Construction Management Plan

Prepared by Arup

Submitted on behalf of Lab Selkirk House Ltd

Selkirk House, 166 High Holborn and 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

September 2022

Rev 01

Contents

Glossary

Initial	
ABTO	Approved Battery Treatment Operator
ALG	Association of London Government
Arup	Ove Arup and Partners
EN	English Language (EU Usage)
BPG	Best Practice Guidance
BPM	Best Practicable Means
BS	British Standard
CAZ	Central Activities Zone
CCS	Considerate Constructors Scheme
CDM	Construction (Design & Management) Regulations 2015
CoCP	Code of Construction Practice
CMP	Construction Management Plan
CTMP	Construction Traffic Management Plan
COPA	Control of Pollution Act 1974
COSHH	Control of Substances Hazardous to Health Regulations 2002 CMP – Construction Management Plan
FAT	Factory Acceptance Test
HSE	Health and Safety Executive
ISO	International Standards Organisation

KPI	Key Performance Indicator
LA	Local Authority
LAQM	Local Air Quality Management
LBC	London Borough of Camden
LC	London Councils
LFEPA	London Fire and Emergency Planning Authority
MEP	Mechanical Electrical Plumbing
NR	Network Rail
OHSAS	Occupational health and safety management systems SCS – Secondary Containment System
SEMP	Site Environmental Management Plan SWMP – Site Waste Management Plan
TWC	Temporary Works Co-ordinator
TWS	Temporary Works Supervisor
T&C	Testing & Commissioning
TFL	Transport for London
TPO	Tree Preservation Order
TRO	Traffic Regulation Order
UXO	Unexploded Ordinance

1 Introduction

This Construction Management Plan report has been has been prepared by Ove Arup and Partners Ltd. ('Arup') in support of the detailed planning application being submitted by Lab Selkirk House Ltd ('the Applicant') to the London Borough of Camden ('the Council') for the redevelopment of the land at Selkirk House, 166 High Holborn and 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR ('the site').

The detailed planning application seeks planning permission for the following description of development:

> *"Redevelopment of Selkirk House, 166 High Holborn and 1 Museum Street following the substantial demolition of the existing NCP car park and former Travelodge Hotel to provide a mixed-use scheme, providing office, residential, and town centre uses at ground floor level. Works of demolition, remodelling and extension to 10-12 Museum Street, 35-41 New Oxford Street, and 16A-18 West Central Street to provide further town centre ground floor uses and residential floorspace, including affordable housing provision. Provision of new public realm including a new pedestrian route through the site to link West Central Street with High Holborn. Relocation of cycle hire docking stations on High Holborn."*

The proposed development has evolved through an extensive pre-application and wider stakeholder consultation process, which has included collaborative discussions with the Council, Greater London Authority ('GLA'), Transport for London ('TfL'), Historic England ('HE'), and a number of other key stakeholders.

The proposed development provides the opportunity to regenerate this strategically important site through the demolition and refurbishment of the existing poor-quality buildings and replacement with a highly sustainable mixed-use development. The proposed development will deliver all the key master planning requirements and uses specified by the Local Plan (2017), the Holborn Vision and Urban Strategy (2019), and the Draft Site Allocations Plan (2020), providing the opportunity to deliver a wide range of planning and public benefits.

1.1 Objectives of this Document

This **C**onstruction **M**anagement **P**lan (CMP) contains outline arrangements relating to management of the enabling and construction works at the site. This plan is to become the basis of the Construction Contractors CMP which will be agreed with the LA and implemented immediately upon taking possession of the site. The CMP is a living document and will be continually updated and bettered throughout the duration of the Project Works. This will ensure the safe execution of the works, adherence to the Council's CoCP, and the effective management of environmental and safety issues relating to the project.

The CMP describes in high-level how the Construction Contractor will manage the following activities related to their site:

- Site Setup
- The Environment
- Works Methodology
- Existing surrounding communities
- Local residents and businesses

The proposals are also intended to assist & enable third parties to clearly understand the nature of the works related to the site, specifically the construction and the management of the interface between the site and the public.

The CMP and its continual development will assist in creating a good working relationship with the Council, local communities, visitors & occupants of nearby residential & commercial properties to make sure they are kept fully informed of current progress and of contractor key activities. It will also allow third party feedback to allow activity dates or nature be honed to minimise the risks, and disturbances to the locality as far as is safe, reasonable, and practicable.

1.2 Personnel

This report has been undertaken by Jonathan Evans and Ryan Nolan. Jonathan is a Senior Planner in Arup with 20 years' construction industry experience and Ryan is a Planner working underneath Jonathan. Jonathan has significant management experience in the construction industry.

He has worked both onsite as client representative and as a principal contractor's site agent. He has extensive experience in the design and development of construction management plans and site waste management plans.

1.3 Camden Guide for Contractors Working in Camden Feb 2008

The Applicant understands the needs to maintain the highest of standards in working both safely, but also alongside the Council to ensure that the works undertaken are managed and aligned with the Council's policies through the duration of the scheme.

2 Scheme Overview

The site is located within the Holborn and Covent Garden Ward of the London Borough of Camden ('the Council'). The site comprises a number of individual different buildings within the red line area, which includes Selkirk House, 166 High Holborn and 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street. The planning application is a singular detailed planning application which is covered by one red line.

The site is bounded by High Holborn to the south, Museum Street to the east and New Oxford Street to the north, with the rear of the properties fronting Grape Street forming the western boundary. West Central Street dissects the site and separates out Selkirk House from the New Oxford Street and West Central Street block (known as the West Central Street component of the site).

Selkirk House comprises a 17-storey building, which includes two basement levels, and a further partial basement level. Selkirk House is occupied by the former Travelodge hotel building and NCP car park. The former Travelodge building provided overspill accommodation from the primary Travelodge hotel building on the opposite side of High Holborn, however, the hotel use at the site ceased all operation in June 2020. At lower levels there is an NCP car park set across basement to second floor level.

The West Central Street buildings are predominantly in retail use at ground floor level fronting New Oxford Street. The basement, first and second floors of No. 39 – 41 are in office use with the upper floors of 35 – 37 being in residential use. No's 16a, 16b and 18 West Central Street were previously in use as a nightclub at basement level with offices above.

The West Central Street component of the site falls within the Bloomsbury Conservation Area. There are no listed buildings on the site, however, Grade II listed buildings adjoin the site boundary at 43-45 New Oxford Street and 16 West Central Street. No. 33-41 New Oxford Street, 10-12 Museum Street and 16A-18 West Central Street are each identified as 'positive contributors' in the Conservation Area Appraisal. The shopfronts at numbers 10 and 11 Museum Street are identified separately as positive contributors to the Conservation Area. Selkirk House sits outside of the Conservation Area boundary which runs along West Central Street.

Figure 1: Existing buildings

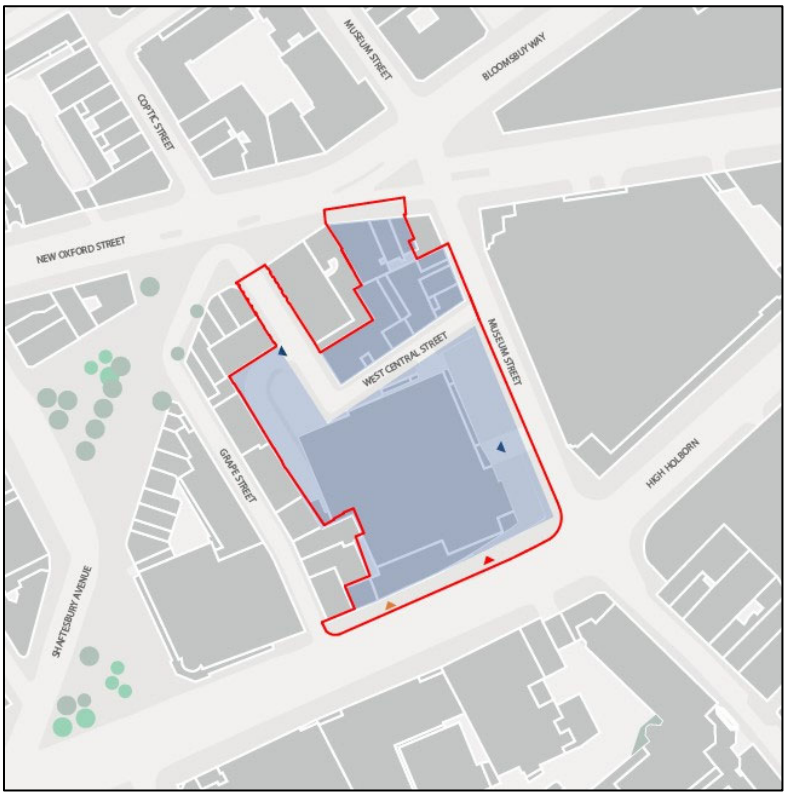

Figure 2: Site plan

2.1 Proposed Development

The Proposed Development has been carefully designed with a detailed understanding and analysis of the historic context being fundamental to the architectural response in order to respect and enhance its sensitive setting.

The proposed development falls within a one red line area and comprises of the following components:

Museum Street - a single new building rising to 19 storeys, providing office (Class E(g)(i)) accommodation on upper levels and a range of flexible town centre uses (Class E) at ground level.

High Holborn - a single new building rising to 6 storeys, providing residential (Class C3) accommodation on upper levels and a flexible town centre use (Class E) at ground level.

Vine Lane - a single new building rising to 5 storeys, providing market residential units with a flexible town centre use (Class E) at ground level.

West Central Street - a series of new and refurbished buildings rising to 6 storeys, providing residential accommodation (market, LCR and Intermediate) on upper levels (Class C3) and flexible town centre uses (Class E) at ground level.

2.2 Planning History

The north-east part of the site adjacent to West Central Street and Museum Street benefits from an existing planning consent for a full planning application submitted in February 2016 (LBC reference: 2016/0477/P). The 2016 application comprised:

> *"Refurbishment and extension of the site to provide a mixed use scheme which includes 19 self-contained units (6 x 1 bed and 11 x 2 bed and 2 x 3 bed), flexible A1/A2/A3 uses and/or B1 and/or D1 at basement and ground floor levels and associated works"*

Planning permission was granted at Committee by the Council in August 2016 but has not been implemented. The new proposals seek to improve on that consent through an alternative approach which delivers an increased amount of housing (including affordable housing), enhanced public realm, and pedestrian connectivity improvements.

3 Key Project Contacts

The Key Contacts are those known at the issue date of the CMP. On contracting of a suitably qualified Construction company, the CMP will be updated and reissued for Information and be maintained live until such time that the Construction Contractor has formed and agreed the final CMP with the LA.

3.1 Initial Key Contacts

Role	Company	Contact Name
Client	Lab Selkirk House	TBC
Principal Designer	TBA	TBC
Architect	DSDHA	TBC
Structural Engineers	Meinhardt	TBC
Mechanical Engineers	Scotch	TBC
Electrical Engineers	Scotch	TBC
Public Health Engineers	TBA	TBC
Employers Agent (EA)	TBA	TBC
Local Authority (LA)	London Borough of Camden	TBC
Principal Contractor (CONTRACTOR)	TBA	TBC
CONTRACTOR Emergency Contact	TBA	TBC

Table 1: Key Contacts

3.2 Health & Safety (H&S)

The following table contains the address of the pertinent H&S bodies including the local hospital.

Body	Address	Postcode	Telephone No.
HSE	151 Buckingham Palace Road London	SW1W 9SZ	0300 003 1747
Local Hospital	University College Hospital	NW1 2PQ	0845 155 5000

Table 2: H&S contacts

4 Existing buildings and Proposed Demolition

The following section sets out a description of the proposed buildings and demolition proposals.

4.1 Selkirk House

The existing building was originally built in 1962. The building consists of a car park located on the north part of the block, occupying three levels of basement and four levels above ground. The car park utilises a spiralling floor plate arrangement to provide car parking. Access to the car park is via Museum Street.

