Construction Management Plan

Revision No. 6, March 2017

Camden

Contents

Introduction

The purpose of the **Construction Management Plan (CMP)** is to help developers to minimise construction impacts, and relates to both on site activity and the transport arrangements for vehicles servicing the site.

It is intended as a living 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 kind 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 Transport for London's (TfL's Standard for Construction Logistics and Cyclist Safety (**CLOCS**) scheme) and Camden's Minimum Requirements for Building Construction **(CMRBC)**.

The approved contents of this CMP must be complied with unless otherwise agreed with the Council. The project manager shall work with the Council to review this CMP if problems arise in relation to the construction of the development. 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 for 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.

(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.)

Contact

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

Address: 28 King's Mews, London, WC1N 2JB

Planning ref: 2013/4839/P

Type of CMP - Section 106 planning obligation/Major sites framework

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

Name:	**Paul Baguzis**
Address:	**Knowles & Associates Ltd, Unit 2, Silwood Park Business Centre, Buckhurst Road, Ascot SL5 7PY**
Email:	**paulb@knowles.uk.com**
Phone:	**01344 886 898**

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:	**Paul Baguzis**
Address:	**Knowles & Associates Ltd, Unit 2, Silwood Park Business Centre, Buckhurst Road, Ascot SL5 7PY**
Email:	**paulb@knowles.uk.com**
Phone:	**01344 886 898**

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.

Name: Address: Email: Phone:

Site

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

The site is located on King's Mews. The building is a two storey empty warehouse, with a garage entrance onto the street. The site is unoccupied. Surrounding area mostly comprises of similar, warehouse developments, as well as a few residential dwellings.

The development proposal is an erection of a 3 storey plus basement 3-bedroom dwelling house (Class C3), following demolition of existing office/warehouse (Cass B1/B8).

2. 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).

The development proposed the change of use from class B1/B8 (existing office/warehouse) into class C3 (residential).

The site has a footprint of 78.4 sqm, and the scheme proposes redeveloping the existing 2-storey warehouse into a 3-storey single-family dwelling.

The main issues on the site will be the narrow street of King's Mews, as well as close proximity of other residential and public buildings.

As of 25th October 2016 there are no construction works being done anywhere on the street.

We are aware of the consented development works on King's Mews for number 22, and the soon to be commenced work at numbers 29-30. Due to the site's narrow access route, the construction project manager will liaise with the project managers of all the other consented developments in order to avoid delivery clashes, should those developments be carried out at the same time as the works at 28 King's Mews.

This CMP takes into consideration the proposed developments at 29-30 King's Mews and the associated road closure at the junction with Theobald's Road. This CMP proposes an alternative route of delivery.

Any hoarding erected by other developments along the street should not obstruct the access route to 28 King's Mews and there should be enough space to allow for narrow-bodied vehicles to access the site.

A delivery schedule will be drawn up with the other project managers to ensure that the public highway is not obstructed during delivery times and that there is no delivery clashes.

We are also aware that the construction at 25 King's Mews has been completed, and that the dwelling is occupied by a single family. Special care will be taken to ensure that any inconvenience to the occupiers will be minimised.

3. 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.).

Noise generated by the demolition and construction process will be considered and its impact on neighbouring properties mitigated. The affected neighbouring properties include 27 King's Mews and 29-30 King's Mews as well as the buildings to the back of the property, which face Grey's Inn Road. Suitable mitigation measures to be used include:

- **Standard construction hours.**
- **The use of quieter alternative methods or mechanical plant, where reasonably practical.**
- **Locating plant, equipment, site offices, storage areas and worksites away from neighbouring properties where reasonably practical.**
- **Machines and equipment, in intermittent use will be shut down or throttled down to a minimum when not in use;**
- **The use of site hoardings or portable acoustic enclosures/screens where practical.**
- **Maintaining and operating all vehicles, plant and equipment such that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum.**
- **All temporary site lighting will be faced into the site, and not directed towards any neighbouring properties.**
- **During works the main air pollution emissions are the dust generated when building materials are broken up and the fumes from machinery. Primus will use high-pressure hoses to saturate all bulk materials with water during the process and whilst loading the waste materials for disposal. Machinery exhaust emissions will be kept as low as is practical by using well-maintained vehicles and machinery at all times.**
- **Hoarding will be erected around the site. Along with reducing the visual impact and providing protection for the construction workers and public, this will also act as a barrier for dust and dirt originating from within the site.**

- **All HGV's removing spoil from the site will be fully sheeted to minimise the risk of any mud over spilling onto the highway. A wheel-washing facility will be provided, as required, for the duration of the construction works to ensure the levels of soil on roadways near the site are minimised. The wheel-washing facilities will be in the form of a hose down point located adjacent to the entrance. The excavation is being loaded directly from conveyors into a lorry. So the wheel washing requirement is minimised, any overspill will be washed off the Road surface.**
- **The contractor will ensure that the area around the site including the public highway is regularly and adequately swept to prevent any accumulation of dust and dirt.**
- **Burning of materials on site will not be permitted in order to prevent smoke emissions.**

4. 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 and proposed site access locations.

See Drawing in Appendix A – CTMP_100 Site Plan.

5. 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).

Soft strip and Mobilisation (licence not required): 3 weeks

Demolition: 4 weeks

Basement excavation, external construction and roof works: 5-6 months

On-going internal works: 18 weeks

The contractor will liaise with any other construction companies within the immediate environs in order to coordinate traffic flow and hours of maximum impact.

Overall duration of the works: about 49 weeks

6. Please confirm the standard working hours for this 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

Time of operations and ancillary works which are audible at the site boundary shall normally be carried out between the following hours:

Mondays to Fridays	**09.00 – 18.00**
Saturdays	**09.00 – 13.00**

No work will be permitted on Sundays and Bank Holidays.

7. 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.

The contractor intends to discuss installation dates with the utilities suppliers, agree trenching details with them and coordinate installation dates. Confirmation on the pathway of main power supplies still need investigation and confirmation on route. After this information has been received a full drawing will be issued as addendum to this CMP. More details to be provided by the contractor prior to the commencement of works.

8. Please provide details of consultation on a draft CMP with local residents, businesses, local groups (e.g. residents/tenants and business associations) and Ward Councillors. Details should include who was consulted, how the consultation was conducted and a summary of the comments received in response to the consultation. In response to the comments received, the CMP should then be amended where appropriate and, where not appropriate, a reason should be 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.

Local residents and stake holders were sent letters and copies of the Draft Construction Management Plan. Only 1 response has been received – please refer to appended email, from Mrs Leavenworth Bakali, dated 03.11.16.

Mrs Leavenworth Bakali has requested that a movement sensor be installed on the hoarding. The request has been passed on to the contractor.

On 17.2.17 the contractors for 27 King's Mews have consulted Mrs Leavenworth Bakali, on the draft CMP for 27 King's Mews to gather any further comments that she might have, and she confirmed that her previous request for a movement sensor was the extent of her comments.

A separate discussion will be held with the contractors responsible for other developments along the street as well as the developer for 29-30 King's Mews, if there are any works taking place at the same time as the development at number 28.

Please see the letter to neighbours in Appendix B, plus the response received from Mrs Leavenworth Bakali.

9. Please provide details of community liaison proposals including any Construction Working Group that will be set up, addressing the concerns of the community affected by the works. Please confirm how the contact details of the person responsible for community liaison 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.

The contractor will provide a detailed newsletter 14 days prior to construction commencement on site to all occupiers of King's Mews between Northington Street and Theobalds Road. We will also provide a newsletter every 4 weeks after the first newsletter has been produced. We will also attend meetings with the residents and business associations, as appropriate.

10. Please provide details of any schemes such as the 'Considerate Constructors Scheme', such details should form part of the consultation and be notified to the Council. Contractors will also be required to follow the "Guide for Contractors Working in Camden" also referred to as "Camden's Considerate Contractors Manual".

The contractor will be registering the project with Considerate Construction Scheme, CLOCS, and Guide for contractors working in Camden. Please check the Considerate Contractor's website to view Knowles & Associates live registration (Company ID. 615).

11. 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.

See Drawing in Appendix A – CTMP_100 Site Plan.

This CMP takes into consideration the planned construction at 29-30 King's Mews.

The neighbouring development proposes the closure of King's Mews onto Theobald Road for the exclusive use of 29-30 King's Mews.

The 28 King's Mews development cannot profit from the road closure due to the hoarding that will be erected in front of 29-30 King's Mews, which will effectively block the road.

Taking this into consideration, as well as the fact that King's Mews is too narrow for any construction vehicles to turn, this CMP proposes that vehicles arriving at the site should manoeuvre at the junction of King's Mews and Northington Street in such as way as to be able to back up onto King's Mews all the way until no. 28.

All manoeuvres will be supervised by qualified banksmen to ensure the safety of pedestrians and other vehicles using the highway.

The construction project manager will liaise with the project managers of other developments in the vicinity as to avoid delivery clashes and to help mitigate the impact of the works on site between Northington Street and Theobalds Road.

Discussion will be maintained to coordinate periods of noisy work as to minimise the inconvenience to the residents of King's Mews.

