Balfour Beatty

Construction Management Plan

100 Avenue Road
Swiss Cottage
London
NW3 3HF

Report No. 1
23rd May 2014
Rev 01

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This document sets out to identify potential disturbance to local residents, businesses and general public and details specific mitigation measures that ensure that the impacts are kept to an absolute minimum, ensuring industry best standards are in operation at all times.

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Date	:	*23rd May 2014*
Approved By	:	
Date	:	
Document Signed Off by	:	
Date		

1.0

2.0 Introduction

2.1. This document has been compiled to provide guidance for Camden Council as to how the developer, Essential Living intends to ensure that works undertaken at 100 Avenue Road, are executed in an organised and considerate manner. The contents of this plan will be further developed with the design team, Principal Contractor, Balfour Beatty Limited and specialist trade contractors; and with further reference to Guide for Contractors Working in Camden document.

2.2. Specific method statements will be developed with the Principal contractor, prior to their commencement on site to add further detail to this document. They will be based upon the principles and guidelines identified within this document and uphold the commitment of Essential Living (the developers) to ensure that works are undertaken in a manner that is sympathetic to the adjacent owners, relevant stakeholders, local residents, businesses and the public.

2.3. 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 Guide for Contractors Working in Camden, but we envisage these requirements as the minimum standards to be achieved and have identified improvements in most areas under consideration. In due course, a Site Environmental Management Plan (SEMP) will be developed to demonstrate how we will comply with the requirements of the Guide for Contractors Working in Camden and how we will address the measures contained within this report.

2.4. The Preliminary Construction Information document prepared by Turley in support of Application 2014/1617/P has been reviewed and developed within this document.

2.5. This document details:

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

2.6. Key outputs from this report are:

Noise during demolition

2.7. We have recognised the sensitive nature of this site, and identified the smallest and quietest machinery to properly undertake the demolition works.

Noise during construction

2.8. The objective is to control noise within recognised limits. The on-going quiet enjoyment of the existing neighbours is of paramount importance. This Construction Management Plan identifies the specific measures to be taken in protecting the neighbours from the adverse effects as a result of the construction activities in the most efficient and economical way.

Community relations

2.9. Proper consultation with neighbours and the local community is of paramount importance. This Construction Management Plan identifies the need for a pro-active approach to the construction activities.

Working hours

2.10. To ensure that the impact of the construction is kept to a minimum on this project we would propose a voluntary Section 60 working agreement.

Deliveries

2.11. Deliveries to the site will be directed through Eton Avenue. Large items such as reinforcement, shuttering and glazing panels will be offloaded by tower crane, as illustrated in our logistics drawing enclosed. Fit out materials will be delivered to the superstructure floors via external hoists.

Waste removal

2.12. Waste will be loaded into tipper lorries or compactor lorries. It is anticipated that demolition waste will be loaded into the vehicles using a tower crane and purpose-made skips.

Programme

2.13. The overall duration for the site works from commencement of demolition to completion of the commercial fit out is anticipated at approximately 90 working weeks.

Code of Construction Practice

2.14. The Code of Construction Practice sets out the standards and procedures for managing the environmental impact of constructing major projects where construction of these projects has the potential to affect the environment, amenity and safety of local residents, businesses and the general public including the surroundings in the vicinity of the proposed works.

2.15. The Code of Construction Practice covers all aspects of construction work that could reasonably be anticipated to impact on the local community and the environment throughout the construction of the proposed works. This report sets out:

- the general principles to be applied during construction and the context within which mitigation measures will operate and be developed;
- the specific provisions for construction site operations; and
- the specific environmental issues that need to be considered throughout the period of construction works.

2.16. There is a large body of environmental and safety requirements relevant to construction projects, in the form of primary legislation (Acts of Parliament), secondary legislation (Statutory Instruments, including Regulations and Orders) and statutory guidance and Codes of Practice. Each section of the Code of Construction Practice sets out the main Statutory Provisions, Regulations, Codes of Practice and Standards relevant to each environmental topic. However, the Contractor will be responsible for identifying new legislation and regulation, and complying with all prevailing legislation at the time of construction including any requirements under Health and Safety.

Planning conditions/ working hours

2.17. Certain aspects of construction such as working hours are controlled by conditions contained in planning permission imposed under the Town and Country Planning Act. To ensure that the impact of the construction is kept to a minimum on this project we would propose a voluntary Section 60 working agreement.

