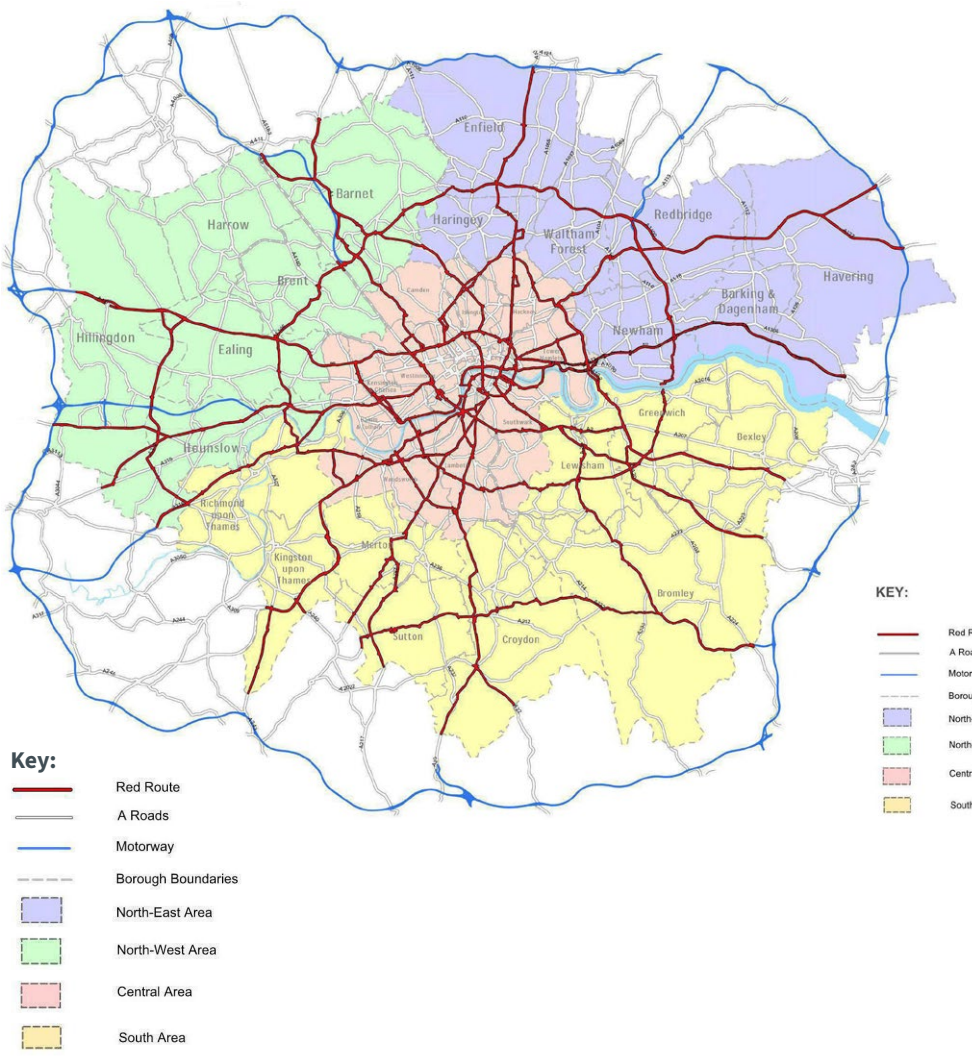
6. Traffic Management

Strategic Access Routes

The contractor will use designated construction traffic routes for deliveries to the site and removal of waste etc. in accordance with their overall Traffic Management Plan. Access routes to and from the site to be used by heavy goods vehicles (HGVs) will be agreed with TFL and LBC prior to initiation of the demolition and construction programme, to minimise disruption to the road, cycle, and pedestrian network. It is anticipated that the strategic road network will be used as far as possible for this purpose, when vehicles are traveling from outside of London.

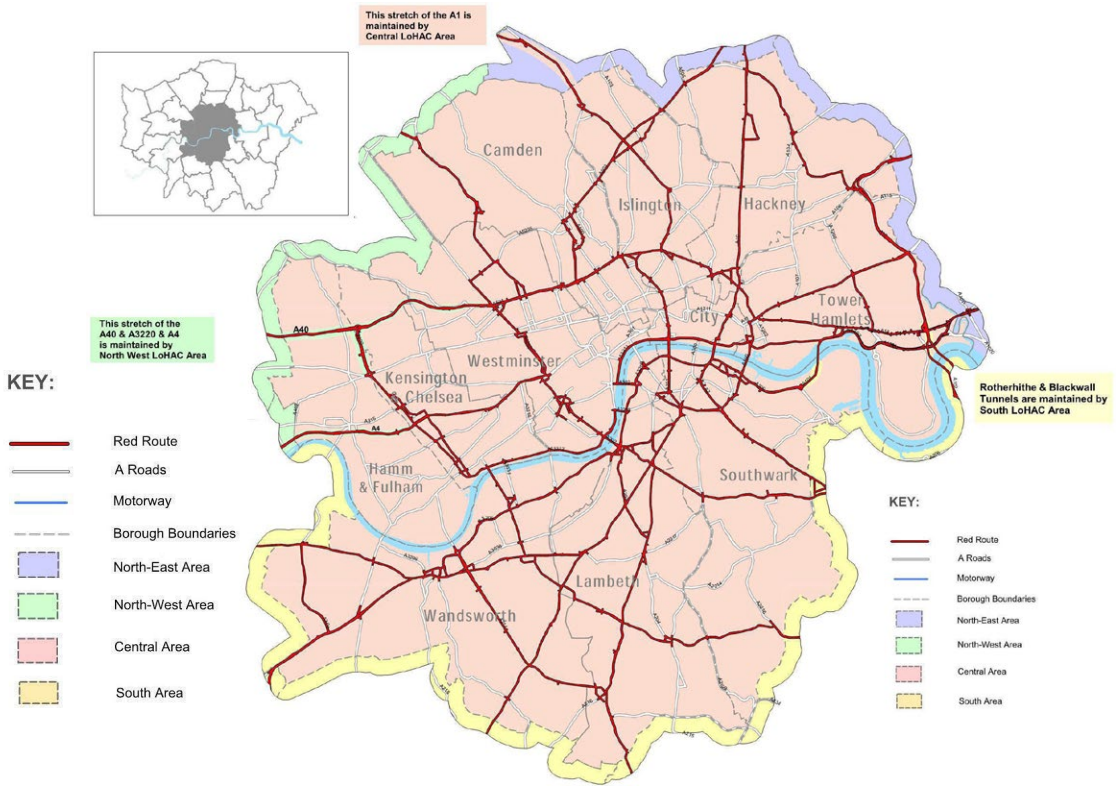
The following images indicate the regional, central and local, strategic network routes. When traveling into London, and navigating central London, the contractor is expected to follow the TFL strategic network, to reach this development.

Transport For London Strategic Road Network Red Routes

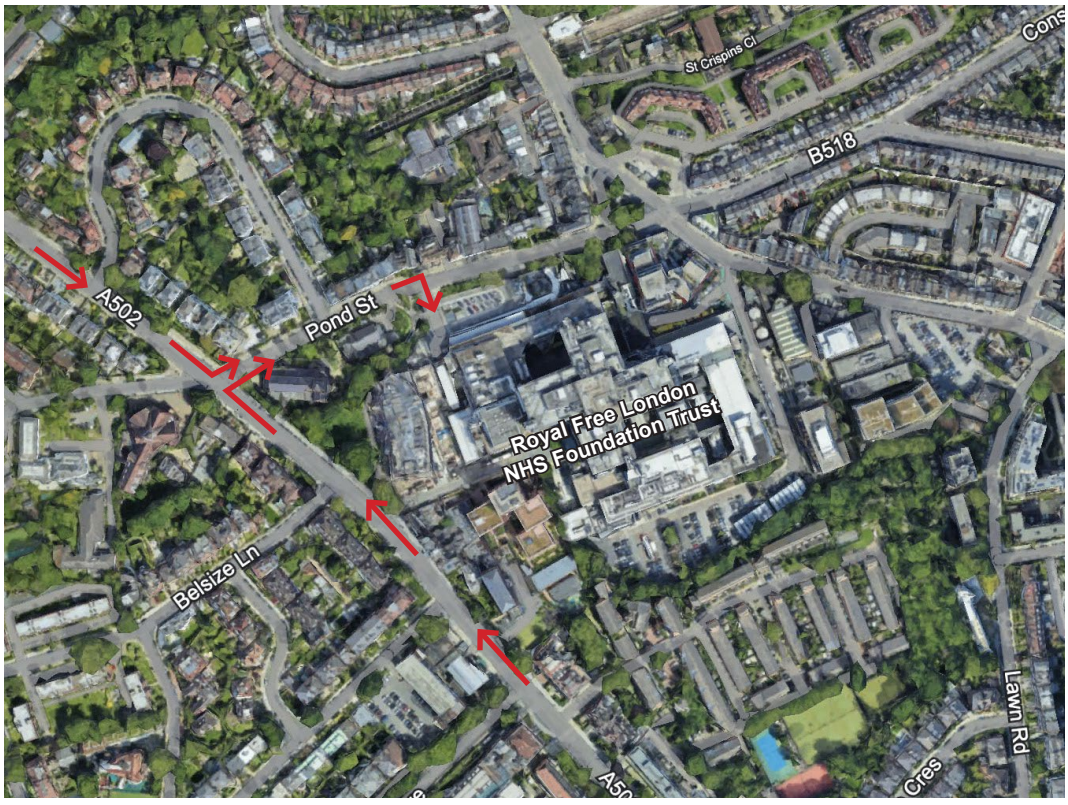


Strategic Access Routes (continued)

Transport For London Strategic Road Network - Central - Red Routes



Local Traffic Context Plan



Traffic Flow

6. Traffic Management

Deliveries

Deliveries will be planned in accordance with the Traffic Management Plan and Logistics Management Plan. Routing is to follow (TFL) Strategic Road Network advice and Royal Free London NHS Trust and LBC guidance, agreed traffic routes will be clearly shown in the TMP and strictly enforced by the Contractor.

Deliveries and collections should be undertaken on a 'just-in-time' basis and only a single vehicle will be loaded or unloaded at any given time. Deliveries arriving without a pre-booked slot will be refused and will exit the area by the nearest and safest route as instructed by the banksman and return to site after an agreed period.

The use of other streets in the area by construction lorries, other than those identified in the (TMP), will not be permitted. The smallest practicable vehicle size will be used where possible, including non-articulated vehicles.

Delivery Management

To minimise the likelihood of congestion during the construction period, strict monitoring and control of vehicles entering and egressing the site will be implemented. Construction deliveries will be carefully planned with delivery times agreed with each Trade-Contractor and supplier using a booking system. Delivery schedules will be produced to look at the profiles of up-and-coming deliveries, and to regulate deliveries and eliminate bottle necks.

Traffic on site, should be managed and directed by the main Contractor, this is an essential element, to ensure no backing up of vehicles or traffic incidents occur. The strategy for traffic management, should be part of the overall strategic logistics plan and traffic management plan.

The Contractor should consider the use of an off-site Consolidation Centre to limit the number of vehicles delivering directly to site. Specific time slots will be allocated to the Trade Contractors and suppliers for the use of cranes and hoists, to ensure that the main plant will be utilised efficiently, and that deliveries are not queued.

6. Traffic Management

Delivery Vehicles

Delivery vehicles are to be booked in the daily delivery schedule. Project rules should be provided to each driver, along with a small orientation plan. All delivery vehicles should be stopped at the gate or unloading area.

Should a vehicle driver not have the correct PPE then they shall not be permitted out of the vehicle while on site.

The delivery vehicle routine should be:

1. Vehicles are stopped
2. Access registration
3. Safety Rules are handed over to the Driver if it is their first time at the project
4. Delivery is assessed
5. Vehicle is allowed access after confirmation that the delivery is expected.

The vehicle can enter the site if:

1. Have a delivery note with contact name and number.
2. The driver has PPE.
3. No persons under 18 Years in the vehicle.

Vehicles-General

All delivery vehicles must have the following:

- Hazard warning lights or flashing amber beacon;
- Means of clear 360º vision for manoeuvring or reversing vehicle camera; If the vehicle is not equipped with reversing camera, then a banks person is mandatory when manoeuvring or reversing;
- Should a vehicle break down there shall be a suitable towing cable on site;
- Suitable plant shall be used when towing, with suitable assessment carried out before commencing. In other cases contact with a suitably qualified towing company must be sort.