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 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 the council to ensure compliance. Please refer to the CLOCS Standard when completing this section. Guidance material is available here [TBC]. Please contact CLOCS@camden.gov.uk for further advice or guidance on any aspect of this section.

Name of Principle contractor: Knowles & Associates Ltd

1. Traffic routing: should be carefully considered and risk assessed, taking into account the need to avoid were possible any major cycle routes and trip generators such as schools, offices, public buildings, museums etc. Where appropriate, routes that use high risk junctions (ie. those that attract high volumes of cycling traffic) may consider installing Trixi mirrors at junctions.

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

This should then be communicated to all contractors and sub-contractors servicing the site and not deviated from unless unavoidable.

a. Please indicate routes on a drawing or diagram showing the public highway network in the vicinity of the site including details of links to the Transport for London Road Network (TLRN).

See drawings in Appendix A – CTMP_Arriving Vehicles and CTMP_Departing Vehicles.

The arriving vehicles will be moving in an eastern direction on the A501 (which is a part of TLRN), and will then follow the road right onto Gray's Inn Road. They will drive straight on and then turn right onto Northington Street. They will then back up left onto King's Mews, while supervised by qualified banksmen.

The departing vehicles will drive forwards down King's Mews, and then turn left at the first junction into Northington Street. They will then take the first right onto John Street and then follow the road until they can turn right into Guilford Street. They will then take first left to come back onto Gray's Inn Road to later rejoin the A501 and drive back in a western direction.

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

The contractor will endeavour to use the same haulage company throughout the programme, so the drivers become familiar with their methodology and Foremen. They should abide by this Construction Traffic Management Program; stacking will be avoided by maintaining a minimum 25-minute call-up. No workmen will be allowed to park in the vicinity, and are expected to use public transport. Visitors are also encouraged to use public transport.

The contractor's Foremen will post a Banksman at the beginning of the street to welcome the vehicle and warn traffic following on of any possible delay, with a request that the delivery vehicle goes 'round the block' again should any emergency vehicle or neighbour need to get past in a hurry.

There will be no contractors vehicles parked on King's Mews. Those requiring all day parking will use the National Car Park on Farringdon Road. Those visiting the site by car for a short time will use the pay and display parking spaces within the surrounding CPZ.

2. Control of site traffic, particularly at peak hours: Traffic servicing the site should be controlled using a delivery booking system to manage site traffic. Construction vehicle movements are generally acceptable between 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 between 9.30am and 3pm on weekdays during term time. (Refer to the *Guide for Contractors Working in Camden*).

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. Consideration should be given to the location of any necessary holding areas for large sites with high volumes of traffic. Vehicles must not wait 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.

a. Please provide details of the typical sizes of all vehicles and the approximate frequency and times of day when they will need access to the site, for each phase of construction. You should estimate the average daily number of vehicles during each major phase of the work, including their dwell time at the site. High numbers of vehicles per day and/or long dwell times may require vehicle holding procedures.

- **We estimate approx. 4/5 Grab Lorries a week over the basement construction phase for about 12 weeks.**
- **We will liaise and ensure that deliveries and spoil removal will not happen on the domestic waste collection times and local businesses are not affected by the on-going construction works.**
- **We estimate approx. 50 Heavy Lorries over the duration of the construction works. (Grab-lorries and deliveries) over the 5/6 month period.**
- **As part of our contractor awareness on our projects we always submit our condensed traffic plan/leaflet to our suppliers to ensure that our suppliers closely follow our submitted CMP.**

Construction vehicle hours:

Weekdays: 09.00 – 16.30

Saturdays: 09.00 – 13.00

No traffic permitted on Sundays or Bank Holidays

The proposed hours should help minimise the traffic congestion stemming from the development. Both the arrival and departure routes avoid Theobald's Road.

Major Phases of the Project

Phase 1 - Site Set Up

Phase 2 – Sub Structure Works

Phase 3 – Above Ground Works

Construction Vehicle Types

1. **Car or small box/panel van, approximately 4m x 2m (3.5 tonnes unladen weight);**
2. **Grab/muck away lorry, approximately 8m x 2.25m (16 tonnes unladen weight);**
3. **Concrete lorry, approximately 8.25m x 2.4m (20 tonnes unladen weight);**
4. **Delivery flat-bed lorry, approximately 7m x 2.25m (7.5 tonnes unladen weight).**

Please note:

- **Contractor will have no permanent vehicles on site associated with the work;**
- **Visitor vehicles will park in the pay parking bays nearby.**

b. Please provide details of other developments in the local area or on the route.

We will liaise with any other construction companies within the immediate vicinity in order to coordinate traffic flow and hours of maximum impact. As of 25th October 2016 there are no on-going construction works on site. However, we area ware of other developments planned for the street. Should those developments begin work on site at the same time as the development for 28 King's Mews, we will instruct our Project Manager to liaise with their equivalent officer at nearby sites to avoid delivery clashes and overloading the locale.

The delivery schedule should ensure that the vehicles arrive each in their own time, without obstructing the narrow public road for one another. The dwell time of each vehicle should be no longer than 30 minutes.

As such, a strategy of a skip and a grab lorry is proposed rather than a wait and load lorry. The strategy should minimise the waiting time and obstruction of the public road. From the proposed CMPs of other developments along the street, such methodology seems to be the favoured one.

These procedures should help ensuring that the narrow street of King's Mews remains unobstructed during delivery times for all developments in the vicinity.

The development of 29-30 King's Mews will be using the exit towards Theobalds Road, hence will not need to obstruct the rest of King's Mews public highway. However, the project manager of that development will still be informed of the delivery schedule so that they may arrange their own deliveries accordingly.

c. Please outline the system that is to be used for booking system that is to be used to ensure that the correct vehicle attends the correct part of site at the correct time.

- **All deliveries shall be pre booked and allocated set arrival times.**
- **Delivery instructions shall be sent to all suppliers and contractors including the maximum dwell times specified above.**
- **Suppliers shall call the site a minimum of 25mins before their vehicle arrives at site to confirm that the loading area is available.**
- **If the loading area is unavailable construction vehicles shall not proceed to the site.**
- **Vehicles shall not wait or stack on any road within the Borough.**
- **The loading/collection area shall be clear of vehicles and materials before the next lorry arrives.**
- **Contractors' vehicles shall not park in any suspended parking bays or on suspended waiting and loading restrictions.**
- **The engines of contractors' vehicles shall not be kept idling.**

d. Please identify the locations of any off-site holding areas (an appropriate location outside the borough may need to be identified, particularly if a large number of delivery vehicles are expected) and any measures that will be taken to ensure the prompt admission of vehicles to site in light of time required for necessary compliance checks.

There are no off-site holding areas. A 25-minute call ahead system will be placed to ensure no construction vehicles are idling near the site.

3. Site access and egress: Vehicles entering and leaving the site should be carefully managed, using gates that are clearly marked and free from obstacles. Traffic Marshalls must ensure the safe passage of pedestrians, cyclists and other traffic when vehicles are entering and leaving site, particularly if reversing.

a. Please detail the proposed access and egress routes to and from the site

See drawings in Appendix A:

CTMP_106 Arriving Vehicles

CTMP_107 Departing Vehicles

CTMP_100 Site Plan

Qualified banksmen will be present at all times to ensure the safety of pedestrians, cyclists and workers by supervising all manoeuvres to and from site.

b. Please describe how the access and egress arrangements for construction vehicles will be managed.

HGVs will be parked in front of the site. Hoses will not be used and deliveries will be supervised by banksmen to manage traffic and ensure pedestrian safety during transition.

- **Two banksmen will be in attendance as for grab / delivery operations;**
- **Road protection will be used and the delivery time kept to a minimum;**
- **Residents in this section of King's Mews will be notified in advance and asked to let the contractor know if the proposed concreting time will cause problems. The contractor will coordinate in advance with residents to minimise disruption;**
- **Road will be cleaned after each delivery, as required.**

Safe pedestrian passage across the front of the site will be maintained at all times and monitored at all times.

c. Please provide swept path drawings for any tight manoeuvres on vehicle routes to and from the site including proposed access and egress arrangements at the site boundary (if necessary).

See drawings in Appendix A:

CTMP_104 Concrete Truck Sweep Path

CTMP_105 Lorry Sweep Path

It is proposed to temporarily suspend one parking bay on Northington Street in order to allow the vehicles to manoeuvre into the site while reversing. Please see drawings mentioned above for reference.

The parking bay would be returned to the residents during evenings and weekends.

Contractor to apply for licenses prior to commencement.

d. Provision of wheel washing facilities should be considered if necessary.

There is no room for a dedicated wheel wash facility. However, there will be a dedicated banks man who be in charge of making sure that any mud that accidently falls onto the public road will be cleared up and the tarmac hosed down to ensure no dirt is tracked by any vehicles leaving the site.

4. Vehicle loading and unloading: vehicles should be loaded and unloaded on-site as far as is practicable. If this is not possible, 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 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 loading is to take place off site, please identify where this is due to take place and outline the measures you will take to ensure that loading/unloading is carried out safely. Please refer to Q4 under the Highways section if any parking bay suspensions will be required.

