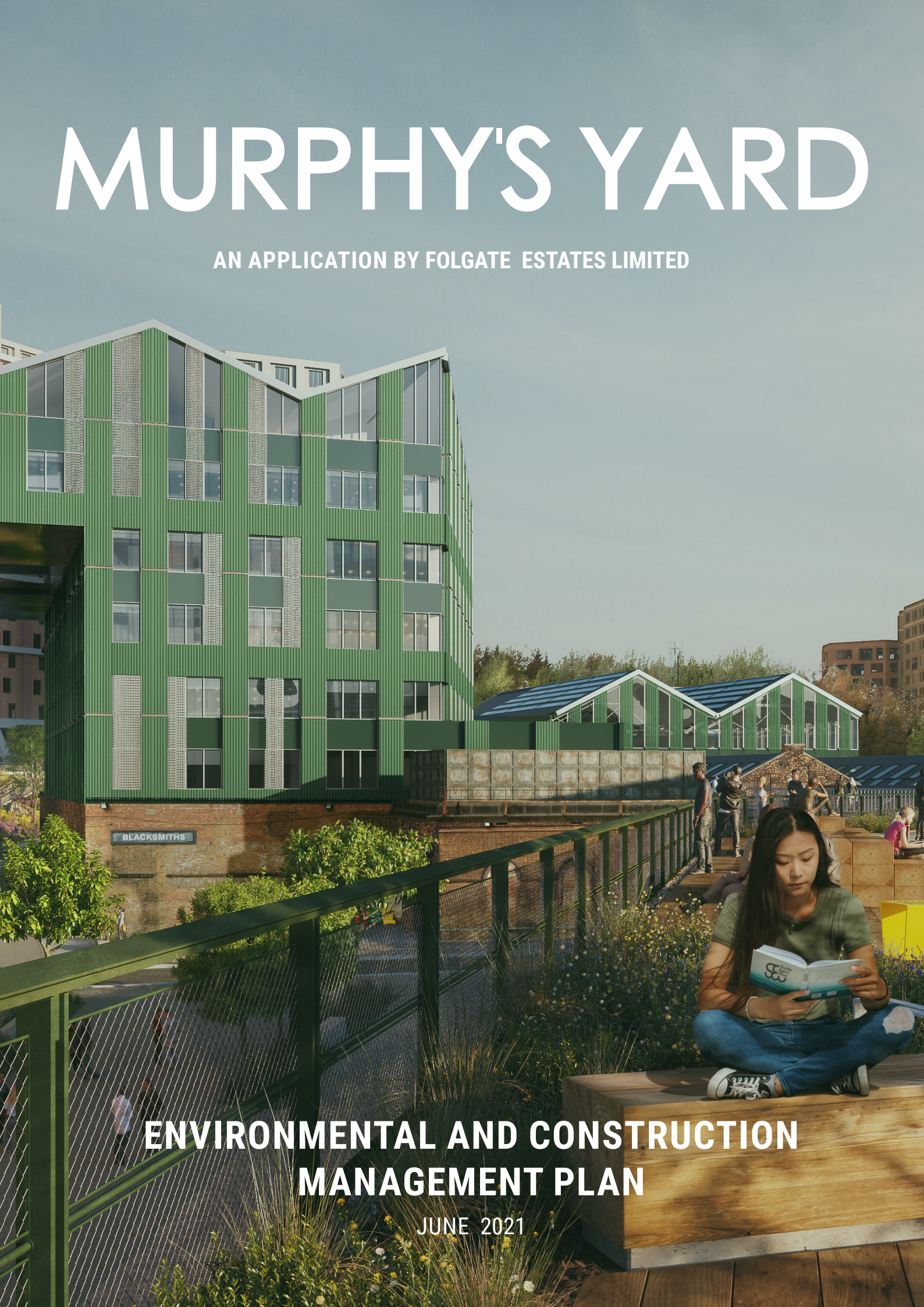
MURPHY'S YARD

AN APPLICATION BY FOLGATE ESTATES LIMITED



ENVIRONMENTAL AND CONSTRUCTION MANAGEMENT PLAN

JUNE 2021


FOLGATE
ESTATES
LIMITED

Studio
Egret
West

dp9

TRIUM

ARUP

HOARE LEA

curtins

KM
Development
Consultancy

PETER
STEWART
CONSULTANCY

KANDA

ELEMENTA

BURO HAPPOLD

stace

Cast

AVR
LONDON

rps

DS2

arbeco

CUSHMAN &
WAKEFIELD

AND

CMS

Quod

The
Ecology Consultancy

IAN FARMER
ASSOCIATES

HEDGE

Volterra

AQA

SANDY BROWN
ASSOCIATES

Murphy's Yard Camden

Construction and Environmental Management Plan

June 2021

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Contents:

Introduction

The site known as Murphy's Yard relates to the land south of Gordon House Road, bounded by Railway Lines on the east west and south. This CEMP supports the planning application for this development.

Site Establishment

Access to and from the site will be achieved from various gates located around the site perimeter and will be fully controlled by attendant gate operatives. Hoardings have already been established prior to our commencement on site, although adaptions will be made during the course of the works to facilitate construction. In particular the pavement on the Queensway will be closed for the duration of the works and the parking bays / taxi rank will be suspended. Appropriate traffic and pedestrian control measures will be implemented to control the flow of pedestrians and vehicles. See attached plans later in the document.

Logistics

The Site logistics and Traffic management plans figures 5.1 & 5.2 in this document have been produced to demonstrate how we will set up the site and manage the construction process throughout the project lifecycle. Within these plans we hope to demonstrate that we have a detailed understanding of the logistical constraints and complexities of this project and have identified and developed robust solutions.

It will be fundamental to the successful delivery of the project to effectively manage and control these important factors. Our logistics proposals within this submission communicate how we plan to safely manage these differing aspects. During the initial stages of the project, we will undertake early engagement with all parties and agree detailed arrangements for the successful completion of the works.

Site Access

The existing site entrances will be used, phase specific. These are located on the Sanderson Close for what is indicatively referred to as phases 2 & 3, on Greenwood Place for indicative phase 1, and on Gordon House Road for indicative phases 3 & 4. During the construction of the different phases of the demolition and construction, the hoarding and gate positions may be adapted or relocated within the boundary of the site, as necessary. Any necessary changes, be it short or long term, will be agreed with the LB Camden prior to commencement of the relevant construction phase. The Site Logistics Plan shows the location of the site entrances, as well as the site offices and welfare facilities phase specific.

Site working hours are as set out in the planning permission document - 08.00 to 18.00 Monday to Friday, 08.00 to 17.00 Saturdays with no working on Sundays and public Holidays.

Main Site Set Up and Storage Arrangements

Each Phase of the site will be fully hoarded / fenced to enable clear segregation of all construction activities from members of the public. There will be a separate pedestrian gate to ensure segregation from vehicle deliveries and mobile plant movements.
The storage of Materials will be delivered to site will be coordinated and will be off loaded and positioned to the required phase on the project. Close co- ordination and scheduling of materials and deliveries will be one of the key elements to the successful management of the project.

Vehicular and pedestrian gates will be positioned at the site entrances as shown on the Site Logistics Plan Figure 5.5 within the site perimeter hoarding/ fencing. The site personnel will access and egress through the phase site entrances, which will be controlled by a turnstile access system which is generally a biometric system widely used on large projects, as it collects key data on our workforce at source. This system will also have the advantage of providing a current personnel register on site in the event of an emergency evacuation.

Arrangement for Deliveries

The site traffic management plan, figure 5.1 which is included later in this document and will ensure that each specific constraint is identified and that a solution is put in place to deal with each issue. The plan will be implemented once the main contractor takes possession of the site and will be continually reviewed and updated throughout the course of the works. Clear protected segregation will be implemented to keep construction plant and machinery separate from pedestrians and workforce and the public.

All deliveries will be fully planned with the supply chain and all drivers made fully aware of the specific site rules. Clear information will be provided with orders to ensure delivery routes are clearly communicated and adhered to and these will be regularly monitored. The pre-planning of all deliveries will be essential to ensure that all vehicles arrive at a time to suit the progress of the works, reducing the need for additional storage, additional visits, double handling of materials and the risk of damaged materials.

The Main Contractor will operate a web-based 'booking in' system with enough time allowed for each vehicle to be unloaded prior to the next delivery arriving on site, this ensures the number of delivery vehicles are minimised at any one point and congestion is kept to a minimum to reduce waiting times. No engines will be left running whilst vehicles are waiting to be off loaded. The booking system will allow subcontractors to book 30-minute blocks of time each day that will allow us to control the flow of traffic.

Reversing on site will be restricted but, in the event, that it is required then vehicles will be always escorted under the control of a banksman.

Materials Distribution

Materials will be unloaded mainly by the tower cranes that will be on site, but smaller loads may be off loaded via Hiab delivery vehicles and telehandler forklifts. We will keep onsite material storage to a minimum therefore most material deliveries will be loaded out directly to the area where they are to be used

Adjacent Areas & Neighbouring Properties

It is important that the correct management and communication of the project is to surrounding neighbours. We will therefore ensure regular liaison with all adjacent properties, which we believe in our experience will contribute to the overall success of the project. The project will be registered with the Considerate Constructors Scheme and will act as a template for the way in which this project is administered.