Site vehicles / plant will:

- Be fitted with a seatbelt (ROPS) the operator/driver will wear it at all times;
- Have prominent amber flashing hazard beacon or beacons in full working order;
- Have a valid tax disc if operated outside of the designated non licensed areas;
- Have rollover protective structure (ROPS) and / or falling-object protective structure;
- (FOPS) in accordance with the manufacturer's instructions (where appropriate);
- Be selected with regards to safety aspects of its use (i.e., size, duties, visibility, etc.);
- Have 360º all round vision, or be provided with driver vision
- Assistance, such as cameras, mirrors, etc., or be under the supervision of a banks person while manoeuvring / reversing;
- When unattended all vehicles or plant must be left without keys in the ignition, and Immobilized;

6. Traffic Management

Policy Context

This chapter summarises below the national and local transport policies relevant to the development proposals. The main policy documents in this regard are:

- National Planning Policy Framework (2021)
- The London Plan (2021)
- The London Freight Plan (2007)
- Fleet Operator Recognition Scheme (FORS)

National Policy

National Planning Policy Framework (2021)

The National Planning Policy Framework (NPPF) was updated in 2021 and supersedes all previous national planning policy documents such as PPG13 (Transport). It focuses on a presumption in favour of sustainable development. One of the core planning principles relates to actively managing patterns of growth to make the fullest possible use of public transport, walking, and cycling and focusing significant development in locations which are or can be made sustainable.

The NPPF recognises that the transport system should be balanced in favour of sustainable transport modes so that people are given a real choice about how they travel.

Developments should be located and designed where practical to:

- Accommodate the efficient delivery of goods and supplies;
- Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians;
- Incorporate facilities for charging plug-in and other ultra-low emission vehicles
- Consider the needs of people with disabilities by all modes of transport.

For further detail this framework can be found at:
https://www.gov.uk/government/publications/national-planning-policy-framework--2

Following the recent change in administration, the UK Government has published a series of proposed NPPF updates for consultation (which is still ongoing). As it stands, no significant updates to the above-mentioned policy position (with regards to construction related matters) are proposed within the current consultation documents.

Policy Context (continued)

Regional Policy

The London Plan (March 2021)

The London Plan provides the overall strategic plan for London setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years. The latest version of the London Plan was published in March 2021.

Travel Plans can help to deliver many of the transport objectives set out within the London Plan's Policy 6.1 'Strategic Approach' which include reducing the need to travel, reducing car use and supporting measures that encourage a shift to more sustainable modes and technology.

The London Plan encourages and supports the use of Travel Plans for development proposals. Policy 6.3 'Assessing Effects of Development on Transport Capacity' states that Travel Plans should be provided for applications above the thresholds set out in TfL guidance.

The London Plan sets out standards for car parking and cycle parking. Policy 6.13 on 'Parking' states that in locations with high public transport accessibility, car-free developments should be promoted. Table 3.1 sets out the cycle parking standards for the land uses associated to the proposed development.

For further detail and guidance, this policy can be found at: https://www.london.gov.uk/programmes-strategies/planning/london-plan/new-london-plan/london-plan-2021

The London Freight Plan (2007)

The vision for sustainable freight distribution in London over the next five to ten years is for: "… the safe, reliable and efficient movement of freight and servicing trips to, from, within, and, where appropriate, through London to support London's economy, in balance with the needs of other transport users, the environment and Londoners' quality of life".

The Plan identifies FORS, DSPs, CLPs and the Freight Information Panel (FIP) as key projects for delivering freight more sustainably in London.

The plan can be found at:
https://content.tfl.gov.uk/freight-servicing-action-plan.pdf and or https:// www.london.gov.uk/ sites/default/files/tr_18_freight-servicing-action-plan.pdf

Fleet Operator Recognition Scheme (FORS)

(FORS) is a unique, industry-led, membership (bronze, silver, gold) scheme to help van and lorry operators become safer, more efficient and more environmentally- friendly.

Its relevance is via its mention in the Mayor's Transport Strategy and requirements will be relayed to all operators engaged during the development.

(FORS), can be viewed: https://www.fors-online.org.uk/cms/

6. Traffic Management

Mitigation Measures

This chapter highlight's the measures that can be taken to have a positive impact of construction vehicle movements and deliveries from a safety, environmental and economical perspective.

Use of Logistics and Consolidation Centres;

The efficiency of using offsite consolidation centres is widely accepted in the industry. The Contractor would identify a consolidation centre for general materials for building fit out, mechanical & electrical services.

Construction Consolidation Centres can reduce construction and delivery costs, increase supply security and tackle poor air quality and emissions. The use of these facilities should be encouraged wherever possible. More information and the current directory of London Construction Consolidation Centres can be viewed at:

https://www.clocs.org.uk/casestudies/The-Directory-of-London- Construction- Consolidation-Centres-v12_FINAL_WEB-ea550c.pdf

Safety and Environmental Standards and Programmes;

The Contractor and their suppliers will be required to comply with the terms of the FORS and CLOCS.

Fleet Operator Recognition Scheme (FORS);

FORS is a unique, industry-led, membership (bronze, silver, gold) scheme to help van and lorry operators become safer, more efficient, and more environmentally- friendly. As stated in the previous chapter, it's relevance is via its mention in the Mayor's Transport Strategy and requirements will be relayed to all operators engaged during the development.

(FORS), can be viewed at: https://www.fors-online.org.uk/cms/

Mitigation Measures (continued)

CLOCS Compliance:

The project will adopt Construction Logistics and Community Safety (CLOCS) standards for all delivery vehicles. (CLOCS Standard for construction logistics, V1.3. 2019) Fleet Operator Recognition Scheme (FORS) Silver accreditation as a minimum will be a contractual requirement, FORS Gold operators will be appointed where possible. Where FORS Silver operators are appointed, written assurance will be sought from Contractors that all vehicles over 3.5t are equipped with additional safety equipment, and that all 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 as outlined in the CLOCS Standard Managing Supplier Compliance guide.

These will be carried out as per a risk 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 of further 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.

Further information is available at: https://www.clocs.org.uk/page/clocs-standard

Measures Influencing Construction Vehicles and Deliveries

This chapter covers measures that can and often do, influence construction vehicles and deliveries.

Safety Compliance;

In line with the above, appropriate protection will be implemented to ensure cyclists and pedestrians are safe during the construction process.

Trade Contractors and suppliers will be made aware of their responsibilities and required to ensure that their vehicles are provided with all necessary safety aids and that the drivers have undertaken the necessary training courses.

The following safely apparatus will be on the vehicles at a minimum:

1. Undercarriage guard that prevents cyclist from going under the truck from the side
2. Turning left and reversing beacons
3. Blind spot mirrors

All drivers will be made aware of potential cyclists travelling in the vicinity of the site.

The area around the site experiences high levels of pedestrian footfall and therefore drivers will be made aware not only of cyclists and pedestrians but of turning movements which will require extreme care and will be directed by site Traffic Marshals.

Measures Influencing Construction Vehicles and Deliveries (continued)

Vehicle Access – Reversing;

During the construction works, the reversing of vehicle's should be always avoided and, in this instance, must be strictly prohibited in the normal course of vehicle management. However, should it be necessary to reverse vehicles, possibly because of an unforeseen circumstance then this must be done with strict adherence to the HSE guidelines at:
https://www.hse.gov.uk/workplacetransport/checklist/section5.htm#

Banksmen need to be always visible to drivers;

In some circumstances, employers do not allow Banksmen to be used due to the size of vehicles involved and the difficulty that drivers have in seeing them. If drivers are not able to see clearly (or lose sight of a Banksman) behind the vehicle for any reason, they should apply the brakes and stop the engine immediately, leave the cab and check behind the vehicle before reversing.

In a busy place this precaution may not be enough, because people can move behind a vehicle after the driver has returned to the cab. Segregating pedestrians and vehicles, and improving the ability of the driver to see around the vehicle from the driving position, are more effective ways of improving pedestrian safety during reversing.

Precautions for visibility should include the following;

- High-visibility equipment (vests, arm or cuff bands, gloves, bats, batons or flags) Banksmen are sometimes given a high-visibility vest of a different colour to other site workers, to help distinguish them;
- Vehicle and site-fixed visibility aids (such as mirrors);
- Portable radios or similar communication systems can be helpful,
- In low-light conditions adequate lighting should be provided.

Banksman's signals;

Using Banksmen to control reversing operations can put the Banksman in the potential danger area of a reversing vehicle. Every year Banksmen suffer serious and fatal injuries whilst at work. If you do use Banksmen, make sure they are trained to carry out their duties safely.

There must be a safe system of work that ensures the Banksman and driver are using standard signals, so that they are easily understood, and that the driver knows to stop the vehicle immediately if the Banksman disappears.

The standard signals are given in the Health and Safety (Signs and Signals) Regulations 1996 L64, available from HSE Books.

6. Traffic Management

Measures Influencing Construction Vehicles and Deliveries (continued)

Adherence to designated routes;
The site can only be reached directly from the Strategic Road Network. The Contractor would enforce adherence with the agreed approach routes included in this document and will introduce designated routes from the consolidation centre when known.

Delivery scheduling;
The Contractor will operate a delivery management plan managed by a Logistics Manager. All deliveries will be on a just in time basis will be scheduled in advance, logged and booked in.

Re-timing for out of peak deliveries;
Deliveries of less critical components will be timed away from morning peaks to early afternoons. Priority (on site) will be given to concrete deliveries and muck away during piling and structure phases.

Use of holding and vehicle call off areas;
When suppliers and their approach direction are known off site holding areas for deliveries for call off to site will be identified to await call into the site area, any vehicle that is arriving outside of their designated delivery slot, should be turned away.

Material Procurement Measures;
Off-site manufacture:

Off-site manufacture of components is encouraged and might include elements of cladding, mechanical & electrical services and fit out. Options will be further progressed as the design is developed.

Re-use of material on site:
The design of the new facilities retains as much as possible of the retained structures, thereby reducing demolition as far as possible. Targets of waste reduction and recycling will be set with the intention of reducing numbers of vehicles arriving at site and least possible material to land fill.

Smart procurement:
The Contractor would endeavour to use local suppliers where appropriate to reduce delivery mileage. Shared procurement with neighbouring sites will also be explored.

Other Measures;

Collaboration amongst other sites in the area:

The Contractor would liaise with the neighbouring Contractors and Trade Contractors to share potential deliveries and holding areas.

Implement a staff travel plan:
There will be no on-site car parking for staff or operatives and offsite car parking will be actively discouraged. Operatives will be encouraged to use public transport and bicycles. Showers will be provided to promote cycling to work if possible.

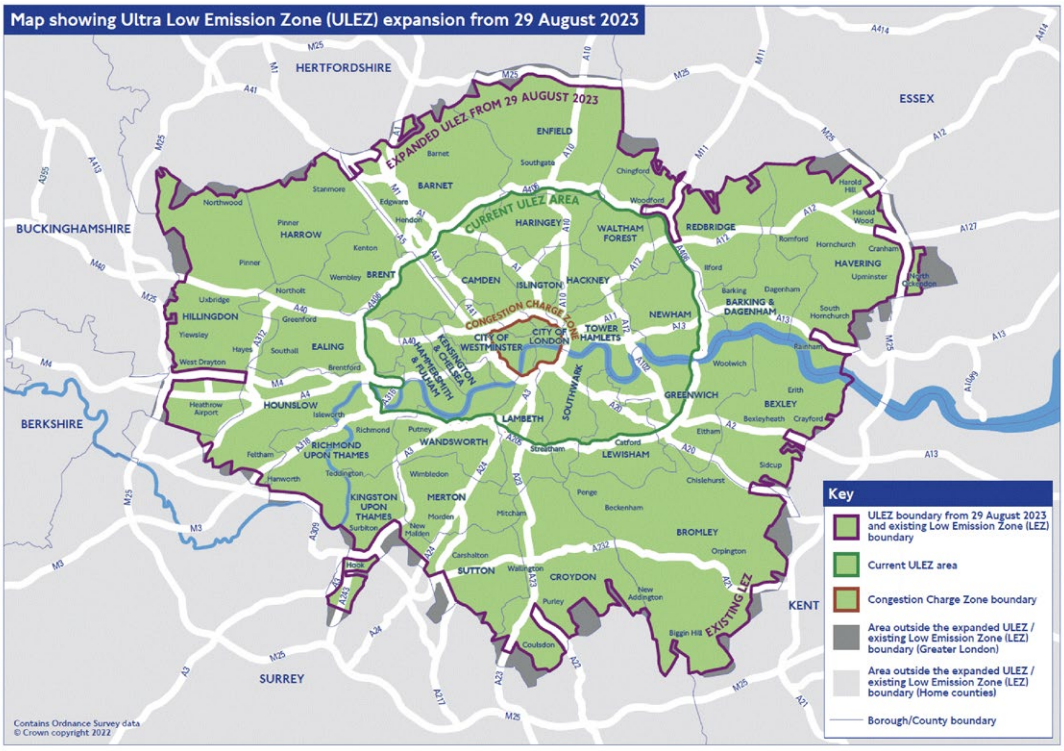
Public Transport:
There are a number of public transport options open to site staff and operatives within the area, the use of public transport links should be actively encouraged.