On the southern part of the site the basement is occupied with amenity space and plant rooms. Above ground, up to level 3, the building presents some retail and plant space at grade and office space above.

On the eastern part of the development, above the offices and the car park, there is a tower with 16 floors, designed for office occupation and two residential floors above the office. Originally there was a plant enclosure on the roof at level 16. Level 4 is a podium transferring the building columns from tower above to accommodate the car park arrangement.

The building was converted in 2002 to a Travelodge hotel in the office part of the development. The 2002 refurbishment did not require major structural works, maintaining the footprint of the floor plates as they were, with only localised structural adjustments. These included:

- Installation of a number of new risers through the slabs to service the hotel rooms. These have been strengthened using carbon fibre strips which will need to be taken into account for any further amendments required to the slabs.
- Over-cladding the original façade. The original concrete façade has been over-clad with a rainscreen system.

Strengthening works to columns and shear walls.

The building is reinforced concrete construction throughout utilising 180-200mm flat slabs with RC columns in the tower area and column & beam arrangements in the low-rise block. An edge beam runs around the perimeter of the tower floor plates which supports to the original concrete cladding and the 2002 over-cladding. A sketch of the existing structure is shown in Figure 3.

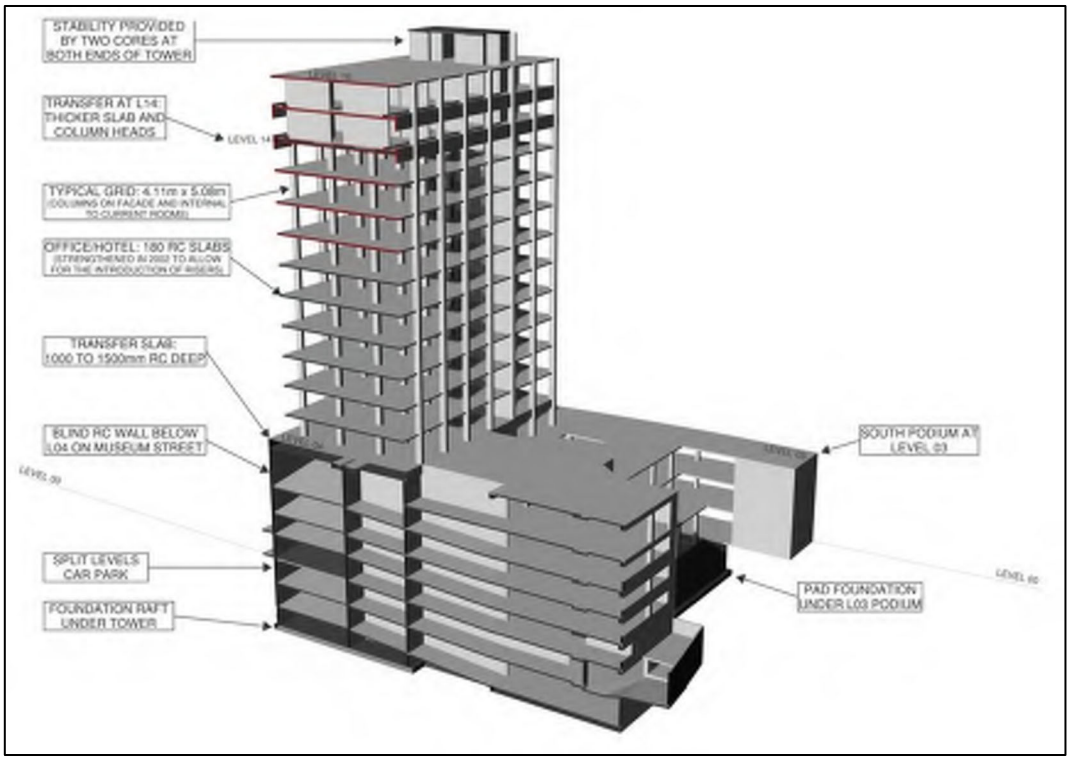

Figure 3: Sketch of Existing Building

The proposed works involve the demolition of the existing superstructure and re-use of the existing foundation raft.

4.2 West Central Street

The West Central Street compound is located to the north of the existing Travelodge building and is bound by West Central Street to the south, Museum Street to the East. The proposal is to refurbish and convert several existing addresses into a residential block with retail space at ground floor.

The compound addresses involved are the following:

- 16a, 16b and 18 West Central Street
- 10, 11 and 12 Museum Street
- 35, 37, 39 and 41 New Oxford Street

An overview of the West Central Street compound is shown in Figure 4.

Figure 4: West Central Street Compound Overview

4.2.1 16a, 16b and 18 West Central Street

18 West Central Street is a two and three storey building, generally comprising loadbearing brickwork which support timber joist floors.

16b West Central Street is a single storey building with a traditional façade. The building has been used as a nightclub, and the internal structure has been modified to a relatively large span steel structure with cellular beams which support precast planks.

The proposals for this block involve the following:

- Demolition of the existing building to leave just the basement walls and slab (existing retaining walls to be temporary propped prior to demolishing the ground floor); and
- Provide a new build concrete framed residential block with commercial at ground floor and plant space within the existing basement.

An image of the existing buildings is shown in Figure 5: 16a, 16b and 18 West Central Street.

Figure 5: 16a, 16b and 18 West Central Street

4.2.2 10, 11 and 12 West Central Street

Number 10 Museum Street is a three-storey residential building over retail space at ground floor. The construction appears to be of loadbearing brickwork supporting timber floors. Number 11 and 12 have previously undergone refurbishment appear to be constructed of loadbearing masonry with steel beams spanning between party walls.

A single storey basement extends across all three of the properties. There are also vaults that extend along the full extent of the Museum Street footpath.

An image of the existing buildings is shown in Figure 6: 10, 11 and 12 Museum Street.

Figure 6: 10, 11 and 12 Museum Street

4.2.3 35, 37, 39 and 41 New Oxford Street

Number 35 & 37 New Oxford Street are three-storey residential properties over retail at ground floor. The buildings appear to be of reinforced concrete frame construction, with traditional facades. There appears to be transfer structures at ground and first floors of Number 41. There is a single storey basement along the entire footprint, with vaults under the New Oxford Street footpath.

The development strategy for this block involves the following:

- Largely retaining the existing structure and façade;
- Remove non-load bearing partitions to leave just the party walls;
- Remove the existing roof and upgrade it to facilitate an extra residential floor; and
- Infill the existing vaults.

An image of the existing buildings is shown in Figure 7: 35, 37, 39 and 41 New Oxford Street.

Figure 7: 35, 37, 39 and 41 New Oxford Street

5 The Considerate Contractors Scheme

The contractor will be chosen based on their ability to undertake the works in a collaborative manner, both with the Client and their design team, and the Council.

The contractor will uphold all best practices and demonstrate this by enrolment within the Considerate Contractors Scheme. This will ensure that they are up held to a third party standards supervion to meet the goals set by the CCS:

- Care about ***Appearance***
- Respect the ***Community***
- Protect the ***Environment***
- Secure Everyone's ***Safety***
- Value the ***Workforce***

6 Working Hours

6.1 General Site Working Hours

The General site working hours will be in line with the requirements of the Control of Pollution Act 1974, Section 61.

Noisy works associated with a development (e.g. demolition, piling and earthworks) will generally be limited to weekdays from 0800 to 1800 hours, unless otherwise agreed.

The developer will ensure that the contractor adheres to these working hours unless otherwise agreed with the Council. As far as reasonably practicable and where feasible, operations anticipated to cause disturbance would be limited to these hours, except in the case of an emergency.

The developer or contractor will apply for consents from the Council under the Control of Pollution Act 1974, Section 61, and will obtain a consent (which will include noise limits and vibration limits where relevant) and noisy out of hours work. The applications for consent will include details of the work to be undertaken, including proposed hours of work.

All construction related traffic will abide by the agreed hours of working for each site unless otherwise agreed with the Council.

6.2 Hours of work

- Monday to Friday: 08:00 to 18:00
- Saturday: 08:00 to 13:00
- Sunday and Bank Holidays: No working

6.3 Out of Hour Works

Out of hours work applications for will include details of the work to be undertaken, including proposed hours of work.

Where working is required outside of the above hours due to unforeseen circumstances or planned work that can only occur outside of the core hours e.g. road closure requirements, mobile crane lifts, then these will be undertaken following communication with the Council and residents /businesses advising the reasons for the work, likely impact, if any, and estimated time to start and complete the work.

7 Health & Safety

7.1 Site Induction

All persons employed on or visiting site will be subject to a health and safety induction so that they are aware of the hazards present on the site and the restrictions imposed under the Principal Contractor's health and safety management procedures.

All visitors will be accompanied around the site by a representative of the employer (generally the contractor) unless previously agreed otherwise. All health and safety inductions will be recorded on a site-specific register that will be available for the Council to review by appointment.

7.2 Health and Safety: General

All site work must be carried out in accordance with the provisions of the Health and Safety at Work Act 1974 to the satisfaction of the HSE or its local officer.

The Principal Contractor will ensure that mechanisms are in place to ensure that the employers, employees and the self-employed, are not exposed to risks to their health and safety. And that every employee while at work will take reasonable care of the health and safety of themselves and of other persons, and to cooperate with their employer or any other person about any duty or other statutory requirement.

The Principal Contractor will ensure that all statutory regulations made under the 1974 Act e.g. provision of personal protective equipment, ladders, lighting, signs, electrical equipment, manual handling are complied with during all construction works.

The developer's nominated representative will ensure that appropriate industry standards for health and safety are applied, and that continuous improvement in safety performance is sought, in accordance with the principles of HSG65 "Successful health and safety management", published by the Health & Safety Executive.

The Principal Contractor will abide with the below Summary of Duties Under Construction (Design Management Regulations 2015 (CDM 2015)

Principal contractor *– A contractor appointed by the client to coordinate the construction phase of a project where it involves one or, more than one contractor.*

Plan, manage, monitor, and coordinate health and safety in the construction phase of a project. This includes:

- liaising with the client and principal designer;
- preparing the construction phase plan; and
- organising cooperation between contractors and coordinating their work.

Make sure:

- suitable site inductions are provided;
- reasonable steps are taken to prevent unauthorised access;
- workers are consulted and engaged in securing their health and safety; and
- welfare facilities are provided.

Contractors – are those who carry out, plan, manage and monitor construction work under their control, so it is carried out without risks to health and safety.

For projects involving more than one contractor, they must coordinate their activities with others in the project team – in particular, comply with directions given to them by the principal designer or principal contractor. For single contractor projects, prepare a construction phase plan

Workers – *Those working for or under the control of contractors on a construction site.*

Workers must:

- be consulted about matters which affect their health, safety and welfare
- take care of their own health and safety, and of others who might be affected by their actions
- report anything, they see which is likely to endanger either their own or others' health and safety
- cooperate with their employer, fellow workers, contractors, and other duty-holders

Note this section is directly related to the HSE web site, source: http://www.hse.gov.uk/cdm/2015/summary.htm

7.3 Health and Safety Management System

The contractor will produce a health and safety management system in accordance with the principles of the Occupational Health and Safety Advisory Service's 18001 "Occupational health and safety management systems". This system will include documentation defining the nominated undertaker's internal arrangements for managing health and safety on the project and the specific requirements for health and safety applying to all designers, contractors and sub-contractors appointed to work on the project.

The arrangements for health and safety will include a system for management of risks. This will include all hazards being identified, and suitable and sufficient assessments made of the risk, followed by adoption of appropriate measures to eliminate the risk or to control the risk, so far as is reasonably practicable.

Where risks to the public are involved, these will be reduced to as low as reasonably practicable and will be managed in accordance with the guidance in HSG151 "Protecting the Public" published by the Health and Safety Executive.

The developer's nominated representative will continuously monitor the work of contractors and sub-contractors and will conduct a programme of audits and

inspections to ensure compliance with the requirements of this Code and other project health and safety requirements.

