Construction/ Demolition Management Plan

pro forma

46 Avenue Road, London, NW8 6HS

Camden

Contents

Revisions & additional material

Please list all iterations here:

Date	Version	Produced by
07/04/2021	01	Dominick Gallagher Knight Build Ltd
05/05/2021	02	Dominick Gallagher Knight Build Ltd

Additional sheets

Please note – the review process will be quicker if these are submitted as Word documents or searchable PDFs.

Date	Version	Produced by

Introduction

The purpose of the **Construction Management Plan (CMP)** is to help developers to minimise construction impacts, and relates to all construction activity both on and off site that impacts on the wider environment.

It is intended to be a live document whereby different stages will be completed and submitted for application as the development progresses.

The completed and signed CMP must address the way in which any impacts associated with the proposed works, and any cumulative impacts of other nearby construction sites, will be mitigated and managed. The level of detail required in a CMP will depend on the scale and nature of development. Further policy guidance is set out in Camden Planning Guidance **(CPG)** 6: Amenity and **(CPG)** 8: Planning Obligations.

This CMP follows the best practice guidelines as described in the Construction Logistics and Community Safety (**CLOCS**) Standard and the Guide for Contractors Working in Camden.

Camden charges a fee for the review and ongoing monitoring of CMPs. This is calculated on an individual basis according to the predicted officer time required to manage this process for a given site.

The approved contents of this CMP must be complied with unless otherwise agreed with the Council in writing. The project manager shall work with the Council to review this CMP if problems arise during construction. Any future revised plan must also be approved by the Council and complied with thereafter.

It should be noted that any agreed CMP does not prejudice or override the need to obtain any separate consents or approvals such as road closures or hoarding licences.

If your scheme involves any demolition, you need to make an application to the Council's Building Control Service. Please complete the "**Demolition Notice.**"

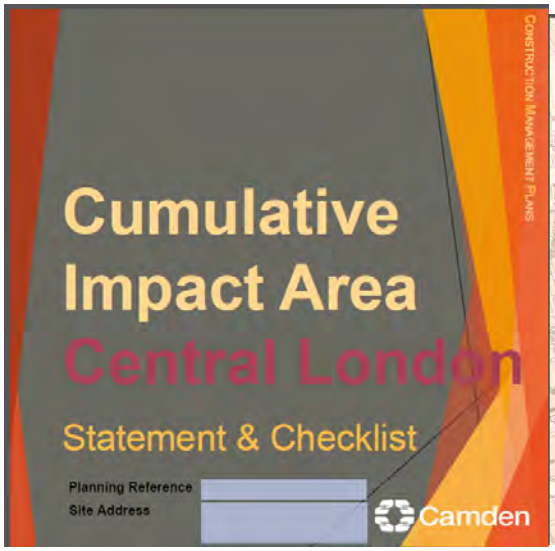
Please complete the questions below with additional sheets, drawings and plans as required. The boxes will expand to accommodate the information provided, so please provide as much information as is necessary. It is preferable if this document, and all additional documents, are completed electronically and submitted as Word files to allow comments to be easily documented. These should be clearly referenced/linked to from the CMP. Please only provide the information requested that is relevant to a particular section.

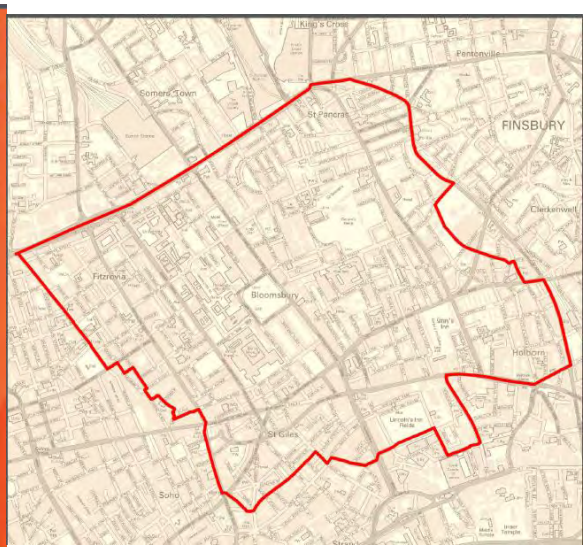
(Note the term 'vehicles' used in this document refers to all vehicles associated with the implementation of the development, e.g. demolition, site clearance, delivery of plant & materials, construction etc.)

Revisions to this document may take place periodically.

IMPORTANT NOTICE: If your site falls within a Cumulative Impact Area *(as of 03/02/2020 to 03/08/2020 there is only one established CIA for the Central London area)* you are required to complete the CIA Checklist and circulate as an appendix to the CMP and included as part of any public consultation – a CMP submission will not be accepted until evidence of this has been supplied.

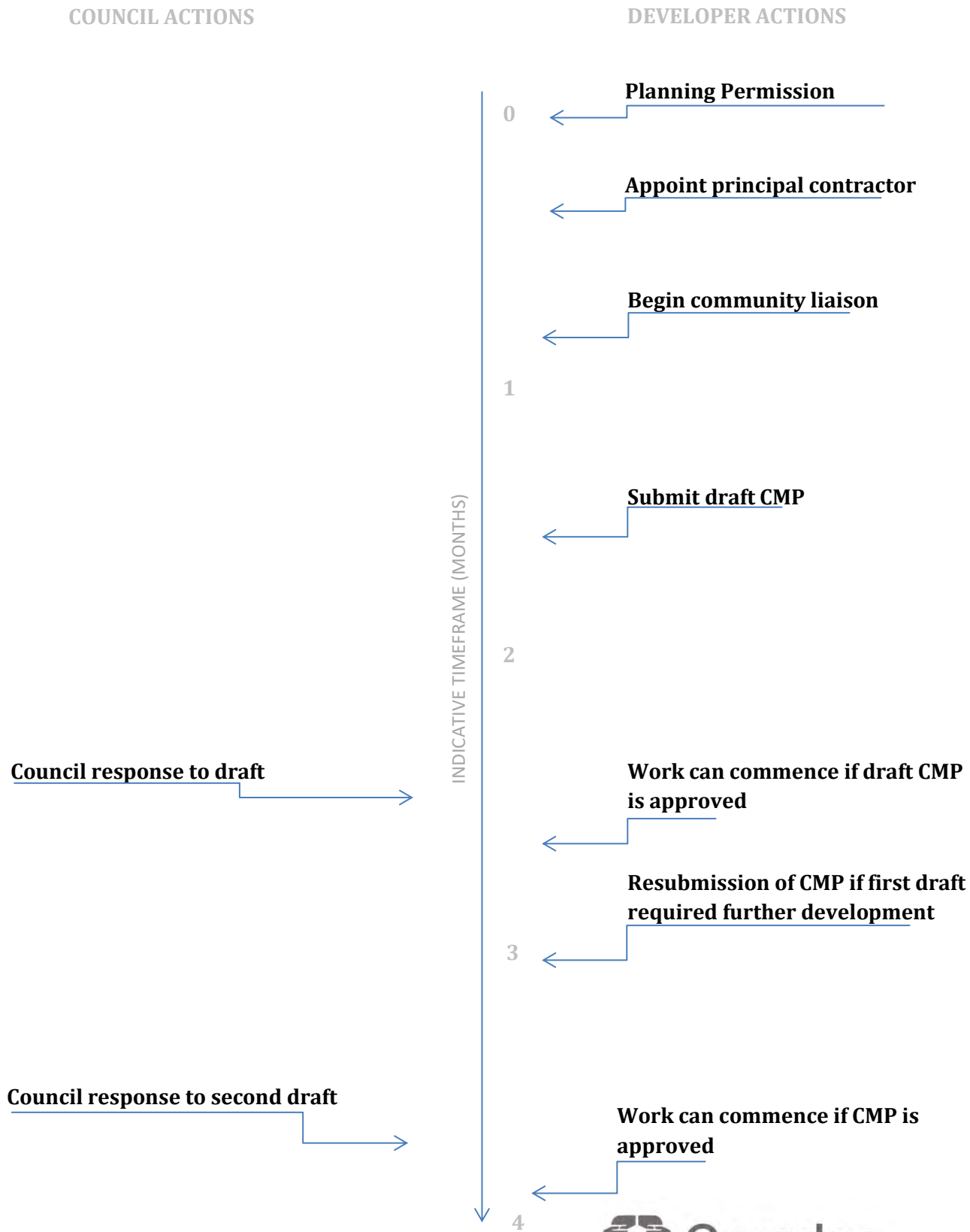
The CIA Checklist can be found at https://www.camden.gov.uk/about-construction-management-plans





Camden

Timeframe


COUNCIL ACTIONS
DEVELOPER ACTIONS
Planning Permission
0
Appoint principal contractor
Begin community liaison
1
Submit draft CMP
INDICATIVE TIMEFRAME (MONTHS)
2
Council response to draft
Work can commence if draft CMP is approved
Resubmission of CMP if first draft required further development
3
Council response to second draft
Work can commence if CMP is approved
4

Contact

1. Please provide the full postal address of the site and the planning reference relating to the construction works.

Address: 46 Avenue Road, London, NW8 6HS

Planning reference number to which the CMP applies: 2017/1718/P

2. Please provide contact details for the person responsible for submitting the CMP.

Name: Dominick Gallagher

Address: 22 Childerditch Hall Drive, Brentwood, Essex, CM13 3HD

Email: Dominick.gallagher@knightbuild.co.uk

Phone: 01277 810777

3. Please provide full contact details of the site project manager responsible for day-to-day management of the works and dealing with any complaints from local residents and businesses.

Name: Gabriel Knight

Address: 22 Childerditch Hall Drive, Brentwood, Essex, CM13 3HD

Email: gabriel.knight@knightbuild.co.uk

Phone: 01277 810777

4. Please provide full contact details of the person responsible for community liaison and dealing with any complaints from local residents and businesses if different from question 3. In the case of Community Investment Programme (CIP), please provide contact details of the Camden officer responsible.

Name: Dominick Gallagher

Address: 22 Childerditch Hall Drive, Brentwood, Essex, CM13 3HD

Email: Dominick.gallagher@knightbuild.co.uk

Phone: 01277 810777

5. Please provide full contact details including the address where the main contractor accepts receipt of legal documents for the person responsible for the implementation of the CMP.

Name: Knight Build Ltd

Address: 22 Childerditch Hall Drive, Brentwood, Essex, CM13 3HD

Email: Dominick.gallagher@knightbuild.co.uk

Phone: 01277 810777

Site

6. Please provide a site location plan and a brief description of the site, surrounding area and development proposals for which the CMP applies.

46 Avenue Road is a four storey house comprising part basement, ground, first and second floors. In front of the building is a hard standing area for vehicles with a basement car lift. The basement comprises staff accommodation, a gym, hydraulic lift room, water tank room, two electrical intake rooms and access to the car lift. There is an array of external air conditioning units and mechanical plant on the roof.

The site is located within the Elsworthy Conservation Area.

The works involve the retention of the front elevation to the existing property, demolition of the house behind and new accommodation being provided at basement level and a 3 storey house being rebuilt at the front. Over the footprint of the original house a single storey basement with two new basement light-wells at the front. The underside of the proposed basement floor is approximately 3.7m below ground level. To the rear of the house a single storey basement with services void under to accommodate a swimming pool, changing room facilities, pool plant equipment with access to the existing house is to be constructed. The existing summer house is to be rebuilt.

Fig.1 Site Location Plan

Fig.2 Site Location Plan

Avenue Road (B525) is located at the junction with the A41 east and west bound, the southbound leads to Regent's Park, the junction is signal controlled. Avenue Road is a two ways 9.2m wide e road with footpaths present on each side along its length and with cycle lines in each direction, Acacia Road 100m to the south of 46 Avenue Road provides an East West connection between Avenue Road and the A41 Wellington Road.

The A41 Finchley Road is 300m North West of the site this is a Red Route leading to Junction 1 of the M1, 5.5 Km North of Avenue Road

7. Please provide a very brief description of the construction works including the size and nature of the development and details of the main issues and challenges (e.g. narrow streets, close proximity to residential dwellings etc).

The construction works include demolition of the existing detached house whilst retaining the front elevation. The redevelopment includes a basement with pool and associated amenities, pool plant area and a three level super-structure containing living accommodation.

The main construction works will include, demolition, piling, excavation, concrete frame construction for both substructure and superstructure and appropriate waterproofing. The proposed house will be built over the basement, ground, first and second floor.

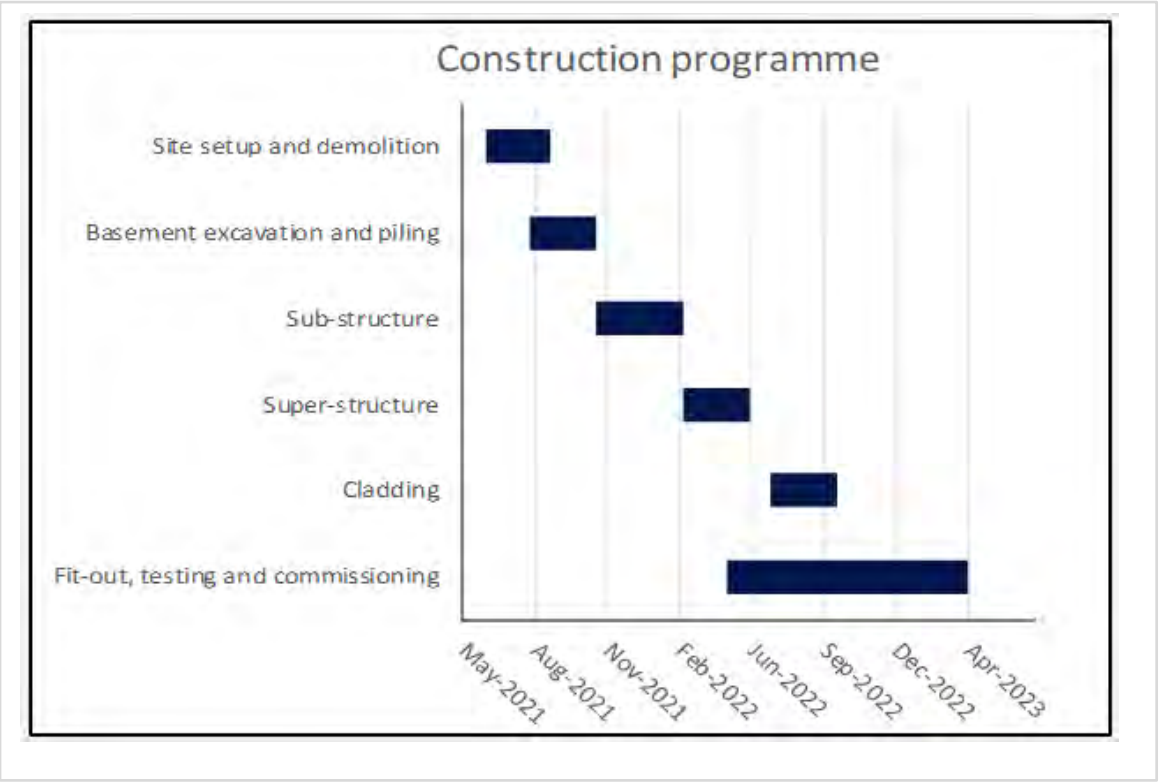
Whilst there are no party walls in place there are neighbours in close proximity on both sides of the property (No. 44 & No.48) and the upmost care and consideration will be taken during the redevelopment of No.46 Avenue Road to ensure that such sensitive receptors are not inconvenienced in any way.

There is one large trees to the front of the development which will be fully protected at all times and ground protection will be installed in line with the arboricultural report. The building will be suitably clad in scaffolding and monarflex during demolition works to minimise the escape of dust and noise during such works.

8. Please provide the proposed start and end dates for each phase of construction as well as an overall programme timescale. (A Gantt chart with key tasks, durations and milestones would be ideal).

The below provides an estimate for the programme durations.

TASK	DURATION	START/END DATE
Site Set Up and Demolition	8 Weeks	June 2021/Aug 2021
Piling	8 weeks	Sept 2021/Oct 2021
Substructure	20 Weeks	Nov 2021/March 2022
Superstructure	16 weeks	March 2022/June 2022
Fit Out & External Works	52 Weeks	May 2022/Apr 2023
Total	100 weeks	



9. Please confirm the standard working hours for the site, noting that the standard working hours for construction sites in Camden are as follows:

- 8.00am to 6pm on Monday to Friday
- 8.00am to 1.00pm on Saturdays
- No working on Sundays or Public Holidays

Normal hours of work will be:

Mon – Fri 8am – 6pm

Saturday 8am – 1pm (By arrangement only)

We confirm that there will be no working on Sundays or Bank Holidays.

Community Liaison

A neighbourhood consultation process must have been undertaken prior to submission of the CMP first draft.

This consultation must relate to construction impacts, and should take place following the granting of planning permission in the lead up to the submission of the CMP. A consultation process specifically relating to construction impacts must take place regardless of any prior consultations relating to planning matters. This consultation must include all of those individuals that stand to be affected by the proposed construction works. These individuals should be provided with a copy of the draft CMP, or a link to an online document. They should be given adequate time with which to respond to the draft CMP, and any subsequent amended drafts. Contact details which include a phone number and email address of the site manager should also be provided.

Significant time savings can be made by running an effective neighbourhood consultation process. This must be undertaken in the spirit of cooperation rather than one that is dictatorial and unsympathetic to the wellbeing of local residents and businesses.

These are most effective when initiated as early as possible and conducted in a manner that involves the local community. Involving locals in the discussion and decision making process helps with their understanding of what is being proposed in terms of the development process. **The consultation and discussion process should have already started, with the results incorporated into the CMP first draft submitted to the Council for discussion and sign off.** This communication should then be ongoing during the works, with neighbours and any community liaison groups being regularly updated with programmed works and any changes that may occur due to unforeseen circumstances through newsletters, emails and meetings.

Please note that for larger sites, details of a construction working group may be required as a separate S106 obligation. If this is necessary, it will be set out in the S106 Agreement as a separate requirement on the developer.

Cumulative impact

Sites located within high concentrations of construction activity that will attract large numbers of vehicle movements and/or generate significant sustained noise levels should consider establishing contact with other sites in the vicinity in order to manage these impacts.

The Council can advise on this if necessary.

10. Sensitive/affected receptors

Please identify the nearest potential receptors (dwellings, business, etc.) likely to be affected by the activities on site (i.e. noise, vibration, dust, fumes, lighting etc.).

The nearest potential sensitive receptors to the project are

- No. 44 Avenue Road
- No. 48 Avenue Road
- No. 61 Avenue Road
- No. 65 Avenue Road
- No. 51 Elsworthy Road

Fig.4 Nearest Sensitive Receptor

11. Consultation

The Council expects meaningful consultation. For large sites, this may mean two or more meetings with local residents **prior to submission of the first draft CMP**.

Evidence of who was consulted, how the consultation was conducted and a summary of the comments received in response to the consultation should be included. Details of meetings including minutes, lists of attendees etc. should be appended.

In response to the comments received, the CMP should then be amended where appropriate and, where not appropriate, a reason given. The revised CMP should also include a list of all the comments received. Developers are advised to check proposed approaches to consultation with the Council before carrying them out. If your site is on the boundary between boroughs then we would recommend contacting the relevant neighbouring planning authority.

Please provide details of consultation of draft CMP with local residents, businesses, local groups (e.g. residents/tenants and business associations) and Ward Councillors.

We will initiate early and honest communication with letter drops explaining the proposed works and listing contact details of key site and company contacts.

A pre start meeting with local residents and businesses will be arranged and will give people the opportunity to ask questions and voice any concerns.

Regular newsletters and updates will be issued to all local residents and businesses and a community notice board placed outside the site will also display information about the works, employment opportunity and 24-hour contact details.

A consultation letter was delivered to all nearby residents and businesses in the development of this CMP. Please see attached consultation tracker and letter drop map in Appendix A3.

We will continue to deal with all queries throughout the duration of the project and not just as an initial consultation.

Fig.5 Letter Drop Map

12. Construction Working Group

For particularly sensitive/contentious sites, or sites located in areas where there are high levels of construction activity, it may be necessary to set up a construction working group.

If so, please provide details of the group that will be set up, the contact details of the person responsible for community liaison and how this will be advertised to the local community, and how the community will be updated on the upcoming works i.e. in the form of a newsletter/letter drop, or weekly drop in sessions for residents.

Proposed community liaisons will include a member of the site management team being appointed as community liaison person and undertaking responsibility for community relations. This will include engagement with affected communities and a 24-hour help line service to provide appropriate and relevant information, and be the first point of response to resolve concern and complaints.

The appointed liaison person will ensure that local residents and businesses are informed in advance of works taking place and answer any questions in relation to the works, any expected disruptions, and explain the measures being taken to minimise or mitigate the adverse impact of the works.

A liaison plan will be issued to all local residents and businesses along with regular newsletters and an up to date notice board placed outside the site.

Residents will also be invited to monthly site tours that will involve Q&A sessions with the Site Manager and appointed Liaison Person.

This will be overseen by Dominick Gallagher of Knight Build Ltd who will also set up an email group so that important information can be circulated electronically.

13. Schemes

Please provide details of your Considerate Constructors Scheme (CCS) registration. Please note that Camden requires enhanced CCS registration that includes CLOCS monitoring. Please provide a CCS registration number that is specific to the above site.

Contractors will also be required to follow the Guide for Contractors Working in Camden. Please confirm that you have read and understood this, and that you agree to abide by it.

Knight Build Ltd (KBL) are a Partner of the Considerate Constructors Scheme and our partnership with the scheme has resulted in several national Awards, demonstrating the company's steadfast dedication to best practice in all aspects of construction.

KBL were recognised as the highest performing partner member of the CCS in 2019. KBL have won Gold awards at both site and company level in 2016, 2017, 2018, 2019 & 2020 and won a National Most Considerate Site Award in 2020.

KBL are Gold accredited members of the Fleet Operator Recognition Scheme (FORS) and a practising Construction Logistics and Community Safety (CLOCS) champion and take the safety of other road users very seriously. Our vehicles carry the very latest technology and signage and our logistics team is continuously measuring and monitoring performance looking for areas of improvement.

KBL were also one of the first 3 companies in the UK to become approved to carry out CLOCS, Site Access Traffic Marshal training.