All surrounding roads will have clear signage provided, indicating clear and concise instructions for vehicles approaching the site. There will be clear signage displayed on the site hoardings with contact information for our Logistics Manager who will be available to respond to any queries that the public or residents may have and will form a key part of the information within the orders placed with suppliers and sub-contractors.

From our experience we fully understand that positive relationships formed early within the project will greatly contribute to the successful delivery of the scheme. To establish these relationships, we will undertake early communications with the residents effected via meetings and newsletter drops, these will continue throughout the lifecycle of the project. Site contact numbers will always clearly be displayed on the hoarding and within the regular newsletter drops. Key events on the project like tower crane erection/dismantle dates, hoarding relocations and the suspension of parking bays will be clearly communicated.

Site Parking

Designated parking for construction operatives and staff will be available within or adjacent to the compound area to ease congestion and disruption to the surrounding areas around the site and to minimise the impact of construction activities on adjacent areas.
The Main Contractor will encourage all subcontractors to use local public transport. It will be the intention that the Main Contractor will use localsuppliers/sub- contractors and labour as far as possible.

All site operatives and site visitors will be inducted as part of the project site rules, during this induction they will be instructed that there is no parking within the surrounding roads.

Any operatives in breach of this requirement will be yellow carded (warning) and if found to be persistently breaking this rule will be Red carded (removed from the site.)

Notification of Parking restrictions, and information of where operatives and visitors will park will be inserted within each subcontractor order to notify all parties of the restrictions and will be further reinforced at sub- contractor pre order meetings.

Suppression of Dust & Debris

In view of the location of the site, the site management will pay special attention to ensure vehicles both delivering to, and leaving the site are in a clean condition. Drivers will be briefed and instructed to inspect their vehicles to prevent the spread of debris onto the adjacent public roads.

Regular inspections will be made to ensure that no debris is deposited outside of the site. They will arrange for mechanical sweeping of the roads as and when required.

To keep on top of not only mud but also dust, we will have a sweeper attachment for the site forklift onsite at all times. During the winter months this will be used to keep the roads clean of mud. During the summer months, we will use the water spraying facility on the sweeper attachment and run this along the access/ egress roads to dampen down any dust.

Jet washers will be used at entry/egress gates to clear any residual mud/debris from vehicles leaving the site. Close attention will be paid to control of residual water runoff and debris and to ensuring that local drainage does not become blocked by these operations.

All scaffolds will be fully enclosed with fire retardant sheeting on all external elevations to minimise the impact of impact of dust spreading beyond the confines of the site.

Any construction vehicles transporting materials on or off the site will be sheeted to minimise dust and debris, for example skip lorries or muck away vehicles.

All works will be carried out in accordance with the Main Contractors Dust Risk Assessment and sub-contractors' site-specific risk assessments and method statements.

Noise Mitigation

All practicable measures will be taken to minimise the impact that construction noise will have on the surrounding areas.

Noise generating activities will be limited to the hours of 8:00am to 18:00pm Monday to Friday and 8.00 to 13.00 on Saturdays.

Site Plant & machinery will be selected so that it generates as little noise as possible, and it will be suitably inspected and maintained to ensure that this is the case throughout its time on the project.

Noise levels will be assessed and monitored for all activities which could be deemed to have a potential to affect the surrounding areas. All recommendations associated with the relevant exposure action levels will be implemented.

For specific activities which will be known to generate high levels of noise, such as breaking out of concrete / hard-standings, specific RAMS will be produced and acoustic screens will be used to protect those who could be affected by the works, i.e., other operatives or the public surrounding the site, the following consideration will be used to reduce noise levels on site:

Hiring equipment from reputable companies who can supply new, well-maintained plant.

Locating noise-generating fixed plant as far away from sensitive premises as possible.

- Arranging for materials, such as flagstones and steelwork, to be cut off-sitewhere practicable.
- Ensuring that an appropriate electricity supply exists before any work or excavations starts, so that generators are not necessary.

- Avoiding the unnecessary revving of engines, motor-driven tools and equipment; and
- Switching off plant, vehicles, and equipment when they are not in use.
- All site works will be undertaken in accordance with the Main Contractors general noise risk assessment.

Vibration Mitigation

All practicable measures will be taken to minimise the impact that construction vibration will have on the surrounding areas. Vibration generating activities will be limited to the hours of 8:00am to 6:00pm Monday to Friday and 8.00 to 5.00 on Saturday.

The project has a significant element of piling required to construct the foundations for the new buildings and the existing basement slab is due to be removed to facilitate the required headroom within the basement.

For these and other site-specific activities which will be known to generate high levels of vibration, such as breaking out of concrete / hard-standings, specific RAMS will be produced and will be used to protect those who could be affected by the works i.e., operatives or the public surrounding the site.

The use of mechanical plant is envisaged for excavations and all plant must be switched off when not in use and must be subject to regular maintenance checks and servicing in accordance with manufacturers guidelines.

All site works will be undertaken in accordance with the Main Contractors general vibration risk assessment.

Ecology

The main ecology issues pertaining to this site will be adequately considered and mitigated during the demolition phase of the project; this will be awarded under a separate contract by the Client. Going forward on the main contract the ecology risk and mitigation will be determined by the Ecologist Consultant.

Lighting

Lighting around the site where necessary, will be suitably positioned so that is does not impact on the surrounding neighbourhood. During the works, lighting will be affixed to the hoarding with suitable cowls to only direct the light where required, these lights will be controlled by photo sensors / timers to ensure they are off when not required.

Contamination

Where contaminated land is identified, the Main Contractor will stop work and inform the client as to the extent of the contaminated land. This will then be fenced off, signage installed and access restricted. A specialist contractor will be employed to remediate the land. The land will be managed in three stages: stage 1 will be an assessment to establish whether there are any unacceptable risks and, if so, what further action needs to be taken. Stage 2 will be reviewing the remediation options and determining the most appropriate remediation strategy. Stage 3 will then be the implementation of the preferred remediation strategy.

Following demolition and survey works, the site will be checked to enable a classification to be determined for the risks of unexploded ordnance (UXO) dropped during WW2. When works commence on site, a UXO specialist will be in attendance on site to probe and identify any items of concern prior to constructing piled foundations.

Site Cleaning

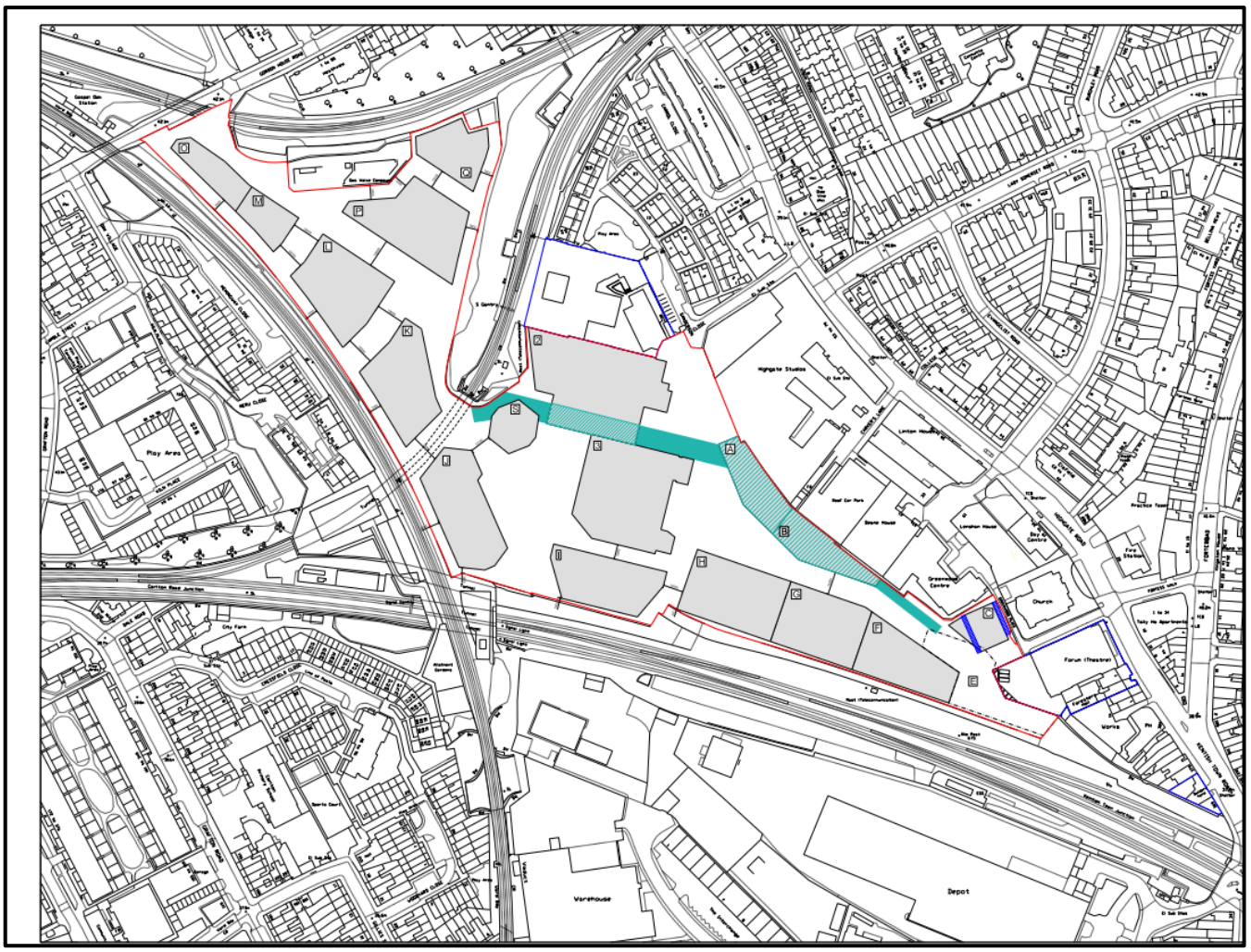
The Main Contractor will ensure that a tidy site is a safe site. They will be keen to maintain this principal throughout the project. Sub-contractors will be required to clear their rubbish to skips in selected locations as work proceeds to assist in maintaining a clean site.

