COLT LONDP SUBSTATION 2
DEMOLITION & ENABLING WORKS

Demolition Management & Logistics Plan (DM&LP)

Unit 1 Heathrow Interchange Park
Bullsbrook Road
Hayes
UB4 OUJ

Macegreen Consulting Ltd
73 Watling Street
London EC4M 9BJ

Date: August 2024

1. Background Information

1.1 Overview of the Project

The London Data Park (LONDP) Substation 2 (SS2) building is proposed to stand within the existing building footprint of Unit 1 Heathrow Interchange Park, Bullsbrook Road, Hayes UB4 0UJ. The site is accessed from Bullsbrook Road, acting as the Northern boundary. To the West are industrial units (Units 3 and 4, also owned by the applicant – Colt) and to the South lies a third party unit, (Unit 2) which will remain in operation throughout the project. To the East of the site and rear of the building lies a private access road serving further industrial units. Further to the Southeast, Colt's LON4 Building is currently under construction. Further to the West of the site lies the Minet Country Park and to the East the Yeading Brook and canal.

This Demolition Management and Logistics Plan refers to the partial demolition of the existing Unit 1 building and subsequent enabling works, to facilitate the construction of the LONDP Substation 2.

Prior to the demolition, a Refurbishment and Demolition asbestos survey will need to be undertaken and Notification made to the HSE for any licensed removal required. A Section 80 Demolition Notification will need to be made to Hillingdon Borough Council (HBC) and Section 81 Notice received prior to the demolition. In order to understand any contamination across the site, a Geo-environmental desk study has been undertaken, with intrusive ground investigations to follow shortly. These will allow the Detailed Qualitative Risk Assessment to be undertaken, followed by the Remediation Strategy for agreement with the Regulators. The ground investigations will also be used for geo-technical assessment of the site and to inform the substructure design. Trial pits to the front and rear of the site will also be undertaken to confirm the existing foundation depth. Alongside the remediation, all existing below ground obstructions will be removed. A desktop utility report and Ground Penetrating Radar survey have been undertaken and any redundant utility services can also then be disconnected and removed or diverted where necessary.

1.2 Policy Context

1.2.1 National Policy

The Traffic Management Act (2004)

The act makes 'provision concerning the management of road networks; to make new provision for regulating the carrying out of works and other activities in the street'. It acknowledges that highways may be occupied due to construction activities and identifies appropriate changes levied for any extended occupation.

1.2.2 Regional Policy

The London Plan (2021)

The London Plan 2021 has a variety of policies designed to improve construction logistics, most notably Policy T7. This is outlined below:

B) Development Plans, Opportunity Area Planning Frameworks, Area Action Plans and other area-based plans should include freight strategies. These should seek to:

1. *reduce freight trips to, from and within these areas*
2. *coordinate the provision of infrastructure and facilities to manage freight at an area-wide level*
3. *reduce road danger, noise and emissions from freight, such as through the use of safer vehicles, sustainable last-mile schemes and the provision of rapid electric vehicle charging points for freight vehicles.*

C) To support carbon-free travel from 2050, the provision of hydrogen refuelling stations and rapid electric vehicle charging points at logistics and industrial locations is supported.

E) Consolidation and distribution sites at all scales should be designed to enable 24-hour operation to encourage and support out-of-peak deliveries.

I) At large Developments, facilities to enable micro-consolidation should be provided, with management arrangements set out in Delivery and Servicing Plans.

J) Development proposals must consider the use of rail/water for the transportation of material and adopt appropriate construction site design standards to that enable the use of safer, lower trucks with increased levels of direct vision on waste and landfill sites, tip sites, transfer stations and construction sites.

K) During the construction phase of development, inclusive and safe access for people walking or cycling should be prioritised and maintained at all times.

10.7.4

When planning freight movements, Development proposals should demonstrate through Construction Logistics Plans and Delivery and Servicing Plans that all reasonable endeavours have been taken towards the use of ***non-road vehicle modes****. Where rail and water freight facilities are available, Transport for London's freight tools should be used when developing the site's freight strategy.*

10.7.5

Delivery and Servicing Plans should demonstrate how the requirements of the site are met, including ***addressing missed deliveries****. Appropriate measures include a large letter or parcel boxes and concierges accepting deliveries. Car-free Developments should consider the facilitation of home deliveries in a way that does not compromise the benefits of creating low-car or car-free environments.*

10.7.6

Construction Logistics and Delivery and Servicing Plans *should be developed in line with TfL guidance and adopt the latest standards around safety and environmental performance of vehicles to ensure freight is safe, clean and efficient. To make the plans effective they should be monitored and managed throughout the construction and operational phases of the development.*

The plans should be monitored and managed throughout the construction and operational phases of the Development. TfL's freight tools including CLOCS (Construction Logistics and Community Safety), FORS (Fleet Operator Recognition Scheme) or equivalent should be utilised to plan for and monitor site conditions to enable the use of vehicles with improved levels of direct vision.

This should be demonstrated through a Site Assessment within a Construction Logistics Plan. Development proposals should demonstrate 'good' on-site ground conditions ratings or the mechanisms to reach this level enabling the use of vehicles with improved levels of driver direct vision. To support the procurement of these vehicles and to minimise road danger, the mayor has introduced his Direct Vision Standard, which rates Heavy Goods Vehicles on a star rating from 0 (lowest) to 5 (highest), based on how much the driver can see directly through the cab windows.

The Mayor's Transport Strategy (2018)

Freight and servicing are frequently mentioned throughout this document which contains a strategy considering all methods of freight delivery including road, rail, pipeline, water, bicycles, and air. The document especially highlights the importance of DSPs, CLPs and FORS to encourage improved efficiency and provide a framework for incentivisation and regulation.

In particular policies 3,6,9 and 16 and have impacts on construction activity and should be reviewed when undertaking a CLP.

TfL Freight and Servicing Action Plan (2019)

The mayor's key document for improving freight and servicing in the capital sets out a safer and cleaner vision for all freight trips. The vision for construction is set out in Actions one, two and nine which puts safety at the heart of this policy. These policies must be considered when undertaking a CLP.

Fleet Operator Recognition Scheme (FORS)

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

1.3 Project Location

Colt Data Centre Services
Unit 1 Heathrow Interchange Park
Bullsbrook Road
Hayes UB4 0UJ

The site location is outlined below in purple.