6. Traffic Management

ULEZ Zone

All vehicle's attending site, will have to comply with the requirements of the ULEZ Zone.

The map contained within this section shows the new ULEZ boundary and the area it will cover, the Royal Free London NHS Trust, is within all chargeable areas.



7. Site Waste Management

Overview

As the design is further developed and Contactors are appointed, this section of the CMP will be updated into a detailed section on Site Waste Management.

The Contractor will use working methods that minimise waste at the Hybrid Theatres Site. Agreements are to be reached with the NHS Trust on the positioning of any waste skips prior to their placement. The waste removal strategy, including routes for waste removal vehicles and waste skip locations, should be clearly highlighted in the Site Waste Management Plan.

Any waste arising from the site must be properly categorised and dealt with in accordance with all appropriate legislation. Specifically Waste (England and Wales) Regulations 2011. Further information on the waste hierarchy and legislation can be found at: https://www.gov.uk/government/publications/applying-the-waste-hierarchy-evidence-summary

As well as meeting the requirements on any implemented Sustainability and Whole Life Carbon Strategies, in terms of providing KPI data on targets met, as the project progresses. In addition to taking account of and aiding the development of the Outline Resource Management Plan. The Contractor will also develop and implement the Site Waste Management Plan.

Opportunities for re-using or recycling construction or demolition waste should be explored and implemented.

The Contractors will carry out the works in such a way that, as far as is reasonably practicable, the amount of spoil and waste (including groundwater, production water and run-off) to be disposed of is minimised.

The disposal of all waste or other materials removed from the Site will be in accordance with the requirements of the Environment Agency, Control of Pollution Act (COPA), 1974, Environment Act 1995, Special Waste Regulations 1996, Duty of Care Regulations 1991 and the Waste Management Regulations 2011.

In general, and in accordance with the principles of the UK Government's 'Waste Strategy 2010', a principal aim during demolition and construction will be to reduce the amount of waste generated and exported from the Development site.

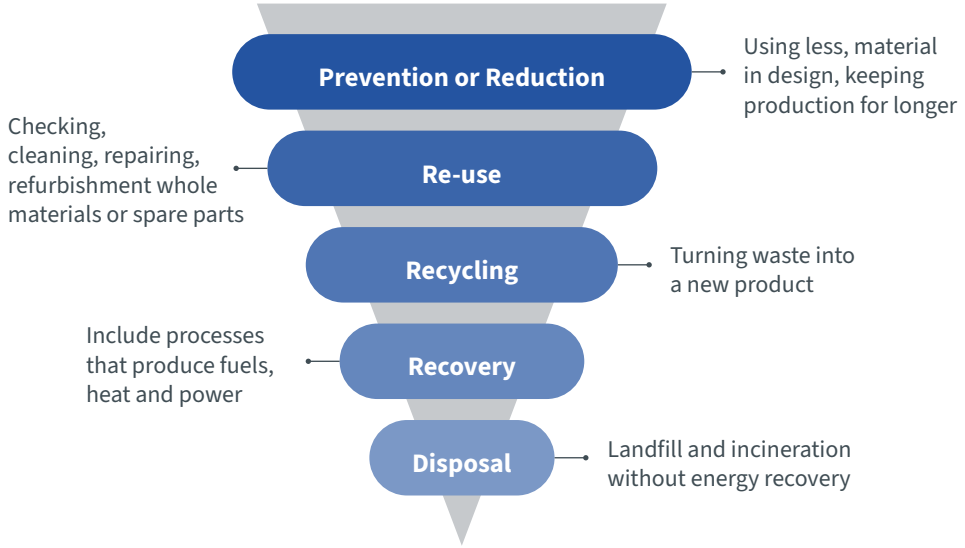
This approach complies with the waste hierarchy whereby the intention is first to minimise, then to treat at source or compact and, finally, to dispose of off-site as necessary. All relevant Contractors will be required to investigate opportunities to minimise and reduce waste generation, such as:

- Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme.
- Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste.
- Attention to material quantity requirements to avoid over- ordering and generation of waste materials.
- Re-use of materials wherever feasible (e.g. re-use of crushed concrete from hard standings for the piling platform; re-use of excavated soil for landscaping).
- The Government has set broad targets of the use of reclaimed aggregate, and in keeping with best practice,
- Contractors will be required to maximise the proportion of materials recycled.
- Segregation of waste at source.

7. Site Waste Management

The Waste Hierarchy

Potential pathways of re-use and recycling for the identified materials potential demolition of the Site have been explored in line with the waste hierarchy in the figure below.



This involves prioritising the following:

To design proposals sustainably.

- To reduce the amount of waste generated from the development.
- To conserve natural resources through re-using waste arising from construction.
- To re-use waste materials on-site to reduce transportation.
- To use recycled materials where possible.
- To reduce waste generation during the operational lifetime of the development and facilitate recycling where waste does arise.

7. Site Waste Management

Site Waste Management Plan (SWMP)

The Contractor will produce a detailed site waste management plan, to demonstrate compliance with the waste hierarchy, which is to be implemented as part of their hierarchy of project management plans;

Typical guidance on producing a SWMP, can be found via Smart Waste.

The section below on reuse of construction materials highlights key waste reduction and reuse measures to consider in the SWMP. The SMARTStart waste benchmarking/ monitoring tool provides a simple method for recording information about the materials that leave the site as waste available at: https://bregroup.com/products/smartwaste/

More information is also available via the Green Construction Board (GCB) which is the sustainability workstream of the Construction Leadership Council (CLC) at: https://www.constructionleadershipcouncil.co.uk/workstream/green-construction-board/

The SWMP should consider a minimum the following:

- Waste storage
- Consolidation of vehicle movements and reducing transport emission's
- Waste Prevention and reduction
- Reuse of waste
- Recycling of waste
- Recovery of waste
- Disposal of waste
- Monitoring of waste

The SWMP should also be formulated on and embody the principals of the circular economy approach, the principals of which are outlined below in the text, extracted from the UK Governments uGov portal at: https://www.gov.uk/government/publications/circular-economy-package-policy-statement

"Shifting towards a more circular economy will mean we optimise our use of resources within the economy by increasing the duration of a product's useful life and ensuring when a product has reached the end of its life its resources can be productively used repeatedly, so creating further value. Consequently, the added value in products remains in the systems for as long as possible, so reducing waste. The transition to a more circular economy requires changes throughout value chains, including product design, new business and market models, novel ways of turning waste into a resource and changes to consumer behaviour. The move to a more circular economy will bring the four UK nations environmental, financial and social benefits."

7. Site Waste Management

Resource Management Plan

In addition, when appointed, the Contractor is to aid further development of and subsequently the management of the Resource Management Plan, in accordance with the waste hierarchy of 'reduce, reuse, recycle.' Which will be dovetailed into the SWMP. This will outline measures to monitor the project's generation of non-hazardous waste and diversion of waste from landfill.

Where possible, waste material will be recycled on site, or returned to suppliers via take- back schemes. Co-mingled waste will be collected on site and will be removed by a licenced Contractor to be sorted for recycling or disposal.

A Resource Management Plan should embody the following principals:

Prevention & Recycling:

A reclamation-led approach to demolition and construction will enable the client to realise the economic value of these materials and increase the overall sustainability of the demolition and new development project as a whole.

The aim is to identify potential applications and any related issues for the reuse and recycling of the key materials in accordance with the waste hierarchy (The Waste (England and Wales) Regulation 2011):

Prevention:

- Using material in design and manufacture, keeping products for longer, reuse, using less hazardous materials;
- Preparing for reuse: checking, cleaning, repairing, refurbishment, whole items or spare parts;

Recycling:

- Turning waste into a new substance or produce. It includes composting if it meets quality protocols;
- Other recovery: includes anaerobic digestions, incineration with energy recovery, gasification and pyrolysis, which produce energy (fuels, heat and power) and materials from waste;
- Disposal landfill and incineration without energy recovery;

To reclaim these materials, the following key issues should be addressed when planning the demolition:

- Time - the predicted programme should allow sufficient time;
- Space - salvaged materials require suitable storage space on and/or off-site;
- Safe access - to support a safe environment for operatives and the general public during demolition and reclamation activities;

7. Site Waste Management

Waste Prevention and Reduction

All the of the above are important elements of waste management, however the prevention of waste is the best performing option from an environmental perspective and outperforms waste recycling, recovery and disposal options. The construction industry is well known for its significant use of resources and associated carbon emissions. Much environmental gain can be derived

from reducing the quantities of waste produced by projects. How this is achieved will vary from project to project, but a robust data collection and management system is key in ensuring areas of improvement around this are identified.

Measures to reduce waste arising during construction or demolition should include the following, where practicable. Developers and contractors should work together to:

- Plan early and define targets and processes in a SWMP;
- Allocate sufficient space to be able to separate materials and store them separately;
- Allocate sufficient storage space for materials which can be reused to avoid disposal;
- Avoid over-ordering of materials;
- Avoid damage on delivery by using a walled laid-out storage and off-loading area;
- Use prefabrication, if feasible;
- Avoid repetitive handling;
- Salvage topsoil for re-use if applicable; and
- Reduce municipal waste from temporary welfare accommodation on site by avoiding single use or excessively packaged items.

Opportunities for re-using or recycling whether from reusing on site or resale of construction waste will be explored and implemented.

Construction Waste Estimates

The majority of construction waste generated during redevelopment of the site will be from off-cuts of fitting materials, spent materials and packaging which will typically comprise of materials such as concrete, metal and plastics during construction activities. Estimates of construction waste arisings are to be formulated by the Contractor once appointed and the design is sufficiently developed to ascertain exact construction methodologies.

Construction materials should be selected following the BRE ‘Green Guide to Specification’. These include the following:

- Minimising embodied energy content (the energy used in manufacture);
- Using recyclable materials where they have high embodied energy; and
- Maximising the recycled content of the material, ease of maintenance, appropriate sourcing of materials and totally excluding deleterious and hazardous materials.

7. Site Waste Management

Design Team Approach

Circular Economy considerations should form a key part of the project sustainability strategy, given the scale of the Proposed Development, and the client's wider sustainability aspirations. It will no doubt be recognised that in order to implement Circular Economy principles most effectively, it is helpful to explore strategic opportunities as early in the Proposed Development process as possible.

Considerations around resource efficiency, material circularity and ethical sourcing should be considered within the overarching sustainability strategy from the early stages.

Details concerning the materials selected as part of the proposals (which need to be functional and deliverable given the critical need for the proposals) are set out further in the submitted Design and Access Statement.

Contaminated Waste

Identifying contaminated waste remains subject to further investigation and testing. Asbestos containing materials may to be present, although there is no evidence of this, a full analysis should be carried out to eliminate this possibility. All contaminated material will be identified, removed in according with legislation, and taken to the appropriate licenced landfill site.

Duty of Care

The duty of care applies to everyone who produces, imports, carries, keeps, treats or disposes of controlled waste. Materials suitable for direct reuse or recycling such as scrap metal or broken out concrete, are also classified as waste and will be subject to the waste management legislation and the duty of care. Please see The Duty of Care Code of Practice at: https://www.gov.uk/government/publications/waste-duty-of-care-code-of-practice

Prior to any processing/treatment of waste on site or any off-site removal, detailed checks will be undertaken for every applicable waste management organisation used during the development. Examples of applicable waste management organisations will include, but not be limited to:

- Waste carriers/hauliers.
- Waste transfer stations.
- Materials recycling facilities.
- Reprocessing facilities.
- Landfill sites

7. Site Waste Management

Disposal of Waste

For certain types of waste or residues, disposal (landfill) is the only available option when reuse, recycling or recovery are not suitable. For a few waste streams, such as certain types of contaminated soil, hazardous waste and asbestos, landfill is also the only legally compliant method of disposal. Some wastes, such as plasterboard and liquid waste, are banned from being sent to landfill.

Landfill disposal should be the very last option for waste when all other options or treatment routes have been exhausted. Landfill disposal will continue to play an important role in ensuring certain waste streams are disposed of without harm to the environment. A well-run landfill site ensures that waste is contained permanently, and the possible by-products of its decomposition are captured.