Disposal of rubbish will be closely monitored on site and where possible we will re-recycle materials into separate skips on site, but if the space does not allow this, then our order with the waste subcontractor will be set up so that they sort all our waste at their depot so that our tough recycling targets are still achieved. A site waste management plan will be produced, which forms part of the construction phase plan.

Site Plan

In addition to the plan below the Main Contractor will produce detailed logistics plans.

Site Boundary Plan.



Environmental

Environment Policy Statement.

It is expected that the Main Contractor will have an Environmental Policy. This policy will cover all of the Main Contractor's business activities. It should ensure that all construction works are carried out in accordance with the requirements of this policy. The key objectives of the policy should include, the preventing of pollution and reducing environmental impacts.

Contractors Approach

The Main Contractors Environmental Policy should have an integrated management system certified to ISO14001 that defines and governs the approach to identifying and reducing the environmental impacts through activities where the Main Contractor will have operational control. It should also identify the need to work with material suppliers, contractors and all agencies involved in the construction process for the Murphy's Yard Development.

Management Commitments

It is expected that The Main Contractors management will be committed to improving their environmental credential and performance generally across all their Construction Site activities. Key issues to be considered are as follows.

- Protecting the environment and preventing pollution wherever possible from our activities
- Minimising our environmental impact associated with carbon, waste, water, and biodiversity.
- Identifying risks and opportunities.
- Taking accountability for the effectiveness of our Integrated Management System
- Providing the necessary resources to achieve the company's commitments.
- Commitment to continual improvement of the integrated management system to enhance environmental performance.

Objectives

The Main Contract's integrated management system should identify and set objectives, to ensure that risks are mitigated and managed and that improvements can be implemented.
As a minimum, these objectives should include:

- Identifying and fulfilling all compliance and other obligations associated with our activities.
- Identifying our significant environmental risks and opportunities
- Reducing all impacts on the environment as part of our Responsible Business Charter
- Reviewing our policy statement and management system annually
- Communicating with all relevant interested parties on our commitments and environmental management system
- Delivering the commitments outlined in our Circular Economy Strategy.

The Main Contractors senior management will ensure that there is a positive environmental culture to ensure that all personnel that is employed by their company understands how their behaviours and actions impact environmental performance.

Environmental Management - General Requirements

Environmental policy

A copy of the main contractors Environmental Management System will be issued when they are appointed. The Main Contractors Environmental System will be added to this section of this document.

Environmental Procedures

Planning

Hazard Identification, Risk Assessment and Determining Controls

The Main Contractor will establish, implement and maintain a system to identify the environmental aspects of all construction activities to ensure compliance of their Environmental Management System.

This Environmental Management System determines those aspects, which have or can have significant impact(s) on the environment. This information will be documented and will be kept up to date as the construction works proceed.

Legal and Other Requirements

The Main Contractor has established, implemented and maintains processes through subscription to Greenspace and IHS to identify and ensure they have access to the applicable legal requirements and other requirements to which are relevant to environmental aspects.

The applicable legal requirements and other requirements are considered when establishing, implanting, and maintaining our Environmental Management System.

Objectives, Targets and Programmes

The Main Contractor will have established implemented and maintains documented Strategic Business Objectives (SBO's) that include Environmental objectives and targets, consistent with the Environmental Policy, at the relevant functions and levels across the organisation.

The Main Contractors objectives shall become consistent with the requirements of their company. They will also consider technological options, financial, operational, business requirements and the views of interested parties. The Main Contractor will have established and will implement and maintain a Business Plan for achieving its Environmental objectives and targets.

Implementation and Operation

Resources, Roles Responsibility and Authority

The Main Contractors management will ensure the availability of the resources essential to establish, implement, maintain, and improve their integrated Business Management Systems Resources include human resources, specialised skills, our infrastructure, technology, and financial resources.

Roles, responsibility, and authorities have been defined, documented, and communicated to facilitate effective Environmental management.

The Main Contractors management will appoint an Environmental Consultant to ensure that the Environmental requirements are met through the establishment, implementation, and maintenance of a robust Environmental Management System in accordance with the requirements of ISO 14001.

All those with management responsibility (leadership) will have to demonstrate their commitment to continual improvement of Environmental performance.

The Main Contractor will ensure that persons in the workplace take responsibility for aspects of Environmental over which they have control, including adherence to policy environmental requirements.

Competence, Training and Awareness

The Main Contractor will ensure that any person(s) performing tasks for it or on its behalf that have the potential to cause a significant environmental impact identified by the Main Contractor are competent based on appropriate education, training or experience and associated records are maintained.

The Main Contractor identifies training needs associated with its environmental aspects and its environmental management system. It provides training or takes other action to meet these needs, evaluate the effectiveness of training or the action taken, and retains the associated records.

- The Main Contractor will establish, implement, and maintain the following standard(s) to make persons working for us on our behalf aware of:
- The importance of conformity with the environmental policy and standards and with the requirements of the environmental management system,
- The significant environmental aspects and related actual or potential impacts associated with their work, and the environmental benefits of improvement personal performance,
- Their roles and responsibilities in achieving conformity with the requirements of the environmental management system, and
- The potential consequences of departure from specified standards.

Communication, Participation and Consultation

Communication

Regarding its environmental aspects and environmental management system, The Main Contractor will establish, implement, and maintain the following standards for:

- Internal communication amongst its various levels and functions.
- Communications with contractors and other visitors to the workplace.
- Receiving, documenting, and responding the relevant communication regarding external interested parties.

All those with management responsibility (leadership) demonstrate their commitment to continual improvement of our Environmental performance.

The Main Contractor will ensure that persons in the workplace take responsibility for aspects of Environmental over which they have control, including adherence to the policy Environmental requirements.

Documentation

- The Main Contractors Business Management System includes:
- Our environmental policy, objectives, and targets,
- The scope of the environmental management system,
- The main elements of our environmental management system and their Documents and records required by ISO 14001.
- Documents and records necessary to ensure effective planning, operation and control of processes that relate to the management of their significant environmental aspects.

Control of Documents

The Main Contractor will identify and plan those operations that are associated with the identified significant environmental aspects consistent with our environmental policy and objectives, to ensure that they are carried out under specified conditions.

All documents required by the environmental management system and ISO 14001 are controlled.

The Main Contractor has established and will implement and maintain the following standard to:

- Approve documents for adequacy prior to issue.
- Review and update as necessary and re-approve documents.
- Ensure that changes and the current revision status of the documents are known.
- Ensure that relevant versions of applicable documents are available at points of use.
- Ensure that documents remain legible and ready identifiable.
- Ensure that documents of external origin determined by ENGIE to be necessary for the planning and operation of the environmental management system are identified and their distribution controlled; and
- Prevent unintended use of obsolete documents and apply suitable identification of them if they are to be retained for any purpose

Construction Operation Control

The Main Contractor will determine those operations and activities that are associated with the significant environmental aspects consistent with our environmental policy, objectives, and targets to ensure that they are carried out under specified conditions by:

- operational controls, as applicable to The Main Contractor and its activities, The Main Contractor integrate those operational controls into its overall environmental management system.
- controls related to the purchase of goods, equipment and services.
- controls related to contractors and other visitors related to the workplace.
- documented standards, to cover situations where their absence could lead to deviations from the Environmental policy and objectives.
- stipulated operating criteria where their absence could lead to deviations from the Environmental policy and objectives.

Emergency Preparedness and Response

The Main Contractor will establish, implement, and maintain a standard to:

- identify potential emergency situations and
- to respond to such emergency situations

The Main Contractor will respond to actual emergency situations and prevent or mitigate associated adverse environmental impacts.

In planning its emergency response, The Main Contractor shall consider the needs of relevant interested parties. e.g., Emergency services and its neighbours.

The Main Contractor will also periodically test such standards to respond to emergency situations, where practicable, involving relevant interested parties where appropriate.

The Main Contractor will periodically review and, where necessary, revise its emergency preparedness and response standards after the occurrence of accidents or emergency situations.

Checking

Monitoring and Measurement

The Main Contractor will establish, implement, and maintain a standard to monitor and measure, on a regular basis, the key characteristics of its operations that can have a significant environmental impact.

The standard includes the documenting of information to monitor performance, applicable operational controls and conformity with our environmental objectives and targets.

If equipment is required to monitor and measure performance, The Main Contractor will ensure that calibrated or verified monitoring and measurement equipment is used and maintained and shall retain associated records.

Evaluation of Compliance

The organisation ensures that any necessary changes are made to environmental management system documentation.