See drawings in Appendix A –

CTMP_101 Concrete Delivery

CTMP_102 Scaffold Delivery

CTMP_103 Spoil Removal

Qualified banksmen will be present at all times to ensure the safety of pedestrians, cyclists and workers by supervising all vehicle manoeuvres to and from the site.

5. Where one is assigned, please submit your principal contractor's proposed method for checking vehicle and driver compliance.

FORS Bronze accreditation as a minimum will be required, and FORS Silver or Gold operators will be appointed where possible. Written assurance will be sought from contractors that vehicles over 3.5t are equipped with additional safety equipment (as per CLOCS Standard P13), and that all drivers servicing the site will have undertaken approved additional training.

Desktop checks will be made against the FORS database of trained drivers and accredited companies, as outlined in the CLOCS Compliance Guide.

Periodic spot checks will be carried out by site staff on vehicles and drivers servicing the site at a frequency based on the aforementioned risk scale. These will include evidence of further training, license checks, evidence of routing information and checks of vehicle safety equipment. Results of these checks will be logged and retained, and enforced upon accordingly.

6. Please provide details of any other measures designed to reduce the impact of associated traffic (such as the use of construction material consolidation centres).

All delivery and waste material drivers will be in constant contact with the Foreman of the site and to his Lantra qualified Banksman. Particular attention is paid to ensure pedestrians are protected with stewards in high viz, ensuring safe passage where deliveries are underway.

The contractor will allow a minimum of 20 minutes between a vehicle's departure and another's arrival to reduce the impact of associated traffic.

7. Please sign-up to join the CLOCS community to receive up to date information on the standard by expressing an interest online: www.clocs.org.uk/clocs-community/.

The contractor has registered to receive information on the CLOCS standard.

8. Please confirm that you as the client/developer and your principal contractor have read and understood the CLOCS Standard [link].

The contractor has reviewed and confirms that all of the aforementioned conditions will be met prior to start on site or will be ongoing throughout the project.

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

Highways

1. Please provide details of any temporary structures, which would overhang the public highway (e.g. scaffolding, gantries, cranes etc.)

From the front of the house a gantry with conveyor will run over the pavement at a height of over 2.4m. This gantry and the hoarding will be lit appropriately for footpath users and road vehicles alike.

2. Please provide details of hoarding requirements or any other occupation of the public highway.

Following a meeting held at Camden Council Offices on Wednesday 8th March 2017, with Camden Officers and contractor and stakeholders for the 4 properties on King's Mews that are proposing to begin construction coincidentally, a joint Traffic management plan has been agreed. Please see Appendix A.

The development of 29-30 King's Mews has a license to close King's Mews off, where it joins Theobalds Road, and their construction traffic will enter from and exit onto Theobalds Road. We have therefore excluded them from the following strategy.

In order to ensure that no lay-by site will be required to be introduced to the local built environment, the contractors associated with the projects listed below will meet on a regular basis in order to discuss and agree time slots for collections and deliveries in order to minimise traffic movement within the Mews:

20/21 King's Mews
27 King's Mews
28 King's Mews

The proposed site set up for each of the above projects has been agreed between each contractor and is demonstrated in Appendix A – CTMP.

3. Please provide accurate scaled drawings of any highway works necessary to enable construction to take place (e.g. construction of temporary vehicular accesses). 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. You must submit a detailed (to-scale) plan showing the impact on the public highway that includes the extent of any hoarding, pedestrian routes, parking bay suspensions and remaining road width for vehicle movements. 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. Please provide details of all safety signage, barriers and accessibility measures such as ramps and lighting etc.

No highway works are necessary to enable construction. For highway use and site plans, see drawings in Appendix A:

CTMP_100 Site Plan

CTMP_101 Concrete Delivery

CTMP_102 Scaffold Delivery

CTMP_103 Spoil Removal

CTMP_Hoarding

4. Please provide details of any proposed parking bay suspensions and temporary traffic management orders, which would be required to facilitate construction.

The contractor will apply for a temporary structure licence to facilitate the hoarding to allow the lorry to remove the spoil waste from the hoarded skip without causing any problems for passing pedestrians. Load and unloading will be supervised by qualified Banksmen.

It is proposed to temporarily suspend one parking bay on Northington Street in order to allow the vehicles to manoeuvre into the site while reversing. Please see drawings mentioned above for reference.

The parking bay would be returned to the residents during evenings and weekends.

Contractor to provide further details and apply for licenses prior to commencement.

5. Where applicable, please supply details of any diversion, disruption or other anticipated use of the public highway during the construction period (alternatively a plan may be submitted).

In accordance with the Appendix A – CTMP Joint Site Plan for 4 Sites we are proposing to hoard the area to the front of 28 King's Mews as shown, in order to facilitate safe loading and unloading which may include short term material storage from time to time.

6. If pedestrians and/or cyclists are diverted, Please provide details describing how pedestrian and cyclist safety will be maintained, including any proposed alternative routes (if necessary), and any Traffic Marshall arrangements. Vulnerable footway users include wheelchair users, the elderly, people with walking difficulties, young children, people with prams, blind and partially sighted people, etc. A secure hoarding will generally be required to the site boundary with a lockable access.

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. Lighting and signage should be used on temporary structures/skips/ hoardings, etc. Appropriate ramping must be used if cables, hoses, etc. are run across the footway.

Disturbance to pedestrian movement is anticipated; personnel in high-viz will be provided to supervise loading and unloading at all times during the works.

Any cables will be covered and protected and the hoarding and gantry will have temporary structure licence in place, with suitable lighting and signage.

The need to divert traffic through this project is not anticipated, however, trained Banksmen will be on hand at times of spoil removal and deliveries.

Any waste material will be swept free from the footpath if any debris is left behind.

Environment

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

1. Please provide details of the times of noisy operations, outlining how the construction works are to be carried out.

The proposed method of construction of the basement is traditional reinforced concrete underpinning, with sequential propping and a reduction in levels. Above ground the method of construction is a steel frame; over-clad to form building envelope, with sequential propping various trades. Works will be undertaken within the times previously stated – 9am to 1pm on Saturdays and 9am to 5pm on weekdays.

The contractor commits to use their best endeavours to ensure that the noise levels produced by the works are kept as low as possible at all times, including early morning arrivals of the workmen and staff, who will be instructed to restrict their noise, including conversation, to a minimum before 9am. The contractor will strive to continually improve the attenuation of noise levels through the duration of the works; implementing lessons learnt as the works progress. This process shall be monitored and managed by the contractor.

The cutting through the existing concrete floor slabs and excavation and construction of the basement shall all precede the demolition of the existing 2-storey concrete and brick structure and roof. The existing building envelope will serve to contain and reduce the noise levels significantly. A noise threshold of 75 dB(A) will not be exceeded at the boundary of the nearest sensitive façade. If this is exceeded, works shall cease and be investigated, and additional measures put in place, to keep within the threshold level.

The main causes of noise will be: breaking out the concrete slab (approx. 3 x days work), demolishing the existing steel frame (which will require some cutting of steels), and general loading/unloading. Noise will be kept to a minimum throughout the works by virtue of the use of small scale handheld equipment. Predominantly the excavation shall be carried out by hand, with spades, which will help significantly to reduce sound levels. When choosing machinery, the noise output will be assessed and lower noise and vibration machinery will be selected for the task. The contractor will ensure that the machinery used is accurate for the task at hand; not overpowered, and operated in such a manner as to minimise noise emissions. The machinery will be well-maintained and comprising of new models. All vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers.

Should the need arise to use a compressor generator on site, the contractor will consult with his plant supplier to ensure the most economical sound and power will be utilised until such a time that either temporary or permanent connections to the national grid can be achieved.

Occupiers who may be affected in the vicinity will be notified of the nature and intent of the works at least 1x week in advance. If necessary, the programme will be altered on a regular basis to suit the needs of neighbouring occupiers. At all times, a contact name and number will be available, where any enquiries or complaints may be directed.

2. 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.

An ambient noise survey and acoustic report are attached in Appendix C.

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

The Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974, shall be employed at all times to reduce noise (including vibration) to a minimum, with reference to the general principles contained in British Standard BS5228: 2009 'Noise and Vibration Control on Construction and Open Sites'. When dealing with tall buildings, 3D modelling should be used to predict noise levels and Part 2 vibration (in the case of basement/underground works).

See attached acoustic report in Appendix C.

4. 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.