Every tonne of waste disposed of to landfill in the UK attracts landfill tax which increases every year. Inert waste attracts a lower rate of landfill tax than biologically active waste. Landfill tax has allowed the UK to move away from using landfill for mass-disposal of waste and towards higher performing waste treatment options.

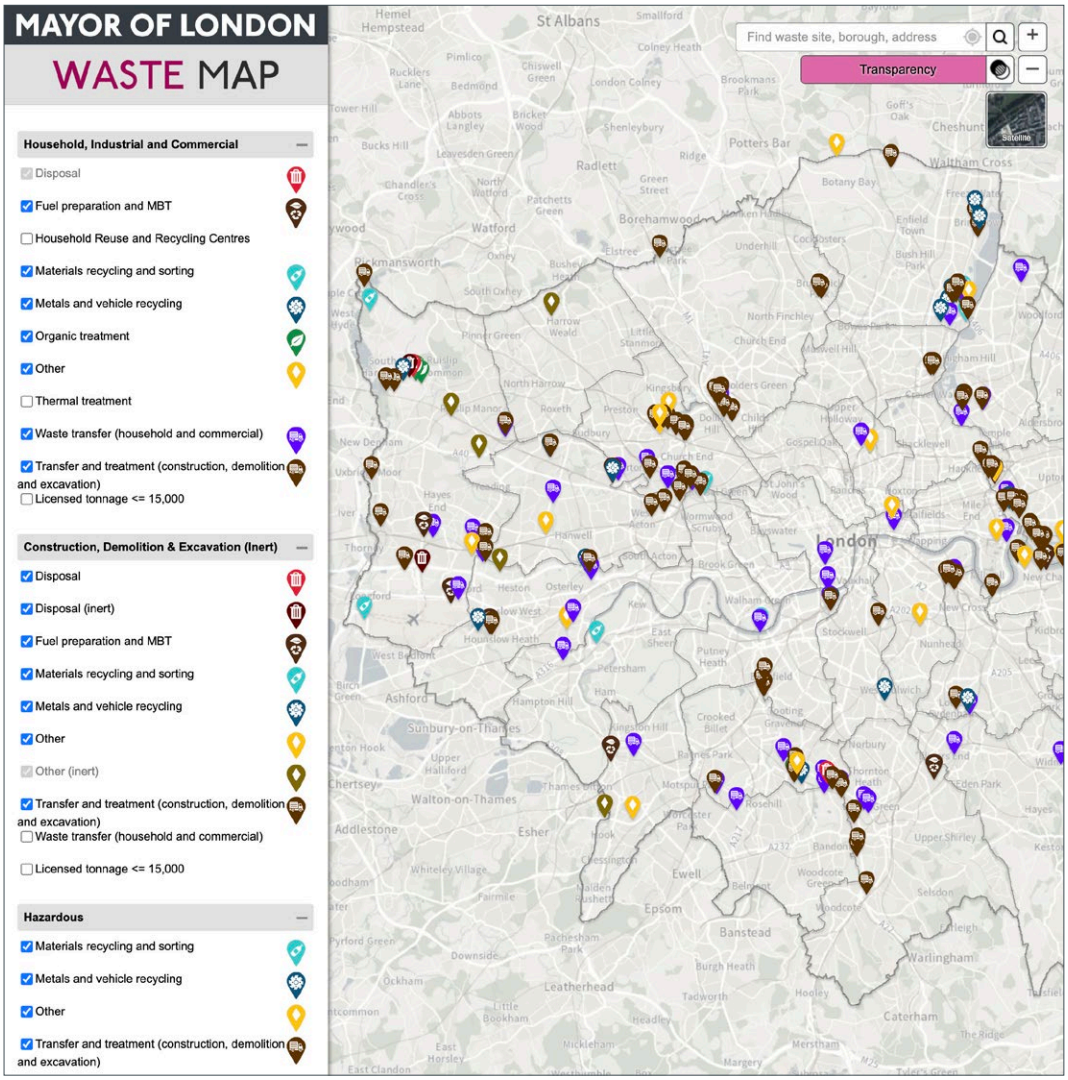
Ensure that the landfill receiving your waste is appropriately licensed to accept what you intend to dispose of since acceptance criteria vary per site. Landfill void capacity in the Southeast is diminishing and transport distances to the remaining sites can be significant.

7. Site Waste Management

Waste Treatment Locations

GLA waste treatment locations are shown on the map image below, for a live up to date version of the map, which can be filtered to suit exacting requirement's, please use the following link:

https://apps.london.gov.uk/waste/



8. Noise & Vibration

Overview

Measures for reducing noise & vibration levels are set out of this section.

Given recent developments delivered on-site, and recent consultation with the local community, the Trust is aware of the importance to ensure that noise and vibration impacts from the scheme are properly monitored and mitigated.

The Contractor will monitor and control levels of noise and vibration from the site. This will be particularly important on this project, given its location within the live hospital environment and specific measures will have to be considered through liaison with the hospital management team and LBC, these are to be confirmed. Any specific measures required are to be included within the Contractors critical management plans, specifically, their Environmental Plan and Noise & Vibration Management Plan along with all other regulatory requirements.

As already stated in several sections of the document, the Contractor is to fully liaise with LBC on matters such as noise and vibration, for clarity, their contact details are below:

Environmental Health Team Culture and Environment Directorate Town Hall
Argyle Street
London WC1H 8EQ
Phone: 020 7974 2090
Fax: 020 7974 6955
E-mail: env.health@camden.gov.uk

Noise from Demolition and Construction Sites

There is no formal definition of high impact noisy works although the following phases and noisy work packages are considered to meet the criteria.

Phases:

- Demolition
- Earthworks
- Piling

Noisy work packages:

- Cutting using power tools
- Breaking out using power tools
- The use of impact fasteners
- The loading of heavy materials

In addition to the work packages listed above Works and processes that may be considered 'high Impact noisy activities' can be defined on the following basis:

- Noise data within Table C of BS5228 indicates that if the equipment was used continuously for two hours it would likely produce noise levels in excess of 70 decibels (LAeq,10hr) at the nearest occupied premises.
- Work packages that produce significant structure-borne noise and vibration in adjoining properties, that is difficult to suppress, will be classed as 'high impact noisy activity'.

Further advice and guidance on good practices can be found via the following link:
https://www.cieh.org/media/1251/london-good-practice-guide-noise-vibration-control-for-demolition- and-construction.pdf

Noise from Demolition and Construction Sites (continued)

The ultimate aim has to be to reduce noise nuisance to local residents and people who run businesses in the area, and to give them suitable breaks from noise and vibration through our powers under the Control of Pollution Act 1974. This applies to:

- Erecting, constructing, altering, repairing and maintaining of any building, structure or road;
- Breaking up, opening or digging under any road or nearby land in connection with carrying out, inspecting, maintaining or removing work;
- Any demolition or dredging work; and
- Any engineering work (whether or not already covered in the three points above).

Under Section 60 of the COPA, local authorities have powers to control noise (and vibration) on or from building sites. They can serve a notice asking the person responsible for the work to follow specific controls to reduce noise. The notice can set out types of machinery, permitted hours of operation, boundary noise levels and so on. The Contractor must also consider best practicable means.

Although there are certain noise levels allowed on the site, the Contractor must try to control the hours of noisy work. LBC normally ask that all work, which might be heard from outside the site, must be carried out between the following hours:

Mondays to Fridays - 8am to 6pm
Saturdays - 8am to 1pm
Sundays and Bank Holidays - No noisy work

The greatest effect of noise and vibration on individuals and any type of premises is during the initial stages of a demolition, construction, refurbishment contract where basic structural alterations have to be made involving heavy drilling and breaking out. It is at this point that most complaints are made to the local authorities Environmental Health Team. The Contractor should note, if people make justified complaints to the local authority, then in those circumstances, the Contractor would be expected to reschedule the timetable of noisy work. In certain cases, the Environmental Health Team may act as an arbitrator to help come to a satisfactory agreement which may later be enforced by serving a notice.

It is therefore imperative that the Contractor uses best practical means (BPM), to reduce the impact of any noise and vibration resulting from the demolition, construction, refurbishment works, which means;

Control across site by:

- Administrative and legislative control,
- Control of working hours,
- Control of delivery areas and times,
- Physically screening site,
- Control of noise via Contract specification of limits.

8. Noise & Vibration

Best Practicable Means

Noise from a building site is also covered by **BS5228: 1984: 'Noise Control on Construction and Open Sites' - Parts 1(1997), 2(1997) and 4(1992)**, and relevant European Union Directives.

All work (demolition and construction work) on site must thus meet the British Standard BS 5228: Parts 1, 2 and 4. On all sites and at all times, you must do all you can to reduce noise and vibration. The following is a guide to BPM to reduce noise and vibration. Please note that this is not a complete list.

- Use BPM to reduce negative effects and increase beneficial effects on the environment by controlling noise, vibration or other nuisance which may cause offence to the local community or environment.
- Wherever possible, all sites must be totally surrounded by fencing or hoarding to reduce the amount of noise that escapes from the site. All site gates must be controlled so that they are open long enough to allow vehicles to pass through but no loud noise can escape to the surrounding areas.
- Wherever possible, fixed items of construction machinery must be electrically powered rather than powered by diesel or petrol. Where this is not practical, you must take suit-able measures such as acoustic enclosures. You must install a three-phase electricity supply on site as soon as possible, and power for lighting at night will be provided by a proper electrical supply or battery, not a generator.
- Machines that are not used very often must be shut down when they are not in use or throttled down to a minimum. If you use equipment that you need to run continuously and which produces a lot of noise, you must keep it in a suitable acoustic enclosure.
- Vehicles and machinery must be fitted with effective exhaust silencers, be maintained in good and efficient working order, and be used in a way that reduces noise as much as possible.
- On surface areas where environmental disturbance may arise, compressors must be 'sound-reduced' models that are fitted with properly lined and sealed acoustic covers kept closed when-ever the machine is in use. Also, pneumatic percussive tools must be fitted with the most effective muffler or silencer available.
- Equipment which breaks concrete by pressure must be used as far as is reasonably practical to do so.
- There must be no impact-driven sheet piling. LBC expect contractors to use hydraulically operated or vibratory methods to drive and extract sheet piling, although we accept that the soil strata would need to be suit-able for this equipment. It is preferred by LBC that all contractors to use hydraulically driven piling rigs.
- Where practical, you must use hydraulic or electrical powered rotary drills and bursters to remove hard materials.
- Noisy machinery and equipment must be as far away as practical from residential or other noise- sensitive properties. Barriers must be used; for example, soil banks, stock-piles of materials, site portacabins or proprietary acoustic barriers.
- Care must be taken when loading or unloading vehicles, dismantling scaffolding or moving materials to reduce the noise.
- All material and machinery that is delivered to the site, and any waste or other material that is to be removed, must take place within the permitted hours.

Best Practicable Means (continued)

- Properly coordinate the arrival of delivery vehicles at the site to prevent parking in local streets while awaiting access to the site. Vehicles must not arrive before 8am. You must consider using in-cab communication to prevent unacceptable queuing on streets outside the site. This is tied into a just in time delivery regime.
- Suitable plans must be in place to make sure that lengthy work can be completed within the permitted hours.
- All employees, subcontractors and people employed on the site must not cause unnecessary noise from their activities; for example, 'revving' vehicle engines, music from radios and shouting.
- All subcontractors, Contractors and Staff and all other people employed in connection with the project works must be aware of and, where practical, must keep to these guideline
- HGVs will be equipped with broadband, non-tonal reversing alarms;
- Compressor, generator and engine compartment doors will be kept closed and plant turned off when not in use.
- All pneumatic tools will be fitted with silencers/mufflers.
- Care would be taken when unloading vehicles to avoid unnecessary noise.
- The use of particularly noisy plant will be limited, e.g., avoiding use early in the morning.
- Restrict the number of plant items in use at any one time.
- Plant maintenance operations will be undertaken at distance from noise-sensitive receptors.
- Ensure that operations are designed to be undertaken with any directional noise emissions pointing away from noise- sensitive receptors.
- When replacing older plant, ensure that the quietest plant available is considered.
- Drop heights will be minimised when loading vehicles with rubble.

8. Noise & Vibration

Noisy Work outside the Standard Hours

In cases where there is likely to be noisy work outside the standard hours for unavoidable reasons, the Environmental Health Team will need notice, in writing, at least two weeks be-forehand.

Environmental Health Team
Culture and Environment Directorate Town Hall Argyle Street London WC1H 8EQ
Phone: 020 7974 2090
Fax: 020 7974 6955
E-mail: env.health@camden.gov.uk

The application must include the nature and reason for the work and the proposed timetable. We will consider each application individually and usually make a decision within one week.