Licences

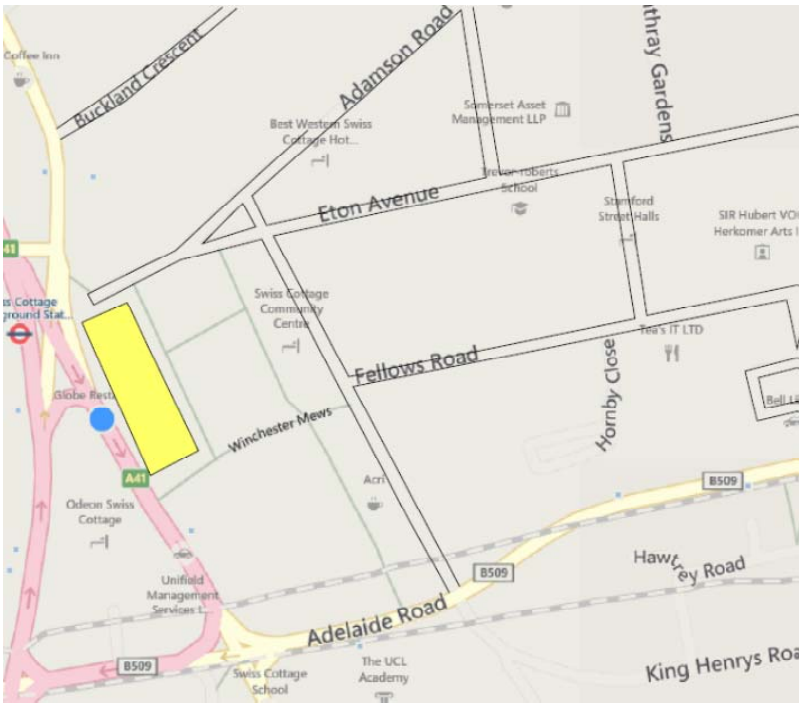
2.18. In addition to the environmental requirements highlighted above, the Contractor will be responsible for obtaining licences from Camden Council before:

- erecting any scaffolding, hoardings, gantries, temporary crossings or fences on the highway;
- depositing a skip on the highway; and
- operating a mobile crane, aerial platform, concrete pump lorry or any such equipment.

3.0 Scope of Works

"Demolition of existing building and redevelopment of a 24 storey building and a part 7 part 5 storey building comprising a total of 184 residential units (class C3) and up to 1,041sqm of flexible retail/financial or professional or café/restaurant floor space (classes A1/A2/A3) inclusive of part sui generis floor space for potential new London Underground station access fronting Avenue Road and up to 1350sqm for community use (class D1) with associated works including enlargement of existing basement level to contain disabled car parking spaces and cycle parking, landscaping and access improvements."

4.0 Site Location



4.1. The current site is identified as 100 Avenue Road, London NW3 3HF

4.2. The site is located to the immediate east of the A41 Avenue Road, within Swiss Cottage. To the east of the site is an outdoor recreational area and theatre, to the south a public library and to the north Eton Avenue which operates as a cul-de-sac also providing access to the rear of the development site.

4.3. The surrounding area is predominantly a mixture of residential (particularly to the east) and retail/commercial properties, which line the A41 to the north and south.

Surrounding Road Network

4.4. The A41 Avenue Road makes up part of the part of the Transport for London Road Network (TLRN) Red Route and operates as a double red route on its eastern side adjacent to the development site. The A41 operates as a dual carriageway between the site and where it connects with the A406 North Circular Road to the north.

4.5. Eton Avenue runs in an east-west direction to the north of the site and provides vehicular access to the rear of the site. Eton Avenue operates as a shared surface area with a market held 3 days a week. On market days, market traders have permission to park on the double yellow lines.

4.6. The residential roads to the east of the development site are located within the Belsize controlled parking zone, which restricts parking to residents only between the hours of 09:00-18:30 between Monday to Friday and 09:30-13:30 on a Saturday. There are no restrictions on a Sunday.

Existing Site Operation

4.7. The existing building accommodates some 8,153sq m (GIA) office floor space split over 6 storeys (plus a basement level). Primary access for pedestrians is to the front of the site on Avenue Road.

4.8. Two A3 restaurant units also operate from the ground floor.

4.9. The existing basement car park accommodates some 49 spaces associated with the office aspect of the site.

4.10. Entrance to the basement is via a ramp from Eton Avenue to the north-east of the site, which passes under the adjacent theatre.

5.0 Site Establishment

5.1. Due to the confined nature of the site, the site offices, meeting rooms and welfare facilities will be located outside the footprint of the building.

6.0 High Speed 2 Interface

6.1. Correspondence from James Fox (Safeguarding Planning Manager- High Speed Two Limited) to London Borough Camden dated 8th April 2014 ref 2014/1617/P – 100 Avenue Road, London, NW3 3HF confirmed that the 100 Avenue Road project falls within the bounds of the proposed HS2 development. Below are key extracts from the letter.

"In this instance you have correctly identified that the application site is shown on safeguarding Map No. 5 as falling within the limits of land subject to the safeguarding direction as a sub-surface interest.
As the line of route will be in a bored tunnel at this location, the main interaction of this planning application with HS2 will be in the design and construction of foundations for the buildings. Whilst proposed HS2 tunnels are almost at their deepest point in this location, (with the crown around 30m beneath the existing pile toes), our engineers are confident that there is no chance of a clash between the proposed development and the railway works.