Where the measured noise levels are more than 3 dB above the predicted noise levels or in the event of a complaint of noise an investigation shall be carried out to ascertain the cause of the exceedance or the complaint and to check that Best Practicable Means are being used to control the noise in accordance with the steps set out in the application for 'prior consent'. Noise levels shall be reduced further if it is reasonably practicable to do so. Mitigation methods will include:

- **Enuring that the existing building envelope is retained and openings kept closed during noisy and dusty works**

- **All demolition/cutting/breaking out works will be structurally isolated from adjacent structure, particularly Party Structures, to disrupt passage of vibration**

- **Temporary acoustic enclosures / screens with sufficient mass to be able to resist the passage of sound across the barrier, and to be free of significant holes or gaps which would undermine the acoustic properties**

- **Where practicable, acoustic blankets shall be used round noisy plant**

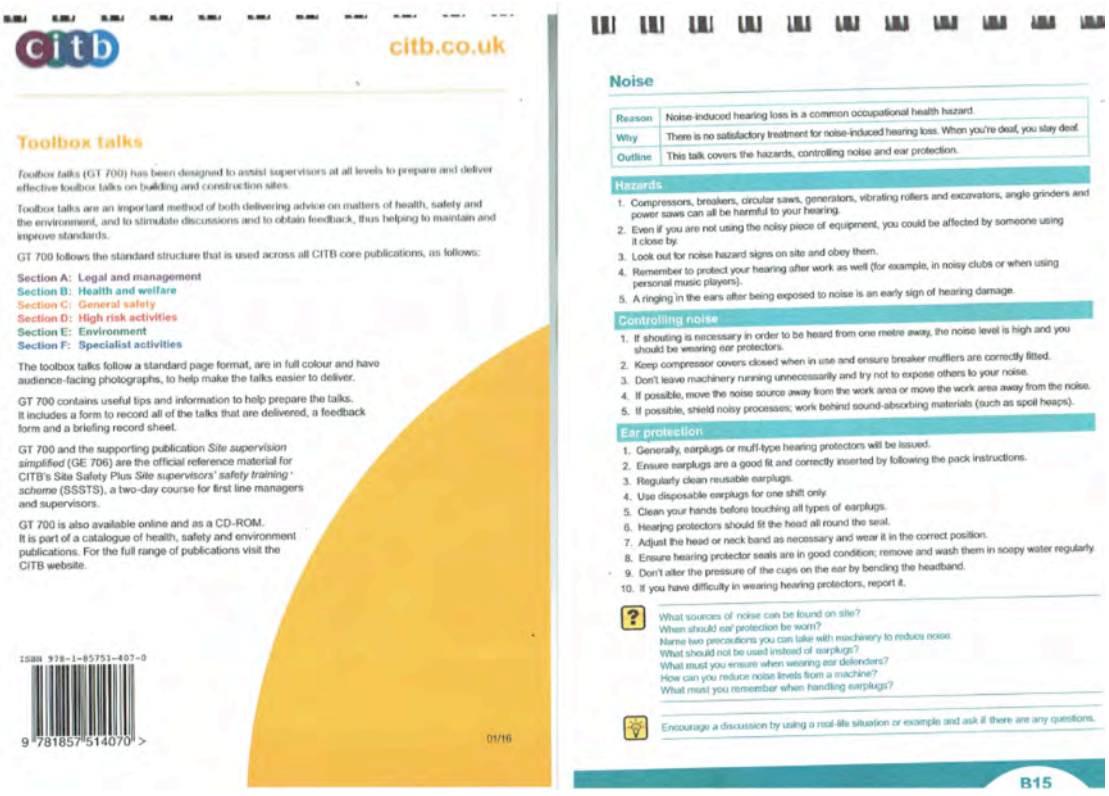
- **For structure-borne noise, where required, the contractor will incorporate a 2-hour on, 2-hour off respite period to reduce impact**

- **Any scaffolding will be covered with Monarflex**

For further information please refer to the Acoustic Report in Appendix C.

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

All operatives are trained with CITB Compliant training beyond BS 5228:2009 and revised standard 2015.



citb.co.uk

Toolbox talks

Toolbox talks (GT 700) has been designed to assist supervisors at all levels to prepare and deliver effective toolbox talks on building and construction sites.

Toolbox talks are an important method of both delivering advice on matters of health, safety and the environment, and to stimulate discussions and to obtain feedback, thus helping to maintain and improve standards.

GT 700 follows the standard structure that is used across all CITB core publications, as follows:

Section A: Legal and management
Section B: Health and welfare
Section C: General safety
Section D: High risk activities
Section E: Environment
Section F: Specialist activities

The toolbox talks follow a standard page format, are in full colour and have audience-facing photographs, to help make the talks easier to deliver.

GT 700 contains useful tips and information to help prepare the talks. It includes a form to record all of the talks that are delivered, a feedback form and a briefing record sheet.

GT 700 and the supporting publication *Site supervision simplified* (GE 706) are the official reference material for CITB's Site Safety Plus *Site supervisors' safety training scheme* (SSSTS), a two-day course for first line managers and supervisors.

GT 700 is also available online and as a CD-ROM. It is part of a catalogue of health, safety and environment publications. For the full range of publications visit the CITB website.

ISBN 978-1-85751-407-0

01/16

Noise

Reason	Noise-induced hearing loss is a common occupational health hazard.
Why	There is no satisfactory treatment for noise-induced hearing loss. When you're deaf, you stay deaf.
Outline	This talk covers the hazards, controlling noise and ear protection.

Hazards

1. Compressors, breakers, circular saws, generators, vibrating rollers and excavators, angle grinders and power saws can all be harmful to your hearing.
2. Even if you are not using the noisy piece of equipment, you could be affected by someone using it close by.
3. Look out for noise hazard signs on site and obey them.
4. Remember to protect your hearing after work as well (for example, in noisy clubs or when using personal music players).
5. A ringing in the ears after being exposed to noise is an early sign of hearing damage.

Controlling noise

1. If shouting is necessary in order to be heard from one metre away, the noise level is high and you should be wearing ear protectors.
2. Keep compressor covers closed when in use and ensure breaker mufflers are correctly fitted.
3. Don't leave machinery running unnecessarily and try not to expose others to your noise.
4. If possible, move the noise source away from the work area or move the work area away from the noise.
5. If possible, shield noisy processes; work behind sound-absorbing materials (such as spoil heaps).

Ear protection

1. Generally, earplugs or muff-type hearing protectors will be issued.
2. Ensure earplugs are a good fit and correctly inserted by following the pack instructions.
3. Regularly clean reusable earplugs.
4. Use disposable earplugs for one shift only.
5. Clean your hands before touching all types of earplugs.
6. Hearing protectors should fit the head all round the seal.
7. Adjust the head or neck band as necessary and wear it in the correct position.
8. Ensure hearing protector seals are in good condition; remove and wash them in soapy water regularly.
9. Don't alter the pressure of the cups on the ear by bending the headband.
10. If you have difficulty in wearing hearing protectors, report it.

What sources of noise can be found on site?
When should ear protection be worn?
Name two precautions you can take with machinery to reduce noise.
What should not be used instead of earplugs?
What must you ensure when wearing ear defenders?
How can you reduce noise levels from a machine?
What must you remember when handling earplugs?

Encourage a discussion by using a real-life situation or example and ask if there are any questions.

B15

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

Referring to visible dust, it is imperative to prevent statutory nuisance arising from the demolition, construction works or dusty activities. The contractor will use the principles of:

- **Prevention**
- **Suppression**
- **Containment**

in order to contain the risk of nuisnace caused by the escape of visible dust, particles and other emissions.

The cutting through of the existing concrete floor slabs and excavation and construction of the basement shall all precede the demolition of the existing 2 storey concrete and brick structure and roof. The existing building envelope will serve to contain dust significantly and minimise the escape of visible dust from the site.

The contractor will identify dusty operations planned on site and form strategies to supress the emission of dust and creation of nuisance. The contractor will put in place and maintain effective suppression techniques. These techniques will be planned in advance to ensure the correct supplies of water etc. are in the correct locations, before the dusty activities begin.

Where there is evidence of airborne dust from the building construction/demolition activities on site, the contractor will make their own inspection and assessment, and where necessary undertake ambient monitoring with the aim of identifying those process operations giving rise to the dust. Once the source of the emission is known, corrective action will be taken without delay.

Effective preventative maintenance will be employed on all aspects of the construction/demolition works including all plant, vehicles, buildings and the equipment concerned with the control of emissions to air.

The contractor will ensure that they maintain management, supervision and training for process operations; proper use of effective preventative maintenance on all plant and equipment concerned with the control of emissions to the air; and spares and consumables will be kept at hand in order to rectify breakdowns rapidly.

7. 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.

The contractor will wash down the site surroundings daily at both lunchtime and close of play and immediately following any delivery or collection which has the ability to leave loose material on the highway.

8. Please provide details describing arrangements for monitoring of noise, vibration and dust levels.

Please see relevant sections in the Acoustic Report in Appendix C.

Additionally, the contractor agrees that where the existing ambient noise levels are low, noise levels should at the nearest sensitive façade aim to be within a daily level of 70 dB (LAeq, 10hr) for airborne noise, and that first Action Level Trigger of 73 dB (LAeq, 1hr) should be used to ensure daily levels are within the 70 dB (LAeq, 10hr).

If noise levels are exceeded, works shall cease and an investigatory action shall be carried out to keep noise within acceptable levels.

9. Please confirm that a Risk Assessment has been undertaken in line with the GLA's Control of Dust and Emissions Supplementary Planning Guidance (SPG), and the risk level that has been identified, with evidence.

Details to be provided by the contractor prior to commencement.

Please see attached Risk Assessment in Appendix D.

10. Please confirm that all relevant mitigation measures from the SPG will be delivered onsite.

The contractor confirms that all relevant mitigation measures will be delivered on site.