The main types of work done outside normal hours that we would consider to be acceptable are:
a. Emergency work;

b. Work needed for immediate health and safety reasons;

c. Work which is likely to cause major disruption to traffic, and where the police or our Highways Officers decide it must take place at night or at a weekend.

In cases (a) or (b), you must contact the Environmental Health Team as soon as practically possible with the reason for the work and how long it is likely to last. This will help us deal with any enquiries about the work.

In case (c), you must apply to the Environmental Health Team at least two weeks before you start the work. We will expect you to contact local residents about the periods of work and the precise nature of the work. We may still have to limit the hours you are allowed to work, particularly at night or on Sundays.

During office hours you must phone **020 7974 2090**. Outside these hours the main council number is **020 7278 4444**.

Delivery to Site -Delivery Traffic Generally

- The requirements of a notice, referred to above, will also apply to deliveries of machinery or materials to and collections from the site. However, you must not load or unload anything before 8am; as these may cause disturbance to the local residents. You must advise your suppliers so that their lorries do not turn up early and have to wait.
- The Contractor will incorporate the following measures into the scheme to avoid noise related impacts from construction traffic:
- Vehicles will not wait or queue up with engines running on the public highway;
- Vehicles will be properly maintained to comply with noise emissions standards;
- Deliveries will be restricted to be within working hours of the site; and
- Design and routing of access routes will minimise vehicle noise and the need to perform reversing manoeuvres.
- The projects location, should also be considered when scheduling the type and size of delivery vehicle.

8. Noise & Vibration

Noise Control Provisions – Screens and Scaffolds

Throughout the critical demolition, below ground and structural construction, works will take place behind the close boarded hoarding and sheeted scaffolds where practical. The hoarding and sheeted scaffold provides the following benefits during the construction stages of the works:

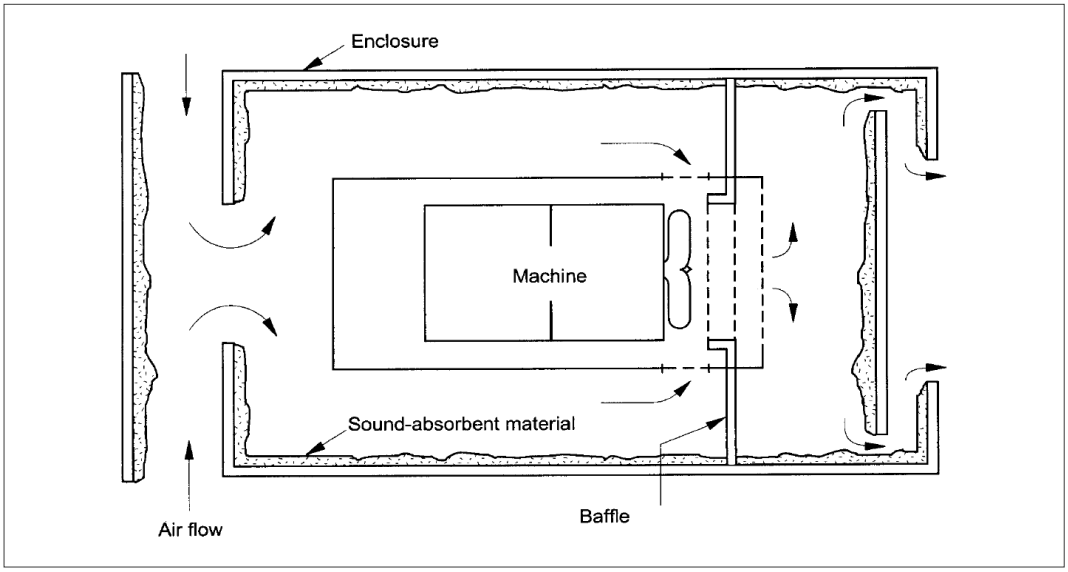
- It acts as a visual screen hiding the on-going works.
- With the use of the hoarding and solid acoustic barriers, noise is contained.

Scaffolding will be erected where required for walls and roof access. Scaffolds will be clad in Monarflex or similar sheeting to minimise noise and dust escape.

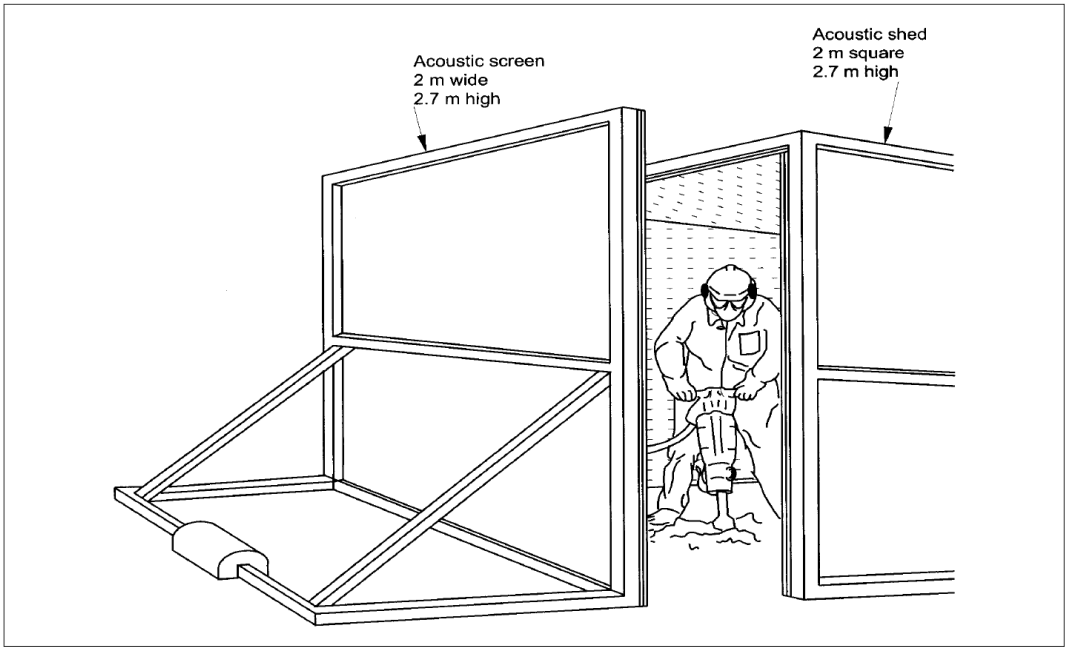
Solid timber barriers will be erected at ground level to further screen the below ground level works and prevent noise break out.

As already stated in this document, the contractor must also comply with LBCs Codes for Construction Practices, not just on the issue of noise and vibration, but all matters appertaining to working on construction sites within the Camden area. The images below are extracts from their codes on typical examples of localised screen enclosures that they will expect to see being used.

Noise Control Provisions – Screens and Scaffolds (continued)



Example of a machine enclosure



Typical acoustic shed

8. Noise & Vibration

Noise Levels

Given the project is situated within a live hospital, the Contractor must plan any noisy works, in full liaison and coordination with the Hospital Management Team. As stated at the head of this section, specific measures may need to be put in place.

The Contractor is required to make provision for the limitation of high impact activities (including piling and excavation works) to specific times of the day. For example, this may include 1 hour on – 1 hour off, or the restriction of such activities to between 09:00-12:00 and 14:00-17:00.

A typical example of the general noise levels the contractor is expected to commit to working to on this project, all to be agreed in advance of works commencing with LBC and the hospital, would be:

Assessment category and threshold value period (Laeq)	Threshold value, in decibles (dB)		
	Category A	Category B	Category C
Daytime (08:00 - 19:00)	65	70	75
Evening - Night Time (19:00 - 08:00)	45	50	55

Noise and Vibration from Piling Operations

Many construction activities cause noise and ground vibrations, including demolition and pile driving. So, when heavy construction is planned close to businesses, housing, offices, factories or historic buildings, you need to plan and use appropriate technology to avoid environmental disturbance. It will benefit everyone if you can work within acceptable levels of vibration and noise, with no complaints or damage to property. This is particularly important on this project, given its location within a live hospital.

Generally, businesses are often more concerned about potential damage caused to their property by vibration. If piling works are being carried out and complaints are received about too much vibration, the Contractor will be expected to work directly with the businesses and residents and, if necessary, employ an expert to measure the vibration produced and provide appropriate advice. In certain circumstances, it may be useful to have a building surveyor inspect properties before piling commences, due to 'Party Wall Agreements' (Party Wall etc. Act 1996, Chapter 40).

It often takes some time to achieve the best set-up for certain piling work. The Contractor may need to reduce noise and vibration, while at the same time making sure the work does not continue for longer than necessary. The decision about the type of pile that will be used on a site will normally depend on the loads that need to be carried, strata to be penetrated and economics of the system. Many complaints about piling work are received by LBC particularly noise associated with driven piles; thus, necessary precautions must be in place to minimise these.

Under the Control of Pollution Act 1974, local authorities have the power to enforce their requirements for controlling noise and vibrations. Discussions with the Environmental Health Team can lead to Consent to Work Agreement, usually including the 'best practicable means', to reduce noise and vibration caused by piling work.

Noise and Vibration from Piling Operations (continued)

Although present British Standards do limit the levels of vibration or noise, there are three British Standards which give helpful guidance on these issues.

a. British Standard BS5228: Noise Control on Construction and open sites; Part 4: 1992: 'Code of Practice for Noise and Vibration Control applicable to Piling Operations'.
b. British Standard BS6472: 1992: 'Guide to evaluation of human exposure to vibration in buildings (1Hz to 80Hz)'.
c. British Standard BS7385: Part 2, 1993: 'Evaluation and measurement for vibrations in buildings'.

Also, BRE Digest 353 deals specifically with damage to structures from vibration through the ground. You must have a thorough knowledge of these documents when choosing a piling method and you must be able to show the Environmental Health Team that not only is the chosen method the most suitable but that you are taking the best practicable means.

In summary, you must make sure that you take measures to:

a. Reduce noise and vibration;
b. Protect residents, people who use nearby buildings and passers-by from nuisance or harm;
c. Protect buildings from physical damage (the Party Wall etc. Act 1996, Chapter 40);
d. Vary the piling process or schedule, as necessary, in response to complaints; and
e. Demonstrate to the Environmental Health Team and local residents that any vibrations caused are within acceptable limits.

The Contractor will need to consider the following factors:

a. Human Exposure: Humans are very sensitive to vibrations. You must follow British Standard BS6472: 1992, which applies to vibration assessment.
b. Protecting structures: You must carry out demolition and construction work such that vibration caused will not cause significant damage to nearby structures. British Standards BS5228 Part4: 1992 and BS7385 Part2: 1993; both give helpful (if slightly conflicting) guidance.

LBC may set noise or vibration limits for large-scale developments or developments in particularly sensitive locations. As a guide, they will consider existing background levels in the area of the site to judge the possible effect.

Before the Contractor starts work, they we may have to ask you to provide the following:

a. A method statement (Section 2.2) identifying the type of machinery and building processes you will use.
b. A programme of work for each activity and the machinery you will use.
c. Any documentation on sound or vibration levels for each activity, as supplied by the manufacturer or other approved source.
d. Calculations, in line with BS5228, of predicted noise and vibration levels at certain buildings or areas. We may ask you to monitor noise and vibration levels during the work periods at agreed locations.

If you do not observe best practicable means, and allow too much noise or vibration, the Environmental Health Team may take action to restrict or prevent the work.

8. Noise & Vibration

On Site Training

Training - General induction training and toolbox talks will be undertaken by the Contractor for site operatives who have responsibility for aspects of controlling noise and vibration at the site. All contractors to be made familiar with the guidance in BS5228 (Parts 1 and 3) 'Code of Practice for Noise & Vibration Control on Construction and Open Site – Noise' which should form a pre-requisite of their appointment.

Vibration Control

Vibration is a particular risk during the piling and excavation stages.

The measures taken to reduce the acoustics of these two operations will also assist in mitigating the effects of vibration on neighbours and their property. Specific measures required include but are not limited to:

- A digital seismograph measuring device will be used to measure the amount of vibration produced during the works. Where elevated levels are recorded the source will be investigated and, where possible, alternative techniques employed to reduce the levels.
- The Contractor will comply with the vibration levels established by agreement with THC, which will consider BS 5228-2.
- The potential requirement for vibration monitoring will be assessed in line with BS 5228-1:2009+A1:2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites'.