However, as the building lies partly within the 1 and 10mm settlement contours, HS2 Ltd needs to ensure that the proposed construction works will accommodate any anticipated settlement.
In light of the above situation and in the event that you are minded to approve the application, HS2 Ltd would request that the following planning conditions are placed on the decision notice. In the absence of these conditions there would be no means to ensure that the foundation design of the buildings are:

1. Built to ensure their structural integrity takes account of the future potential presence of HS2 beneath the site; and

2. Do not cause a construction conflict with the proposed alignment of HS2.

Conditions:

1. None of the development hereby permitted shall be commenced on those parts of the site shown on the site as shown as falling within the 'Limits of Land Subject to the Safeguarding Direction' until detailed design and construction method statements for all of the ground floor structures, foundations and basements and for any structures below ground level, including piling (temporary and permanent) have been submitted to and approved in writing by the Local Planning Authority which:
(a) Accommodate the proposed location of the HS2 structures and tunnels.
(b) Accommodate ground movement and associated effects arising from the construction thereof, and;
(c) Mitigate the effects of noise and vibration arising from the operation of the HS2 railway within the tunnels, ventilation shaft and associated below & above ground structures.

2. The design and construction method statements to be submitted under Condition 1 shall include arrangements to secure that, during any period when concurrent construction is taking place of both the development hereby permitted and of the HS2 structures and tunnels in or adjacent to the site of that development, the construction of the HS2 structures and tunnels is not impeded. The development shall be carried out in all respects in accordance with the approved design and method statement, and all structures and works comprised within the development hereby permitted which are required by the approved design statements in order to procure the matters mentioned in paragraphs (a) to (c) of condition 1 shall be completed, in their entirety, before any part of the building(s) hereby permitted is/are occupied.

3. No works below ground level comprised within the development hereby permitted shall be carried out at any time when a tunnel boring machine used for the purposes of boring tunnels for the HS2 Ltd railway is within 100 metres of the land on which the development hereby permitted is situated.

6.2. The Principal Contractor will work with the developer, the designers and HS2 to ensure the conditions stipulated in the letter are addressed and discharged in a timely manner.

6.3. Construction works to 100 Avenue Road are programme is to commence in early 2015 with an anticipated two year on site period, setting the completion early 2017. Works to the Adelaide Road Vent Shaft as part of the HS2 programme of works are scheduled to commence in mid 2019. We therefore foresee no impact on the project resulting from the HS2 programme.

6.4. We will continue to monitor progress of the HS2 project and liaise accordingly.

7.0 London Underground /TfL Interfaces

7.1. The site is located adjacent to Swiss Cottage London Underground Station. Works will be scheduled to minimise the impact on this station.

7.2. Protective Gantries will be erected above the existing entrances, to ensure the protection of the public.

7.3. As part of Camden Councils Core Strategy policy for the promotion of Sustainable and Efficient Travel; TfL are proposing major Highway modifications (CS11) to Avenue Road during 2015.

7.4. Detailed discussions with TfL will be organised at the earliest opportunity to establish any potential impacts on the works resulting from these modifications.

8.0 Methodology and Construction Sequence

Pre-Construction Works

8.1. Prior to commencement of works on site a period of pre-demolition planning and activities is envisaged to ensure works can commence.

- Production of a Site Environmental Management Plan in accordance with the Guide for Contractors Working in Camden
- Further discussions with LUL and relevant stakeholders
- Mobilisation of selected plant and operators.
- Formulation of project Health and Safety Plan and risk assessments.
- Formulation of Site waste management plans and environmental plans as per the current DEFRA guidelines.
- 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.

Surveys

8.2. A full D&R survey should be undertaken to identify any asbestos contaminated materials present within the building. Once the asbestos report has been issued and findings known, the method of working shall be submitted to the HSE (ASB5 notification).

Advanced soft strip/service Isolations

8.3. Prior to any asbestos removal works that may be required, 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.

8.4. 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.

8.5. 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 hand railed off.

Soft strip works

8.6. 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 structure will be carried out.

8.7. 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.

8.8. 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.

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

8.10. 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.

8.11. 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.

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

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

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

Structural Demolition

8.15. The structure for the building appears to be in fair condition for its age and type. Externally the building shows no signs of movement.

8.16. Due to the location of the building with respect to adjacent properties bounding 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 most suitable method for demolition.

8.17. Due to the location and constraints surrounding the site and the potential risk of an uncontrolled collapse we are not proposing at this stage the use of long reach machines.

8.18. 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.

Progressive Floor-by-Floor Small Machine Demolition

8.19. 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 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 deconstruction 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 deconstruction 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.
- Resultant de-construction debris will be cleared using skid steer Bobcat or similar and deposited by skip into a waiting eight-wheeled tipper wagon or roll on/off skips or for processing off site.
- The external concrete/brickwork will be carefully deconstructed into the site using the 360º excavator. The steelwork 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 de-construct 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 tower crane and skip.
- 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 deconstruction 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.

8.20. To ensure that the impact of the construction is kept to a minimum on this project we would propose a voluntary Section 60 working agreement with Camden Council.

Substructures

8.21. These works consist of the enlargement of the existing basement to provide plant space and ancillary areas to support the proposed development.

8.22. Great care will be taken to ensure that the integrity of the existing structure, including those elements that may impact on adjacent areas, is not compromised. This will be managed by utilising either the permanent structure or by the introduction of temporary works to specific areas of the site

8.23. Drainage and sub surface service installations will be coordinated with the pile caps to ensure levels and run locations are installed correctly.

Superstructure Frame

8.24. When the structure has been completed up to ground floor level, works will proceed with the new reinforced concrete structural frames.