Please see attached Risk Assessment in Appendix D.

11. If the site is a High Risk Site, 4 real time dust monitors will be required, as detailed in the SPG. Please confirm that these monitors will be installed 3 months prior to the commencement of works, and that real time data and quarterly reports will be provided to the Council detailing any exceedances of the threshold and measures that were implemented to address these.

This site is assessed as a 'Low Risk, Domestic Site' according to the Camden SPG; the significant majority of work is confined under the footprint of the house and working with low dust emission, dampened spoil and waste. However, dust will be monitored on a regular basis and dust mitigation measures used as stated previously will be implemented which in most cases are measures appropriate for higher risk sites.

Please see attached Risk Assessment in Appendix D.

12. 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 copies of receipts (if work undertaken).

On Wednesday 15th March 2017 the site was baited, in order to get rid of any vermin, by Armour Environmental Services Limited. The return visit from Armour is booked to take place on the 22nd March 2017, dependent on the results, a 3rd baiting visit may be required. Failing that, Armour are retained to visit at any time in order to assess further requirements.

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

Please see Appendix E – Asbestos Survey

The appended asbestos survey was carried out in 2012 and found asbestos in the roofing sheet and gathering.

Although typically an asbestos survey carried out more than 5 years ago would be disregarded, we believe it is still applicable as no works of any kind have been carried out to 28 King's Mews since survey was carried out.

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

The contractor will provide a smoking area away from the main gate to ensure limited health risks to local residents. Interaction can take place with non-construction personnel. Site personnel will not be permitted to loiter outside the main gate.

Within the contractor's Health and safety plan we state 'No personnel shall indulge in fighting, horseplay, tomfoolery or practical jokes including wolf whistling etc.'

Agreement

The agreed contents of this Construction Management Plan must be complied with unless otherwise agreed with 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 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:** 31.10.16

Print Name: LOUISE TURLEY FT ARCHITECTS LTD **Position:** DIRECTOR.

Please submit to: planningobligations@camden.gov.uk

End of form.

Camden

Appendix A

Includes:

- CTMP_100 Site Plan
- CTMP_101 Concrete Delivery
- CTMP_102 Scaffold Delivery
- CTMP_103 Spoil Removal
- CTMP_104 Concrete Truck Swept Path
- CTMP_105 Lorry Swept Path
- CTMP_106 Arriving Vehicles
- CTMP_107 Departing Vehicles
- CTMP_Hoarding

SITE SET UP @ 1:200

GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

CLIENT

JOB TITLE
KING'S MEWS
LONDON
WC1

DRAWING TITLE
MULTI-SITE
SET UP DRAWING

SCALE	DATE
1:200@A3	09.16

FT ARCHITECTS LTD

Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No.	REVISION
CTMP_102	

GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

7 to 8

39 to 45

25 to 28

2m x 5m parking bay

6520mm

3575mm

2995mm

4

2

1

29

30

Hoarded gantry with conveyor set at 2.4m high

Construction works at 29-30 King's Mews
- according to the site construction manager
the vehicles will back into site from Theobald Rd.
King's Mews will be closed for traffic from that side.

4 to 10

12

N

0 (metres) 5

SCALE

CLIENT

KNOWLES

JOB TITLE

**28 KING'S MEWS
LONDON
WC1**

DRAWING TITLE

CTMP_SWEPT PATH - CONCRETE TRUCK

SCALE

1:200@A1

DATE

09.16

FT ARCHITECTS LTD

Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No.

CTMP_104

REVISION

SITE SET UP @ 1:100

GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

CLIENT

KNOWLES

JOB TITLE

28 KING'S MEWS
LONDON
WC1

DRAWING TITLE

CTMP_CONCRETE DELIVERY

SCALE
1:200@A1

DATE
09.16

FT ARCHITECTS LTD

Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No.
CTMP_101

REVISION

SITE SET UP @ 1:200

GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

CLIENT

KNOWLES

JOB TITLE

28 KING'S MEWS
LONDON
WC1

DRAWING TITLE

CTMP_SCAFFOLD DELIVERY

SCALE
1:200@A3

DATE
09.16

FT ARCHITECTS LTD

Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No.
CTMP_102

REVISION

GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

CLIENT

KNOWLES

JOB TITLE

28 KING'S MEWS
LONDON
WC1

DRAWING TITLE

CTMP_SPOIL REMOVAL

SCALE
1:100@A1

DATE
09.16

FT ARCHITECTS LTD

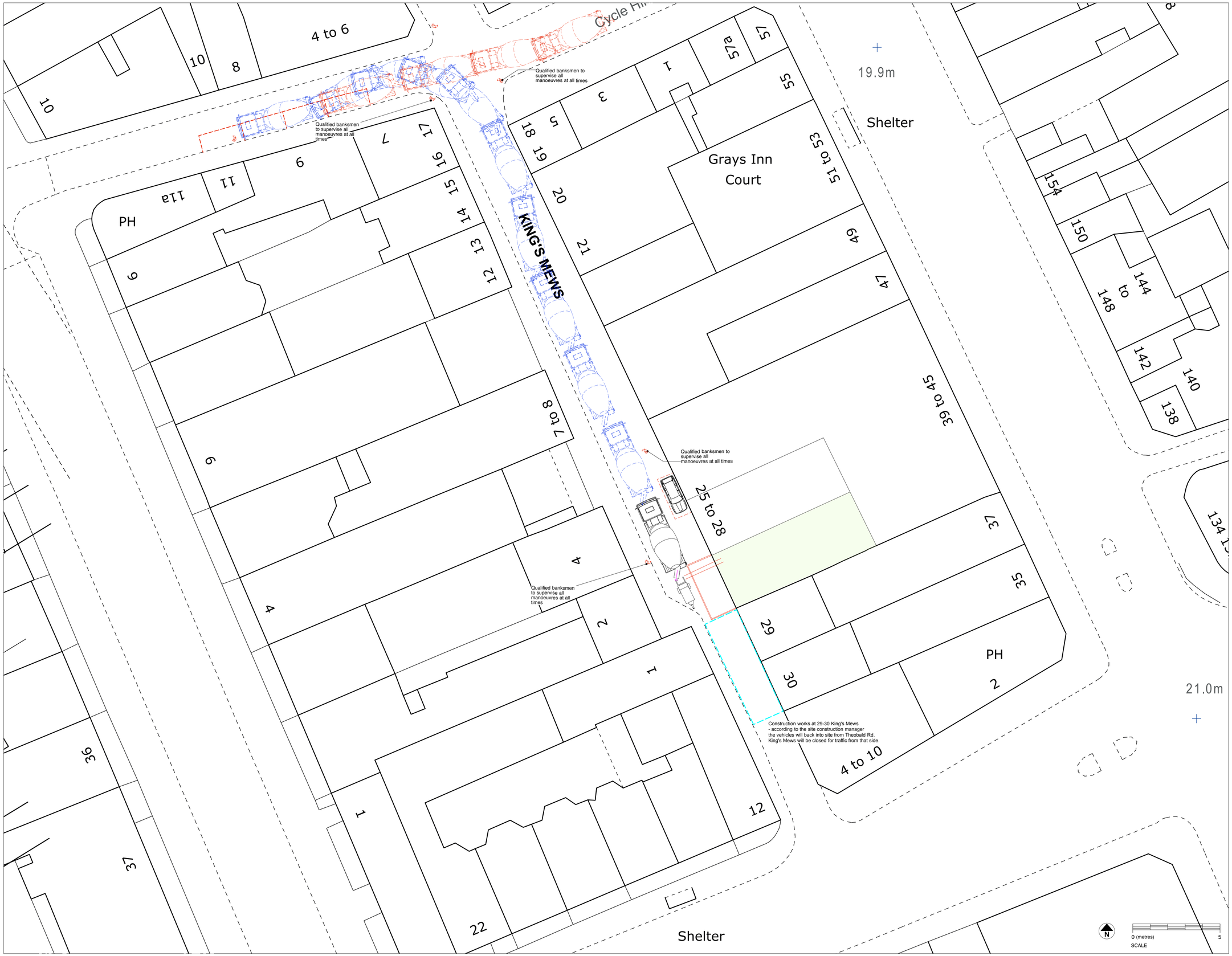
Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No.
CTMP_103