7.4 Safety Objectives for the Project

This project involves demolition & construction works adjacent to a number of public interfaces and 3rd party assets, and it is the aim of the project team to eliminate or minimise risk and to prevent ill health and injury to all the site employees, subcontractors, site visitors, site neighbours and the general public.

To meet these objectives the contractors will work diligently towards:

- Maintain zero notifiable accidents and incidents.
- Maintain and improve lost time accident record.
- Move away from safety legislation governance to a safety behavioural culture promoted via communication, coordination and training.
- To comply with the procedures detailed within this document to achieve and maintain a safe working environment for everyone on site.
- Evaluate & measure performance against this plan through regular safety and environmental inspections and audits.
- To eliminate or minimise risk and control the residual risks.
- Prevent ill health to all those on site through health surveillance.
- Promote proactive safety management and reduce reliance on reactive safety management.

The Principal Contractor will regard the above as principal objectives and these objectives can only be achieved by the cooperation of the company employees, subcontractors, the Client and his representatives. Cooperation shall be at all levels within these organisations through the structures established under the Construction (Design and Management) Regulations. The Principal Contractor will collaborate with all parties to provide the organisation, advice and resources to meet this commitment so far as is reasonably practicable.

7.5 Principles of Prevention:

The general principles of prevention as per the Management of Health and Safety at Work Regulations 1999 shall be adopted in addition to the above that will be to:

- avoid risks;
- evaluate the risks which cannot be avoided;
- combat the risks at source;
- adapt the work to the individual especially regarding the design of workplaces, the choice of work equipment and the choice

- of working and production methods, with a view, in particular, to alleviating monotonous work, work at a predetermined work rate and to reducing their effect on health;
- adapt to technical progress;
- develop a coherent overall prevention policy which covers technology, organisation of work, working conditions, social
- relationships and the influence of factors relating to the working environment;
- give collective protective measures priority over individual protective measures; and
- give appropriate instructions to employees.

7.6 Management Procedures

The Safety Advisor will visit site on a weekly basis, or more frequently if deemed necessary, to carry out site inspections and produce the safety audit.

In addition to the safety audits, the following techniques will be used for monitoring compliance with:

- Legal requirements – Inspection and reporting arrangements as laid down in Principal Contractors Site Management Systems (SMS).
- The health and safety requirements contained within this plan.
- The health and safety site rules.
- Regular safety advisors' inspection / directors' safety tours / quarterly safety reviews / sub-contractors meeting.
- Special requirements for public interfaces.
- Principal Contractor's Engineering Safety Management System.

7.7 Work-Place Inspections

Workplace inspections will be carried out by the Principal Contractor's supervisor in control of the specific workplace, or subcontractor supervisor. Inspections will be recorded on the standard SMS Inspection Form provided within the Safety Management System and filed in the site office.

Where subcontractors are required to carry out such inspections, the responsible Principal Contractor's manager will have a system in place to ensure the adequacy of the inspection process involving random inspection checks.

Inspections of temporary works will be carried out and recorded within a temporary works register that will be provided for review by the Council at their behest in a timely manner:

- Welfare Facilities
- Site Perimeter/Public interface areas for trip hazards, rubbish and clear routes

- Site hoardings and lighting
- Scaffolding and alarm systems
- UKPN Substation Protection
- Exclusion and Restriction zones
- Site Temporary Services i.e. water and electricity and any relevant meter readings
- Floor loadings and back-propping
- Temporary works structural retention systems

This list is not exhaustive

The Temporary Works Co-ordinator (TWC) will maintain a list of personnel involved in the Temporary Works Process within the Temporary Works Register.

The Principal Contractor's supervisor will record, and file inspections carried out by the Temporary Works Team.

7.8 Compliance Monitoring

Compliance monitoring will be carried out to verify that agreed procedures and methods are being implemented and are producing the required results.

Compliance monitoring will be carried out by:

- The Principal Contractor's Project Manager
- The Principal Contractor's manager/supervisor controlling the area in which work takes place.
- Visiting personnel, including the allocated Safety Manager, Operations Manager and Directors.

Observations and actions arising from monitoring will be tabled at the weekly planning meetings, minutes written and filed, and actions allocated to the responsible persons.

7.9 Ensuring Safe Places and Systems of Work

The CMP will ensure that the project achieves and maintains Safe Places of Work and Safe Systems of Work through following the below guidance:

- 45001: 2018 Occupational Health & Safety Management Standard;
- ISO 14001:2015 Environmental Management Standard;
- ISO 9001:20015 Quality Assurance Management Standard;

This CMP details the perceived safety risks and relevant control measures particular to this project and is also intended to meet or exceed the requirements of the CDM Regulations 2015, Council standards and Clients expectations.

The project will adhere to the following published guidance and British Standards:

- BS 6187:2011 Code of practice for full and partial demolition
- Mayor of London's 'The Control of Dust and Emissions during Construction and Demolition SPG July 2014
- The GLA's 'The Control of Dust and Emissions from Construction and Demolition: Best Practice Guidance
- In accordance with Policies 5.18, 6.3 and 7.14 of the London Plan 2011 and Policies DM J1, J6, H5, H8, H9, H10 and H11 of the Development Management Local Plan 2013.
- Camden Code of Construction Practise 2016 requirements
- Camden Project Specific Demolition Specification as produced by the Designers.

8 Site Rules

The site rules may vary from contractor to contractor on site, which is reasonable, however a base line set of rules will be agreed as below;

- All personnel shall undergo safety induction training;
- Appropriate Personal Protection Equipment shall be worn at all times;
- Every accident and near miss event must be reported to the Site Manager immediately;
- Any person found to be interfering with or misusing fixtures, fittings or equipment provided in the interest of health, safety and welfare shall be excluded from site;
- Smoking will only be permitted in designated areas;
- Visitors must report to Security and will be allowed entry at Site Manager's entrance. Whilst on site visitors must wear the appropriate PPE;
- Vehicle drivers must wear the appropriate PPE (when outside vehicle). Vehicles are not to be reversed on site unless under the control of an authorized banksman;
- Vehicle drivers must remain with their vehicle during loading / unloading;
- Safety signs and notices must be followed;
- The public must be protected from hazards associated with this work;
- No alcohol or illegal drugs are to be brought onto the site;
- No person who is under the influence of alcohol or drugs is allowed on site;
- Offensive or inappropriate language and provocative gestures are not allowed;
- No gambling, threatening or violent behaviour;
- No personnel shall indulge in fighting, horseplay or practical jokes within the site or its perimeter;
- Toilets and washrooms must be kept in a clean and hygienic state after use;
- Refuse must not be allowed to accumulate; work areas are to be kept tidy;
- Combustible materials are to be removed on a regular basis and disposed of in an appropriate manner;
- Transistor radios or personal audio devices are not to be used;
- Permission must be obtained from the Site Manager prior to any work on site on site;
- All site personnel, for their own safety and for the safety of others, are required to fully comply with their employer's statement of safe working method;
- Site fire and emergency alarms, equipment and instructions are designed to protect life.

8.1 Mobile Phone Usage

Mobile phone usage is generally banned on site, except for designated areas that will be protected to allow safe usage.

8.2 Smoking and Vaping

Smoking and vaping are generally banned on site, except for designated areas that will be separate and protected to allow the relevant activities. The smoking area will have a fire point located adjacent to the area, and suitable cigarette bins for stubs and discarded cigarettes.

8.3 On Site Fuel Management

All fuel will be stored in bunded tanks away from any surface water drains or gullies. Emergency spill kits will also be available on site. The Council will be notified of any dangerous materials that may be necessary on site to complete the works, and correct signage will be employed on all storage areas.

The London Fire Brigade will be advised of all emergency plans and temporary works relating to combustible materials and potentially explosive canister periodically as best suits the changing anatomy of the site.

8.4 Flammable or Explosive materials

Flammable and explosive materials will be managed off site generally and only brought to site on an as required basis. Where storage is necessary all materials will be held in suitable containers and stored in designated areas with the correct identifying markings to ensure the safety of all. A schedule of materials and storage locations will be held by the contractor and identified to the London Fire Brigade either in advance or in attendance depending on the LFB requirements for each item.

9 Pre-Start Works

Prior to commencement on site the Client will ensure that the F10 Notification for the project is submitted to the Council and received by the contractor who will post the F10 on the site Board.

Prior to commencement of any works on site the Contractor will undertake the development and issue and receive acceptance as necessary for all documentation required for the commencement of the works. These will include:

- Preparation of all Safety & Environmental documentation including the DMP, CMP and all work package method statements and risk assessments.
- Meet the Contractor' engagement meeting (Community Days) to agree Works Charter and practicalities such as lighting, security, provision of pathways and protected routes and nuisance issues. And then follow on liaison meetings, consultations and newsletters as required.
- Organisation of sub-contract and consultant work packages, including Hoarding, Scaffolding and Service
- Installation/Isolation Contractors. Drafting of Risk Assessment Method Statement (RAMS) for approval once scope is agreed.
- Detailed Temporary Works designs for Hoarding, Scaffolding and back-propping specifically for the Network Rail and Council approvals.
- Production of drawings, survey reports, licences, agreements etc.
- R&D Surveys, Haz Mat Surveys and Utility Services Surveys See Information, Surveys and Reports 9.1.
- Asbestos Notifications (if required) to the HSE.
- Establishment of all emergency procedures and the requirements of the Fire / Emergency Plan on site.
- Development of the Site Traffic & Pedestrian Management Plan.
- Organisation and delivery of initial site plant, and equipment.
- Establishment & commissioning of all environmental monitoring equipment in line with the approved Demolition & Environmental Management Plan (DEMP).
- Application for Fire Hydrant License.
- TFL, LUL, Crossrail and the Council's Approvals and licences to facilitate the Works.
- Temporary relocation of UKPN substation.
- Provide information to the Employer to discharge the applicable Pre-Commencement Conditions

9.1 Information, Surveys and Reports

The following surveys will be required prior to the commencement of works on site:

Survey	Description	Survey Owner	Notes
Below Ground Services Survey	Radar Surveys / slit trenches of existing below ground services	Client (Design Team)	Required
Above Ground Services Survey	Trace existing services within the building back to the meters / heads.	Contractor	Required
Pre-demolition materials audit (update)	Pre and Post Demolition Materials Audit (ICE Demolition Protocol).	Contractor	Required
Site Structural Investigations to inform demolition methodology	Structural investigations into the form and condition of the existing structure.	Client	Required
CCTV Drainage Survey	Pre and Post Demolition Materials Audit (ICE Demolition Protocol).	Contractor	Required
Condition Survey	Pre-start condition photographic survey of the site, adjacent buildings, roads, pavements, and street furniture.	Contractor	Required
Ecological Reports (e.g. Nesting birds, Bats)	Reports and recommendations of environmental constraints and required mitigation / protection measures required.	Client	Required
Ordinance Survey (UXO)	Investigations into the probability of unexploded ordinance within the construction area.	Contractor	May not be required

Table 3: Required surveys

9.2 Temporary Works Design Management

9.2.1 Design Requirements

The design and detailing for all temporary works and other required designs to facilitate the works will be carried out by qualified and experienced temporary works engineers.

All design management will be undertaken in accordance with BS5975 and established company procedures using QA systems SMS020 for Temporary Works.

To deliver the construction works successfully with the highest level of safety considered, early site investigations are critical to verify the existing site conditions under the guidance of our in-house structural engineering department.

Proceeding onsite findings, calculations, calculation checks and drawings will be prepared to substantiate the conclusions provided ahead of works commencing.

In line with our procedures, when designing due cognisance is given to:

- The proximity of third-party assets, public footways and roads;
- The protection of adjacent third-party assets and structures;
- Obtaining agreements for oversailing scaffold;
- Management of traffic on external and internal roads;
- Services and utilities that are to remain in place.