8.25. The proposed development consists of two independent structures.

8.26. It is proposed to construct both blocks concurrently, with the works commencing on the 5/7 storey section as soon as the basement is sufficiently advanced.

8.27. The new frames will be constructed behind a full height external scaffold. To ensure safety of the public, we would propose utilisation of a shroud during the frame construction of the Tower. These protection controls will be further developed prior to commencement on site.

8.28. The low level structure will be constructed using a 2 pour sequence, with the tower being a single pour.

8.29. The logistics drawing on enclosed with this document illustrates how the fit out goods and materials will be fed into the new building (refer to Logistics Plan in Appendix 1).

8.30. We propose utilising luffing jib cranes during the construction of the superstructure and cladding works.

Cladding

8.31. Cladding works will commence when the RC frame is complete to sufficient height to allow safe working below.

8.32. A modular cladding solution is currently envisaged. This will minimise on site fabrication and reduce potential resource availability issues.

Bathroom Pods

8.33. A Bathroom Pods solution will be investigated as the design develops. The pods would be manufactured off site and installed following removal of the back-propping to the floors. These works will be scheduled to coordinate with the frame erection works. The pods will be installed onto the floors prior to erection of the cladding.

Internal Finishes

8.34. First fix finishes and services installations are programmed to start on completion of the cladding and installation of the pods to the floors.

8.35. Works will commence at ground level working upwards. Second fix trades will follow achievement of a weather tight building.

8.36. Final fix trades will only commence when both the security and environmental conditions allow. It is our intention to complete, inspect, snag and de-snag the rooms in a progressive sequence.

9.0 The Construction Site and Logistics

Good Housekeeping

9.1. 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;
- liaise with the adjacent theatre and stall holders regarding deliveries and demolition works;
- 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;
- frequently inspect, repair and re-paint as necessary all site hoardings to comply with the conditions of the Camden Council's Licence – all fly posting and graffiti is to be removed as soon as reasonably practicable and within 24 hours of notice from Camden Council;
- maintain toilet facilities and other welfare facilities for its staff;
- remove food waste;
- frequently cleanse wheel washing facilities, if used;
- prevent vermin and other infestations; and
- undertake all loading and unloading of vehicles as identified on the logistics drawings.

Public information

9.2. 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.

Security

9.3. 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 one on site. Alarms will incorporate an appropriate cut-out period. Access and egress will be via manned security gates.

Hoardings, site layout and facilities

9.4. The site will be completely secure to deter public access. The proposed hoarding line and gates, all of which will be in accordance with the Guide for Contractors Working in Camden, are shown on the enclosed plans. Around the existing building, it is intended to provide protection from noise and dust at all times.

9.5. The final location of site, office accommodation, toilets and welfare facilities will be identified when the Contractor is appointed. However, as construction develops, it is likely that the fit-out of Contractor's office will be located in the new basement.

9.6. An off-site location for the main Contractor's project office is likely with welfare facilities in temporary accommodation on site. These details will be the responsibility of the chosen Contractor.

Emergency planning and response

9.7. 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.

Existing Servicing Arrangements

9.8. Servicing currently takes place to the rear of the site which is accessed from Eton Avenue. A number of retractable bollards enable servicing vehicles to pull clear of the highway. Bin stores are located at ground level close to Eton Avenue.

9.9. Each existing retail operator alongside the commercial occupiers share the same loading area.

Swiss Cottage Farmers Market

9.10. The Swiss Cottage Farmers market occurs weekly on Wednesdays. All deliveries and site activities will be scheduled with this in mind.

9.11. There are a number of stalls that operate on a daily basis. The impact of the works, including segregation from delivery vehicles will be further developed during the pre-construction phase of the project.

10.0 Access and Egress for Construction Works

10.1. Access for vehicles will be via Eton Avenue

10.2. Access for pedestrians will be via Avenue Road.

10.3. Full segregation of pedestrians and vehicles will be maintained at all times. This will be achieved by the erection of physical barriers.

10.4. Gantries, erected above the existing entrances to the London Underground will be constructed to allow free pedestrian movement beneath to be maintained

10.5. Due cognisance will be taken of the adjacent areas. All deliveries and vehicular movements will be planned with this in mind.

10.6. On arrival on site all operatives will be briefed on site rules, access arrangements and emergency procedures. All personnel will be issued with a Balfour Beatty pass immediately on arrival on site.

10.7. Access to the work locations will be via the routes that will be shown to the operative at their task briefing. The emergency escape routes and details of the fire and emergency alarm signals for their workplace will also be confirmed at the site induction.

11.0 Material Deliveries and Distribution

11.1. Due to the layout of the surrounding road network, construction delivery vehicles will approach from the east of the site via Eton Avenue and Winchester Road. Winchester Road connects with the B509 Adelaide Road to the south of the site. This route has been identified in order to protect residential amenity surrounding the site, in particular to the east and south of the site. It is proposed that all servicing vehicles make use of this route so as to minimise any disturbance.

11.2. It is unclear at this stage where deliveries will originate from, and therefore it is not possible to specify the exact wider routing of all delivery vehicles. Delivery routes will be

discussed and agreed with TfL and LBC, and any necessary permits obtained in accordance with the guidelines of the London Lorry Control Scheme (LCCS).