REVISION



GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

Vehicle driving forward

Vehicle reversing

CLIENT

KNOWLES

JOB TITLE

28 KING'S MEWS
LONDON
WC1

DRAWING TITLE

CTMP_SWEPT PATH - CONCRETE TRUCK

SCALE
1:200@A1

DATE
09.16

FT ARCHITECTS LTD

Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No.
CTMP_104

REVISION

GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

Vehicle driving forward

Vehicle reversing

CLIENT

KNOWLES

JOB TITLE

28 KING'S MEWS
LONDON
WC1

DRAWING TITLE

CTMP_SWEEP PATH FOR LORRY

SCALE
1:200@A1

DATE
09.16

FT ARCHITECTS LTD

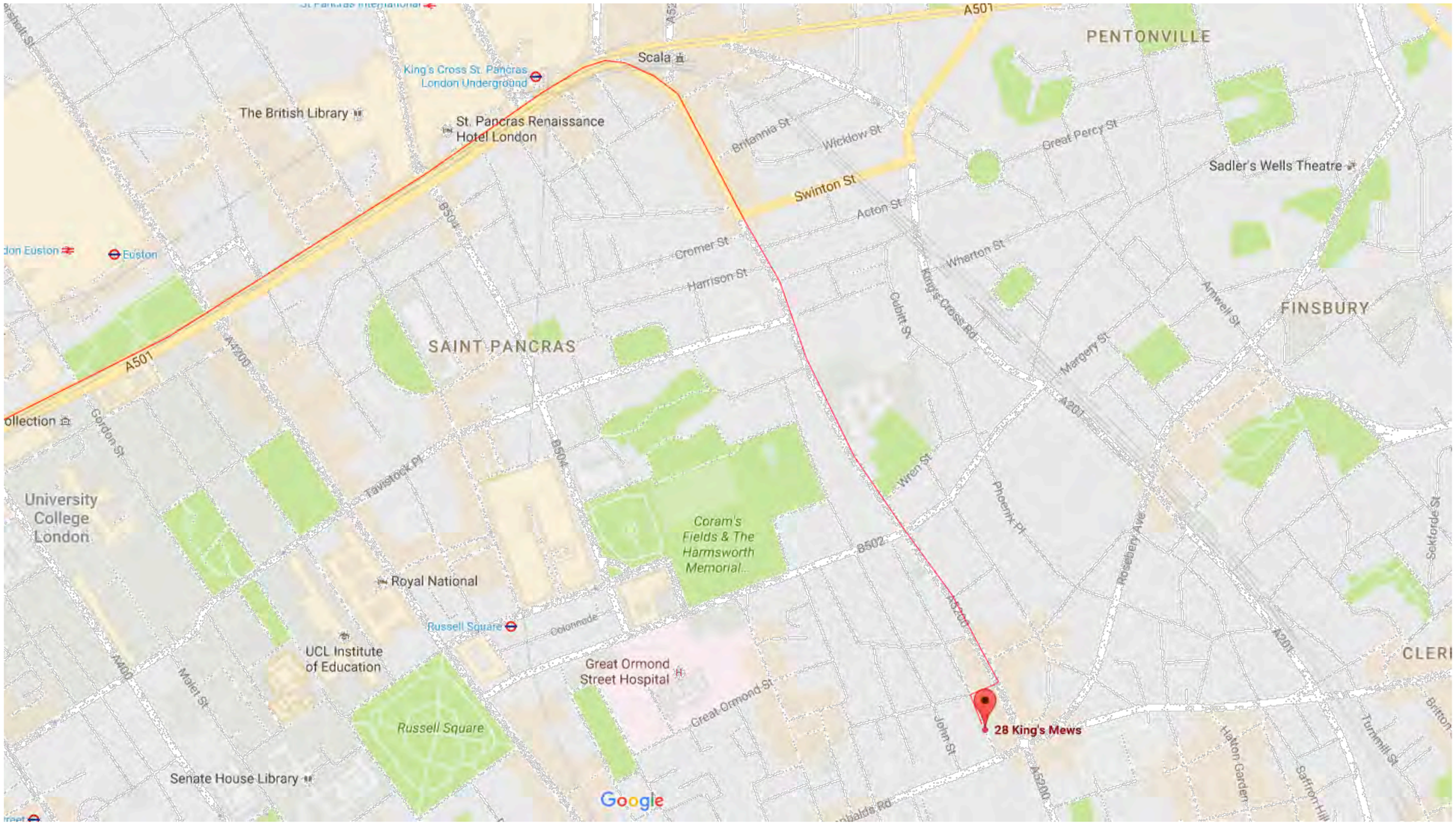
Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No.
CTMP_105

REVISION



GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

CLIENT

KNOWLES

JOB TITLE

28 KING'S MEWS
LONDON
WC1

DRAWING TITLE

CTMP_ARRIVING VEHICLES

SCALE

N/A@A1

DATE

09.16

FT ARCHITECTS LTD

Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

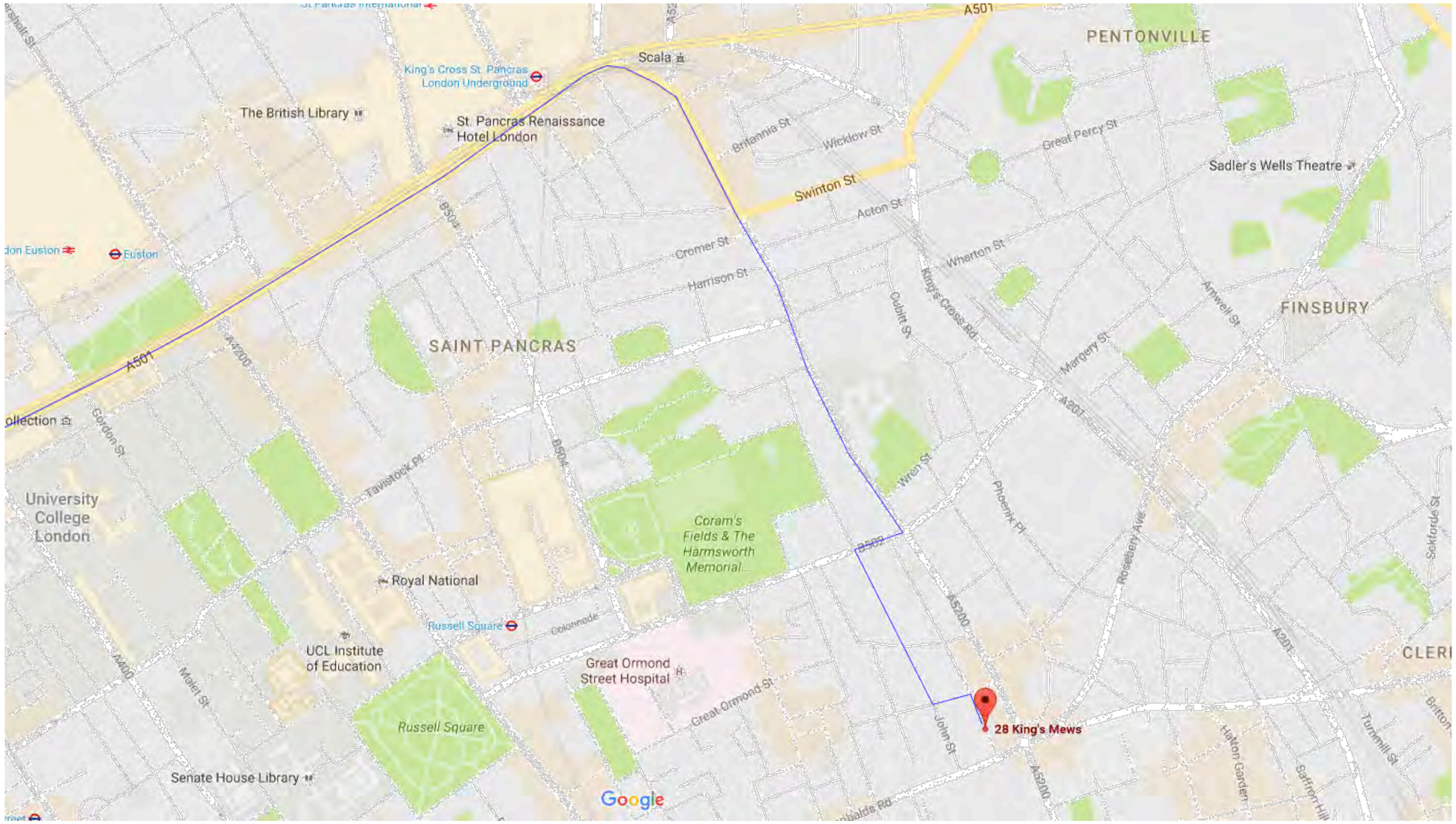
020 7953 0388

www.ftarchitects.co.uk

DRAWING No.

CTMP_106

REVISION



GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

CLIENT

KNOWLES

JOB TITLE

28 KING'S MEWS
LONDON
WC1

DRAWING TITLE

CTMP_DEPARTING VEHICLES

SCALE

N/A@A1

DATE

09.16

FT ARCHITECTS LTD

Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No.

CTMP_107

REVISION

GENERAL NOTES:

DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS MUST BE CHECKED ON SITE AND ANY DISCREPANCIES VERIFIED WITH THE ARCHITECT.

CLIENT

KNOWLES

JOB TITLE

28 KING'S MEWS
LONDON
WC1

DRAWING TITLE

CTMP_HOARDING

SCALE

N/A@A1

DATE

09.16

FT ARCHITECTS LTD

Hamilton House
Mabledon Place
Bloomsbury
WC1H 9BB

020 7953 0388

www.ftarchitects.co.uk

DRAWING No. REVISION

CTMP_Hoarding

Appendix B

Includes:

- Letter to neighbours and emailed response (the only response received)

FT | Architects
Hamilton House
Mabledon Place
London
WC1H 9BB

1st November 2016

Dear Sir/Madam,

I am writing to you in regard to an application for planning at 28 King's Mews, 2013/4840/P which has been granted in 2014 and for which works are now scheduled to commence.

