HUSH
PROJECT MANAGEMENT & CONSULTING LIMITED

CONSTRUCTION MANAGEMENT PLAN

77-79 Charlotte Street

FOR

Charlotte Street Property Ltd

January 2015

Contents

Site Location Plan

Aerial view from south-east, showing the site of Fitzroy Place development currently under construction

Aerial view from north-west

The purpose of this document is to describe the processes and mechanisms in place to manage the construction activities for the project in a safe manner whilst also considering the surrounding environment to minimise disruption.

1.0 INTRODUCTION

HUSH Project Management and Consulting Limited have been appointed to produce an independent report on behalf of Charlotte Street Property Ltd. that identifies specific best practice standards and procedures for managing development at 77-79 Charlotte Street. These standards and procedures will highlight the envisaged construction sequence and will ensure that the interests of local residents, businesses and the general public are given special attention by the Contractor during the works duration.

This report identifies how the critical construction activities will be undertaken, and specifically covers the environmental, public health and safety aspects of the proposed development. The baseline for our analysis is the Camden Planning Guidance (specifically CPG6 Amenity), but we have viewed these requirements as the minimum standards to be achieved and have identified improvements in most areas under consideration. In due course, when the Contractor for the works has been chosen and appointed, they will produce a more detailed Construction (& Demolition) Management Plan and a Site Waste Management Plan (SWMP) to demonstrate how they will comply with the requirements of the Development Policies and Camden Planning Guidance, as well as detailing how they will address the measures contained within this report. The agreed contents of the construction management plan must be complied with unless otherwise agreed with the Council. The Contractor shall work with the Council to review this construction management plan and any future versions if problems arise in relation to the construction of the development. Any future revised plan must be approved by the Council and complied with thereafter.

This document details:

- The specific obligations on the Contractor when undertaking the works;
- The specific measures to be used during the works, and;
- The specific details of the control measures for each environmental issue.

2.0 SCOPE OF WORKS

2.1 Project Location

The site is located in Fitzrovia, Camden, close to Westminster border. The site spans between Charlotte Street and Tottenham Mews.

It has a PTAL rating of 6b, as it is in close vicinity of Goodge Street and Tottenham Court Road tube stations, providing links to the city and greater London area via the northern and central line. A number of mainline stations and the future Crossrail route are easily accessible. Bus stops are located along Tottenham Court Road and allow for many routes.

The site is sharing a boundary with the corner site (73-75 Charlotte Street), which has recently received planning consent for a new residential building, which is currently being implemented.

2.2 Scope of Works

Currently the site hosts two buildings. The larger one facing Charlotte Street extends very far back into the typical gap between the two lines of properties. Off Tottenham Mews is a single storey garage, which leaves very large blank facades on either side exposed.

The office is a modern development on Charlotte Street. It has a large amount of glazing, which is arranged in large, horizontal bands. It also has a single projecting bay over the entrance.

Our proposal draws together the two sites into a single building. In doing so we have sought to draw on the distinct characters of the Mews and Charlotte Street, creating a single architecture in two parts.

Our proposal is for a mixed-use building, with offices at ground and below and residential above.

The proposed building will allow for 447sqm office / garage use and 607sqm residential use.

2.3 Programme

The works are currently planned to commence in the first quarter of 2016, which would allow completion of the new building to be in late 2017. This is subject to Planning approval and discharging any planning conditions prior to the works.

2.4 Planning Considerations

The proposals have been worked up having regard to relevant planning considerations. They have also been discussed with officers at Camden Council (CC), who are supportive in principle. The following considerations were reviewed with Camden:

- Consideration is to be given to the usage of the development and the commercial/residential mix.
- Design information is to be provided to show the interaction with neighbouring buildings.
- As a basement is being constructed, a detailed Basement Impact Assessment (BIA) is to be produced. Basements are deemed contentious issue for Camden Council. This is to be produced in line with CPG4.
- Transport and Highways impacts are to be addressed including car parking and cycle storage, as well as the production of a draft Construction Management Plan (this document) to cover construction vehicle movements.
- Sustainability is to be considered including the requirement for an Energy Statement and that the residential elements achieve Code 4 CfSH as a minimum.

3.0 CONSTRUCTION METHODOLOGY

3.1 Surveys

The design has been produced using the following survey information:

- Rights of Light survey and report by Delva Patman Redler;
- Acoustic survey by Scotch for background and ambient noise;
- Ecology survey by Thompson Ecology Ltd;
- Survey of existing incoming services by Scotch;
- Desktop Survey of incoming services and utilities by Scotch;
- Groundwater Assessment by Chord Environment Ltd, and;
- Ground investigations (including contamination) by Soils Ltd.

The following information is to be carried out by the Contractor prior to starting the works:

- Surveys of existing services and structures to confirm demolition methodology and load testing capabilities;
- Highways condition surveys to be carried out prior to commencement on site, and;

3.2 Asbestos

There is no asbestos expected in the building however, a Type 3 and if required D&R survey will take place prior to commencing any works.

3.3 Strip Out & Demolition

3.3.1 Mobilisation and Pre-Commencement

Site establishment is the preparation of the site to carry out the demolition and enabling process. The activity is generated from vacant possession of the structures by their existing tenants/occupiers and full possession of site and will include the following activities.

Prior to commencement of works on site a period of pre-demolition planning and activities will be carried out to ensure works can commence in full at week 1 of the demolition programme. Certain elements of these works will require third party approvals which entail lead-in periods and approval periods.

The Contractor will undertake a number of activities prior to commencement on site and starting the strip out and demolition:

- Production of a Site Waste Management Plan as per the current DEFRA guidelines.
- Mobilisation of selected plant and operators.
- Formulation of project Health and Safety Plan and risk assessments.
- Development of project specific construction phase method statements.
- Production of detailed works programmes and sequencing.
- Surveys of existing services and structures to confirm demolition methodology and load testing capabilities.
- Highways condition surveys to be carried out prior to commencement on site.
- Services investigations/surveys for decommissioning purposes.
- Hazmat and asbestos demolition and refurbishment (D&R) surveys, testing and ASB5 notifications to the HSE.
- Biological surveys for guano, rat infestation, syringes etc.
- Licence applications and approvals for road closure, parking bay suspensions, notices, hoardings & scaffolding.
- Baseline movement monitoring.
- Baseline environmental monitoring.
- Section 80 approval in place.
- Neighbour liaison before the commencement on site to explain the nature of works.
- Temporary works design.

3.3.2 Site establishment and logistics

The following steps and activities are to be undertaken prior to the commencement of any demolition works. This is covered further in section 4.

