INTRODUCTION

The construction of 6 new town houses

The site is situated at

Rear of 28 - 32 Pembridge Gardens

Notting Hill

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METHOD STATEMENT AND RISK ASSESSMENTS

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General

This method statement has been prepared on the basis of the information built up during the tender process.

It is also intended as a support document to the following submission documentation:

We have included our intentions for managing and supporting the project and the particular approaches that will be taken for certain key aspects.

Certain areas of operation will be the subject of specialist considerations, and more specific and detailed method statements relating to these operations will be provided at a later stage and as the project proceeds. These additional key method statements will comply with the relevant regulatory bodies and will be prepared by the specific trade contractors involved.

Logistics

There are particular logistical challenges, which arise out of the Project works, and we perceive these to be as follows:

- Restricted access points on to the site area.
- Restricted traffic routes to and from site.
- Safety for staff, Client team members, construction operatives and site visitors.
- The management and coordination of deliveries to the site.
- Handling, hoisting and placement of construction components and the sequencing of the builds.
- The maintenance of adequate, high standard office and welfare accommodation within the site area given the volume of production.

Our Logistics regime for the project will been designed to meet these challenges, and is based upon:

- Frequent team meetings to continually update, advise and coordinate construction.
- Continual liaison and dialogue.
- Managing Deliveries to the project to ensure congestion around the site access is not compromised.
• Delivery and security directions and information established at the main site entrance. All deliveries to the site will report to this position from where deliveries into the site area will be controlled.

• Delivery and signage information along the site access routes to direct vehicles to the site security/delivery access point.

• Existing fence lines and temporary hoardings to all site boundaries.

• Adjacent roads will be maintained to a high standard throughout the project duration.

• Efficient management of material movements - this will be achieved via effective systems of work from the point of unloading to delivery to the working area by crane or hoisting plant as applicable.
• Effective detailed planning of all construction activities.

• Controlled and separate, site personnel pedestrian access to the site utilising a booking in system. This will be controlled at the security access point adjacent to the entrance.

**Site Management**

The site management for the project will comprise a Project Manager who will lead the site based team by example.

The Project Manager will be assisted and supported by a projects teams and by additional site based construction management and technical personnel. Additional supervisory and site engineering resources will be allocated dependant on the stage of works in progress.

Design co-ordination and management of the design processes will be achieved by the office based Contracts Manager and Commercial Director.

Services installation co-ordination and management will be achieved by the appointment of a Services Manager, to the project.

The site team will be supported and assisted by our head office based, site visiting, planning and safety specialists.

Quantity surveying, commercial and procurement resources will be controlled by the Commercial Director and allocated depending on requirements of the project.

**Preparation and Site Establishment**

Clear signage will be displayed conveying specific instructions to all delivery and visiting personnel in the immediate site geographical area and at prominent locations agreed with the local authority.

The reporting/security point will control access and egress of all visitors and site operatives to the site area.

The system will log all operatives on site and provide an accurate level of attendance.

Site Facilities will be established within the site area located as identified on the site layout in our Logistics Plan.

Site accommodation will comprise an office, canteen, welfare and toilet facilities.

The welfare accommodation will comprise prefabricated, modular, steel faced security units similar to the portacabin type and will be connected to permanent mains services and drainage facilities.

If suitable drainage facilities do not exist or are unsuitable, then temporary welfare and toilet units will be installed that incorporate suitable integral storage facilities.
Site Access

Pedestrian access routes to the site area and within the confines of the site will be clearly defined and protected. A dedicated access point for pedestrians will be established that will be separate from the vehicular access point, as detailed on the site layout diagram.

All personnel will be required to “check” into and out of the site area via the security point so that an accurate record is established of all personnel on site on a daily basis.

Signage

The main construction signboard will be positioned in agreement with the Client and Local Authority.

Site signage will be provided as necessary to advise operatives/visitors and delivery staff of safety requirements within the confines of the site and where to report on arrival. Such signage will include:

- Accommodation positions/Access requirements
- Fire exit/Fire point areas
- Overhead/Underground Services
- Safety Helmet and Footwear Requirement
- Noise restrictions
- Danger Construction Site, etc.

Fire Procedures

Fire control and alarm points will be established at suitable positions within the site area. The points will include suitable fire fighting extinguishers, fire alarm sounders, operation instructions and details of fire exit routes and the emergency fire assembly point outside the buildings.

Hot works permits will be utilised at all times and no hot works will be allowed to proceed without the necessary hot work permit being in place and fire control procedures established.

Accurate records of site attendance of operatives, staff and visitors will be maintained via our site reporting point, which will be utilised for checking evacuation numbers in the event of evacuation of the site / buildings.