KBL have carried out works in Camden previously and are aware of the content of the guide for Contractors Working in Camden and confirm that we have read and understood the content of the guide and we agree to abide by it.

Fig.6 Scheme Accreditations

14. Neighbouring sites

Please provide a plan of existing or anticipated construction sites in the local area and please state how your CMP takes into consideration and mitigates the cumulative impacts of construction in the vicinity of the site. The council can advise on this if necessary.

There are several proposed developments along Avenue Road which have either had planning granted or have submitted a planning application and are awaiting a decisions.

Sites of interest are as follows :

- 61 Avenue Road, NW8 6HR
- 62 Avenue Road, NW8 6HT (CMP preapred by KBL)
- 69 Avenue Road, NW8 6HP
- 73-75 Avenue Road, NW8 6JD (ongoing development, First phase of works carried out by KBL)
- 77 Avenue Road, NW8 6JD (CMP prepared by KBL)
- 79 Avenue Road, NW8 6JD (CMP prepared by KBL)
- 81 Avenue Road, NW8 6JD
- 87 Avenue Road, NW8 6JD
- 100 Avenue Road, NW3 3HF

Fig.7 Nearest Neighbouring Sites

KBL will monitor the planning portal throughout the duration of the project and esnure that all existing and new developments are informed of our works and progress so that regular interface can be established between all developers in close proximity to 79 Avenue Road.

Transport

This section must be completed in conjunction with your principal contractor. If one is not yet assigned, please leave the relevant sections blank until such time when one has been appointed.

Camden is a CLOCS Champion, and is committed to maximising road safety for Vulnerable Road Users (VRUs) as well as minimising negative environmental impacts created by motorised road traffic. As such, all vehicles and their drivers servicing construction sites within the borough are bound by the conditions laid out in the CLOCS Standard.

This section requires details of the way in which you intend to manage traffic servicing your site, including your road safety obligations with regard to VRU safety. It is your responsibility to ensure that your principal contractor is fully compliant with the terms laid out in the CLOCS Standard. It is your principal contractor's responsibility to ensure that all contractors and sub-contractors attending site are compliant with the terms laid out in the CLOCS Standard.

Checks of the proposed measures will be carried out by CCS monitors as part of your enhanced CCS site registration, and possibly council officers, to ensure compliance. Please refer to the CLOCS Standard when completing this section.

Please contact CLOCS@camden.gov.uk for further advice or guidance on any aspect of this section.

CLOCS Contractual Considerations

15. Name of Principal contractor:

Knight Build Ltd

16. Please submit the proposed method for checking operational, vehicle and driver compliance with the CLOCS Standard throughout the duration of the contract.

In order to ensure all contractors, delivery companies, and visitors are aware of the traffic routes and restrictions, a number of methods will be implemented. A copy of the agreed routes to and from site along with all restrictions will be sent to all delivery and collection companies when orders are placed and only agreement of these routes and restrictions will allow the order to be signed and placed.

Verbal briefings within the site induction to all contractors and visitors to site. This information will include the implications of not complying with the guidelines and the effect this will have on future business.

Using these methods we will ensure that we and our subcontractors will meet the standards outlined in the CLOCS and FORS standards including improving vehicle safety by regular inspection and fitment of appropriate safety equipment to existing vehicles.

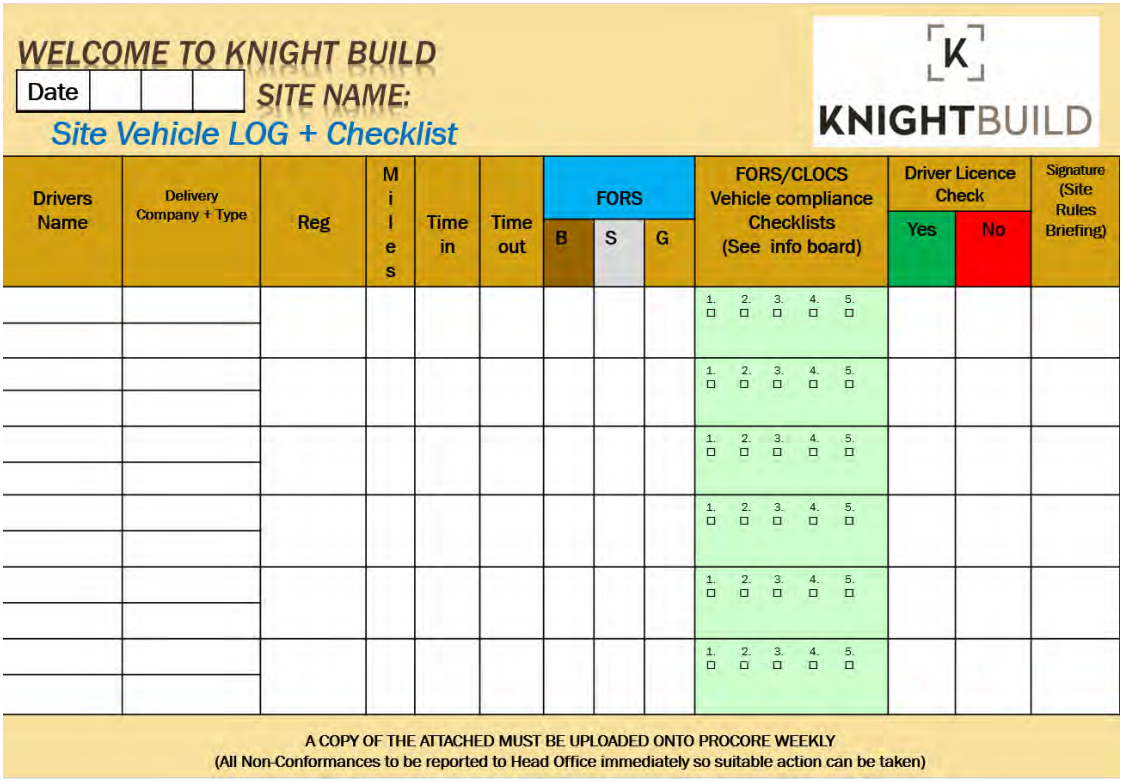
We will ensure that road safety is considered as important as health and safety on site.

Drivers will have CPC/CPCS certification and will maintain continual improvement by attending relevant training courses.

All Traffic Marshals on site will be CLOCS Site Access Traffic Marshal trained and they will be competent to bank vehicles and to complete the vehicle log and checklist for all deliveries to site shown in Fig. 8 below.

Knight Build Ltd is also Gold accredited Member of FORS and are also a practicing CLOCS Champion and display a CLOCS information board on our site hoardings in addition to a stringent checklist to ensure compliance.

All of our supply chain is requested to have a FORS membership at a minimum and abide by the CLOCS standard and drivers will have undertaken Safe Urban Driver training as part of the CPC requirement. An annual letter is issued to all of our supply chain and this forms part of our PQQ requirements.



WELCOME TO KNIGHT BUILD

Date | | | | SITE NAME:

Site Vehicle LOG + Checklist

KNIGHTBUILD

Drivers Name	Delivery Company + Type	Reg	Miles	Time in	Time out	FORS B	FORS S	FORS G	FORS/CLOCS Vehicle compliance Checklists (See info board)	Driver Licence Check Yes	Driver Licence Check No	Signature (Site Rules Briefing)
									1. □ 2. □ 3. □ 4. □ 5. □			
									1. □ 2. □ 3. □ 4. □ 5. □			
									1. □ 2. □ 3. □ 4. □ 5. □			
									1. □ 2. □ 3. □ 4. □ 5. □			
									1. □ 2. □ 3. □ 4. □ 5. □			
									1. □ 2. □ 3. □ 4. □ 5. □			

A COPY OF THE ATTACHED MUST BE UPLOADED ONTO PROCORE WEEKLY
(All Non-Conformances to be reported to Head Office immediately so suitable action can be taken)

Fig. 8 Vehicle Log Checklist

17. Please confirm that you as the client/developer and your principal contractor have read and understood the CLOCS Standard and included it in your contracts.

I confirm that I have included the requirement to abide by the CLOCS Standard in my contracts to my contractors and suppliers:

As a CLOCS Champion and an approved CLOCS Site Access Traffic Marshal organisation, I can confirm the Knight Build Ltd have included the requirement to abide by the CLOCS Standard in my contracts to my contractors and suppliers.

Please contact CLOCS@camden.gov.uk for further advice or guidance on any aspect of this section.

Site Traffic

Sections below shown in blue directly reference the CLOCS Standard requirements. The CLOCS Standard should be read in conjunction with this section.

18. Traffic routing: *"Clients shall ensure that a suitable, risk assessed vehicle route to the site is specified and that the route is communicated to all contractors and drivers. Clients shall make contractors and any other service suppliers aware that they are to use these routes at all times unless unavoidable diversions occur."* (P19, 3.4.5)

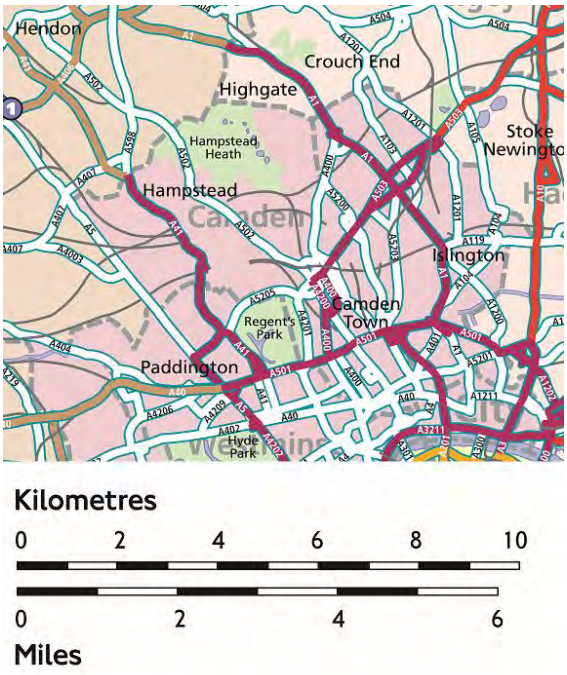
Routes should be carefully considered and risk assessed, taking into account the need to avoid where possible any major cycle routes and trip generators such as schools, offices, stations, public buildings, museums etc.

Consideration should also be given to weight restrictions, low bridges and cumulative impacts of construction (including neighbouring construction sites) on the public highway network. The route(s) to and from the site should be suitable for the size of vehicles that are to be used.

Please show vehicle approach and departure routes between the site and the Transport for London Road Network (TLRN). Please note that routes may differ for articulated and rigid HGVs.

Routes should be shown clearly on a map, with approach and departure routes clearly marked. If this is attached, use the following space to reference its location in the appendices.

The below maps and plans details an extract from the TFL Strategic Road Network / TFL Base Map Master showing the local highway network layout in and around the Camden vicinity:



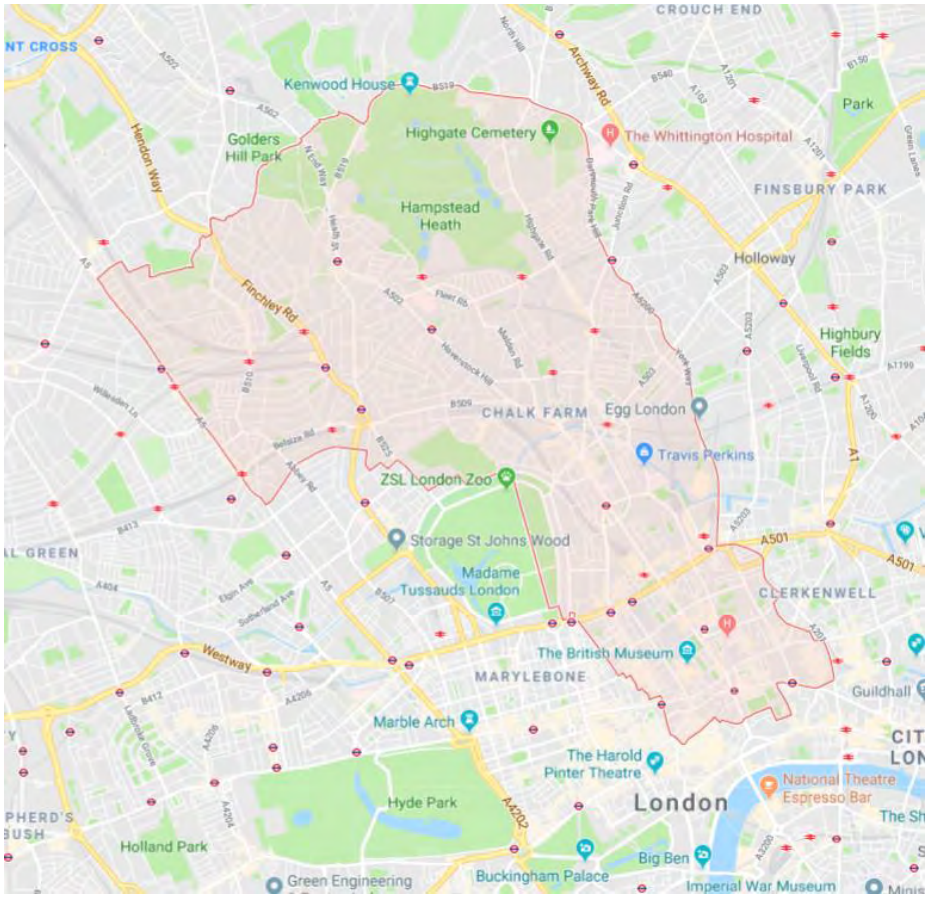


Fig. 9 Highway Network Layout

Avenue Road (B525) is the main north-south strategic route in the vicinity of the site providing a connection with the A41 Finchley Road the north and the A5205 Prince Albert Road to the south, which bounds Regent's Park. Avenue Road has a wide carriageway of circa 9.2 metres with advisory cycle lanes in both directions.

The A41 which runs parallel to Avenue Road forms part of the Transport for London Road Network (TLRN) and is part of the strategic highway which connects central London to the south with the A1 and M1 to the north.

Delivery vehicles will join onto the A41 by travelling Northbound along Avenue Road.

Our preferred option would be drive vehicles into site through existing access 1 in a forward gear and drive out of site through existing access 2 in a forward gear. Due to the space restrictions contained within the site and after carrying out some vehicle swept path analysis, this is not a viable option.

As a result, we have no option but to reverse vehicles into site under the guidance of competent CLOCS site access traffic marshals through the existing access 1, and vehicles will leave site in a forward gear through the same gate.

Please see drawing Traffic Management drawings attached in Appendix A1 and A2 including the Construction Logistics Planning Tool.

b. Please confirm how contractors and delivery companies will be made aware of the route (to and from the site) and of any on-site restrictions, prior to undertaking journeys.

This will be controlled by our Logistics Team and site management team. All of our supply chain will receive a copy of the Traffic Management Route together with delivery times, site restrictions, our FORS requirements, anti-idling policy and any other relevant site specific documentation

All deliveries to site must be booked in 48 hours in advance to avoid any unnecessary waiting or stacking of vehicles on Avenue Road or on surrounding roads.

In addition to the above:

- Suitably qualified and competent CLOCS Site Access Traffic Marshals will be present on a full time basis during construction works and deliveries to ensure the safe movement of vehicles and to ensure that the safety of both other road users and pedestrians is maximised at all times
- Suppliers shall call the site team/Project Manager 30 minutes prior to arriving to site
- Vehicles shall not wait or load outside the site or on surrounding roads in the borough. If any vehicle attempts to delivery to site either outside of the delivery times or without authorisation they will be refused entry to site and the supplier will be informed immediately.
- The loading/unloading area will be kept clean and tidy at all times and free from obstructions to ensure no delays are caused before or during site deliveries.

19. Control of site traffic, particularly at peak hours: "*Clients shall consider other options to plan and control vehicles and reduce peak hour deliveries*" (P20, 3.4.6)

Construction vehicle movements should be restricted to the hours of 9.30am to 4.30pm on weekdays and between 8.00am and 1.00pm on Saturdays. If there is a school in the vicinity of the site or on the proposed access and/or egress routes, then deliveries must be restricted to the hours of 9.30am and 3pm on weekdays during term time.

Peak delivery times will be minimised wherever possible.

Vehicles may be permitted to arrive at site at 8.00am if they can be accommodated on site. Where this is the case they must then wait with their engines switched off.

A delivery plan should ensure that deliveries arrive at the correct part of site at the correct time. Instructions explaining such a plan should be sent to all suppliers and contractors.

Please provide details of the types of vehicles required to service the site and the approximate number of deliveries per day for each vehicle type during the various phases of the project.

For Example:
32t Tipper: 10 deliveries/day during first 4 weeks
Skip loader: 2 deliveries/week during first 10 weeks
Artic: plant and tower crane delivery at start of project, 1 delivery/day during main construction phase project
18t flatbed: 2 deliveries/week for duration of project
3.5t van: 2 deliveries/day for duration of project

The main types of vehicles that will be accessing the site are as follows:

Delivery/Collection	Vehicle	Length	Width	Axle
Ready Mix Concrete	Truck	9.15m	2.55m	4
Muck/Spoil Away	Lorry	9.15m	2.55m	4
Grab Lorry	Lorry	9.15m	2.55m	4
Scaffolding/Delivery	Flat Back	8m	2.55m	3
Rubbish/Waste	Skip Lorry/Truck	8m	2.3m	3
General Deliveries	Flat Back/ Covered Lorry	8m	2.3m	3
Plant	Flat Back	6.89m	2.3	3
Equipment/Tools	Pick-Up	4m	2m	3
Small Deliveries	Transit Van/Pick-Up	3.4m	2m	2
Piling Rigs + Steels	Rigid Hiab	11.3m	2.5m	4

Fig. 10 Vehicle Types

b. Cumulative affects of construction traffic servicing multiple sites should be minimised where possible. Please provide details of other developments in the local area or on the route that might require deliveries coordination between two or more sites. This is particularly relevant for sites in very constrained locations.

There are several proposed developments along Avenue Road which have either had planning granted or have submitted a planning application and are awaiting a decision.

- 61 Avenue Road, NW8 6HR
- 62 Avenue Road, NW8 6HT (CMP preapred by KBL)
- 69 Avenue Road, NW8 6HP
- 73-75 Avenue Road, NW8 6JD (ongoing development, First phase of works carried out by KBL)
- 77 Avenue Road, NW8 6JD (CMP prepared by KBL)
- 79 Avenue Road, NW8 6JD (CMP prepared by KBL)
- 81 Avenue Road, NW8 6JD
- 87 Avenue Road, NW8 6JD
- 100 Avenue Road, NW3 3HF

KBL will monitor the planning portal throughout the duration of the project and ensure that all existing and new developments are informed of our works and progress so that regular dialogue can be established between all developers in close proximity to the project.

Please see Construction Traffic Management Plan in Appendix A1 for how Knight Build intends to manage vehicles visiting site together with graphs shown in the Construction Planning Tool.