- Control of Records
- Evaluation of Compliance
- Consistent with commitment to compliance, The Main Contractor will have established, implemented, and maintains a Standard for periodically evaluating compliance with applicable legal requirements.
- The organisation shall keep records of the results of the periodic evaluations.
- Evaluation compliance with other requirements to which it subscribes.
- Keeping records of the results of the periodic evaluations.
-

Nonconformity, Corrective Action, and Preventive Action

The Main Contractor will have established and implemented and maintain a standard for dealing with actual and potential nonconformities and for taking corrective and preventive action. The standard below defines requirements for:

- Identifying and correcting nonconformity(and taking action(s) to mitigate their environmental impacts,
- Investigating non-conformity, determining their cause(s) and taking actions in order to avoid their recurrence.
- Evaluating the need for action(s) to prevent nonconformity and implementing appropriate actions designed to avoid their occurrence.
- Recording the results of corrective action(s) and preventive action(s) taken, and
- Reviewing the effectiveness of corrective action(s) and preventive action(s) taken.
- Actions taken shall be appropriate to the magnitude of the problems and the environmental impacts encountered.
- The organisation ensures that any necessary changes are made to environmental management system documentation.

Control of Records

The Main Contractor will establish and maintain records as necessary to demonstrate conformity to the requirements of its environmental management system and of ISO 14001 and the results achieved.

The Main Contractor will establish, implement and maintain a standard for the identification, storage, protection, retrieval, retention and disposal of records.

- Records shall be and remain legible, identifiable, and traceable.
- identification, storage, protection, retrieval, retention and disposal of records.
- Records shall be and remain legible, identifiable, and traceable.

Management Review

The Main Contractors Senior Management will periodically review their Environmental Management System, at planned intervals, ensuring its continuing suitability, adequacy, and effectiveness. Reviews will include;

- Assessing opportunities for improvement and the need for changes including the Environmental policy and Environmental objectives and targets.
- Records of the management reviews shall be retained. Input to management reviews include:
- Results of internal audits
- Evaluations of compliance and changing circumstances /developments with legal and other requirements to which the organization subscribes, related to environmental aspects.
- The results of participation and consultation.
- Relevant communication(s) from external interested parties, including complaints.
- The environmental performance.
- The extent to which objectives have been met.
- Status of incident corrective and preventive actions.
- Follow-up actions from previous management reviews.
- Recommendations for improvement.

Typical Aspects and Impacts Assessment

Contract Name:		**Date:**	
Contract Number:		**Assessed by:**	

Please tick aspects that are applicable to this contract and outline further information below:

Waste Generation	☐	**Excavations**	☐	**Electricity Use**	✓
Fuel Storage and Use	☐	**Piling**	☐	**Water Use**	✓
Use of Company Vehicles	☐	**Tools & Equipment Use**	☐	**Landscaping & Ground Maintenance**	✓
Use of Plant & Vehicles Onsite	☐	**Materials Use**	☐	**Other**	✓
Demolition	☐	**Use of Solvents & Paints**	☐		

Activity/Process	***Aspect*** ***Cause of Change***	***Impact*** ***Actual Change***	**Control measures to be implemented** **Low and medium risk: List control measures** **High risk: Method statement required**	**Risk factor** **S X P**
Waste Generation	• Incomplete documentation • Poor material storage • Poor use of materials • Incorrect waste storage and segregation • Transportation – Onsite • Transportation – Offsite • Transfer of waste to parties other than approved waste contractors • Illegal disposal (fly tipping)	• Breach of Duty of Care • Increase in material wastage • Land and water contamination • Noise, Smell and Visual Nuisance • Air Pollution • Release of Greenhouse Gases • Depletion of landfill capacity • Contamination of waste • Financial penalties from Waste Contractors	• Only approved waste contractors are used • Waste carrier and facility licences regularly checked • All transportation documented by waste transfer note or internal waste movements sheet • Check waste transfer or consignment notes and stop transfer where incorrect • Exemptions applied for where re-use of waste onsite • Provide secured storage area • Clear signage and awareness (i.e. TBTs) • Skips not over-filled and regularly checked for damage	3 x 1 = 3

			• CCTV / Overnight security to prevent illegal disposal • Segregation of waste and use of take-back schemes	
Fuel Storage & Use	• Fuel Consumption • Refuelling • Noise from generator	• Potential spills leading to surface and groundwater contamination • Use of finite resources • Nuisance to neighbours and wildlife	• Fuel storage in double-bunded containers with a minimum capacity of 110% of the total potential stored contents • All gauges, valves, vents and nozzles kept within the bund when not in use • Bunds locked when not in use and only made available to authorised and competent persons • Designated refuelling station • Appropriate spill kits available and clearly signed with ENGIE Site staff trained in their use • Cabin / site setup to be run from mains supply and not from a generator to reduce the amount of fuel stored onsite • Items of plant that are onsite to be suitably maintained in order to make sure they are in good working condition. • Plant switched off when not in use • All fuel consuming item of plant such as compressors, small generators, disc cutters to be kept on drip trays when in use and then in a bunded store when not	3 x 2= 6

Use of Company Vehicles	• Fuel Consumption • Washing & Maintenance	• Release of greenhouse gases and other pollutants • Use of finite resources • Water consumption • Potential contamination of surface and ground waters	• Company vehicles leased with max g/km rating • Car sharing promoted • No parking allowed onsite to encourage the use of public transport • Nearest train station (Southampton Central) / Bus stops (adjacent to site) displayed on the site notice board to encourage use of public transport • Cycle to work scheme promoted • Efficient driving promoted (posters, toolbox talks) • Only washing when necessary and use of low-pressure washing equipment • Use of biological cleaning agents	1 x 2 = 2

Use of Plant & Vehicles Onsite	• Creation of dust • Fuel Consumption • Refuelling & Maintenance • Plant/Vehicle Movements	• Nuisance to neighbours and wildlife • Noise • Release of greenhouse gases and other pollutants • Potential spills leading to surface and ground water contamination • Compaction of roots and damage to vegetation • Impact damage to surrounding areas and paths	• Damping down of works using water suppression from the onsite hose in periods of dry weather to limit dust emissions • Erection of full height timber hoarding along the all boundaries to shield the general public from dust • Dust-generating materials to be removed promptly from site with main site access routes to be provided with a solid hardstanding • Regular checks of neighbouring properties and cleaning operations where required • Speed restrictions in place and enforced • Fuel storage in double-bunded containers with a Minimum capacity of 110% of the total potential stored contents • All gauges, valves, vents and nozzles kept within the bund when not in use • Bunds locked when not in use and only made available to authorised and competent persons • Designated refuelling station • Appropriate spill kits available and clearly signed. • Traffic management plan with barriers and clear signage • Plant switched off when not in use • All fuel consuming item of plant such as compressors, small generators, disc cutters to be kept on drip trays /plant nappies when in use and then in a bunded store when not • Items of plant that are onsite to be suitably maintained in order to make sure they are in good working condition. • Main Delivery gate will be from the Strand site gate and suitable entrance / crossover points will be installed	3 x 2 = 6

Demolition	• Noise and vibration • Creation of dust • Hazardous materials • Waste disposal	• Nuisance to neighbours and wildlife • Release of Hazardous contaminates • Damage to property	• Ecological report prepared and recommendations implemented prior to demolition. • Noise barriers to be erected as required	3 x 2 = 6

		• Contamination of soil, surface and ground waters • Disturbance of protected and/or invasive species • Depletion of landfill • Release of greenhouse gases and other pollutants	• Plant and equipment located as far away from sensitive receptors as possible • Vehicles and plant to be fitted with exhaust silencers and suitably maintained • Preference given to equipment which breaks concrete by bending/bursting over percussive tools • Damping down as works progress and on main access routes during periods of dry weather • Erection of full height wooden hoarding around site boundaries to protect the general public • Dust-generating materials to be removed promptly from site with main site access routes to be provided with a solid hardstanding • Regular dust checks of neighbouring properties and surrounding highways / footpaths and cleaning operations where required • Pre-demolition survey to identify hazardous materials and ensure appropriate removal and disposal – Asbestos Survey undertaken an appointed specialist with Removal undertaken by subcontractor • All asbestos removal works have been undertaken in accordance with subcontractors detailed RAMS • Use of local waste contractors with a carbon reduction strategy • Skips only collected when full to reduce journeys • All works are to be undertaken and controlled by subcontractors in accordance with the control measures detailed in their RAMS	

Excavations	• Soil excavation • Dewatering/Pumping • Ground Contamination • Creation of dust • Waste Disposal • Odour Issues	• Permitting • Pollution of waterways • Nuisance • Odour issues • Contamination of other areas of site	• Drainage to surface water drain to be approved with Environment Agency • Drainage to foul water drain to be authorised by local water company • Any Extracted water to be filtered or pumped to a soak away or settlement tank	2 x 2 = 4

	• Contamination by Hazardous Materials		• Spoil heaps to be kept away from watercourses and drains • Spoil removed promptly, dampened and covered • Muck-away operations to be included within subcontractor's order – they are to ensure a fully license waste contractor is contracted to undertake the works • Work around existing drains to be suitably planned and managed to minimise disturbance and possibility of reducing unpleasant odours. • All works to be undertaken and controlled by subcontractors in accordance with the control measures detailed in their site-specific RAMS	
Piling	• Drilling/Hammering • Displacement of muds and concrete • Fuel Consumption	• Noise and vibration • Contamination of surface and ground waters • Air pollution • Use of finite resources	• REG-TST-2403 Water Resource Management	2 x 2 = 4

