URS

65-69 Holmes Road, Camden

Student Accommodation / Warehouse & Showroom Construction Traffic Management Plan

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Prepared for:

Hallmark Property Group

UNITED KINGDOM & IRELAND







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1. INTRODUCTION

1.1 Scope of Works

The works that are the subject of this Construction Traffic Management Plan (CTMP) involve the redevelopment of the existing Magnet showroom and warehouse locations at 65-69 Holmes Road, Camden. The site has an existing planning consent for the development of 268 student rooms and 2,262sqm of warehouse/showroom space. The consent was granted in December 2011.

The development is on the site of an existing 'Magnet' kitchen showroom, warehouse and car park. The site has an existing planning consent for the development of 268 student rooms and 2,262sqm of warehouse/showroom space. The consent was granted in December 2011.

Changes to the proposed development covered by this report include the clearing the existing site and construction of a proposed mixed use development of B8 warehouse/showroom on the ground and the two basement floors plus constructing six upper floors to include student accommodation. The uppermost floor will be set back and cladded with metal mesh for articulation.

The proposed development includes B8 warehouse/showroom space on the ground floor and upper as well as lower basement floors, plus 273 units which will house 301 student rooms on the upper floors as well as the ground floor and part of the upper basement level.

The proposed development is car free with provision for 12 cycle spaces for the B8 warehouse and showroom staff and visitor use, plus 258 cycle stands for the proposed student accommodation rooms with additional ten cycle parking spaces for visitors located on the ground floor by the student reception. A refuse store is located on the ground floor level adjacent to the B8 warehouse/showroom cycle store.

The planning application red line plan shown below (**Figure 1.1**) shows the development outline. Further details of the proposed development, associated servicing and access arrangements can be found in the associated transport statement submitted in support of the planning application for this development.



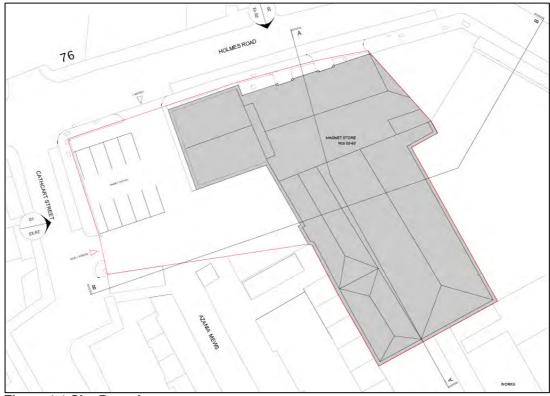


Figure 1.1 Site Boundary

The construction of the proposed development follows Modern Methods of Construction (MMC) which provides a route to improve construction from a sustainable perspective. MMC encourages innovative construction methods which reduce construction periods, reduce onsite risk and improve quality by a number of methods including off-site manufacturing.

The proposed development will be constructed under the "Considerate Contractors Scheme" (<u>www.consideratecontractorsscheme.org.uk</u>), and the contractor will also follow the "Guide for Contractors Working in Camden" as required by the London Borough of Camden.

1.2 Purpose of the CTMP

The CTMP describes the proposals to safely manage vehicular, cyclist and pedestrian traffic during the construction of the development proposals.

The purpose of this CTMP is to achieve the following:

- Provide details of the Construction Traffic Management Plan to be applied to provide a safe environment for traffic, road users, pedestrians, cyclists and construction staff
- Ensure that any impacts on road users are mitigated
- Ensure that access is maintained for the local resident community and local businesses
- Outline how potential construction-related environmental effects identified in the London Borough of Camden's (LBC) 'Sustainable Design and Construction Policy' will be avoided, remedied or mitigated during the construction period.



• Outline the potential stakeholder issues and set out strategies, systems and procedures to provide for ongoing consultation between local residents and businesses, LBC and Transport for London (TfL).

1.3 Overarching Objectives of the CTMP

- Provision of a safe environment for pedestrians, cyclists, and vehicular traffic through the implementation of plans to effectively warn, protect, inform and guide in accordance with best practice guidance
- Plan and stage all works effectively to minimise delays to pedestrian, cyclist and vehicular traffic, and minimise conflict points on the respective transport networks
- Enable pedestrians, cyclists, and other road users to plan their journeys by providing them with timely and accurate information on programmed traffic management measures
- Limit obstructions and restrictions to current movement patterns, and where required, provide alternative routes for use by pedestrians, cyclists and vehicular traffic
- Actively liaise with key stakeholders and ensure they are informed about proposed changes to plan measures and implementation programmes.

1.4 Status of the CTMP

The CTMP should be referred to when:

- Planning works to minimise, remedy or mitigate the effects on the environment
- Undertaking all works that may have an impact on the environment
- Communicating with stakeholders.

Once the CTMP has been agreed with relevant stakeholders, it will be adopted and developed in further detail by the successful contractor and made available to all parties, so that it can be used as a practical construction and communication management tool and reference source.

The agreed contents of the CTMP must be complied with unless otherwise agreed with the LBC. The person responsible for implementing the CTMP shall work with the LBC to review this CTMP if problems arise in relation to the construction of the development. Any future revised plan must be approved by the LBC and complied with thereafter

An up-to-date CTMP will be kept in the proposed site office and all construction staff will be made aware of its location for reference as required.

1.5 Construction Environment Management System Overview

The CTMP forms one of a suite of documents specifying processes and mitigation measures for all potential areas of construction impact. These documents will cover the following areas:

- Dust and Air Pollution Management
- Noise and Vibration Management
- Water/Sediment Management



- Spoil and Fill Management
- Management of Construction Waste and Re-use
- Site Hazards and Risk Management
- Incident Management.

It should be noted that there are overlaps between some of these documents and the CTMP. For example, construction traffic can contribute to noise and vibration and will need to be mentioned in the relevant construction management document.

1.6 Exclusions

The appointed contractor will prepare a specific Health and Safety Plan for site works to cover all activities within the construction process for the development. This CTMP only considers traffic related risks and management.

1.7 Structure of this document

The remainder of this document is therefore structured as follows:

- Chapter 2 Provides background on the construction site activities, phasing and layout
- Chapter 3 Provides details on the proposed access for construction vehicles and routing to the site
- Chapter 4 Provides details on the management of construction vehicles and general traffic
- Chapter 5 Outlines additional considerations for the CTMP
- **Chapter 6** Indicates how the CTMP is envisaged to be developed as further information becomes available.



2. CONSTRUCTION SITE ACTIVITIES, PHASING AND LAYOUT

2.1 Existing Heavy Goods Vehicle Movements

The existing site is currently occupied by a Magnet kitchen showroom, warehouse, service area and car park.

There are currently two access points for delivery vehicles, one via Holmes Road and the second via Cathcart Street. Due to the limited manoeuvring space along Holmes Road when the parking bays are in use the Cathcart Street access point tends to be used more frequently by large delivery vehicles.

During construction of the development the number of construction HGV trips is expected to be similar to the level currently generated by Magnet, but this is only expected during peak construction phases, such as the pouring of concrete foundations, where a constant stream of deliveries is a necessary part of the delivery process. During most construction phases the volume of HGV movements is predicted to be less than that currently generated by the existing Magnet warehouse on the development site. Further details of estimated construction traffic volumes are provided later in Chapter 3 of this document.

2.2 Outline Description of Proposed Development

The development proposals are for a mixed use development of B8 warehouse/showroom on the ground floor and the two basement levels with six upper floors of student accommodation providing 301 student rooms and associated facilities. The top floor will be set back and clad with metal mesh for articulation and will give the impression that the top floor is within a roof space. This development is proposed in place of an already consented scheme for mixed use B8 warehouse and student accommodation which was to replace the existing Magnet Kitchen warehouse.

The proposed development is car free with provision for 12 cycle spaces for the B8 warehouse use, plus 268 cycle stands for the proposed student accommodation (including ten spaces for visitors to the student hall of residence). A refuse store is located on the ground floor level adjacent to the B8 warehouse showroom cycle store.

2.3 Main Contractor

The main contractor responsible for the delivery of the proposed development is **Designated Contractors Ltd**.

The full contact details of the main office for the duration of the works are as follows:

Contact Name: Mr Simon Hikmet

Address: 46 Great Marlborough Street, London, W1F 7JW.

Telephone Number: 020 7479 9000.

The contact details for the site and project manager responsible for the delivery of works on site are:

Site and Project Manager. Mr Denis Enright.

Telephone Number: 07831 665752.



2.4 Construction Site Activities

The proposed activities to be conducted during the construction of the proposed development are as follows:

- Construction of Site Compounds and Placement of Site Offices within the site.
- Placement of hoarding around the site parameter.
- Demolition and site clearance of existing Magnet showroom and warehouse behind.
- Piling and RC retaining walls around the parameter as foundation.
- Piling cap and RC floor slab at ground level above the soil.
- Excavation of soil down to 4 meters to Basement Level One across the site.
- Underground service and drainage instillation.
- Construction of Upper basement RC Slab across part of building with only one basement.
- Excavation down to Lower Basement Level across part of the site with two basement levels, supporting parameter walls with temporary props.
- Underground service and drainage instillation.
- Instillation of Lower Basement floor slab.
- Locating a Luffing crane within Open Garden courtyard area close to middle of building.
- Deliveries of construction materials, and plant equipment.
- Construction of structural steel framework and internal stud work at ground and basement levels.
- Pod delivery and installation of upper student accommodation floors.
- Instillation of scaffolding around the building.
- Construction of circulation cores and communal areas such as corridors. .
- All external cladding and fenestrations including green roof.
- All internal work including partitions and fixtures and fittings.
- Service and M+E connections.
- Final internal decorations.
- Removal of scaffolding.

2.5 Site Layout

Appendix A of this report contains a drawing indicating the proposed site layout during the construction period.



Due to the constrained nature of the site it is proposed to use three separate access arrangements during the construction period. These are summarised in the hoarding drawings shown in Appendix A and are discussed in more detail in Chapter 3 of this report.

2.6 Construction Programme

A full construction management programme is provided in Appendix B.

The duration of the construction is expected to be approximately 11 months for preliminary design and ground works (including foundation piling and excavation) and approximately 15 months for building construction. The total construction period will therefore be approximately 27 months.

The construction works and programme have been planned in detail to ensure all elements of the build are coordinated. In additional, all materials and equipment have already been ordered to avoid any delay in the construction programme.

2.7 Construction Stages and Phasing

The construction of the proposed development has been divided into five distinct phases.

The access arrangements for the construction period are described in Chapter 3.

At all stages of the construction work all construction vehicle movements will be managed by the contractors to minimise any potential disruption. The following phases are envisaged.

2.7.1 Phase 1 – Foundation Piling and Excavation

The first stage of the construction process will include the following:

- Site establishment / Set up
- Setting out / surveys
- Dilapidation survey and photos
- Disconnection of all services
- Hoarding around the building parameter
- Sheet piling around both street fronts and RC retaining wall foundation against adjoining properties.
- Excavation of site down by 4 meters to upper basement level.
- Construction of part of the basement floor RC slab.
- Excavation of remainder of basement to lower level.
- Construction of remainder of the basement floor RC slab.

Service and drainage trenches will be dug during this phase by the on-site digger and all pipes and tanks will be installed.

The site establishment/office would be placed close to the proposed site access on Cathcart Street during this phase.



Once all basement excavation is complete and the RC floor slab is in place the site office will be relocated above the public pavement on Cathcart Street on a specially designed gantry from scaffold by license from Camden Council as shown in Appendix A.