The temporary works requirements for the site will include designs for –

- Construction of hoardings;
- Construction of protective decks / screens & debris fans etc.
- Demolition scaffolding to the perimeter facades, to include fans and Monarflex type safety systems and materials;
- Pedestrian walkway scaffold if required both on and off site;
- Back-propping and or strengthening of the floors and walls facilitate the plant and machinery required for the upper-level demolition;
- Mobile crane out-rigger pads to facilitate lifting demolition plant and other materials and equipment;
- Suitable temporary welfare structure for the project.
- Manhole and access chamber's steel plate covers to enable the movement of heavier vehicles for the project.

The list is not exhaustive but representative of the typical temporary works required for the site.

9.2.2 Design Risk Management

All designers' risks will be rated and recorded on a standard risk matrix proforma using a scale of impact and severity.

Remaining risks that are not able to be eliminated through design shall be clearly marked on drawings.

Method statements with risk assessments and designs for the installation of the temporary works will be produced prior to the works commencing for comment and approval by the Client design team. To ensure only up to date design information is in use all issued design information will be controlled by that information being recorded in the site drawing register

9.2.3 Design Installation Management

All design management will be undertaken in accordance with the contractors Safety Management System procedures and best practice for Temporary Works and all associated design documentation.

An appointed Temporary Works Coordinator (TWC) will have overall responsibility for managing the installation of temporary works and this will be managed on site by an appointed Temporary Works Supervisor (TWS). The role of the TWC and the TWS may be combined depending on works.

Works progress will be checked regularly by the structural engineer against the Temporary Works Register.

9.2.4 Exchange of Design Information

The names and contact details of all participants in the design process will be placed on a Temporary Works (TW) Directory so that all of the relevant parties are invited and included in all TW communications or at least receive the minutes of each meeting.

The exchange of design information will be accomplished by holding regular design information exchange and approval meetings at predetermined times with the Client design team and other interested parties such as the Temporary Works Coordinator and Temporary Works Supervisor and the Temporary Works Designer. The outcome of the meetings will be emailed to all relevant parties, through email or other electronically data transfer systems as agreed (such as “Drop Box”, “One Note” etc.).

9.3 Hoarding

9.3.1 Standard Hoarding

All work sites will be completely fenced to prevent public access with lockable gates, using LFB accepted locking systems.

All hoarding will comply or better BS476 part 6 and 7 with class 0 certification for fire rating.

The standard hoarding will be 2.44m minimum height, plywood faced, timber framed boundary hoarding, of a surface density of not less than 7kg/m² for normal security and noise limitation requirements.

Non-standard height hoarding may be required for the surrounding of stockpiles and or high-level construction works that are not easily scaffolded and or dust is a high risk. Where hoarding is to raise above the 2.44m height prior agreement will be sought with the Council to ensure compliance with guidance on over height hoarding is maintained.

Through discussion with the Council, the contractor may at the behest of the authority move to recycled (and recyclable) PVC hoarding in a 2.44m height, fire rated to BS476 part 6 and 7 with class 0 certification.

Where local terrain or structures would allow the fence to be scaled by potential intruders, the height will be increased reasonably to protect the site.

All hoarding will be designed to minimise opportunities for anti-social behaviour and rough sleeping.

The Contractor will ensure that all hoardings are painted in a plain uniform manner but will have contrasting markings at projecting angles (to assist the visually impaired) to the satisfaction of the Council. Where the Contractor / Developer requires specially designed exterior decorations they will request the council's approval and, where necessary seek consent under the Control of Advertisements Regulations.

Signage will be displayed on the hoarding for health and safety purposes, Considerate Contractors and general site signage. All signage will be agreed with the Council in advance of installation.

The Developer will design a commercial brand signage for use on the hoarding and agree the signage with the Council prior to instigating its installation.

All solid-state hoarding and site fencing and barriers will be maintained using controlled wet methods for cleansing and avoiding water runoff from the activity.

9.3.2 Green Hoarding

Due to the proximity of the site to residential areas the contractor will consider the use of Green Hoarding with the Client and the Council. Where this is considered desirable and the duration of the fence line is greater than 12 weeks, the Client will agree the extent of the Green area with the Council and instruct the contractor to install as required.

9.3.3 Special Circumstances

It is not considered that special hoarding will be required due to the nature of the area architecturally; however, the Developer accepts the special nature or the area on the human level. The developer will accept guidance from the Council in relation to

- Incorporation of artwork visualising the proposed development or photographic views of the local area or incorporating artwork, mounted onto standard well-maintained hoardings.
- Incorporation of viewing windows into standard well maintained hoardings to preserve important views and provide opportunities to observe construction activity.
- Incorporation of a full cover of climbing plants, with the plants trimmed back only to allow for essential lighting and health and safety signage.

9.3.4 Hoarding Gates

Gates in the fencing or hoarding should, will be, as far as is practicable, be positioned and constructed to minimise the noise transmitted to nearby noise-sensitive buildings. This will take account of noise emerging directly from the construction site direct and noise from plant entering or leaving the site.

All Gates will be designed such that they open inwards onto the site or slide within the site lines.

All access gates are to be located at least 10 m from receptors where possible

All gates will be of a suitable standard and size for vehicles accessing and egressing the site.

9.3.5 Hoarding Lighting

All hoarding will be reviewed for lighting requirements at onset and throughout the seasons with the Council (at their behest) and where and when it is reasonably deemed that additional lighting is required, this will be provided by the contractor.

At a minimum, all hoarding on all roadside areas will be lit with an unobtrusive red/ orange marker light.

Figure 8: Typical Red-Light Hoarding Light

Generally lighting to site boundaries will be provided as standard.

Illumination will be designed to meet the minimum sufficient to ensure the safety of the passing public, including disabled people, and security, when on surrounding footpaths, roads and amenity areas.

9.4 Scaffolding

During the initial stages of the demolition, a full height scaffold will be erected to encapsulate the building where the height of the walls of the building or structure to be removed rises above Ground Floor level, and this is covered fully in the demolition contractors DEMP.

Typical hoarding with sheeting and fall arrest fans

Where full height sheeted scaffolding is required this will be suitably designed including ventilation and dust extraction or capture as practicable.

9.4.1 Hoists / Lifts

External hoisting positions will be required for use during the construction. It is envisaged that hoists will be situated on multiple sides of the building creating at least two lifting points.

It is envisaged that a third hoist may be required on the taller buildings for staff.

The passenger/goods hoist will serve all floors by leaving out section of cladding on each floor that will be in filled when the hoist is removed.

As the works progress and the internal operations develop, internal hoists will be installed to allow the removal of the external hoists. These internal hoists will be situated in the cores.

Consideration will be given to early beneficial use of the new goods lifts enabling timely removal of temporary hoists.

10 Site Accommodations

The contractor will endeavour to maintain all accommodation within the curtilage of the site. Where there is a need to explore external accommodation either over the highway, pavement or public open space, the developer will consult fully with the Council and the Highways Authority to ensure that suitable solutions are formulated and acceptable to all parties. The developer will ensure that all appropriate licences are in place prior to installation of external accommodation.

The contractor will ensure that full topographic survey is undertaken and skips, or heavy equipment will be situated away from vaults and basements, or that suitable supportive works are undertaken to accept the proposed load.

It is generally anticipated that the site accommodation for the project will be located on site. This will be a relatively limited area and therefore the accommodation will be double or treble stacked. This will provide, in line with the general guidelines and best practice:

- Contractor management offices
- Meeting rooms
- Client and design team office space, if required.
- Welfare facilities including canteen and kitchen, changing and drying rooms, toilets and showers
- Induction room
- Security office
- Sub-contractor offices (these may be located elsewhere within the building during construction)

It is anticipated that site accommodation is to be located at the top of the car park ramp leading down into the basement of Museum Street. The site accommodation will then be relocated into the basement prior to the construction of the Vine Lane block. The image below shows the indicative location for site accommodation at the top of the ramp (Figure 9).

Figure 9: Proposed site accommodation

10.1 Living Accommodation

No living accommodation will be permitted on site during the works.

10.2 Site Lighting

Site lighting will be positioned and directed so as not to unnecessarily intrude on adjacent buildings, wildlife sites and other land uses, or to cause distraction or confusion to passing traffic on adjoining public highways.

The design will ensure that any artificial light emitted from premises will not be prejudicial to health or be a nuisance as required by the Environmental Protection Act 1990.

The lighting will be designed to comply with the provisions of BS5489, Code of Practice for the Design of Road Lighting, and Guidance Notes for the Reduction of Light Pollution, GN01, 2005, or later revisions published by the Institute of Lighting Engineers.

The Contractor will discuss any lighting issues or concerns with the Council's Lighting Compliance Officer, including where a hoarding, scaffold or temporary structure is to be installed upon the highway in close proximity to a lighting column or illuminated street signage (less than 2m).

10.3 Good House Keeping

The contractor will ensure that all those working on site follow a `good housekeeping' policy at all times. This will include, but not necessarily be limited to the following:

- Ensuring considerate site behaviour of all those working on a site;
- Ensuring that all operatives are in a medically fit state to conduct their works, and maintain an auditable alcohol and drugs policy;
- Prohibiting open fires;
- Ensuring that appropriate provisions for dust control and road cleanliness are implemented;
- Removal of rubbish at frequent intervals;
- Maintaining a clean and tidy site;
- Frequent inspection, repair and maintenance of site hoardings;
- Removal of illegal all flyposting;
- Removal of graffiti to the site;
- Maintenance of site facilities and cabin areas;
- Removal of food waste from site;
- Frequent cleansing of wheel washing facilities; and
- Prevention of vermin and other infestations (and prompt and effective action to deal with any that do arise);
- Undertaking all loading and unloading of vehicles off the highway wherever this is practicable and;
- Ensuring that tunnels beneath gantries are always well lit.

11 Waste & Site Cleanliness

11.1 Waste General Principals

The contractor will be encouraged to propose solutions that reduce waste e.g. to have materials delivered with reduced packaging and/or delivery companies take their packaging away with them.

Due to the risk of dust and debris being drawn on to the public highway, wheel wash facilities will be included at all exits from the site. All wagons will be netted and screened to avoid building detritus falling from the wagon on to the highway.

The contractor will be required to provide a Waste Management Control Plan for the works and submit to all relevant parties for comment and information.

The efficient clearance of site waste will be key to a successful construction project and to portray the image to the surrounding neighbours and passing public of a well-controlled site especially in this high-profile location.

The use of skips will be the primary way of removing waste from the site.

Regularly rotating skips to ensure no overspill will be important. The site has limited areas to consistently provide a consistent skip location, however the creation of a planned skip strategy is yet to be formulated and will be covered in the temporary works strategy.

11.2 Food Waste

All site food waste and consumables will be deposited in closed bins and removed from site at regular intervals of no more than a week to minimise rodent and insect infestation on site. Generally, food is prohibited on site except within designated areas.

11.3 Battery Waste

All batteries will be gathered to a central area and removed from site for disposal / recycling at a suitable facility. Batteries will not be mixed with general waste. In accordance with UK Government guidance all batteries will be separated into appropriate type and disposed of in accordance with the suitable Approved Battery Treatment Operator (ABTO):

- Automotive *(ignition battery)*
- Industrial *(specifically designed power bank over 4kg)*
- Portable *(Traditional sealed power pack under 4kg / Domestic)*

11.4 Contaminated Waste

Waste is generally considered hazardous if it (or the material or substances it contains) are harmful to humans or the environment. Examples of hazardous waste include:

- asbestos
- chemicals, such as brake fluid or print toner
- batteries
- solvents
- pesticides
- oils (except edible ones), such as car oil
- equipment containing ozone depleting substances, like fridges
- hazardous waste containers

Contaminated waste will be removed by specialist contractors and disposed of off-site by them to a licensed location in suitably designed and managed vehicles.

In accordance with UK Environment Agency Guidance note (4 April 2014), hazardous waste must be treated separately from all other waste including other contaminated materials.

