William Attwell Associates
Consulting Engineers

Construction Method Statement

for

New 4-storey residential building, plus basement

at

37 Heath Drive,

London NW3 7SD

for

Taishi Limited

Job No 2552

May 2024

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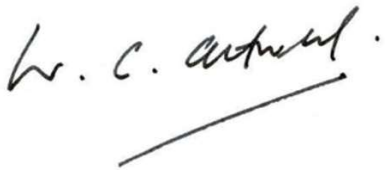
William Attwell & Associates Ltd
Registered in England and Wales, No. 4520800

REVISION SCHEDULE

ISSUE	TITLE	DATE	PREPARED BY	CHECKED BY	APPROVED BY
1.0	Final Issue	30/05/24	GA	WCA	WCA



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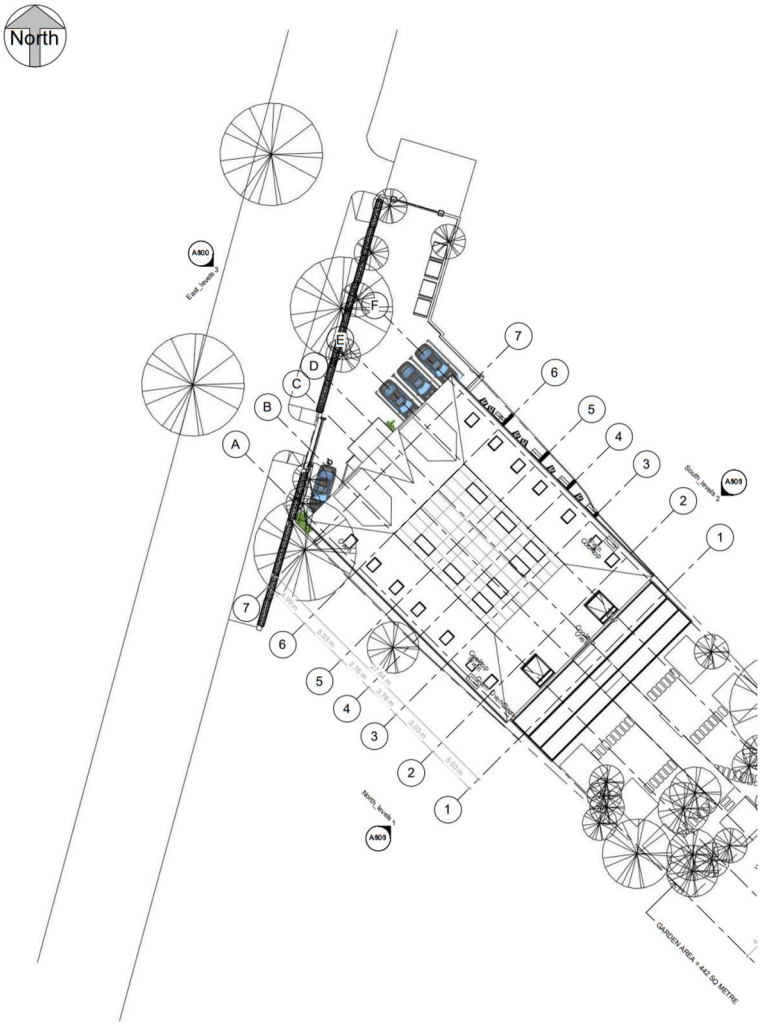
1. PROJECT OVERVIEW

This Construction Method Statement (CMS) has been prepared in support of the planning application associated with the development of the site in Hampstead, as detailed below:

- **Site Location:** 37 Heath Drive, London, NW3 7SD

- **Current Site Use:** Detached residential building with an associated hardstanding driveway, rear patio area, and a basement level comprising a self-contained apartment. The site includes a large private garden in the southeast (rear) area.

- **Proposed Development:** Demolition of the existing structure and construction of a new residential building with 10 (apartment) dwellings, and including an enlargement of the existing basement. The site is accessed directly off Heath Drive, and is to retain private gardens to the rear.



SITE PLAN

2. SITE SETUP AND GENERAL MANAGEMENT

In order to ensure a well-organized, safe, and efficient site setup for the construction project at 37 Heath Drive, the following key components will be facilitated and managed by the Developer/Principal Contractor.