2.7.2 Phase 2 – RC Wall, Ground Floor Slab and Steel Frame Structure

During this stage the following activities will take place:

- Construction of RC structural walls and remaining floors to basement level.
- Delivery and placement of prefabricated PODs to upper basement level.
- Construction of RC structural ground floor slab to cover the warehouse space and ramp.
- Construction of RC and steel frame structural walls and circulation cores to ground floor.

In addition to the above a luffing jib crane will be assembled within the open courtyard and garden area towards the centre of the site to assist with the transfer of materials and equipment into the site throughout the construction stage. The location of the crane is shown in the hoarding drawings shown in Appendix A.

2.7.3 Phase 3 – POD/Room Installation

During this phase of construction the prefabricated POD units will be delivered and installed onsite. In addition the RC and steel frame structural walls and circulation cores to the upper floor will be constructed.

2.7.4 Phase 4 – Service Connection and Cladding

This phase of works includes all service connections to all rooms and the communal parts of the building. In addition the following will take place:

- Installation of temporary scaffolding around the building.
- Installation of all external cladding and green roof.

Once the green roof has been completed, the luffing jib crane will be removed from the site.

2.7.5 Phase 5 – Internal and Communal Finishes

During this final phase of construction the following works will take place:

- Final internal fittings and finishes to all commercial, communal and residential areas.
- Final fixtures and fittings, distribution and connections all services including M+E plants and lift installation
- Removal of all temporary scaffolding around the building.

2.8 Hours of Site Operation

In accordance with the hours recommended in the LBC 'Noise from Construction Sites', the hours of work are proposed to be:

• Monday to Friday 08:00 – 18:00



- Saturday 08:00 13:00
- No work is to be carried out on Sundays or bank holidays unless it is necessary. When Sunday or bank holiday working is required a license will be required and obtained from LBC as necessary.

In order to minimise the impact of the proposed construction on the surrounding highway network, the delivery of construction materials and equipment will be limited to between the hours of 10.00–16.00.

Should there be any requirement for works to be carried out outside the construction hours outlined above the construction site management will approach the LBC and TfL prior to it taking place.

2.9 Crane Use and Location

A luffing jib crane will be erected to assist the construction. The crane will be employed to specifically avoid the need for over sailing the adjacent highway and buildings, since the jib angle can be changed to reposition the load at various radii, without the remainder of jib over sailing these sensitive areas. When compared to other tower crane types it is also usually possible to construct a lower tower height when using a luffing jib crane.

The luffing jib crane will be erected within the courtyard area of the proposed development. The tower crane location and indicative arc of operation is shown in Appendix C.

All necessary licences required for the erection and operation of the tower crane will be applied for.



3. CONSTRUCTION SITE ACCESS

3.1 Construction Traffic Approach Routes

The A400 Kentish Town Road will form the most suitable link in the strategic road network to accommodate construction vehicles. Primary routes providing connections to the A400 (i.e. A501 Euston Road, A502 Camden High Street and A503 Camden Road) will therefore form the main approach routes to the site.

The construction traffic route into and out of the proposed site can be seen in the diagram below. The red arrows indicate the A400 one-way system in Camden Town.

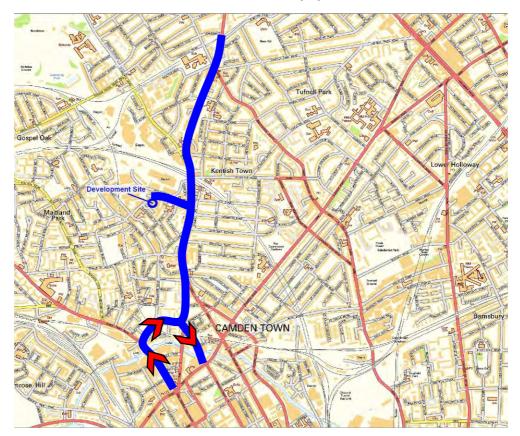


Figure 3.1 Construction Traffic Routes

It should be noted that the roads outlined above form part of Camden's Strategic Road Network or Local Distributor Network and are therefore considered suitable to accommodate the construction traffic associated with the proposed development.

Holmes Road (immediately to the front of the development site) and Cathcart Street (located on the western boundary of the site) both have a single lane in each direction, although lanes are not always marked on the carriageway.

Speed humps are located along Holmes Road, to reduce road traffic speeds in the vicinity of the nearby primary school and college.

The residential parking bays within the Controlled Parking Zone (CPZ) on Holmes Road and Cathcart Street (immediately adjacent to the site) operate between 08:30 and 18:30 on



weekdays. There are approximately three parking bays adjacent to the site on Cathcart Street, and approximately four bays on Holmes Road adjacent to the site. A number of Pay & Display bays are located on Holmes Road to the north of the site. The pay and display restrictions are in place from 0700 to 1900 on weekdays with a maximum stay of two hours.

There are a number of bus routes which operate in both directions on Kentish Town Road.

3.2 Site Access

3.2.1 Pedestrian Access

Pedestrian access for authorised site personnel will be via a pedestrian gate on Holmes Road.

3.2.2 Vehicle Access

All construction vehicles will access the proposed site via Kentish Town Road and Holmes Road. The main site access will be via the site gate provided on Cathcart Street, which is accessed via Holmes Road, although access will also be possible from Holmes Road. The Holmes Road access will only be used on a limited number of occasions and will be accessed as per its existing use.

It is proposed that a suitable gate arrangement will be incorporated into the site boundary hoarding facing both Holmes Road and Cathcart Street as shown in Appendix A. The proposed gates will open further than 90 degrees in order to assist in entrance to the site. The gates will be controlled by a banksman.

It should be noted that the gate width shown in the attached hoarding drawing is indicative, the gate provided on-site will accord with the width shown as required by the tracking assessment presented in this report.

As outlined in Chapter 2 the proposed access/egress to the site will vary throughout the construction period subject to the specific construction requirements. The various access arrangements are managed as detailed below.

Vehicles will turn into Holmes Road from Kentish Town Road and travel west towards the site. Vehicles will make the reverse of this journey to exit the site. In order that the impact of vehicles accessing/egressing the site is minimised on the surrounding residential area, it is proposed that construction vehicles access and egress the site using this route.

The vehicle tracking demonstrating the operation of the site access during construction is shown in Appendix D.

3.2.3 Access Arrangement 1 – Surface Level Access

During the early stages of the first phase of construction, it is proposed that construction vehicles will access via the site gate on Cathcart Street, turn within the site, and exit the same way onto Cathcart Street.

3.2.4 Access Arrangement 2 – Ramp Access

Once the excavation reaches a point at which access to the site is not possible as detailed in Access Arrangement 1, a ramp will be provided from the Cathcart Street gate down to Basement Level 1. This access arrangement will be in place from the end of construction phase 1 to midway through construction phase 2.



During this arrangement it is proposed that vehicles access the ramp in a reverse gear from Cathcart Street and exit in a forward gear as shown in Appendix D. The movement will be overseen by the site banksmen.

It is anticipated that the following movements will be included during the access arrangement:

- During the instillation of sheet piling, there will be two deliveries by flatbed lorry to deliver pilling rig to site and collection on completion.
- While constructing the RC retaining walls as part the foundation, there is only need for a mid-sized digger plus concrete and steel to be delivered to site.
- For the construction of part of RC slab to the basement levels, there will be concrete and steel deliveries. These will equate to three vehicles per day.

The maximum vehicle size which will be required during this access arrangement will be a 9.45m width Flatbed Truck. As shown in Appendix D this vehicle can reverse into the proposed ramp and exit in a forward gear.

Skips will be positioned close to the site access. When full the skips will be removed by tipper bodied rigid vehicles with the building materials taken away to be recycled.

Early in the second phase of construction a luffing jib crane will be delivered to the site and will be located in the open courtyard area in the centre of the site as shown in Appendix A. The delivery of the crane will take place using the 9.45m Flatbed Truck as summarised above.

3.2.5 Access Arrangement 3 – Temporary Construction Lay-Bys

It is proposed to remove the aforementioned ramp prior to the construction of the RC ground floor slab in the middle of construction phase 2. Once the ramp is removed all construction vehicles will be required to use the proposed temporary lay-bys located at the existing vehicle crossovers on Cathcart Street and Holmes Road.

As per access arrangement 2, the maximum vehicle size which will be required during this access arrangement will be a 9.45m width Flatbed Truck.

During this arrangement it is proposed that vehicles will stop in the proposed bays before turning in the road and existing via Holmes Road and Kentish Town Road to remove any requirement for construction vehicles to travel further west on Holmes Road or south on Cathcart Street.

The vehicle tracking for the required vehicles is shown in Appendix D.

During the arrangement it is proposed to predominately utilise the Cathcart Street layby. Vehicles can access this bay in a forward gear and exit using Cathcart Street to turn around in. This turning movement will be overseen by the site banksmen. Due to the turning requirements of the large tipper vehicle, the turning space provided in Cathcart Street results in potential overrun of the eastern footway. In order to minimise any requirement for this movement, the limited number of deliveries required by this vehicle will utilise the Holmes Road lay-by as described below.

Where necessary, vehicles will utilise the lay-by in Holmes Road. When using this lay-by vehicles will be required to turn using the Holmes Road/ Cathcart Street junction. This movement will be controlled by the banksmen employed on the site to ensure safety for road users and to minimise disruption. However, where possible the Cathcart Street lay-by will be



used to accommodate these vehicles and as such the requirement for this movement will only occur infrequently.

It is anticipated that the following movements will be included during the access arrangement:

 Prefabricated POD deliveries on flat bed lorries, equating to approximately eight deliveries per day

Following the installation of the green roof towards the end of construction phase 4, the luffing jib crane will be removed from the site. The removal of the luffing crane will be undertaken using the 9.45m Flatbed vehicle.

3.2.6 General Comments

Holmes Road and Cathcart Street will remain open as a vehicular route to the public throughout the construction period. It is proposed to obtain a temporary license from LBC to use the existing dropped kerb vehicle crossovers to the front of the existing site access areas to use these areas for the temporary lay-bys to accommodate construction vehicles.

In order to ensure the safety of pedestrians in the vicinity of the site, it is proposed to obtain a temporary license from LBC to suspend the pedestrian footways immediately adjacent to the site on both Holmes Road and Cathcart Street. The footway will be closed from the existing vehicle crossover on Holmes Road to the site boundary in Cathcart Street. More detail is provided in Section 5 of this report.

A temporary parking suspension will be required on the three parking bays located on the southbound carriageway of Cathcart Street immediately adjacent to the site in order to facilitate the delivery of construction goods to the site. The relevant applications will be made for the suspension of these spaces.

In addition to the above, it is proposed to remove two traffic bollards during Access Arrangement 3 to enable access to the site. The first bollard is located immediately to the south of the existing vehicle crossover on Cathcart Street, and the second is located immediately to the east of the existing crossover on Holmes Road. All relevant applications will be made to LBC prior to the removal of the bollard, and the bollard will be replaced on completion of the works.

Banksmen will be stationed at the site access throughout the construction period to assist construction vehicles to enter and exit the site safely and to minimise inconvenience to traffic on Cathcart Street and Holmes Road.

A delivery booking system will be implemented to minimise the potential for vehicles queuing along Holmes Road and Cathcart Street. More details are provided in Section 4.



4. CONSTRUCTION TRAFFIC MANAGEMENT

This section of the CTMP identifies the environmental impacts specific to construction traffic and presents suitable mitigation measures.