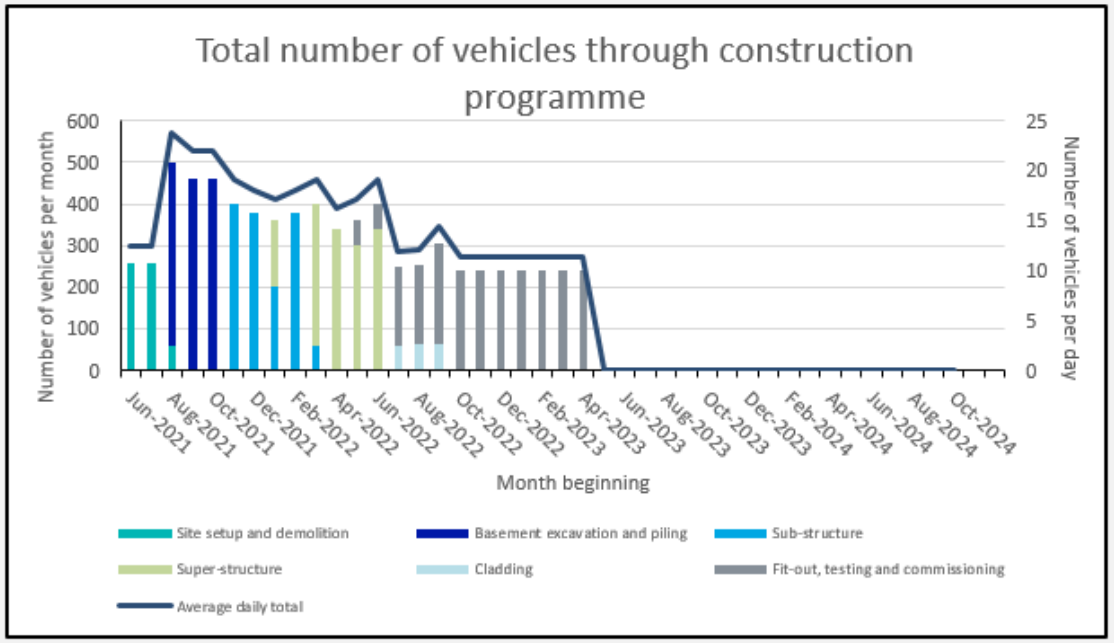


Fig. 11 Predicted Vehicle Numbers

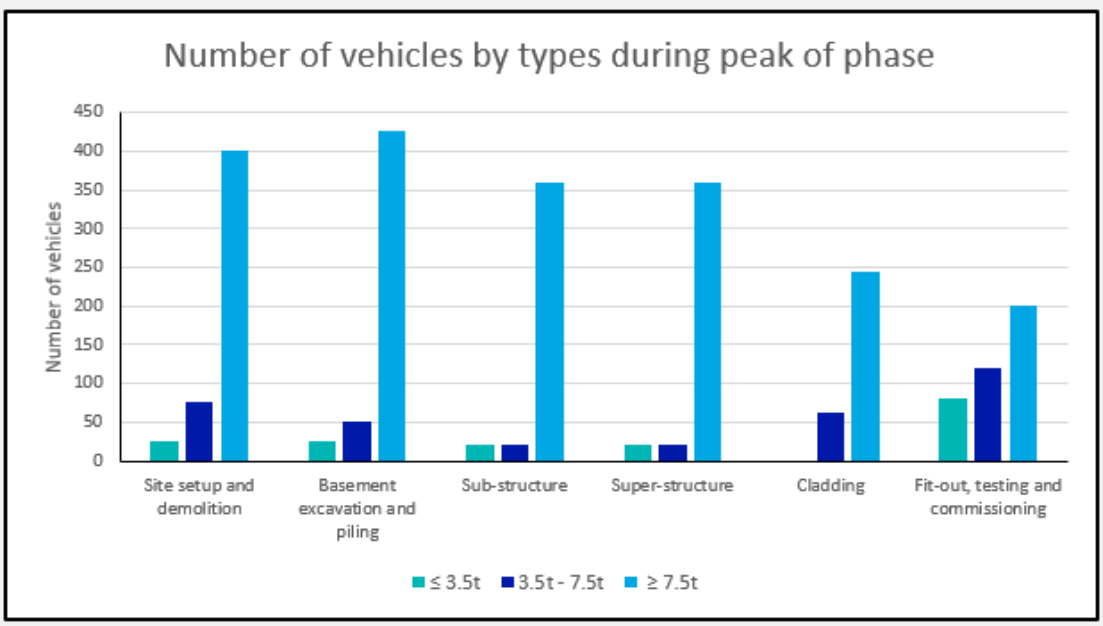


Fig. 12 Vehicle Types during peak

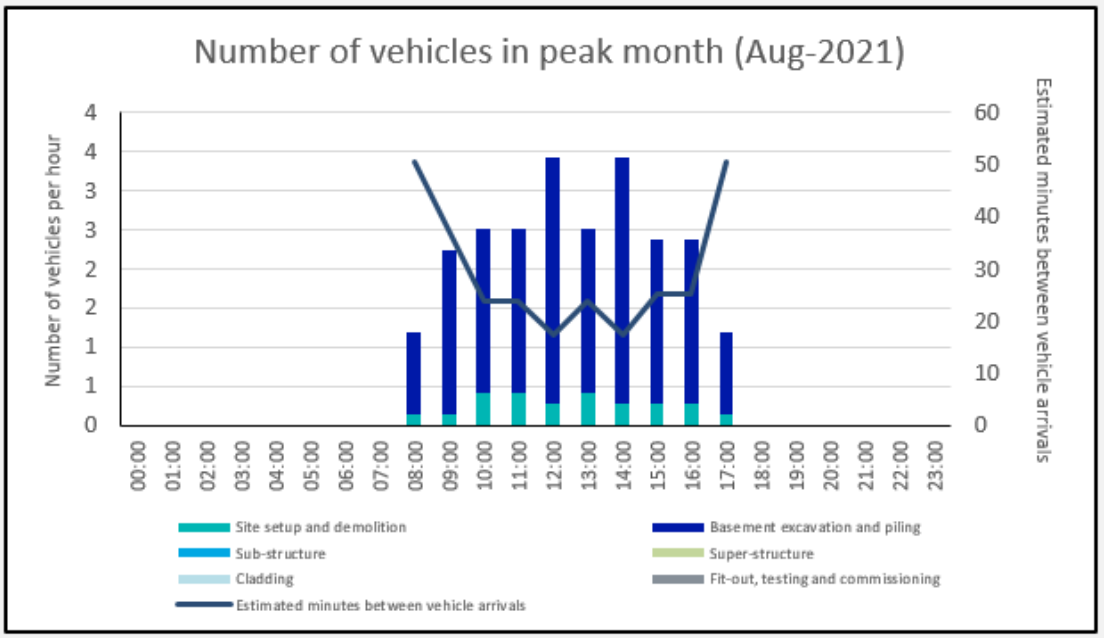


Fig. 13 Vehicle Types during peak month

NO. OF VEHICLES IN PEAK PHASE (EX. OTHER PHASES)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q2 2021 - Q3 2021	260	12
Basement Works	Q3 2021 - Q4 2021	460	22
Sub-structure	Q4 2021 - Q1 2022	400	19
Super-structure	Q1 2022 - Q2 2022	340	16
Cladding	Q3 2022 - Q3 2022	65	3
Fit-out, testing and commissioning	Q2 2022 - Q2 2023	240	11
Peak period of construction	Q3 2021 - Q3 2021	500	24

NO. OF VEHICLES IN PEAK PHASE (INC. POSSIBLE OVERLAP OF SUBSEQUENT PHAS

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q2 2021 - Q3 2021	500	24
Basement Works	Q3 2021 - Q4 2021	500	24
Sub-structure	Q4 2021 - Q1 2022	400	19
Super-structure	Q1 2022 - Q2 2022	400	19
Cladding	Q3 2022 - Q3 2022	305	15
Fit-out, testing and commissioning	Q2 2022 - Q2 2023	400	19

Fig. 14 Vehicles in Peak Phase

c. Please provide swept path analyses for constrained manoeuvres along the proposed route.

Please see Appendix A2.

d. Consideration should be given to the location of any necessary holding areas/waiting points for sites that can only accommodate one vehicle at a time/sites that are expected to receive large numbers of deliveries. Vehicles must not queue or circulate on the public highway. Whilst deliveries should be given set times to arrive, dwell and depart, no undue time pressures should be placed upon the driver at any time.

Please identify the locations of any off-site holding areas or waiting points. This can be a section of single yellow line that will allow the vehicle to wait to phone the site to check that the delivery can be accommodated.

Please refer to question 24 if any parking bay suspensions will be required to provide a holding area.

It is not anticipated that a holding area will be required. Vehicles to site will be scheduled by the contractor to avoid a large number arriving at once. If vehicles are required to wait then this will take place outside of the Borough.

This will be kept under constant review by both the CLOCS Site Access Traffic Marshals and by the site management team and it will be revisited as necessary.

e. Delivery numbers should be minimised where possible. Please investigate the use of construction material consolidation centres, and/or delivery by water/rail if appropriate.

Knight Build Ltd have a material consolidation centre at the Head Office in Childerditch Industrial Estate. One delivery a day is arranged for small plant and materials and the same lorry collects materials from site so that we have one delivery a day as opposed to several deliveries to one site.

Water and Rail transport is not a feasible option on this project.

f. Emissions from engine idling should be minimised where possible. Please provide details of measures that will be taken to reduce delivery vehicle engine idling, both on and off site (this does not apply to concrete mixers).

Knight Build Ltd have an anti-idling policy in place which is displayed on the site hoarding in a Logistics Information point. All drivers receive a briefing on the site rules and checks are carried out on each vehicle to ensure that there is no engine idling is not carried out by any vehicles associated with our project.

An electronic copy of the vehicle site rules is also sent to our supply chain and regular environmental toolbox talks are carried out on the subject to ensure continuous compliance.

20. Site access and egress: *"Clients shall ensure that access to and egress from the site is appropriately managed, clearly marked, understood and clear of obstacles."* (P18, 3.4.3)

This section is only relevant where vehicles will be entering the site. Where vehicles are to load from the highway, please skip this section and refer to Q23.

Vehicles entering and leaving the site should be carefully managed, using gates that are clearly marked and free from obstacles. Traffic marshals must ensure the safe passage of all traffic on the public highway, in particular pedestrians and cyclists, when vehicles are entering and leaving site, particularly if reversing.

Traffic marshals, or site staff acting as traffic marshals, should hold the relevant qualifications required for directing large vehicles when reversing. Marshals should be equipped with 'STOP – WORKS' signs (not STOP/GO signs) if control of traffic on the public highway is required. Marshals should have radio contact with one another where necessary.

a. Please detail the proposed site access and egress points on a map or diagram. If this is attached, use the following space to reference its location in the appendices.

Site access will be from the existing access and egress drive and gates from Avenue Road, North/South dual carriage way measuring 9.2m in width.

Please see Traffic Management Plans in Appendix A1.

b. Please describe how the access and egress arrangements for construction vehicles in and out of the site will be managed, including the number and location of traffic marshals where applicable. If this is shown in an attached drawing, use the following space to reference its location in the appendices.

Please see Traffic Management Plans and Construction Planning Tool shown in Appendix A1.

c. Please provide swept path drawings for vehicles accessing/egressing the site if necessary. If these are attached, use the following space to reference their location in the appendices.

Please see Vehicle Swept Path Drawings shown in Appendix A2.

d. Provision of wheel washing facilities should be considered if necessary. If so, please provide details of how this will be managed and any run-off controlled. Please note that wheel washing should only be used where strictly necessary, and that a clean, stable surface for loading should be used where possible.

Vehicle wheel washing facilities will be provided in the form of a jet wash and a hard standing area will be formed to ensure that vehicles are leaving the site in a clean manner.

Part of the full time Traffic Marshals duties will be to maintain a clean and presentable loading area, footpath and nearby carriageway at all times.

A road sweeper will be available if required and will be on site within an hour of notification.

21. Vehicle loading and unloading: *"Clients shall ensure that vehicles are loaded and unloaded on-site as far as is practicable."* (P19, 3.4.4)

This section is only relevant if loading/unloading is due to take place off-site on the public highway. If loading is taking place on site, please skip this section.

a. please provide details of the parking and loading arrangements for construction vehicles with regard to servicing and deliveries associated with the site (e.g. delivery of materials and plant, removal of excavated material). This is required as a scaled site plan, showing all points of access and where materials, skips and plant will be stored, and how vehicles will access and egress the site. If this is attached, use the following space to reference its location in the appendices. Please outline in question 24 if any parking bay suspensions will be required.

n/a

b. Where necessary, Traffic Marshalls must ensure the safe passage of pedestrians, cyclists and motor traffic in the street when vehicles are being loaded or unloaded. Please provide detail of the way in which marshals will assist with this process, if this differs from detail provided in Q20 b.

All of our Traffic Marshals are CLOCS approved Site Access Traffic Marshals.

Special provision will be made for vulnerable users using the footways and carriageways near or adjacent to our project, we will ensure that wheel chair users, the elderly, people with walking difficulties, young children, people with prams, blind and partially sighted people can make their way past our site without any obstructions, plant or construction vehicles causing them difficulties or distress, this will be controlled by our full time Traffic Marshals.

Street Works

Full justification must be provided for proposed use of the public highway to facilitate works. Camden expects all options to minimise the impact on the public highway to have been fully considered prior to the submission of any proposal to occupy the highway for vehicle pit lanes, materials unloading/crane pick points, site welfare etc.

Please note that Temporary Traffic Orders (TTOs) and hoarding/scaffolding licenses may be applied for prior to CMP submission but won't be granted until the CMP is signed-off.

Please note that there is a two week period required for the statutory consultation process to take place as part of a TTO.

If the site is on or adjacent to the TLRN, please provide details of preliminary discussions with Transport for London in the relevant sections below.

If the site conflicts with a bus lane or bus stop, please provide details of preliminary discussions with Transport for London in the relevant sections below.

22. Site set-up

Please provide a scaled plan detailing the local highway network layout in the vicinity of the site. This should include details of on-street parking bay locations, cycle lanes, footway extents, relevant street furniture, and proposed site access locations. If these are attached, use the following space to reference their location in the appendices.

Please see Appendix A1 attached.

23. Parking bay suspensions and temporary traffic orders

Parking bay suspensions should only be requested where absolutely necessary and these are permitted for a maximum of 6 months only. For exclusive access longer than 6 months, you will be required to obtain a Temporary Traffic Order (TTO) for which there is a separate cost.

Please provide details of any proposed parking bay suspensions and/or TTO's which would be required to facilitate the construction - include details of the expected duration in

months/weeks. Building materials and equipment must not cause obstructions on the highway as per your CCS obligations unless the requisite permissions are secured.

Information regarding parking suspensions can be found here.

There is no requirement to suspend any parking bays.

A Temporary Traffic Order (TTO) will be required for the erection of a Tower Crane to facilitate a mobile crane on the highway (Avenue Road). A separate TTO will also be required for the dismantle of the Tower Crane. A detailed traffic management plan will be submitted to the council for approval and all residents will be informed by means of a letter drop in advance of works commencing.

It is envisaged that the works will take place over a weekend to minimise disruption caused to the network.

24. Occupation of the public highway

Please note that use of the public highway for storage, site accommodation or welfare facilities is at the discretion of the Council and is generally not permitted. If you propose such use you must supply full justification, setting out why it is impossible to allocate space on-site. We prefer not to close footways but if this is unavoidable, you should submit a scaled plan of the proposed diversion route showing key dimensions.

a. Please provide justification of proposed occupation of the public highway.

n/a

b. Please provide accurate scaled drawings of any highway works necessary to enable construction to take place (e.g. construction of temporary vehicular accesses, removal of street furniture etc). If these are attached, use the following space to reference their location in the appendices.

It will be necessary to construct a temporary crossover to carriageway spec to prevent the footway from being damaged during the works. There is a non-carriageway spec service cover that will require protection during the works.

All works will be carried out by competent Street Works qualified personnel and scaled drawings will be sent to the Local Authority for approval as part of the Section 50 application.

25. Motor vehicle and/or cyclist diversions

Where applicable, please supply details of any diversion, disruption or other anticipated use of the public highway during the construction period. Please show locations of diversion signs on drawings or diagrams. If these are attached, use the following space to reference their location in the appendices.

The only diversion routes that will be required will be on a temporary basis when there will be a partial road closure on Avenue Road outside of No.46 Avenue Road to erect and dismantle a tower crane. A full detailed traffic management plan will be submitted to Camden Council for approval with the TTO application.

26. Scaffolding, hoarding, and associated pedestrian diversions

Pedestrians safety must be maintained if diversions are put in place. Vulnerable footway users should also be considered. These include wheelchair users, the elderly, those with walking difficulties, young children, those with prams, the blind and partially sighted. Appropriate ramps must be used if cables, hoses, etc. are run across the footway.

Any work above ground floor level may require a covered walkway adjacent to the site. A licence must be obtained for scaffolding and gantries. The adjoining public highway must be kept clean and free from obstructions, and hoarding should not restrict access to adjoining properties, including fire escape routes. Lighting and signage should be used on temporary structures/skips/hoardings etc.

A secure hoarding will generally be required at the site boundary with a lockable access.

a. Where applicable, please provide details of any hoarding and/or scaffolding that intrudes onto the public highway, describing how pedestrian safety will be maintained through the diversion, including any proposed alternative routes. Please provide detailed, scale drawings that show hoarding lines, gantries, crane locations, scaffolding, pedestrian routes, parking bay suspensions, remaining road width for vehicle movements, temporary vehicular accesses, ramps, barriers, signage, lighting etc. If these are attached, use the following space to reference their location in the appendices.

The front of the site will be secured by a 2.4m high hoarding with vehicle access gates and a secure pedestrian access for authorised personnel only.

Please see site layout drawings in appendix A1.

b. Please provide details of any other temporary structures which would overhang/oversail the public highway (e.g. scaffolding, gantries, cranes etc.) If these are attached, use the following space to reference their location in the appendices.

n/a

27. Services

Please indicate if any changes to services are proposed to be carried out that would be linked to the site during the works (i.e. connections to public utilities and/or statutory undertakers' plant). Larger developments may require new utility services. If so, a strategy and programme for coordinating the connection of services will be required. If new utility services are required, please confirm which utility companies have been contacted (e.g. Thames Water, National Grid, EDF Energy, BT etc.) You must explore options for the utility companies to share the same excavations and traffic management proposals. Please supply details of your discussions.

There will be no changes to the existing incoming services.

Environment

To answer these sections please refer to the relevant sections of **Camden's Minimum Requirements for Building Construction (CMRBC).**

28. Please list all noisy operations and the construction method used, and provide details of the times that each of these are due to be carried out.

All works on site will be carried out between 08:00 and 18:00 Monday to Friday. Knight Build Ltd will apply for a Section 61 prior consent under the Control of Pollution Act 1974 to determine if restricted hours need to be implemented for high impact activities.

Such activities are included in Appendix A6 and include demolition works.

29. Please confirm when the most recent noise survey was carried out (before any works were carried out) and provide a copy. If a noise survey has not taken place please indicate the date (before any works are being carried out) that the noise survey will be taking place, and agree to provide a copy.

We will undertake a noise survey prior to any works taking place and provide Camden council with the results and all following survey results once the works commence.

30. Please provide predictions for noise and vibration levels throughout the proposed works.

Please see attached predicted noise levels for the project duration included in Appendix A6.

31. Please provide details describing mitigation measures to be incorporated during the construction/demolition works to prevent noise and vibration disturbances from the activities on the site, including the actions to be taken in cases where these exceed the predicted levels.

A range of measures to reduce disturbance from construction noise and vibration will be used. Noise mitigation measures will include the use of echo barriers, agreed limited hours for percussive works, noise monitoring, plant and equipment fitted with silencers, good community relations and a complaint contact line.

Vibration mitigation measures will include undertaking a vibration survey during appropriate stages of work activities and providing an appropriate response depending on the level of vibration.

If noise or vibration levels reach higher action levels then immediate action will be taken based on statutory requirements, HSE guidance and industry best practice.

Further details are contained in Appendix A6.

32. Please provide evidence that staff have been trained on BS 5228:2009

KBL are a CITB approved training organisation.

Please see training certificates attached in Appendix A4.

33. Please provide details on how dust nuisance arising from dusty activities, on site, will be prevented.

All site activities that may generate dust must be planed, suppression measures must be established, implemented and maintained to minimise the spreading of dust and emissions.

Knight Build will follow best practice guidance from the HSE and London councils. Please see Knight Build Control of Dust and Emissions Risk Assessment in Appendix A5 in addition to best practice measures in Appendix A6.

The existing water supply and pressure to the main property will be maintained throughout the works to enable sufficient dust suppression throughout all activities.

The supply will be used for construction use only as the supply will be capped off from the main house prior to demolition taking place.

The current property is a 7,475 Sq Ft property which contains a swimming pool and a ppol house and the water supply to such a property would far outweigh the requirements of that of dust suppression for construction activities.

Based on this and previous experience including similar construction works along Avenue Road, there will be no issues ensuring that the water supply will be sufficient for all activities.

In the unlikely event that there was an interruption to the water supply, all dust creating activities that require water suppression would cease until the issue is rectified.

34. Please provide details describing how any significant amounts of dirt or dust that may be spread onto the public highway will be prevented and/or cleaned.

Screens and site hoarding will prevent the majority of any dust emitted from leaving the site boundary. An on-site hard stand area and wheel wash for vehicles (jet wash) will prevent mud and muck being tracked from site and operatives will be required to change their work footwear before leaving site.

35. Please provide details describing arrangements for monitoring of noise, vibration and dust levels, including instrumentation, locations of monitors and trigger levels where appropriate.

Please see proposals in Appendix A6.

36. Please confirm that an Air Quality Assessment and/or Dust Risk Assessment has been undertaken at planning application stage in line with the GLA policy The Control of Dust and Emissions During Demolition and Construction 2014 (SPG), and that the summary dust impact risk level (without mitigation) has been identified. The risk assessment must take account of proximity to all human receptors and sensitive receptors (e.g. schools, care homes etc.), as detailed in the SPG. **Please attach the risk assessment and mitigation checklist as an appendix**.

Please see Knight Build Control of Dust and Emissions Risk Assessment in Appendix A5.

37. Please confirm that all of the GLA's 'highly recommended' measures from the SPG document relative to the level of dust impact risk identified in question 36 have been addressed by completing the GLA mitigation measures checklist.

I can confirm that all relevant mitigation measures from the Supplementary Planning Guidance document will be implemented and maintained on-site through the duration of the project.

38. Please confirm the number of real-time dust monitors to be used on-site.

Note: real-time dust (PM_{10}) monitoring with MCERTS 'Indicative' monitoring equipment will be required for **all sites with a high OR medium dust impact risk level**. If the site is a 'high impact' site, 4 real time dust monitors will be required. If the site is a 'medium impact' site', 2 real time dust monitors will be required.

The dust monitoring must be in accordance with the SPG and IAQM guidance, and the proposed dust monitoring regime (including number of monitors, locations, equipment specification, and trigger levels) must be submitted to the Council for approval. Dust monitoring is required for the entire duration of the development and must be in place and operational **at least three months prior to the commencement of works on-site**. Monthly dust monitoring reports must be provided to the Council detailing activities during each monthly period, dust mitigation measures in place, monitoring data coverage, graphs of measured dust (PM_{10}) concentrations, any exceedances of the trigger levels, and explanation on the causes of any and all exceedances in addition to additional mitigation measures implemented to rectify these.

In accordance with Camden's Clean Air Action Plan, the monthly dust monitoring reports must also be made readily available and accessible online to members of the public soon after publication. Information on how to access the monthly dust monitoring reports should be advertised to the local community (e.g. presented on the site boundaries in full public view).

Inadequate dust monitoring or reporting, or failure to limit trigger level exceedances, will be indicative of poor air quality and dust management and will lead to enforcement action.

I can confirm that 2 real time dust monitors will be installed within the given timeframe and all subsequent reports will be issued to the council detailing any exceedances of the threshold and control measures / actions taken.

KBL will liaise with Camden council as to whether additional dust monitoring is required.

The dust monitors which will be used are Dust Lite 2 monitors.

39. Please provide details about how rodents, including rats, will be prevented from spreading out from the site. You are required to provide information about site inspections carried out and present copies of receipts (if work undertaken).

On the first sign of rodent / vermin infestation we will contact a pest control company that are members of the NPTA (National Pest Technicians Association) or BPCA (British Pest Control Association) for professional help in dealing with and eliminating the problem as fast as possible with as little fall out as possible.

KBL site rules and partner membership of the CCS ensure that the eating of food and drink is only permitted within the welfare canteen and all waste must be disposed of in the bins provided. Eating and drinking will not be permitted on site or outside the front of the site. A full time welfare cleaner will ensure that the welfare facilities are kept clean and tidy at all times.

40. Please confirm when an asbestos survey was carried out at the site and include the key findings.

A full R&D asbestos survey will be carried out prior to any demolition works commencing. If there are any notifiable asbestos found, the specialist asbestos contractor will notify the HSE and no works will commence until the asbestos has been removed and certification provided to confirm the same together with air quality clearance tests.

41. Complaints often arise from the conduct of builders in an area. Please confirm steps being taken to minimise this e.g. provision of a suitable smoking area, tackling bad language and unnecessary shouting.

Knight Build Ltd are a leading partner member of the Considerate Constructors Scheme. The site will be registered under the scheme and Knight Build Ltd ensure that the site performs above and beyond compliance in all 5 sections of the CCS code of practice.