11.3. Our Project Manager will ensure that deliveries are controlled to avoid congestion of the surrounding roads.

11.4. A full time delivery marshal/material co-ordinator will be employed to ensure that deliveries for the project are pre-booked, 24 hours in advance of their intended delivery to site. A programme of deliveries will be completed to ensure that adequate time is allowed for each delivery to permit vehicles to be off-loaded before the arrival of the next delivery vehicle and avoid congestion outside the site is created.

11.5. Material deliveries will not be permitted outside the stipulated working hours and a procedure for communicating via radios or mobile phones will be reviewed in due course.

11.6. All materials will be stored away from the site boundaries. Any rubbish, skips or shoots will be closed and no accumulation of debris will take place.

11.7. No fires on site will be permitted.

11.8. Any delivery lorries with materials liable to create dust will be covered with tarpaulins.

11.9. Large components will be offloaded by tower crane directly from the delivery vehicle located on the site; all statutory safety measures will be adhered to in respect to signage, barriers and banksmen to ensure public safety is maintained.

11.10. Availability of storage for materials will severely limited. All deliveries will be on a “just in time “ basis.

11.11. We anticipate an average of 6-10 vehicle movements per hour during the demolition works and substructure period. This number will reduce to approximately 3 - 6 deliveries per hour during the remainder of the project

11.12. Luffing jib cranes will be required to provide both horizontal and vertical distribution during the erection of the frame and cladding

11.13. On commencement of the finishes we will erect passenger goods hoists to feed the upper floors.

11.14. Moving materials in and out of the building and avoiding any build up of debris will be critical to achieving the programme dates.

11.15. Detailed manual handling assessments will be carried out for all materials prior to works commencing.

11.16. Our Project Manager will ensure all vehicular deliveries are co-ordinated to cause the minimum amount of disruption to the surrounding neighbourhood.

12.0 Major Site Plant

12.1. It is anticipated that the following major site plant will be utilised on this development:

- Piling Rig and Associated Mobile Cranage
- 3 No. Luffing Jib Tower Cranes
- 3 No. Passenger / Goods Hoists

12.2. Major plant movements and deliveries will be carefully planned and highlighted within the site newsletter so that local businesses and residents are aware when and how these isolated activities will be undertaken. Any large operations of this type will be subject to the usual approval of method statements and risk assessment.

Cranes

12.3. During the project there will be minimum use of mobile cranes which will only be used to lift plant between floors and erect/dismantle the tower crane.

12.4. Luffing jib cranes are proposed as these will minimise oversail issues with adjacent land and properties.

12.5. These cranes offer a significantly small out of service radius.

12.6. Final selection of the cranes will be at the discretion of the principal contractor and will be dictated by the size and weights of the cladding panels and concrete frame materials.

Hoists

12.7. To deliver materials to the new floors during the fit-out period external hoists will be provided. These hoists will run from street level to roof and are shown on the enclosed logistics plan.

13.0 Traffic Management

13.1. The A41 Avenue Road makes up part of the part of the Transport for London Road Network (TLRN) Red Route and operates as a double red route on its eastern side adjacent to the development site. The A41 operates as a dual carriageway between the site and where it connects with the A406 North Circular Road to the north.

13.2. Due to the layout of the surrounding road network, construction delivery vehicles will approach from the east of the site via Eton Avenue and Winchester Road. Winchester Road connects with the B509 Adelaide Road to the south of the site. This route has been identified in order to protect residential amenity surrounding the site, in particular to the east and south of the site. It is proposed that all construction vehicles make use of this route.

Site Perimeter and Access

13.3. It is important that this scheme projects the right image to local residents and businesses; this message will be passed onto the contractors employed on site to ensure that the overall site appearance is one of a well organised and tidy site.

13.4. The site perimeter will be clearly and safety demarked with a well constructed and maintained timber hoarding constructed in line with Camden's requirements and agreement. This hoarding will be decorated and display all relevant signage in respect to health and safety notices, directional signage and contact telephone numbers etc. The site hoardings will be well maintained throughout the project and regularly cleaned. The contractor will be obliged to clean the hoarding on a regular basis.

13.5. Regular inspections of the hoarding will be undertaken to ensure that the safety of any vehicles or pedestrians is not compromised and to ensure that the site is maintained in a secure manner.

13.6. No materials will be stored or deposited on the highway or footpath. No advertising will be permitted on the hoardings except for contractor's, health and safety posters and any contract name/letting board for which the relevant licences would be applied for.

13.7. Lockable gates will be located both at the entrance to the site access road and within the hoarding of the site compound to allow access for vehicles during the site opening hours.

13.8. Pedestrian access will be provided through a turnstile gate which is monitored using fingertip recognition systems to ensure both no unauthorised personnel enter the site and that all site personnel have been fully inducted onto the site.

14.0 Programme

14.1. A detailed programme of works will be issued by the Main Contractor once appointed. A construction period of approximately 22-24 months, including demolition is currently envisaged.