4.1 Delivery Booking System

A delivery booking system will be produced and operated by the contractor's site traffic manager. The system will aim to mitigate the following:

- Queuing outside the site
- Arrival of unscheduled deliveries
- Deliveries arriving late due to supplier despatch misunderstandings
- Deliveries failing to arrive
- Wrong quantities or materials arriving by mistake, requiring the vehicle to be sent away, or an additional 'part-load' vehicle delivery being required to make up delivery requirements
- Delivery vehicles arriving early in the hope that they will be dealt with out of turn
- No staff or equipment being available on-site to unload the vehicle.

Mitigation of the above concerns will avoid unnecessary vehicle movements to and from the site. It will also, importantly, reduce the possibility of construction vehicles queuing outside of the site waiting to be processed.

The delivery booking system will contribute towards decreasing / mitigating any potential negative environmental and/or social impacts the construction traffic may have on the surrounding area, including on neighbouring residents and businesses. Without the booking system in place the impacts could potentially include noise and air pollution as well as congestion and reduced accessibility to Cathcart Street, Holmes Road and adjoining roads.

The delivery booking system will be operated by the construction site traffic manager.

Banksmen will be employed to ensure the efficient and safe movement of vehicles into and out of the site. The banksmen will be coordinated by the site traffic manager, and will organise both the access points as necessary.

4.2 Heavy Goods Vehicle Types

A number of types of heavy goods vehicle will serve the site. Due to the constrained nature of the site, and the commitment of the development to maintain the maximum level of parking bays, the construction vehicles permitted to access the site on a day to day basis have been limited to the following vehicle types:

- Light Vans used by individual trade contractors, typically during the final fit-out of the proposed development (approximately 7.2m long and 2.2m wide).
- Skip Lorries for removal of demolition waste (approximately 6.3m long and 2.5m wide)
- Flatbed Truck for delivery of some construction materials and plant (expected to be a maximum of 9.45m long and 2.4m wide)



- Tipper Bodied Rigid Lorries for removal of demolition waste and spoil from the site (expected to be a maximum of approximately 10.2m long and 2.5m wide)
- Small Articulated Lorries for the delivery of some construction materials (maximum 10.7m long and 2.4m meters wide).

Vehicle tracking for the above vehicle types is included in Appendix D of this report.

During access arrangement 1 it may occasionally be necessary to use a larger vehicle to deliver materials and equipment to the site. In such circumstances an articulated low loader will be used in order to delivery some of the construction plant (maximum of 16.5m long and 2.5m wide).

The drawings in Appendix D also illustrate the swept paths for an articulated low loader during access arrangement 1.

The drawings in Appendix D demonstrate that these vehicles are able to access and egress the site with the implementation of the appropriate parking suspensions and the removal of bollards as previously discussed. Therefore all of the above vehicles could potentially access the construction site without overhanging or overrunning any kerb lines.

4.3 Heavy Goods Vehicle Traffic Volumes

It is anticipated that the maximum number of construction vehicle movements that will occur during the construction period is 20 movements (10 vehicles accessing and then egressing the site) per day.

Based on the current programme, and in consultation with potential contractors, a table identifying the predicted volume of construction vehicles will be provided. It should be noted that although a time period has been set for each activity, the total number of vehicles specified for the associated task within that period will not be evenly spread over the allocated time period. Within the time allocated for each activity there will be peaks in vehicle generation due to the requirements of the site at any one time. The table on the following page represents the anticipated peak movement of vehicles within the specified activity.



Hallmark Property Group – 65-69 Holmes Road, Camden

| Construction | Activity | Volume | Duration | Veh Type | Total Veh (for activity) | Av. Veh/Day | Av. Move. /Day |
|-----------------------------|--|--------------------|----------|------------------------|--------------------------|-------------------|-------------------|
| | Demolition & Site Clearance | 390m ³ | 2 weeks | 30 tonnes | 12 | 6 | 12 |
| | Sheet Piling | n/a | 4 weeks | Artic HGV and Flat Bed | 2 x Artic and Flat Bed | Special – 2 deliv | very / 2 removals |
| | Concrete for Piling Cap | 50m ³ | 3 weeks | 9m ³ Lorry | 10 | 2 | 4 |
| Construction Stage1 | RC Concrete Retaining Wall | 60m ³ | 5 weeks | 9m ³ Lorry | 12 | 4 | 8 |
| Foundation | Soil Removal | 7690m ³ | 5 weeks | 30 tonnes | 250 | 8 | 16 |
| Piling & Excavation | Hardcore | 410m ³ | 5 days | 30 tonnes | 6 | 4 | 8 |
| | Re-cycled material removal | 260m ³ | 5 days | 30 tonnes | 14 | 6 | 12 |
| | Lower Basement Concrete slab | 430m ³ | 4 weeks | 9m ³ Lorry | 20 | 4 | 8 |
| | Concrete Structural Walls | 370m ³ | 4 weeks | 9m ³ Lorry | 16 | 4 | 8 |
| Construction | Upper Basement RC walls & floors | 720m ³ | 7 weeks | 9m ³ Lorry | 30 | 4 | 8 |
| Stage 2 RC | Pod/Container to Lower Basement | 24 Pods | 2 weeks | Flat Bed | 24 | 8 | 16 |
| Wall, Floor Slab & Frame | Ground Floor Concrete slab | 460m ³ | 6 weeks | 9m ³ Lorry | 21 | 4 | 8 |
| Structure | Ground Floor Steel Frame Structure | 285t | 6 weeks | Flat Bed | 12 | 1 | 2 |
| Construction | Pod/Container | 247 Pods | 5 weeks | Flat Bed | 247 | 10 | 20 |
| Stage 3 POD/Room | Concrete | 80m ³ | 2 weeks | 9m ³ Lorry | 16 | 3 | 6 |
| Instillation | Circulation core & RC structure above ground | 290m ³ | 4 weeks | 9m ³ Lorry | 20 | 4 | 8 |
| | Composite Panel Cladding | 160m ³ | 6 weeks | Flat Bed | 6 | 2 | 4 |
| Construction | Steel mesh | 60t | 4 weeks | Flat Bed | 6 | 1 | 2 |
| Stage 4 Services & | Glass Cladding | 42m ³ | 3 weeks | Flat Bed | 8 | 2 | 4 |
| Cladding | Concrete | 195m ³ | 5 weeks | 9m ³ Lorry | 12 | 6 | 12 |
| | Green Roof Installation | 22t | 4 weeks | Flat Bed | 4 | 1 | 2 |

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

October 2013



| | Concrete | 62m ³ | 10 days | 9m ³ Lorry | 8 | 2 | 4 |
|------------------------------|--------------------------|-------------------|----------|-----------------------|----|---|----|
| | Composite panels | 145t | 4 weeks | Flat Bed | 14 | 2 | 4 |
| O | Windows and glass frames | 230t | 6 weeks | Flat Bed | 16 | 6 | 12 |
| Construction Stage 5 | Internal fittings | 110m ³ | 6 weeks | Flat Bed | 18 | 4 | 8 |
| Internal & Final finishes | M+E Service connections | 68m ³ | 14 weeks | Flat Bed | 6 | 1 | 2 |
| | External Landscaping | 65t | 3 weeks | Flat Bed | 12 | 4 | 6 |
| | Concrete Mix | 15m ³ | 5 days | Flat Bed | 2 | 1 | 2 |
| | External finishes | 12m ³ | 3 weeks | Small vehicle/vans | 16 | 1 | 2 |

Table 4.1 Forecast Construction Vehicle Movements

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

October 2013



4.3.1 Existing Large Vehicle Movements

Traffic counts were undertaken on Thursday 17th December 2009 to inform the planning application, recording movements in and out of the accesses to the Magnet car park which are situated on Holmes Road and Cathcart Street. The traffic counts considered separately the users of the car park and users of the loading bays, and enabled a daily profile to be created showing the number of vehicles arriving / departing from the site throughout the day. It is these recorded movements which have been used for the purposes of estimating the existing trip generation of the site.

Using the information gained in the above survey, the profile of HGV's at the existing Magnet site is shown in Table 4.2.

| Time Band | Arrivals | Departures | Total Trips |
|-------------|----------|------------|-------------|
| 00:00-07:00 | 0 | 0 | 0 |
| 07:00-08:00 | 1 | 0 | 1 |
| 08:00-09:00 | 0 | 0 | 0 |
| 09:00-10:00 | 0 | 0 | 0 |
| 10:00-11:00 | 0 | 1 | 1 |
| 11:00-12:00 | 2 | 0 | 2 |
| 12:00-13:00 | 0 | 2 | 2 |
| 13:00-14:00 | 0 | 0 | 0 |
| 14:00-15:00 | 1 | 1 | 2 |
| 15:00-16:00 | 0 | 0 | 0 |
| 16:00-17:00 | 0 | 0 | 0 |
| 17:00-18:00 | 0 | 0 | 0 |
| 18:00-19:00 | 0 | 0 | 0 |
| 19:00-24:00 | 0 | 0 | 0 |
| Total | 4 | 4 | 8 |

Table 4.2 Existing Magnet Warehouse HGV Profile

Table 4.2 indicates that the Magnet warehouse/showroom is generating a total of four inbound and four outbound HGV delivery trips per day (07:00-19:00) which is equivalent to a total of eight HGV delivery movements per day.

It is anticipated that the maximum number of construction vehicle movements that will occur during the construction period is 20 movements (10 vehicles accessing and then egressing the site) per day. It should be noted that it is not anticipated that this level of trips will be maintained throughout the month period, but will occur as a maximum on a small number of days as required by the construction programme.

4.4 Vehicle 'Muck' Control

Other than the excavation and construction of the basement RC slab, there will be no need for vehicle wheel washing facilities, as all construction vehicles will stop in the vehicle loading area off Holmes Road.

There will be a road sweeper on hand at the site to clear up any material deposited on the public highway by vehicles accessing/egressing the site. This will be done as quickly as possible after any identified occurrence.



4.5 Off Site Highways Works to Facilitate Construction

It is proposed to place temporary hoarding and scaffolding at least 1.5 meters onto the public footway plus a further two meters into the Holmes Road footway adjacent to the current access during the construction period and all necessary licenses will be applied for.

A temporary license will be obtained to use the existing dropped kerb areas in front of both the current site access and the existing parking bays on Cathcart Street as temporary construction vehicle lay-bys. In addition, permission will be obtained to remove the traffic bollards located on the footway immediately to the south of the Cathcart Street, and to the east of the Holmes Road crossover for the duration of Access Arrangement 3. The bollards will be reinstated at the completion of the construction works.

4.6 Workforce Traffic

The site workforce will peak at approximately 40 staff.

No staff parking will be provided. Construction contractors will be responsible for encouraging workers to share vehicles or use sustainable methods of transport to the site such as works buses and public transport.

The existing Controlled Parking Zone (CPZ) surrounding the site will deter workforce parking on residential streets in the area. The CPZ operates between 0830-1830 on weekdays and 0930-1730 on Saturdays covering the proposed working hours of the site. In case of any Sunday working the residential bay restrictions are also in place between 0930 and 1730 on Sundays.

The close proximity of Kentish Town West railway and underground Stations, in addition to a large number of bus routes also assist in making workforce access to the site by public transport an attractive proposition for many site workers from a wide catchment. A travel leaflet has been developed and will be provided to all construction employees to advise the travel options available to them in the local area. A copy of this can be seen in Appendix E.

Staggered shift patterns for the various trades and specialists employed on site will ensure that the impact of any workforce traffic is spread over a number of hours within any one day, and will therefore result in these workforce members having a negligible impact on the surrounding road network capacity.