1.4 Local Access Including Highway, Public Transport, Cycling, Walking and Waterways

1.4.1. Highways, Carriageways and Footways

Colt's LONDP SS2 site is situated on Beaconsfield Road. Beaconsfield Road leads onto the site gates and presents some limitations to access. Beaconsfield Road intersects with Springfield Road to the western elevation. Beaconsfield Road is a two-way traffic single lane road and access to neighbouring properties will be maintained at all times.

1.4.2. Railway / Underground

The Nearest transport system to Colt LONDP SS2 is Hayes & Harlington Station. The site can also be serviced by Southall Station on the Great Western Railway or TfL Railway. This is envisaged as the main form of operative transport to the project.

1.4.3. Bus Routes

Nearby bus route 90, 140, E6, on Coldharbour Lane, Stop U alighting at Precinct Road. Routes 207 & 427 from Southall alighting at Stop I on Alexandra Avenue.

1.4.4. Cycling

The cycle route on the development is approximately 8-10 minutes from either Southall Railway station or 9 minutes from Hayes & Hillingdon Railway. The cycle awareness will be communicated to the contractors arriving and delivering to the project.

1.4.5 Waterways

Yeading Brook off the River Crane leading off the Thames tributary. The site lies a mile from the Bull's Bridge junction. Due to the size and nature of the re-Development utilising the waterways for the project does not lend itself well to a feasible solution as a form of material/waste transportation. However, the workforce will be notified of Thames waterway transport services, which may be used as means of operative transport.

1.5 Community Considerations

The Contractor will conduct 'Best Practicable Means' (BPM) and create a 'Scheme of Protective Works' for protecting neighbours. As part of this Scheme, the Contractor will liaise and consult with the neighbours to minimise the environmental impact of our works.

These have been fully considered below. Planned measures to mitigate any potential conflicts or challenges are discussed in Section 3.3.

1.5.1. Schools and Hospital

Guru Nanak Sikh Academy is a mixed Sikh all-through school and sixth form. It is located on Beaconsfield Road within the immediate vicinity that might be affected by the proposed works Unit 1. The nearest Emergency Services Division (ESD) or Accident & Emergency is located 4 miles away at Hillingdon Hospital, Pield Heath Rd, Uxbridge, UB8 3NN.

1.5.2. Public Relations

A Community Liaison Officer will be appointed to mitigate and resolve any issues and difficulties in the local community. A key aspect of the successful management of this project will be establishing and maintaining a good relationship with all the surrounding neighbours. This DM&LP has prepared a strategy for preventing potential issues, however, any difficulties encountered during construction will be reported / recorded in a full log and resolved through phone or in person follow ups and liaison committee meetings.

1.5.3 Good Neighbour Policy

The Contractor will subscribe to the "Considerate Contractors Scheme" and adhere to the guidelines set out by the scheme.

Community liaison will take place with residents to best accommodate their needs, confining disruptive works within the standard hours to short periods and avoiding particular times in their schedules wherever possible. It is not anticipated that significant amounts of dirt or dust will be spread onto the public highway. Adequate wheel washing facilities with robust dust suppression techniques will be adopted.

The Policy is to minimise any affect / impact to the local residents, businesses alike. The Contractor will endeavour to ensure that affected parties are fully informed in advance of known activities which may cause inconvenience.

Communication and liaison with these parties will be established prior to works commencing and will be ongoing throughout the project to ensure good relations are maintained. Contact details and information bulletins will be displayed on the site hoarding along with the adequate signage.

Particular emphasis will be placed upon maintaining the safe movement of the public and vehicles within Colt's LONDP SS2 site.

This project will review the Considerate Constructors' Scheme. A single point of contact will be established, and a liaison officer appointed. Before commencing on site, they will contact all adjacent establishments to introduce themselves and to establish a point of contact for future liaison. They will brief them on the nature of the project and highlight specific areas that may impact them and listen to their concerns and endeavour to understand their daily routines and activities to identify any areas of potential conflict.

They will arrange and chair regular liaison meetings with adjoining property representatives and will co-ordinate working activities to minimise or eliminate the inconvenience or disruption caused to the general public or neighbouring properties. Signs will be placed on the hoarding giving the names and contact numbers for relevant personnel.

Regular inspections of the access route and perimeter of the site will be conducted to ensure that obstructions are not created, and a clean, efficient presentation is maintained.

Newsletters will be produced at key stages of the works for distribution to neighbours. This will advise of forthcoming activities and status of the construction works.

A comments / complaints log will also be maintained on-site, and any comments received will be positively actioned as they arise.

1.6 Aims and Objectives of the DM&LP

This Demolition Management and Logistics Plan (DM&LP) provides a framework to ensure that environmental processes are in place to comply with relevant environmental legislation and to comply with the requirements of the Planning Decision Notice from Hillingdon Borough Council, particularly in relation to the mitigation of impacts of the development on the public highway and on the amenity of the surrounding area.

The Contractor's goal will be to ensure there are no environmental or safety incidents on the project.

1.7 DM&LP Review and Updating

The Demolition Management and Logistics Plan provides a framework to ensure that management processes are in place to comply with relevant legislation.

The Contractor will operate an Environmental Management System accredited to the ISO14001:2015 International Standard which covers all its activities within its construction sites and offices.

The document is “live” and will be updated periodically and as and when required, upon appointment of the contractor and throughout the works.