Were vibration monitoring is required measured vibration levels shall be compared with the criteria in BS 5228:2009 Part 2 (i.e.,1mms-1 PPV for potential disturbance in residential area and using a suggested trigger criteria of 2mms-1 for commercial areas). Lower limits will be confirmed with Camden Council if there is a risk the vibration levels may interfere with vibration sensitive equipment or other vibration sensitive objects.

- The location of vibration monitors (accelerometers) will be located on or adjacent to partition walls and shall be (subject to agreement) identified on a suitable OS plan with a copy issued to the LBC Environmental Health Department.
- Any exceedance of vibration trigger limits shall initiate a review of the applicable activities/ works to enforce changes of the methodology or equipment in order to mitigate the situation and to return to suitable vibration levels.

Noise & Vibration Monitoring Equipment

The exact location of monitoring equipment will be agreed with Camden Council and the Hospital, subject to confirmation of the Hospital's requirements and any recommendations from any baseline noise survey, yet to be provided, and other relevant stakeholders.

9. Air Quality

Overview

Air Quality within the vicinity of the site and immediate surrounding development area could be impacted by dust and particulate matter emissions during the demolition & construction phases.

The main sources of these emissions are likely to be from, but not limited to:

- Demolition activities
- Delivery haulage vehicles and construction equipment.
- Works on the façades which are made of hardcore materials such as brick & concrete.
- Groundwork activities including excavations if services need installing or upgrading.
- Onsite material processing hardcore (concrete, bricks, stone etc.).
- Concrete cutting.

Throughout the demolition and construction activities, where there is a potential for dust generation, all works should take place behind an encapsulation scaffold. This encapsulation together with the nature of the existing construction, results in a low risk of emissions to the air; the project will be a site with a low risk of Emissions (Tier 1).

The Contractor will, as far as reasonably practical, seek to control and limit emissions to the atmosphere in terms of gaseous and particulate pollutants from tools and equipment used on site and dust from construction activities. Special precautions must be taken when materials containing asbestos are encountered. The base line for the Contractors approach will be LBCs, Guide to Contractors working in Camden, available at: https://www.camden.gov.uk/

The Contractors approach on this Project to air quality management is particularly important, given the project is in a live hospital, the contractor must liaise with the hospital management team on a regular basis and must include their views and concerns in any proposed strategies and in any reports and issues that have the potential to affect the local environment.

As already stated in several sections of the document, the Contractor is to fully liaise with LBC on matters such as air quality, for clarity, their contact details are below:

Environmental Health Team
Culture and Environment Directorate Town Hall Argyle Street London WC1H 8EQ
Phone: 020 7974 2090
Fax: 020 7974 6955
E-mail: env.health@camden.gov.uk

9. Air Quality

Construction related impacts – Monitoring

Air quality monitoring should be implemented on site. No development shall take place until:

- prior to installing monitors, full details of the air quality monitors have been submitted to and approved by the local planning authority in writing. Such details shall include the location, number and specification of the monitors, including evidence of the fact that they will be installed in line with guidance outlined in the GLA's Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance; available at: https://www. london.gov.uk/programmes-strategies/planning/implementing-london-plan/london-plan- guidance-and-spgs/control-dust-and
- prior to commencement, evidence has been submitted demonstrating that the monitors have been in place for at least 3 months prior to the proposed implementation date.

The monitors shall be retained and maintained on site for the duration of the development works in accordance with the details thus approved.

Mitigation Measures & Controls

The site activities will be assessed in accordance with Camden Councils guidance and requirements, under their air quality management for the area, in addition to being in accordance with any supplementary planning conditions and guidance. The Contractor must take account the following:

- Camden Councils Construction Environmental Management Plan & Local Planning Application Requirements:
- Greater London Authority Supplementary Planning Guidance 'The Control of Dust and Emissions During Construction and Demolition'.
- Greater London Authority: London Plan Guidance Air Quality Neutral Report dated February 2023: Air Quality Neutral (AQN) guidance | London City Hall
- The contractors must submit a statement to the Local Authority for approval identifying proposed dust control measures before work starts.

In addition, throughout the project, the Contractor will ensure the following:

- Where potential dust producing activities are taking place, screens remain in position. This will include all demolition, excavation and structural works.
- There is no burning of waste materials on site.
- There is an adequate water supply on the site.
- Disposal of run-off water from dust suppression activities and cleaning is in accordance with the appropriate legal requirements.
- All dust control equipment is maintained in good condition and record maintenance activities.
- Site hoarding, barriers and scaffolding are kept clean.
- If necessary, clean public road and pavement using wet sweeping methods.
- All vehicles carrying loose or potentially dusty material to or from the site are fully sheeted.
- Plant working on site to have exhausts positioned such that the risk of re-suspension of ground dust is minimised (exhausts should preferably point upwards), where reasonably practicable.

Mitigation Measures & Controls (continued)

- Materials with the potential to produce dust are stored away from site boundaries where reasonably practicable.
- Minimise the amount of excavated material held on site.
- Sheet, seal or damp down unavoidable stockpiles and skips of material held at site, where required.
- Avoid double handling of material wherever reasonably practicable.
- Sheet or otherwise enclose loaded bins and 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.
- Use prefabrication of goods and materials to reduce the need for grinding, sawing and cutting on site wherever reasonably practicable.
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction.
- The engines of all vehicles delivering to site are not left running unnecessarily to prevent exhaust.
- That conveyor equipment will be well maintained, with regular servicing and maintenance carried out.
- Use low emission plant fitted with catalysts, diesel particulate filters or similar devices.
- Use ultra-low sulphur fuels in plant.
- Preference for electrically powered plant, to mechanically powered alternatives, where practical.
- That plant will be well maintained, with routine servicing of plant and vehicles. On site servicing and maintenance to be carried out where possible.
- Carry out site inspections regularly to monitor compliance with dust control procedures set out above and record the results of the inspections, including nil returns, in the logbook detailed.
- Increase the frequency of site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Record any exceptional incidents causing dust episodes on or off the site and the action taken to resolve the situation in the logbook detailed in above.
- Liaise fully with the Hospital Management Team on all matters arising.
- As stated above in this document, comply fully and without exception, with all the requirements of LBC Codes for Construction Practices.

9. Air Quality

Mayor of London's SPG
"The Control of Dust & Emissions During Construction & Demolition"

Throughout the demolition and construction activities, all works will take place behind an encapsulation scaffold. This encapsulation together with the nature of the existing construction, results in a low risk of emissions to the air; the project will be a site with a low risk of Emissions (Tier 1).

The contractor will comply with the latest edition of the Mayor of London's SPG "The Control of Dust & emissions during Construction & Demolition, specifically sections 6.4 and 6.5:

Site threshold for the concentration of PM10

(6.4) It is recommended a trigger level of 250 ug m-3 is set as a 15-minute mean for concentrations of PM10 close to construction sites. This trigger level was devised from measurement near a construction site in London using TEOM18 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 250 ug m-3 would approximate to 200 ug m-3 as a 15-minute mean without the multiplier. However, some PM10 reference instruments cannot measure a 15-minute mean. As an alternative 50 ug 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 50 ugm-3 from local sources is equivalent to a 15 min mean of 200 ug m-3 and would be a compromise, taking into account the longer averaging period. The one- hour limit is designed to prevent any complaints from people living or working close to the site.

(6.5) Where the site threshold for PM10 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 PM10 threshold local authorities can use their powers to prevent the statutory nuisance.

London's 'Low Emission Zone' for Non-Road Mobile Machinery

Attention is also drawn to the requirement to follow, The London Mayors strategy for managing non-Road Mobile machinery within designated zones including Canary Wharf. An extract from that policy is noted below, the full policy and strategy is also available via the link below.

https://www.london.gov.uk/programmes-strategies/environment-and-climate-change/pollution-and-air-quality

"Non-Road Mobile Machinery (NRMM) is a broad category which includes mobile machines, and transportable industrial equipment or vehicles which are fitted with an internal combustion engine and not intended for transporting goods or passengers on roads. NRMM, particularly from the construction sector, is a significant contributor to London's air pollution. The NRMM Low Emission Zone uses the Mayor and London Borough's planning powers to control emissions from NRMM used on construction sites. In a similar way to the Ultra Low Emission Zone the NRMM Low Emission Zone requires that all engines with a power rating between 37 kW and 560 kW meet an emission standard based on the engine emission "stage".

The standards that need to be met depend on where the construction site is: The current standards are stage IV for construction machinery operating in the Central Activities Zone and Opportunity Areas (including Canary Wharf) and stage IIIB in the rest of London".

9. Air Quality

Overview of Omission's Related to Site Delivery Vehicles, Non Road Mobile Machinery & Air Quality

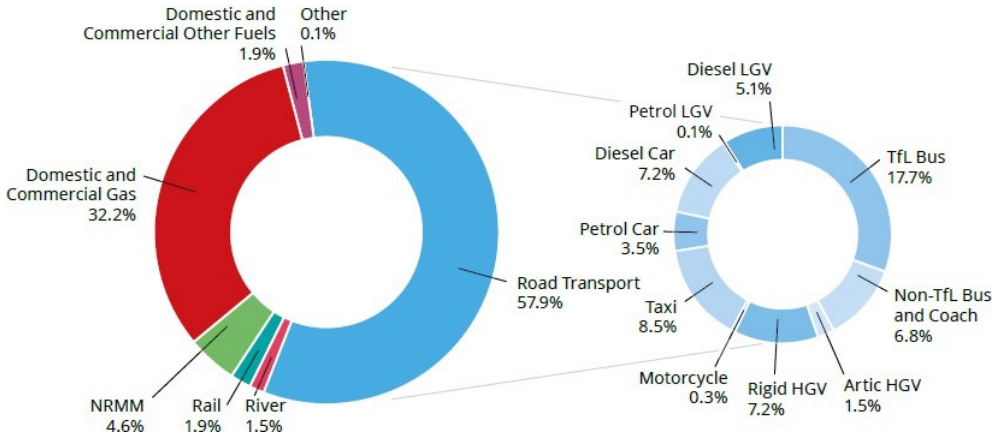
The contractor is to take note of the following and make provision within all management plans particularly those dealing with air quality, to demonstrate mitigation measures for reducing the generation of dust particles and air pollutants.

There are many development sites and infrastructure projects operating across the City, that can result in the generation of dust and particles (PM10 and PM2.5) from site activities and Nitrogen Oxides (NOx) from exhaust emissions from onsite and offsite construction machinery.

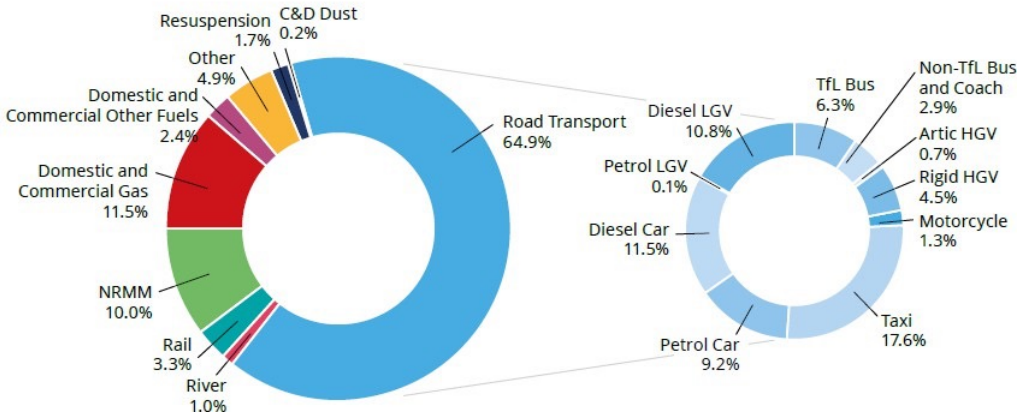
In the future, the proportion of emission related to private transport usage is expected to decline as policies such as the Ultra Low Emission Zone and the uptake of ultralow emission vehicles (including electric vehicles); as a result the proportion of emissions related to the built environment and to construction and development may increase. Developers should ensure that the impacts of construction are managed, so that any emissions of dust particles and NOx are minimized.

The graphs below show the source apportionment for Nitrogen Dioxide and Particulate Matter within areas of the city. Demolition, construction and new development contributes to a number of these sources, from road transport emissions to emissions related to Non Road Mobile Machinery (NRMM).

Nitrogen Dioxide



Particulate Matter (PM_{10})



9. Air Quality

ULEZ Zone

For information relating to making vehicles more environmentally friendly and control equipment for non-road machinery, contact the Energy Savings Trust.