Site Layout Planning:

The site boundaries will be clearly defined with secure fencing or hoarding to enhance security, prevent unauthorized access, and minimize visual impact on the surrounding area. CCTV cameras and lighting will be installed to monitor and deter unauthorized access

Separate entry and exit points for construction vehicles and personnel will be installed, to ensure smooth and safe movement of traffic, with all access points controlled by security personnel and sign-in procedures. All visitors will sign in and wear identification badges.

Site Facilities:

A site office equipped with all necessary furniture, internet access/communication equipment, document storage and supplies for site management will be installed.

Welfare Facilities including toilets, washbasins, showers, and changing rooms will be provided for the use of all site personnel, and they will be regularly cleaned and maintained, with adequate provisions for waste disposal.

Designated rest areas for workers with seating, tables, and protection from the elements will also be provided, with adequate supplies of drinking water, first aid kits, and safety information. Adequate rubbish receptacles will be provided throughout the site to encourage proper disposal of waste materials by workers and subcontractors, with scheduled clean-ups to remove litter and debris from the site on a regular basis.

Storage and Handling Areas:

Materials will be stored in designated areas, ensuring protection from weather and damage. Construction equipment and tools will be stored in designated areas, ensuring they are secure and accessible. Maintenance schedules will be implemented to keep equipment in good working condition.

Hazardous Materials including fuels, chemicals, and solvents will be properly labelled and stored in secure storage units (COSHH stores), with safety data sheets (SDS) made available for all hazardous substances.

Traffic Management:

A traffic management plan will be developed to control the movement of vehicles on and off the site, with clear signage for vehicle routes, speed limits, and parking areas installed.

The site working hours will be 07:30hrs to 17:00hrs Monday to Friday and 08:00hrs to 13:00hrs Saturdays. These hours will apply to all operations including HGVs entering and leaving the site.

Safe pedestrian pathways, separate from vehicle routes, will be implemented, with crossing points and barriers included where necessary to enhance safety.

Health and Safety:

The HSE will be notified of the project prior to commencement, and the site will be managed in full compliance with the current Construction Design and Management Regulations (CDM).

A thorough risk assessment will be conducted at each phase of the project, identifying potential hazards and implementing measures to mitigate risks. Specific attention will be given to the unique challenges posed by both demolition and construction activities.

Comprehensive induction training will be given to all personnel, covering site rules, emergency procedures, and health and safety protocols. This includes guidelines for working at heights, handling hazardous materials, and operating machinery safely. All workers will be made aware of their responsibilities and the location of emergency exits and equipment. Daily toolbox talks will be conducted to ensure that site personnel are aware of specific hazards, safety protocols, and emergency procedures relating to the task in hand.

All necessary PPE, including hard hats, high-visibility vests, safety boots, gloves, and eye protection (where applicable) will be worn by all site personnel and visitors.

An emergency response plan, including procedures for fire, medical emergencies, and evacuations will be developed and made available to all site personnel during site induction procedures. Fire extinguishers and first aid kits will be installed and made available to

designated site personnel/safety officers. Regular fire drills will be conducted to ensure that all personnel are familiar with emergency procedures and evacuation routes. Emergency exits will be located in accessible positions on the site boundary.

Procedures will be established for reporting and managing accidents, near misses, and other incidents. This includes documenting incidents, investigating root causes, and implementing corrective actions to prevent recurrence.

Environmental Management:

Measures to minimize dust and noise will be implemented throughout the project, including dust suppression systems, damping down, silencers on machinery, and noise barriers. Continual monitoring of environmental conditions will be undertaken, with adjustment of controls as necessary to comply with regulations.

Designated waste collection points for segregating recyclable and non-recyclable waste will be set up, with regular collection and disposal of waste by licensed contractors, to licensed disposal sites.

Spill kits and containment systems for managing spills of hazardous materials will be made available throughout the project, and designated site personnel will be trained in spill response procedures to minimize environmental impact.

Regular site maintenance will be conducted to minimize the accumulation of mud and debris, including prompt removal of mud from access roads and walkways to prevent slip hazards. Wheel cleaning facilities (manual jet wash or wheel wash station) will be operated for all construction traffic accessing the site, to ensure the external road network is maintained free of mud and dust is minimised at all times. The site hardstanding and state of the external road network will be inspected twice daily. As determined necessary through the inspection regime a road sweeper will be instructed to sweep both internal hardstanding and external roads.