1.8 Project Programme

Start Date: **March 2025**

Completion Date: **September 2025**

1.9 Environmental Records

Details of the documents that need to be held onsite are listed below;

Environmental Records	Action By	File Ref
Pollution Prevention Plan	Project Team	
Environmental Permit / Waste Management Licence / Exemptions / Carrier Registrations (off-site)	Project / Site Manager	
Environmental Permit / Exemption Certificate (on-site)	Project / Site Manager	
Waste Transfer Notes	Project / Site Manager / Sub-Contractors	
Method statement and risk assessments	Project / Site Manager / Sub-Contractors	
COSHH Assessments	Project / Site Manager / Sub-Contractors	
Near Miss Reports	SHEQ Manager	
SHEQ / BSG Site Reports	Project / Site Manager	
Section 60 / 80 Notices	Project / Site Manager	
Section 61 / 81 Consents	Project / Site Manager	
Trade Effluent Consent	Project / Site Manager	
Controlled Water Discharge Permits	Project / Site Manager / Sub-Contractors	

1.10 Environmental Emergency Contacts

Emergency Contacts	Name	Contact No
Contract Manager	TBA	
SHEQ Manager	TBA	
Project Manager	TBA	
Environmental Specialists	TBA	
Environment Agency (Local Office)		0370 850 6506
Environment Agency Waters Pollution Hotline		0800 807 060
Local Water Company (Sewage Undertaker)	Thames Water	0800 316 9800
Lead Local Flood Authority (LLFA)	Hillingdon Borough Council	

1.11 Summary of Strategies to Reduce Impacts

The following planned measures have been identified to help the Contractor achieve the goals of the DM&LP and are discussed further in the following sections;

Higher impact Site Planned Measures Checklist	Committed	Proposed	Considered
Measures influencing construction vehicles and deliveries			
Safety and environmental standards and programmes	✓		
Adherence to designated routes	✓		
Delivery scheduling	✓		
Re-timing for out of peak deliveries		✓	
Re-timing for out of hours deliveries		✓	
Use of holding areas and vehicle call off areas		✓	
Use of logistics and consolidation centres		✓	
Vehicle choice – " ***proposals for utilising vehicles with greater payloads to reduce vehicle movements and improve safety, efficiency and environmental impact but only if those vehicles meet the highest environmental and safety standards."***			✓
Measures to encourage sustainable freight			
Freight by water*	n/a		
Freight by rail*	n/a		
Material procurement measures			
DfMA and offsite manufacture			✓
Re-use of material on site	✓		
Smart procurement	✓		
Other measures			
Collaboration with other sites in the area	✓		
Implement a staff travel plan		✓	

* If site, consolidation centre or holding areas are within 100m of foreshore of navigable waterway or rail freight siding.

2. Preliminary Surveys and Ground Investigations

2.1 Preliminary Ecological Assessment

An Ecological Appraisal was undertaken by Aspect Ecology in August 2024 and concluded that the site generally offers limited opportunities for protected species and no evidence of any such species was recorded during the survey work. However, appropriate mitigation measures, centred on the careful timing of works, will be implemented to safeguard nesting birds during relevant site clearance works.

Unit 1 was found to have negligible roosting opportunities for bats and no evidence of roosting bats was recorded e.g. droppings, staining, feeding remains, etc., during the inspection survey. Similarly, no specific records of Badger from within or adjacent to the site were returned from the data search. Information received from the LRC includes records of Badger within 2km of the site. The closest record returned was located 0.76km south-west of the site in 2019.

Mitigation measures will however be implemented as per the Aspect Ecology, Ecological Appraisal provided, such as sensitive lighting (limiting light spill in areas not required) and Construction Safeguards. See section 6 of Aspect Ecological Appraisal.

2.2 Phase 2 Geo-Environmental Investigations

ARUP produced a Ground contamination and geotechnical desk study and preliminary risk assessment (Reference: LONDPSS2-ARUP-SS-SS-XX-RP-S-00001) in July 2024 and concluded that the potential for significant contamination at the site is generally low. However, it was recommended that both geoenvironmental and geotechnical ground investigations are undertaken to characterise the ground conditions and to determine geotechnical design parameters. The ground investigation results will be used to inform a quantitative risk assessment and update of the conceptual site model. The risk assessment will inform requirement for further ground investigation and health, safety and environmental controls or remedial works which may be required before or during development. The risk assessment and remediation strategy will be submitted to and agreed with the Local Authority in advance of construction works commencing. A verification report is likely to be required by planning conditions.

2.3 Tree Survey, Arboricultural Impact Assessment, Arboricultural Method Statement & Tree Protection Plan

An Arboricultural Impact Assessment was carried out for the site by Aspect Arboriculture in August 2024 in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'.

Commented [JS1]: To be updated when report received from NWA

As part of the Arboricultural Impact Assessment a Tree Constraints Plan (12157 TCP 01), Tree Survey Schedule, Tree Protection Plan (12157 TPP 01) and Tree Survey Methodology (12157 TSM 01) has been prepared to inform future development proposals identifying the root protection areas and shadow patterns in accordance with BS 5837:2012 for those A to C Category trees. The tree survey also identified the constraints provided by tree species with particular characteristics that may affect any proposed development and schedules the ultimate predicted tree height and canopy spread.

It was concluded that none of the surveyed trees are protected by a Tree Preservation Order and the site is not within a Conservation Area.

3. Management of the Work

All demolition activities will be carried out in compliance with 'BS6187:2011 Code of Practice for demolition' and the code of practice issued by the NFDC (National Federation of Demolition Contractors) 'Guidance Notes'.

The Contractor will undertake all demolition with specialist demolition plant for deconstruction and excavators equipped with multi processors/rotating grabs/pulverisers and shears for traditional demolition. Sufficient size excavators i.e. compact plant, 40T and 20T demolition rigs equipped with on board dust suppression will be resourced to undertake the works. All equipment will comply with current European Legislation.

Methodology sequence and pre-start works will be identified on the programme and will be inclusive of:

- BREEAM Demolition Pre-Assessment
- UXO Desktop Study
- Set up site welfare
- Establish site traffic management plan
- Installation of monitoring points near sensitive receptors.
- Protection of surrounding buildings, services, footpaths
- Services Survey/CCTV drainage Survey/Independent Engineering Checks
- Service disconnections including de-gassing and purging
- Asbestos removal based on positively identified Asbestos Containing Materials ACM's
- Soft strip all areas of deleterious materials and remove arisings from site
- Mechanical Demolition of Structures using specialist demolition plant
- Remove slabs and foundations
- Process and remove arisings from site via appropriate waste stream
- Remediation of the site as per the Remediation Strategy
- Based on scope - Backfill site, fencing installation, builders work, reinstatement and making good where required.

3.1 Pollution Prevention

Construction activities can present a risk to the environment within the site location and also outside the site boundaries. The site and its activities will only cause a risk to the environment or people if all parts of the pollutant linkage are present i.e. a source, a pathway and a receptor.