Working in Close Proximity to a Water source	• Chemical/Fuel Storage • Decanting • Waste storage • Spoil heaps • Plant and vehicle movements • Plant and vehicle oil leaks • Washing • Pumping	• Water pollution • Sedimentation • Degradation and collapse of trackways into water course • Damage to property and ecosystems	• Chemicals and fuels to be stored at least 10m away from water courses or drains and in double-bunded containers • Chemicals to be purchased in correct container sizes • Decanting/Filling to occur on impermeable surface • Waste to be stored at least 10m away from water courses or drains • Suitable spill kits and training in place. • Waste to be regularly collected to avoid build-up • Spoil to be stored at least 10m away from water courses and drains • Minimum land stripped to reduce spoil produced • Trackways to be at least 10m away from waste courses • Refuelling to occur only at dedicated points at least 10m away from water courses and drains on an impermeable surface. • Regular checks of plant and water courses for signs of leaks and spills	3 x 1 = 3

			• Drip trays available and used where leaks detected • Extracted water to be filtered or pumped to a soak-away or settlement tank	
Tools & Equipment Use	• Use onsite • Power consumption • Use of Fuel	• Noise and vibration • Dust • Release of greenhouse gases and other pollutants • Release of hazardous materials through fuel spillage	• Activities restricted to non-sensitive periods in line with the local authority requirements and the Considerate constructors Scheme • Lowest noise/vibration tools selected for tasks • Use appropriate water suppression • Tools with high energy efficiency rating used where available • Tools switched off when not in use • Tools of correct size and power rating used for each task • Use appropriate Local Exhaust Ventilation (LEV) • If required, suitable screens to be erected to minimise the chance of other operatives onsite to be affected by noise and dust • All fuel consuming item of plant such as compressors, small generators, disc cutters etc. to be kept on drip trays /plant nappies when in use and then in a bunded store when not • Items of plant that are onsite to be suitably maintained in order to make sure they are in good working condition	1 x 1 = 1

Use of Solvents & Paints	• Purchasing • Storage • Brush cleaning • Disposal	• Use of natural resources • Waste generation • Contamination of soils, surface and ground waters	• Environmental credentials considered in paint selection process • Paints selected with low or no VOCs as available • Paint ordered in correct quantity and quality to avoid waste • Paints stored securely in bunded containers • Storage kept away from drains and waterways • Spill kits available, with signage and employees trained in its use. • All materials to be delivered with their relevant Material Data Sheet and COSHH assessment. All operatives to be briefed on these during the	2 x 1 = 2

			cause of their induction, COSHH assessments to be displayed in their storage areas • Cleaning over impermeable surface • Used paint cans left to dry out in a secure bunded container • Paint cans segregated and collected by supplier for take-back scheme	
Electricity use	• Energy use	• Release of greenhouse gases and other pollutants	• Thermostat controls across all units within the Welfare area. • External Lights around the site fitted with photo-sensors to ensure they do not illuminate during daylight hours. • Awareness information including posters and toolbox talks covering energy efficiency • All operatives arriving to site will sit the Keepmoat induction video which further explains the need to reduce electricity and Gas use • Site office energy assessment in place with the Weekly Energy Checklist to be undertaken to monitor that measures put in place to reduce Electricity and Gas are being suitably implemented	1 x 1 = 1

Water Use	• Treatment and transportation • Welfare water consumption • Dust suppression • Wheel washing • Concrete washout • Commissioning	• Chemical and energy use • Depletion of water resources • Surface and groundwater contamination	• Installation of rainwater harvesting above the smoking shelters • Use of push-taps fitted with cable ties to minimise water use from taps • Cleaning with low-pressure hoses and harvested rainwater where available • Cleaning only when necessary and on impermeable surfaces • High pressure, low volume spray pattern to be used for wheel washing • If possible, a concrete “Sock” will be used to cover the chute – minimise water use, reduce spills and eliminate pollution	1 x 1 = 1
Landscaping & Ground Maintenance	• Use of tools and plant • Fuel use • Refuelling	• Noise • Creation of dust	• Neighbours to be made aware of potential noise levels at the client drop-in sessions held on a monthly basis	2 x 2 = 4

	• Use of chemicals (pesticides, herbicides, etc.)	• Nuisance to neighbours and wildlife • Release of greenhouse gases and other pollutants • Spill – contamination of surface and ground waters	• Operations to stop should member of the public be in the immediate vicinity • Assessment of risk of dust prior to commencing operations • Where risk is high, operations to be postponed or dampening to take place first • Works to be undertaken in accordance with local authority standards • Alternative fuels used where available • Engines to be switched off when not in use • Plant and equipment of correct power rating for task • Refuelling to occur only at designated location with impermeable surface • Funnel or flexible nozzle to be used • Spill kit to be available and Site management trained in its use	
Printing Processes	• Use of chemicals (solvents, cleaners) • Waste paper and packaging • Energy use • Transportation	• Hazardous waste arising • Use of natural resources • Release of greenhouse gases and other pollutants	• Waste segregation – Toners to be recycled separately along with a separate paper recycling bin. • Approved waste contractors only • All documentation on waste transfers maintained • Printers and photocopiers with high energy efficiency rating to be used where available • Local suppliers and waste contractors to be used to avoid CO_2 from transport • Machinery to be switched off when not in use • Recycled paper to be used wherever possible for all printing and photocopying • Two-sided, non-colour printing to be set a default for all printing being undertaken	2 x 1 = 2

Cleaning	• Use of biological agents • Chemical use • Storage • Disposal	• Damage to aquatic and terrestrial ecosystems	• Use environmentally friendly options that biodegrade quickly • Clean the site welfare offices on a need to basis rather than a set, regular basis • Training on correct disposal of chemicals	2 x 1 = 2
Site Lighting	• Energy Consumption • Generator use	• Release of greenhouse gases and other pollutants • Depletion of finite resources	• Use LED lighting where possible	2 x 1 = 2
	•	•	•	
		• Noise from generators • Light nuisance to humans and wildlife	• External site lights to be fitted with photo- sensors to ensure they are not on during daylight hours. / • Site setup to be connected to the mains immediately with the aim of minimising energy use and noise emissions	
Use of Soil	• Moving soil onsite • Stockpiling • Transferring offsite • Receiving from another location • Contamination by Hazardous Materials	• Dust • Contamination of soil or spread from one location to another • Soil run-off into drains and watercourses • Smothering of protected species • Project delays and additional costs • Surface water contamination from rainwater runoff • Contamination of other areas of site	• Conduct ecological survey prior to works commencing to ensure all protected and invasive species are identified and located • Only clear vegetation when required to reduce dust and soil run-off • Put exemption or permit in place to allow receipt of waste soil from another location • Consider implementing CL: AIRE to avoid excess soil being classified as a “waste” • Store spoil at least 10m away from surface water drains or water courses. • Use bunds/curbs to prevent soil run-off into drains or water courses	**3 x 2 = 6**

Environmental Incidents	• Procedures in the event of an emergency requiring the services of outside agencies	• Wider Impact environmental incidents	• Environmental incidents are environmental accidents that extend beyond the site boundary or, if contained with the site, cannot be appropriately managed by the site or project team. Project manager to contact ○ Environment Agency (EA) England and Wales 0800 807060	**3 x 1 = 3**

Potential severity	Guidance on environment risks
1 – LOW	Minor incident easily resolved on site
2 – MEDIUM	Non-compliance with environmental legislation or major incident requiring clean-up from external specialist
3 – HIGH	Environmental incident resulting in prosecution or negative publicity

Demolition and Construction Phase.

Construction Pre-Start Planning

Discussions regarding each phase of the demolition and construction programme, logistics, access and egress, hoarding arrangements and environmental management will be held with the LBC and all other relevant statutory bodies prior to any works on site.

These discussions will inform the Demolition Method Statement and Construction Method Statement and Construction Environment Management Plan which shall be prepared by the appointed Contractor and agreed with the LBC pursuant to relevant planning conditions.

An important and key aspect of the successful management of the project will be the maintaining of good relationships with the local community and the adjoining neighbours.

This is normally achieved by holding monthly meetings and the issuing of a monthly newsletter to advise on the progress of the construction works and the notification of any out of hours works or extra ordinary operations. As part of the pre-start planning, contact will be made with the local community to brief them on the start of works and provide relevant information so that they are sufficiently informed.

Following vacant possession of the site, in addition to the existing boundary fences, sections of the perimeter of the site will be secured with the installation of a 2.4m high timber hoarding to protect the public from the site as required and to segregate the various phases as required.
The hoardings will be well lit and protective tunnel or gantry structures will be formed in locations where necessary to facilitate safe works above. The locations and requirements of these hoardings will be agreed in advance with the LBC.

Existing site entrance gates will be used, dependent on the Phase being redeveloped, these gates are located on the Sanderson Close for phase 2 &3 , Greenwood Place for phase 1 and Gordon House Road for phses 3 & 4. During the different phases of the demolition and construction works, the hoarding and site entrance gate positions may be adapted or relocated within the boundary of the site as necessary.
Any necessary changes, be it short or long term, will be agreed with the LBC prior to commencement of the relevant construction phase. The site logistics plan Figure 5.5 that shows the location of the site entrances, as well as the site offices and welfare facilities, materials storage areas and access / egress routes through the site.