A suitable smoking area will be set up inside the site whilst we continue to encourage site operatives to quit smoking and we provide advise on a healthy lifestyle and the dangers associated with smoking.

Bad language and shouting will not be tolerated on site and this forms part of our site rules and part of our induction process. All operatives will watch a CCS induction video on respect and what is expected from them in order to comply with the schemes code of practice.

KBL have a strict disciplinary procedure in place for those who breach site rules although the culture that is embedded in the workforce has contributed to being named as the top performing CCS Partner member in the UK in 2019.

42. If you will be using non-road mobile machinery (NRMM) on site with net power between 37kW and 560kW it will be required to meet the standards set out below. The standards are applicable to both variable and constant speed engines and apply for both PM and NOx emissions.

From 1st September 2015

(i) Major Development Sites – NRMM used on the site of any major development will be required to meet Stage IIIA of EU Directive 97/68/EC

(ii) Any development site within the Central Activity Zone - NRMM used on any site within the Central Activity Zone will be required to meet Stage IIIB of EU Directive 97/68/EC

From 1st September 2020

(iii) Any development site - NRMM used on any site within Greater London will be required to meet Stage IIIB of EU Directive 97/68/EC

(iv) Any development site within the Central Activity Zone - NRMM used on any site within the Central Activity Zone will be required to meet Stage IV of EU Directive 97/68/EC

Please provide evidence demonstrating the above requirements will be met by answering the following questions:

a) Construction time period (11/21 - 12/23):

b) Is the development within the CAZ? (N):

c) Will the NRMM with net power between 37kW and 560kW meet the standards outlined above? (Y):

d) Please confirm that all relevant machinery will be registered on the NRMM Register, including the site name under which it has been registered: We can confirm that all relevant machinery will be registered on the NRMM Register, including the site name under which it has been registered

e) Please confirm that an inventory of all NRMM will be kept on site and that all machinery will be regularly serviced and service logs kept on site for inspection: We can confirm that an inventory of all NRMM will be kept on site and that all machinery will be regularly serviced and service logs kept on site for inspection.

f) Please confirm that records will be kept on site which details proof of emission limits, including legible photographs of individual engine plates for all equipment, and that this documentation will be made available to local authority officers as required: We can confirm that records will be kept on site which details proof of emission limits, including legible photographs of individual engine plates for all equipment, and that this documentation will be made available to local authority officers as required.

43. Vehicle engine idling (leaving engines running whilst parked or not in traffic) produces avoidable air pollution and can damage the health of drivers and local communities. Camden Council and City of London Corporation lead the London **Idling Action Project** to educate drivers about the health impacts of air pollution and the importance of switching off engines as a simple action to help protect the health of all Londoners.

Idling Action calls for businesses and fleet operators to take the **Engines Off pledge** to reduce emissions and improve air quality by asking fleet drivers, employees and subcontractors to avoid idling their engines wherever possible. Free driver training materials are available from the website: https://idlingaction.london/business/

Please provide details about how you will reduce avoidable air pollution from engine idling, including whether your organisation has committed to the Engines Off pledge and the number of staff or subcontractors who have been provided with free training materials.

KBL are a FORS Gold accredited company and a practising CLOCS champion. In order to achieve FORS Gold status, it is a requirement that all our fleet operatives undertake continuous professional development and all drivers undertake a CLOCS LoCity elearning course in addition to all the other mandatory FORS training they undertake on an annual basis.

As we are a FORS Gold accredited company, all of our supply chain must also be FORS accredited so this ensures that all fleet drivers attending site have carried out sufficient training.

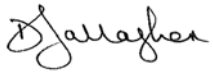
KBL have an anti-idling policy which is displayed on our Logistics Information Board on our hoarding and all drivers attending site are briefed on the site rules during the vehicle checks carried out by our Traffic Marshals all of which is overseen by site management.

SYMBOL IS FOR INTERNAL USE

Agreement

The agreed contents of this Construction Management Plan must be complied with unless otherwise agreed in writing by the Council. This may require the CMP to be revised by the Developer and reapproved by the Council. The project manager shall work with the Council to review this Construction Management Plan if problems arise in relation to the construction of the development. Any future revised plan must be approved by the Council in writing and complied with thereafter.

It should be noted that any agreed Construction Management Plan does not prejudice further agreements that may be required such as road closures or hoarding licences.

Signed: 

Date: 05/05/2021

Print Name: Dominick Gallagher

Position: HSEQ Manager

Please submit to: planningobligations@camden.gov.uk

End of form.

V2.6

KNIGHTBUILD

APPENDIX A1 : TRAFFIC MANAGEMENT

Camden

Notes:

Rev.	Date	Description of revision	Drawn	Checked
00	31.03.2021	First Issue	DG	JC

Status: Information

KNIGHTBUILD
Knight Build Limited
Unit 22, Childerditch Industrial Park,
Childerditch Hall Drive,
Brentwood, Essex CM13 3HD
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E: cad@knightbuild.co.uk
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Project: 46 Avenue Road, NW8 6HS

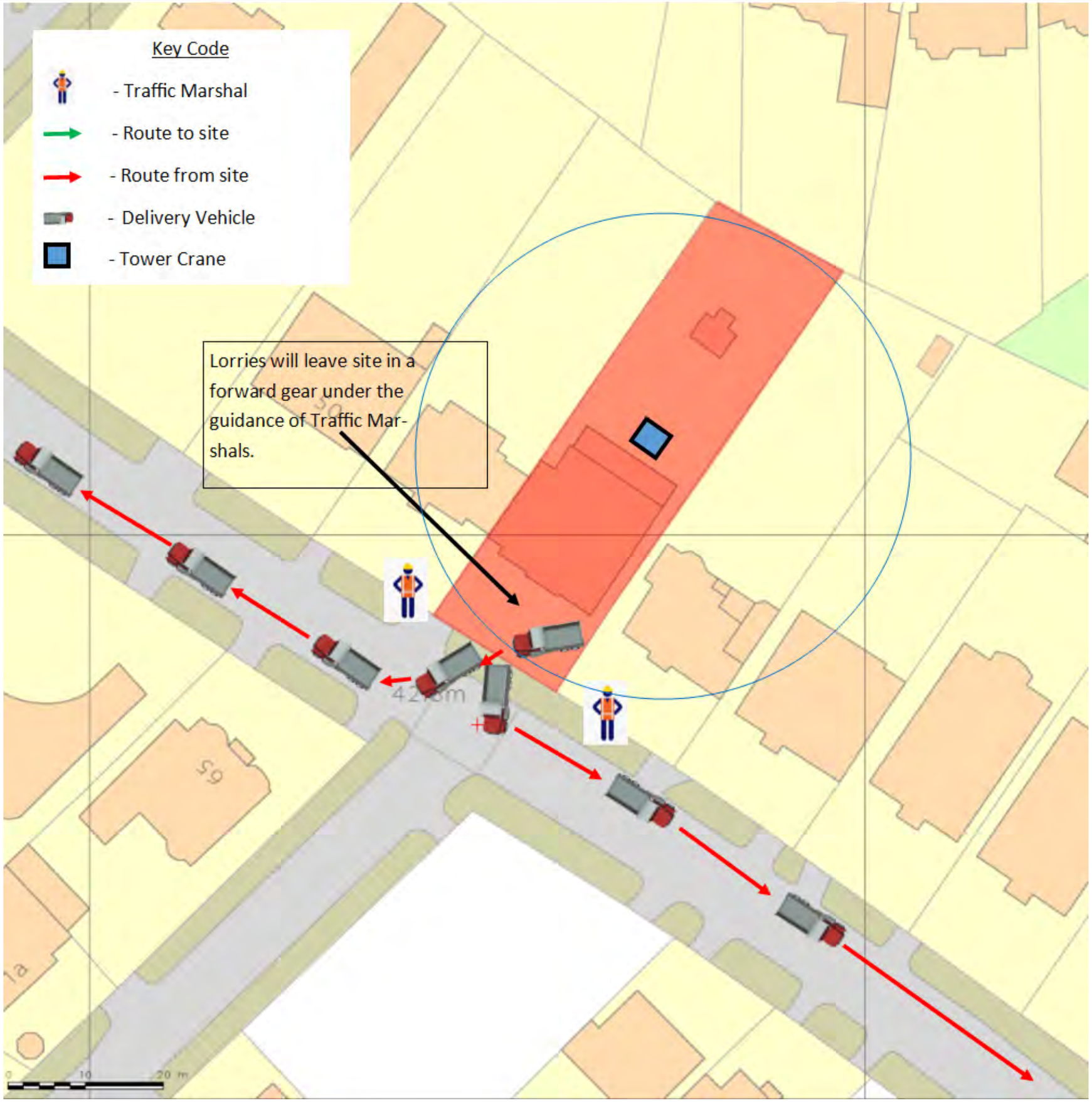
Drawing Title:

SITE LOGISTICS PLAN (Traffic Route to site)

Drawn by:	Checked by:	Scale:
DG	JC	NTS

Drawing No.	Revision
KB-46AR-LP-100	00

A3



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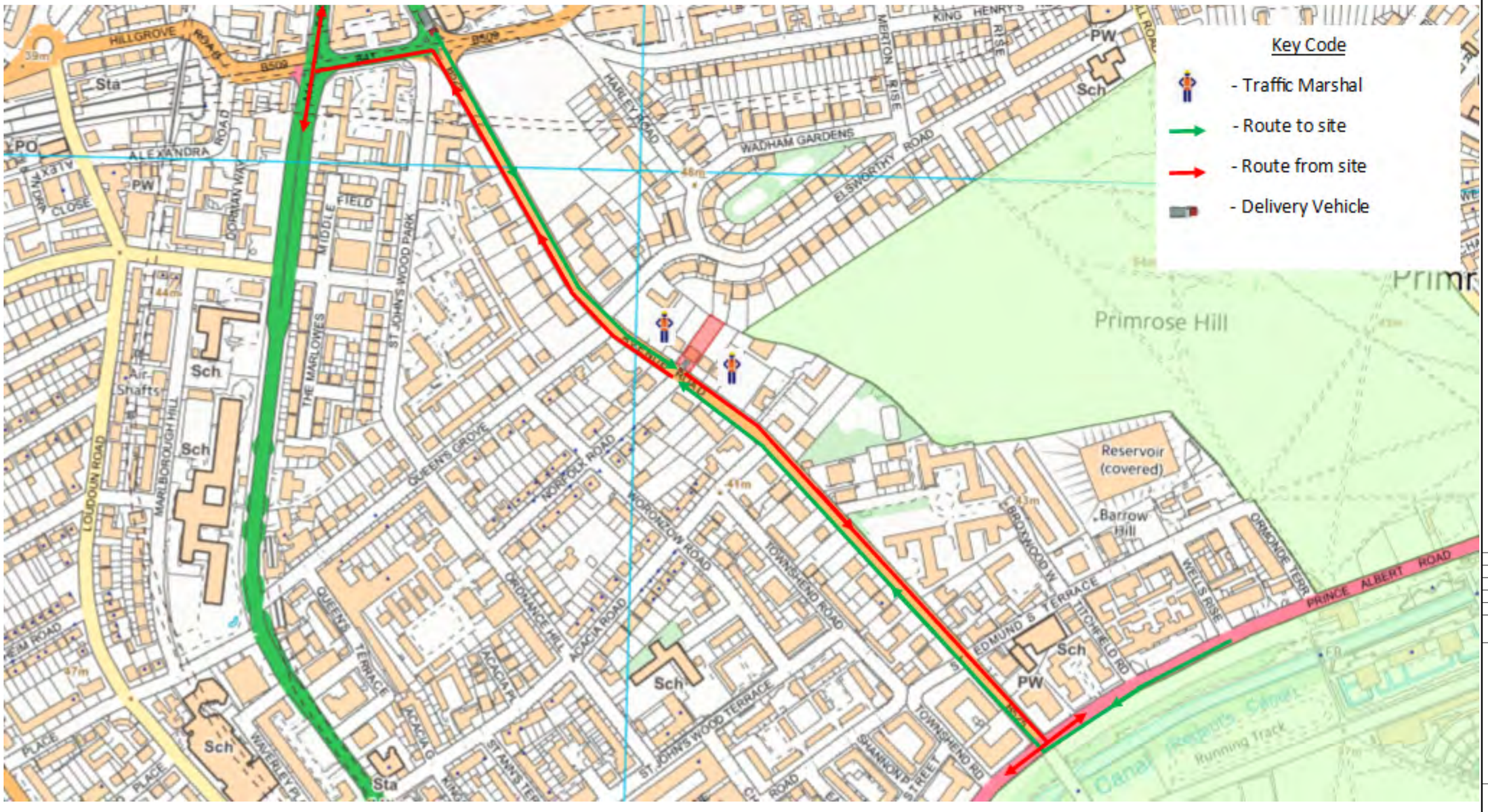
Drawing Title:

SITE LOGISTICS PLAN (Traffic Route from site)

Drawn by:	Checked by:	Scale:
DG	JC	NTS

Drawing No.	Revision
KB-46AR-LP-101	00

A3



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E: cad@knightbuild.co.uk
www.knightbuild.co.uk

Project: 46 Avenue Road, NW8 6HS

Drawing Title: **SITE LOGISTICS PLAN**

Drawn by:	Checked by:	Scale:
DG	JC	NTS

Drawing No.	Revision
KB-46AR-LP-102	00

A3

Notes:

Rev.	Date	Description of revision	Drawn	Checked
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Status: Information

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Project:
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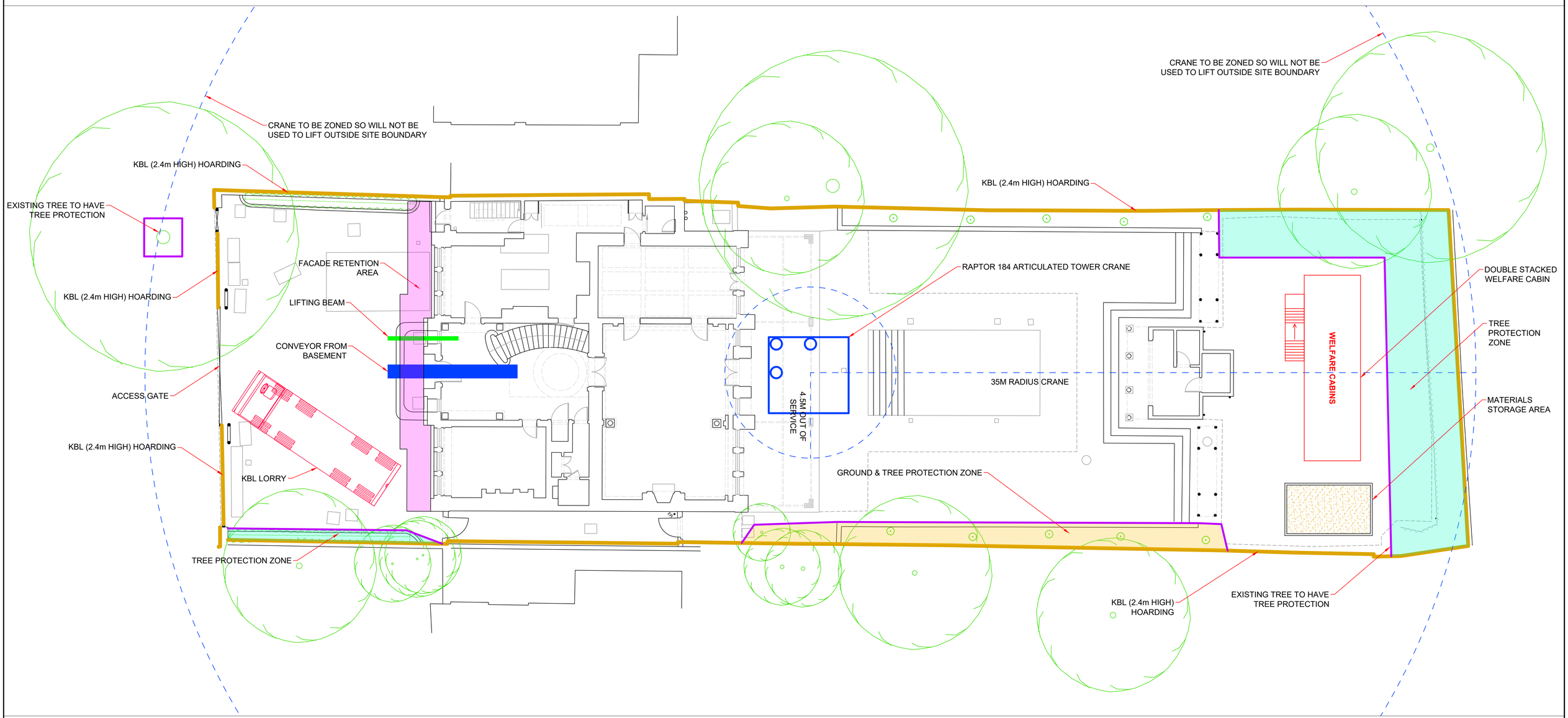
NW8 6HS

Drawing Title:
SITE LOGISTICS PLAN

Drawn by:	Checked by:	Scale:
DG	JC	NTS

Drawing No.	Revision
KB-46AR-LP-103	00

A3



KEY:

- TREE PROTECTION FENCING
- KBL HOARDING
- LIFTING BEAM
- CONVEYOR
- GROUND & TREE PROTECTION ZONE
- TREE PROTECTION ZONE
- FACADE RETENTION AREA

Rev.	Date	Description of revision	Drawn	Checked
00	07.04.2021	First Issue	T.M.	J.C.

Project:
46 Avenue Road, London, NW8 6HS

Status:
Information

Drawing Title:
CTMP & HOARDING PLAN LAYOUT

Drawn by: T.M. | Checked by: J.C. | Scale: A1 @ 1:100

Drawing No. KB46AR-SK-800 | Revision 00

KNIGHTBUILD
Knight Build Limited
Unit 22, Childerditch Industrial Park, Childerditch Hall Drive,
Brentwood, Essex CM13 3HD
T: 01277810777 **F:** 01277810744
E: cad@knightbuild.co.uk
www.knightbuild.co.uk

A1

CONSTRUCTION LOGISTICS PLANNING TOOL

REFERENCE INFORMATION

Version:	v 3.0	**Completed by:**	Dominick Gallagher
Last Updated:	06/07/17	**Shortcut:**	CLICK FOR SHORTCUT TO TOOL

PURPOSE OF TOOL

The purpose of the Tool is to help improve the creation and evaluation of CLPs by providing a number of standardised outputs. These graphical and tabular outputs provide detailed information to be used within a CLP from typical input data. The tool will help logistics managers feed reliable and relevant information into the CLP assisting them with creating this documentation.

HOW TO USE CLP TOOL

Data should only be input into the blue boxes available: **DATA INPUT**
Use the + button at the top of the sheet to expand columns for further data entry where required.
The remainder of the sheet will populate accordingly based on the data input into the tool.

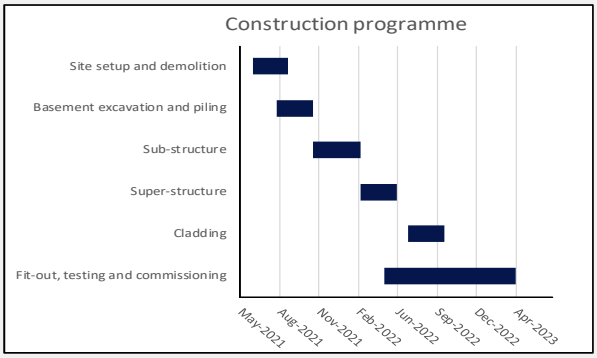
Chosing Buildings or Infrastructure will update the names of the phases only. The spreadsheet functions the same no matter which is chosen.

Ensure that Macros are enabled for the spreadsheet. For further information on how to use the excel based tool refer to the CLP Guidence Documentation.