5. ADDITIONAL CONSIDERATIONS

5.1 Road Closures and Traffic Diversions

No road closures or traffic diversions are required during the proposed construction period.

5.2 Pedestrian Movement and Route Diversions

5.2.1 Holmes Road and Cathcart Street

The pedestrian footway adjacent to the site boundary will be closed for the duration of the construction works. Alternative footways on the other side of the carriageway will still remain open for use by pedestrians.

Appropriate directional signage will be displayed on the footways leading up to the proposed closure on both Holmes Road and Cathcart Street.

5.3 Parking Bay Removals/Suspensions

5.3.1 Holmes Road

Parking bays on Holmes Road will be maintained during the construction process.

5.3.2 Cathcart Street

It is envisaged that the three parking bays on Cathcart Street (adjacent to the junction with Holmes Road) will need to be removed to facilitate access to the construction site. All relevant licenses will be applied for from LBC prior to the commencement of the construction works.

The drawings provided in Appendix D indicate the vehicle tracking of the various construction vehicles, and the impact of parking bays in the area.

5.4 Access to Public Transport Facilities

No public transport infrastructure or routes will be affected by the construction.

5.5 Cycle Movement and Route Diversions

No London Cycle Network cycle routes will be affected by the construction.

5.6 Noise, Vibration, Dust and Rodent Control

The proposed construction method for the proposed development which will be predominated constructed using timber and steel frame prefabricated sections and prefabricated POD units which will be delivered to site will mitigate against any potential noise, vibration and dust created by the construction. In additional all work will be monitored on a daily basis to ensure that no excessive noise and dust is generated by the construction process

Should the construction process exceed the accepted noise or vibration levels, noise and vibration a monitoring system will be installed on request. Similarly, should dust levels from the site exceed a minimal level then a monitoring system will be employed on site.

It is accepted that abatement techniques to prevent noise, vibration and dust nuisances will be exercised during all construction works to limit the potential generation of these elements.



Measures will be taken to ensure that rodents are not attracted to the site during the construction works. Where necessary any pest control job receipts will be retained and provided on request.

5.7 Local Community Liaison

The developer of the site understands the importance of engagement with the local community regarding the development of this CTMP and has already undertaken intensive consultation with all local residents and groups with respect to the original planning application for the same site. All comments raised in this consultation have been considered in this revised application.

Prior to the commencement of the construction works, residents will be advised of the proposed development by way of a letter drop which will also provide details of proposed dates and locations of any related meetings, along with the contact details of the project manager.

The developer will continue to liaise with the local community with respect to the construction of the proposed development as outlined above.

The person responsible for community liaison throughout the site works will be Simon Dodd from Hallmark Estates. Simon's email address is <u>simon.dodd@hallmarkestates.com</u> and his telephone number is 020 7479 4612.

The hoarding used to secure the site will make the construction purpose clear, in addition to displaying information on how, and where, to contact the site management and Simon Dodd as the community liaison person responsible for the site works.

5.8 Complaints Register

A complaints register will be kept at the site office and will include the following information regarding any complaints received:

- Complainant's details
- Date and time of complaint made
- Causes of complaint
- Action taken to resolve the complaint
- Date and time of action taken to resolve the complaint
- Reasons for any unresolved complaint.



6. ONGOING DEVELOPMENT OF THE CTMP

It is acknowledged that the agreed contents of the CTMP must be complied with unless otherwise agreed with the LBC. The contractor's project manager will work with the LBC to review this CTMP if problems arise in relation to the construction of the development. Any future revised plan must be approved by the LBC and complied with thereafter.

This CTMP has been developed in consultation with key stakeholders at a level of detail sufficient to inform them of construction traffic management proposals. The principles identified in this CTMP are considered to form a robust basis and framework for on-going development and implementation of the CTMP.

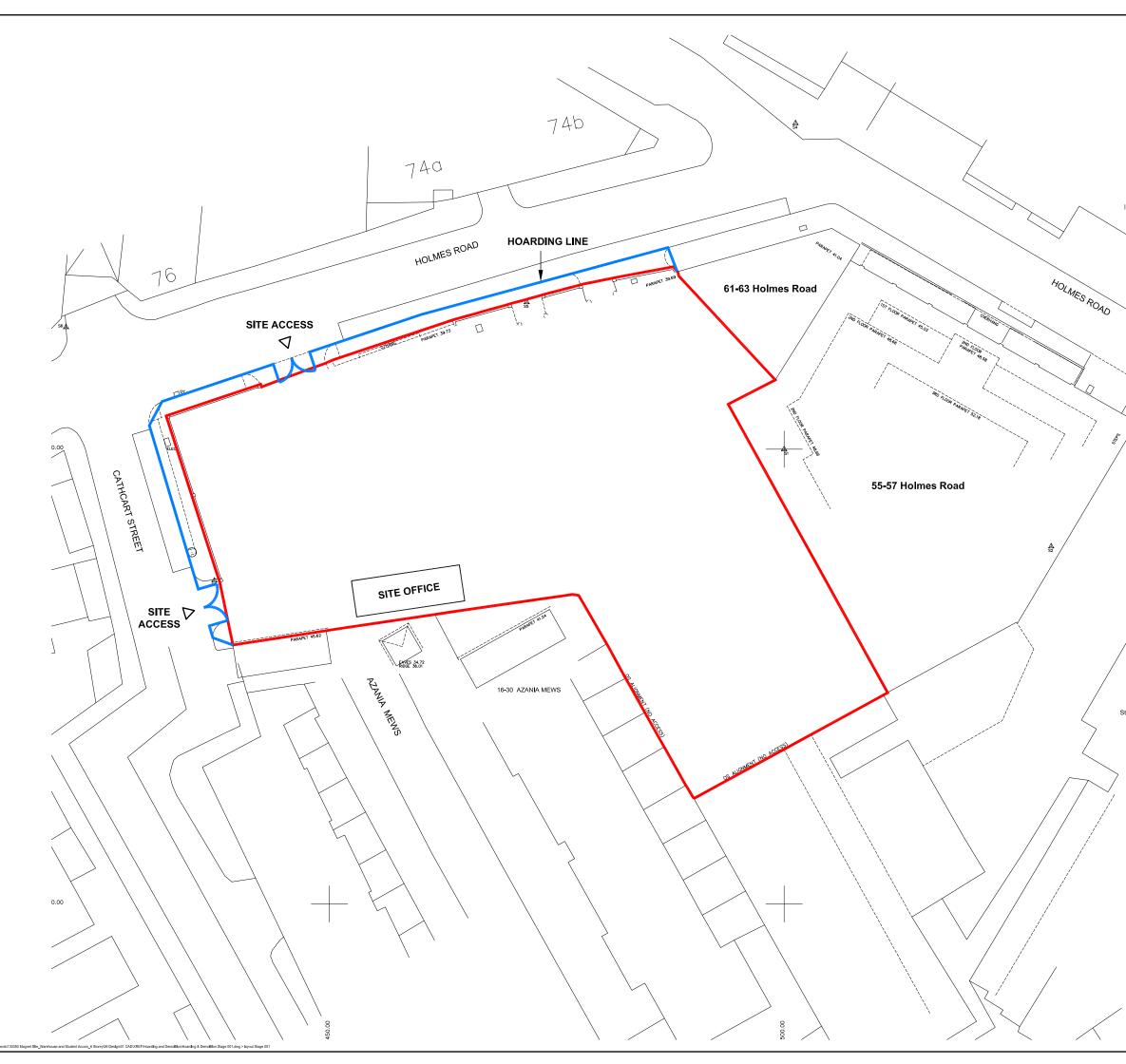
It is envisaged that the principles described in this document will be developed in further detail as the construction methodology and logistics plans are progressed and contractors appointed. Contractors will be expected to employ their own 'in-house' management systems to meet the overall aims of the CTMP.

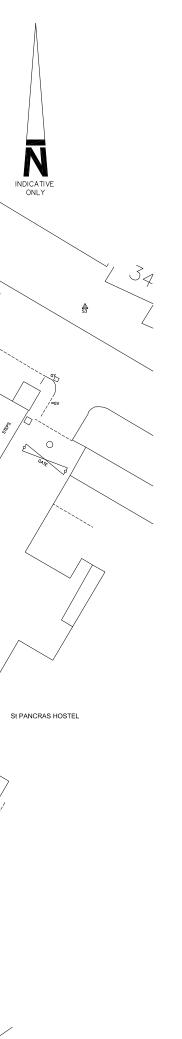
The CTMP may also be revised to maintain compatibility with other documents being developed as part of the Construction Environment Management System.

The overarching aim is to provide a safe environment for the site workforce and the surrounding business and residential community throughout the duration of construction.



APPENDIX A INDICATIVE SITE LAYOUT





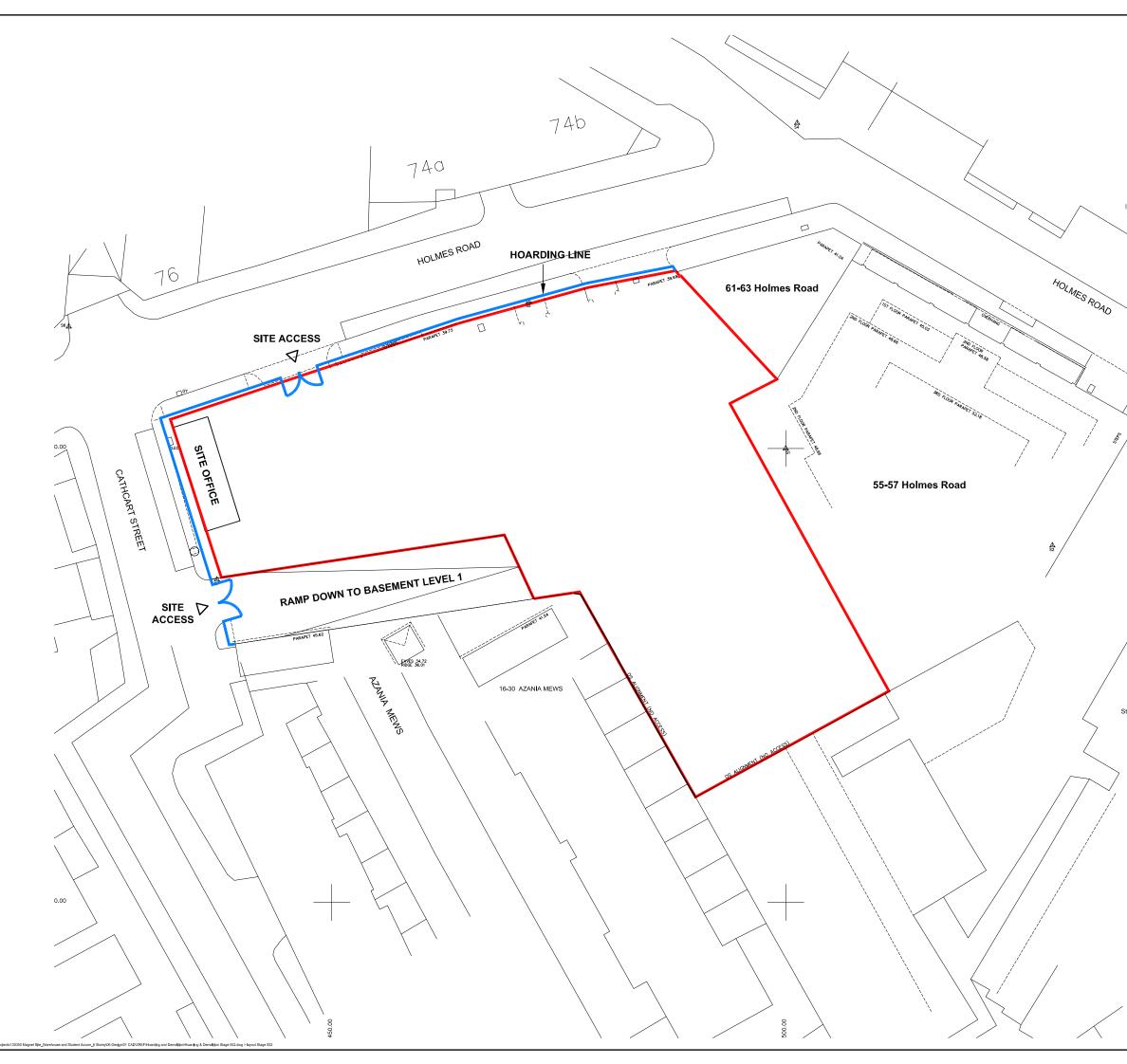
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| Contemporary Design Solutions |
| Client HALLMARK PROPERTY GROUP |
| Project Title B8 WAREHOUSE & STUDENT ACCOMMODATION 65-69 HOLMES ROAD |
| Drawing Title Hoarding Line During Demolition & Piling |
| Scale 1: 200@A1 Date APR 2013 Drawn CT Checked DL Drawn Nb Rev |