Noise, dust and vibration will be monitored throughout the demolition and construction works from various locations around the site, with the results evaluated to ensure that the levels agreed in advance of works commencing with the LBC are not exceeded.
The monitoring locations will be agreed with LBC, Network Rail and TfL prior to the commencement of works on site.
As part of the site preparation and clearance works, all required health and safety signage shall be installed. In addition, traffic route signage will be installed along the agreed traffic routes (agreed with LBC and TfL as required) both locally and on the roads approaching the site.

24-hour security shall be maintained at each phase site entrance point, with regular checks on the perimeter boundaries of the site carried out to ensure the boundary remains intact throughout the redevelopment process.

Surveys, Investigations and Consents / Licenses

The enabling works to each phase will be used to carry out necessary works to allow construction works to commence. All statutory and LBC consents and licences required to commence any on-site activity will be obtained prior to commencement of the relevant works on-site.

As required, surveys will be undertaken to allow for demolition works to commence, for example with respect to asbestos and services/utilities checks.
The existing utilities network that serves the site will be reviewed with the Statutory Utility Companies. If utilities are required to be diverted, this will be reviewed and agreed as part of the construction prestart planning and consultation.

Network Rail London Underground and Transport for London

Due to the railway lines immediate adjacency to the site, it will be necessary to consult Network Rail (NR) London Underground (LU) and Transport for London (TFL) on the demolition and construction works proposed. Any required applications and licences will be discussed with NR.LU and TFL to ensure all required licences and permissions are in place prior to any demolition and construction works commencing.

Asbestos Removal and Soft Strip

Following vacant possession of each relevant part of the existing site and the disconnection of all utility services to the buildings, the testing of all internal fabric of the construction will be carried out.

If asbestos is located, a sample of the material will be removed, and laboratory tested. Following the results of the tests the material will be classified and specialist contractors will be employed to remove and dispose the asbestos in line with all Health & Safety regulations. Any asbestos identified on-site will be removed in line with the Control of Asbestos Regulations (2012). Soft Strip will not commence until all asbestos has been removed from the building(s).

Removal of loose furniture and equipment (soft strip) will be undertaken after the asbestos surveys. Mechanical plant will be utilised to transit materials to ground level for onward movement into skips or vehicles for removal form site.

Waste collection areas will be in located in each phase adjacent to each building prior to removal from site to an appropriate waste facility. Due to the level differences across the site particular attention will need to be given to the volumes of the reduced level excavations (phase specific) Phases 3 and 4. - consideration will also be required to maintain access to the retained Murphy Offices when the enabling, demolition and construction works are being carried out.

Demolition Phase

The Demolition Logistics Plan figure 5.4 shown later in this document identifies the existing buildings on site that are to be retained and altered / repurposed.

The demolition works will comprise the demolition of the existing buildings on site in compliance with the demolition plan. Demolition will take place using mainly mechanical means, with some demoiltion by hand possible.

Vehicle access for demolition works will be achieved via the existing entrances on Sanderson Close, Greenwood Place and Gordon House Road and these entrances will remain in use throughout the demolition works.

Demolition arisings will be processed and crushed on site for re-use to minimise the volume of material taken off site and reduce vehicle movements to and from the site as required. Table 5.2 shown later in the demolition waste section of the document indicates the approximate demotion arisings.

The following methodology will be adopted to minimise impact of the works along with other environmental procedures to ensure the highest level of environmental control is achieved.

All buildings to be demolished will be encapsulated between 2 to 3 metres above the floor area being worked upon to meet health and safety requirements and this encapsulation together with localised water / mist systems in proximity to the demolition activities and processing areas shall suppress and reduce the generation/migration of airborne dust.

Demolition will be carried out on a floor-by-floor basis using small machinery and possibly robotic plant fitted with munching attachments, rather than breakers to minimise noise impact.

Some of the demolition arisings will be retained on site for recycling with surplus materials removed from site via HGVs as required.

The current intention is to adopt concrete recycling methods to utilise the demolition arisings to form the piling mats and ramps. This method would reduce the number of HGV movements into and around the site during the demolition phase.

During demolition, noise, dust, and vibration will be monitored from various locations around the site with the results evaluated to ensure that the agreed levels are not exceeded. As noted above, the monitoring locations will be agreed with LBC and any other relevant stakeholders prior to the commencement of demolition and construction works on site.

The regime for noisy working during demolition will follow a 2 hour on / 2 hour off principle and all activities that generate noise shall be subject to Best Practicable Means (BPM) to minimise noise impact.

Construction Phase

Substructure and Enabling Works

Large excavators will be used during the enabling works to remove all sub soils from the whole area of the construction site to a level termed as the underside piling mat level.
In the Blocks where it will be permitted for there to be a basement (Plots C,S, L, K & Q) this will be constructed using contiguous or secant piles to form the basement exterior wall. A concrete basement floor slab will be constructed, and a concrete lining wall will then be placed on the inner face of the piled wall to complete the basement area structure.

The foundations for all Blocks will be constructed using Continuous Flight Auger (CFA) piles. The formation of the pile caps foundations will then be formed. The concrete piles will be reduced to “pile cut off level”.

The ground floor slab construction will consist of a network of steel reinforcement bars. The concrete shutters to the perimeter of the slab will be formed and the concrete will be installed to form the ground floor slab.

Concrete works will take place using static concrete pumps with fixed pipelines running through the building to prevent the need for mobile concrete pumps wherever practicable.

Superstructure

On completion of the substructure works, the superstructure frame construction will commence on a floor-by-floor basis. Concrete works will take place using static concrete pumps with fixed pipelines running through the building to prevent the need for mobile concrete pumps wherever possible. The main structures of the buildings will primarily be constructed using a reinforced concrete frame with the external envelope constructed to the fabrics that are approved as part of the outline planning approval process and subsequent reserved matters approvals.

Hoists for personnel and materials will be installed to provide additional material access to all floors and to allow operative access.

The current intention is that luffing tower cranes will be used. It is intended that mobile cranes will be used to erect the tower cranes. Dismantling will be the reverse of this sequence.

Fit Out

The first fit out works within each floor plate at each level shall be carried out in advance of the completion of the external envelope to minimise any delay to programme. Only works that will be susceptible to weather damage will be installed when the structure is watertight.
Lift installations will commence following the completion, inspection and acceptance of the respective shafts within each Block. The preferential beneficial early use of the lifts can result in the removal of hoist facilities at an earlier date within the programmed period.

Materials will be delivered to the work areas predominantly by hoist, but it may be possible to pre-load the floors using the tower cranes and platforms for larger items.

External Landscaping

The Proposed Development includes areas of landscaping. This will be carried out during the final few months of the construction programme for each Phase of the development.
There are also elevated external landscaped areas, and these landscaping materials will be delivered whilst cranes are still able to facilitate the loading out of these materials.

Waste Management Construction Phase

Materials and Resource Use.

These notes will detail the type of waste, waste volume, waste classification, contractor, and ultimate disposal route. Records will be updated regularly ensuring that all waste transferred or disposed of has been correctly processed with evidence of signed waste transfer notes that will be kept on-site for inspection whenever requested.

Waste Management Measures On site.

To reduce potential health risks throughout the demolition and construction phase, the following waste management measures will be implemented on-site:
Damping down of surfaces during spells of dry weather and brushing/water spraying of heavily used hard surfaces/access points across the site as required.
Off-site prefabrication, where practical, including the use of prefabricated structural elements, cladding units, toilets, mechanical and electrical risers and packaged plant rooms.

Burning of waste or unwanted materials will not be permitted on-site.

All hazardous materials including chemicals, cleaning agents, solvents and solvent containing products to be properly sealed in sealed containers at the end of each day prior to storage in appropriately protected and bunded storage areas.

All demolition and construction workers will be required to use full Personal Protective Equipment (PPE) whilst performing activities on-site.
Any waste effluent will be tested and where necessary, disposed of at the correctly licensed facility by a licensed specialist contractor/s.

Materials requiring removal from the site will be achieved using licensed carriers and records will be kept detailing where waste will be transferred to; and
Pre-assembly and pre-fabrication of construction materials will be prioritised wherever practicable to minimise on-site generation of waste and packaging and reduce the number of delivery and collection vehicles to and from the site.

Identification of Potential Contamination

The potential for contaminated materials to be present on site in assessed within ES Volume 1, Chapter 11: Ground Conditions. Should any potentially contaminated materials be identified during the demolition and construction phase, work in the area will temporarily cease.

The area will then undergo a subsequent assessment and an appropriate strategy for treatment and management of the material will be agreed with LBC.

Chemical tests will be conducted to ascertain the composition of the potential contamination and evaluate the material against Waste Acceptance Criteria (WAC).

Any asbestos containing materials will be appropriately removed and disposed of prior to the start of demolition by a suitably qualified contractor, in accordance with the Control of Asbestos Regulations 2012.

Excavation Waste

Excavation will be required to develop the formation levels for the proposed development. The excavated material will consist of the residual concrete from the tops of the piles, other spoil arising from piling works and freshly excavated material.

Excavated material will be utilised as backfill, and it is envisaged that approximately 75% of this material will be re-used. Where it is not possible to re-use excavated material on-site, it will be taken off-site for re-use purposes within other projects or processing/treatment; disposal of excavated material will be undertaken once all other re-use/recycling opportunities have been exhausted.

It is anticipated that where waste generated by demolition and construction activities is to be removed off-site, this will be undertaken by road vehicles.