In order to discharge the relevant Condition a new Construction Management Plan (CMP) has been drawn up for submission.

The relevant planning Decision can be found at the Camden Planning Portal, and the proposed CMP can be found online at the following address:

https://www.dropbox.com/s/q2neu87i56wocyr/CTMP%20-%20Complete.pdf?dl=0

We would welcome your participation and/or any comments in regard to the Traffic Management scheme, which has been designed in accordance with specific instructions from Camden Council.

If you have any thoughts or observations, please do not hesitate to get in touch with me in office hours on the number below or write to my email address: emilia@ftarchitects.co.uk

With thanks and regards,

Emilia Golebiewska
Architectural Assistant
Tel.: 0207 953 8874

FT|ARCHITECTS

Louise Turley <louise@ftarchitects.co.uk>

Fwd: 28 Kings Mews

1 message

Louise Turley <louise@ftarchitects.co.uk> 20 December 2016 at 18:27
Reply-To: louise@ftarchitects.co.uk
To: Louise Turley <louise@ftarchitects.co.uk>

---------- Forwarded message ----------
From: **Emilia Gołębiewska** <emilia@ftarchitects.co.uk>
Date: 3 November 2016 at 14:17
Subject: Re: 28 Kings Mews
To: Clare Leavenworth Bakali <clarelb2@me.com>
Cc: Louise Turley <louise@ftarchitects.co.uk>

Dear Clare,

Thank you for your email. I understand your concerns - we will pass on you request onto the contractors before they are due to commence on site.

I hope this helps.

Kind Regards,

Emilia Golebiewska

Architectural Assistant

T: 020 7953 0388
W: www.ftarchitects.co.uk

FT | ARCHITECTS
Hamilton House, Mabledon Place, London, WC1H 9BB

On 3 November 2016 at 07:50, Clare Leavenworth Bakali <clarelb2@me.com> wrote:

> Dear Emilia,
>
> I just had a thought and perhaps your office is not the right one to direct it to. My husband and I wondered if the builder could put up security (movement sensor) lighting on the hoardings to light any dark corners?
>
> We live on a street that has been half empty of reisdents for a very long time and surrounded by pubs and nightclubs. Many people use the road as a public toilet. Someone had defecated, literally, in front of my door the other day. It would be really great to light up the areas where people might congregate for sex or to relieve themselves.
>
> Please let me know if I should contact anyone else.
>
> Many thanks for your help,
> Clare Leavenworth Bakali

Appendix C

Includes:

- Acoustic Report

202 Uxbridge Road
London
W12 7JP

Tel: +44(0)203 475 2280
Fax: +44(0)203 475 2281

info@clementacoustics.co.uk

28 Kings Mews, London

Construction Noise and Vibration Assessment

11923-CNMP-01

7 February 2017

Issued For:

Simon MacDonagh
Peake's Farm
Sedgehill, Shaftesbury
Dorset
SP7 9HQ

CONTENTS

LIST OF ATTACHEMENTS

1.0 INTRODUCTION

Clement Acoustics Ltd has been instructed by Simon MacDonagh to produce a construction impact assessment for the proposed development of the residential dwelling at 28 Kings Mews, London. The property falls within the London Borough of Camden.

The works site is relatively small and includes demolition and construction works to mostly the front of the property. This document aims to assess the impacts arising from the proposed works at nearby sensitive receivers and provides an action and management plan to mitigate any identified impact.

2.0 SITE LOCATION

The site address is a terrace mews property and is bound by residential properties to the East, and West.

The most affected noise and vibration sensitive premises have been identified in the attached indicative site plan, 11923-SP1.

3.0 ENVIRONMENTAL NOISE AND VIBRATION SURVEY

3.1 Procedure

Measurements were undertaken in three positions as shown on indicative site drawing 11923-SP1. The choice of this position was based both on accessibility and on collecting representative noise data in relation to the site. A summary of noise and vibration positions are shown in Table 3.1 below.

Position	Description
1	A microphone was installed on the front façade of the building approximately 3m above ground level. A façade correction was applied.
1.2	An Accelerometer was installed to a party wall via adhesive. This was at ground floor level
2	A microphone was installed on the front façade of the building approximately 6m above ground level. A façade correction was applied.
2.2	An Accelerometer was installed to a party wall via adhesive. This was at second floor level
3	A microphone was installed on the rear façade of the building approximately 6m above ground level. A façade correction was applied. This location was chosen to represent the rear of the property as no rear windows were accessible at 28 Kings Mews.

Table 3.1 Microphone Positions

Continuous automated monitoring was undertaken for the duration of the survey between 12th January and 17th January 2017.

Weather conditions were generally dry with periods of light winds, therefore suitable for the measurement of environmental noise.

Background noise levels at the monitoring positions consisted of road traffic noise during installation and collection of equipment.

The measurement procedure generally complied with BS7445:1991. *Description and measurement of environmental noise, Part 2- Acquisition of data pertinent to land use*.

3.2 Equipment

The equipment calibration was verified before and after use and no abnormalities were observed.

The equipment used was as follows.

- 1 No. Svantek Type 971 Class 1 Sound Level Meter
- 1 No. Svantek Type 958 Class 1 Sound Level Meter
- Norsonic Type 1251 Class 1 Calibrator

4.0 EXISTING AMBIENT NOISE AND VIBRATION LEVELS

The measured noise levels are shown as a time history in time history 11923-TH1-2-3, with ambient and background noise levels summarised in Table 3.1.

	Average ambient noise level $L_{Aeq: 5min}$ dB(A)	Minimum background noise level $L_{A90: 5min}$ dB(A)
Position 1		
Daytime (07:00 - 23:00)	64dB(A)	44dB(A)
Night-time (23:00 - 07:00)	53dB(A)	41dB(A)
Operating Hours (08:00 – 18:00)	66dB(A)	46dB(A)
Position 2		
Daytime (07:00 - 23:00)	64dB(A)	49dB(A)
Night-time (23:00 - 07:00)	60dB(A)	42dB(A)
Operating Hours (08:00 – 18:00)	64dB(A)	54dB(A)
Position 3		
Daytime (07:00 - 23:00)	49dB(A)	45dB(A)
Night-time (23:00 - 07:00)	44dB(A)	39dB(A)
Operating Hours (08:00 – 18:00)	52dB(A)	49dB(A)

Table 4.1: Baseline Ambient Noise Levels

The measured vibration levels are shown as vibration time histories, 11923-VIB1-2. The measured vibration was typically below 0.5mm/s PPV during the course of the survey.

5.0 ACTIVITIES ASSESSED

It is understood that the following activities and equipment, in Table 5.1, will need to be assessed with regards to noise impact to nearby sensitive premises.

Activity	Works	Period	
		From	Till
Front Works			
Site Preparation and Enabling Works	Makita Combi Drill	06/03/2017	10/03/2017
Slab breakout close to perimeter walls	Heavy duty breaker	13/03/2017	16/03/2017
Rubbish collection	Grab Lorry 17T	17/03/2017	17/03/2017
Underpinning/Bulk excavation	1,5T Excavator	10/03/2017	09/06/2017
Underpinning	Conveyor drive unit	20/03/2017	09/06/2017
Underpinning	Medium duty beaker	17/03/2017	09/06/2017
Bulk excavation	Grab Lorry 17T	10/04/2017	09/06/2017
Underpinning	9" angle grinder	19/03/2017	20/06/2017
Underpinning	Makita Combi Drill	20/03/2017	25/06/2016
Structural concrete pours	Concrete mixer with pump	20/03/2017	25/06/2017
Steel installation	9" Grinder	17/04/2017	20/06/2017
Rear Works			
Site Preparation and Enabling Works	Makita Combi Drill	06/03/2017	10/03/2017
Slab breakout close to perimeter walls	Heavy duty breaker	13/03/2017	16/03/2017
Underpinning/Bulk excavation	1,5T Excavator	10/03/2017	09/06/2017
Underpinning	Conveyor drive unit	20/03/2017	09/06/2017
Underpinning	Medium duty beaker	17/03/2017	09/06/2017
Underpinning	9" angle grinder	19/03/2017	20/06/2017
Underpinning	Makita Combi Drill	20/03/2017	25/06/2016
Steel installation	9" Grinder	17/04/2017	20/06/2017

Table 5.1 Period of Site Activities and equipment

6.0 HOURS OF WORK

Normal permitted hours for noisy work in the Borough are Monday to Friday 08:00 to 18:00. Noisy works are not permitted on Sundays or Public Holidays or outside the periods above if they will be audible at the site boundary. Saturday working hours are to be confirmed.

The duration of works is from March 2017 to June 2017 as indicated in Table 5.1.

7.0 NOISE ASSESSMENT CRITERIA

It is proposed that the limiting levels should be set as follows:

BS 5228: 2009 Code of Practice for noise and vibration on Construction and Open Sites – Part 1: Noise references the Department of Environment (DoE) Advisory Leaflet (AL) 72 (1976) 'Noise Control on Building Sites', gives advice on the maximum levels of construction site noise at residential locations during daytime hours based on levels associated with speech interference. This publication states that during daytime hours (08:00 hours to 18:00 hours) the L_{Aeq} noise level at the building façade should not exceed:

- 75 dBA in urban areas near to main roads in heavy industrial areas; or
- 70 dBA in rural, suburban and urban areas away from main road traffic and industrial noise.