Measures such as silt fences and sediment barriers will be installed wherever necessary to prevent mud and debris from migrating off-site and causing environmental contamination.

Potential sources of vibration, such as heavy machinery and pile driving, will be assessed to identify potential impacts on nearby structures and sensitive environments. Measures such as vibration monitoring and control devices will employed to minimize vibration levels and prevent damage to surrounding structures and ecosystems.

Communication:

Site management will undertake daily toolbox talks, safety briefings, and address work schedules with site personnel. Weekly management meetings will be scheduled to review progress and address any issues. Monthly progress meetings to check project milestones, budget, and progress, will be held between site management and client/design team.

On site, two-way radios or mobile phones will be provided for key site personnel to ensure effective 'live' communication. Site diaries will be maintained to record activities, workforce numbers, weather conditions, and any incidents. Notice boards for displaying important information, including safety updates and site plans, will be installed around the site.

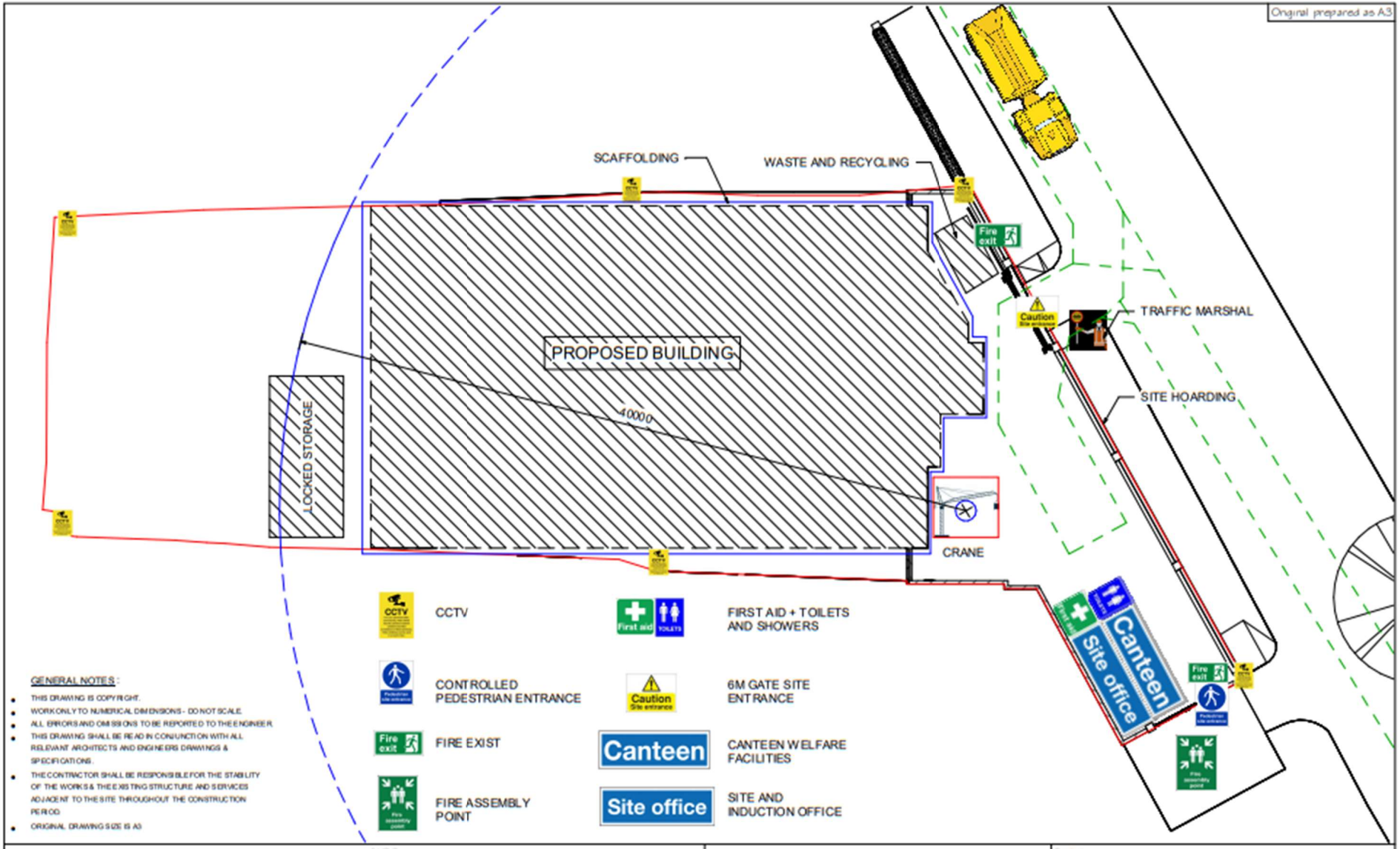
A protocol for communicating with external stakeholders, including local residents and authorities, will be established to keep them updated about project progress, upcoming works, and any potential disruptions. Contact information for site management will be made available to handle inquiries and complaints.