Energy Saving Trust 21 Dartmouth Street London SW1H 9BP
Hotline: 0845 602 1425
Fax: 0207 484 8713
E-mail: info@est.co.uk
Website: www.est.org.uk

10. Managing the Environmental Impact of Construction

Overview

This section sets out the requirements on the Contractor for managing the environmental impacts of constructing the development. The Contractor must demonstrate in detail how the requirements of this CMP and specific Planning Conditions will be met.

The Contractor must demonstrate the management, monitoring, auditing and training procedures that are in place to ensure compliance with LBC Environmental requirements and the CMP. The contractor will set out the specific roles and responsibilities of their personnel in managing and monitoring all of the works, including any subcontractors.

Specific Measures

The specific measures to be implemented by the Contractor will include:

- The Contractor will liaise with LBC's Environmental Inspectorate on a regular basis, agreeing routine arrangements for each construction activity and ensuring compliance with the CMP. Contact details for the Environmental team are as follows:

  Environmental Health Team
  Culture and Environment Directorate Town Hall
  Argyle Street London WC1H 8EQ
  Phone: 020 7974 2090
  Fax: 020 7974 6955
  E-mail: env.health@camden.gov.uk

- The Contractor will be responsible for establishing and maintaining contact with LBC, The Hospital Management Team and local residents and businesses; keeping them informed of construction matters likely to affect them.
- This liaison will include the regular and frequent distribution of Newsletters and attendance at meetings at the request of LBC and or the RFL NHS Trust with themselves and or representatives of local residents' groups.
- The Contractor will advise the local authority within 24 hours of any incidents of non-compliance with environmental controls or health and safety issues. The Contractor will respond to any reports referred by LBC, Police, or other agencies within 24 hours, or as soon as reasonably practicable.
- The Contractor will advise the RFL NHS Trust and LBC immediately of any incidents of non-compliance with environmental controls or health and safety issues. To enable them to manage the hospital environment appropriately, to protect their staff and patients.
- The Contractor will maintain on site, a system for recording any incidents and any corrective action taken for inspection by the Council's representatives. This will be forwarded to the Council on a regular basis.
- The Contractor will ensure as far as is reasonably practical, that all necessary action has been taken and steps to avoid recurrence have been implemented.
- The Contractor will provide an information and reporting telephone 'Hot Line' staffed at all times during working hours. Information on this facility shall be prominently displayed on site hoardings.
- The Contractor's nominated persons will attend monthly reviews with LBC's Environmental Inspectorate, or otherwise as requested.
- The Contractor will maintain environmental management procedures and temporary works designs taking due cognisance of ground conditions, ensuring groundwater, production water and run-off to be disposed of is minimised.
- The Contractor will facilitate LBC's Environmental Inspectors to undertake regular planned inspections of the site to check compliance and associated records.

11. Authorities and Public Liaison

Overview

This section outlines the approach to be taken by the Contractor, to establish a good working relationship with all effected by the propose development. This approach is by design, linked to the procedure's to be adopted in managing the environmental impact, outlined in the previous section.

It is our experience that where developers or contractors before and during work have carried out a good public- relations exercise, there have been fewer complaints of nuisance and the project has continued without problems. It is in the best interest of the Contractor to make sure that they deal with the concerns of all stakeholders and local residents reasonably and sympathetically.

Community Relations

Contact with the hospital, neighbours and the general public throughout the construction programme will be pro-actively maintained, with regular update meetings on no less than a quarterly basis and the issuing of a brief news sheet on progress. Note, given the project is on hospital grounds, the contractor is to agree the cycle of regular meetings with the hospital, as separate concern but in conjunction with, maintaining contact with the wider local area. Update sheets will be maintained on the site hoarding.

The Contractor will nominate community relations personnel, who will be focussed on engaging with the local community, particularly the hospital, but also local residents and businesses. The Contractor will ensure that occupiers of nearby properties and residents are informed in advance of works taking place, including the estimated duration. The Contractor will inform the hospital, local residents and businesses likely to be affected by such activities at least 14 days prior to undertaking the works, as well as applying for the appropriate permits and licences.

In the case of work required in response to an emergency, LBC, and all neighbours will be advised as soon as reasonably practicable that emergency work is taking place. The hospital is to be advised immediately, so as to allow them to manage the hospital environment in a safe and practical manner. Potentially affected occupiers will also be notified of the 'hotline' number, which will operate during working hours.

The Contractor is to successfully develop and implement a 'Neighbour and Public Relations Strategy,' therefore the following actions will be undertaken:

- Initial Contact: Once contractors have been appointed, formal contact will be established with the hospital, the nearest neighbours and those who could potentially be affected by the demolition and construction works; and
- Contact during Works Period: A single point of contact for neighbour and public relations will be established, with a senior member of the project staff nominated for the role. Contact details for this single point of contact will be displayed on the site hoarding. Outside normal working hours, site security will act as the main point of contact via a dedicated phone number. Security will alert the staff contact if necessary (available 24 hours). Should there be any complaints, these will be logged, fully investigated and reported to the relevant department within the LBC as soon as possible. The complainant will be informed as to what action has been taken.

Community Relations (continued)

Camden's Guidance for Contractors, specifically states on this issue the following:

"On major sites, we expect that the developer or contractor will organise and hold regular meetings with our officers, representatives of other statutory agencies and the police. If the site is next to a residential area, these meetings must also involve representatives from local residents' and tenants' associations.

The relationship between the contractor, developer and local community is very important. Residents may feel that the development has been allowed to take place without any consideration for their environment. In some circumstances, local residents do not want the development to go ahead and there may be some bad feeling before the work starts.

It is advisable do the following:

- *Hold regular meetings with local residents before the work starts. Introduce the main site staff and give people a point of contact in case they have complaint. Give head office details.*
- *Give local residents an information sheet about the company carrying out the work, the development and the expected timetable of work.*
- *Keep in contact with residents and tell them, beforehand, of any events that may be different to normal operations and how long they will last for.*
- *Have a system in place to handle any complaints and enquiries from the public. Your site or work must be clearly signed with the company name and contact phone numbers, and your staff must be easily identifiable by identity cards or the equivalent.*
- *Plan work to cause as little nuisance as possible. Take steps to control noise, dust and smoke caused by work carried out on the site.*
- *Keep roads leading off the site clean and tidy.*
- *Ask site staff not to park on residential roads, and provide effective access and traffic-management measures for all site vehicles.*
- *For extremely noisy work (for example, breaking reinforced concrete), you may arrange quiet periods so that, for example, a hospital or office can do certain activities."*

Complaints Procedure

Complaints received by the site will be dealt with as follows:

- A site representative will telephone or visit the complainant to establish the exact details and nature of the complaint;
- Where the nuisance is or was temporary and has such ceased, the complainant will be informed, and appropriate remedial action taken and recorded;

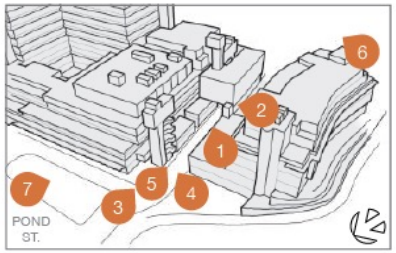
Where the nuisance is sporadic a visit will be arranged accordingly to ensure the complaint is verified subjectively;

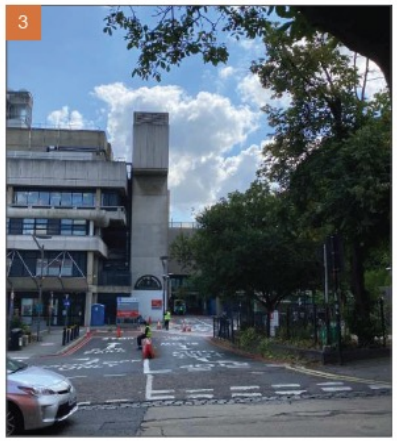
- A noise/ vibration / dust measurement regime shall be established and measured against project standards. Where the measurement exceeds the project specifications further mitigations and measures will be established to bring evidence in line with the project standards.
- The Contractor will notify LBC of all complaints received and exceedances of trigger levels within 2 days of the event.

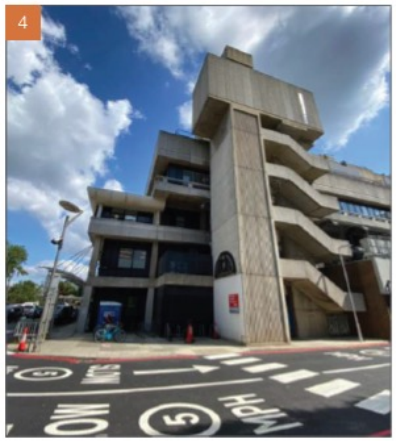
Appendix A - IHP Logistics Document

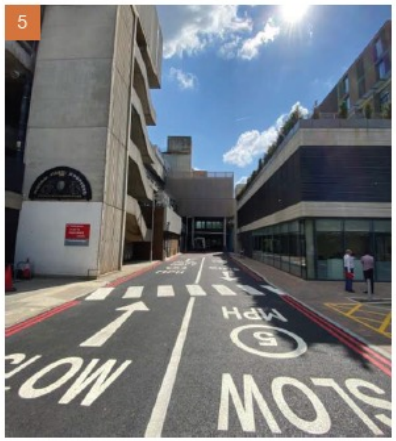
IHP Logistics

This is the latest logistics plan, pages 3&4 are labelled with all points to note, the remaining pages is the sequence of works throughout the project, IHP's logistics plans are reviewed on a monthly basis and is subject to change with the project.