15.0 Working Hours

15.1. The proposed general working hours on site are:

Monday to Friday	8.00 am – 6.00 pm
Saturday	8.00 am – 1.00 pm

(No working on Sunday's or Bank Holidays)

16.0 Neighbours and Public Liaison

16.1. Prior to commencement of the works, the developer and their team will be liaising directly with the neighbouring property owners and occupiers and will formally present a detailed construction method statement and programme to the any formal focus groups.

16.2. Once appointed Balfour Beatty will maintain operational contact with the local neighbours by way of continuous personal contact and regular news letters. Additional liaison will be undertaken by the developer and their project manager, particularly with the residential.

16.3. Any complaints raised by adjoining residents will be firstly directed at the Principal Contractor but in the unlikely event that they are not dealt with promptly and satisfactorily they will then be directed to the developer's representative for resolution.

16.4. If it becomes apparent that local residents believe that air quality and noise pollution restrictions are not being adhered to, air and noise monitoring will be introduced onto the site to record the levels; and if necessary, additional measures will be put in place to ensure the restrictions are met.

16.5. Every site personnel and any regular visited with be undertake an induction course to ensure that all site personnel are aware of the particular requirements for Health and Safety purposes and to minimise the effect of the works on all adjoining owners and residents.

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

- Inform on the nature and timing of all main site activities, in particular the demolition, new structural frame and external envelope.
- All site construction staff to be made aware of the requirements of the code and will be made responsible for its implementation.
- 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 in Brook Street, in line with the principle identified in this report. Temporary works, removal of demolition material, concrete pours deliveries of heavy plant, deliveries of mechanical equipment.

- 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.
- 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.
- Liaison with Camden Council's Environmental Inspectors to agree working arrangements on site.

17.0 Community Relations

17.1. The Contractor will provide community relations personnel, who will be focussed on engaging with the local community. 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.

17.2. The Contractor will inform local businesses, residents and other neighbouring properties 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.

17.3. Whilst the Contractor will provide monthly newsletters, we propose that an additional liaison group will be set up with representatives of the adjacent properties.

17.4. The Contractor's project lead together with the nominated person (if different) will agree with these neighbours a schedule of regular review meetings. Sufficient time prior to activities will be allowed for the neighbours' reasonable concerns to be addressed. Where required and reasonable, requested ad-hoc meetings with these neighbours will be attended by the Contractor's project director and the nominated person.

17.5. 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.

18.0 Fire Engine Access

18.1. Access for fire engines will be maintained throughout the course of the works.

19.0 Construction Material and Purchasing Strategy

19.1. All materials used on the project will be in accordance with the Master Specification within the contract documents.

19.2. In line with the likley106 agreement the strategy will seek to;

- reduce material waste
- use recycled materials where possible
- promote sustainable techniques
- apply a material selection hierarchy based on the sustainability criteria noted within the design brief.

20.0 Construction Targets

20.1. The following targets have been set in accordance which will be updated in accordance with any 106 agreement;

- All paints, sealants and flame retardants to be water based, non toxic and contain minimal VOCs;
- All timber products to be from sustainable sources and recognised under a registered eco scheme such as the Forestry Stewardship Council scheme or equivalent;
- No ozone depleting chemicals to be used;
- All textile based floor finishes and covering to use natural fibres sourced from sustainable sources.

21.0 Waste Disposal

21.1. Site waste will be regularly collected on site at allocated positions and cleared from the site. Certain waste material will be separated into recyclable bins on site taken from site by specialised recycling companies. Generally waste will be taken to waste separation centres where the contractor will recycle a as much as is practical with a objective to minimise the use of landfill sites, ensure hazardous material are correctly disposed of and to maximise the recycling of materials.

21.2. All waste will be removed by licensed carriers and certificates collected to demonstrate the same.

22.0 Dust and Noise Nuisance

22.1. It is acknowledged that projects of this nature will generate a degree of dust, noise and vibration within the local area and that this must be addressed to minimise any effect on neighbouring occupants.

22.2. Noise from all items of site plant will be kept to a minimum with the best practical measures being implemented to control noise. All electrical construction plant where possible will be provided with suitable attenuation and vehicle exhaust silencers will be checked and monitored during the course of the works. All items such as compressors will be lined where possible with acoustic covers and mufflers to reduce noise and any site plant or machines will not be left running when not in use.

22.3. Any temporary items of plant will be located away from site boundaries where possible.

22.4. Applications for the erection of any cranes will be made to the Environmental Department and oversailing rights will be agreed where required.

22.5. Radio contact will be maintained with any crane drivers on any adjacent developments to ensure that safety is properly co-ordinated.

22.6. Dust will be controlled by the use of screens, damping down within the site perimeter and the use of covered skips and enclosed chutes where practicable; all will be addressed by

the contractor within their method statements. Should the identify and agree a need for dust monitoring a specification for the monitoring will be agreed with the construction impact group with regard to the location of monitoring equipment and regulatory of mean readings etc.

22.7. Operations on site that are likely to generate unacceptable levels of noise and vibration will be undertaken in a manner that minimises this nuisance and agreed with the trade contractors; method and risk assessments will be agreed with the pollution team to ensure these works are carried in an acceptable manner.

22.8. If it is impracticable to incorporate satisfactory measures to adequately suppress noise and/or vibration nuisance then these elements of works will be undertaken during restricted working hours to minimise the effect on adjacent residents.