11.5 Construction Waste

Construction arisings will be drawn to a central removal point and where possible sorted into material types, with timbers and metals being stowed in skips, with spoil being stockpiled for direct removal. Due to the proximity of the site to occupied buildings, crushing may not be considered feasible. As such all spoil will be managed in line with the Dust Management Plan and removed from site on suitably sized muck away wagons on a daily basis.

Where spoil can be reused as fill, or piling mat these materials will be maintained on site to minimise material road journeys.

11.6 Biological Waste

Biological waste will be damped down where appropriate and bagged for specialist or suitable removal as required. Sharps will be removed by specialist contractors and removed in approved containers. A specialist sharps policy will de agreed with the Council in advance of construction works.

11.7 Prohibition of Incineration

The developer will prohibit the use of bonfires or other methods of incineration of waste on site.

11.8 Stockpiles

Stockpiles may be utilised to manage either waste or imported construction materials.

Stockpiles will be maintained only as necessary and will not be encouraged for long durations due to the size and shape of the phases.

11.9 Dust Management

Contractors will develop and implement a Dust Management Plan (DuMP), which will include measures to control other emissions, approved by the Council. The level of detail will depend on the risk and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site. In London additional measures may be required to ensure compliance with the Mayor of London's guidance. The DuMP will include monitoring of dust deposition, dust flux, real-time PM10 continuous monitoring and/or visual inspections – assume this is not separate plan and contents covered in CMP.

11.10 Site Monitoring (in relation to Dust)

Likewise, contractors will:

- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Council when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100 m of site boundary, with cleaning to be provided if necessary.
- Carry out regular site inspections to monitor compliance with the DuMP, record inspection results, and make an "inspection log" available to the Council when asked
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Council. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences.

Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction and the Dust management Plan and monitoring methodology will be developed in line with the design development.

11.11 General Basics of Site and Surrounding area Dust and air Management

Contractors will also:

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken in an agreed format within a formal Complaints and Issues Log for provision to the Council in a timely basis, and on demand within 48 hours of instigation of request.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.
- Hold regular liaison meetings with other high-risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/ deliveries which might be using the same strategic road network routes.

11.12 Rodents and Vermin

The contractor will ensure that the risk of infestation by pests or vermin is minimised. Adequate arrangements for disposing of food waste or other material attractive to pests will be implemented.

If infestation occurs the contractor will ensure that such action to deal with it as required by the City Council's Environmental Health Officer is taken.

To minimise the potential of infestation, the existing buildings will be assessed for the presence of rodents and vermin prior to construction. Should any rodent or vermin issues be present, an external contractor will be appointed to eradicate these.

The contractor will ensure that periodic reviews of the site are undertaken by a specialist contractor to ensure that rodent infestations are minimised and can be removed quickly to avoid the associated health issues affection the workforce and the neighbouring properties and occupants.

To minimise the adverse impacts from pests and rodents the following control measures will be implemented on site in the following order

- All drainage systems and access points will be kept secure to prevent rodent access
- All generated rubbish particularly food waste will be cleared as it is generated and placed into secure containers and removed off site for disposal on a continuous basis
- A high level of good housekeeping will be maintained on site and in all facilities

- Site rules will be implemented to prevent the feeding of such pests as pigeons and seagulls
- All food stuffs brought on site will be within storage containers
- Where all other control measures have been actioned then pest control management will be implemented on site by a reputable pest control company

11.13 Pigeon Waste

It is anticipated that certain areas of the buildings on site will require prior cleansing and decontamination of pigeon waste. This area of concern is covered within the CEMP.

11.14 Road Cleansing

A water assisted road-sweeping machine will be periodically employed as required to either brush clean the roads around the site or in periods of dry weather wet down the highway to control the dust. The frequency and nature will be agreed in advance with the Council and if necessary, 3rd party stakeholders. The timing of the cleansing will be managed to avoid peak times except by exception, such as a spill or on request of the Council.

Dry sweeping will be avoided in sensitive and or large areas where dust and particulate pollution could cause an issue both on and off site.

Road cleansing may also require water-assisted cleansing plant on the access and local roads, to remove, as necessary, any material tracked out of the site. Where this is required, the developer will ensure that surplus water is collected and contained for removal from site by appropriate measures.

11.15 Wheel Wash Management

The site will have designated hard standing loading areas. These areas will also serve as wheel wash areas for vehicles leaving the site. All access and egress points will be monitored and cleaned as required to prevent site materials tracking on to the road.

Where possible the contractor will ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.

The contractor may implement a wheel washing system with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable. To improve cleansing, the exact methodology will be agreed with the Council on allocation by location basis.

All ground or surface water run-off will be strictly controlled in line with environmental legislation and best practice to prevent pollution of drains and watercourses.

All vehicles will be inspected before leaving site for cleanliness.

12 Transport Strategy

The transport strategy will have been simplified and considered in a site wide policy for this level of design development and will be developed throughout the pre-construction stages.

12.1 Site Access

The public pavements along the western side of Museum Street would be closed off and pedestrians diverted along the eastern side of Museum Street.

Pedestrian and cycle access to West Central Street would be closed for the duration of the development (Figure 10), with pedestrians and cycles being re-routed via Museum Street and New Oxford Road.

Figure 10: Proposed pavement closures

Hoarding will also be erected at the other end of West Central Street, from New Oxford Street, to prevent pedestrian and cycle access through the site (Figure 11).

Figure 11: Proposed pavement closures and hoarding

It is proposed that an off-road pit lane (holding area) on Museum Street for two HGVs is necessary for the scheme to be achievable (Figure 12). It is also proposed that the left-hand lane of Museum Street will be used as a vehicle holding area.

Vehicles will turn into West Central Street from the Museum Street holding area only as the turning from the off-road holding area is too acute to accommodate this movement. This turning will be managed so that public traffic cannot turn into West Central Street while construction traffic is turning in.

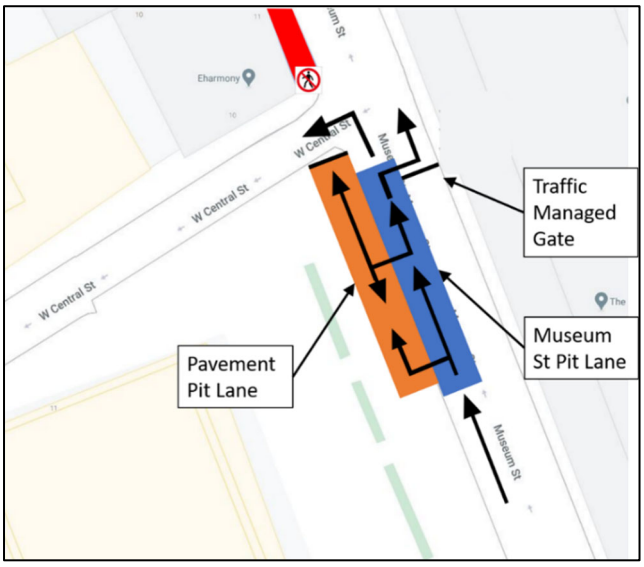

Figure 12: Proposed Museum Street pit lane

Vehicular access to Grape Street will still be available via West Central Street, by creation of an electronically gated traffic management crossing with prioritisation given to the public (Figure 13).

There will be no crane oversailing carrying live loads while the gated traffic management crossing is open for the public.

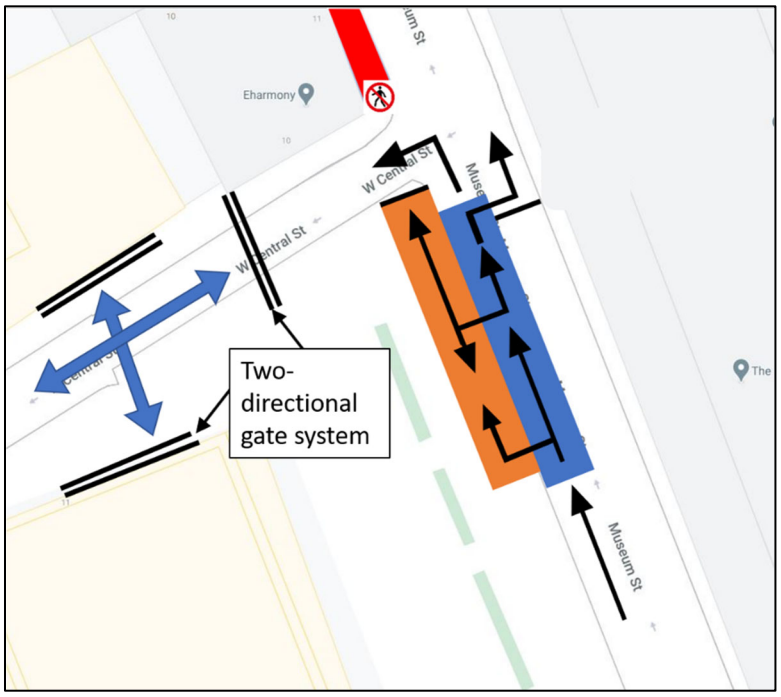

Figure 13: Proposed West Central Street traffic management

12.2 Ingress and Egress from site

The site will at all stages have vehicle segregation to maintain a safe distance between people and vehicles on site.

A pedestrian gate will be installed at the entrance for a designated and segregate personnel access, protected from vehicles by a suitable barrier.

A separate access will be maintained through when access is relocated on a permanent and temporary basis.

All vehicles will be met by traffic marshals. All manoeuvring on to site will be directed by the marshals which may include reversing manoeuvring on to the site with the traffic marshals using concertina barriers to stop traffic to maximise safety to both those on site and third parties.

All egress from site will be undertaken in forward motion, with a prohibition on reversing on to the roadway.

12.3 Management of the site gate(s)

The site gate will be managed by both traffic marshals and site security, the site gate will only be opened just prior to deliveries, and then maintained open until

such time that it is safe to close the gate after the delivery. The standard position of the site vehicular gate is closed.

12.4 Management of Deliveries / Pick ups

Deliveries and collections (mainly of refuse) to site will be required on a regular basis and sizes of vehicles will vary.

Due to the constrained access into and on the site as well as the close proximity of the public and with the site being near a major arterial route into London, careful and close management of deliveries to site will be required.

The cross over from the pavement to the property will be managed / marshalled to prevent any major disruption to pedestrians passing by.

The Principal Contractor will be required to implement a managed system of material movements to and from the site to ensure that there is no congestion of vehicles on the highways.

It is considered that generally loading and offloading will be conducted on site and within the confines of the hoarding line.

Where offloading is to occur on the roadside, permissions will be sought on a need-by-need basis and a full Method Statement detailing delivery details, size, timing, durations, special lifting requirements etc. and request their approval to proceed.

12.4.1 Electronic Booking System

All deliveries to site should be undertaken through an electronic “booking-in” system, managed by the security organisation, and with all deliveries allocated a specific time slot. Typically, failure to adhere to their time slot may result in a sub-contractor’s delivery being denied access to the site. There will be no waiting on street for access to the site.

12.4.2 Traffic Marshals

All deliveries will be met by a suitably sized team of traffic marshals to ensure safe passage into site, and safe manoeuvring on site.

12.4.3 Schedule of Deliveries

A schedule of predicted size and frequency of vehicles will be finalised by the contractors.

Vehicle movements/deliveries will be reduced during weekday highway peak hours

- Peak Hours: 08:00 to 09:30.
- School Hours: 15:00 -16:00.
- Note other hours may be requested by the Council and will be adhered to.

Any vehicular movement for site deliveries outside of the normal working hours will need to be agreed with the Council.