- Site hoarding & gates are to be constructed to suitably separate the works from the public.
- Scaffold is to be erected as required.
- Installation of site temporary electrics, lighting, and fire alarms etc.
- Establishment of a 24/7 site security provision with CCTV perimeter support to ensure that the site is protected against unauthorised or unlawful entry, and potential theft from site.
- Diversions of existing utilities as required and isolation of existing services and systems within the building will be carried out at the internal face of the existing basements in liaison with the statutory service providers.
- Provision of welfare facilities for use by staff and personnel. Initially this set up will be within the building demise by utilising/modifying existing premises facilities and then moved to an externally located temporary cabin welfare and office accommodation set up incorporated as part of the scaffold encapsulation located on the building elevation.
- Potential installation of some temporary propping to the basement vaults prior to the scaffold erection on this elevation.
- Emergency routes on site specified and clearly signposted.

3.3.3 Asbestos removal and soft strip de-construction

Type 3 Asbestos Survey and a D&R survey will be undertaken to identify any asbestos contaminated materials present within the building. Once the asbestos report has been issued the method of working shall be submitted to the HSE (ASB5 notification).

3.3.4 Advanced soft strip/service Isolations

Prior to any asbestos removal works commencing an advanced soft strip operation will proceed to clear the existing building and make it safe and expose, where safe to do so, the existing asbestos containing materials.

The first operation will be to isolate any live services to an area an advanced survey of all existing services would have been carried out in the pre-construction phase to highlight termination/zoning points.

Running concurrent with the service isolation will be a safety review of the existing structure to highlight any dangerous areas e.g. exposed edges, exposed asbestos etc. These areas will be isolated and have the relevant warning signs positioned any exposed edges or voids will be handrailed off.

3.3.5 Soft strip works

Following on from the initial soft strip, asbestos removal work, any other hazardous materials have been removed and any live services terminated and confirmed as such, the main soft strip of all fixtures and fittings within the existing building.

Vigilance regarding the structural integrity of the buildings will be maintained at all times by operatives and site staff during the soft stripping works as parts of the building will be exposed for the first time.

Working from the highest level downwards soft stripping will be carried out using hand-held tools and small machines with appropriate shear and grapple attachments in a general soft stripping exercise as per the following:

- The works will be accessed from the existing floor levels or from aluminium towers.
- Competent, trained persons will be used to erect the aluminium mobile towers.

All of the works will be carried out by trained operatives using hand tools/hand-held plant to assist in the stripping process , as the materials are stripped they will be removed to ground or first floor level by using either drop zones within existing lift shafts or service risers or by utilising the existing lifts with wheelie bins. The material will then be deposited into skips/container lorries within the loading areas for removal from site.

During the soft strip works the operatives will be split into two gangs:

- A soft stripping gang who will remove the materials from the existing structure.
- An attendance gang who will control the distribution of waste to the ground floor from the workface.

Ceiling hangers, trunking, conduit, pipework and other non-structural metalwork will be cut out using oxygen/propane burning equipment, angle grinders or mechanical dismantling.

A 'Hot-Works' permit to work system will be enforced when any works of this nature are undertaken and fire extinguishers will be prominent. Hot works will cease two hours before the end of a working shift and the area thoroughly checked prior to breaks or to leaving site.

It will be impressed on the workforce that the site has a 'No Smoking' policy except for in designated areas and will prevent the accumulation of rubbish on the site.

Windows will be opened for the purpose of extracting the fumes. Oxygen and propane bottles will be stored upright in a lockable cage.

By regularly removing the accumulated debris, the potential fire risk, that loose combustible material imposes, is minimised/removed.

Soft strip debris arising from the structures will be processed at ground level for disposal from site.

3.3.6 Structural demolition

The structure for the main building appears to be in fair condition for its age and type, and externally the building shows no nominal signs of movement.

Due to the location of the buildings forming the site we have reviewed the methodology and decided that using a traditional small machine de-construction method progressing floor by floor and assisted by hand tool de-construction on more sensitive and constricted parts of the site is the only suitable method for demolition. Due the location and constraints surrounding the site and the danger of an uncontrolled collapse we have completely discounted the use of long reach machines.

In addition we propose a voluntary Section 60 working arrangement whereby noise generating work will be carried out on a two-hours-on-two- hours-off basis to minimise disruption to neighbouring properties.

Please see Appendices for Demolition Phase sketches.

Progressive small machine de-construction will involve the use of excavators fitted with hydraulic breakers and appropriate sheer and grapple attachments which will undertake progressive small machine demolition in the following sequence:

During the on-site establishment and soft strip phase, trial holes will be broken out in the roof and upper floor slabs of the building, to investigate floor spans and construction. The existing drawings and any existing trial hole information will be used in conjunction with these findings.

Load testing will be carried out and the permissible floor loadings ascertained. Machine sizes and any necessary back propping requirements will then be determined.

In addition, the condition of the structure and construction techniques will be investigated to provide as much information prior to de-construction commencing.

The floors are to be examined for any inconsistencies before use (openings through the floors, changes in construction, existing cracks/damage or signs of previous repairs). Any such items are to be reported to the Temporary Works Engineer prior to using the machines on these floors.

The soffits are to be inspected regularly and frequently (at least twice daily) and any signs of distress/sagging/cracking are to be reported to the Temporary Works Engineer (and any machine use immediately suspended).

The immediate area around the de- construction area will be barriered off and warning signs erected. Drop zone(s) within the de-construction area will be established and further demarcation established. The staircases directly below the working level will be closed off and lower levels will be temporarily decked out with timber. Access to the upper levels for operatives and tools etc. will be via the scaffold/hoist.

The redundant roof structures will be stripped and taken apart using a combination of Brokk remote machine and hand held tools. The debris will be broken down onto the floor slab below, processed and separated to increase the efficiency of debris removal.

Marks will be painted on the floor slab to indicate to each machine operator the permitted track locations. Each operator will be inducted specifically to his tasks and instructed to remove the keys when leaving the machine to prevent unauthorised use of machine.

The external concrete/brickwork/cladding will be carefully deconstructed into the site using the 360º excavator. The steelworks will be progressively exposed and severed using oxygen/propane burning equipment. The column will be carefully folded onto the slab.

This operation will be executed in a controlled manner, ensuring the column being pulled over is not excessive in size and weight.

Once the external columns and panels have been de-constructed the working level slab will be broken out using 360º excavators, fitted with hydraulic breaker attachments, in a bay by bay sequence working towards the lifting point for mobile crane.

The final 360º excavator will deconstruct the penultimate structural bay prior to lifting down to the slab below. The final bay will be broken out from the floor below.