Logistics and Deliveries:

Deliveries will be scheduled and coordinated to avoid peak traffic times and minimize disruption to the local area, and to ensure materials arrive on time and in the correct sequence.

Loading/unloading areas will be designated, ensuring they are safe and accessible. Lifting plans for heavy or oversized materials, including the use of cranes and forklifts, will be provided.

Refer to following page for suggested **site compound plan**: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WASTE AND RECYCLING
PROPOSED BUILDING
40000
LOCKED STORAGE
Fire exit
Caution
TRAFFIC MARSHAL
SITE HOARDING
CRANE
Canteen
Site office
CCTV
CCTV
First aid
TOILETS
FIRST AID + TOILETS AND SHOWERS
CONTROLLED PEDESTRIAN ENTRANCE
Caution
6M GATE SITE ENTRANCE
Fire exit
FIRE EXIST
Canteen
CANTEEN WELFARE FACILITIES
FIRE ASSEMBLY POINT
Site office
SITE AND INDUCTION OFFICE
GENERAL NOTES :
THIS DRAWING IS COPYRIGHT.
WORK ONLY TO NUMERICAL DIMENSIONS - DO NOT SCALE.
ALL ERRORS AND OMISSIONS TO BE REPORTED TO THE ENGINEER.
THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS & SPECIFICATIONS.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE WORKS & THE EXISTING STRUCTURE AND SERVICES ADJACENT TO THE SITE THROUGHOUT THE CONSTRUCTION PERIOD.
ORIGINAL DRAWING SIZE IS A3
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DATE
DESCRIPTION
CLIENT
VEERA GADDAM / TAISHI LTD
WAA
TEL 0207 561 3399
http://www.williamattwell.co.uk
Project
37 Heath Drive London, NW3 7SD
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3. DEMOLITION PHASE

In order to ensure a safe and efficient demolition of the existing property at 37 Heath Drive, ensuring minimal disruption to the surrounding area and compliance with all health, safety, and environmental regulations, the following key components will be facilitated and managed by the Developer/Principal Contractor.

Pre-Demolition Planning:

A comprehensive site survey will be carried out, to assess the condition of the existing building and identify any potential hazards.

Detailed drawings and documentation of the existing structure, including any underground services will be produced, together with an asbestos survey (by a certified asbestos surveyor). Disconnection of any existing utilities (electricity, gas, water, and telecommunications) will be coordinated with the relevant supplier, and made safe prior to any demolition taking place. Any asbestos-containing materials (ACMs) and other hazardous substances found will be removed, in strict compliance with regulations.

Site Preparation:

The perimeter fencing/hoarding will be maintained throughout the demolition phase to prevent unauthorized access and ensure safety. Clear signage will be provided around the site indicating demolition activities, hazards, and restricted areas.

Dust suppression techniques, such as water spraying and dust screens, will be utilised to minimise air pollution. High-noise activities will be scheduled during less sensitive hours, to reduce noise impact on the surrounding area.

Demolition Methodology:

Manual Demolition, using hand tools, will be adopted for sensitive areas or components that require careful handling, use manual demolition methods with hand tools. All personnel involved in manual demolition will be trained in safe working practices.

Mechanical Demolition will be utilized, using mechanical equipment such as excavators fitted with hydraulic breakers, crushers, and shears, for the bulk of the demolition work. The

sequence of demolition will be planned to ensure the structural integrity of remaining parts of the building until they are demolished.