CONSTRUCTION LOGISTICS PLANNING TOOL (OUTPUTS)

CONSTRUCTION PROGRAMME OVERVIEW

Construction phase	Start	End
Site setup and demolition	Jun-2021	Aug-2021
Basement Works	Aug-2021	Oct-2021
Sub-structure	Nov-2021	Mar-2022
Super-structure	Mar-2022	Jun-2022
Cladding	Jul-2022	Sep-2022
Fit-out, testing and commissioning	May-2022	Apr-2023



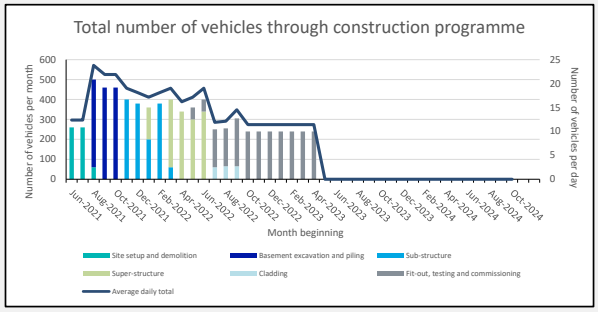
NO. OF VEHICLES IN PEAK PHASE (EX. OTHER PHASES)

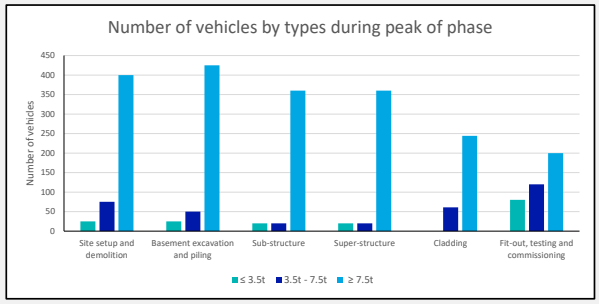
Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q2 2021 - Q3 2021	260	12
Basement Works	Q3 2021 - Q4 2021	460	22
Sub-structure	Q4 2021 - Q1 2022	400	19
Super-structure	Q1 2022 - Q2 2022	340	16
Cladding	Q3 2022 - Q3 2022	65	3
Fit-out, testing and commissioning	Q2 2022 - Q2 2023	240	11
Peak period of construction	Q3 2021 - Q3 2021	500	24

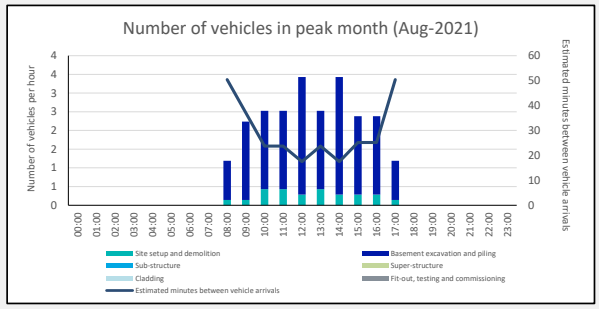
NO. OF VEHICLES IN PEAK PHASE (INC. POSSIBLE OVERLAP OF SUBSEQUENT PHASES)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q2 2021 - Q3 2021	500	24
Basement Works	Q3 2021 - Q4 2021	500	24
Sub-structure	Q4 2021 - Q1 2022	400	19
Super-structure	Q1 2022 - Q2 2022	400	19
Cladding	Q3 2022 - Q3 2022	305	15
Fit-out, testing and commissioning	Q2 2022 - Q2 2023	400	19

CONSTRUCTION LOGISTICS PLANNING TOOL (OUTPUTS)







CONSTRUCTION LOGISTICS PLANNING TOOL (INPUTS)

USER INPUTS

Development name:	46 Avenue Road
Landowner:	Private client
Principal contractor:	Knight Build Ltd
Site addess:	46 Avenue Road, London
Site postcode:	NW8 6HS
Consolidation centre postcode:	
Type of project:	Building
Type of construction:	Renovation of existing building
State of current site:	Structures to be demolished
Number of working days per month:	21

Gross floor area (sqm)	Residential	A1 Retail	A3 Retail	A5 Retail	B1 Office	B2 General industry	B8 Storage and distribution	D1 Residential institutions	D2 Leisure	Hotel	Other	Total
New/additional floor area												0
Refurbished floor area												0
Total	0	0	0	0	0	0	0	0	0	0	0	0

Construction phase	Schedule (mmm/yyyy)	
	Start month	End month
Site setup and demolition	Jun-2021	Aug-2021
Basement excavation and piling	Aug-2021	Oct-2021
Sub-structure	Nov-2021	Mar-2022
Super-structure	Mar-2022	Jun-2022
Cladding	Jul-2022	Sep-2022
Fit-out, testing and commissioning	May-2022	Apr-2023

Construction phase	Schedule: Start month (mmm/yyyy)	End month (mmm/yyyy)	Duration (Number of months)	Month number	Jun-2021	Jul-2021	Aug-2021	Sep-2021	Oct-2021	Nov-2021	Dec-2021	Jan-2022	Feb-2022	Mar-2022	Apr-2022	May-2022	Jun-2022	Jul-2022	Aug-2022	Sep-2022	Oct-2022	Nov-2022	Dec-2022	Jan-2023	Feb-2023	Mar-2023	Apr-2023	May-2023
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Site setup and demolition	Jun-2021	Aug-2021	3	1	260	260	60																					
Basement excavation and piling	Aug-2021	Oct-2021	3	3			440	460	460																			
Sub-structure	Nov-2021	Mar-2022	5	6						400	380	200	380	60														
Super-structure	Mar-2022	Jun-2022	4	10								160		340	340	300	340											
Cladding	Jul-2022	Sep-2022	3	14														60	65	65								
Fit-out, testing and commissioning	May-2022	Apr-2023	12	12												60	60	190	190	240	240	240	240	240	240	240	240	
				Monthly total	260	260	500	460	460	400	380	360	380	400	340	360	400	250	255	305	240	240	240	240	240	240	240	0
				Average daily total	12	12	24	22	22	19	18	17	18	19	16	17	19	12	12	15	11	11	11	11	11	11	11	0

Construction phase	Jun-2023	Jul-2023	Aug-2023	Sep-2023	Oct-2023	Nov-2023	Dec-2023	Jan-2024	Feb-2024	Mar-2024	Apr-2024	May-2024	Jun-2024	Jul-2024	Aug-2024	Sep-2024	Oct-2024	Nov-2024	Dec-2024	Jan-2025	Feb-2025	Mar-2025	Apr-2025	May-2025
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Site setup and demolition																								
Basement excavation and piling																								
Sub-structure																								
Super-structure																								
Cladding																								
Fit-out, testing and commissioning																								
Monthly total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average daily total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Construction phase	Jun-2025	Jul-2025	Aug-2025	Sep-2025	Oct-2025	Nov-2025	Dec-2025	Jan-2026	Feb-2026	Mar-2026	Apr-2026	May-2026	Jun-2026	Jul-2026	Aug-2026	Sep-2026	Oct-2026	Nov-2026	Dec-2026	Jan-2027	Feb-2027	Mar-2027	Apr-2027	May-2027	Total
	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	
Site setup and demolition																									580
Basement excavation and piling																									1,360
Sub-structure																									1,420
Super-structure																									1,480
Cladding																									190
Fit-out, testing and commissioning																									2,420
Monthly total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,450
Average daily total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	355

Construction phase	Vehicle type			
	≤ 3.5t	3.5t - 7.5t	≥ 7.5t	Total
Site setup and demolition	5%	15%	80%	100%
Basement excavation and piling	5%	10%	85%	100%
Sub-structure	5%	5%	90%	100%
Super-structure	5%	5%	90%	100%
Cladding	0%	20%	80%	100%
Fit-out, testing and commissioning	20%	30%	50%	100%

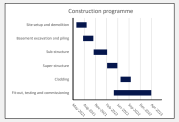
Construction phase	Input hourly distribution of vehicles on typical day: 00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total
Site setup and demolition									5%	5%	15%	15%	10%	15%	10%	10%	10%	5%							100%
Basement excavation and piling									5%	10%	10%	10%	15%	10%	15%	10%	10%	5%							100%
Sub-structure									5%	10%	15%	15%	15%	10%	10%	10%	5%	5%							100%
Super-structure									5%	10%	15%	15%	15%	10%	10%	10%	5%	5%							100%
Cladding									5%	10`%	10%	15%	15%	15%	15%	10%	10%	5%							100%
Fit-out, testing and commissioning									10%	10%	10%	10%	10%	10%	10%	10%	10%	10%							100%

EXPECTED NUMBER OF VEHICLES

Construction phase	No. of vehicles in peak month (Aug-2021)			
	≤ 3.5t	3.5t - 7.5t	≥ 7.5t	Total
Site setup and demolition	3	9	48	60
Basement excavation and piling	22	44	374	440
Sub-structure	0	0	0	0
Super-structure	0	0	0	0
Cladding	0	0	0	0
Fit-out, testing and commissioning	0	0	0	0
Total	25	53	422	500

Construction phase	Vehicle type in peak of individual construction phase			
	≤ 3.5t	3.5t - 7.5t	≥ 7.5t	Total
Site setup and demolition	25	75	400	500
Basement excavation and piling	25	50	425	500
Sub-structure	20	20	360	400
Super-structure	20	20	360	400
Cladding	0	61	244	305
Fit-out, testing and commissioning	80	120	200	400

CONSTRUCTION PROGRAMME OVERVIEW



EXPECTED SCHEDULE OF VEHICLES

Construction phase	umber of vehicles in peak month (Aug-20: Total	Avg daily tot	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Site setup and demolition	60	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basement excavation and piling	440	21	0	0	0	0	0	0	0	0	1	2	2	2	3	2	3	2	2	1	0	0	0	0	0	0
Sub-structure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Super-structure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cladding	0	0	0	0	0	0	0	0	0	0	0	#VALUE!	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fit-out, testing and commissioning	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	500	24	0	0	0	0	0	0	0	0	1	#VALUE!	3	3	3	3	3	2	2	1	0	0	0	0	0	0

Construction phase	eak of phase (including possible overlap: Total	Avg daily tot	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
Site setup and demolition	500	24	0	0	0	0	0	0	0	0	1	1	4	4	2	4	2	2	2	1	0	0	0	0	0	0
Basement excavation and piling	500	24	0	0	0	0	0	0	0	0	1	2	2	2	4	2	4	2	2	1	0	0	0	0	0	0
Sub-structure	400	19	0	0	0	0	0	0	0	0	1	2	3	3	3	2	2	2	1	1	0	0	0	0	0	0
Super-structure	400	19	0	0	0	0	0	0	0	0	1	2	3	3	3	2	2	2	1	1	0	0	0	0	0	0
Cladding	305	15	0	0	0	0	0	0	0	0	1	#VALUE!	1	2	2	2	2	1	1	1	0	0	0	0	0	0
Fit-out, testing and commissioning	400	19	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0

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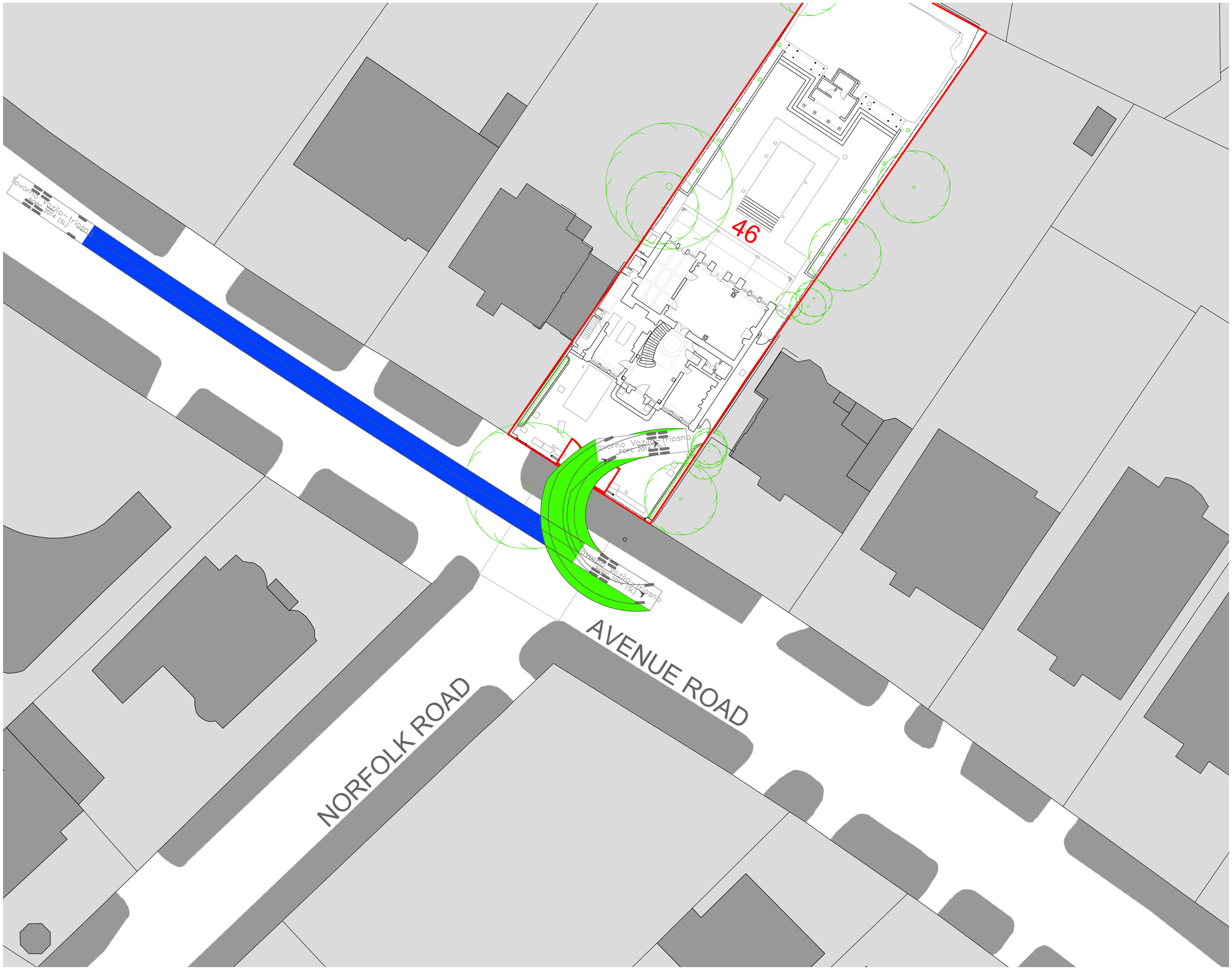
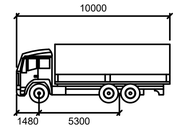
APPENDIX A2 : VEHICLE SWEPT PATH ANALYSIS

Camden



ACCESS TO SITE

Notes: Lorry below not drawn to scale



Tovorno Vozilo-triosno

	mm
Width	: 2500
Track	: 2500
Lock to Lock Time	: 6.0
Steering Angle	: 42.3

Key

- Forward
- Reverse
- Site Boundary

Rev.	Date	Description of revision	Drawn	Checked
00	07.04.2021	First Issue	T.M.	D.G.

Status: Information

KNIGHTBUILD

Knight Build Limited
Unit 22, Childerditch Industrial Park,
Childerditch Hall Drive,
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T: 01277810777 **F:** 01277810744
E: cad@knightbuild.co.uk
www.knightbuild.co.uk

Project:

46 Avenue Road, London, NW8 6HS

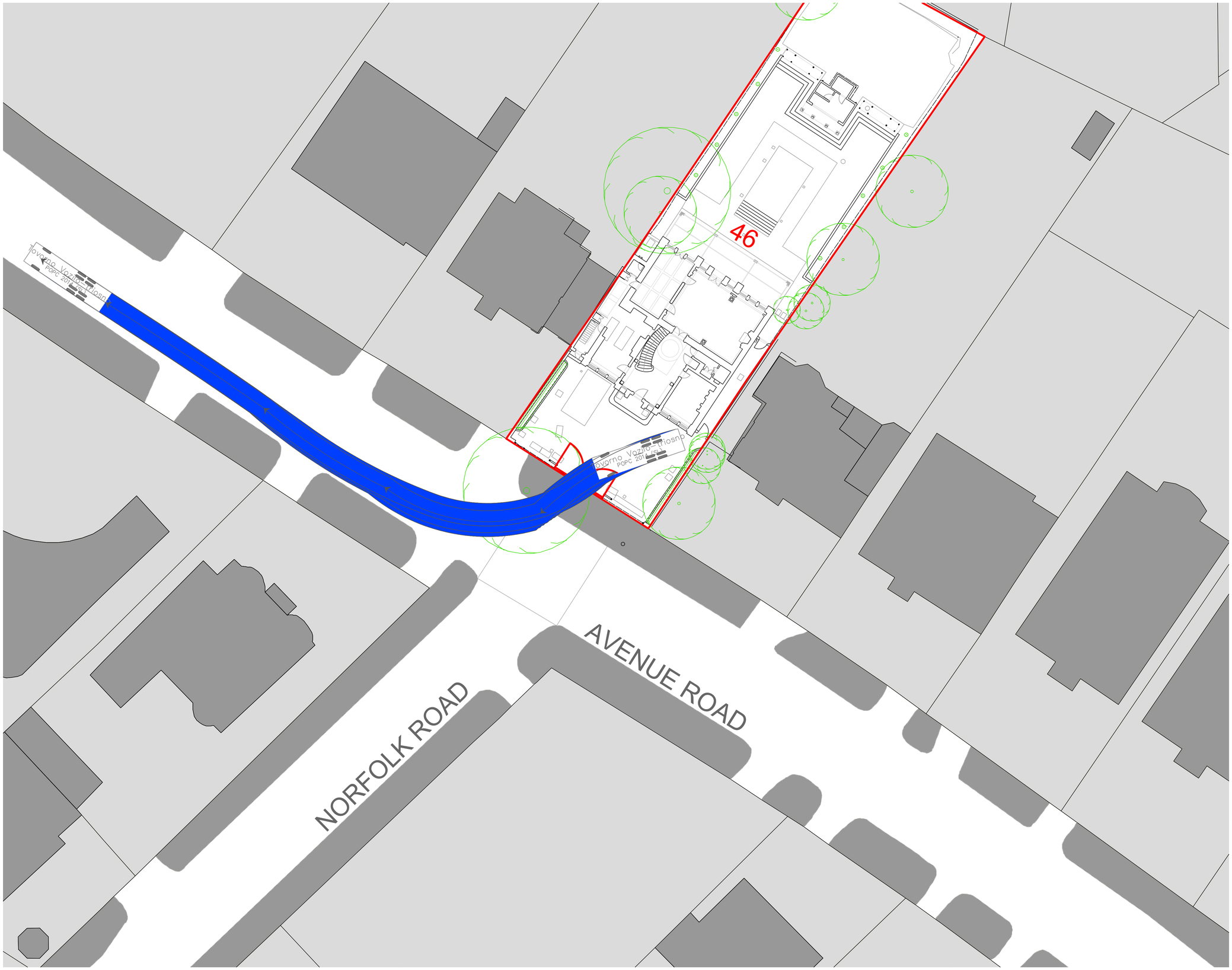
Drawing Title:

VEHICLE SWEPT PATH ANALYSIS 1

Drawn by:	Checked by:	Scale:
T.M.	D.G.	NTS

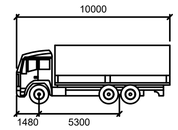
Drawing No.	Revision
KB46AR-VSP-001	00

A1



EXIT FROM SITE

Notes: Lorry below not drawn to scale



Tovorno Vozilo-triosno

	mm
Width	: 2500
Track	: 2500
Lock to Lock Time	: 6.0
Steering Angle	: 42.3

Key

- Forward
- Reverse
- Site Boundary

Rev.	Date	Description of revision	Drawn	Checked
00	07.04.2021	First Issue	T.M.	D.G.

Status: Information

Knight Build Limited
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Childerditch Hall Drive,
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T: 01277810777 **F:** 01277810744
E: cad@knightbuild.co.uk
www.knightbuild.co.uk

Project:

46 Avenue Road, London, NW8 6HS

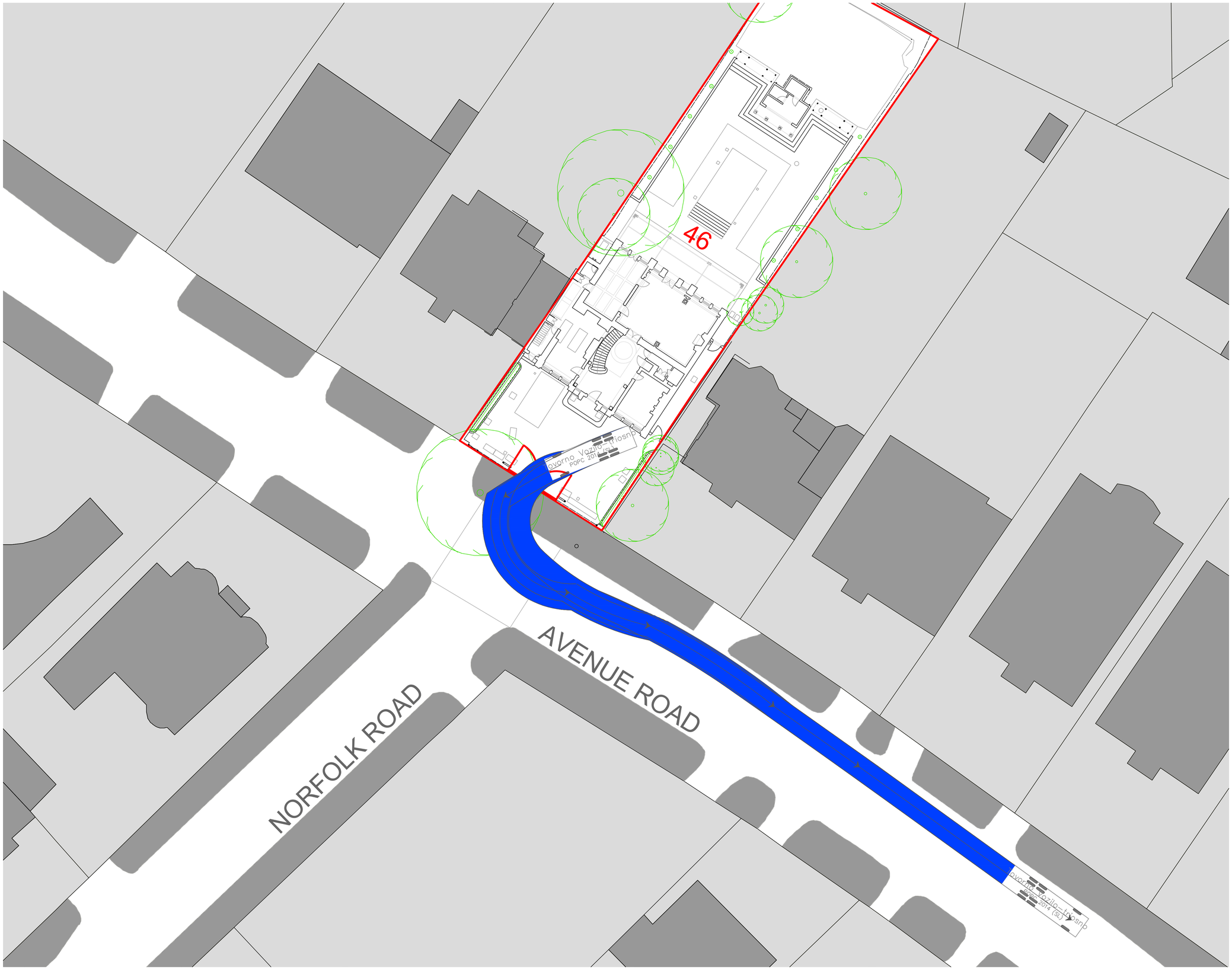
Drawing Title:

VEHICLE SWEPT PATH ANALYSIS 2

Drawn by:	Checked by:	Scale:
T.M.	D.G.	NTS

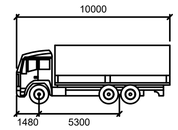
Drawing No.	Revision
KB46AR-VSP-002	00

A1



EXIT FROM SITE

Notes: Lorry below not drawn to scale



Tovorno Vozilo-triosno

		mm
Width	:	2500
Track	:	2500
Lock to Lock Time	:	6.0
Steering Angle	:	42.3

Key

- Forward
- Reverse
- Site Boundary

Rev.	Date	Description of revision	Drawn	Checked
00	07.04.2021	First Issue	T.M.	D.G.