Immediately upon reaching the new level, the demolition arisings will be loaded away via the well hole to reduce the imposed loading on the slab at the earliest opportunity. The arisings will then be cleared from all other floor areas using skid steer loader.

The scaffold to the external elevations will be struck as the works proceed with the scaffold always being one lift above demolition level at all times.

Careful consideration will be given to the stability of the building at all times. Any load bearing walls will be identified prior to de- construction commencing to ensure that they are maintained until structurally redundant.

Dust emissions will be controlled at the working face and loading away area by a fine water spray.

The quantity of water emitted by the sprays will be regulated and controlled to prevent any flooding at ground floor level.

To ensure that the impact of this construction is kept to a minimum on this project we would propose a voluntary Section 60 working agreement with Camden Council, whereby any percussive noise generating work will be carried out on a ‘two-hours-on, two-hours- off’ basis. This would ensure that any noise generating works will be undertaken between 8am to10am, 12pm to 2pm and 4pm to 6pm.

Works should initially commence with the erection of an enclosed perimeter scaffold which effectively covers the existing building during the demolition activities. Whilst the scaffold is being erected, a separate team will be stripping out the existing fixtures and fittings within the existing building and removing any contaminated materials.

3.4 New Construction Works

Please see Appendix A for the proposed project programme. It should be noted that this programme is subject to change. The proposed sequence is as follows:

1. Site mobilisation and setup
2. Basement construction (see 3.4.1 below)
3. Install concrete frame and slab

4. Install steel frame to upper floors
5. Install roofing, brickwork cladding and glazing
6. Fitout and M&E works
7. Commissioning
8. Snagging and Handover

3.4.1 Basement Construction Sequence

Prior to commencing the basement construction, permission is required from Camden Council's Highway Management Team. This is to be arranged by the Contractor once appointed.

The basement extends below the water table by about 1.5 metres and therefore into an aquifer. This will require localized dewatering during the construction of the traditional underpinning to the flank walls of the basement. The underpinning will be carried out in short lengths in a 5-bay sequence. Therefore at any one time, only a small number of short lengths of excavation will be open and these can be safely de-watered by conventional pumping techniques.

Prior to the underpinning the front and rear walls of the basement will be formed by a contiguous piles wall as described below. Thus once the underpinning is complete and propped internally, the ground around the perimeter of the basement will be secured. This will allow further de-watering by pumping within the basement "box" to allow the lower basement slab to be constructed thereby sealing the basement against significant water ingress.

The proposed basement abuts a public highway and footpath to both front and rear. To enable the basement to be safely constructed without impairing the stability of the public highway a contiguous piled wall will be installed to the front and rear of the proposed basement immediately following demolition of the existing superstructure.

The contiguous piled walls will be designed to safely support the lateral earth pressures and surcharge loading from the public highway. These contiguous piled walls will be left in place when the inner basement walls and floors are constructed thus further stiffening the support for the public highway and at no time leaving the highway in an unsupported condition.

Prior to carrying out the contiguous piling the existing pavement vault brick arches will be repaired to restore their full structural integrity.

The proposed basement is one storey height deeper than the existing. Calculations have been prepared to demonstrate that the reduction in soil stresses due to the removal of soil to form the additional basement will be approximately equal to the increase in weight of the new building compared with that of the existing. Therefore, there will be no significant increase or decrease in net soil stresses below the existing foundations to the buildings either side of the proposed basement and therefore no significant risk of differential settlement through them design life of the structure.

The basement will also be constructed in such a way as to avoid any movement of adjacent ground levels or nearby or adjoining structures during construction. This will be achieved by underpinning the existing walls to either side of the basement with traditional underpinning. This will be carried out in a 5-bay sequence and in two stages in order to keep the excavations to a safe and manageable size throughout. Each underpinning block will be dry-packed to the underside of the foundation over in order to take up the load and transfer it to the bearing stratum below the underpinning. This will ensure that the load is gradually and evenly transferred to a competent bearing stratum at the maximum depth of the proposed basement before the bulk excavation of the basement is undertaken. This will avoid any significant deflection of the existing foundations to either side of the proposed basement.

The Contractor will be required to use machinery that minimises noise, creation of dust and vibration throughout the works.

The sides of the excavation/temporary works will be monitored by precision levelling throughout the works.

Following completion of the demolition vertical loadbearing piles will be formed from the existing basement level by contiguous flight auger piling to minimise and noise and vibration.

After the piling has been completed and the excavation deepened to the new basement level, the lowest level basement slab will be cast in steel reinforced concrete. The slab will incorporate tension piles set into the London Clay below to resist and uplift due to hydrostatic pressure.

After the basement slab has been cast, in-situ steel reinforced concrete walls will be constructed up to the next level of slabs and the slabs then constructed in reinforced concrete. The slabs will then prop the sides of the concrete box in the permanent condition.

As construction of the basement walls and upper floor slabs progresses upwards, the internal shoring between the sides of the retaining walls will be de-stressed and removed.

Vertical loads from the superstructure will be transmitted by the basement walls to the pilecaps cast with the lowest level slab. The resulting stresses on the soil under the basement slab will be less than existing and in addition, as stated above, tension piles will be installed to resist any uplift forces to avoid any settlement or heave of the ground around the basement.

The construction sequence of forming the excavation will therefore be as follows;

- Demolish existing building including ground floor whilst providing temporary props P1. Undertake remedial works to pavement vaults.
- Install contiguous pile walls to front and rear of property to retain public highways and install new piles at existing basement slab level.
- Install traditional underpin blocks in sequence to Level One; demolish remaining building as required. (Refer to Method Statement for Underpinning Construction and relevant drawings for sequencing.) Install temporary props P2 and P3 to provide lateral restraint to Party wall foundations.
- Excavate and install traditional underpin blocks to Level two in sequence. Install temporary props P4 and P5. Localized de-watering will be required. Refer to Soils Limited Geotechnical report.
- Construct all basement substructure including drainage and waterproofing within box formed by underpinning and contiguous piled walls. Remove temporary props P5 to P2 in sequence as work progresses.
- Construct all substructures to Lower Ground Level including walls, slabs and waterproofing; remove temporary props P3 as required.
- Construct all substructures to Upper Ground Level including walls, slabs and waterproofing; remove temporary props P2 as required.

4.0 THE CONSTRUCTION SITE

This section outlines the requirements relating to site management practices, ranging from the location of accommodation and equipment to the operation of equipment on site. It outlines a number of procedures that should be implemented during site operation.

These relate to working hours, site layout and appearance and good housekeeping.