Demolition Waste

The table below provides an estimate of quantities of material likely to be generated as a result of the demolition works.

Waste Stream	**Estimated Quantity (tonnes)**
Concrete	2000
Steel	300
General Waste	600
Bricks	500
Electrical	5
Hazardous	TBC
Plasterboard	50
Timber	40
Total	**3495**

It is anticipated that most of the inert waste from demolition will be reused onsite to create the piling mats onsite. Thereafter the surplus material will be removed and disposed offsite. Other opportunities to reuse this material onsite will be explored later and implemented wherever practicable.

Construction waste volumes have been estimated using Building Research Establishment (BRE) Waste Benchmarking data, which outlines likely construction waste arisings in tonnes for new build construction projects based on real life data.

The BRE benchmark data identifies the average volumes and tonnage of construction waste per 100m² of floor area, for commercial office projects, to be 19.8m³ per 100m² and 23.8 tonnes per 100m². Likewise, for commercial retail projects these benchmarks are identified as 20.9m³ per 100m² and 27.5 tonnes per 100m².

Construction Materials Waste.

Estimates of bulk material quantities for key construction components are provided in Table below.

Estimates of Bulk Construction Quantities

Estimated Construction Waste Arisings Waste Stream	**Estimated Quantity (tonnes)**
Packaging	500
Plaster / Cement	1250
Miscellaneous	2500
Timber	700
Concrete	14,000
Insulation	3000
Metal	2500
Plastics	1750
Total	**26,200**

The above noted quantities are indicative only. However, where possible, consideration would be given during the construction works to the use of recycled materials, as noted above, particularly in respect of the building structure sub-bases.

Waste Materials Skips

Skip segregation will be used to store waste materials thus reducing the amount of vehicle movement that will take place. The skips will be removed on a regular basis with once again the vehicles movements supervised by a banksman.
All footpaths and roads will be kept free from debris and safety signs will be in place warning third parties of the activities taking place.

A banksman will supervise the movement of skip wagons, delivery vehicles and plant and other access/egress gates. The banksman will remain in place whilst materials are placed within the site compound and when skips are delivered or removed. This is to ensure that the safety of pedestrians and users of the highway will always be always given priority.
The above and the operations will cease until they have passed the area of works.

Safety signs will be placed at vantage points to make the public aware of the activities taking place. Consideration will be given to the occupants in the adjacent properties and that of the residents. No operatives are to stray into restricted areas.

Delivery and Movement of Materials

The Main Contractor will ensure the minimum disruption occurs on the project due to the environment in which the works will be taking place, with attention being paid to the segregation of our works from that of the local business and residents and the continuous monitoring of the increased traffic movement in the area. Site personnel's vehicles shall be securely parked during working hours and the delivery of materials shall be made using the minimum number of vehicles.

The management and control of traffic during the construction works shall be of high priority and it is our intention to ensure that all pedestrian routes are demarcated and are kept free from obstruction during the works. The traffic management plan shall be updated as the works progress or if site conditions change dramatically increasing the risk to users of the highway, the public and residents.

All building materials will be delivered to site via the site compound with access being gained off each phase site entrance.

Road Traffic Management

Prior to any works commencing The Main and subcontract personnel will attend an induction where all relevant information shall be conveyed. This shall include information on the hazards associated with working in a live environment and the general provisions that shall be made for the protection of the public. The induction shall also include all relevant information relating to working close to the public highway and shall also include:

- Site access and egress
- Parking restrictions.
- Speed restrictions.
- Exclusion zones.
- Access onto site and the location of the compound area.
- Deliveries including delivery times.
- Vehicle movement, which will include loading and unloading operations along with the provision of a banks man.
- Cleanliness of the public footpaths and highway.
- Site security and signage.
- Protection of the public.
- Peak traffic times e.g. 0800 hrs and 1600hrs.
- School opening and closing times.
- First aid and emergency procedures; and Site rules.

During the induction, all personnel will be briefed on the respective traffic management plan and its implementation will be explained.

The number of vehicles accessing the site (two-way trips) has been estimated according to each of the defined stages of the programme. The estimates of the construction material quantities, together with the outline construction programme, have been used to estimate the peak vehicle movements over the demolition and construction period.

Construction knowledge and historic data have been applied to the anticipated programme and construction methodology (as summarised within this ES chapter) to develop the estimates below.

The estimated peak number of vehicles per month (two way) during the main peak period construction period is summarised in Figure 5.8.

During the peak months, there will be approximately 1,500 construction HGV vehicles accessing the site per month and approximately 750 LGV vehicles per month. On this basis, the average number of vehicles in a peak month is approximately 65 to 75 HGV (two way) vehicles per day and approximately 30 LGV (two way) vehicles based on a 5.5 day working week.

AnOutline Construction and Logistics Plan (OCLP) will also been submitted in support of the planning application to ensure that construction traffic is appropriately managed.

Oversize vehicles will be transported to site at the hours agreed with the local Traffic Police Department. These will normally be transported in the early hours of the morning to avoid traffic delays and disruption.

The final vehicle movements will be dependent upon the final development layout phasing and the final construction programme which has yet to be confirmed, but these figures are considered representative of a reasonable worst-case scenario.

Site Access and Egress

Vehicle access for the demolition works will be achieved via the existing entrances on Sanderson Close, Greenwood Close and Gordon House Road and will remain in use throughout the demolition phase and main construction phase of the works. It is likely that the majority of traffic will come from the north and south, using the North Circular Road, and returning in the same directions. The key vehicle routing is anticipated to be as follows,

MI Motorway. - A406 North Circular - A1 – Archway - Highgate Road and onto
Sanderson Close/Greenwood Close /Gordon House Road.

The final routings will be confirmed in the detailed CLP and in accordance with the method statements submitted to the LBC and TfL for approval. The anticipated routes for the local area are shown in traffic plans below.