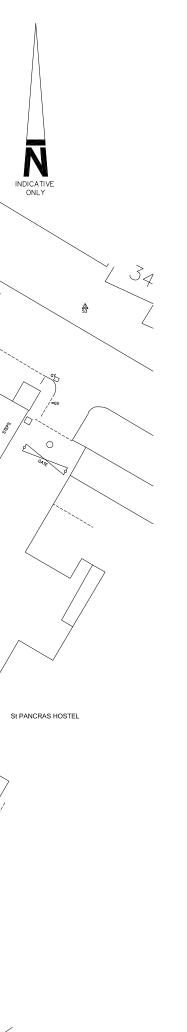
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Date By

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CAD plot date: 29 Apr 2013 - 03:26pm





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|---|---|
| | Contemporary Design Solutions |
| | |
| | 46 Great Marborough Street London WH 77 JW Telephone: 020 7494 9000 Fax: 020 7494 4944 |
| (| Client |
| | HALLMARK PROPERTY GROUP |
| | Project Title |
| | B8 WAREHOUSE & STUDENT ACCOMMODATION 65-69 HOLMES ROAD |
| | Drawing Title |
| | Hoarding Line |
| | During Phase 1 Excavation, |
| | RC Retaining Wall, Basement RC |
| | Floor Slab and Walls |
| (| Scale 1: 200@A1 Date APRIL 2013 |
| | Drawn CT Checked DL |
| | Drawing No. Rev. |

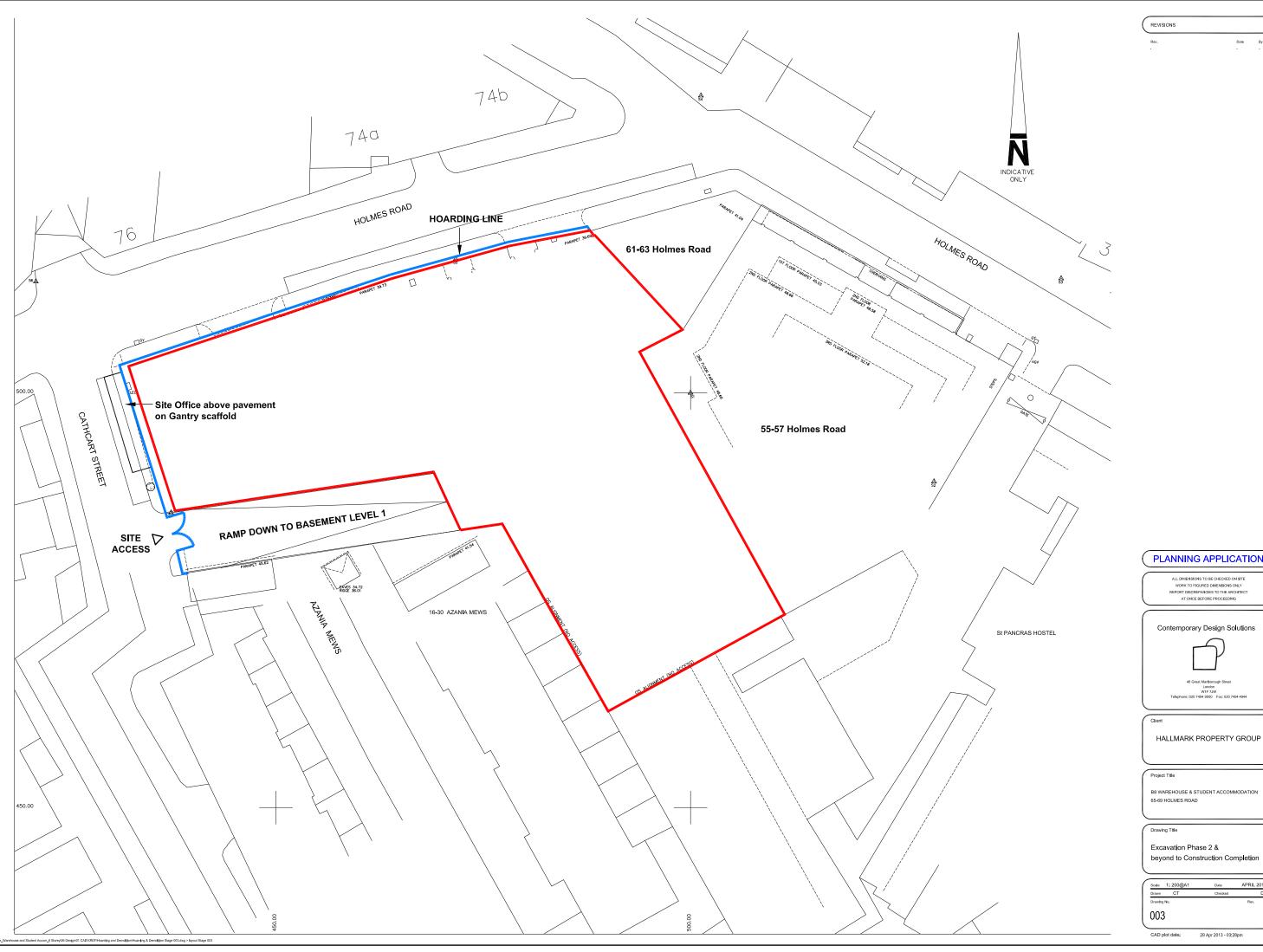
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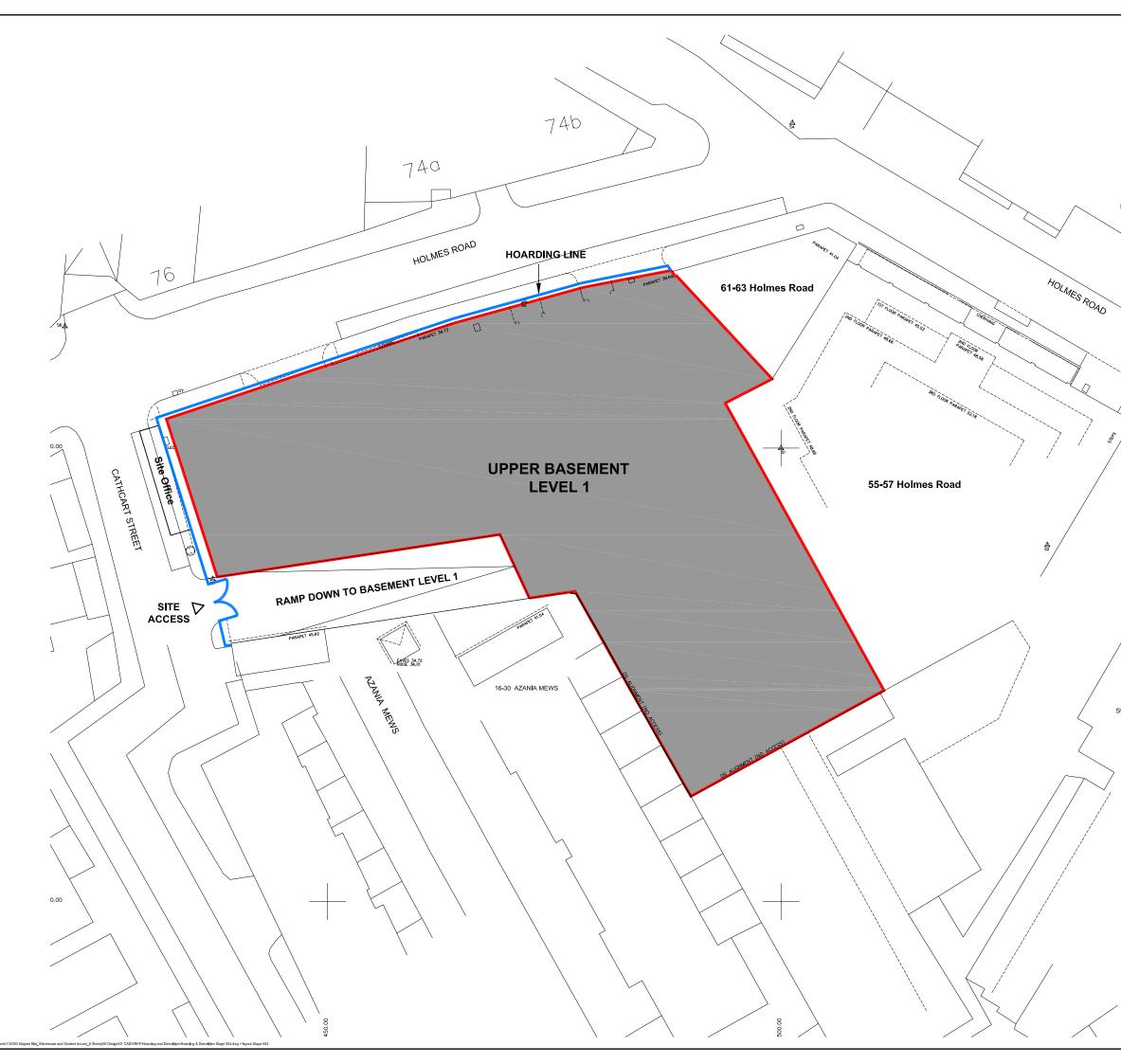