Representatives from the Camden Council (CC) may inspect the construction site to ensure that these procedures are adhered to. The Contractor must follow a 'good housekeeping' policy at all times. The site should be cleared by the Contractor on completion of the development.

To ensure that the impact of the construction is kept to a minimum on this project we propose a voluntary Section 60 Working Agreement whereby heavy percussive, vibration or noise generating work be carried out on a 'two-hours- on-two-hours-off' basis to minimise disruption. This work would not start before 8am on any given day.

4.1 Good Housekeeping

The Contractor will follow a 'good housekeeping' policy at all times. This will include, but not necessarily be limited to the following. The Contractor will:

- Ensure considerate site behaviour of the Contractor's staff;
- Ensure the noise from lorry reversing alarms and the like are kept to minimum levels;
- Prohibit open fires;
- Ensure that appropriate provisions for dust control and road cleanliness are implemented;
- Remove rubbish at frequent intervals, leaving the site clean and tidy;
- Ensure tools are not left around and accessible to members of the public;
- Frequently inspect, repair and re-paint as necessary all site hoardings to comply with the conditions of all licenses – all flyposting and graffiti is to be removed as soon as reasonably practicable
- Maintain toilet facilities and other welfare facilities for its staff;
- Remove food waste;
- Frequently cleanse wheel washing facilities, if used;
- Fire Alarm will be linked to the main system and fire test should be carried out each week to suit the client requirement;
- Fire Points will be situated round the roof at appropriate access points ;
- Flammable materials will be stored in a secure and ventilated cage or compound and marked with flammable materials, no smoking sign. They will be stored in a bunded area that will be capable of holding 110% of the stored contents;
- A fire point will be located adjacent to the flammable material store;
- Hazardous materials will also be stored in a bunded and secure area;
- Housekeeping in all storage areas will be maintained to a high standard as to maintain clear and safe access;
- Prevent vermin and other infestations, and;
- Undertake all loading and unloading of vehicles as identified on the logistics drawings.

4.2 Working Hours

Core working hours determined by the planning permission, however, our expectation is that they will be from

- 8am-6pm on weekday
- 8am till 1 pm on Saturday
- NO works on Sunday or bank holidays

4.3 Public Information

The site hoarding will display the Contractor's signboard together with publicity material including up-to-date information on the site programme and telephone contacts details for the Contractor's site representative.

The Contractor and the site is to be registered with the Considerate Constructors Scheme and will display the relevant posters around the site.

4.4 Security

The Contractor will ensure that the site is secure and prevent unauthorised entry to or exit from the site. Site gates will be closed and locked when there is no site attendance. Alarms will incorporate an appropriate cut-out period.

Access and egress to be controlled by fully manned security points and any temporary barriers used for pavements will be marshalled at all times.

4.5 Hoardings, Site Layout & Facilities

The site will be completely secure to deter public access. The proposed hoarding line and gates are shown on the enclosed plans in Appendix B.

The final location of site, office accommodation, toilets and welfare facilities will be identified when the Contractor is appointed. However, it is suggested that these facilities be located in a securely hoarded area of the site close to Tottenham Mews as this is likely to be main access point.

The building is to be scaffolded (including monoflex sheets) throughout but the scaffold may be struck as the building is demolished and then rebuilt during the construction of the new structure.

The Contractor is to liaise and seek permission required from Highways Management Team, and they must adhere to the requirements set out in Camden's Guide to Contractors Working in Camden.

4.6 Emergency Planning & Response

The Contractor will develop a plan for emergencies to incorporate:

- Emergency procedures including emergency pollution control to enable a quick response;
- Emergency phone numbers and the method of notifying Camden Council and statutory authorities. Contact numbers for the key staff of the Contractor will also be included. The Contractor will display a 'contact board' on the hoarding identifying key personnel with contact addresses and telephone numbers, so that members of the public know who to contact in the event of a report or query;
- London Fire and Emergency Planning Authority (LFEPA) requirements for the provision of site access points;
- Site Fire plan and management controls to prevent fires, and;
- A plan to reduce fire risk and potential fire load during construction, operation and subsequently during maintenance or repair. The project will comply with any third party requirements as may be appropriate at specific sites.

4.7 Cranes

The Contractor is required to apply to Highways Management Team for any cranes. It is unknown at this stage whether a tower crane will be required.

It should be noted that that oversailing rights will be addressed and a traffic management plan is in place for crane setup and delivery.

4.8 Hoists

To deliver materials to the upper floors during the fit-out period there may be an external hoist positioned on the Tottenham Mews elevation. This hoist will run from street level to the flat roof area which links to the main building. This detail is to be confirmed and detailed by the Contractor once appointed.

4.9 Licenses, Permits & Consents

The Contractor will need to apply for the following approvals under the highways legislation:

- Buildings extending over the highway (road/pavement).
- Private services including drainage inspection chambers and covers in the highway.
- Steps or ramps extending out onto the highway (not normally allowed).
- Retaining walls supporting the highway.
- Cellars or vaults under the highway.
- Adopting new roads or areas of a road.

The Contractor will also need to apply for licenses for the following:

- Access to the construction site
- Scaffolding
- Hoardings
- Gantries and rubbish chutes
- Jenny wheels
- Cradles ad fans
- Trestles
- Equipment and machinery
- Street works
- Shoring and skips
- Fencing and materials on the highway
- Crane operations over the highway
- Excavations and openings
- Mobile crane operations
- Temporary crossovers
- Mobile crushing units

5.0 SITE LOGISTICS

The efficient management of the site logistics will be vital to the success of the project. Not only will this be a key for the contractor's programing and build strategy to ensure that the products and materials arrive on site at the time and in the quantities that are required. But also in relation to how site activities and deliveries are planned to minimise disruption and impact to neighbouring tenants and businesses.

The Main Contractor will be responsible for the following:

- Transports plan to be controlled and updated on a regular basis
- Ensure permits are in place for any road closures if required (allowing for 8-10 weeks review period by the council)
- Delivery schedule will be provided on a weekly basis
- Banksman to control the Flow of traffic / safety to public
- Minimise disruption to the flow of ongoing traffic
- Banksman to ensure that spill kit is available and to ensure that roads and pavements are kept cleaned at all times
- Liaison with Camden Council where required.

The Contractor will ensure that the necessary pre-planning is undertaken and that the quality of the communication between those planning the project and those supplying the products and materials is maintained throughout the duration of the project.

Products and materials will be delivered to site by vehicle, unloaded, and then placed directly into the site area.