22.9. Throughout the critical demolition and structural frame activities, all works will take place behind an encapsulation scaffold. This encapsulation together with the nature of the existing construction, results in a low risk of emissions to the air; the project will be a site with a low risk of Emissions (Tier 1).

22.10. Throughout the project the Contractor will ensure the following:

- Where potential dust producing activities are taking place the screens remain in position. This will include the demolition, piling and structural works.
- 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 dust suppression activities is in accordance with the appropriate legal requirements.
- All dust control equipment is maintained in good condition and record maintenance activities.
- Strip insides of buildings before demolition of the structure and envelope.
- Site hoarding, barriers and scaffolding are kept clean.
- The provision of clean hard standings 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.
- Ensure water suppression is used during demolition operations.
- 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.
- Use prefabrication of the rear elevation to reduce the need for grinding, sawing and cutting on site wherever reasonably practicable.
- 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.

22.11. That plant will be well maintained, with routine servicing of plant and vehicles. On site servicing and maintenance to be carried out where possible.

22.12. That all project vehicles, including off-road vehicles, hold current MOT certificates where required.

22.13. 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.

22.14. 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.

22.15. 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.

22.16. 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.

Managing the Environmental Impact of Construction

22.17. Once the contract for the building works has been placed the Contractor will produce a Site Environmental Management Plan (SEMP) for approval by Camden Council.

22.18. The Contractor will liaise with Camden Council's Environmental Inspectorate on a daily basis, agreeing routine arrangements for each site's activities and ensuring compliance with the Guide.

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

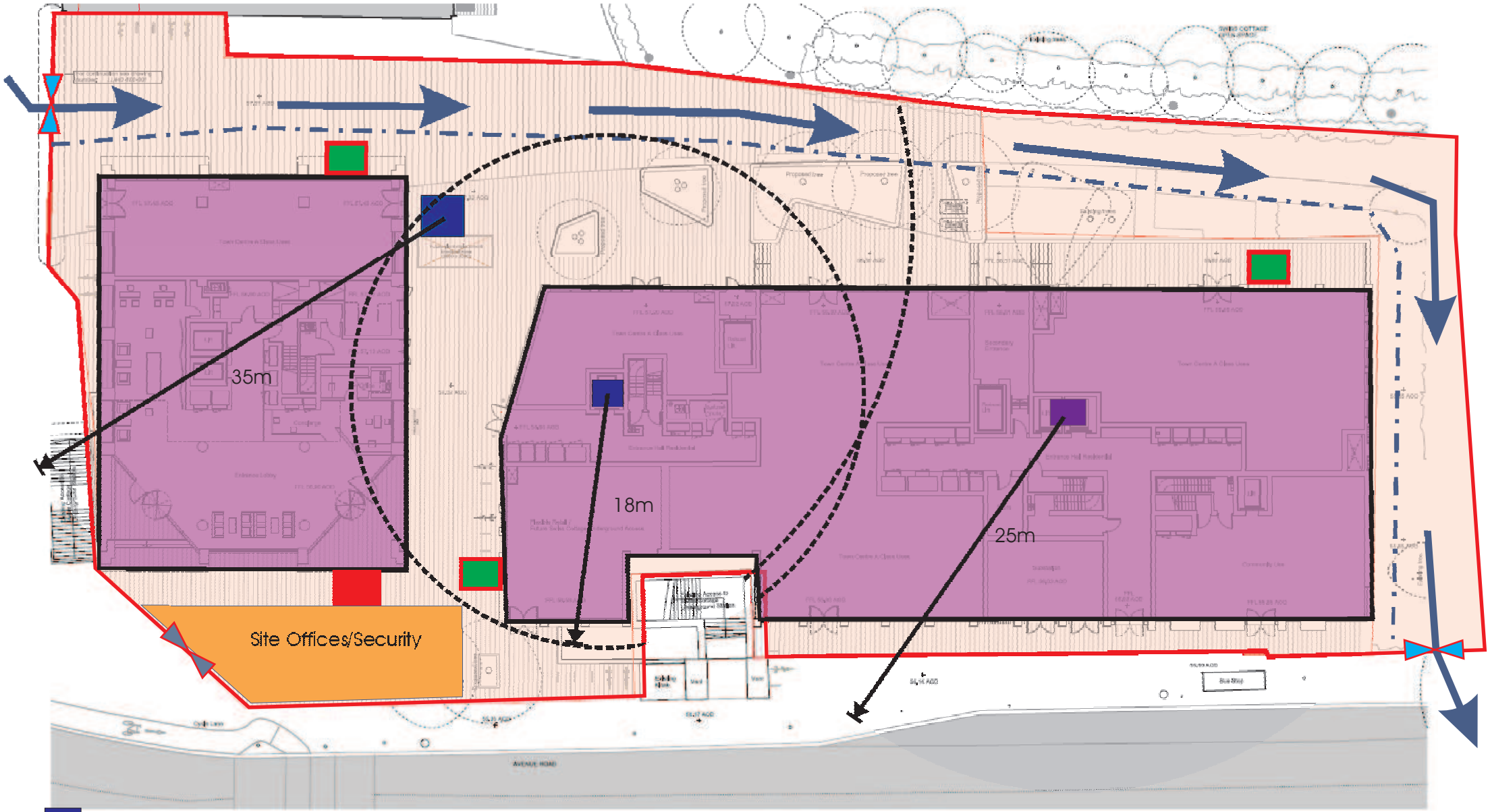
22.20. This liaison will include the regular and frequent distribution of Newsletters and attendance at meetings at the request of Camden Council with representatives of local residents' groups.