Debris will be systematically removed from the site, with materials sorted for recycling and disposal. Skips and haulage vehicles will be used to transport waste to designated disposal facilities, choosing routes which minimize disruption to the local community.

Safety Measures:

All safety measures noted in Section 2 (including PPE, inductions, emergency responses etc) will be in force during demolition works. In addition, a dedicated safety officer will be appointed to oversee demolition activities, ensuring compliance with safety protocols and regulations. Regular safety audits and inspections will be undertaken to identify and address any potential hazards.

Environmental Considerations:

A waste management plan will be implemented to segregate, recycle, and dispose of demolition waste, using licensed waste carriers and disposal sites. All waste removal will be recorded, and documentation properly maintained.

Measures, such as silt fences and containment barriers, will be installed as necessary to prevent soil erosion and contamination. Any contaminated materials identified during demolition will be properly managed and disposed of.

Air quality will be monitored to ensure dust and emissions are within acceptable limits, with corrective action being taken if air quality monitoring indicates levels exceed those limits.

Communication and Coordination:

Local residents, businesses, and authorities will be given advance notice about the demolition schedule and potential impacts. A point of contact for addressing concerns and queries from the community will be established.

All necessary permits and approvals will be obtained from the relevant authorities before demolition is commenced, and regular communication maintained with those authorities, including environmental and safety inspectors, throughout the demolition process.

Regular updates will be provided to the project management team on demolition progress, any issues encountered, and mitigation measures implemented.

Post-Demolition Activities:

Once demolition is complete, the site will be cleared of all debris, temporary structures, and equipment, and the ground graded/levelled to ensure the site is clean and safe for the next phase of construction. The cleared site will be handed over to the construction team with a detailed report on the demolition activities, including any issues encountered and resolved.

4. CONSTRUCTION PHASE

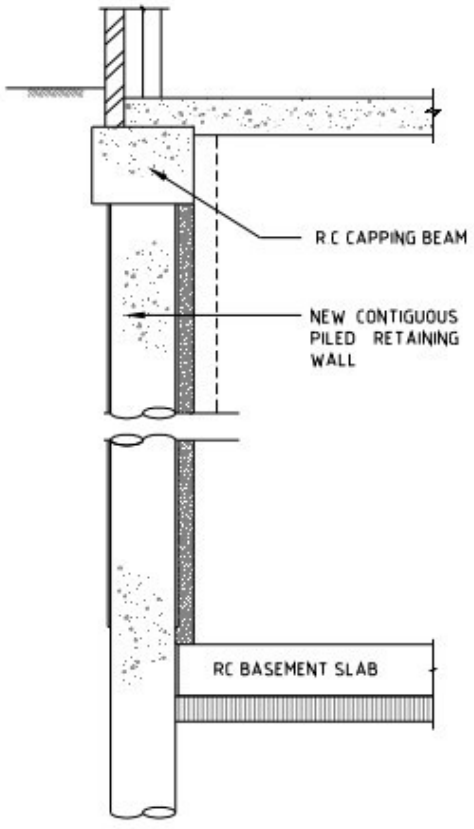
The following information sets out the general principles for the construction of the project, but may be subject to minor changes and variations, following final assessment by the Project Design Team and Principal Contractor

Form of construction:

The project requires the building to have the appearance of a traditional building – with fair faced brickwork external faces, and a tile/slate finished pitched roof. The structural frame will be formed in reinforced concrete, with prefabrication methods adopted wherever possible, supported on piled foundations.

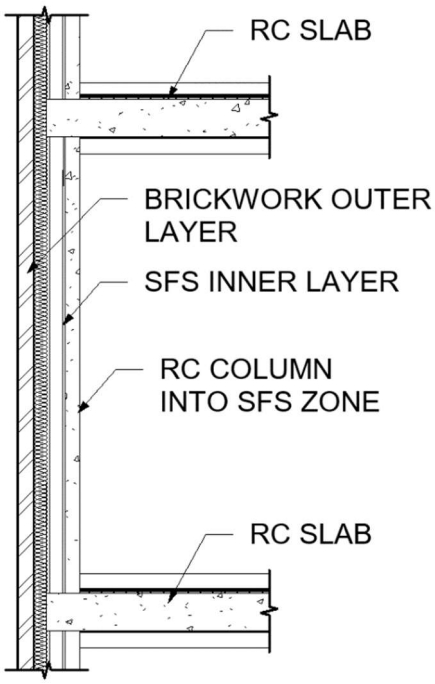
Basement and Foundation Work:

The British Geological Survey indicates that the site is underlain by the London Clay Formation, and that, associated with the fact the building is 4-storeys (plus developed roof space) above ground, will certainly mean the use of piled foundations. The piling system will be an in-situ non-displacement type – most likely a continuous flight auger (CFA). The basement will be formed using a contiguous pile wall with capping beam, similar to the typical details shown below:



Superstructure Work:

The superstructure frame will be in reinforced concrete – either fully in-situ, or a combination of in-situ and precast – to be finally determined by the Principal Contractor, taking into consideration the site location and logistics difficulties. The erection of the frame will necessitate the installation of a crane on site – again, the final details of which will be determined by the Principal Contractor. Typical construction details are indicated on the (edge) section detail below:



Programme:

The indicative programme indicated on the following page is based upon these suggested operations, with estimated timescales for each:

Site Preparation (1 Month)

Mobilize site team and equipment. Set up site office and welfare facilities. Install site hoarding and secure fencing. Coordinate with utility companies to disconnect existing services (water, electricity, gas, and telecommunications). Conduct a detailed topographical survey. Carry out initial site clearance and removal of small vegetation. Implement environmental protection measures (e.g., tree protection barriers). Establish health and safety protocols.

Demolition (2 Months)

Soft strip of the building interior (removal of non-structural elements). Mechanical demolition of the building structure using excavators and breakers. Remove debris and sort materials for recycling and disposal. Transport waste to designated disposal facilities. Final site clearance and preparation for excavation.

Basement and Foundations (3 Months)

Excavate/prepare site for new foundations and basement extension. Install piling mat, and install piles for frame and contiguous pile walls to basement. Install shoring and support systems for excavation stability. Pour reinforced concrete foundations/pile caps. Construct basement walls and floor slab. Apply waterproofing to basement walls. Backfill around foundations and basement.

Superstructure (10 Months)

Construct ground floor structural elements (columns, beams, floor slab). Begin internal partitions/fit-out in basement. Construct subsequent floors up to the attic level. Commence external walls and internal partitions for each floor. Install roof trusses and decking. Apply roofing materials and insulation. Install windows and external doors.

Internal Works (6 Months, partly alongside superstructure works)

Begin internal services (plumbing, electrical, HVAC). Commence plastering, painting, and flooring. Install internal doors, fixtures, and fittings. Complete plastering, painting, and floor finishes. Install kitchen units, bathroom fixtures, and other built-in furniture. Test and commission mechanical and electrical systems. Conduct snagging and final touch-ups.