Potential Sources

- Spillage of oils or liquids
- Run off from exposed ground /stockpiles.
- Disposal of water from excavations.
- Residue from concrete, cement and grout.
- General Construction Waste.
- Dust
- Noise
- Vibration
- Vandalism
- Plant / vehicle emissions

Potential Pathways

- Surface water drains into a watercourse
- Surface water into watercourse
- Through soil into groundwater
- Through the air

Potential Receptors

- Ground water
- Floating Harbour
- People
- Air
- Local Ecology
- Adjacent Structures

3.2 Roles

There are a number of roles that would be involved in the construction activities on site, all of which would be responsible for compliance with the DM&LP where it is applicable to their area of the construction process.

The project is run on site by the Project Manager who is empowered to control all facets of the work. They will be supported on site by a site manager(s).

Their roles are crucial in ensuring that safe environmental working practices are followed and that any examples of unsafe practice are halted immediately, recorded and rectification measures put in place before recommencing.

The Contract Manager has a pivotal role in ensuring that fully qualified and resourced subcontractors are employed to deliver the various packages that make up the project, who will also comply with the requirements of the DM&LP.

Responsibilities of the (office based) Contracts Manager;

- Ensure adequate resources are applied to the project;
- Ensure that all identified environmental hazards have been fully considered;
- Ensure that all Contractors are competent and qualified for the planned work;
- Ensure that management control is maintained for all Contractors and that the work on site follows a sequential programme;
- Ensure that all Contractors plan their work with full consideration of the identified environmental hazards where applicable
- Ensure that full investigations are undertaken into the causes of all environmental incidents
- Ensure that all purchased hazardous material for the project is accompanied with material safety data sheets and a competent person undertakes the COSHH risk assessments; and
- Provide adequate support to the Project / Site Manager and the resources to undertake their roles properly.
- Ensure a Pollution Prevention Plan is in place prior to works commencing on site.
- Carry out monthly audit/reviews of the environmental management plan and pollution prevention plan.

Responsibilities of the Project / Site Manager;

- Ensuring the requirements of the DM&LP are fully implemented across the project.
- Ensuring that contractors are aware (through pre-let meetings and inductions) of the key environmental constraints within and adjacent to the project.
- Ensuring compliance with the CDM Regulations 2015.
- Day to day management of the project.
- Preparation of safety, health and environmental risk assessments for the construction works prior to commencement of construction activities.
- Ensuring sub-contractors risk assessments are relevant to the works and cover environmental issues as well as safety issues. Reviewing and approving these risk assessments.
- Ensuring control measures detailed within the DM&LP are in place prior to construction activities commencing on site.
- Liaising and obtaining all relevant consents, licenses, authorisations and permits required for any construction activities on site e.g. consents to discharge.
- Ensuring that all sub-contractor operatives on site receive a site-specific induction that covers all environmental aspects on the project.
- Ensure that the Pollution Prevention Plan is adhered to during construction activities.
- Undertake daily briefings and ensure through daily setting to work of the whole workforce that the controls required to adhere to the environmental management plan & pollution plan are reviewed daily.
- Undertake daily monitoring of the site controls.

Responsibilities of the Safety, Health and Environmental (SHE) Advisor;

- Ensuring that all incidents are thoroughly investigated and reported to the relevant persons / statutory bodies.
- Ensuring that the DM&LP is reviewed on a regular basis through Site Safety Inspections (SSI) carried out randomly across a four-week period.
- Undertake advisory visits on site to carry out a look ahead at the activities planned in the next period and to discuss review controls required.
- Provide training to workforce on environmental and safety strategies and procedures.
- Ensuring that emergency procedures are in place on the project for safety and environmental incidents and that regular drills are undertaken so that in the event of an incident the procedure is familiar to the workforce and team.
- Assisting the Environmental Manager with audits, reviews and any training.
- Ensuring that all sub-contractors have been approved through the pre-qualification process prior to commencing on site.
- Ensuring sharing of lessons learnt are disseminated to the whole work force.

Responsibilities of all other Project Team members and Sub Contractors;

- Understand and implement procedures relevant to the project and their role / activities.
- Conduct their work with a view to reducing the environmental impact of their works where possible and to raise any environmental concerns to the Project / Site Manager.
- Report all environmental incidents immediately to the Project / Site Manager.
- Ensure that all identified environmental hazards have been fully considered;
- Ensure that all Contractors are competent and qualified for the planned work;
- Undertake Toolbox Talks to keep the workforce informed.
- Undertake Point of Work Risk Assessments (POWRA) and “setting to work” briefings to ensure that just before commencing works the operatives are reminded of the environmental controls required.
- Undertake “drills” for emergency procedures such as spill kit use, wastewater controls and concrete washout procedures.

3.3 General Working Arrangements & Phasing of the Works

3.3.1 Hours

Construction work will take place between 08.00hrs to 18.00hrs Monday to Friday and 08.00hrs to 13.00hrs on Saturdays (when required). Any work outside of these hours will be for emergencies only, where there is a significant health and safety or environmental risk or incident. Should this occur, the Council’s Environmental Health team will be notified as soon as practicable.

School time restrictions will be implemented, not allowing deliveries between peak hours of 08:30-09:15 and 14:50 -15:30.

Otherwise works will not take place outside these hours unless required to meet specific demands of the programme or contract and approved in advance by the LPA.

3.3.2 Noise, Dust, Vibration & Light

No works audible at the site boundary are permitted before or after the above noted site hours. All noise levels must adhere to those stipulated within the Section 61 Agreement and therefore methods to minimise the impact on both site personnel and the general public will be used. Where this is not possible Construction controls will be employed utilising such control measures as baffles and ‘noise screens. Every effort will be made to reduce the noise at source. Only if all methods have failed to reduce the noise to an acceptable level (i.e.,85 dB(A) average over an 8-hour working shift).

Ear defenders should be regarded as the last line of defence and should be suitable for the job and for the person who has to wear them. The Subcontractor is to erect appropriate signage as required to inform interfacing Subcontractors of any noisy zones of the site.

The appointed contractor will dampen down before sweeping the roads and footpaths on the local highway network as required on a daily basis in so far as is reasonably necessary to remove any spoil or debris deposited on the highway resulting from the construction period. Visiting road sweepers may be deployed at regular intervals or as determined by the project. Deposits will be removed from the pavement and highway that may constitute a safety hazard. This would be done manually or through the use of mechanical sweepers if necessary.