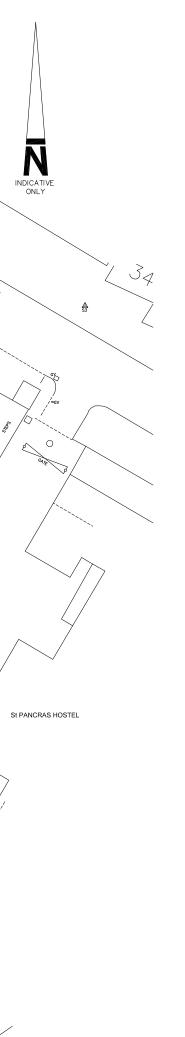
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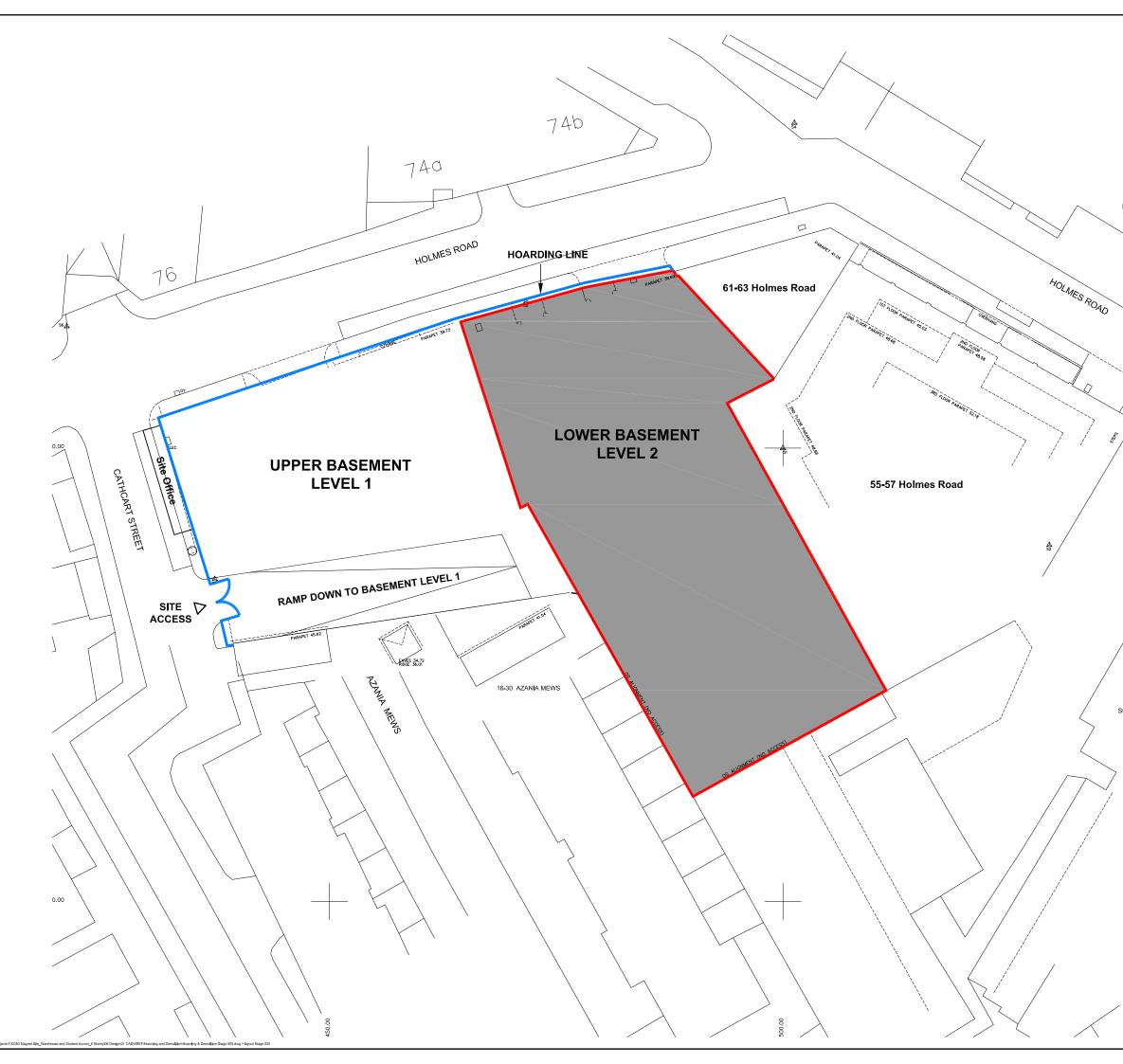


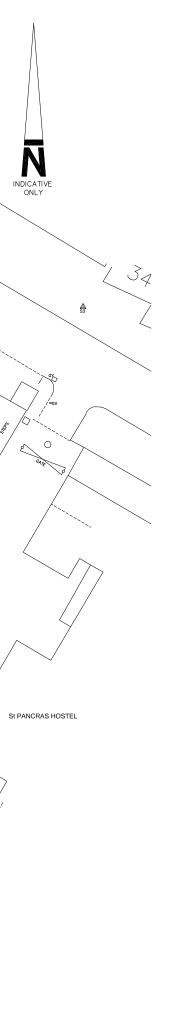


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| Contemporary Design Solutions |
| 46 Great Mathorough Street London WH F JW |
| Telephone: 020 7494 9000 Fax: 020 7494 4944 |
| HALLMARK PROPERTY GROUP |
| Project Title |
| B8 WAREHOUSE & ACCOMMODATION & OFFICE 65-69 HOLMES ROAD |
| Drawing Title Excavation Phase 1 down to Upper Basement Level 1 |
| Scale 1: 200@A1 Date APRIL 2013 Drawn CT Checked DL Drawing No. Rev. Rev. |
| 004 |
| CAD plot date: 29 Apr 2013 - 03:29pm |

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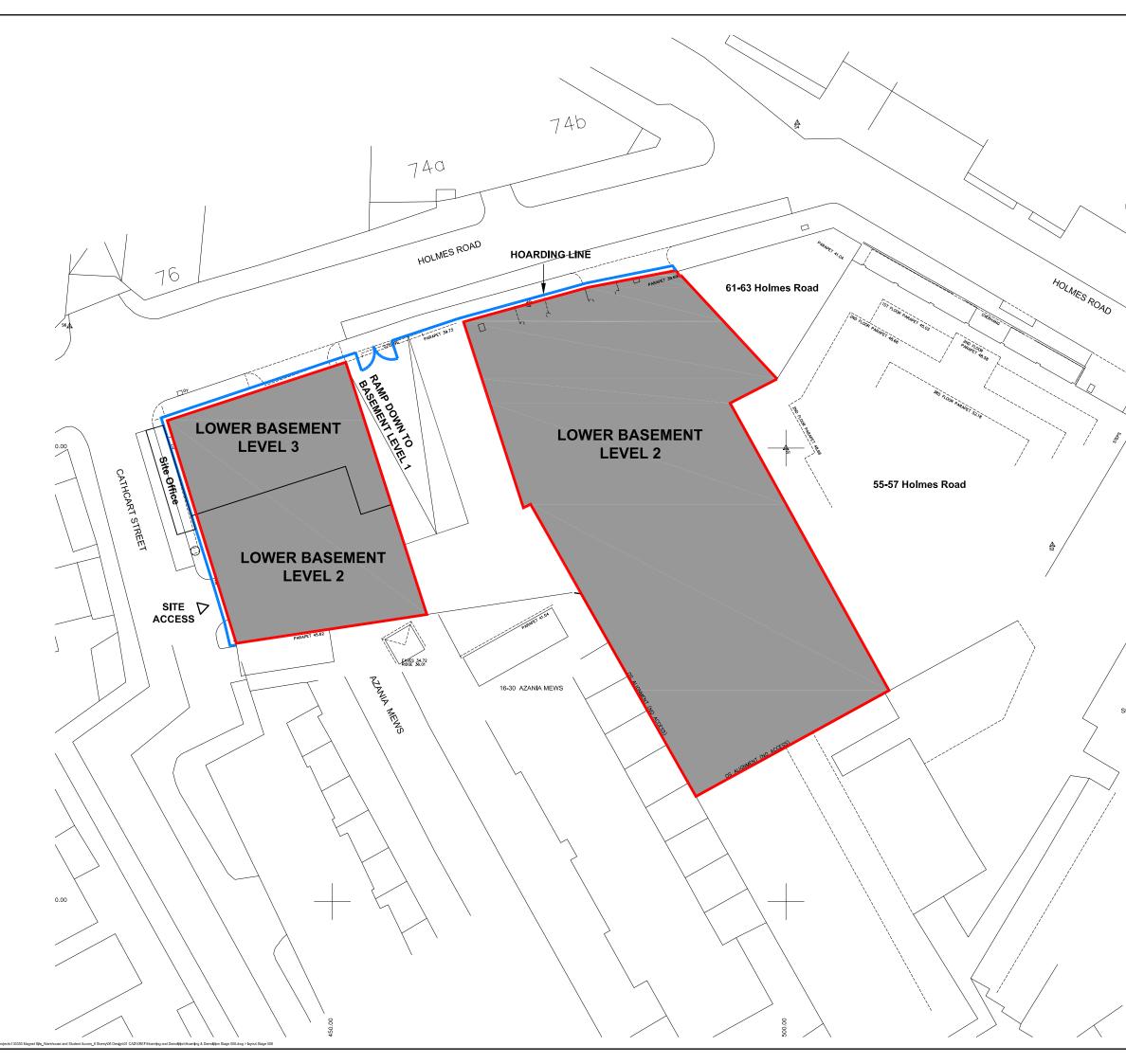


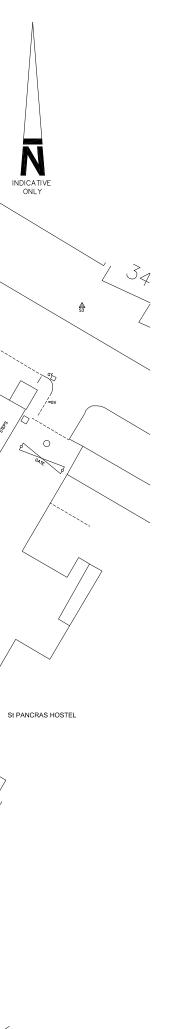
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| Client HALLMARK PROPERTY GROUP |
| Project Title |
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| Drawing Title |
| down to Lower Basement Level 2 RC Floor Slab & Walls |
| Scale 1: 200@A1 Date APRIL 2013 |
| Drawn CT Checker DI |

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| Contemporary Design Solutions |
| Client HALLMARK PROPERTY GROUP |
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| Drawing Title Excavation Phase 3 down to Lower Basement Level 2 & 3 RC Floor Slab & Walls |