Road & Footpath Closures

Closure of footpath and partial closure of highway on Pembridge Road may be required to facilitate connection of utility services to the new properties.

These works will be planned well in advance and be carried out by utility supply companies who’s responsibility it will be to liaise with all interested parties and fully coordinate the works to meet LA and Highways requirements.
Movement and Craneage of Materials

Mobile cranes if required for erection of the timber frames will be positioned on the site and will be served from pre-delivered materials stock piled within the confines of the site.

An absolute minimum use of mobile cranes is anticipated with hoisting of materials onto scaffolding being carried out by tele-handler or platform lift depending on stage of works.

Bulk materials in general will be stored off site at an agreed nearby facility in White City and transported to the site on smaller vehicles to suit the progress of works. This will significantly reduce the number of large vehicles needing to deliver materials direct to site.

The principle to be adopted with all materials are that they will be broken down to reduce bulk and thus allow for rapid distribution around site immediately following delivery. The timber frames are designed to afford an internal delivery route between all units so that distribution can take place internally. Materials for all four plots will be delivered into the first floor of unit 4 using a telehandler for distribution as above.

Once plot 5 has been completed to a shell stage a hoist will be installed to load all materials for fit out of plots 5 & 6 into plot 5 for storage. The shell materials for plot 6 will then be delivered and stored on site, in plot 5 and on scaffolding to allow vehicle access to the site to be removed.

By utilising this methodology we anticipate deliveries to the site from the road will not be required but if for any reason they do become necessary these will be kept to an absolute minimum, timed and controlled by our logistics coordinator.

Deliveries and Storage

The entrance to the site is via security gates situated at the north end of the off Pembridge Road. All deliveries will be coordinated and controlled by a logistics/delivery coordinator.

Timings of deliveries to site will be scheduled in individual time slots to avoid multiple deliveries and the risks associated with on road waiting. The deliveries will also be scheduled to avoid times of peak traffic activity on the surrounding road networks with no deliveries scheduled between 07.30 and 09.00 am or between 16.30 and 18.00 pm.

All vehicle movements and deliveries will be subject to the control of Brennan Group.

All deliveries will be required to follow a one way in, one way out protocol to avoid crossing traffic to access or exit the site. Access will be from the A404 via Pembridge Villas into Pembridge Road and a left hand turn into the site. Egress will be by left hand turn out of the site onto Pembridge Road towards Notting Hill Gate and then via Bayswater Road towards Edgeware Road or via Holland Park Road towards the A3220 as per map included in Site Logistics Plan.

Waste Disposal
A waste removal strategy will be developed during the pre-commencement period. This strategy will be incorporated within all trade contractor orders.

Three alternative strategies will be investigated and the most appropriate solution will be incorporated within the trade package requirements.

1) A system of central rubbish skips, which will be removed from site on a regular basis.
2) Each trade contractor will be responsible for the disposal of their own waste.
3) Segregation of waste will be implemented.

A separate waste management company may be employed to remove rubbish from site and to sort and recycle waste using their own licensed waste transfer station facilities.

Where possible, and if the design permits, off site factory production of component assemblies will be utilised to minimise the production of site generated waste and rubbish. The use of timber frame construction typifies this approach to waste disposal at site level.
Scaffolding

Conventional scaffolding will be independent with boarded lifts to suit the nature, location and type of the particular operations.

Scaffolding will be provided, erected and maintained in accordance with all current statutory regulations. Suitable guard railing will be utilised to prevent falling from unprotected edges and staircases as applicable. Scaffolding will be fully sheeted on the Pembridge Road and party wall elevations.

Scaffold design and loadings will be adequately assessed, designed and evaluated by our specialist trade package contractor and checked by our Project Manager. All scaffolding will be securely braced and tied to existing structure and will include suitable ladder access.

No person other than a certified competent scaffold operative will be permitted to erect, alter, adapt or dismantle any conventional scaffolding.

Multi use scaffolding will be provided by a separate trade contractor package and the provision will be as follows:

- Roof edge guard-railing to external perimeters of roof areas.
- Floor edge guard-railing to external perimeters and voids of floor areas where operatives may be at risk of falling.
- Temporary staircase hand railing.

Individual trade package contractors will provide their own specific access scaffolding, man-safe provisions and access equipment over and above these allowances.

Temporary Services

110v power will be utilised, several positions around site will be provided, and this scheme will be developed as works progress and needs arise.

Water will be provided direct from the mains system for use in the construction process and welfare facilities.

Temporary drainage will be laid into existing foul drainage if possible. If suitable existing foul drainage does not exist, then temporary storage facilities will be incorporated within the accommodation units.