Waste will be stored in enclosed skips and containers. Any fine materials will be stored within container units. Site management inspections will include the monitoring of all internal and external pavements and public highways surrounding the site.

Noise, Dust and Vibration monitoring points will be installed around sensitive areas of the site, such as adjacent to the Yeading Brook, local schools, football club and industrial estate. The monitoring stations will always be logged remotely and monitored. Where the levels of noise, dust or vibration begin to increase, works will cease and another method will be utilised to carry out that element of work.

During demolition plant will have on board dust suppression to reduce the levels of dust. All works and monitoring equipment will comply with BS5228 – Parts 1 & 2:2009 “Code of Practice for Noise, Dust and Vibration Control on Construction and Open Sites”.

Road plates and navvi mats will be utilised throughout all site activities where heavy plant and haulage is crossing. This will protect any retained ground or services that may still be live.

Various underground pits and tans have been highlighted in the CPHSP, these will be marked up on site and an exclusion zone established around them until they have been removed and backfilled.

Trade contractors are to ensure that their activities do not produce any excessive amounts of noise, dust or smoke. To monitor and control noise Class 2 rated devices that are be able to measure LAeq,t (Monitoring average noise) level over a period of time. The sound level meter will also be able to measure the highest level and this will be recorded as the Lmax or Maximum Hold. These will integrate logging sound level meters as are usually required by Local Authorities. Ensure that calibration is up to date and verified before, during and after all noise monitoring assignments.

Vehicle movements from the loading and unloading of replacement waste skips and containers and servicing of the project will be infrequent but may also cause the generation of noise and dust.

Artificial lighting will be required on the site for safe working and security purposes and the impacts of this on surrounding areas will be minimised and demonstrated by lux contour plans.

3.3.3 Site Set-Up (Activity 1)

Hoardings and Security

Site security is extremely important, and it is imperative that the site is secure at all times. This will be achieved by the erection of a fully sheeted, plywood hoarding where necessary on Colt LONDP SS2, together with a dedicated access point. All personnel to arrive at the site entrance off Bullsbrook Road. A single entry and exit point for all personnel will be established and swipe card passes will only be issued after the recipient has been through a site induction process, during which the fundamental safety aspects of the project are communicated.

Pedestrian footpaths surrounding the site will remain open at all times with appropriate signage clearly visible. At the end of each working day the site will be given a final patrol and then secured.

A twenty-four-hour manned security regime is not thought necessary through the demolition and enabling works.

Accommodation

The site office and welfare accommodation will be established within the site parameters.

3.3.4 Service Diversions & Protection (Activity 2)

The first task to be undertaken will be a non-intrusive sub-surface utility survey. Radio frequency locators and ground penetrating radar will be utilised to accurately confirm the location and depth of all services that have been identified on the relevant service drawings. The survey will also help identify any potential unknown services not captured. The position of all services will be clearly marked up on site so the site team aware of their location throughout the works.

To remove any meters on site the relevant supplier will be contacted, the owner of the meter can be identified through the serial number on the meter. If there are delays with a supplier collecting the meter then a specialist contractor can be appointed to remove the meters to avoid delays to the programme. The meters will then clearly labelled and stored in a safe location until they are collected by the supplier. If trial holes or disconnection points are required, then the following control measures are to be adopted to identify/expose the relevant services:

- Permit to dig to be issued by the site manager, this will be issued following the completion of a CAT scan and having referred to the nonintrusive survey and relevant service drawings.
- SSOW are to be issued to the relevant service provider and permission to proceed to be obtained before proceeding with the works.
- Suction/vacuum excavation to be used where practical to expose services, this is the process of removing soil around a service by the use of suction power, significantly removing the risk of damaging a service.
- All excavators to comply with the control measures detailed in HSG47 – Avoiding Danger From Underground Services.
- Insulated hand tools and appropriate PPE including fireproof overalls to be worn when hand digging around live services.

Any live services that are to remain during the demolition works will be clearly demarcated on site and will be barriered off to prevent unauthorised access. Where live services are retained or remain during demolition works, a designed protection solution will be utilised to ensure they are not damaged. The location of live services will also form part of the site managers induction and daily briefings. Control measures for working around live services will also be included in all risk assessments and method statements produced for the works.

3.3.5 Asbestos Removal (Activity 3)

The Refurbishment & Demolition survey will be reviewed and highlighted by the Site Manager and Project Manager to identify the location of the notifiable and other asbestos containing materials, combined with a site walkover to highlight (spray) those areas on site. This will identify any areas that may have been missed or excluded which will require further surveying.

A licensed contractor in line with their plan of work will remove the asbestos materials under their ASB5 and NNLW notices. Following preparation of a fully compliant plan of work and submission of a 14-day notification to the Health & Safety Executive, areas would be set-up as a full enclosure complete with controlled entry point(s), negative pressure unit and viewing panels / CCTV system. Following application of a dust suppression agent, the asbestos will be removed and transferred into the double waste sack system. Waste will then be transferred down to the lockable and labelled asbestos waste container located to the external of the buildings. The area will be cleaned with Type 'H' approved vacuum cleaning equipment and following inspection by the Site Supervisor, offered to the UKAS accredited analyst for a four-stage clearance.

All asbestos will be removed and placed in a locked container on site for off-site disposal to a permitted landfill site. Copies of the Waste Consignment Notes shall be issued to the client on completion of the works.

3.3.6 Soft Strip / Mechanical & Electrical Removal (Activity 4)

Soft Strip will commence working sequentially through each section of the building. The Contractor aim to achieve at least 95% recycling throughout our works, which will be carried out at source. Soft Strip includes pre-strip of all fit out and loose furniture, removal of all non-structural elements of the building including fittings and finishes. Mechanical and Electrical services (M&E) will be stripped out of the building as well as air movers/plant/electric cables/pipework and segregated for recycling objectives and removed from site to a licensed facility.