22.21. The Contractor's nominated person will advise the local authority within 24 hours of any incidents of non-compliance with the Guide 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.

22.22. The Contractor will maintain on site, a system for recording any incidents and any ameliorative action taken for inspection by Camden Council's representatives. This will be forwarded to the Council on a regular basis. The Contractor will ensure as far as is reasonably practical, that necessary action has been taken and steps to avoid recurrence have been implemented.

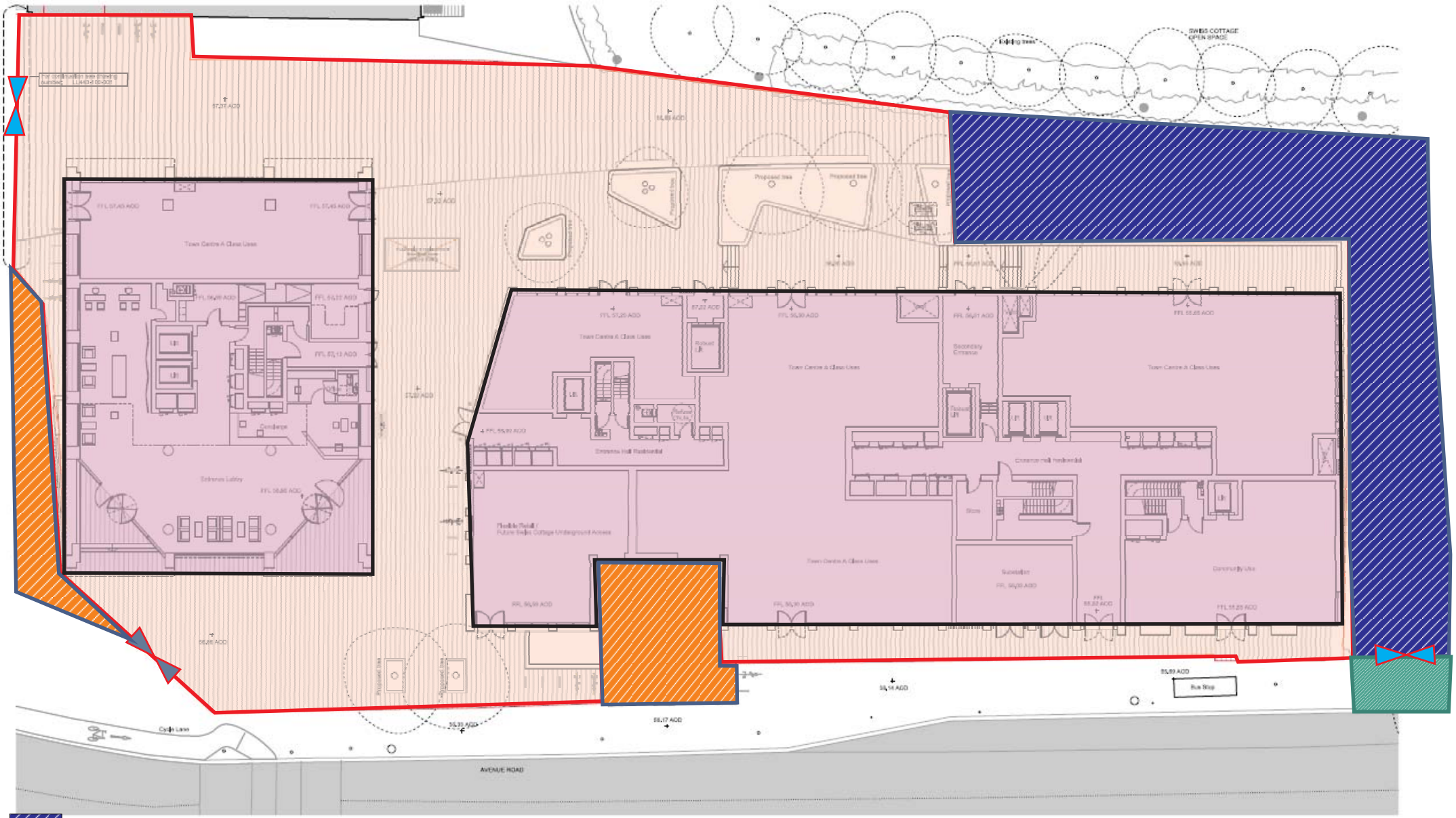
APPENDIX 1 – Site Logistics

Site Logistics



APPENDIX 2 - Areas Impacted Beyond the Site Boundary

Areas Impacted Beyond the Site Boundary



Landscaped areas to be temporarily removed to allow for one-way construction traffic

Licences for scaffold and protective gantries required

Temporary Vehicle Crossover

Vehicular Access/Egress Gates

Pedestrian Access/Egress Gate