Should parking bays be suspended for specific activities, or if a (partial) road closure would be required, the Contractor is to consider Camden Council's procedures and notice periods and provide a full application.

Access and egress to be controlled by fully manned security points and any temporary barriers used for pavements will be marshalled at all times.

Please refer to the Site Logistics Plan in Appendix B.

6.0 TRAFFIC MANAGEMENT

This section highlights the measures by which the Contractor can avoid nuisance to the public that may arise from increases in traffic flows and temporary rearrangements of the road network associated with the construction works. Measures have been considered in relation to access routes, site access, marking of lorries, timing of movements, environmental standards, vehicle registration and parking.

6.1 Access Routes

The Contractor will use designated construction traffic routes for deliveries to the site and removal of waste etc. in accordance with the logistics drawing in Appendix B.

Access routes to and from the site to be used by heavy goods vehicles (HGVs) will be agreed with Camden Council and the Contractor prior to the works.

It is assumed that the majority of the heavy deliveries will be by articulated lorry and trailer units, using Charlotte Street, turning on to Tottenham Street and then delivering to site to the access gates on Tottenham Mews.

The number of lorry movements, hours of operation and any lorry holding areas will be agreed in advance of the works by the Contractor with Camden Council and the Police. The Contractor will maintain an up-to-date log of all drivers that will include a written undertaking from them to adhere to Camden Council's approved routes for construction traffic.

There will be no daytime or overnight parking of lorries within the vicinity of any construction site, except with agreement of Camden Council, in specified holding areas for lorries awaiting to deliver or remove materials to or from the site.

Should any diversions be required if road closures are put in to the place, the Contractor is to develop a strategy for agreement with the Highways Management Team. The Highways Management Team is to be notified of the following prior to the works:

- Start and end dates for each phase of construction;
- The proposed working hours;
- The access arrangements for vehicles;
- Proposed routes for vehicles between the site and the Transport for London Road Network (TLRN). Consideration should also be given to weight restrictions, low bridges and cumulative effects of construction on the highway;
- Sizes of all vehicles and the frequency and times of day when they will need access to the site, for each phase of construction;
- Swept path drawings for any tight manoeuvres on vehicle routes to the site;
- Details (including accurate scaled drawings) of any highway works necessary to enable construction to take place;
- Parking and loading arrangements of vehicles and delivery of materials and plant to the site;
- Details of proposed parking bays suspensions and temporary traffic management orders;
- Proposed overhang (if any) of the public highway (scaffolding, cranes etc);
- Details of any temporary buildings outside the site boundary, or overhanging the highway;
- Details of hoardings required or any other occupation of the public highway;
- Details of how pedestrian and cyclist safety will be maintained, including any proposed alternative routes (if necessary), and any banksman arrangements;
- Details of how traffic associated with the development will be managed in order to reduce congestion;
- Arrangements for controlling the movements of large/heavy goods vehicles on and in the immediate vicinity of the site, including arrangements for waiting, turning and reversing and the provision of banksmen, and measures to avoid obstruction of adjoining premises.
- Details of any other measures designed to reduce the impact of associated traffic (such as the use of construction material consolidation centres);
- Details of how any significant amounts of dirt or dust that may be spread onto the public highway will be cleaned or prevented;

- Details of any Construction Working Group that may be required, addressing the concerns of surrounding residents, as well as contact details for the person responsible for community liaison on behalf of the developer, and how these contact details will be advertised to the community;
- A statement confirming registration of the site with the Considerate Constructors Scheme;
- How the servicing approach takes into consideration the cumulative effects of other local developments with regard to traffic and transport;
- Provision for monitoring of the implementation of the CMP and review by the council during the course of construction works;
- Any other relevant information with regard to traffic and transport.

7.0 SITE WASTE MANAGEMENT

The Contractor must use working methods that minimise waste. Any waste arising from the site must be properly categorised and dealt with in accordance with appropriate legislation. Opportunities for re-using or recycling construction or demolition waste should be explored and implemented.

In addition the Mayor of London's draft London Plan includes targets of 80% reuse of construction and demolition waste and 60% reuse of that waste as aggregates in London by 2011, so that London will have a reliable supply of building materials to support high levels of building and transport construction to 2016.

The specific measures to be implemented by the Contractor will include:

- The Contractor will carry out the works in such a way that as far as is reasonably practicable the amount of spoil and waste (including groundwaters, production waters and run-off) to be disposed of is minimised, and that any waste arising from the site is properly categorised and dealt with in accordance with the appropriate legislation and guidance;
- A formal and detailed Site Waste Management Plan will be obtained from the successful Contractor. The disposal of all waste or other materials removed from the Site will be in accordance with the requirements of the Environment Agency, Control of Pollution Act (COPA), 1974, Environment Act 1995, Special Waste Regulations 1996, Duty of Care Regulations 1991 and the Waste Management Regulations 2006, and;
- In general and in accordance with the principles of the UK Government's 'Waste Strategy 2010', a principal aim during demolition and construction will be to reduce the amount of waste generated and exported from the site.

This approach complies with the waste hierarchy whereby the intention is first to minimise, then to treat at source or compact and, finally, to dispose of off-site as necessary. All relevant Contractors will be required to investigate opportunities to minimise and reduce waste generation, such as:

- Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;
- Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;
- Attention to material quantity requirements to avoid over-ordering and generation of waste materials;
- Re-use of materials wherever feasible; re-use of excavated soil for landscaping; re-use plant from existing buildings. Concrete will be taken off the site for crushing and re-use;
- The Government has set broad targets of the use of reclaimed aggregate, and in keeping with best practice, Contractors will be required to maximise the proportion of materials recycled;
- Segregation of waste at source where practical, and;
- Re-use and recycling of materials off-site where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or re- processing). Our expectations in this regard are shown in the following table:

Material	Target	Probable Location
Architectural salvage	100% re-used	Several architectural salvage companies in London.
Structural steel for re- use	100% re-used	Any complete sections salvaged during the demolition works will be retained by the Contractor for re use in temporary works.
Metals	100% recycled	Every effort will be made to recycle these materials on site with any surplus being taken to waste transfer station.
Hardcore (brick/block/ concrete etc.)	100% recycled	Taken off-site to be crushed and reused.
Excavated material/ clay etc	100% recycled	Clay – 100% processed for re-use (subject to analysis).
Timber	Up to 80% re-used The amount re-used will depend on the material	We will attempt to salvage any re-useable timber for hoardings, battening, shuttering etc for possible for use on site with the balance being retained by the Contractor.
Glass (non-tempered, non-laminated and non-bomb proofing film etc.)	100% recycled	Processing facility in Greenwich.
Mixed waste	The amount recycled will depend on the material	An absolute minimum will remain for transport to landfill.
Asbestos	100% landfill	Taken to a licensed site.