Status: Information

KNIGHTBUILD
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www.knightbuild.co.uk

Project:
46 Avenue Road, London, NW8 6HS

Drawing Title:
VEHICLE SWEPT PATH ANALYSIS 3

Drawn by:	Checked by:	Scale:
T.M.	D.G.	NTS

Drawing No.	Revision
KB46AR-VSP-003	00

A1

KNIGHTBUILD

APPENDIX A3 : CONSULTATION TRACKER

Camden

23/03/2021 KB46AR/RL/DG/001

RE: 46 Avenue Road, London, NW8 6HS
Consultation Letter for Construction Management Plan

Dear Neighbour,

The owner of 46 Avenue Road intends to redevelop their property under planning ref: 2017/1718/P. Knight Build Ltd has been engaged by Culena London Ltd to develop a Construction Management Plan (CMP) to support the discharge of the associated Section 106 requirements.

The works comprise of the demolition of existing building and erection of replacement dwelling house behind retained facade; excavation of part one/ part two storey basement level with front and rear lightwells; erection of replacement summerhouse with plant room to rear.

Before we prepare the CMP, all neighbours to the property, local schools and residents' associations are consulted to invite feedback and deal with any concerns you may have about the proposed development. By doing this, we hope to resolve any issues that are raised and incorporate them into the development of the CMP where feasible, so that the project can run as smoothly as possible with minimal impact on you, the surrounding properties and local businesses.

Knight Build Ltd is a professional company that has carried out this type of work in Westminster, the Royal Borough of Kensington & Chelsea and Camden for over 27 Years.
We were confirmed as the top performing Partner Member of the Considerate Constructors Scheme (CCS) in 2019. We have since won 10 National Gold Awards at the CCS National Site Awards 2020 where we also picked up the accolade of the Most Considerate Site 2020 for one of our projects in London further highlighting our professional approach to works which we undertake.

The project will be registered with the Considerate Constructors Scheme and the site registration details will be displayed at the front of the property.

Please feel free to visit our website (www.knightbuild.co.uk) for further information and background on Knight Build Ltd.

We would be grateful if you would confirm that you have received this correspondence by **06/04/2021** and raise any queries or concerns you may have to pre-constructionservices@knightbuild.co.uk.

Yours Faithfully
For and on behalf of
Knight Build Limited

John Knight
Managing Director

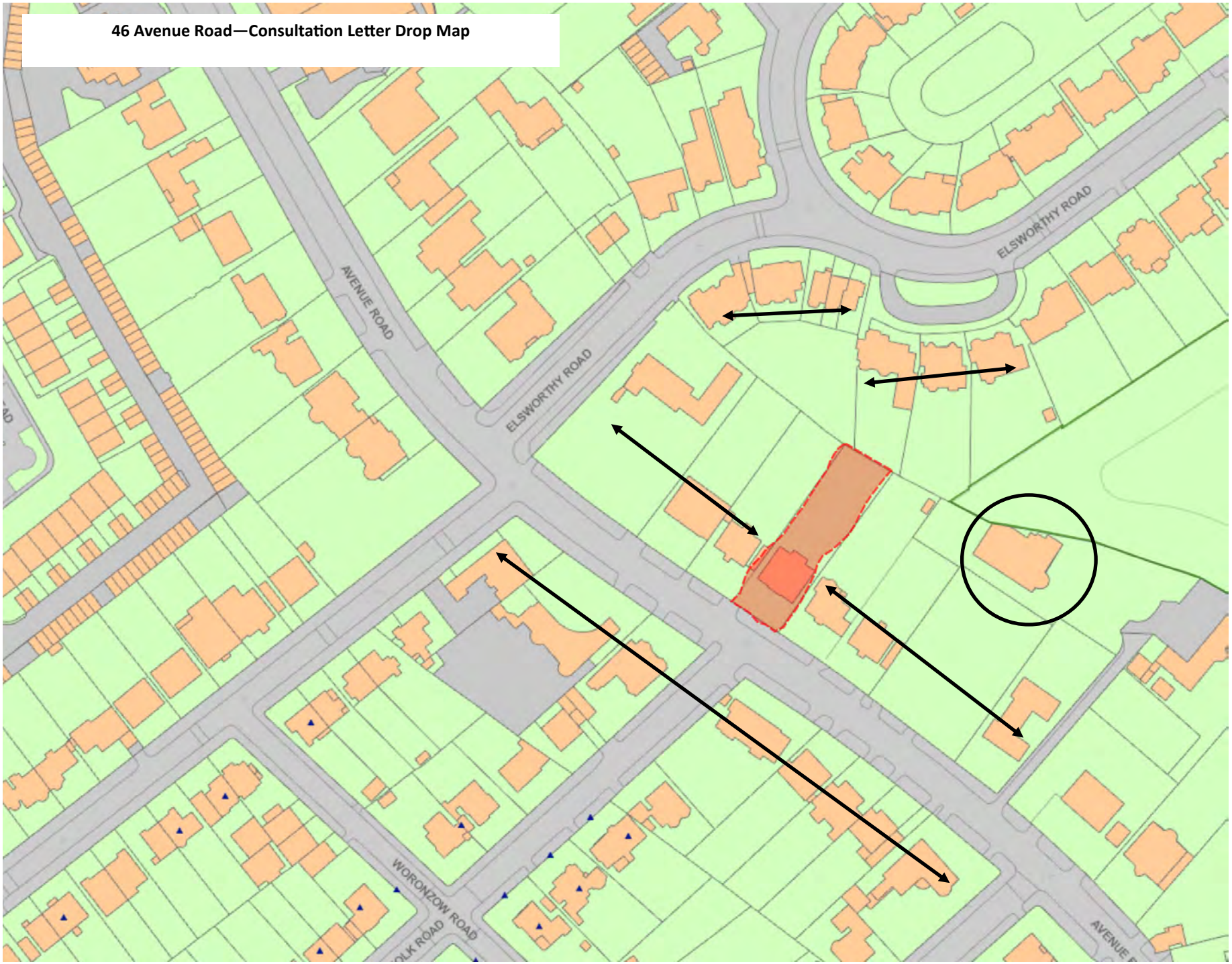
KNIGHT BUILD LIMITED
Design & Project Management / Basement Construction & Residential Developments
22 Childerditch Hall Drive, Brentwood, Essex, CM13 3HD
Telephone: 01277 810777, Fax: 01277 810744
Website: www.knightbuild.co.uk
Registered in England No: 2927566

KNIGHTBUILD

46 Avenue Road – Consultation Tracker

Letters Delivered To:	Response Requested By:	Date of Response:	Nature of Response:	Follow Up:	Comments / Notes:
23-03-2021 Residents and Neighbours of 46 Avenue Road (See attached Map)	**06/04/2021**				No responses received

46 Avenue Road—Consultation Letter Drop Map



KNIGHTBUILD

APPENDIX A4 : TRAINING CERTS

Camden

KNIGHTBUILD

KNIGHTBUILD

Certificate of Competence

British Standard 5228: 2009

Noise & Vibration Control on Construction and Open Sites
Training Venue: KBL Head Office, Brentwood

This is to certify that

Gabriel Knight

Successfully demonstrated the required level of competence and knowledge covering Regulations, Legal Duties, Industry Best Practice, Acceptable Limits, Action values and effective Control Measures.

For Knight Build Limited

Signed ....

Daniel O'Leary
Training Officer

This certificate is valid for two years

Certificate Number: KBL/NVC/013 *Dated: 23rd September 2019*

Knight Build Limited
www.knightbuild.co.uk

KNIGHTBUILD

KNIGHTBUILD

Certificate of Competence

British Standard 5228: 2009

Noise & Vibration Control on Construction and Open Sites
Training Venue: KBL Head Office, Brentwood

This is to certify that

Mohammed Abdul-Kadiri

Successfully demonstrated the required level of competence and knowledge covering Regulations, Legal Duties, Industry Best Practice, Acceptable Limits, Action values and effective Control Measures.

For Knight Build Limited

Signed ....

Daniel O'Leary
Training Officer

This certificate is valid for two years

Certificate Number: KBL/NVC/016 *Dated: 23rd September 2019*

Knight Build Limited
www.knightbuild.co.uk

KNIGHTBUILD

KNIGHTBUILD

Certificate of Competence

British Standard 5228: 2009

Noise & Vibration Control on Construction and Open Sites
Training Venue: KBL Head Office, Brentwood

This is to certify that

Rudy Murphy

Successfully demonstrated the required level of competence and knowledge covering Regulations, Legal Duties, Industry Best Practice, Acceptable Limits, Action values and effective Control Measures.

For Knight Build Limited

Signed ....

Daniel O'Leary
Training Officer

This certificate is valid for two years

Certificate Number: KBL/NVC/015 *Dated: 23rd September 2019*

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Certificate of Competence

British Standard 5228: 2009

Noise & Vibration Control on Construction and Open Sites
Training Venue: KBL Head Office, Brentwood

This is to certify that

Shane Faherty

Successfully demonstrated the required level of competence and knowledge covering Regulations, Legal Duties, Industry Best Practice, Acceptable Limits, Action values and effective Control Measures.

For Knight Build Limited

Signed ....

Daniel O'Leary
Training Officer

This certificate is valid for two years

Certificate Number: KBL/NVC/012 *Dated: 23rd September 2019*

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APPENDIX A5 : RISK ASSESSMENTS

Camden

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Air Quality/Dust Risk Assessment

The following Risk Assessment has been developed in accordance with the mayors Control of Dust and emission during construction and demolition – Supplementary Planning Guidance.

Based on the SPG and consulting engineers report, the 4 main site activities and their dust emission magnitude are as follows in line with the colour coded scale:

LARGE	
MEDIUM	
SMALL	

ACTIVITY	DUST EMISSION MAGNITUDE
Demolition	Medium
Earthworks	Medium
Construction	Medium
Trackout	Medium

The Risk of Sensitivity of the Surrounding Area and the risk of Dust Emissions are defined using the following scale:

HIGH RISK	HIGH
MEDIUM RISK	MEDIUM
LOW RISK	LOW

The Summary of Sensitivity of Surrounding Area:

Potential Impact	RISK			
	Demolition	**Earthworks**	**Construction**	**Trackout**
Dust Soiling	High	High	High	High
Human Health	Low	Low	Low	Low

The Summary of Risk Effects to define site specific mitigation:

Potential Impact	RISK			
	Demolition	**Earthworks**	**Construction**	**Trackout**
Dust Soiling	Medium	Medium	Medium	Medium
Human Health	Low	Low	Low	Low

The Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance (SPG) provides extensive coverage on the possible dust and emissions control measures. The following Risk Assessments and control measures have been developed based on the guidance.

It was also noted that any vehicles accessing the site during the construction phase should comply with the Low Emission Zone standards as a minimum requirement and that engine idling should be avoided.

KBL are a FORS GOLD accredited and we have shown that we operate our vehicles to the highest of standards. We have implemented procedures to ensure that not only are the safety standards of our fleet above and beyond complaint but that our CO2 emissions are reduced during vehicle movements to and from our sites. This was achieved and submitted to FORS during our FORS GOLD application.

As an accredited FORS GOLD company, we ensure that all of our supply chain is a minimum of FORS Bronze accredited so that customers and residents alike can be assured that only the highest quality fleet and drivers are delivering to our sites.

The company promote an anti-idling policy which is displayed on all our projects together with site rules for the fleet operators on our Logistics Information Board. A copy of the same is also sent to all our supply chain to ensure compliance prior to any appointments or deliveries to site.

This ensures that the negative impact that construction vehicles may have on the air quality and the environment are greatly minimised and the risk reduced.

APPENDIX 7 AIR QUALITY CONTROL

MEASURES RELEVANT FOR DEMOLITION, EARTHWORKS, CONSTRUCTION AND TRACK-OUT

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Site management			
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.		XX	XX
Develop a Dust Management Plan.		XX	XX
Display the name and contact details of person(s) accountable for air quality pollutant emissions and dust issues on the site boundary.	XX	XX	XX
Display the head or regional office contact information.	XX	XX	XX
Record and respond to all dust and air quality pollutant emissions complaints.	XX	XX	XX
Make a complaints log available to the local authority when asked.	XX	XX	XX
Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the local authority when asked.	XX	XX	XX
Increase the frequency of site inspections by those accountable for dust and air quality pollutant emissions issues when activities with a high potential to produce dust and emissions and dust are being carried out, and during prolonged dry or windy conditions.	XX	XX	XX
Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and the action taken to resolve the situation is recorded in the log book.	XX	XX	XX

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Hold regular liaison meetings with other high risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised.			XX
Preparing and maintaining the site			
Plan site layout: machinery and dust causing activities should be located away from receptors.	XX	XX	XX
Erect solid screens or barriers around dust activities or the site boundary that are, at least, as high as any stockpiles on site.	XX	XX	XX
Fully enclosure site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	X	XX	XX
Install green walls, screens or other green infrastructure to minimise the impact of dust and pollution.		X	X
Avoid site runoff of water or mud.	XX	XX	XX
Keep site fencing, barriers and scaffolding clean using wet methods.	X	XX	XX
Remove materials from site as soon as possible.	X	XX	XX
Cover, seed or fence stockpiles to prevent wind whipping.		XX	XX
Carry out regular dust soiling checks of buildings within 100m of site boundary and cleaning to be provided if necessary.		X	XX
Provide showers and ensure a change of shoes and clothes are required before going off-site to reduce transport of dust.			X
Agree monitoring locations with the Local Authority.		XX	XX
Where possible, commence baseline monitoring at least three months before phase begins.		XX	XX

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Put in place real-time dust and air quality pollutant monitors across the site and ensure they are checked regularly.		XX	XX
Operating vehicle/machinery and sustainable travel			
Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone.	XX	XX	XX
Ensure all non-road mobile machinery (NRMM) comply with the standards set within this guidance.	XX	XX	XX
Ensure all vehicles switch off engines when stationary – no idling vehicles.	XX	XX	XX
Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where possible.	XX	XX	XX
Impose and signpost a maximum-speed-limit of 10mph on surfaced haul routes and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).	X	X	XX
Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.		XX	XX
Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).	XX	XX	XX
Operations			
Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	XX	XX	XX

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Ensure an adequate water supply on the site for effective dust/particulate matter mitigation (using recycled water where possible).	XX	XX	XX
Use enclosed chutes, conveyors and covered skips.	XX	XX	XX
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	XX	XX	XX
Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.		XX	XX
Waste management			
Reuse and recycle waste to reduce dust from waste materials	XX	XX	XX
Avoid bonfires and burning of waste materials.	XX	XX	XX

MEASURES SPECIFIC TO DEMOLITION

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	X	X	XX
Ensure water suppression is used during demolition operations.	XX	XX	XX
Avoid explosive blasting, using appropriate manual or mechanical alternatives.	XX	XX	XX
Bag and remove any biological debris or damp down such material before demolition.	XX	XX	XX

MEASURES SPECIFIC TO EARTHWORKS

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces.		X	XX
Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil.		X	XX
Only remove secure covers in small areas during work and not all at once.		X	XX

MEASURES SPECIFIC TO CONSTRUCTION

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Avoid scabbling (roughening of concrete surfaces) if possible	X	X	XX
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place	X	X X	XX
Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.		X	XX
For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.		X	X

MEASURES SPECIFIC TO TRACKOUT

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK
Regularly use a water-assisted dust sweeper on the access and local roads, as necessary, to remove any material tracked out of the site.	X	XX	XX
Avoid dry sweeping of large areas.	X	XX	XX
Ensure vehicles entering and leaving sites are securely covered to prevent escape of materials during transport.	X	XX	XX
Record all inspections of haul routes and any subsequent action in a site log book.		XX	XX
Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems and regularly cleaned.		XX	XX
Inspect haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable;		XX	XX
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	X	XX	XX
Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.		XX	XX
Access gates to be located at least 10m from receptors where possible.		XX	XX
Apply dust suppressants to locations where a large volume of vehicles enter and exit the construction site		X	XX

XX Highly Recommended X Desirable

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Risk Assessment No. KB /RA/001

SPECIFIC RISK ASSESSMENT

Site Name: 46 Avenue Road		**Site Number: TBC**
Site Location: London, NW8 6HS		**Specialist Discipline: Control of Dust and Emissions.**
Assessor: Dominick Gallagher	**Signed:**	**Date: March 2021**

Activity / Element	Full Description of Hazards	Who at risk	Initial Risk Rating			Control Measures Specified	Residual Risk Rating		
			L	C	R		L	C	R
Pre-Site Preparation	Failure to plan site activities to deal with specific pollution problems (dust and emissions).	All	H	H	H	1. Follow best practice and prevent dust and other pollutant emissions from being carried outside the boundary. 2. Compile method statements and risk assessments. 3. Machinery, fuel and chemical storage and dust generating activities will not be located close to boundaries and sensitive receptors if at all possible. 4. Erect effective barriers around dusty activities (The front of the site will be fully scaffolded with a monarflex screen) 5. Notify the Local Authority Building Control Team. 6. Inventory and timetable of all dust generating activities. 7. Erection of solid barriers to site	L	L	L

						boundary. 8. All site personnel to be fully trained. 9. Identify responsible person in charge.			
Haul Routes, Access Routes	Generation of dust and emissions, Failure to maintain Haul and access routes	All	H	H	H	1. Use consolidated surfaces on all haul roads (Tarmac) to reduce dust emissions. 2. Regularly inspect all access and haul roads for integrity and repair if required. 3. Daily sweeping and cleaning. 4. Impose speed limits.	L	L	L
Damping down haul routes both within and outside the site	Forming of wet areas. Causing splashing, Generating puddles.	All	H	H	H	1. Approved wet methods or mechanical road sweepers on all roads during periods of dry weather. 2. Clean road edges and pavement using wet method. 3. Use approved wet method or mechanical road sweepers on all roads at least once a day. 4. Provide hard standing areas for vehicles and regularly inspect and clean these areas. 5. Where possible use sustainable sources of water, e.g. dewatering or extraction holes. 6. Contact the Environment Agency to recycle any collected material or run-off	L	L	L

						water – according to legal requirements.			
Vehicles	Dust and emissions created by vehicles.	All	H	H	H	1. We will carry out the following controls to reduce dust and particulates associated with vehicles- such as that from exhaust emissions, the contact of tyres on the road surface or dust blowing from material being carried. 2. All vehicles must switch off engines – no idling. 3. Set speed limits. 4. Cover and secure all loads entirely with clean sheets that are entering and leaving the site. 5. Wash vehicle wheels when leaving site. 6. Reduce the number of vehicle movements where possible. 7. Control of queuing or parked vehicles outside the site both during and before the site opens.	L	L	L
Site monitoring protocols	Managing the generation of dust and emissions. Dust and emissions from works activities. Dust and emissions from vehicles.	All	H	H	H	1. Employ best practice at all times. 2. Take into account the impact of dust and particulates on occupational exposure standards to minimise worker exposure and breaches of air quality objectives that may occur outside of the site boundary such as by visual assessment 3. Keep an accurate log of complaints from	L	L	L

						the public.. 4. Determine the prevailing wind direction across the site and plan site activities to suit. 5. Monitor dust deposition and spoiling rates as these can be used to indicate nuisance. 6. We will carry out a visual inspection of site activities, dust controls and site conditions and record in a daily dust log. 7. We will appoint a designated person to regular monitor air quality on a daily basis on this site using a hand held monitor and check against site set limits. 8. The site set limit on this site will be 250 ugG/m3 over 15 minutes (or 200 ug/m3 for TEOM measurement).			
Site entrances / exits	Dust and emissions escaping through site entrance. Build-up of dust and emissions at site entrance. Mud and dust on the road.	All	H	H	H	1. We will employ the following control measures to help prevent dust being spread outside the site boundary by site vehicles at entrances and exits. 2. All vehicles to be inspected prior to leaving site 3. Full time traffic marshal to be in place during all working hours 4. Wheel-wash all vehicles entering and leaving the site.	L	L	L

						5. Traffic marshal controlling the site entrance. 6. Put in place procedures for effective cleaning of vehicles and inspection which should include full inspection of underside and wheels of vehicle. 7. Ensure the loading of materials is done with the lowest drop height. 8. Vehicles carrying dusty materials should be securely covered before leaving site. 9. Enter all information of all vehicles entering/leaving site in a log book.			
Mobile crushing plant.						**NO CRUSING TO TAKE PLACE ON SITE**			
Excavation and earthworks.	Dust and emissions generated by works activity.	All	H	H	H	1. All dusty activities should be damped down, especially during dry weather. 2. Temporarily cover earthworks where possible. 3. Re-vegetate exposed areas to stabilise surfaces.	L	L	L
Stockpiles and storage mounds.	Dust and emissions generated from stockpiles. Loose materials blowing across site	All	H	H	H	1. Do not maintain long term stockpiles on site. 2. Minimise drop heights to control the fall of materials (dust) 3. Keep stock piles away from the site boundary.	L	L	L

	and in to public areas.					4. Cover stock piles if possible. 5. Take into account the predominant wind direction when siting the position of stockpiles. 6. Reuse hard-core where possible to avoid unnecessary vehicle movements. 7. Erect fences of similar height and size to the stockpile to act as wind barriers and keep these clean using wet methods 8. Keep stock piles damped down.			
Cutting, grinding and sawing.	Dust and emissions generated from cutting, grinding and sawing work activities.	All	H	H	H	1. All equipment should be fitted with water suppressant systems. 2. Use dust extraction techniques where possible. 3. Do not carry out cutting activities where dust is driven directly into public areas. 4. Use pre-cut materials where possible. 5. Use local exhaust ventilation	L	L	L
Chutes and skips	Dust and emissions generated from the loading of skips and the using of chutes.	All	H	H	H	1. Securely cover skips. 2. Minimise drop heights. 3. Regularly damp down surfaces with water. 4. Completely enclose skips where possible. 5. Do not carry out works in windy conditions	L	L	L
Scabbling.	Dust and emissions	All	H	H	H	1. Best Practice management must be in	L	L	L

	generated by Scabbling works.					place at all time. 2. Avoid scabbling works where ever possible. 3. Pre-wash works surfaces. 4. Screen off works areas 5. Vacuum up all dusty residue rather than sweeping away.			
Demolition.	Dust and emissions generated from demolition works and activities.	All	H	H	H	1. All dusty activities should be damped down, especially during dry weather. 2. Strip and screen the building with suitable material and strip the inside of the building before demolition begins. 3. Notify the Health and Safety Executive of the works to take place. 4. Only licenced and competent operatives will be used. 5. Clearly identify the location of asbestos containing materials before starting work. 6. Procedures put in place to sample and analyse suspect materials. 7. Independent air sampling will be carried out to ensure standards are met. 8. Disposal of asbestos-containing materials to licensed waste sites according to HSE guidelines before the demolition works commence. 9. Materials will be removed from site as soon as possible to reduce stock piling.	L	L	L