Fax, telephone lines and an electronic data transfer line will be provided to the site offices.
Dust and Debris

The site will be kept clean and tidy at all times and will accord with any statutory requirements.

Vehicle wheels will be checked on exiting the site area to ensure their cleanliness. Wheel washing will be implemented if necessary to ensure no debris strays onto the surrounding roads.

Suitable concrete vehicle wash down areas will be established so that “wash out” spoil and grout from concrete delivery vehicles will be washed out within a contained area. This area will be cleaned on a daily basis and the spoil removed from site via rubbish disposal vehicles.

Safety

During the Pre-commencement phases of the project, methods will be analysed, detailed method statements, risk analysis undertaken, and adequate provisions made by ourselves and the trade package contractors, such that safe means of access, methods, tools and equipment are utilised.

All trade package contractors are obliged to provide safety policies, plans and method statements and will be interviewed prior to order placement on all aspects of safety, health and welfare.

All sites are subject to independent site safety checks, inspection and reports by our independent site safety inspectors and advisors.

Employers direct contractors will be required to accord and be subject to the same Brennan Group safety procedures and requirements as our own sub-contractors and operatives as outlined above.

Safety inspections will also include the works of the employer’s direct contractors.

Noise Control

Management of noise pollution will be given a high priority.

Wherever possible, electrically operated plant will be utilised. If electrically operated plant is deemed to be unsuitable then only plant and equipment that is correctly silenced and muffled in accordance with current legislation will be utilised.

All pneumatic tools will be checked daily to ensure their compliance to the regulations and our own stringent noise control management.

Wherever possible, all systems shall be adequately investigated and proposals put forward.
CONSTRUCTION (refer to programmes)

Works Methodology Overview

The works are to be phased as follows to minimise disruption to the surrounding area and ensure that all operations are kept within the confines of the site.

Phase 1 (Enabling): These works include three elements which will be carried out behind the protection of portable Heras fencing, which will be re-aligned to the front site boundary after each days operations. These works are demolition of the existing front boundary wall, the removal of agreed trees and the erection of a timber hoarding which will remain in place until the latter stages of the project.

Phase 2 (Enabling): These works will be carried out within the confines of the site accessed via new secure gates as per traffic management elements of this plan and Logistics Plan.

Phase 3 (Construction): During completion of the Phase 2 demolition works recycled aggregate will be used to form a pile mat over the entire site area which will minimise risk of spoil being tracked onto the local road networks. For the majority of the phase 3 construction access will be via the security gates at the north end of the site.

Stage one of construction will be the completion of ground works to all six plots and the consolidation of a site delivery area at the north end of the site as indicated on the site set up plan.

Stage two will be the construction of plots 1 to 4 to completion.

Stage three will be the construction of the shell of plot 5 ready for fitting out. These works will be serviced from a reduced site compound area on the footprint of Dwelling 6. At the end of this stage site accommodation will be transferred to dwelling 5 which will also be used for storage of finishing items for plot 5 and all construction materials for plot 6.

Stage four will then be the construction of plot 6 and the completion of plot 5 all serviced from plot 5 as per item three above.

By utilising this methodology we anticipate deliveries to the site from the road will not be required but if for any reason they do become necessary these will be kept to an absolute minimum, timed and controlled by our logistics coordinator as previously mentioned.

The Works

Enabling (Phase 1)

Site set up, demolition of front wall, tree removal, hoarding, soft strip existing building, asbestos removal, service isolations and window survey to adjacent properties.

Enabling (Phase 2)
Window replacement to adjacent properties and demolition of existing building.

**Phase 3**

**Ground preparation**

Removal of existing foundations, drainage and ground obstructions, infill, bring to level and lay pile mat.
Substructure
Piling and ground beam foundations

Super structure
Timber frame

Ground floor level
Beam and block floor system with insulation and screed.

Roof Structure
Timber frame

Roof Coverings
Standing seam roof system.

External Facades
Stuco panels and brickwork.

Internal Works
Full high end fit out.

Mechanical/Electrical – Generally
Full high end fit out.

Mechanical/Electrical Services – Testing and Commissioning
New incoming utilities

FF and E
As specification

External Works
Drainage paving, hard landscape and soft landscape

Unusual Risks
Potential ground contamination and very restricted site.
HANOVER DOCUMENTATION AND CLIENT TRAINING

In parallel with the construction phases we will put in place procedures for monitoring the progress of information production relating to the handover documentation to ensure it is available for handover.

During the period of services commissioning and the fixtures and fittings period we will instigate a training programme in the operation the new building to key members and representatives. This will ensure that these key personnel fully understand the operational parameters and processes of the new building and are able to assume full control upon project completion.