The building will be soft stripped in phases to suit the progression of asbestos removal. All operatives will be asbestos awareness trained and soft strip works will be co-ordinated closely with the asbestos removal works. All soft strip materials will be segregated and placed into the relevant skips located within the fenced enclosure. Skips will be refreshed between the hours of 8:00am – 17:30pm. Soft strip arisings will be loaded by skidsteers/rubber tyred excavator into 30yrd roll on roll off bins, the bins will be removed off site to a licenced recycling centre.

3.3.7 Demolition (inc. Plant & Equipment) (Activity 5)

Due to the size of the structure, the building is to be demolished with a high reach excavator. The high reach and its equipment is to be erected on a prepared area of level ground which has been checked for suitability for high reach plant loading (Temporary Works). The high reach arm will be fitted and commissioned by qualified plant engineers. The machine will be positioned within safe working parameters which are established by risk assessment, which has also considered the allowance for a drop zone into which the demolition arisings will fall. These arisings will be cleared progressively by a 360º excavator. Once the machine is in position the operator and banksmen will check the two-way radios. When completed the operator will ensure that the on-board dust suppression equipment is functioning properly. Dust suppression will also be applied by a dust bosse and fire hose.

The exclusion zone around the works will be delineated by means of a physical barrier Heras fencing with suitable signage. Only certified operators will use the demolition plant. The machines will be parked safety when not working with security screens fitted to prevent unauthorised use.

3.3.8 Ground Remediation (Activity 6)

Following demolition of the existing buildings, the site will be remediated in accordance with the agreed Remediation Strategy. Following remediation of the site, the construction of LONDP Substation 2 can commence.

3.3.9 Crane Management Plan

Note, use of a mobile or tower crane will not be required for the Demolition and Enabling Works.

3.4 Health and Safety

A Construction Phase Health and Safety Plan will be fully developed prior to commencing works on the project detailing fully how the project will be managed. This will be supported by a Traffic Management Plan, Risk Assessments, Method Statements and Emergency Procedures.

The Project / Site Manager will manage these arrangements during the Construction Phase on a day-to-day basis. The requirements of the Safety Health Environmental Management System (SHEMS) will also be strictly adhered to and monitored throughout the project.

A site-specific General Risk Assessment will be developed detailing known hazards and the controls required. This along with copies of the designer's risk assessments will be sent to all subcontractors so that they can develop fully informed risk assessments and safe systems of work.

All subcontractors will attend a pre-start health and safety meeting, typically held two weeks in advance of their commencement on site. A full review of the safety requirements of the site together with an initial review of the subcontractor's Risk Assessments and Safe Systems of Work will be undertaken at this meeting.

All visitors and workforce will receive a site induction where the site rules will be clearly explained. A check on the work force competency is undertaken, all workers will need to hold a current and relevant CSCS card.

The site will be bounded by a 2.4m high hoarding to public areas and 2.4 m high heras fencing to secure areas. The site will undertake a final close-down review at the end of shift to ensure all boundaries are secure, all access to height also being secure and all loose materials and tools are secured. Any plant left on site will also be left secured.

The site will be monitored by the site team on a daily basis, subcontractor supervisors will also undertake recorded monitoring of the site & their work areas. The safety team will undertake a full safety audit at least once a month and an advisory visit to look ahead at the upcoming works again at least once a month. Visible Leadership Tours will also be undertaken by members of the Senior Management Team involving a safety review with the team.

3.5 Environmental Site Management Practices

The following section outlines the measures that will be implemented during the site construction operations with the aim of ensuring ecological and environmental protection.

The Environmental Hazards associated with this project are:

- Ecology
- Material management (including waste management)
- Oil, Fuel and Liquid Storage
- COSHH Management

- Nuisance (working hours, traffic movement, site parking, dust, noise, vibration and community)

- Water pollution prevention measures – wastewater management from excavations, concrete wash out and surface water management. Particular care will be taken to prevent contaminated water discharging into nearby water courses.

3.6 Storage of Oils and Fuels

The storage of oils and fuels will be kept to a minimum on site with sufficient fuel for the operations being undertaken on site being stored on a daily basis.

- Fuel for plant will be stored in a lockable bunded bowser and all refuelling operations will be undertaken with a spill kit and plant nappy.

- All oils and fuels must be supplied with a COSHH assessment detailing the precautions for use, storage and spillage controls.

- All oils and fuels must be stored in a bunded area with 110% capacity of the stored contents. Where practical contractors are to remove oils and fuels from site at the end of each day. This storage area is to be located away from any surface water drains.

- Details of OHES' contact details are available to ensure that contact is made after a significant incident.

- Spill Kit drills and Spillage incident drills will be undertaken at regular intervals to ensure familiarity with emergency procedures.

3.7 Concrete Operations

In-situ concrete operations will be managed under the control of a site-specific risk assessment provided by the sub-contractor detailing control measures to protect the environment. These will include but not be limited to;

- Preventing any waste materials entering drains in the vicinity of the concrete pours by protecting the drains where applicable.

- Where necessary concrete washout will be undertaken into a proprietary washout tank and cleansing process such as silt buster where all wastewater will be tested for Ph levels prior to discharge into the foul drainage system. This process applies to all concrete works (concrete trucks, skips etc) and mortar mixing stations.

3.8 Materials and Waste Management

The selection of less hazardous materials will be investigated on site, where this is not possible then all hazardous substances can only be used on site if supported by the relevant COSHH risk assessment.

All materials deemed hazardous under the COSHH regulations must only be used on site under the control of a COSHH assessment (provided by the contractor using it with their risk assessments and method statements).

Contractors must provide details of hazardous substances, along with the associated COSHH assessment and supporting Material Safety Data sheet, prior to commencing works and for review by Site Management.

The following materials management measures will be employed:

- All hazardous materials will be kept within a locked storage area, and access to these materials will be restricted to those who have viewed the COSHH assessment for the

particular material. A full inventory of the COSHH materials being stored will be available.