8.0 NOISE & VIBRATION

8.1 Noise

The Contractor's environmental team will undertake a noise assessment using noise predicting software which projects noise levels at adjoining properties based on the emissions made by specific plant. This noise assessment will be carried out in accordance with BS5228-1 2009 'Code of Practice for noise and vibration on construction and open sites.

This assessment allows the Contractor to select the most appropriate plant, methodology and controls to minimise disruptions of buildings at close proximity of the adjacent structures (sensitive receptors) and in particular live and occupied premises during the demolition and construction phases.

If deemed necessary, noise levels will be monitored by the Contractor during the course of the works. Camden Council shall be given access to all noise readings if required as soon as they become available, and are able to enforce restrictions on timings of work under Section 60 of the Control of Pollution Act 2974. T may be that the Contractor applies for permission under Section 61 and will liaise with Camden's Environmental Health Team.

8.2 Vibration

The Contractor's environmental team will also undertake a vibration assessment to review the effect of piling. This assessment will be carried out in accordance with BS5228-1 2009 'Code of Practice for noise and vibration on construction and open sites.

Consultation will also be held with the piling subcontractor prior to works starting and consultation will also be carried out with adjacent and neighbouring properties to make them aware of the up and coming piling activities with may cause vibration. This is also necessary to consider potential physical damage to adjacent properties, particularly No. 80 Charlotte Street and the new development at 74-76 Charlotte Street.

The Contractor will need to take measures to reduce vibration where possible and limit any inconvenience, demonstrating this through method statements, as well as providing the relevant calculations where necessary. The Contractor may need to liaise with Camden's Environmental Health Team.

9.0 AIR QUALITY

The Contractor will, as far as reasonably practical, seek to control and limit emissions to the atmosphere in terms of gaseous and particulate pollutants from vehicles and plant used on site and dust from construction activities.

The contractor must work to Camden's Development Policy 32. A method statement should be prepared and adopted as part of the Contractor's construction management plan to minimise gaseous and particulate matter emissions generated during the Construction Phase. The following best practice measures shall be included in the method statement:

- Techniques to control PM10 and NOx emissions from vehicles and plant;
- Techniques to control dust emissions from construction and demolition;
- Air quality monitoring; and
- Techniques to reduce CO2 emissions from construction vehicles.

Special precautions must be taken if materials containing asbestos are encountered.

Throughout the project the Contractor will ensure the following:

- Where potential dust producing activities are taking place, screens are to be used to limit emissions;
- There is no burning of waste materials takes place on site;
- There is an adequate water supply on the site;
- Disposal of run-off water from any dust suppression activities is in accordance with the appropriate legal requirements;
- All dust control equipment is maintained in good condition and record maintenance activities;
- Site hoarding, barriers and scaffolding are kept clean;
- The provision of cleaned hard standing for vehicles. Regular cleaning of hard standings using wet sweeping methods, no dry sweeping of large areas;
- Loading of material into lorries within designated bays/areas;
- If necessary, clean public roads and access routes using wet sweeping methods;
- Vehicles working on site have exhausts positioned such that the risk of re- suspension of ground dust is minimised (exhausts should preferably point upwards), where reasonably practicable;
- All vehicles carrying loose or potentially dusty material to or from the site are fully sheeted;
- Materials with the potential to produce dust are stored away from site boundaries where reasonably practicable;
- Minimise the amount of excavated material held on site;
- Sheet, seal or damp down unavoidable stockpiles of excavated material held on site, where required;
- Avoid double handling of material wherever reasonably practicable;
- Use enclosed rubble chutes and conveyors where reasonably practicable or use water to suppress dust emissions from such equipment;
- Sheet or otherwise enclose loaded bins and skips;
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate;
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction;
- The engines of all vehicles and plant on site are not left running unnecessarily to prevent exhaust;
- Use low emission vehicles and plant fitted with catalysts, diesel particulate filters or similar devices;
- Use ultra-low sulphur fuels in plant and vehicles;
- That plant will be well maintained, with routine servicing of plant and vehicles. On site servicing and maintenance to be carried out where possible;

- That all project vehicles, including off-road vehicles, hold current MOT certificates where required;
- Carry out site inspections regularly to monitor compliance with dust control procedures set out above and record the results of the inspections, including nil returns, in the log book detailed;
- Increase the frequency of site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;
- Record any exceptional incidents causing dust episodes on or off the site and the action taken to resolve the situation in the log book detailed in above;
- The Contractor will ensure that dust monitoring will be carried out during potential dust producing activities. The assessment will look at the dust raising potential of construction activities proximity to potential receptors and the duration of construction activities at each location, and;
- Submit permit to work procedure to be established between all interested parties.

10.0 MANAGING THE ENVIRONMENTAL IMPACT OF CONSTRUCTION

This section sets out the requirements on the Contractor for managing the environmental impacts of constructing the development. The Contractor may prepare a Site Environmental Management Plan (SEMP) setting out how the requirements of the Camden Development Policies and Planning Guidance are met.

The Contractor may wish to demonstrate (via the SEMP) the management, monitoring, auditing and training procedures that are in place to ensure compliance and set out the specific roles and responsibilities of the contractors' personnel in managing, monitoring all sub-contractors.

The Contractor will nominate someone who has the responsibility of establishing and maintaining contact with Camden Council's Environmental Heath Team and local residents, and keeping them informed of construction matters likely to affect them.

This liaison may include the regular and frequent distribution of Newsletters and attendance at meetings with representatives of local residents' groups where appropriate (see section 11 below).

The specific measures to be implemented by the Contractor will include:

- Once the contract for the building works has been placed the Contractor will produce a Site Environmental Management Plan (SEMP);
- The Contractor will liaise with Camden Council's Environmental Heath Team to agree routine arrangements for site activities;
- The Contractor's nominated person will advise the local authority within 24 hours of any incidents of non-compliance and health and safety issues. The Contractor will respond to any reports referred by Camden Council, Police or other agencies within 24 hours, or as soon as reasonably practicable;
- The Contractor will maintain on site, a system for recording any incidents and any ameliorative action taken for inspection by the Council's representatives. The Contractor will ensure as far as is reasonably practical, that necessary action has been taken and steps to avoid recurrence have been implemented;
- The Contractor will provide an information and reporting telephone 'Hot Line' staffed at all times during working hours. Information on this facility shall be prominently displayed on site hoardings, and;
- The Contractor will facilitate Camden Council's Environmental Heath Team Inspectors to undertake regular planned inspections of the site to check compliance with the CoCP and associated records.