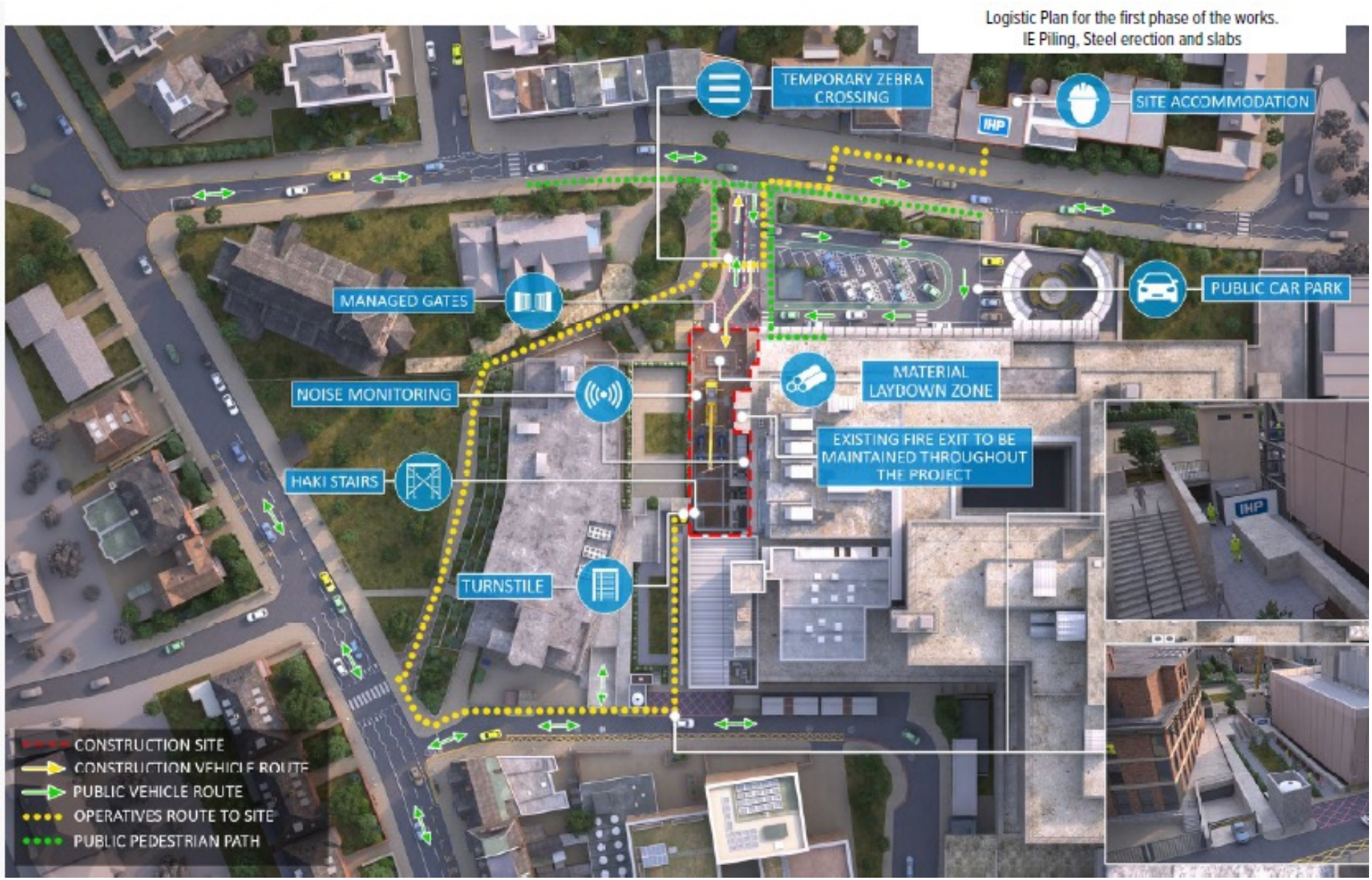
5.0 Site Assessment

5.1 Site Photographs

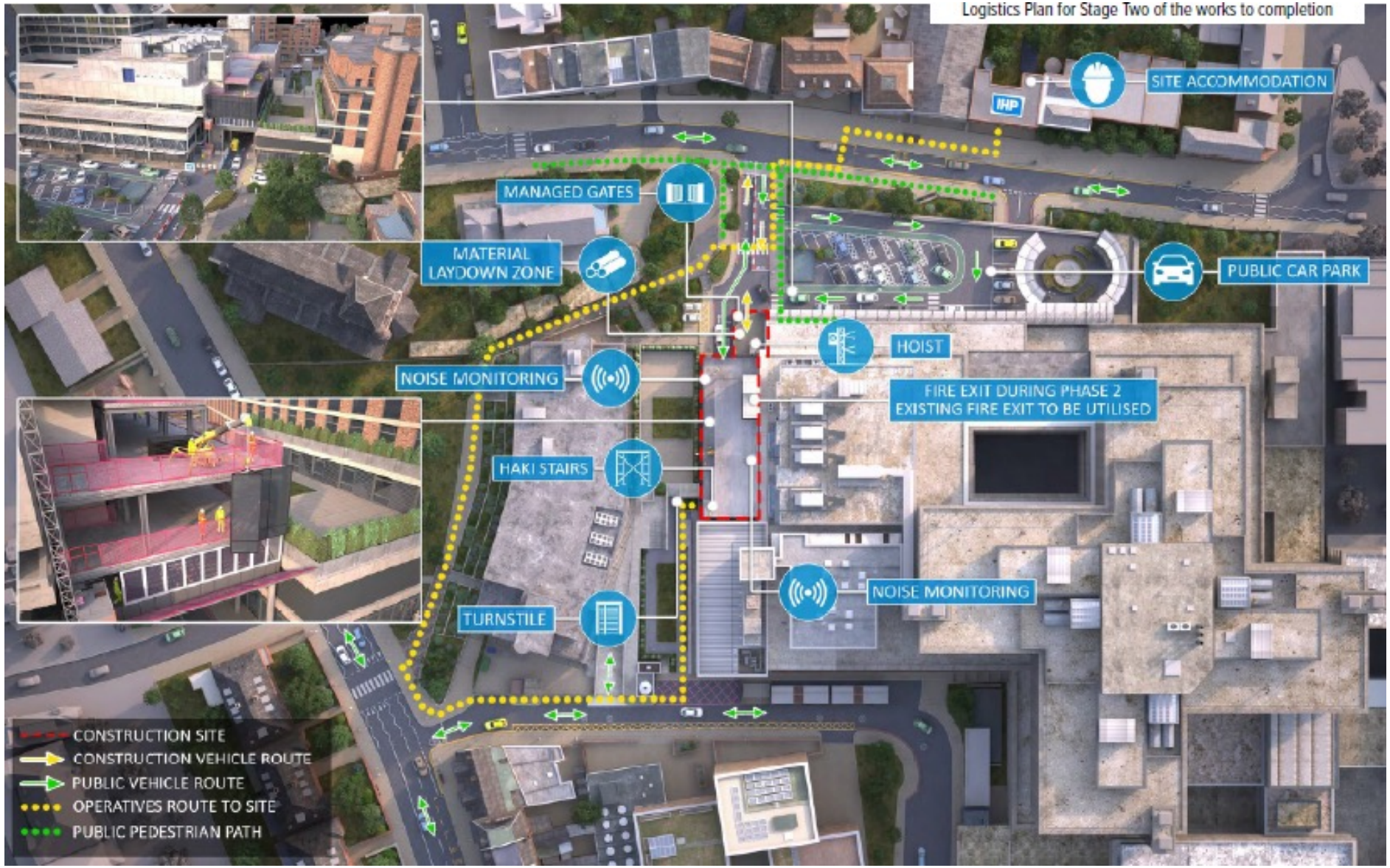
1. View from Pears Building roof garden at L02 toward RFH Main Building and Theatre Block L03 & L04.
2. View from Pears Building Roof overlooking gap between Pears and RFH Main Building identified as proposed site. There have been several single storey extensions and alterations made within this area.
3. View from Pond Street looking toward elevation of Pears Building and RFH Main Building, with pedestrian route to Rosslyn Hill from Pond Street in centre of view.
4. View from Pond Street looking toward elevation of RFH Main Building and Theatre Block, with RFH main road access and identified proposed site in centre of view
5. View down existing access with main hospital to left, Pears Building and its car park to right and existing theatre extension at centre.
6. Rear of hospital on access road to car park off Rosslyn Hill/Haverstock Hill indicating differing building styles and materials used adjacent to and above theatres.
7. View from Pond Street looking southwest, showing principal elevation of RFH Main Building and end elevation of Pears Building, with proposed site between in centre of view.

Images 6 & 7 based on extracts from Google Streetview

Appendix A - IHP Logistics Document



Appendix A - IHP Logistics Document



Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

Appendix A - IHP Logistics Document

References

The contractor shall comply with all relevant legislation, standards, codes of practice, and guidance for the works being carried out including (but not exclusive to) those listed in this section. It is the principal contractors responsibility to check for any updated legislation, standards and codes at the time of their appointment.

Legislation

- The Explosives Regulations 2014
- Clean Air Act 1993
- Public Health Act 1961
- Health and Safety at Work, etc. Act 1974
- Control of Pollution Act 1974
- Control of Pollution (Amendment) Act 1989
- Environmental Protection Act 1990
- New Roads and Street Works Act 1991
- Lifting Operations and Lifting Equipment Regulations 1998
- Special Waste Regulations 1996
- Control of Lead at Work Regulations 2002
- Control of Asbestos Regulations 2012
- Ionising Radiations Regulations 2017
- Electricity at Work Regulations 1989
- Control of Noise at Work Regulations 2005
- Controlled Waste (Registration of Carriers & Seizure of Vehicles) Regulations 1991
- Environmental Protection (Duty of Care) Regulations 1991
- Management of Health & Safety at Work Regulations 1999
- Provision & Use of Work Equipment Regulations 1998
- Personal Protective Equipment at Work Regulations 1992
- Construction (Design & Management) Regulations 2015
- Control of Substances Hazardous to Health Regulations 2002
- Work at Height Regulations 2005
- Dangerous Substances and Explosive Atmosphere Regulations 2002
- Manufacture and Storage of Explosives Regulations 2005

British Standards

- BS 5228 Code of Practice for noise control on construction and open sites
- BS 5607 Code of Practice for safe use of explosives in the construction industry
- BS 6187 Code of Practice for demolition
- BS 7121 Safe use of cranes

Guidance

- HSE Guidance booklets:
- HSG 47 Avoiding danger from underground services
- L21 Management of health and safety at work
- L101 Safe work in confined spaces

HSE Guidance Notes

- GS 6 Avoidance of danger from overhead electric lines
- CS 15 The cleaning and gas freeing of tanks containing flammable residues
- EH 40 Occupational exposure limits (revised annually)

HSE Construction Information Sheet

- No.45 Establishing exclusion zones when using explosives in demolition.

Asbestos Removal Legislation

- The Health and Safety at Work etc. Act 1974
- The Control of Pollution Act 1974
- The Special Waste Regulations 1996
- The Personal Protective Equipment at Work Regulations 1992 (as amended)
- The Control of Asbestos Regulations 2012
- Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009
- The Construction (Design and Management) Regulations 2015

References

Approved Codes of Practice

- L21 Management of health and safety at work: Management of Health and Safety at Work Regulations 1999 (second edition)
- L24 Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992
- L25 Personal protective equipment at work (Second edition). Personal Protective Equipment at Work Regulations 1992 (as amended). Guidance on Regulations
- L64 Safety signs and signals. The Health and Safety (Safety Signs and Signals) Regulations 1996
- L87 Safety representatives and safety committees (third edition)
- L95 A guide to the Health and Safety (Consultation with Employees) Regulations 1996
- L127 The management of asbestos in non- domestic premises (second edition)
- L143 Work with materials containing asbestos. Control of Asbestos Regulations 2012
- L144 Managing health and safety in construction: Construction (Design and Management) Regulations 2015

British Standards

- BS 8520-1:2009 Equipment used in the controlled removal of asbestos-containing materials. Controlled wetting equipment. Specification
- BS 8520-2:2009 Equipment used in the controlled removal of asbestos-containing materials. Negative Pressure Units
- BS 8520-3:2009 Equipment used in the controlled removal of asbestos-containing materials. Operation, cleaning and maintenance of class H vacuum cleaners
- BS EN ISO 13982-1:2004+A1:2010 Protective clothing for use against solid particulates. Performance requirements for chemical protective clothing providing protection to the full body against airborne solid particulates (type 5 clothing)
- BS EN ISO/IEC 17020:2012 General criteria for the operation of various types of bodies performing inspection
- BS EN ISO/IEC 17024:2012 Conformity assessment. General requirements for bodies operating certification of persons
- BS EN ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories

HSE Guidance Booklets & Leaflets

- HSG189/2 Working with asbestos cement
- HSG210 Asbestos essentials task manual. Task guidance sheets for the building, maintenance and allied trades
- HSG213 Introduction to asbestos essentials. Comprehensive guidance on working with asbestos for the building, maintenance and allied trades
- HSG227 A comprehensive guide to Managing Asbestos in Premises
- HSG247 Asbestos: The licensed contractor's guide
- HSG248 Asbestos: The analyst's guide for sampling, analysis and clearance procedures
- HSG264 Asbestos: The survey guide
- INDG188 Asbestos alert (pocket card) for building maintenance, repair and refurbishment workers
- INDG223 A short guide to managing asbestos in premises. (Rev 3)
- INDG255 Asbestos dust kills – keep your mask on (Rev 1)
- INDG289 Working with Asbestos in Buildings
- OC 282/28 Fit testing of respiratory protective equipment face pieces.

Blue Sky Building, Founded On Excellence

Who We Are

In 2012, Julian Daniel, our Founder and Chief Executive Officer spotted the opportunity to create a company of his own, Blue Sky Building, which would embody the enthusiasm and passion he feels for the industry.

Blue Sky Building is an innovative construction management company which delivers unique solutions. Our founding directors boast a combined experience of over eight decades, uniting their background in the delivery of bespoke construction with the expertise and skills needed to manage complex engineering and construction projects, particularly in the midst of the kind of city centre environment prevalent in London and the South East.

We act as a trusted collaborator, setting the kind of standards other constructors aspire to, by offering our clients quality, professionalism and innovation. We've built our reputation upon offering a bespoke service each time, tailored to meet the individual needs of each client.

We know our industry and understand how the construction process works. We study our clients' business and we understand the wider business climate, bringing all three together in a pursuit of excellence which is as relentless as it is refreshing.

At Blue Sky Building, no resource is more valuable than the people charged with delivering our vision. The principles we work around are excellence, quality and safety and the values underpinning our work are intelligence, honesty, integrity and trust.

Our Promise

- A focus on the client;
- Clarity of leadership and direction;
- Accessible and practical advice;
- Input and ownership up to Director level;
- Appropriate and timely communication;
- Simple solutions to complex issues;
- Advice which is independent and maintains the integrity of the clients' procurement process;
- In depth knowledge of the market and links to key trade contractors; and
- Value added throughout - from design, through procurement and on to construction

Some of our Clients

Battersea Power Station · The Postal Museum · British Land · PegasusLife · Queen Mary University of London · Historic Royal Palaces · M|S Maple Springfield · UK Parliament · The National Gallery · WSP · GPE. · Stanhope · UKHouse · Altius · Merck · Royal Mail · Quintain · UCL · Cheval Collection · Selfridges & Co · Allied London

We have been responsible for some of the most complex and challenging projects in the UK, carried out for a number of prestigious clients in conjunction with their professional consultants.

Blue Sky Building
Level 5
7-8 Market Place
London W1W 8AG

T: +44 (0)20 7831 5950
E: info@blueskybuilding.com

www.blueskybuilding.com