12.4.4 Out of Hour Deliveries

Consideration should be given to early and late deliveries and collections to reduce any traffic congestion during the peak periods, subject to agreement with TfL and / or the Council. Where out of hour deliveries are considered, the contractor will ensure that the correct number of traffic marshals are available

12.4.5 Vehicle Manoeuvring on Site

The contractor will endeavour to:

- Maintain safe manoeuvring on site all vehicle paths will be detailed out to provide best practice segregation from the site operatives;
- Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone, where applicable;
- Reversing operations will be minimised as far as is practicable;
- Traffic marshals will be used on site to assist manoeuvring;
- All vehicles will be maintained correctly within the cab to ensure that no objects or personal effects can obscure the driver's vision;
- All vehicular windows and mirrors will be maintained correctly and in a clean state and window wash will be made available on site to ensure compliance;
- For vehicles with generically poor visibility such as straddle carriers and large shovel loaders either mitigation measures such as extra mirrors, radar and CCTV will be installed in the cab or the vehicle will be accompanied by a suitably trained traffic marshal;
- Where vehicle manoeuvring cameras are used, these will be inspected for cleanliness and drivers will be trained in their usage so as to ensure that changes in lighting areas etc do not confuse the driver;
- Impose and signpost a maximum-speed-limit of 10 mph on surfaced haul roads and work areas; and
- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.

12.4.6 Vehicle Numbers

It has been estimated that during the construction sequence a maximum average of 25 HGVs will be required on a daily basis. It is envisaged that peak vehicle movements will take place during in Summer 2026 with peaks estimated at 50-55 vehicles coming to site per day.

13 Construction Logistics and Cyclist Safety

The contractor will be required to operate both the:

- Fleet Operator Recognition Scheme (FORS); and
- Construction Logistics and Cyclist Safety (CLOCS) safety.

13.1 Marco and Micro Traffic Routes

The sketches provided as Figure 14 and Figure 15 shows indicative routes to the key roads and motorways that should be considered for large vehicle movements, as well as local routes through the project area and surrounds. This is not an exhaustive list. These roads include:

- M1/A1
- M40/A40
- M4/A23/A24
- A10
- A11/A13

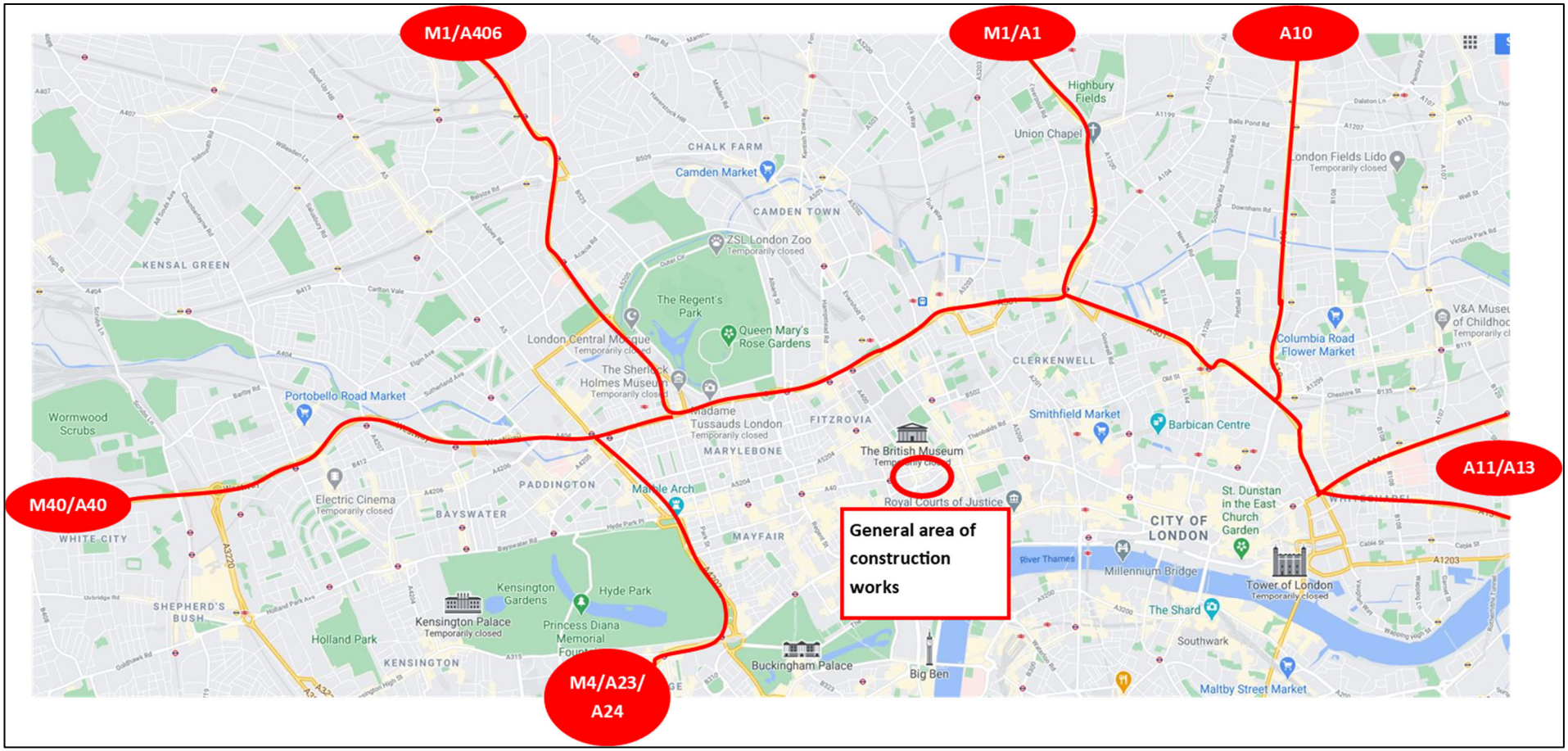

Figure 14: Macro traffic routes

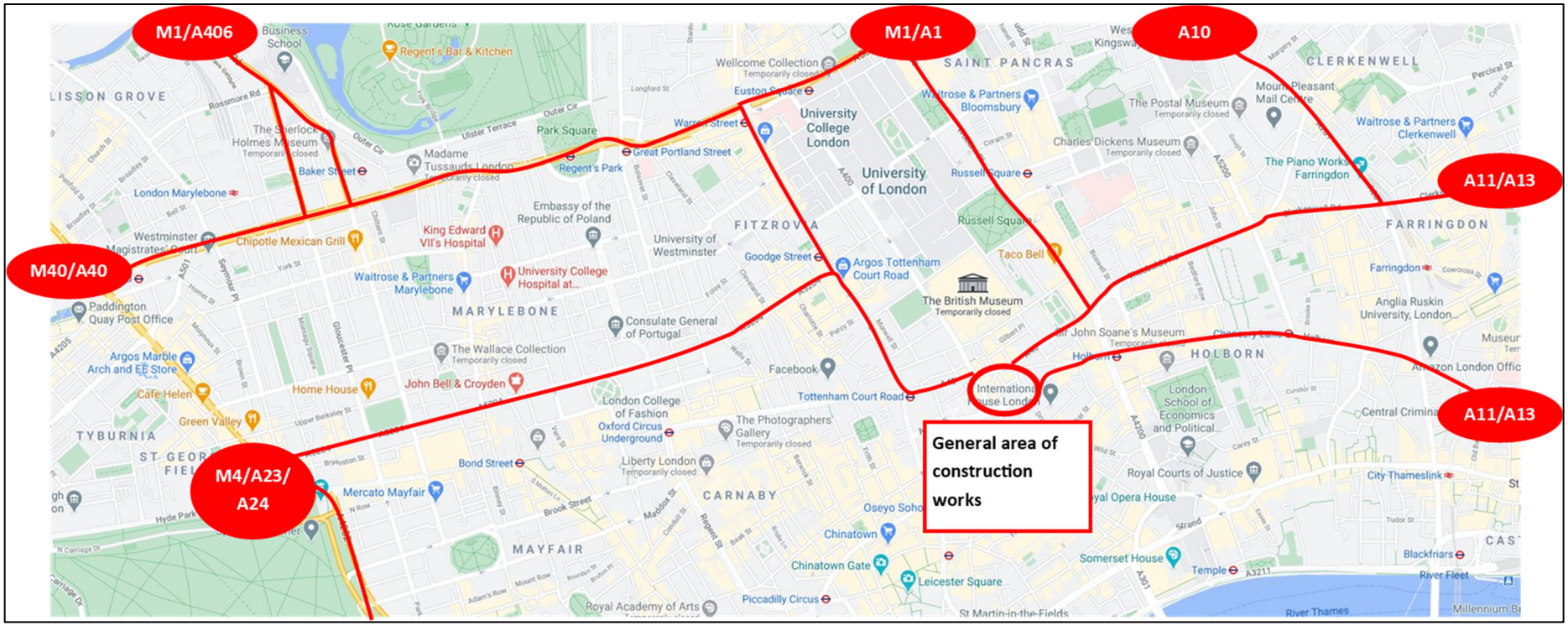

Figure 15: Micro traffic routes

13.2 Access Management Staff

A team of traffic marshals will be utilised to assist vehicular movements on and off site. The marshals are specifically trained in vehicular safety management.

The marshals will also be trained in the use of safety equipment that can be used from time to time, such as concertina crown barrier etc. to stop any interaction between vehicles and pedestrians.

All traffic marshals will be qualified for their role and their qualifications registered for periodic inspection by the Council.

All traffic marshals will wear full PPE including:

- Helmet
- Safety Glasses;
- Hi Visibility coats or Vests;
- Hi Visibility trousers;
- Gloves; and
- Protective footwear.

13.3 Car Parking on Site

Due to the tightness of the site in relation to its build / deconstruction complexity and the local environment car parking is prohibited except for pick up and drop off. This should not affect transportation to site with most workers considered to use the local public transport infrastructure.

13.4 Transport General Introduction

The Client (through the design team) will ensure that the works are designed and carried out in such a way as to minimise disruptions to traffic flows causing inconvenience to the public or undermining the safety of road users. Disruptive effects of construction traffic on designated routes are to be minimised by consideration of a number of mitigations in advance of construction, to be agreed with the Council.

Except by exception, all, existing public access routes and rights-of-way during construction will be maintained or protected in agreement with the Council and other associated bodies. Where this cannot be achieved the developer will agree mitigations, including alternative routes and signage solutions.

Through the creation of a “Construction Liaison Group”, Where construction activities are planned on a number of sites in proximity to one another, contractors will where possible coordinate their requests for road / lane closures, access routes, lorry movements, etc. in order to reduce the impacts on the surrounding area for residents, businesses and other development projects and contractors.

14 Transport Legislative Compliance

The Client (through the design team) and the contractor will ensure that their planning advisors and design engineers are familiar with the Highways Act 1980 (particularly Part IX also ss.79-82 regarding nuisance 148-151 highway spoil) and the New Roads and Street Works Act 1991 (particularly S.50) where project works are on, intrusive or adjacent to the public highway.

14.1 Staff Journeys to Site

The developer will implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

In order to support efforts to minimise the effects of construction traffic on the surrounding highway network, there will be no formal car parking provision on site for construction workers. Construction personnel would therefore be encouraged to use other forms of transport to travel to the site.

Given the site's proximity to excellent public transport services, it is envisaged that most construction personnel would travel to the site by public transport including:

- Train;
- London Underground;
    - Tottenham Court Road;
    - Holborn;
    - Covent Garden;
- Coach; and
- Bus.

Certain trades may require short-term parking for vehicles due to the transportation of specialist equipment/ plant requirements. Limited drop off / pick up parking will be provided on site, but only for this purpose.

15 Construction Constraints

The building is to be constructed within a busy commercial area of the borough and the contractor should be aware that high levels of foot traffic may be generated periodically by the local shops offices, hotels and local eateries within the area.

Potentially other “third party” building sites will also be located within the area;

- British Museum;
- Cuban Embassy;
- Traffic management related to the works and manoeuvring;
- Large Spoil Removal; and
- Maintaining “Business as Usual” for adjacent properties.

For further constraints, a full review will be required to be carried out in direct relation to each phase.