10.1 BREEAM & CfSH

The Contractor is to be made aware of their BREEAM 2014 and Code for Sustainable Homes (CfSH) related obligations. A BREEAM Pre-Assessment report has been produced for the project and there are a number of credits that the Contractor is to try and obtain. These include:

- Man 03 – Responsible Construction Practices
- Man 04 – Commissioning & Handover
- Man 05 – Aftercare
- Hea 02 – Indoor Air Quality
- Mat 03 – Responsible Sourcing of Materials
- Wst 01 – Construction Waste Management
- Ecology related credits

11.0 AUTHORITIES & PUBLIC LIAISON

This section sets out the processes involved in liaising with local authorities and the public prior to the commencement of development activities.

Sufficiently in advance of works, the Contractor will provide the Environmental Inspectors with a full programme. This will include:

- An outline method statement for works and activities affecting the highway;
- Detailed method statements for specific/special activities;
- Details of site traffic movements showing the projected number of vehicles, what is being delivered, when peaks in activities occur, traffic marshalling arrangements, holding areas, etc;
- Routes to site for deliveries, and;
- A Health and Safety Plan.

The Contractor will agree detailed schedules of work with the Inspectors acting on behalf of Camden Council prior to commencement of development to assess the potential for nuisance.

11.1 Community relations

A consultation exercise with surrounding residents and any local amenity societies is to be carried out and these relationships are to be maintained throughout the construction phase. The Contractor may wish to assign community relations personnel to engage where necessary.

The Contractor will ensure that occupiers of nearby properties and local residents, will be informed in advance of works taking place, including the estimated duration.

The Contractor will inform local residents likely to be affected by such activities at least 14 days prior to undertaking the works, as well as applying for the appropriate permits and licences, e.g. road closures for delivery, or use of mobile cranes or abnormal deliveries to the site. The most suitable method of informing residents is through newsletters.

In the case of work required in response to an emergency, Camden Council, and all neighbours will be advised as soon as reasonably practicable that emergency work is taking place. Potentially affected occupiers will also be notified of the ‘hotline’ number, which will operate during working hours.

REFERENCES

Below is a list of references used for this document. The Contractor's Construction (& Demolition) Management Plan and Site Waste Management Plan are to also be developed using the documents listed below:

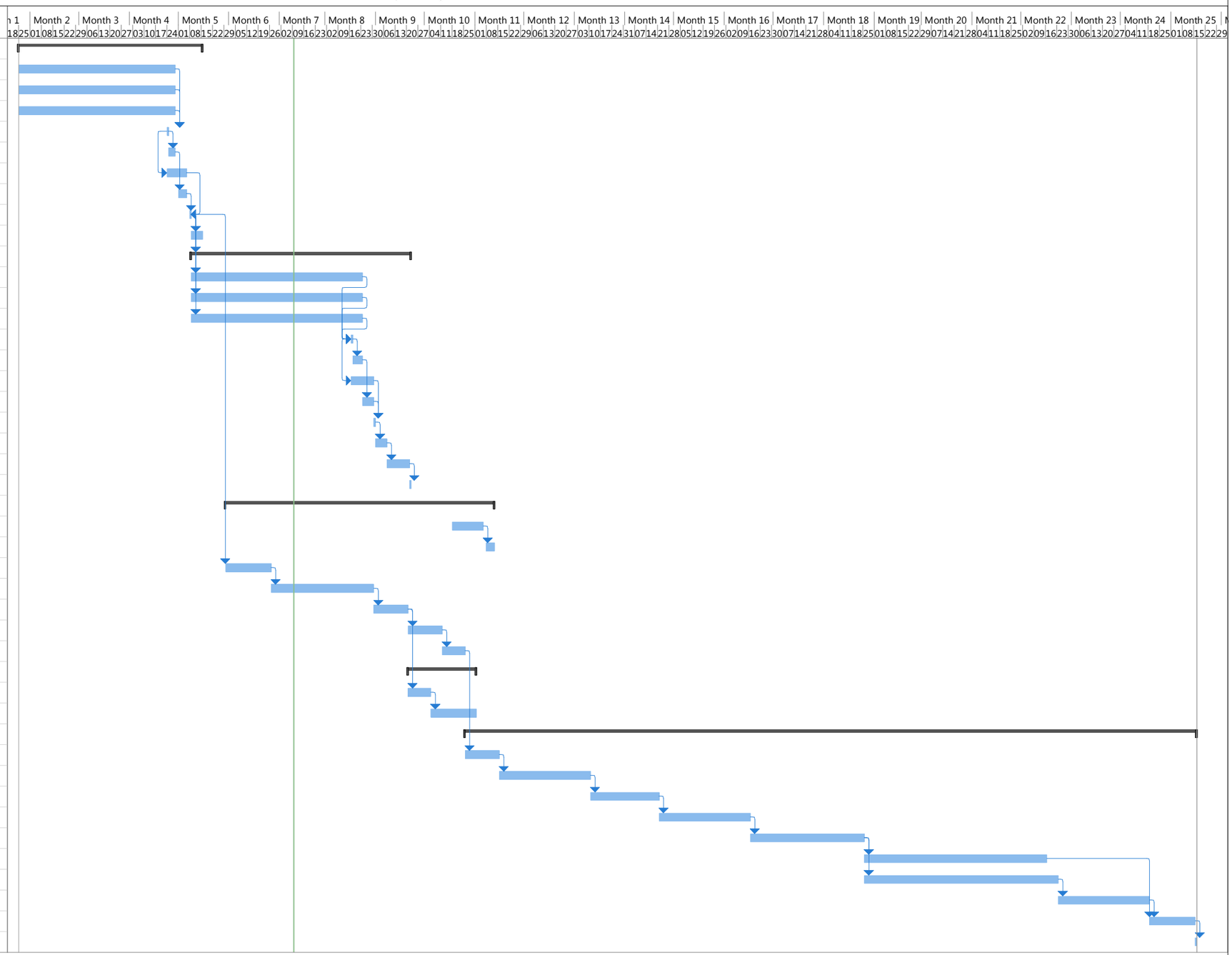
- Camden's Guide for Contractors Working in London (Feb 2008)
- Camden's Minimum Requirements for Building/Construction/Demolition Sites
- Camden's Construction Management Plan Pro-forma
- Camden's Local Development Framework (LDF)
- Camden Core Strategy:
    - CS5 Managing the impact of growth and development
- Camden Development Policies:
    - DP20 Movement of goods and materials
    - DP22: Promoting Sustainable Design and Construction
    - DP26: Managing the impact of development on occupiers and neighbours
    - DP27: Basements and lightwells
    - DP28: Noise and vibration
    - DP32: Air quality and Camden's Clear Zone
- Camden Planning Guidance:
    - CPG3: Sustainability
    - CPG6: Amenity
    - CPG7: Transport
    - CPG9: Planning Obligations