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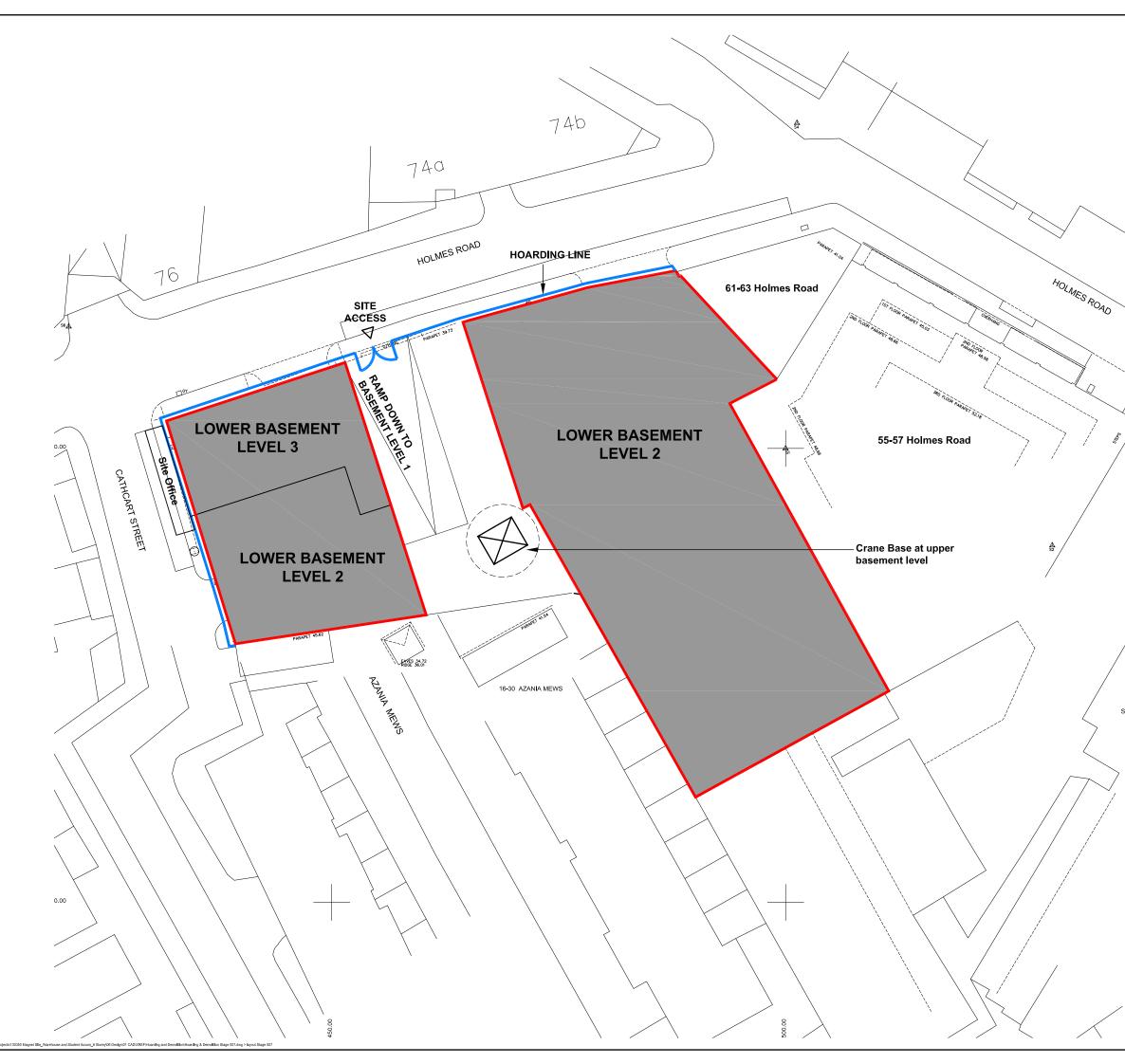
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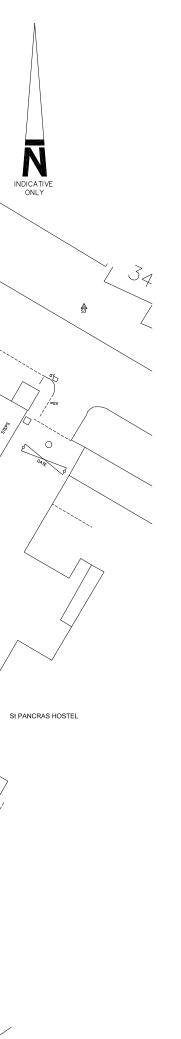
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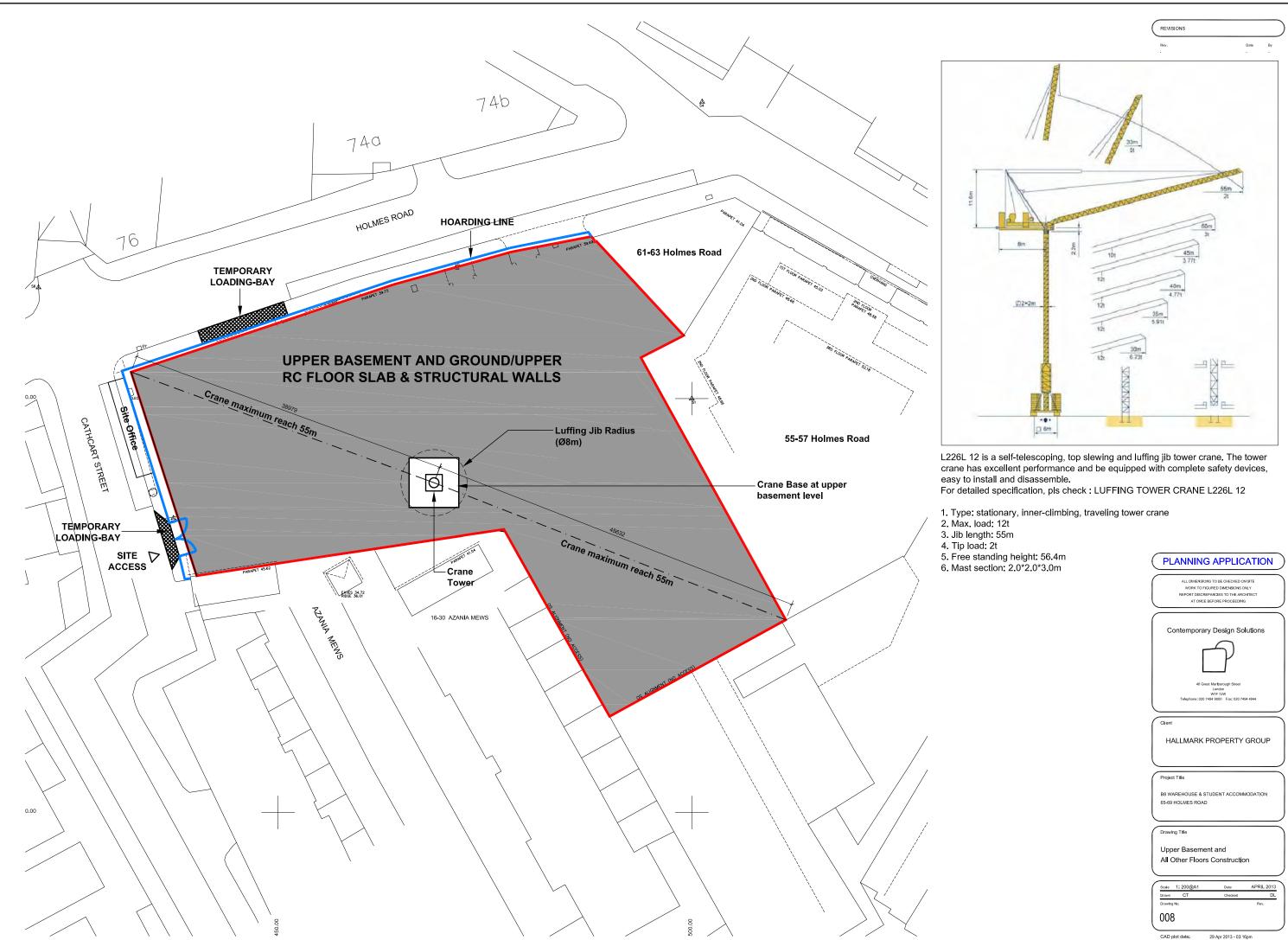




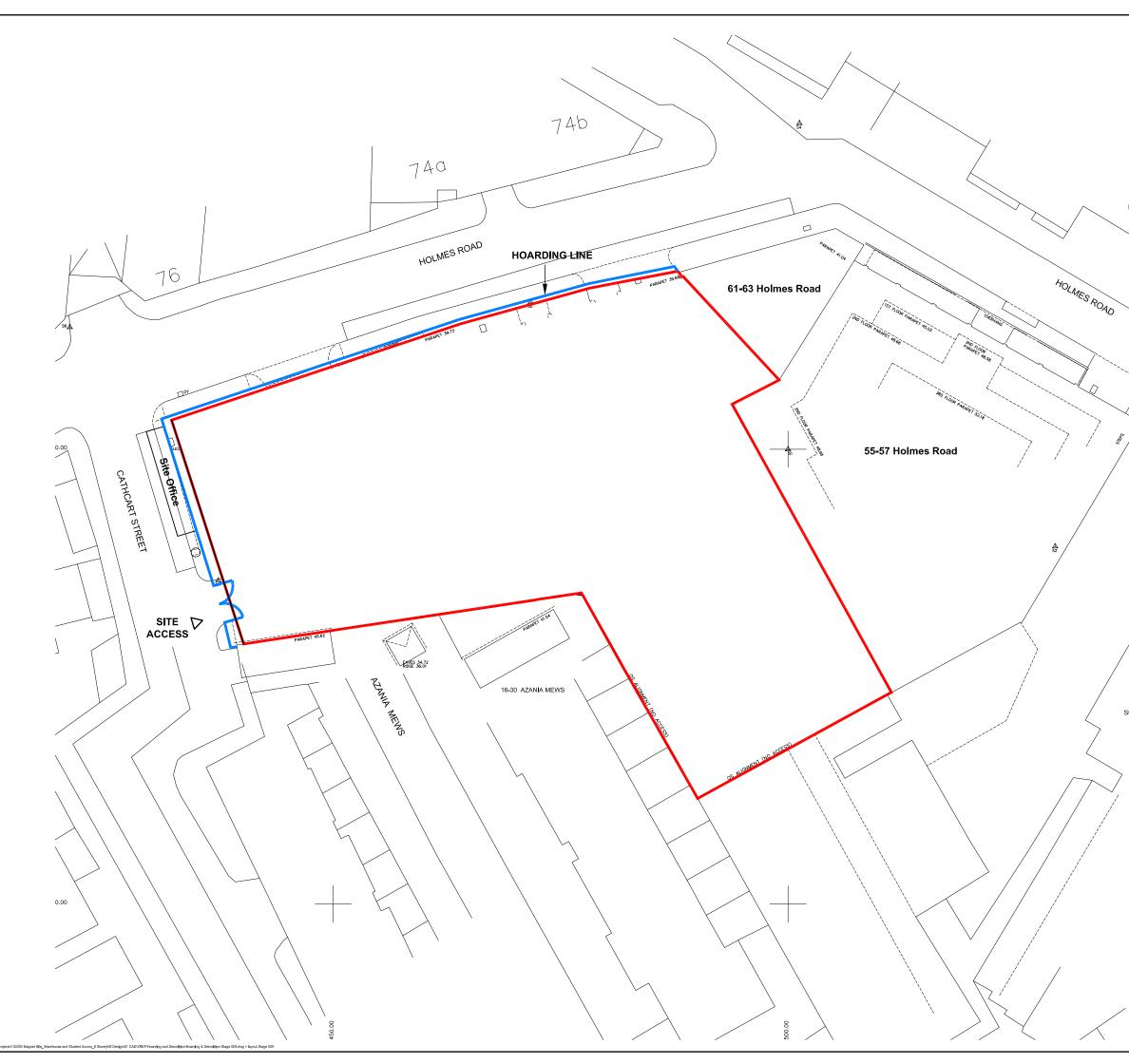
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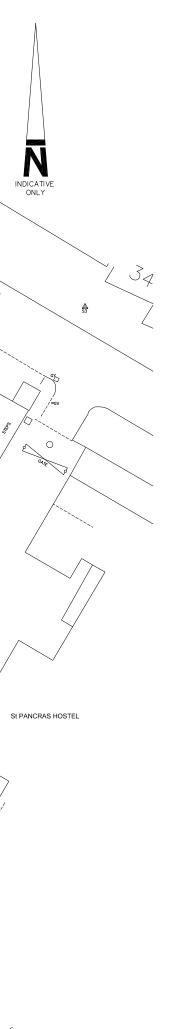
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| Client HALLMARK PROPERTY GROUP |
| Project Title B8 WAREHOUSE & STUDENT ACCOMMODATION 65-69 HOLMES ROAD |
| Drawing Title Upper Basement and All Other Floors Construction |
| Scale 1: 200@A1 Date APRIL 2013 Drawn CT Checked DL Drawn Re. 008 Re. |





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APRIL 2013 Scale 1:200@A Drawn CT Drawing No. 009