16 Site Security & Emergency Planning

16.1 Security General

The sites security for the project will be in operation from the outset. Initially they will be manned during the working hours and extend either side of the working-day by approximately 1 hour (aligned with the fire inspection policy).

It is anticipated that during the development works the sites will need to be provided with 24-hour 7 day a week security by either a mix of static or mobile security personnel with CCTV backup covering all aspects of the site hoarding as a minimum.

Site security cameras, where used, will be sited in locations which will not cause nuisance or offence to local residents.

Hoardings and temporary structures will be designed to minimise opportunities for rough sleeping and the behaviours associated with this, as well as anti-social behaviour. Where such issues do arise, the PC aligned with the Council guidance will review and revise the hoarding alignment in a timely manner.

16.2 Rough Sleepers

Where rough sleepers are encountered the developer's nominated representative will refer the rough sleeper (s) to **Streetlink** on www.streetlink.org.uk. The PC will ensure that the nominated representative is suitably trained (in line with LA guidance) to work with **Streetlink** to enhance the contractor to work proactively with the local teams to address any issues.

16.3 Emergency Planning and Response

The contractor's nominated representative will ensure that emergency procedures are developed, implemented and updated where necessary. The emergency procedure will include emergency pollution control measures that will take into account current relevant Environment Agency and government guidance relating to pollution. The emergency procedures will be produced in consultation with the emergency services.

The emergency procedure will contain emergency phone numbers and the method of notifying the Council and other statutory authorities. Copies of the procedures will be issued to the Council, London Fire Brigade (LFB), the Police, the Ambulance Service and other relevant authorities etc. Emergency telephone numbers for developer's/contractor's key personnel will also be included.

16.4 Emergency Access

The PC will ensure that the requirements of the London Fire and Emergency Planning Authority (LFEPA) will be followed for the provision of site access. Where appropriate, the accesses to the site will be designed to the requirements of

the LFB Note ‘Access for Fire Appliances’ which addresses the road widths required for fire apparatus. The accesses may vary over time and will also be suitable for ambulances.

17 Fire Prevention & Control

The contractor will ensure that all construction sites and associated accommodation or welfare facilities will have in place appropriate plans and management controls to prevent fires. The site fire plans will be prepared and will have due regard to the following documents:

- Fire Safety in Construction (HSG 168);
- Fire Prevention on Construction Sites (CFPA Europe).

17.1 Fire Precautions

All fire precautions will be taken, and fire checks made at the end of each working day before personnel leave the site. Fire points will be set up within easy reach of the work areas, storage points and hot works locations. Throughout the works, “hot works permits” will be required as standard for all hot works. The process will be managed by the main contractor.

17.2 Fire Alarm

Each building will be temporarily fire alarmed back to separate security monitoring areas on site. The contractors on all phases will co-operate to agree fire communication, evacuation strategies, drills for both themselves and relevant third parties.

17.3 Fire Assembly Points

Due to the number of phases and the changing anatomy of the site, a fire assembly strategy will be drawn up to reflect the special dynamics of the site and may need to look to offsite locating. If the area allocated assembly is off site, the contractor (s) will initiate discussions prior to the phase of works commencing with the Council.

18 Construction Works

18.1 Highway Works in Principle

18.1.1 Road & Lane Closures

Full road closures are to be avoided throughout the works, with the primary proposals to only include lane closures on a temporary basis to allow the opening up of new access ways on to site, or the creation of better access to the existing site entrances.

All considerations relating to potential road or lane closures will be considered well in advance to enable full and meaningful discussions with the Council and TfL.

18.1.2 Temporary Structures on the Highway

It is not envisaged that there will be a need for temporary structures on the highway. However, in accordance with best practice and if the need arises, the Developer will agree the extent with the Council in advance.

Where fenced storage areas, scaffolding gantries, loading/unloading bays, skips and other temporary structures on the highway are required, established and maintained, this will be in accordance with all appropriate licences and conditions there of issued by the Council or TfL by the Developer. Due to the nature of temporary works and associated risks, the developer will ensure that the designers are suitably qualified and aware of temporary works as defined in BS5975:2008.

When locating storage areas, temporary structures, etc. the developer's nominated representative will consider the particular needs of and the vulnerability of pedestrians in order to provide a safe and direct route for them. In particular, this will ensure adequate highway is available throughout the period of the works, particularly where there are high volumes of pedestrians. All barriers, clutter, and storage of materials and equipment within the footway will be minimised to ensure safe pedestrian movement.

In view of the potential impacts faced by both traffic and pedestrians, temporary structures etc. will only be applied for in exceptional circumstances. Where they are permitted, the principal contractor will pay particular attention to the safety of pedestrians as well as ensuring that any revision to traffic cyclist or pedestrian flows are properly controlled by signs, lights, banksmen etc. as necessary.

18.1.3 Clearance of Off-Site Temporary Works

On completion of works in or on third party areas the Principal Contractor will clear away and remove from the highway all plant, surplus materials, rubbish and temporary works and structures.

The site will be left clean and in a condition to the satisfaction of the Council, TfL the Highways Authority and other third parties with an implicit interest to the area.

Any potentially hazardous defects to the highway will be made good, prior to permanent reinstatement by the Council. It is accepted that the provisions of S278 Highways Act 1980, which may require landowners to make financial contributions towards the carrying out of highway works, may also be applicable. This would require agreement of the process and the need for prior inspection to be agreed before works commence.

18.2 Construction Method Statement (outline scope of works)

18.2.1 Removal of subsurface structures

All existing substructure obstructions will be extracted to an appropriate depth and either removed from site or crushed on site and recycled as piling mat and infill for the voids created.

18.2.2 Piling and Levelling Mat

It is assumed that 6F2 will be required to create a level and safe site for both piling activities and general day to day vehicle manoeuvring and site operatives travel across site. It is generally considered that this will be brought to site to site from a third part holding or quarry area, however if it is possible to crush spoil from site demolitions, this will be used and would mitigate vehicle numbers potentially.

All basement piles will be installed from Ground level. It is envisaged that all internal piles (Structural & Tension) will be placed at Ground Level.

18.2.3 Basement Propping

Due to the depth of the basements it is envisaged that a propping system will be required to support the pilled walls through excavation.

18.2.4 Excavation

Excavation will be undertaken in the standard manner where a progressive excavation is undertaken to depth to account both for the basement slab and any piling mat requirements.

The muck will be lifted into muck away wagons and removed progressively from site.

Where possible a ramp will be constructed into the basements, however where this is not practicable, mobile lifting plant will be utilised remove the spoil to ground level.

18.2.5 Ground Stabilisation

There are several options for consideration to avoid localised ground disturbance and destabilisation which may be required in key areas.

The main options to ensure ground stabilisation are:

- Compensation grouting;
- Jet grouting;
- Permeation grouting and;
- Infill grouting.

The options will be explored throughout the development of the design and understanding of the potential impacts.

18.2.6 Superstructure

The superstructure is to be formed by the construction of a core rising to height in conjunction with a slip form system. The core will be constructed generally using pumped concrete. Re-bar will be brought in via crane situated potentially within a service void such as a lift core.

The floors will commence with three floors of separation for safety and be protected from falls and falling debris by scaffold solutions and/or fall arrest fans.

The floors will be cast on to suitable formwork supported by a tabletop support system throughout the sequence which will be removed on acceptable curing and stability of the slab. It is envisaged that the slab will be poured using pumped concrete, but this may depend on the accessibility of the location and in some areas the floors may be poured using concrete lifted to location in suitably sized concrete buckets.

Typical Concrete Bucket

Through the works all rebar will be protected with mushroom heads to minimise risk of injury.

Edge protection will be provided at all edges and working without edge protection will be undertaken on bespoke RAMS for each area to ensure safe working.

18.2.7 Building Envelope / Cladding

It is envisaged that a rain screen system will be used throughout the building with the possibility of some prefabrication. For installation of a rain screen it is envisaged that a full height scaffold will be required around each building suitably designed to allow access to form the walling.

The system to be considered will be a steel frame with various infill panelling levels. To ensure speed of construction, a 3-floor separation will be maintained from the rising core and floors, and resourcing will be scheduled to ensure smooth flow of materials and construction on site to meet the schedule.

Where prefabricated cladding is considered this will be sized appropriately with the crane to ensure safe lifting and a suitable size of panel selected to gain the optimum benefit from lifting and speed of installation. All prefabricated modules will be lifted by the main building crane except where there is reasonable and safe access for a mobile crane situated within the site constraints.

18.2.8 MEP

The Mechanical, Electrical and Plumbing kit and plant will be brought to site on a just in time basis. The MEP kit will be drawn to its location of use or lifted in to place from delivery to minimise double handling.

Generally, the first fix will commence when the soffits and other working areas become available but not necessarily with the building wind and watertight.

Generally, the second fix will be undertaken from completion of a suitable quantity of first fix brackets, voids and associated ducting, aligned with the building being made wind and watertight. It should be noted that the contractor may wish to use temporary measures to form wind and watertight areas.

Where prefabricated modules are to be used, this will be lifted in at a time most opportune in the construction phases to minimise risk, damage and delivery issues. This may mean that some prefabrication is lifted in prior to wind and water tightness of the building.

All roof plant will only be brought to site when suitable roof top protection is available, and plinths are ready to accept the plant to avoid storage on site or dangerous installation.

18.2.9 Testing & Commissioning

Testing and commissioning will commence with all required plant and machinery being tested in the factory by way of a Factory Acceptance Test (FAT). From there the “equipment” will be tested in isolation on installation, and then a build-up of system testing by loop or circuit. On completion of all circuits and loops and power on, the whole system will be tested in part and then in whole under full load to ensure that the systems comply with the building requirements.

Both red (building taken down with power intact) and black (building taken down with power taken off) tests will be performed throughout the final phase of testing and planned to ensure life safety systems are live and compliant.

18.3 Construction Programme

It has been estimated that the demolition and construction programme will have a duration of approximately 3.5-4 years including mobilisation and site set-up. It has been confirmed that there is an anticipated start on site of January 2024.

95	Construction works	180w 2d	24 Jan 24	17 Sep 27
96	Start on site		24 Jan 24 *	24 Jan 24
97	Site set up	13w	24 Jan 24	25 Apr 24
98	Demolition	55w 1d	21 Feb 24	02 Apr 25
99	Substructure	20w 4d	03 Apr 25	02 Sep 25
100	1 Museum Street	105w 1d	30 Jul 25	17 Sep 27
101	Vine Lane	75w	02 Jul 25	14 Jan 27
102	High Holburn	66w	02 Jul 25	29 Oct 26
103	West Central Street	141w 4d	21 Feb 24	12 Jan 27

Figure 16: Indicative Construction Programme

18.4 Number of Staff

The number of construction workers on-site at any one time will vary and correlate to the different phases of the development. The current assumption is that the site could reasonably manage up to 100 staff through the construction period, but that will fluctuate depending on phasing, operations and the nature of construction activities.

18.5 Plant and Equipment

The contractor will take all reasonable precautions to ensure that equipment is operated in a manner so as not to cause nuisance to surrounding residents and occupiers.

Permission will be obtained from the Highway Authority by the contractor before any plant, compressor, cement mixer, tar pot or other machinery can be stored or operated on the public highway.

The contractor will ensure all large plant delivery, such as tower cranes, will be planned in accordance with best practice and routes and timings agreed with the Council and TfL prior to transportation to site.

In the early stages of the project there will be a variety of vehicles and plant and equipment requiring access to the site. Some of the vehicles will be coming through the site on a regular turnover basis and some on a “one off” or infrequent basis.