APPENDICES

Appendix A – Construction Programme

77-79 Charlotte Street - Project Programme

ID	Task Mode	Task Name
1		**RIBA Stage 3**
2		Develop architectural design
3		Develop structural design
4		Develop Services design
5		Issue to design team for comment
6		Receive Design Team comments
7		Cost Appraisal
8		Collate design package
9		Issue to Client
10		Client review and sign off
11		**RIBA Stage 4**
12		Develop architectural design
13		Develop structural design
14		Develop Services design
15		Issue to design team for comment
16		Receive Design Team comments
17		Cost Appraisal
18		Collate design package
19		Issue to Client
20		Client review and sign off
21		Develop drawings For Construction
22		Issue For Construction status design
23		**Tender Stage**
24		PQQ Longlist of Contractors
25		Shortlist selected
26		Collate Tender Documentation
27		Issue to Tender
28		Tender review and analyse
29		Negotiate fixed lump sum
30		Contract award and conditions agreed
31		**Pre Construction**
32		Mobilise
33		Discharge of Planning Pre-Commencement Conditions
34		**Construction**
35		Site Mobilisation and Establishment
36		Strip Out and Demolition
37		Groundworks
38		New frame and structure installation
39		Cladding & Roofing
40		Fit out
41		M&E installations
42		Commissioning
43		Snagging and Handover
44		Project Completion



Project: 77-79 Charlotte Street
Date: Tue 10/02/15

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

Appendix B – Site Logistics Plan

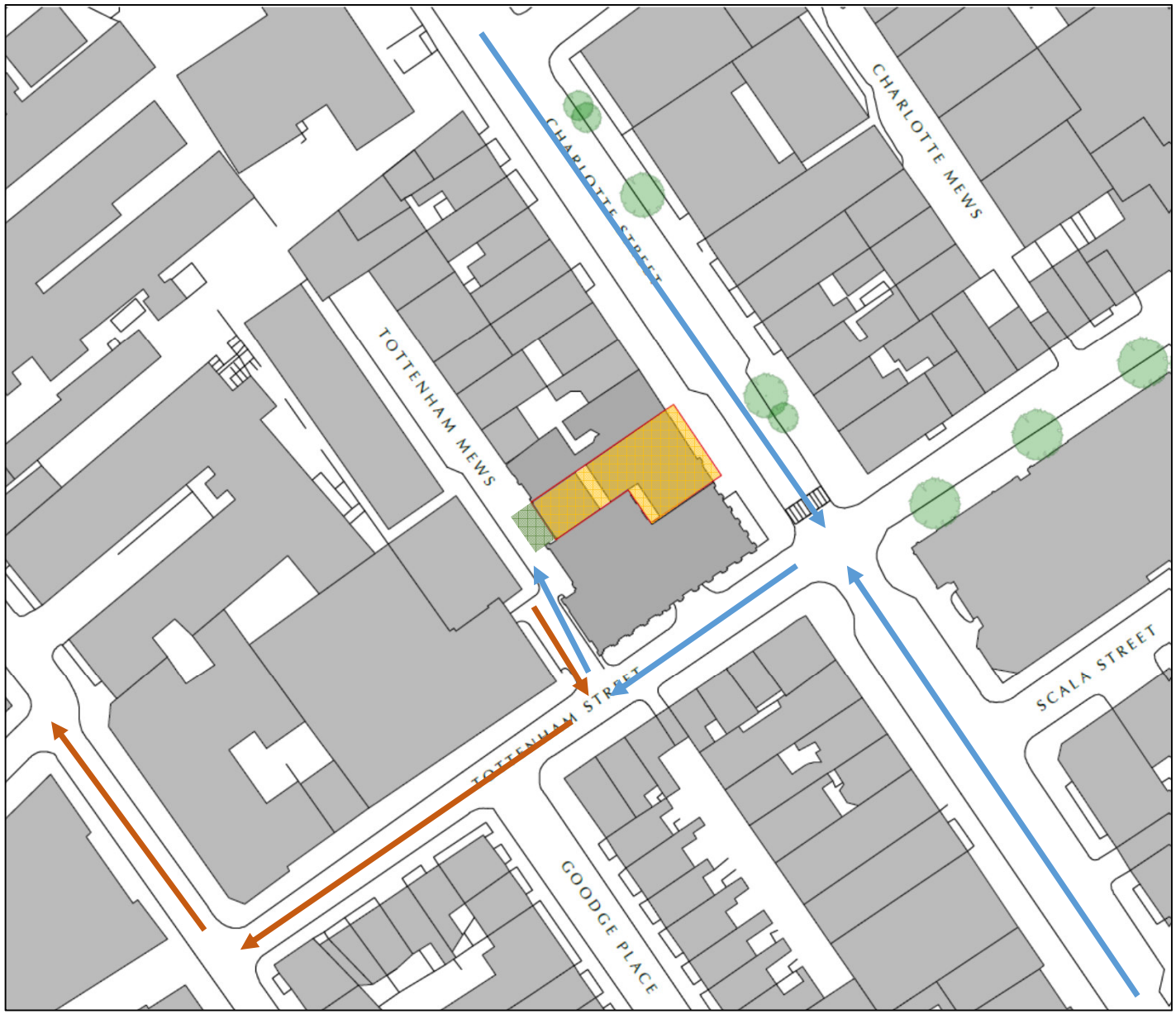
SITE ACCESS PLAN

77-79 Charlotte Street

FOR

Charlotte Street Property Ltd

Rev 1.0 January 2015



Key

- Site Area
- Vehicle Routes to Site
- Vehicle Route leaving Site
- Site vehicle unloading area

Appendix C – Demolition Phase Plans

DEMOLITION PHASE 1 SITE PLAN

77-79 Charlotte Street

FOR

Charlotte Street Property Ltd

Rev 1.0 January 2015

Key

- Hoarding
- Full demolition of structure
- Scaffolding
- Internal Soft Strip

DEMOLITION PHASE 2 SITE PLAN

77-79 Charlotte Street

FOR

Charlotte Street Property Ltd

Rev 1.0 January 2015

Key

- Hoarding
- Full demolition of structure
- Scaffolding
- Site Area
- Welfare Facilities
- Material storage