- Other materials are to be stored in designated storage areas as agreed with the Site Management
- Materials are to be stored correctly so as to prevent damage and subsequent waste.
- The encouragement of "just in time" deliveries to the point of use to minimise waste through damage whilst stored on site.
- The following processes will be complied with to ensure compliance and best practice:
    - CGMS P310 Waste management duty of care
    - CGMS P311 Waste and WAC testing flowchart
- The contractor will hold a waste carriers' registration to enable movement of waste and materials and an Environmental Permit. The Contractor's Environmental Permits may include an urban quarry for processing and treatment of materials including treatment of hydrocarbon contaminated demolition arisings but due to site location external licensed facilities may be used.
- The intention is to recycle 95% (by weight) of the buildings on a demolition project. Where possible they will be soft stripped back to the shell, ensuring that the brick and concrete hard-core isn't contaminated with deleterious materials. If the Contractor can't adequately strip a building pre-demolition, labourers will pick the material when it is on the floor. Soft strip works are organised into various phases that enable us to segregate:
    - Timber
    - Plasterboard
    - Plastic
    - Ferrous
    - Non-ferrous metals
- There will be a section of the site used as a quarantine area where suspect materials will be stored in. The hazardous materials will be stockpiled in discreet locations for subsequent disposal to a suitably licensed facility. Materials will be loaded mechanically as much as is practicably possible. The site will be left secure, free of trip hazards and leading edges on completion.
- Note: Prior to commencing any excavation works, a permit to excavate will be issued by the Site Manager. This permit will only be written once a full CAT and Genny scan has been completed and all existing service drawings have been scrutinised. If any operative uncovers a service during excavation works, they will stop current activities and inform the Site Manager.

Following the completion of the super structure demolition, the sub-structure is to be removed. This will be carried out across the entire footprint of the structure. Two demolition excavators utilising breaker and bucket attachments will undertake these works.

One operator will proceed to break up the existing ground slab. The second excavator fitted with the bucket attachment will follow behind, lifting the broken sections from their position, and grade back the loose debris to one side enabling the excavator to load into awaiting 8-wheeled tippers to off load from site. This process of one machine breaking and the other processing will

be repeated until the entire slab has been removed. This will expose the made ground below the structure, enabling removal of the foundations, drainage and service runs to commence. To remove the foundations, drainage and service runs, the same two machines will be utilised once again.

With the first machine excavating the made ground exposing the foundations and decommissioned underground service, the second excavator will then proceed to break out the now exposed sections of foundations. The operator of the machine exposing will always stay approximately 10m ahead. The two machines will work through the structure, until all foundations, drainage and service runs have been broken out and stockpiled. All excavations will be inspected periodically, ensuring the operators all grade outwards to prevent collapse.

3.9 Contaminated Land & Waste

Due to the historic uses of the site it is likely that contamination will be encountered during the construction works. The geo-environmental ground investigations will identify the locality and levels of any contaminations, which will be assessed via a Detailed Qualitative Risk Assessment. This will allow the Remediation Strategy to be written and agreed with the Environment Agency. Any asbestos identified by the Refurbishment and Demolition survey will be removed prior to the works by a licensed contractor and disposed of accordingly.

3.10 General Waste Management

A Site Waste Management plan will be developed prior to commencing works on site to identify where waste minimisation can be achieved.

Segregated skips will be used on site and a Licenced Waste Contractor will remove the waste for recycling off site and provide a detailed breakdown of what has been recycled and what has been sent to landfill. The Contractor will aim to recycle 95% of waste generated.

Any hazardous waste generated from the works will be removed by a specialist waste contractor.

3.11 Ecological Mitigation and Enhancement Strategy

Where it is not possible to schedule demolition/vegetation removal during the period September to February, in order to ensure that offences relating to nesting birds are not committed, a check to confirm the absence of nesting birds will be carried out by a suitably experienced ecologist no more than 48 hours prior to the removal of any vegetation or demolition of buildings. This check will identify individual nests and life stages of the occupants (eggs, chicks, fledglings). Any active nests found will be appropriately protected until eggs have hatched and young fledged. Until the young have fledged, the nest will be subjected to regular monitoring to ensure that a second brood is not raised once the first brood has fledged.

3.12 Highways and Transportation

Vehicles will exit the site through the main vehicle access gates onto Bullsbrook Road, under the control of a qualified traffic marshal. Vehicles will be turned on site and in the rare circumstance where this is not possible, they will be reversed by a qualified banksman onto the highway.

Clear signage will be displayed on the site hoarding to direct construction traffic appropriately.

Other than Main Contractor staff, there is no on-site parking and operatives and visitors will be encouraged to walk, cycle or take public transport to the site.

All deliveries need to be planned and booked in with the site management team and any delivery arriving without notice will be turned away. All deliveries will be signed and escorted on to site by a qualified banksman.

All construction plant, equipment and vehicles will be parked on site with all road using vehicles staying on the hardstanding receiving a final check from the vehicle marshals prior to leaving site. Road sweeping / wheel washing will be used if required and during times of wet weather with plant leaving site, road sweepers will be employed.

Construction delivery vehicles and plant are not to be left idling with engines on where possible to reduce emissions.

The diagram below shows the vehicle routes to and from the site;

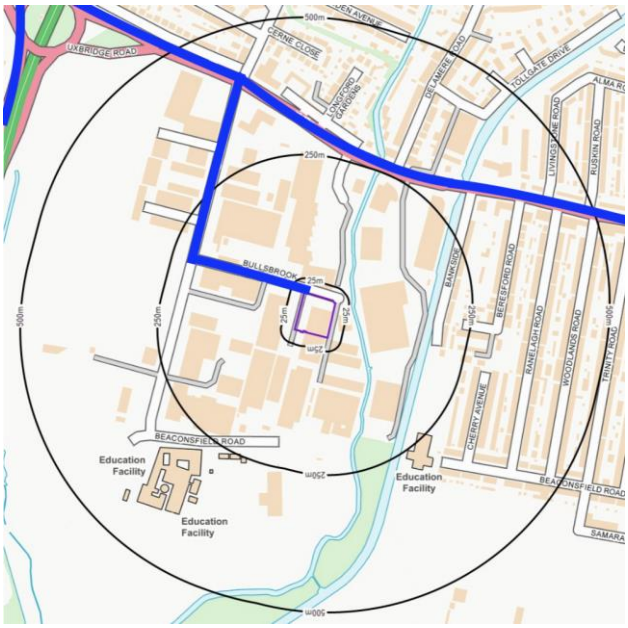

Figure 1: Site Vehicle Access Route (Blue)

The Contractor will undertake all demolition with specialist demolition plant for deconstruction and excavators equipped with multi processors/rotating grabs/pulverisers and shears for traditional demolition. Sufficient size excavators i.e. compact plant, 40T and 20T demolition rigs equipped with on board dust suppression will be resourced to undertake the works. All equipment will comply with current European Legislation. Demolition and remediation material being taken off site will be loaded into 8 wheel tipper lorries at a frequency of up to 3 per hour at peak operations. For the enabling works deliveries will also be made via 3-5t vans and trucks and various lorries with flat bed trailers for delivery of larger materials such as sheet piles.