Waste Disposal /Burning	Dust and emissions generated from waste disposal and burning activities	ALL	H	H	H	1. There will be no burning allowed on site at any time. 2. All excess material will be used elsewhere on site, sent to other sites to be used, sent to transfer stations for recycling, sent back to the supplier for re-stacking or at the very last resort sent to landfill. 3. All skips to be labelled and sorted where possible. 4. Materials to be stored away from sensitive locations. 5. We will employ a just-in-time delivery system to reduce the amount of time materials are stored on site.	L	L	L

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Dealing with spillages	Emissions and contamination rising from spillages.	All	H	H	H	1. The following measures will be implemented on this project. 2. Bunded areas will be used wherever practicable. 3. Regular site inspections will be carried out looking for spillages. 4. Spill kids will be placed around the site and operatives trained in their use. 5. Certain spillages will be cleaned using agreed wet handling methods. 6. Vacuum and sweep activities will be regularly carried out to prevent the build-up of fine waste dust material, which is spilled on the site, and is designated as waste and will be removed from site as per the site waste management plan. 7. The Environment Agency, London Fire and Emergency Planning Authority (LFEPA) will be informed if harmful substances are spilled.	L	L	L

L = Likelihood **C = Consequence** **R = Risk (Likelihood x Consequence)**	**Likelihood: Low Risk = L, Medium Risk = M, High Risk = H,** **Consequence : Low Risk = L, Medium Risk = M, High Risk = H,**

SITE : 46 AVENUE ROAD, NW8 6HS:

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SITE ENVIRONMENTAL RISK ASSESSMENT

Form EP07-B	ENVIRONMENTAL RISKS AND OPPORTUNITIES ASSOCIATED WITH ACTIVITY														
ACTIVITY	Dust And Emissions	Noise	Vibration	Emissions & odours	Pollution of water courses	Pollution of ground water	Ground contam-ination	Archaeology	Wildlife & countryside	Wastes arisings	Recoverable materials	Use of energy	Use of water	Use of raw materials	Others (state)
Guidance Ref.															
Site survey	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Site set up	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	✓		✓	✓	✓	
Site clearance	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓	✓	
Demolition	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓	✓	✓	✓	
Asbestos removal	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓	✓	
Waste removal & disposal	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓	✓	
Piling	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓	✓	✓	✓	
Groundwork's	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓	✓	✓	✓	
Drainage	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓	✓		✓	
Concrete Activities	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓	✓	
Structural Erection	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Brickwork	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Cladding including windows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Roads & kerbs/external works	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓	✓	
Services-electrical	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Services-mechanical	N/A	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Roofing	N/A	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Internal partitions	N/A	✓	✓	✓	N/A	✓	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Ceilings	N/A	✓	✓	✓	N/A	✓	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Carpentry & joinery	N/A	✓	✓	✓	N/A	✓	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Floor finishes	N/A	✓	✓	✓	N/A	✓	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Decorations	N/A	✓	✓	✓	N/A	✓	N/A	N/A	N/A	✓	✓	✓	✓	✓	
Personnel, transport to/from site	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	

SITE ENVIRONMENTAL RISK ASSESSMENT

Approved by: Dominick Gallagher

Date: March 2021

Key:

✓ Site specific measures required at this site

✓ No specific requirements beyond general environmental measures

Print Name: Paul O' Byrne

Position: H&S Manager

KNIGHTBUILD

APPENDIX A6 : Noise Survey/Construction Environmental Management

Camden

S61 Application

Project: 46 Avenue Road

Camden Council

Control of Pollution Act 1974

Application Form for Section 61 Prior Consent

Applicant's reference: KB/46AR/S61/001	**Application for Section 61 Consent for the works on site:** 46 Avenue Road, London, NW8 6HS
Camden Reference:	**From: 21st June 2021 to: 21st April 2023**

To Westminster City Council

We hereby make application for prior consent in respect of works to be carried out on the 46 Avenue Road, NW8 6HS project, specified below, under Section 61 of the Control of Pollution Act 1974.

Signed:

Name of signatory: Dominick Gallagher

Position: HSEQ Manager

Date: Revision 00 07/04/2021

Applicant:

Registered Office address:
Knight Build Ltd
Unit 22 Childerditch Industrial Park, Childerditch Hall Drive
Brentwood, Essex, CM13 3HD

Project Office for Correspondence and Site Office Postal address:
Knight Build Ltd
Unit 22, Childerditch Industrial Park, Childerditch Hall Drive
Brentwood, Essex, CM13 3HD

Telephone No.: 01277 810777 **Email:** dominick.gallagher@knightbuild.co.uk

ITEM	ITEM DESCRIPTION/SUMMARY
1. Site address	46 Avenue Road, London, NW8 6HS
2. Name and address of main contractor	Knight Build Ltd Unit 22 Childerditch Industrial Park Childerditch Hall Drive Brentwood Essex CM13 3HD
3. Particulars of work to be carried out	The construction works involve the retention of the front elevation to the existing property, demolition of the house behind and new accommodation being provided at basement level and a 3 storey house being rebuilt at the front.. These works will be carried out with the upmost care and consideration to neighbours and local residents with as little disruption and inconvenience caused as possible.
4. Methods to be used in each stage of construction	Construction methods are presented in Appendix A1
5. Hours of Work	Monday to Friday 8am to 6pm There will be no work activity on Saturday, Sundays or Public Holidays or outside the periods above that will be audible at the site boundary. Restricted hours for High impact activities if deemed necessary: Monday to Friday 9am to Noon and 2pm to 5.30pm if deemed necessary based on Noise modelling results enclosed.
6. Number, type and make of equipment and machinery (including heavy vehicles) stating Sound Power Levels	The plant and equipment associated with each phase of works is presented in Appendix A2.

7. Proposed steps to minimise noise and vibration.	The control measures detailed in this section have been developed in accordance with the proposed plant list, detailed in Appendix 10. Deviation from approved method statements will be permitted only with prior approval from relevant parties. This will be facilitated by formal review before any deviation is undertaken. Details of proposed steps to minimise noise and vibration are presented in Appendix A3.
8. Predicted Noise Levels	Predicted noise levels are presented in Appendix A4.
9. Approximate duration of works	Refer summary programme included as Appendix A6.
10. Site Plan	Attached in Appendix A5
11. Other Information	Predicted noise levels are presented in Appendix A4 which have been calculated using Noise Map Software in accordance with BS5228.
12. List of plans and documents attached	Appendix A1: Construction Methods of Working Appendix A2: Plant and Equipment Appendix A3: Proposed Steps to Minimise Noise and Vibration Appendix A4: Predicted Noise Levels Appendix A5: Site Plan Appendix A6 : Site Programme

Appendix A1: Construction Methods of Working

Demolition

A mid-size excavator (14-20T) will be used perform selected demolition at ground level, Saws are only anticipated for short periods of time.
Prior to demolition works commencing a scaffold will be erected around accessible elevations Around the entire structure. The scaffolding will be clad in monarflex or shrink wrap which will help reduce both the noise and dust emissions from the project.

Each area of demolition / wall(s) will be surveyed separately and a temporary structure design obtained where applicable showing all supports and props required to support the main structure whilst the walls and floors are removed.
Existing floors will be supported during all demolition works by the use of beams and props.
Sections of walls and floors are to be broken into manageable sizes as they are removed while selecting power tools with the lowest dB emissions in favour of more powerful noisy breakers.
Where steels have to be removed the preferred method will be burning using oxy-propane by competent personnel. The steels will be supported during burning to avoid any loud crashing on landing and instead will be lowered to ground using certified lifting equipment when burning is complete.
Where heavy plant and machinery is to be used such as excavators with silenced breaking attachments to remove reinforced concrete slabs, noise reduction techniques will be implemented as follows:

- All hired plant will not be older than 6 months old.
- All generators will be super silenced and will also have Echo Sound Barriers erected around the perimeter to encapsulate the sound.
- Where applicable excavators with breaking attachments will have a sound barrier exclusion zone in the form of Echo Barrier H2 acoustic noise absorbent system, which is proven to reduce noise emissions up to and above 20dB.
- All breaking attachment will be new and inspected regularly to ensure that there is no delay in the duration of demolition works.

Debris removed from walls and building will be loaded into bags and stored on site until such a time that it can be loaded directly into wait and load lorries and the preferred option of skips. If the conveyors are active during these operations the hard-core may be loaded onto the conveyor and then conveyed directly into skip. All conveyors will have a tarpaulin sheet down over the scaffold and lorry to minimise the escape of both noise and dust. Dust will be controlled by wetting down all demolition materials during the demolition activity and during the removal.
Both unattended and Hand held dust and noise monitors will be used on site and all readings will be recorded and notifications sent via email and text where accepted noise levels are breached and methods of works and tool selection will be re-visited and changed where necessary.

FIGURE 1.1: ATTENDED NOISE MONITORING

FIGURE 1.2: UNATTENDED NOISE MONITORING

Installation of Piles

1) Track rig into pile positions with mast in rest position.

2) Manoeuvre rig as close to required pile position as possible. Shut off/lock track controls.

3) Operate hydraulic control and pivot drill mast into vertical mode. Once in vertical position raise/lower drill mast so that mast foot/drill guide is firmly seated on ground.

4) Hydraulically adjust rig with rams, or pack to underside of track gear to ensure rig and mast are vertical.

5) Check mast foot for adequate bearing on ground.

6) Raise rotation gearbox and motors to top of mast (full travel).

7) Offer 1.0m section of 508mm temporary casing into clamp guide foot. Lower drilling head into tread and rotate backwards until tight and connected. Rotate backwards and apply downward pressure and drill casing into the soils. Disconnect drilling head by clamping the casing and rotate the drilling head forwards, once disconnected engage lift and pull the gearbox upwards.

8) Offer 1.0m section of 450mm auger into clamped casing, lower rotation unit and engage drive flange/spigot into lead auger flight. Insert fail-safe locking pins between drive flange/auger flight. Check mast/augers for verticality. When connecting sectional augers using manual handling techniques.

9) Rotate auger flights clockwise at same time as feeding rotation unit downwards and drill auger into casing, this will clear any soils within the steel casing tube.

10) Disconnect drive flange from auger and raise drilling head and mast, insert further 1.0 metre sections of auger, insert fail safe locking pin between the 2 sections of auger. Engage drive flange and drilling head, rotate the augers forward and express them into the soils with extreme torque and minimum rotation to prevent flighting of the soils. Disconnect drive head and lift mast and drilling head.

11) Offer 1.0m section of 508mm temporary casing onto already clamped section drilled into the soils, engage drilling head and rotate backwards to connect the treads within the casings, disconnect the clamps within the drilling foot, rotate backwards and apply downward pressure until 1.0m section has been introduced into the soils. Clamp casings and disconnect drilling head, lift mast and drilling head upwards.

12) Offer 1.0m section of 450mm auger into clamped casing, lower rotation unit and engage drive flange/spigot into lead auger flight. Insert fail-safe locking pins between drive flange/auger flight. Check mast/augers for verticality.

13) Lift gearbox with augers attached so that the bottom lead auger is now within the casings, engage forward rotation to clear the spoils within the temporary casing. Stop rotating and push drilling head down until refusal. Rotate the augers forward and express them into the soils with extreme torque and minimum rotation to prevent flighting of the soils. Disconnect drive head and lift mast and drilling head.

REPEAT THE ABOVE STEPS UNTIL THE CASINGS ARE FOUNDED IN STIFF COHESIVE CLAYS.

14) Once depth is attained, retrieve augers connect drilling head to augers and lift upwards until 1.0m section of auger is exposed above the installed casing, insert auger retrieval plate, lower drilling head until the weight is carried on the plate and casings, disconnect fail safe locking pin, lift drilling head and remove auger. Repeat this process until all the augers have been retrieved.

15) Clear any remaining spoils from around the pile, and remove the piling rig.

16) Check depth of pile and record.

17) Once the pile depth and verticality has been approved introduce the designed reinforcement into the bore and fix accordingly. Place concrete and fill bore until pile is full to piling platform level. Lower drive head unit, connect to casing and retract the casings rotating backwards. Clamp the now exposed 1.0m section of casing and undo by rotating forwards, disconnect from drive head and remove. Visually inspect that the concrete has not slumped beyond 500mm if it has top the concrete up. Repeat this process until all the casings have been retrieved from the now completed bore. Place protective board over pile head to prevent site personal from coming into contact with pile.

18) Track rig onto next pile position. Repeat set up and drilling procedure.

Please note that all of KBL piling rigs are fully compliant with the HSE guidance for Mini-piling. All of our machines have an interlocking safety cage. Once the interlocking cage is opened the rig realises reduced rotating speed, reduced feed speed and a hold to run controls.

The rigs also have Emergency Stop switches fitted. Both the Guard and the switches are tested at

the start of every shift to ensure they are in full working order, this is then recorded on the weekly inspection sheet, or if a fault is located it is reported to Head Office immediately, and piling is ceased until the fault is fixed.

When piling adjacent to the garden walls then arisings shall not be allowed to build up against/in front of the wall. Piles shall be completed in a hit and miss sequence with every third pile being installed and allowed to cure before commencing the next pile.

INTRODUCTION OF REINFORCEMENT INTO OPEN BORE

1) Inform Certified Banks man of which cage needs to be introduced first.

2) Connect lifting chains to the top part of the first reinforcement cage.

3) Lift Reinforcement cage up via the excavator machine Arm and manoeuvre to the open bore.

4) Place the designed spacers onto the helical cage, ensure they are free to move.

5) Introduce cage into open bore and lower.

6) Place bar across the casing and through the cage to allow disconnection of lifting chains, ensure that the required amount of splice is projecting.

7) Manoeuvre certified machine to connect onto additional reinforcement cage.

8) Lift cage and manoeuvre over to the exposed splice.

9) Very carefully lower reinforcement cage so that splices are joined.

10) Connect splice bars together with bull dog grips, torque the nuts so that the cages are tight and prevent any slippage. Offer plastic spacers to the cage to ensure the cage stays central within the bore when lowering.

11) Repeat the introduction of reinforcement until the required/designed amount is installed

12) Once the last cage has been introduced offer the foam De-bonding to the top bars and secure with cable ties.

Pile Logs and record of reinforcement shall be kept for all piles. All piles are to be integrity tested at cut off level prior to casting the capping beam or slabs.

Bulk Excavation

Excavation of the basement will begin once the piling has been completed. The excavation will predominately require the use of a 20+ ton excavator, and in order to carry out construction of basement a bulk excavation must be carried out which includes the following: Separate work area, mobilise plant/labour; excavate arising's; remove from site.
Lorries are to be managed to ensure that they do not stack up during the works. This is to be managed by the Logistics Manager and Traffic marshals. 2 no Traffic marshals will direct traffic / pedestrians as vehicles access / depart site, 1no to stop the pedestrians and the other to direct the vehicle.
Prior to the commencement of works a permit to dig will be issued by KBL and the operatives carrying out the works will be briefed in the conditions of the permit. Only when a permit has been issued will the works commence. Drawings showing the positions of all known services in the area

will be issued and will be actioned by Knight Build. All known services will be marked onto ground by KBL engineer. A CAT scan will be carried out over the area of the intended excavation before any excavation is commenced and any services found will be marked directly with spray paint or by offsets where this is more appropriate.
All operatives using the cable avoidance tool must have undergone the underground services training as a minimum Cat & Generator competency certs will be held on site. When the CAT scan has been carried out and has not located any underground services, and the record drawings do not indicate the possibility of underground services, excavation will proceed under the direction of a banksman using a mechanical excavator. Should, for whatever reasons, the Permit holder leave the works area, all excavations must be halted until the permit holder's return.
Where necessary but not envisaged, all hard break will be broken using hand held pneumatic breakers powered by the compressor by operatives wearing the correct PPE and after the CAT scan has been completed or an excavator mounted hydraulic pecker, the arisings from the hard break will be taken to a stock pile and removed at a later date to a licensed tip.
The area of excavation will be set out by the KBL engineer in conjunction using a rotary laser level to maintain the required level. Every 360° machine will be under the direction of a banks man who will monitor the depth of dig and also all loading operations. All excavated spoil will be loaded into a dumper or directly into a muck away lorry and removing it away from the excavated area.
Waste transfer notes will be issued by the waste carrier and all waste removed from site with be logged onto KBL Smart Waste for the duration of the project. All waste carriers licences will be held on site together with Permits for End Destination Tip.
The banksman will continually scan the ground in front of the excavator using the CAT for any unknown underground services.
Deep excavation signs will be erected in all areas of excavation throughout the works. All plant and equipment will be filled from the double skinned diesel bowser and a spill kit will be available on site at all times. No edges of excavation will be left overnight where someone may fall into an open excavation. All perimeters of the excavation areas are to be battered to prevent collapse and falls. Pedestrian barriers will be erected where required to prevent other operatives walking into excavation areas; signage will also direct other site users to safe walk ways across the site.
All dumper drivers will get off the dumper when being loaded and the engine will be turned off and the keys removed from the ignition. Designated routes will be agreed to the agreed stock pile, site operatives and members of public will be separated from this route by pedestrian barriers.

Substructure (Basement slabs and drainage)

Below ground drainage will be installed including manholes, gullies and pumping stations before blinding and the main concrete pours take place. Concrete will be poured to fill the basement floor evenly over the rebar which may be required to be cut to size.
Following excavation KBL will place and test all drainage, manholes, chambers and tanks including air tests and backfill. All plant and equipment used in these works will be supplied with the relevant certification, all hired in plant will not be older than six months and will be inspected and maintained daily on site.

Drainage operations will be controlled with a permit to work system; a permit to dig will be in place and signed by all involved in the works. A CAT scan will be carried out over the area of excavation before any excavation is commenced and any services found will be marked and identified.

Excavations will be dug using a 360 excavator operated by a trained certified (CPCS) operator. The excavator will work under the direction of a banksman. The excavation arisings from this operation will be loaded onto a conveyor which will discharge directly into a muck away vehicle situated in the loading bay outside of the property.

Once the excavation has been completed to the specified formation manholes or cast iron inspection chambers will be installed or constructed. The manhole base will be constructed using ready mix concrete delivered to site in small mixer lorries. This concrete will be placed either by a concrete pump or by the excavator bucket. Any build-up of dust and fumes will be combated using forced air ventilation via an air blower / extractor fan.

Following inspection and approval of the manhole the benching can be constructed. The benching pipe surround will be constructed of ready mix concrete in accordance with the specification topped with granolithic screed hand mixed on site.

The foul and surface water pump chambers will be of GRP construction as per the engineer's specification. The chambers will be lowered into the basement using a hoist under the direction of a certified slinger signaller. The excavation of the chamber will be carried out ensuring that the correct concrete surround can be placed prior to backfill. Once the chamber has been constructed and all drainage runs connected to the tanks and tested, the tanks will be surrounded with concrete to the specified level.

Concrete shall be compacted to the specification by use of a vibrating poker to ensure adequate compaction is achieved.

All pipes will be set from the lowest manhole back up the run. The pipe level will be set using a pipe laser set up by the site engineer. Where necessary, pipes will be cut on the side of the trench using an electric angle grinder. The pipes will be bedded in accordance with the specification and air tested before covering with surround material. The bedding and surround material will be placed using the excavator.

Once the pipes are laid and tested the upper manholes will be constructed.

Basement Slabs

Following completion of the basement excavation, underpin construction and the placement of the underground cast iron drainage the insitu reinforced concrete basement slab will be constructed to the latest construction drawings and specifications. Removal of all selected waste will be via the suspended parking bays/loading area in either skips or waste away vehicles.

All excavation works will be controlled by a permit to dig system, all operatives involved in the works will sign the permit and conform to its requirements. All plant and equipment used in these works will be supplied with the relevant certification, all hired in plant will not be older than six months and will be inspected and maintained daily on site.

Upon completion of reducing basement dig formation, the slab area will receive blinding. The blinding level will be surveyed while being installed / upon completion of installation.

Reinforcement will be delivered to site and unloaded and stored in the designated reinforcement storage area, all reinforcement will be delivered pre-fabricated and cut to the required length to eliminate/reduce cutting on site and unnecessary noise.

Reinforcement shall be lifted in accordance with an approved lifting plan and lifted into the basement area by the hoist into the position where it is to be used. Steel fixing shall commence systematically with the bottom mat laid out first. Any cutting that is required on site will be carried by using electric angle grinders instead of petrol saws.

As fixing of reinforcement progresses carpenters shall follow behind fixing the edge kicker around the

perimeter of the slab. Once the kicker shutters and steel fixing is complete the slab shall be blown out and cleaned. The slab shall then be checked for approval before placing concrete.

A mobile pump and lines will be utilised to place concrete and be operated by a certified operator. Concrete will be placed systematically and levelled progressively. Concrete pokers are to be used to ensure proper compaction. Laser levels or screed rails are to be used to ensure the concrete is spread to the correct level. The concrete shall be floated off using hand/easy floats. Concrete shall be called in just under the nearest load to minimise wastage and reduce the number of waste vehicles visiting site. Any remaining concrete shall be discharged in a controlled manner into a sheeted covered skip for recycling.

Superstructure (Vertical elements and RC frame)

RC columns and beams will be installed, followed by the concrete pour to cast the ground floor slab. Concrete will be poured to fill the floor evenly over the rebar which may be required to be cut to size. All RC vertical elements will be constructed to the required construction drawings and specifications. All plant and equipment used in these works will be supplied with the relevant certification, all hired in plant will not be older than six months and will be inspected and maintained daily on site. All loads will be slung by a qualified slinger signaller. All communications during these works will be carried out with the use of two way radios (where necessary) to prevent shouting and creation of unnecessary noise.

The KBL site engineer will set out the lines of the lining walls once the basement slab has been completed and then all vertical walls as the works progress. The top surface will be keyed by wire brushing the green concrete or by scabbling the hardened concrete. Waterproofing and water bar shall be installed as per specification and standard details. Steel fixers will place and tie wall steel. The rebar for the walls will be fixed from basement level using an alloy tower or low level podium if it is beyond reach from the slab. Formwork designs shall be obtained and approved by the project manager / temporary works co-ordinator.