3. Site Logistics Plans

Figure 5.1 Local Traffic Management Plan

Figure 5.2 Remote Traffic Management Plan

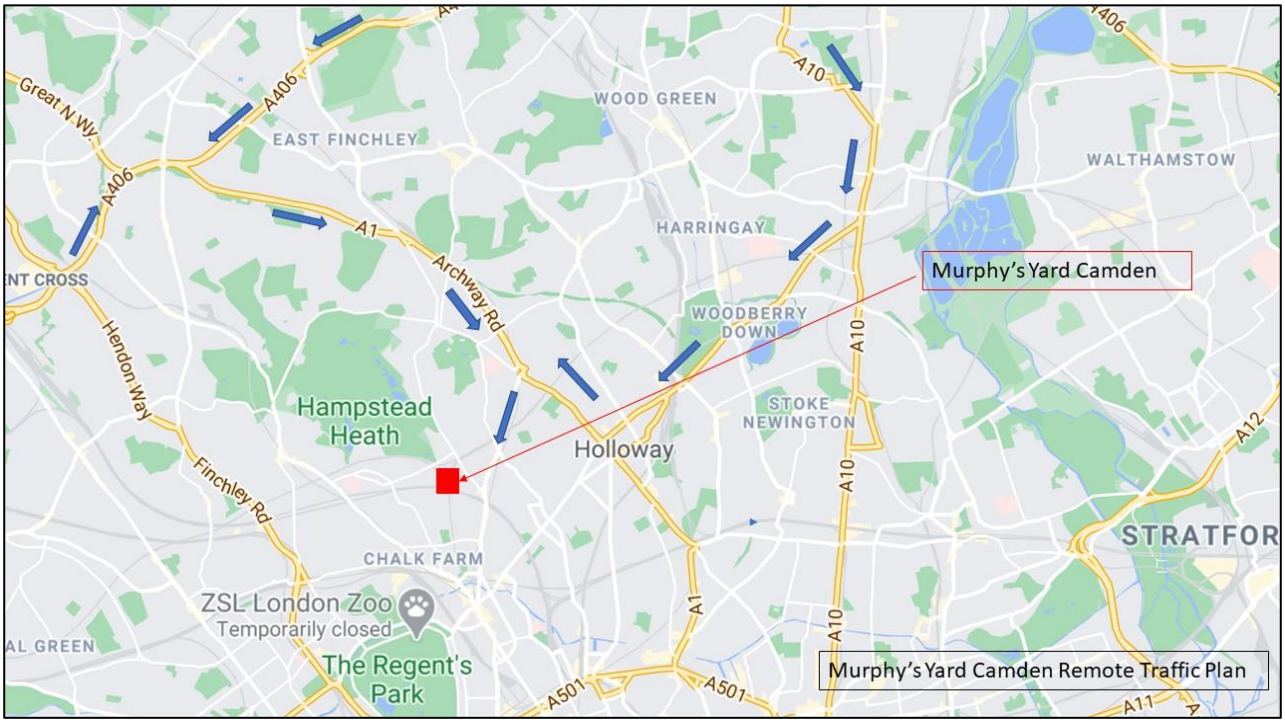


Figure 5.3 Illustrative Site Phasing Plan

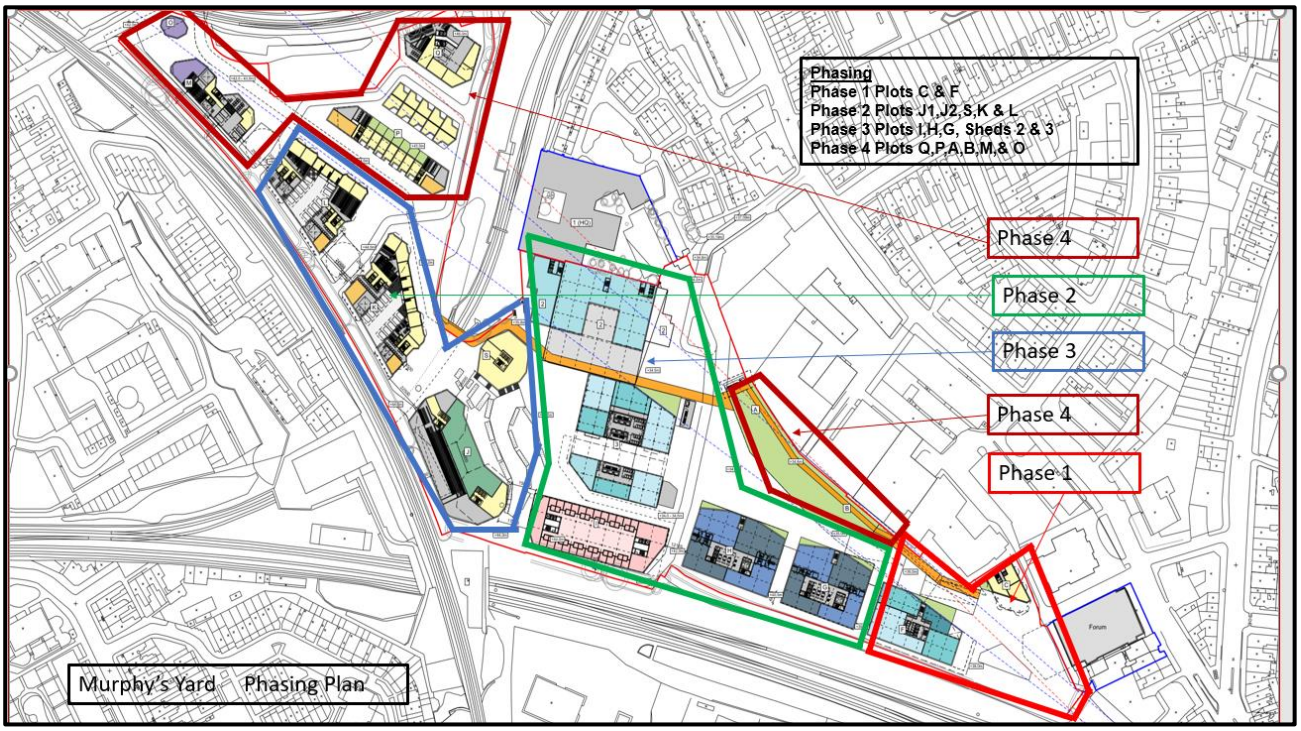


Figure 5.4 Demolition Logistics Plan

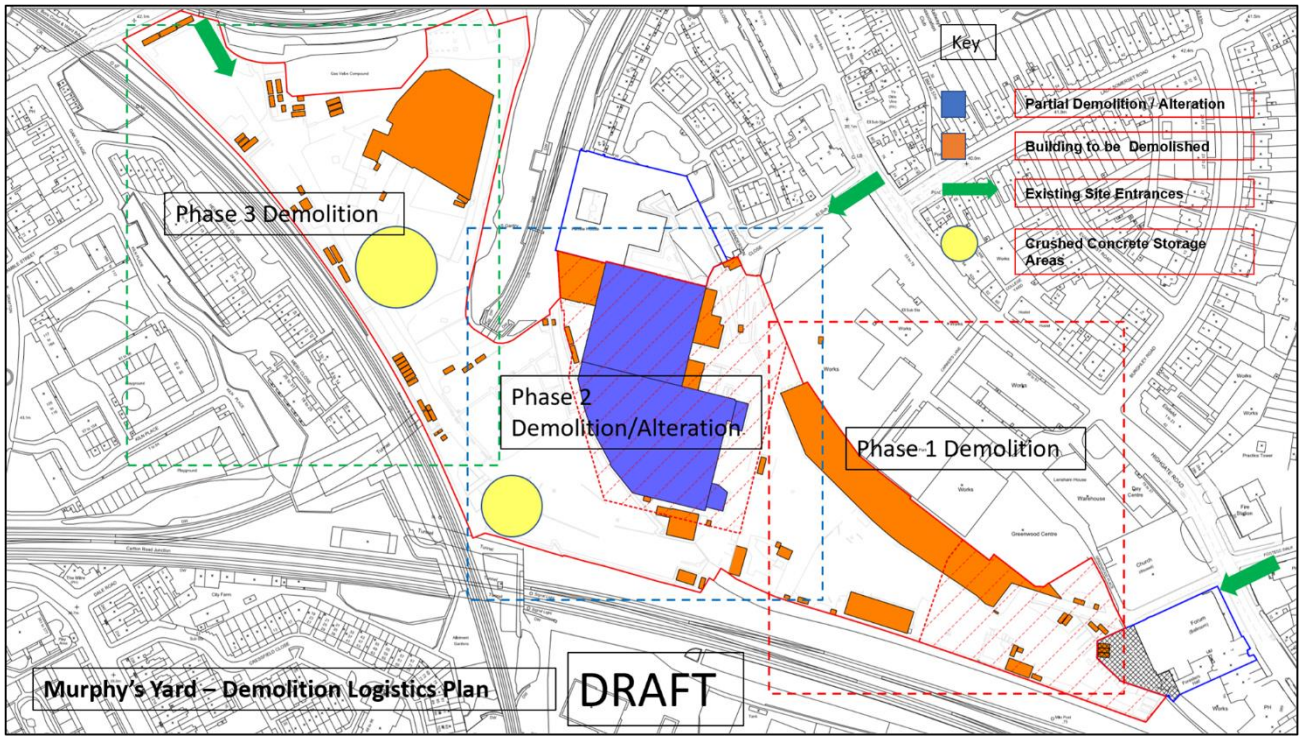


Figure 5.5 Main Site Logistics Plan

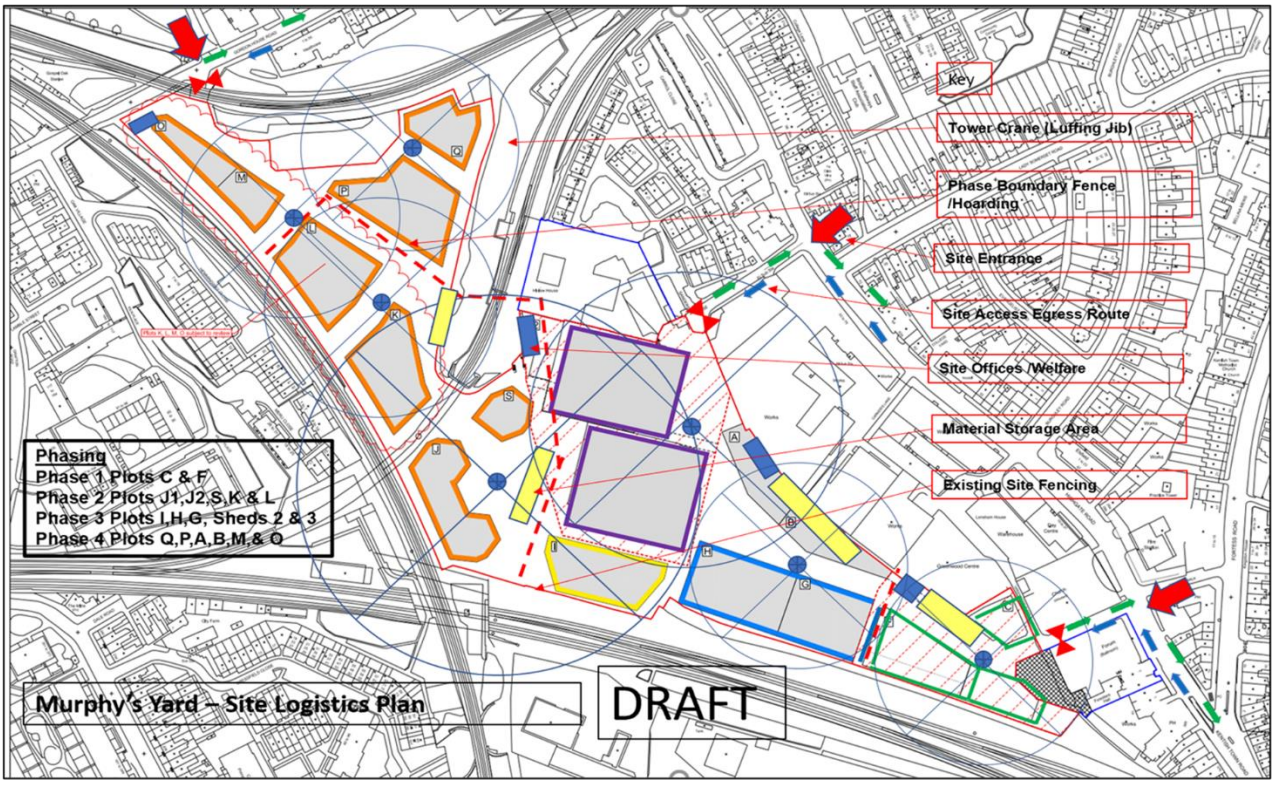


Figure 5.6 Crane Logistics Plan