Post Contract Support

Periodic monitoring by the Brennan Group, following completion of the building will enable early attention to unforeseen issues during the warranty period.

Project Close Out and Handover

The principle of the project close out and handover will be to carry out the de-snagging of works as they progress in order to achieve a progressive handover from Trade Package Contractor to Trade Package Contractor within a particular area.

This will be followed by the final snagging/completion period as indicated on the tender programme.

To ensure the above is achieved the following system will apply in association with any applicable in house Quality Management System:

- A rigid inspection regime and sign off procedure will be established and agreed between, Brennan Group the consultants and the Trade Contractors.

- An auditable system for regular monitoring of quality and snagging is to be created.

- An acceptable standard is to be agreed with Brennan Group and the Consultants based upon Trade Contractor samples, mock-ups, prototypes and or early permanent works. As agreed in the CP’s.

- The Trade Contractors will submit copies of its’ own inspection system applicable to a particular area to Brennan Group for inspection.

The format and detail of the O&M manuals, coupled with the Building Manual will be established at the early stages of the project. This allows the document to grow and develop with the progression of the project as a whole.
Quality Control

It is recognised that the client requires an extremely high level of finished quality.

Where possible, sample areas and mock-ups will be created that will reflect the required quality levels and to resolve interface difficulties at early stages in the project.

Separate checklists will be created for each and every element of the works. No checklist will be signed off until the required standard of workmanship is achieved. Additional checklists will be proposed when required.

Acceptance of all elements of the works will be subject to signing off.

As each section of the works is completed, it will be snagged and de-snagged immediately, therefore reducing the amount of snagging works that there would likely be at the end of the contract.

The final snagging and de-snagging of areas will be addressed in a working sequence, as each section of the building is completed. Once this is agreed, areas of the building will be “closed-off” and a restricted access policy implemented. Our aim is to strive to provide a project, which actually achieves a ‘defect free’ handover.

Where areas are to be made available for client fit out contractors these will be snagged, de-snagged and signed off prior to handover to the third party.

Protection of Completed Works

The trade contractors will adequately protect all materials, equipment and finishes to the satisfaction of Brennan Group, to prevent damage arising from weather conditions, construction activities, or any other cause whatsoever during the progress of the sub-contract works and until the completion of the Project.

The required level of, and type of protection required to protect completed works will be agreed by all parties, in advance of any works commencing.

Contract Administration and Handovers

Throughout the contract, Brennan Group will maintain the updated, tracked and monitored Construction Programme for the works.

In order to ensure that the programme is adhered to, Brennan Group will hold regular on-site progress meetings with the design team and trade-contractors. At these meetings, other issues such as quality and safety will be discussed in detail to ensure that they fully comply with the contract requirements.
Prior to handover of sections of works, Brennan Group will carry out their own snagging of the works, with the aim of achieving 'zero' defects at practical completion.

As built drawings, commissioning records and operation and maintenance manuals will be prepared and issued to the Contract Administrator, prior to completion of the works.
Internal Site Meetings

Weekly meetings will be held to discuss co-ordination, progress on site, update the current position related to the construction programme and to discuss and record ways and means of overcoming any problems relating to the progress of the works.

To discuss methods of carrying out forthcoming construction activities so as to allow for the necessary planning periods, or particular on site operations which in turn avoid any confusion or possible delays and indeed abortive work, by either parties.

To discuss all aspects of safety on site especially the requirements of forthcoming site operations.

Weekly Trade Contractors Meetings

At regular intervals a fully integrated trade contractor meetings will be held, to highlight, interface and co-ordinate any on site activities. Also on a weekly basis a supervisors/foreman’s meeting will be held to ensure smooth running of site operations, especially concerning safety.

Where required we will instigate and hold, spot and extraordinary meetings, if there are any specific areas of the project, which are causing a particular concern, and in turn attempt to avoid any possible onsite delays.

Reporting Procedures

The following will be tabled for discussion at each internal site meeting:

- The status and progress recorded against the contract programme.
- Current updated Construction Programme with, if necessary, actions for bringing works into line with the Construction programme.
- Weekly labour and plant returns.
- A rolling schedule of approvals of all Design, Detailing and Materials yet to be approved. This schedule will be updated on a weekly basis.
- A schedule of materials and projects manufactured off site, with status of percentage manufactured and anticipated delivery dates.

CONCLUSION

The above method statement has been developed specifically in places to demonstrate our understanding of the project requirement and the detailed methodology required to carry out a project of this nature. However, it is not all encompassing. Therefore, prior to the commencement of each stage of the construction works, item specific method statements will be produced and agreed with the Brennan Group Site Management Team.