Vehicle Type	Use	Distribution
Rigid Heavy Goods Vehicle	Material removal, imported fill and levelling mat.	Strategic road network to motorway
Small Articulated Vehicle	Plant, steel bar, bricks and propping equipment	Strategic road network to motorway
Specialized Articulated HGV	Tower crane erection & dismantle, Mechanical & electrical Plant, facade panels. Roofing materials	Strategic road network to motorway
Specialised Equipment Low loader	Occasional Delivery of Plant	Strategic road network to motorway
Vans	Plant service, materials, other Suppliers. Existing tenants' deliveries	Distributed to local and strategic network
Cars	Occasional deliveries, Couriers etc.	Distributed to local and strategic road network

Table 4 Typical Site Delivery Vehicles

The above table is not exhaustive but to assist in clarifying the key delivery vehicles.

Below is a table of presumed Plant required on site.

Plant	De-construction	Sub-structure / Temporary Works	Super-structure	Fit out
Excavators / with hydraulic cutting shears	√	√	Not included in stage	Not included in stage
Mini piling rigs		√	Not included in stage	Not included in stage
Excavators	√	√	Not included in stage	Not included in stage
Compressors	√	√	Not included in stage	Not included in stage
Muck away and skip lorries	√	√	√	√
Goods hoist	√	√	√	√
Tower crane	√	√	√	√
Mobile concrete pump		√	√	√
General waste skips	√	√	√	√
Power tools	√	√	√	√
Delivery vehicles	√	√	√	√
Forklifts	√	√	√	√

Scaffold access platforms	√	√	√	√
Mobile towers	√	√	√	√
Pallet Trucks	√	√	√	√

Table 5: Generalised Plant Requirements for the works

Table 5: Generalised Plant Requirements for the works is not exhaustive and will be developed with the contractor to ensure that the LA is full appraised at all times during the works.

19 Potential Impacts During Construction

A review has been undertaken of the potential source of adverse impacts, which can be associated with carrying out construction works. The range of impacts and proposed approaches to mitigation are presented in Table 6 below:

Issue	Potential Impacts	Mitigation
Noise	Increased road noise levels from vehicles. Increased noise levels from plant during excavation, and general de-construction works (e.g. from the use of air compressors and diamond cutters).	Defined working hours, baffles to certain plant, local acoustic screening. Vehicle routing. Beepers, radios etc. to be silenced. Engines turned off and all measures outlined in the considerate constructor's scheme.
Vibration	Increased vibration levels from vehicles. Increased vibration levels from plant during de-construction,	Defined working hours. Selection of appropriate plant and work procedures. Phased deliveries to minimize numbers of vehicles attending site, Vehicle routing. Engines to be switched off when vehicles are idle or on site
Dust / Air Quality	Windblown dust from ground surfaces, stockpiles, vehicles, work faces and cutting and grinding of materials. Exhaust emissions from lorries and plant delivering and removing materials including dust and particulates.	Cover all open backed vehicles; 'Water down' de-construction activities; Switch off vehicle engines when parked; Regular and controlled monitoring of air quality, including agreement; Implementation of trigger and action levels.
Waste	Waste generation and its disposal.	Instigate Site Waste Management Plan and re-cycling program. Minimise packaging to site; Engage predominantly with suppliers who utilize recyclable packaging; Ensure deliveries to site are required at the time of issue to minimise damage to stored goods.
Water	Increased sediment loadings to storm water system. Potentially contaminated storm-water runoff.	Do not allow direct discharge of water into sewerage collection system.

		Ensure site water is pumped into vessels for removal from site in a safe manner
Traffic	Traffic congestion caused by site traffic. Local traffic diversions will be required for tower crane erection and dismantle and mobile crane lifts. Increased vehicle movements mainly consisting of Heavy Goods Vehicles (HGVs). Nominal levels of transfer of mud and material from vehicles onto the public highway. Disruption from abnormal or hazardous loads. Exhaust emissions.	Phased deliveries to minimise numbers of vehicles attending site, switch off vehicle engines when parked, minimise abnormal loads. Vehicle routing.
Storage of fuels and construction materials	Accidental spills, discharges to drains/storm-water systems. Contamination to ground.	All fuel tanks etc. to be bunded, no discharge allowed into the sewerage collection system.
Pedestrian access	Restrictions on pedestrian access to walkways, footpaths and roads.	Erect protective gantries / Pedestrian tunnels over footways.
Hazardous and contaminated materials	Exposure of the workforce to deleterious / hazardous materials and contaminated land, mobilization of any source contaminants and creation of pathway from source to groundwater receptor.	Site investigation reports to indicate if any contaminated fill is present. COSHH assessments and careful implementation of associated working method statements to ensure that no hazardous materials find a path to groundwater source.
Ecology	Water / mud run off into the drains.	Do not allow direct discharge of water into sewerage collection system, utilize interceptors where necessary.
Energy usage	Indirect impacts associated with energy consumption such as CO2 emissions, depletion of natural resources, air pollution etc.	Site environmental plan to implement.
Views	Views impacted and/ or impeded from construction equipment, particularly cranes.	Tower crane to be positioned to have minimal impact upon adjacent views

Table 6: Typical Site mitigation measures considered

The below sections deal in increased detail to the table and will be reviewed and updated throughout design development, and with the contractor to ensure that the best mitigations can be in place prior to commencement on site to look to exceed the standards set by the Council.

19.1 Mitigation Measures

Industry accepted practical means of preventing, reducing and minimising noise generation will be adopted in agreement with the Council.

Appropriate procedures need to be followed in order to mitigate noise, vibration and air pollution (e.g. through dust and fume generation) impacts.

19.2 General Mitigations

No works will be undertaken outside the specified working hours; except in cases of emergency, where safety is an issue, or where conditions of dispensation apply

19.3 Plant Mitigations

The contractor will comply with the requirements of the COPA 1974, with reference to Part III of the Environmental Protection Act 1990, The Control of Noise at Work Regulations 2005 and the Health and Safety at Work Act 1974;

- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
- Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone and the London NRMM standards, where applicable;
- All plant and equipment to be used for the works will be properly maintained, silenced where appropriate to prevent excessive noise and switched off when not in use and where practical;
- Hydraulic machinery and plant will be used in preference to percussive techniques where practical;
- Plant will be certified to meet relevant current legislation and Noise and Vibration Control on Construction and Open Sites (BS 5228). All subcontractors will be made familiar with current noise legislation and the guidance in BS 5228 (Parts 1 and 2), and this CTMP which will form a pre-requisite of their appointment.

19.4 Noise Mitigation

- Noise levels will need to be controlled by the constant monitoring in line with Council guidelines and best practice;
- Agreed trigger action levels for noise will be agreed with the Council;
- Noisy planet will be maintained away from the site perimeter as far as is practical;
- Noise complaints, or exceeding of agreed levels will be reported to the contractor and immediately investigated;

- To avoid site contamination of surrounding areas, site runoff of water or mud should be avoided by use of both physical and mechanical measures including bunds and pumps;
- Loading and unloading of vehicles, dismantling of equipment such as scaffolding or moving equipment or materials around the site will be conducted in such a manner as to minimise noise generation

19.5 Dust (and other particulate) Mitigations

Dust management measures will be considered, such as:

- Dust levels being controlled by the constant monitoring of air quality levels;
- The positioning of monitoring equipment will be agreed with the Council prior to installation;
- All vehicles entering and leaving sites will be covered to prevent escape of materials during transport;
- Agreed trigger levels for Dust and other particulates will be agreed with the Council in advance of construction;
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible;
- The contractor will erect and maintain throughout the construction period temporary hoarding around all working areas to assist in the screening of noise and dust generation from low-level sources;
- Vehicles transporting materials capable of generating dust to and from site will be suitably sheeted on each journey to prevent the release of materials and particulate matter;
- All solid-state hoarding and site fencing and barriers will be maintained using controlled wet methods for cleansing and avoiding water runoff from the activity;
- Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period;
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site;
- Where materials are being re-used on-site, they should be covered and protected according to best practice in a manner agreed previously with the Council;
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- The contractor will avoid scabbling (roughening of concrete surfaces) if possible, to minimise dust

- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

20 Third Party Liaison

20.1 Public Information

The site hoarding will display up to date information on the construction schedule (as a minimum these will include start and estimated time periods such as "summer and year"). The signage will also display telephone contacts for within and out of hours usage for the developers nominated representative (s) and other key personnel for reporting of issues and incidents.

The contractor will also affix a sign board to hold all necessary certification, statutory notices, safety information and HSE details.

20.2 Community Liaison Group (CLG)

To assist in communication, and a more formal approach, the contractor's liaison officer (this is appointed on site and may be the Site Assistant Manager) will set up a Community Liaison Group (CLG) with a set agenda to work with the local community to be agreed (See Appendix B for further information).

20.3 Construction Forum

To assist in communication, and a more formal approach, the contractor's liaison officer will set up a Construction Forum Group (CFG) with a set agenda to work with the adjacent and regional construction sites that are affected or affect the Project works.

Key Items on the agenda will include:

- Environmental issues:
    - Dust;
    - Noise; and
    - Vibration.

Transport Logistics:

- Outsized deliveries;
- Crane deliveries;
- Cycle safety initiatives;
- Vehicle educational measures (including school visits);
- Vehicle delivery no's actual and envisaged; and
- Site worker transport preferences.

Security:

- Fire management / site evacuation policy;
- Fire escape areas; and
- High Cost items / security risks as appropriate.

20.4 Access by Neighbours to their Buildings

In line with good neighbour relations, the contractor will conduct full negotiations with the adjacent landlords and tenants to ensure that there is a shared philosophy to deliveries, pickups, and access. An agreed route for good communication with all parties will be agreed and be bespoke where necessary for individual needs.

21 Ecology

Prior to commencement of works, the contractor shall agree with the Council a strategy for tree protection immediately on site, adjacent and within the local area that may be affected by the works and require protection. This need for protection will be agreed on an identifiable risk to a tree from direct contractor activities, such as turning of vehicles, crane usage, local storage, and traffic related activities.

22 Bats

To minimise disruption to bats there will be no night-time working during demolition and construction.

A bat policy will be agreed with the contractor prior to commencement of construction (including demolition activities) in consultation with the Council's ecological officers.

To minimise visual disruption to the bats, Lighting of buildings will adhere to good practice guidance: Bat Conservation Trust and the Institution of Lighting Professionals, (2018); 'Bat Guidance Note 08/18 Bats and artificial lighting in the UK. Bats and the Built Environment series'.

A Bat Survey has been conducted (August 2020) within the area, and covered natural bat environments, local buildings and bat boxes. The survey did not record bats emerging from the parts of the buildings with 'Low' bat potential.

Where bat boxes are installed or there are bat access points to adjacent buildings or natural flora and fauna, the contractor will minimise light levels as far as is practicable to minimise the disturbance to the bats.

The key guidance for the protection of bats directs that:

- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used;
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability;
- A warm white spectrum (ideally <2700 Kelvin) should be adopted to reduce blue light component;
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats;
- The use of low-level downward directional luminaires to retain darkness above can be considered;
- Column heights should be carefully considered to minimise light spill;
- Only luminaires with an upward light ratio of 0% and with good optical control should be used;
- Luminaires should always be mounted on the horizontal, i.e. no upward tilt;
- Any external security lighting should be set on motion-sensors and short (1min) timers; and
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.

23 Unexploded Ordnance

The Client (through the design team) will undertake all necessary due diligence surveys to ensure that there are no unexploded bombs, shells and incendiary devices buried in sites.

The Client's nominated representative will ensure that all operatives are warned of this possibility on handover of the site, with issue of all survey information. Should any such item be uncovered during the works the contractor will ensure that there is a set procedure to take emergency evacuation of the site, which will be included within the site induction, and contact the Metropolitan Police immediately.

On contact with the Police the Principal Contractor will undertake all and action as directed by them make the site safe.

24 Archaeology

All architectural works are to be undertaken in alignment with the accompanying Archaeology Desktop Assessment which describes the likely significant effects of the proposed development on archaeology. It outlines the methodology, the baseline conditions and the likely significant archaeological effects associated with the construction, existence and operation of the proposed development. Mitigation measures which would be implemented to reduce the effects of the proposed development on archaeology are also described, where relevant.