3.13 Vehicular / Pedestrian Segregation

Regulation 27 of the Construction (Design and Management) Regulations 2015 Regulations requires that traffic routes must be suitable for the persons or vehicles using them, sufficient in number, in suitable positions and of sufficient size. Pedestrians or vehicles may use it without causing danger to the health or safety of persons near it. Any door or gate for pedestrians which leads onto a traffic route is sufficiently separated from that traffic route to enable pedestrians to see any approaching vehicle or plant from a place of safety; there is sufficient separation between vehicles and pedestrians to ensure safety or, where this is not reasonably practicable.

It is recommended that pedestrians and vehicles should not, wherever practicable, share access/egress points or circulation routes. Therefore, wherever vehicles and

pedestrians/cyclists are required to utilise adjacent access into the Unit 1 works area, the vehicular and pedestrian routes will be isolated from site Pedestrians by the use of designated pedestrian routes.

This arrangement satisfies the requirements but will be reviewed as the project proceeds to ensure that any construction activity does not present any additional risks. Should any additional risk be subsequently identified then appropriate action will be taken to eliminate or minimize such risk.

The following measures will be introduced to make both pedestrians and vehicles aware of each other around the site.

- Traffic Marshals to ensure safe access/egress from Unit 1.
- All Traffic Marshals are to have appropriate training and will wear orange hi-visibility vests / jackets, trousers, and helmets. (Vest and jackets require full length sleeves).
- A strict, No parking or mounting of adjacent kerbs will be adopted for the purpose of waiting, loading, or offloading of materials/equipment/plant.
- Signage to warn pedestrians on the public areas of site entrances and fire exits to the public realm. External signage and directional notices will be in agreement with LBH highway dept.
- No uncontrolled pedestrian traffic to be allowed through site areas.

Neighbours

The area around the site has several potentially highly populated public interfaces which attract many pedestrians to the area on event days. These include:

- Heathrow Interchange Units 2, 3 and 4
- Hayes & Yeading United FC
- West London Film Studios
- Guru Nanak Sikh Academy Gurdwara
- Goals Hayes
- Minet Country Park

All of these combine to raise the risk profile of the site in relation to vulnerable road users. To reduce work related road risk (WRRR) the following principles are to be adopted:

- The site will adhere to and ensure CLOC's compliance
- Cycle safety mitigation plans.
- Traffic Routing
- All delivery arrangements will be given time slots to reduce the risk of congestion and potential collisions in the vicinity of the site.
- Fleet operators shall inform drivers of site access/egress constraints to ensure they are aware of the specified route, the circumstances (if any) of deviating from the route and the resulting consequences of not adhering to the route.
- Cycle Awareness / Training. All employees that cycle to work are encouraged to undertake a cycle awareness training.
- Fleet operators shall ensure that all drivers undergo approved progressive training and continued professional development specifically covering the safety of vulnerable road users.

- Vehicles. All supplier and subcontractor vehicles above 3.5 tonnes delivering to the Unit 1 demolition works area must achieve equal or equivalent to FORS Silver Standard. Any vehicle that does not meet this standard will be turned away from the projects. Vehicles should clearly display the FORS Silver badge at arrival to the site entrance.
- In addition, all vehicles over 3.5 tonnes must be fitted with audible warnings to indicate that the vehicle is turning left or reversing.

Vehicle drivers must stay with their vehicles at all times. Signage showing site rules for drivers will be posted and verbally advised to the driver by the banks person/security prior to them entering site.

Where reversing of vehicles is unavoidable for vehicles accessing or leaving site, such manoeuvres will be kept to a minimum and consideration given to, amongst others, the space required for completing such manoeuvres, the exclusion of personnel from the area and the supervision, direction and control afforded to the manoeuvre. All reversing is to be supervised by a suitably trained and competent banks person, supplied by the appropriate sub-contractor, with hi visibility clothing denoting their role as a banksman on site.

4. Considerate Constructors Scheme

The Considerate Constructors Scheme (CCS) is a national initiative, set up by the construction industry, to improve its image. The site will be independently monitored to assess performance against the five-point Code of Considerate Practice which includes the categories Appearance, Community, Environment, Safety and Workforce.

This project will be registered with the Considerate Constructors Scheme and will target minimum score 41 out of 50 which equates to a very good site.

In line with the CCS all delivery lorries will be monitored for CLOCS (Construction Logistics and Community Safety). CLOCS brings construction and logistics together to help manage the work-related road risk (WRRR) and helps ensure a road safety culture is embedded in the industry.

5. Other Measures

- Collaboration amongst other sites in the area
- The Contractor will consult with the LBH, TfL, and another contractor/supply chain in the area to minimise disruption and undertake joint trip generation analysis. Should an adjacent construction site arise, the appointed Contractor will pursue the possibility of collaborating on holding areas and shared services when their works schedule is known.
- Implement a staff travel plan
- There will be limited on-site parking provided for construction worker's vehicles. On street parking will be discouraged. As there are good transport options available, travel by public transport will be strongly encouraged, along with car sharing by each subcontractor.
- The number of staff on site for the demolition and enabling works won't exceed circa 30 operatives and so along with public transport and car sharing, any off-site parking will be low. There will be a commitment required from the Contractor via their contract that no parking will be allowed on Bullsbrook Road for their operatives.
- AGREEMENT
- The agreed contents of this DM&LP must be complied with unless otherwise agreed in writing by the Council. This may require the Plan to be revised by the Contractor and reapproved by the Council. The project manager shall work with the Council to review

this Plan if problems arise in relation to the construction of the development. Any future revised plan must be approved by the Council in writing and complied with thereafter.

- It should be noted that any agreed DM&LP does not prejudice further agreements that may be required such as road closures or hoarding licences.