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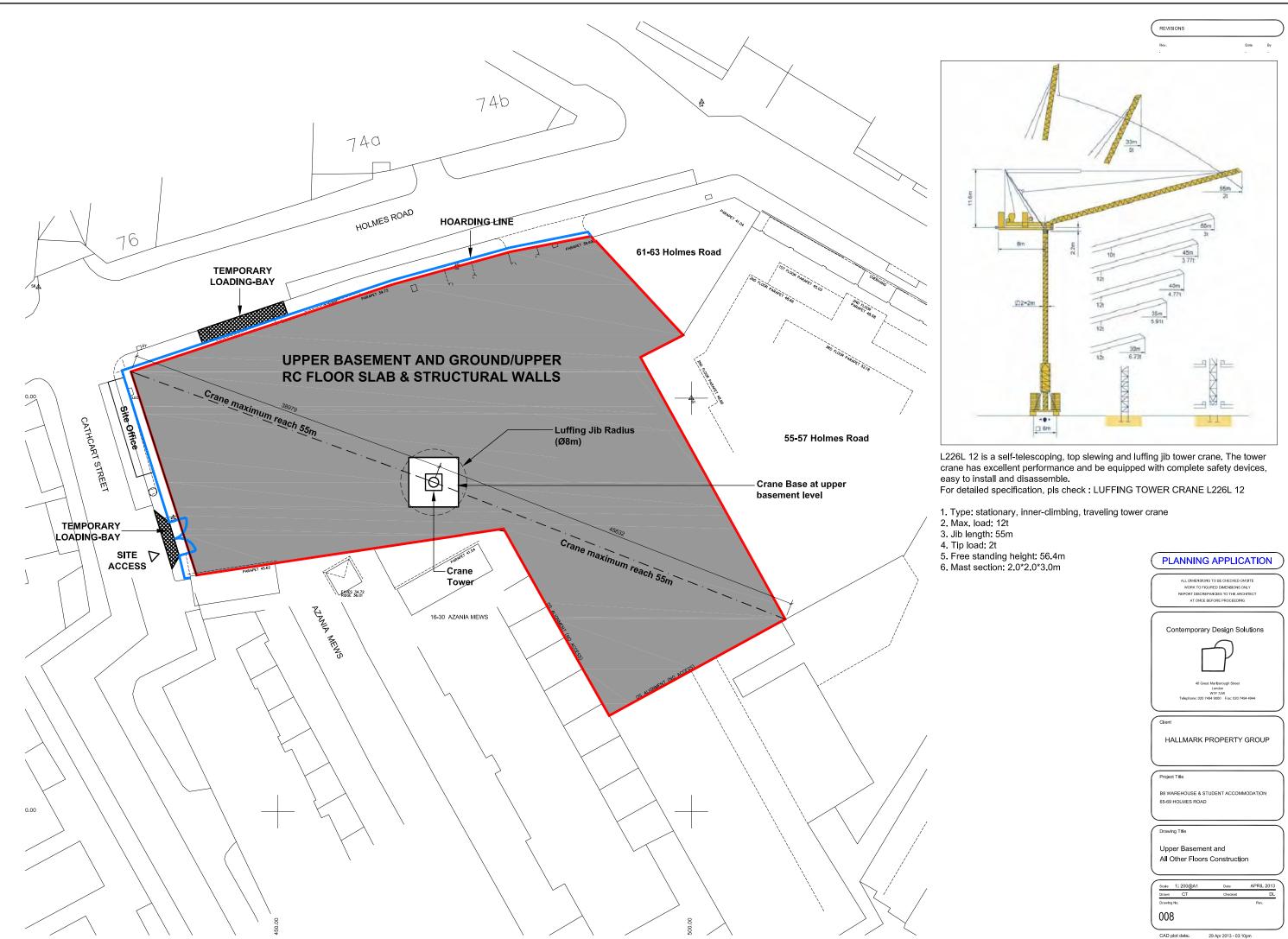
APPENDIX B CONSTRUCTION MANAGEMENT PROGRAMME

65-69 Holmes Road, London NW5 3AN Mixed Use Development of Warehouse on Ground & Basement plus 6 Upper Student Accommodation Floors Construction Programme - October 2013

| Construction Programme - October 2013 | | | | | | | | |
|--|---|---|----------|--------------|-------------|---|--|--|
| ID | 0 | Task Name | Duration | Start | Finish | Aug ' Sep ' Nov ' Dec ' 6 Feb '16 Apr '1 May ' 3 Jul '1 Aug ' 9 Oct '1 Dec ' 5 Jan '14 Mar '1 May ' 0 Jun '1 Aug ' Sep ' Nov ' 2 Jan F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T | | |
| 0 | _ | 65-69 Holmes Road Construction Programme 23rd April 2013 | 576 days | Tue 07/10/14 | Tue 20/12/1 | 6 V | | |
| 1 | | Party Wall Matters | 12 wks | Tue 07/10/14 | Mon 29/12/1 | 4 | | |
| 2 | | Sub-Structure Detail Drawing Package | 4 wks | Tue 21/10/14 | Mon 17/11/1 | | | |
| 3 | | Structural Engineers Foundation Design | 2 wks | Tue 28/10/14 | Mon 10/11/1 | 4 | | |
| 4 | | Structural Engineers RC Frame Design | 6 wks | Tue 11/11/14 | Mon 22/12/1 | 4 | | |
| 5 | | Services Engineers Drainage Design | 4 wks | Tue 18/11/14 | Mon 15/12/1 | 4 | | |
| 6 | | ME Engineers Design | 4 wks | Tue 11/11/14 | Mon 08/12/1 | 4 | | |
| 7 | | Construction Detail Drawing Package | 12 wks | Tue 25/11/14 | Mon 16/02/1 | 5 | | |
| 8 | | Hoarding around the parameter | 2 wks | Tue 10/03/15 | Mon 23/03/1 | 5 | | |
| 9 | | Construction Stage 1 - Foundation Piling & Excavation | 0 days | Mon 23/03/15 | Mon 23/03/1 | 5 | | |
| 10 | | Demolition and soil clearance and piling mat | 3 wks | Tue 24/03/15 | Mon 13/04/1 | 5 | | |
| 11 | | Sheet piling to depth of proposed basement levels of 4-7 meters | 4 wks | Tue 14/04/15 | Mon 11/05/1 | 5 | | |
| 12 | | RC Retaining walls against adjoining properties | 3 wks | Tue 12/05/15 | Mon 01/06/1 | 5 | | |
| 13 | | Installation of RC piling cap | 2 wks | Tue 02/06/15 | Mon 15/06/1 | 5 | | |
| 14 | | Excavation to 4 meters below ground level | 2 wks | Tue 16/06/15 | Mon 29/06/1 | | | |
| 15 | | Underground Service and Drainage Instillation | 1 wk | Tue 30/06/15 | Mon 06/07/1 | 5 | | |
| 16 | | Basement RC Floor Slab including structural walls to upper basement | 3 wks | Tue 07/07/15 | Mon 27/07/1 | 5 | | |
| 17 | | Excavation down to lower basement and Service Drainage Installation | 4 wks | Tue 28/07/15 | Mon 24/08/1 | 5 | | |
| 18 | | Lower Basement RC Floor Slab including structural walls | 4 wks | Tue 25/08/15 | Mon 21/09/1 | 5 | | |
| 19 | | Construction Stage 2 - RC Wall, Floor Slab & Steel Frame | 0 days | Mon 21/09/15 | Mon 21/09/1 | 5 | | |
| 20 | | Lufting Crane position within Open Courtyard | 1 wk | Tue 22/09/15 | Mon 28/09/1 | 5 | | |
| 21 | | Completion of RC walls & remaining basement floors | 4 wks | Tue 29/09/15 | Mon 26/10/1 | 5 | | |
| 22 | | Pod/Room delivery to upper basement level | 2 wks | Tue 27/10/15 | Mon 09/11/1 | 5 | | |
| | | Construction of RC ground floor slab to B1 office space | 6 wks | Tue 10/11/15 | Mon 21/12/1 | 5 | | |
| | | Construction of Steel frame structure including lift and stair core circulation | 6 wks | Tue 22/12/15 | Mon 01/02/1 | | | |
| 25 | | Construction Stage 3 - POD/Room Instillation | 0 days | Mon 01/02/16 | | | | |
| 26 | | Pod/Room delivery to site and instillation | 5 wks | Tue 02/02/16 | Mon 07/03/1 | | | |
| 27 | | Circulation core & RC structure above ground floor | 4 wks | Tue 08/03/16 | Mon 04/04/1 | | | |
| | | Construction Stage 4 - Service Connection & Cladding | 0 days | Mon 04/04/16 | | | | |
| | | All service connections to PODs/Rooms | 6 wks | Tue 05/04/16 | Mon 16/05/1 | | | |
| | | Temporary Scaffold above pavement at first floor | 1 wk | Tue 17/05/16 | Mon 23/05/1 | | | |
| | | External Cladding instillation to building | 8 wks | Tue 24/05/16 | Mon 18/07/1 | | | |
| | | Green Roof instillation | 4 wks | Tue 19/07/16 | Mon 15/08/1 | | | |
| | | Construction Stage 5 - Internal Communal Finishes | 0 days | Mon 15/08/16 | | | | |
| | | All Internal Communal Fittings | 13 wks | Wed 25/05/16 | Tue 23/08/1 | | | |
| 35 | | Electric Distributions | 3 wks | Wed 24/08/16 | Tue 13/09/1 | | | |
| 36 | | Heating & Water Distributions | 4 wks | Wed 14/09/16 | Tue 11/10/1 | | | |
| | | BT Cable Distributions | 2 wks | Wed 20/07/16 | Tue 02/08/1 | | | |
| 38 | | Hot & Cold Water Installations | 2 wks | Wed 12/10/16 | Tue 25/10/1 | | | |
| 39 | | Mechanical Lift Installations | 2 wks | Wed 26/10/16 | Tue 08/11/1 | | | |
| 40 | | Removal of Scaffold and Site Office | 1 wk | Wed 09/11/16 | Tue 15/11/1 | | | |
| 41 | | Hard Surface Block Paving Entrance and pavements | 3 wks | Wed 16/11/16 | Tue 06/12/1 | | | |
| | | Final Building Inspections | 1 wk | Wed 07/12/16 | Tue 13/12/1 | | | |
| | | Building Operation Manual | 1 wk | Wed 14/12/16 | Tue 20/12/1 | | | |
| | | Building Completion & Handover | 0 days | Tue 20/12/16 | | | | |
| | | | | | | | | |
| Date: 15th October 2013 Milestone Project Summary External Milestone | | | | | | | | |
| | | | | | Page 1 | • | | |
| | | | | | Faye I | | | |



APPENDIX C CRANE LOCATION AND ARCH OF OPERATION



| PLANNING | APPLIC | | | | | |
|--|--|--------------------------|--|--|--|--|
| WORK TO FIGU REPORT DISCREP | S TO BE CHECKED O URED DIMENSIONS O ANCIES TO THE ARC EFORE PROCEEDIN | NLY CHITECT | | | | |
| | Marborough Street London WTF ZJW WTF ZJW Fax: 020 74 | | | | | |
| Client HALLMARK P | ROPERTY | GROUP | | | | |
| Project Title B8 WAREHOUSE & STI 65-69 HOLMES ROAD | UDENT ACCOM | MODATION | | | | |
| Drawing Title Upper Basement and All Other Floors Construction | | | | | | |
| Scale 1: 200@A1 Drawn CT Drawlng No. 008 | Date Checked | APRIL 2013 DL Rev. | | | | |
| CAD plot date: | 29 Apr 2013 - 03:1 | 000 | | | | |



APPENDIX D SITE TRACKING DRAWINGS