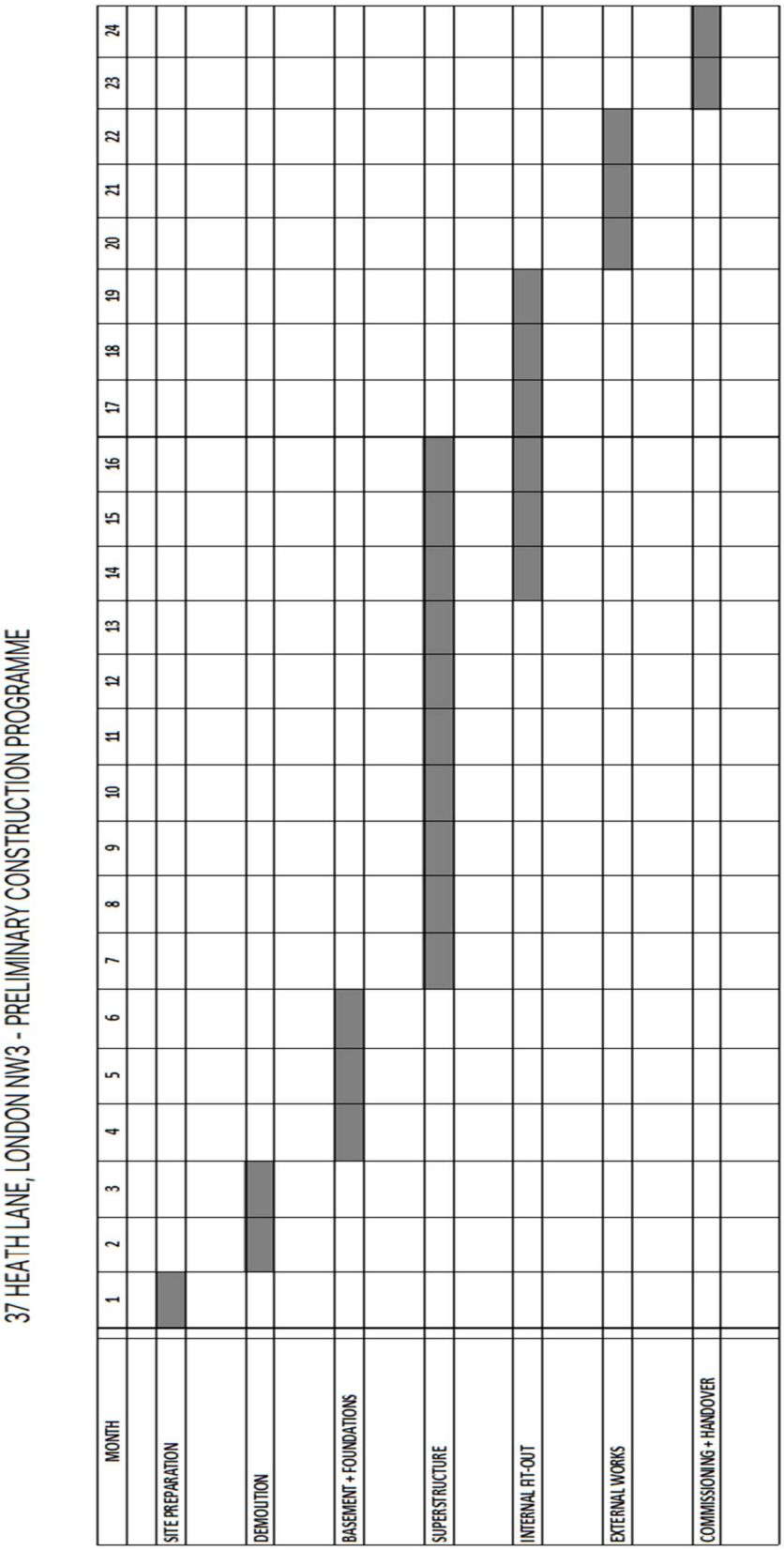
External Works (3 Months)

Construct driveways, patios, and pathways. Install external lighting and other amenities. Plant trees, shrubs, and grass. Install irrigation systems and complete garden features.

Commissioning and Handover (2 Months)

Conduct final building inspections and quality checks. Ensure all works comply with Building Regulations and Standards. Walkthrough with the client to demonstrate the completed works. Address any final concerns or adjustments requested by the client.

Provide the client with all necessary documentation (e.g., manuals, warranties, as-built drawings). Remove all temporary site facilities and fencing. Clean and restore any temporary works areas. Handover keys and formally complete the project.



Quality Control:

A comprehensive quality control plan will be developed at the start of the project, including detailed procedures, checklists, and standards for each phase of construction. The plan will be reviewed and approved by the project manager and client before implementation.

Regular (weekly) inspections will be conducted by the site manager and quality control officer to review ongoing work, materials, and workmanship, and to ensure compliance with design specifications and standards. Inspection reports will be completed and logged in the project file. In addition, certain critical stage inspections (e.g. before pouring concrete) may be required on top of the scheduled weekly reviews.

A comprehensive inspection of the entire project will be carried out before handover, and a snagging list of any defects or unfinished work identified. Once all snags are rectified, sign-off will be given by site management.

Subcontractor Management:

Subcontractors will be selected based on their experience, reputation, and ability to meet quality standards. Quality expectations and standards will be clearly defined in subcontractor agreements, and their work will be regularly monitored for adherence to quality standards. Immediate feedback and corrective actions will be provided if quality issues are identified.

Compliance and Documentation:

Site Management will ensure all work complies with the Building Regulations and associated Codes, adheres to health and safety regulations and guidelines, and complies with relevant quality standards (e.g., ISO 9001).

Detailed records of all inspections, tests, and quality control activities will be maintained and made available for any external audits by certification bodies if required.

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William Attwell + Associates Ltd

MAY 2024