The walls will be constructed conventionally in timber or with Peri Trio system formwork panels pre-assembled on site and lifted into position by hoist and lifting beam, using proprietary lifting clamps and chains. The panels will be propped, through ties fitted and access platform for pouring set up either using Ally towers or conventional scaffold, erected by a competent scaffolder.

A permit to load shall be in place prior to any fixing or reinforcement or placement of concrete. Concrete will be poured from a static concrete pump with operatives working from either an ally tower or conventional scaffold, erected by a competent scaffolder. Concrete will be placed at a controlled rate to ensure that the concrete pressure does not exceed the shutter design. Concrete will be compacted using high frequency electrically driven vibrating pokers, and all concrete pours will be undertaken by an experienced concrete gang. Once the concrete has cured sufficiently (the next day) the shutters will be struck and removed.

Concrete Pours

Concrete will be delivered to site in concrete wagons approved under Construction Traffic Management Plan for this project. This will generally be a in ready mix lorries (e.g. 6m3 26 tonne lorry) and traffic marshal will direct lorries into designated loading area. (inside the site during weeks 19-40)

For other areas of work as the project progresses and due to space limitations and restrictions a concrete pump and agitator will have to be used. This will involve the supply of a mobile concrete pump, agitator and concrete lines to complete the placing of the concrete. A certified pump operator will operate the pump and a linesman will be in assistance to lay and manage the concrete pump delivery lines. The makeup of the lines will be a mixture of flexible hose and steel hose, the lines man will be in attendance throughout the concrete pour to ensure that any changes or rectifications to the lines are carried out at once.

The concrete pump will be on site in an agreed location and under relevant licences where applicable. An exclusion zone will be set up around the concrete pump in the form of Heras fence panels which will have Echo Barrier H2 acoustic noise absorbent system attached. This will ensure that the noise levels are greatly reduced throughout the duration of concrete pumping works. Once all the concrete has been placed the lines will be blown clean into designated area, the lines will be broken down and removed where they will be properly cleaned.

Building Envelope and Fit Out

A scaffolding will be erected and will incorporate a loading gantry with lifting beams to the designated loading bays.
The scaffolding which will be clad in monaflex sheeting or equivalent will ensure that all envelope works are carried out safely and the monarlfex sheeting or similar will prevent the escape of dust and debris and will aid noise reduction.
All materials associated with the fit out will be delivered to site to designated loading bays and unloaded using the scaffold lifting beams. The protective gantry will ensure that pedestrians can pass safely by the works area and will not be affected by the lifting operations.
All waste arising from the fit out works will be either lowered internally between floors and loaded directly into waste skips or will be lowered using lifting hoists.

Appendix A2: Plant and Equipment

Activity ID	Activity	Plant Name	Reference	Lw	% On-Time	No. Plant
1	Site setup	Hand Tools	Measured	85	50	3
		Powered hand tools [1]	BS5228-1:2009 Table C.4:17	112	10	1
2	Installation of Piles	Mini Piling Rig	Average of BS 5228-1:2009+A1:2014 Table c.3:17-18	103.5	50	-
		Angle Grinder	BS5228-1:2009 Table C.4:93	108	5	1
		Electric Breaker (trimming piles)	Manufacturer value http://www.makita.com.hk/catalog/images/products/HM1317C_884923-224.pdf	104	5	6
		Deliveries & Removal - See Activity 13	-	-	-	-
3	Install Structural Supports	Hand Tools	Measured	85	50	3
		Angle Grinder [1]	BS5228-1:2009 Table C.4:17	108	10	1
4	Demolition	5T Excavator [1]	BS5228-1:2009 Table C.4:17	99	-	-
		Hand Tools	Measured	85	-	-
		Angle Grinder [1]	BS5228-1:2009 Table C.4:93	108	-	-
		Stihl Saw [1]	BS5228-1:2009 Table C.4:72	107	-	-
		Electric Breaker [1]	Manufacturer value http://www.makita.com.hk/catalog/images/products/HM1317C_884923-224.pdf	104	-	-
		Deliveries & Removal - See Activity 13	-	-	-	-
		Hoist & Conveyor - See Activity 10	-	-	-	-
5	Underpinning (not used)	Electric Breaker [1]	Manufacturer value http://www.makita.com.hk/catalog/images/products/HM1317C_884923-224.pdf	104	10	2
		Stihl Saw [1]	BS5228-1:2009 Table C.4:72	107	5	1
		Water Pump - Contingency [1]	BS5228-1:2009 Table C.2:45	93	20	1
		Angle Grinder [1]	BS5228-1:2009 Table C.4:93	108	5	1
		5T Excavator [1]	BS5228-1:2009 Table C.4:17	99	10	1
		Hand Tools [1]	Measured	85	50	3
		Poker Vibrator [1]	Average of BS 5228-1:2009+A1:2014 Table c.4:33-34	102	5	1
		Deliveries & Removal - See Activity 13	-	-	-	-
		Concrete Deliveries - See Activity 11	-	-	-	-
		Hoist & Conveyor - See Activity 10	-	-	-	-

TABLE 2.1: ACTIVITY PLANT, EQUIPMENT REFERENCES, PERCENTAGE ON-TIMES AND QUANTITIES

Notes: [1] a -10 dB correction has been applied to the displayed noise levels to account for localised screening/ internal workings; [2] % on times relate to an 8hr working day.

Activity ID	Activity	Plant Name	Reference	Lw	% On-Time	No. Plant
6	Excavation	Hand Tools [1]	Measured	85	60	3
		5T Excavator [1]	BS5228-1:2009 Table C.4:17	99	50	1
		Water Pump - Contingency [1]	BS5228-1:2009 Table C.2:45	93	20	1
		Cement Mixer [1]	Average of BS 5228-1:2009+A1:2014 Table c.4:18-19	101	20	1
		Stihl Saw [1]	BS5228-1:2009 Table C.4:72	107	5	1
		Deliveries & Removal - See Activity 13	-	-	-	-
		Hoist & Conveyor - See Activity 10	-	-	-	-
7	Substructure (Including Drainage Works)	Poker Vibrator	Average of BS 5228-1:2009+A1:2014 Table c.4:33-34	101.5	5	1
		Water Pump - Contingency [1]	BS5228-1:2009 Table C.2:45	93	20	1
		Hand Tools	Measured	85	50	2
		Angle Grinder [1]	BS5228-1:2009 Table C.4:93	108	10	1
		Concrete Deliveries - See Activity 11	-	-	-	-
		Hoist & Conveyor - See Activity 10	-	-	-	-
8	Superstructure	Poker Vibrator	Average of BS 5228-1:2009+A1:2014 Table c.4:33-34	101.5	5	1
		Hand Tools	Measured	85	50	2
		Angle Grinder [1]	BS5228-1:2009 Table C.4:93	108	10	1
		Concrete Deliveries - See Activity 11	-	-	-	-
		Hoist & Conveyor - See Activity 10	-	-	-	-
9	Finishes & Contingency	Hand Tools	Measured	85	60	3
		Deliveries & Removal - See Activity 13	-	-	-	-
10	Hoist & Conveyor	Conveyor	BS 5228-1:2009+A1:2014+A1:2014 Table C.10:23	81	50	1
		Hoist	BS5228-1:2009 Table C.4:61	96	25	1
11	Concrete Pumping	Concrete Pump/Delivery	BS5228-1:2009 Table C.4:28	103	10	2
12	Spoil Removals	Loading Spoil	Average of BS 5228-1:2009+A1:2014 Table C.2:26-28	106	5	4
		HGV Arrive/Depart	BS 5228-1:2009+A1:2014 Table D.7:121	98	1	4
13	Deliveries & Removals	Loading/Unloading Delivery	Average of BS 5228-1:2009+A1:2014 Table D.7:2-3	98	5	8
		HGV Arrive/Depart	BS 5228-1:2009+A1:2014 Table D.7:121	98	1	8

TABLE 2.1 (CTD): ACTIVITY PLANT, EQUIPMENT REFERENCES, PERCENTAGE ON-TIMES AND QUANTITIES

Notes: [1] a -10 dB correction has been applied to the displayed noise levels to account for localised screening/ internal workings; [2] % on times relate to an 8hr working day.

Appendix A3: Proposed Steps to Minimise Noise and Vibration

General Noise and Vibration Control Measures

Site Personnel

All operatives on site will be trained to ensure that noise minimisation is implemented at all times. Operatives will also be trained in line with the Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974). Works will be checked regularly by site management to ensure that BPM are being undertaken and where necessary corrective actions implemented.

Employees must show consideration to the sensitive receptors, including residential neighbours, and must not generate unnecessary noise when walking to and from the site, or when leaving from, and arriving, at work.

Community Engagement

- details of the site personnel responsible for noise and vibration, the head office, the duration of the project and site working hours, will be displayed on the site boundary;
- letter drops to neighbouring residents before work begins giving the information identified in Table 1 of the CoCP;
- website with site information and contact email address will be provided;
- liaison with neighbouring construction sites to co-ordinate works as far as practicable, particularly off-site vehicle movements, to avoid waiting vehicles;
- establish contact with the relevant residents' association, meetings with residents at appropriate intervals, minutes of meeting and agreed actions circulated to residents;
- site will keep an observations, investigations and complaints log, to be made available to RBKC on request; and
- all complaints will be responded to.

Plant Choice and Management

- choice of methodology/technique for operations (including site layout) will be considered in order to eliminate or reduce emissions at sensitive locations;
- fixed items of construction plant will be electrically powered where practicable in preference to diesel or petrol driven;
- noisy plant will be kept as far away as possible from sensitive areas;
- each item of plant used will comply with the noise limits quoted in the relevant European Commission Directive 2000/14/EC/United Kingdom Statutory Instrument (SI) 2001/1701 where reasonably available;
- equipment will be well-maintained and will be used in the mode of operation that minimises noise;
- plant which is classified as 'high impact activities' in the CoCP will be limited to working between 09:00 – 12:00 hrs & 14:00 – 17:30 hrs Monday to Friday; and
- a temporary builder's power supply will be applied for in advance if no existing supply is available

Vehicles

- equipment will be shut down when not in use or throttled down to a minimum during waiting periods;
- vehicles shall not wait or queue on the public highway with engines running (unless the engine is required to power the operation of the vehicle e.g. concrete wagon);
- deliveries will be co-ordinated to prevent vehicles queuing outside site; and
- where possible and safe the vehicle reversing alarms will be switched off and banksman will be used to guide the vehicles to the site.

Site Specific Noise and Vibration Control Measures

- where breakers are required, multiple breakers will be employed such that the usage period is reduced;
- where percussive breaking techniques are required, concrete slabs will be cut, where possible, to isolate the slab, thus reducing the transmission of vibration;
- where powered tools are required they are to be screened as far as reasonably practicable to reduce potential impact;
- compressors and generators will be isolated from the floor where reasonably practicable;
- spoil is to be transported into tipper lorries. Vehicles being loaded are to sit with their engines off to minimise noise emitted;
- spoil will be loaded into lorries in a such a manner as to minimise impact noise;
- where possible softer materials (such as soils) will be loaded into lorries first to form a cushioning barrier to rubble and other hard materials to reduce impact noise;
- concrete pumps will be located so as to minimise potential adverse effects at sensitive receptor locations, whilst taking into account logistical restrictions;
- static dewatering plant will be located in semi-permanent enclosures;
- inspections to be carried out during works to ensure the condition of surrounding buildings is not impaired;
- CFA piling will be used for the construction of the main building piles to minimise noise and vibration emissions - impact piling will not be permitted on this project; and
- where practicable, non-percussive pile reduction techniques will be used to control disturbance.

Monitoring Regime

As part of the overall management of noise and vibration effects, an appropriate programme to monitor ambient noise and vibration levels will be devised prior to the commencement of construction works.

The purpose of the environmental monitoring is to enable on-going and proactive management of noise and vibration effects to comply with the principles BPM and the limits agreed with the Noise and Nuisance Team.

The typical vibration monitoring approach is for displacement monitoring to be undertaken independently by Galcross Engineering.

Action Trigger Level	Action
Amber 3.0 mms-1	If the Amber trigger level is reached the engineers will attend site to inspect the area locally for signs of new defects. If no new defects are reported then work can proceed. Should new defects be visible then the contractor should stop works in these areas and the defects should be recorded with photos and distributed to the project and checking engineers for comment. The contractor should await instructions prior to proceeding in the associated area.
Red 5.0 mms-1	If the Red trigger level is reached the contractor is to stop works putting in place any measures to prevent further movement. The project and temporary works engineers are to be informed and proposals put forward to limit further movements during the construction.

Monitoring is to be undertaken weekly during the structural/basement works. Results shall be sent directly to the adjoining surveyors/checking engineers.

Vibrock Vibration monitors (V901) to be set up in addition to the displacement monitoring shown above. Vibration Monitor 1 will be located in close proximity with the boundary of No.44 Avenue Road and Vibration monitor 2 will be set up on the opposite elevation, in close proximity to No. 48 Avenue Roa

Monitoring Locations

Continuous unattended noise and vibration monitoring is proposed to be undertaken at suitable locations around the site to be agreed with the Noise and Nuisance Team. It is proposed to monitor noise and vibration at NV1 and NV2. Additionally, it is proposed to undertake attended noise monitoring at the commencement and during potentially disturbing activities such as pile breaking works at locations marked S1 to S4 as presented below in Figure 3.1.

FIGURE 3.1: PROPOSED NOISE MONITORING

Attended and unattended measurements will be used to validate calculated construction noise levels.

- Attended noise monitoring

- Unattended noise monitor

Please note the remote noise monitor which will be used will be a Cirrus Research sound Level Meter and CK:670 Outdoor kit Serial number G068049 last calibrated on 26th June 2020 (Calibration certificate number 261223)

Monitoring Duration

Based on the construction programme and risk assessments that have been undertaken and this document, it is proposed that noise and vibration monitoring as defined above continue through phases of work where High Impact Activities are identified.

Suitability

The monitoring proposal will be subject to agreement with Camden Noise and Nuisance Team and other stakeholders.

On-going review of monitoring locations should be undertaken throughout the duration of the project in response to periods of intense construction work or following receipt of concerns raised by nearby receptor occupants.

Reporting

Monitoring data will be communicated in a monthly report containing presentation of the continuous

monitoring data, with assessment against any relevant Site Action Levels including the cause and times that any exceedances occurred, and the action taken to stop the exceedance and prevent re-occurrence. A copy will be issued to Camden Noise and Nuisance Team on request.

In addition to monthly reports, monitoring data will be remotely accessible to enable on-demand interrogation; however, this will only be possible if the site conditions allow a suitable signal to be achieved. Furthermore, instant email alerts will be sent to relevant site personnel when Site Action Levels are exceeded. System checks will be competed on the first working day of the week to ensure the monitors are functioning correctly and logging data.

Appendix A4: Predicted Noise Levels

Calculation Assumptions

Construction noise levels are calculated using the methodology presented in BS 5228-1:2009+A1:2014 - Code of practice for noise and vibration control on construction and open sites, implemented within the software modelling package NoiseMap Five.

Façade noise levels are predicted at sensitive receptor locations at each floor specific to the identified receptor location, with the height of intervening floor repetitions being 2.5 m. The results for the 1st floor (assumed to be at 4.0 m are displayed below).

It should be noted that only the airborne contribution to the free-field level is presented as per the guidance set out in the Code of Construction Practice.

Rec. ID.	Receptor Address
R1	44 Avenue Road
R2	48 Avenue Road
R3	61 Avenue Road
R4	65 Avenue Road
R5	51 Elsworthy Road

Rec. ID.	Receptor Address	Calculated Activity Construction Noise Levels, dB $L_{Aeq,10hr}$						
		Site Setup	Piling	Install Structural Supports	Demolition	Underpinning	Excavation	Substructure
R1	44 Avenue Road	66.2	66.1	62.3	67.8	64.3	64.3	63
R2	48 Avenue Road	67.3	67.2	63.4	67.5	65.4	64.3	64.1
R3	61 Avenue Road	65.1	65	61.2	65.3	63.2	61.9	61.8
R4	65 Avenue Road	67.2	67.1	63.3	67.5	65.3	64.2	63.9
R5	51 Elsworthy Road	51.4	51.3	51.5	51.3	51.5	51.2	51.2

TABLE 4.1: CALCULATED CONSTRUCTION ACTIVITY NOISE LEVELS

Rec. ID.	Receptor Address	Calculated Activity Construction Noise Levels, dB $L_{Aeq,10hr}$					
		Superstructure	Envelope & Fit-Out	Hoist & Conveyor	Concrete Pumping	Spoil Removals	Deliveries & Removals
R1	44 Avenue Road	62.8	52	61.3	60.7	57.3	50
R2	48 Avenue Road	63.8	52.1	62.4	61.7	58.4	51.1
R3	61 Avenue Road	61.6	49.9	60.1	59.5	56.2	48.8
R4	65 Avenue Road	63.7	49.9	62.2	61.6	58.3	50.9
R5	51 Elsworthy Road	52.9	42.4	53.5	51.8	50.5	45.2

TABLE 4.1(CTD): CALCULATED CONSTRUCTION ACTIVITY NOISE LEVELS

Receptor Ref.	Receptor Address	Calculated Cumulative Construction Noise Levels, dB $L_{Aeq,10hr}$														
		Week No:														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
R1	44 Avenue Road	68	68	68	68.6	69.9	68.8	69.4	68.3	71.1	71.1	68.5	68.8	68.8	68.8	69.7
R2	48 Avenue Road	69.1	69.1	69.1	69.7	71	69.9	70.5	69.4	71.1	71.1	69.5	69.9	69.9	69.9	70.7
R3	61 Avenue Road	66.8	66.8	66.8	67.5	68.8	67.7	68.2	67.1	69.9	69.9	67.3	67.6	67.6	67.6	68.5
R4	65 Avenue Road	68.9	68.9	68.9	69.6	70.9	69.8	70.3	69.2	71	71	69.4	69.7	69.7	69.7	70.6
R5	51 Elsworthy Road	53.2	53.2	53.2	53.8	55.1	54	54.6	53.5	56.2	56.2	53.6	54	54	54	54.8

TABLE 4.2: CALCULATED AVERAGE WEEKLY CUMULATIVE CONSTRUCTION FREE-FIELD NOISE LEVELS

Receptor Ref.	Receptor Address	Calculated Cumulative Construction Noise Levels, dB $L_{Aeq,10hr}$														
		Week No:														
		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
R1	44 Avenue Road	69.7	69.7	69.7	69.7	66.6	67.1	70.2	70.9	70.9	70.2	70.9	69.8	70.9	70.3	70.9
R2	48 Avenue Road	70.7	70.7	70.7	70.7	67.7	68.2	71.2	71	71	71.2	71	70.9	71	71.3	71
R3	61 Avenue Road	68.5	68.5	68.5	68.5	65.5	66	69	69.7	69.7	69	69.7	68.7	69.7	69.1	69.8
R4	65 Avenue Road	70.6	70.6	70.6	70.6	67.6	68.1	71.1	70.8	70.8	71.1	70.8	70.8	70.8	71.2	70.9
R5	51 Elsworthy Road	54.8	54.8	54.8	54.8	51.8	52.3	55.3	56.1	56.1	55.3	56.1	55	56.1	55.4	56.1

Receptor Ref.	Receptor Address	Calculated Cumulative Construction Noise Levels, dB $L_{Aeq,10hr}$														
		Week No:														
		31-52	53-104													
R1	44 Avenue Road	70.9	65.9													
R2	48 Avenue Road	71	66													
R3	61 Avenue Road	69.8	63.8													
R4	65 Avenue Road	70.9	62.9													
R5	51 Elsworthy Road	56.1	51.1													

Appendix A5 - Site Plan

The following shows the full extent of the site.

FIGURE 5.1: Site Location

FIGURE 5.1: Sensitive Receptor Locations

Appendix A6 - Programme

A work programme showing weekly construction activities scheduled to take place for the project is presented below in Table 6.1.

Activity No.	Activity Name	Start	End
1	Site Setup	01	04
2	Piling Works	06	12
3	Install Structural Supports	04	14
4	Demolition	01	08
5	Underpinning	n/a	n/a
6	Excavation	09	20
7	Substructure & Drainage	12	30
8	Superstructure	31	52
9	Envelope & Fit Out	52	100
10	Hoist & Conveyor	01	52
11	Concrete Pumping	04	52
12	Spoil Removals	04	20
13	Deliveries & Removals	1	100

TABLE 6.1: PROGRAMME OF WORKS

It should be noted that the timings presented above are indicative and may be subject to minor variation as the project progresses.

KNIGHTBUILD

APPENDIX A7 : CCS CERTIFICATES

Camden

Certificate of Partnership

Knight Build Ltd

is a Partner of the Considerate Constructors Scheme

Partners:

- Register all their sites with the Scheme.
- Agree to work to the highest standards of consideration to the general public, the workforce and the environment.
- Promote the Scheme and its aims.

Isabel Martinson
Executive Chairman, Considerate Constructors Scheme

Issue date: July 2017

Improving the image of construction

Certificate of Registration

Presented to

Knight Build Ltd

For registration period

19 November 2020 to 18 November 2021

This company has registered with the Considerate Constructors Scheme and has committed to adhering to the Scheme's Code of Considerate Practice in the following five sections:

Care about **Appearance**	Respect the **Community**	Protect the **Environment**	Secure everyone's **Safety**	Value their **Workforce**

Isabel Martinson MBE
Executive Chairman, Considerate Constructors Scheme

Reg No: C0541 Member Since: November 2011
Issue Date: 05 October 2020

Improving the image of construction

Knight Build Ltd

We have been rated by the
Considerate Constructors Scheme

2020

We were visited by the Scheme and monitored against a Code of Considerate Practice which requires all those registered to:

Care about **Appearance** | Respect the **Community** | Protect the **Environment**
Secure everyone's **Safety** | Value their **Workforce**

This Code is designed to raise industry standards and requires us to carry out our construction activity with the greatest care and consideration.

For more information about the Code of Considerate Practice and the Scheme, please call **0800 783 1423** or visit **www.ccscheme.org.uk**

Improving the image of construction