Given the location of the site, within a busy part of London in close proximity to Grays Inn Road, we suggest a value of 75dB $L_{Aeq\ (10hour)}$ be adopted as an appropriate assessment criterion. It should be noted that this criterion is not proposed as an absolute limit for construction noise; rather, it should be considered as a level against which to assess the significance of noise impacts associated with demolition and construction activities.

Draft 'Guidelines for Noise Impact Assessments', published by the Institute of Acoustics and Institute of Environmental Management and Assessment (IEMA), gives guidance on describing the impact of noise based on the change in noise level as follows:

- Negligible: Assessment criterion is exceeded by 0 to 3 dBA;
- Minor adverse: Assessment criterion is exceeded by 3 to 5 dBA;
- Moderate adverse: Assessment criterion is exceeded by 5 to 10 dBA; and
- Substantial adverse: Assessment criterion is exceeded by over 10 dBA.

8.0 NOISE AND VIBRATION IMPACT ASSESSMENT

Although this development is not a major project in its footprint and duration, it is located in close proximity to residential receptors.

8.1 Source Noise Levels

Source noise levels for the various items of machinery involved in the demolition and construction processes have been derived from historic data and levels stated in BS 5228-Part1: 2009 *Code of practice for noise and vibration on construction and open sites: Noise*. Where possible manufacturer measured noise levels have been used.

Assumed levels and percentage on-time are indicated in attached Construction Noise Schedule 11923-CNS1.

Worst case noise levels have been predicted at the nearest noise sensitive premises. 1 Kings Mews, London has been assessed due to demolition and construction works at the front of 28 Kings Mews, London. 39-45 Grays Inn Road, London has been assessed due to demolition and construction works at the rear of 28 Kings Mews London.

Due to the numerous locations of work activities, the 'average' distance from the centre of the front or rear site has been used in our calculations. This will likely provide representative $L_{Aeq\ (10\ hour)}$ noise levels.

Further screening has been assumed for certain items of plant. Details of screening attenuation assumed in our calculations is indicated in our attached Construction Noise Schedule 11923-CNS1.

8.2 1 Kings Mew, London - Receiver Noise Levels

Predicted construction noise levels have been calculated in full accordance with BS5228:2009.

Predicted noise levels at the nearest noise sensitive receptors are indicated in Table 8.1 below.

Activity	Period		Predicted Noise Level LAeq:10hours
Front Facade			
Site Preparation and Enabling Works	06/03/2017	10/03/2017	73 dB(A)
Underpinning/Bulk excavation/Slab breakout	13/03/2017	16/03/2017	75 dB(A)
underpinning/bulk excavation/Rubbish Collection/underpinning	17/03/2017	17/03/2017	69 dB(A)
Underpinning/Structural concrete pours	20/03/2017	10/04/2017	75 dB(A)
Underpinning/bulk excavation/Structural concrete pours/Bulk Excavation	10/04/2017	17/04/2017	75 dB(A)
Underpinning/Bulk excavation /Structural concrete pours/Bulk Excavation/Steel installation	18/04/2017	09/06/2017	75 dB(A)
Underpinning/Structural concrete pours/Steel installation	09/06/2017	20/06/2017	74 dB(A)
underpinning/structural concrete pours	20/06/2017	25/06/2017	71 dB(A)

Table 8.1: 28 Kings Road, London - Worst Case Receiver Noise Levels

8.3 39-45 Grays Inn Road, London - Receiver Noise Levels

Predicted construction noise levels have been calculated in full accordance with BS 5228: 2009.

Predicted noise levels at the noise sensitive receptors to the rear of the development are indicated in Table 8.2 below.

Activity	Period		Predicted Noise Level LAeq:10hours
Rear Facade			
Site Preparation and Enabling Works	06/03/2017	10/03/2017	68 dB(A)
Underpinning/Bulk excavation	13/03/2017	16/03/2017	71 dB(A)
underpinning/bulk excavation/Rubbish Collection/underpinning	20/03/2017	10/04/2017	68 dB(A)
Underpinning/Structural concrete pours	10/04/2017	09/06/2017	68 dB(A)
Underpinning/bulk excavation/Structural concrete pours/Bulk Excavation	17/04/2017	09/06/2017	70 dB(A)
Underpinning/Bulk excavation /Bulk Excavation/Steel installation	09/06/2017	20/06/2017	73 dB(A)
Underpinning pours/Steel installation	20/06/2017	25/06/2017	62 dB(A)

Table 8.2: 39-45 Grays Inn Road, London - Worst Case Receiver Noise Levels

9.0 VIBRATION LEVELS

Vibration levels will significantly diminish with distance and geographical attenuation. It is recommended that vibration levels are monitoring during construction.

BS 5228-Part2: 2009 *Code of practice for noise and vibration on construction and open sites: Vibration* provides criteria for cosmetic damage, as reproduced in Table 8.3 below.

Line (see Figure B.1)	Type of building	Peak component particle velocity in frequency range of predominant pulse	
		4 Hz to 15 Hz	15 Hz and above
1	Reinforced or framed structures Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	50 mm/s at 4 Hz and above
2	Unreinforced or light framed structures Residential or light commercial buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above
NOTE 1 Values referred to are at the base of the building.			
NOTE 2 For line 2, at frequencies below 4 Hz, a maximum displacement of 0.6 mm (zero to peak) is not to be exceeded.			

Table 8.3: BS 5228-9: 2009 Cosmetic Damage Limits for Vibration

BS 5228-Part2: 2009 also explains: 'The guide values [in the above table] relate predominately to transient vibration which does not give rise to resonant responses in structures, and to low-rise buildings. Where the dynamic loading caused by continuous vibration is such as to give rise to dynamic magnification due to resonance, especially at the lower frequencies where

lower guide values apply, then the guide values [in the above table] might need to be reduced by up to 50%.

10.0 MANAGEMENT PLAN

This section aims to highlights the appropriate mitigation measures that will be undertaken to minimise noise impacts.

This will be presented in accordance with best practice documents in order to ensure that any potential adverse noise impacts relating to demolition and construction activities are minimised.

10.1 Control of Noise at Source

Controlling noise at source is by far the most effective means of minimising any impact on nearby noise sensitive receivers.

Plant and machinery to be used on site must be selected carefully in order to minimise noise emission levels. Where there are multiple options for the same operations, the quieter unit shall be selected.

Any manufacturer recommended noise and vibration attenuation measures should also be used due to the nature of the site location relative to nearby noise sensitive receivers.

Finally, noise and vibration generating equipment should only be operational when necessary and switched off when not in use so as to minimise the accumulation of various noise sources on site.

10.2 Control of Noise Spread

British Standard 5228: 2009 provides detailed advice on methods for minimising nuisance from construction noise. This can take the form of a reduction in the source noise level and the control of noise spread and. In order to comply with specified noise criteria, the constrictors should comply with the recommendations in BS 5228: 2009.

10.3 Construction Traffic

The arrival of delivery vehicles must be properly co-ordinated so only one vehicle is present at a time with a maximum 30 minute stay, and there will be no holding areas permitted.

Vehicles should not be idling unnecessarily and adequate signage must be in place to remind drivers of their responsibility to minimise noise levels as far as practicable.

10.4 Site Hoarding

It is currently understood that a continuous site hoarding will be install around the perimeter of the site both for security and noise protection reasons. Although such a barrier will provide some level of noise attenuation for ground floor receivers, it is unlikely to have a major beneficial effect to receivers above first floor level due to the proximity of nearby noise sensitive receivers to the site.

10.5 Localised Screening

Additional localised screening should be provided when necessary in order to provide line-of-site screening from the following items of plant:

- Makita Combi Drill
- 1.5T Excavator
- Heavy Duty Breaker
- Medium Breaker
- 9” Angle Grinder
- Concrete Mixer with Pump

10.6 Proposed Steps to Minimise Noise and Vibration

General

- Best practice, as defined in Section 72 of the Control of Pollution Act 1974, in relation to noise and vibration mitigation shall be used at all times during construction.
- Equipment is to be hired from reputable companies who can supply new well maintained plant.
- Unnecessary revving of engines and motor driven tools is to be avoided.
- Vehicles and plant are to be switched off when not in use.
- Rubber lined chutes and dumpers will be used wherever practicable.
- Drop heights are to be minimised.
- Site vehicles are to be fitted with broadband white noise reversing alarms wherever practicable.

- All movement of plant and vehicles onto and around the site is to take place within permitted working hours.
- Erect solid screens or barriers around the site boundary and use acoustic fencing panels wherever noisy work is taking place.

Plant machinery and equipment.

- The quietest available equipment and methods will be used in conjunction with noise barriers and all practicable mitigation measures.
- The use of percussive breaking equipment will be avoided wherever practicable.
- Noise generating fixed plant shall be located as far from sensitive premises as possible.
- Mechanical generators shall be avoided wherever practicable.
- Electricity driven plant and equipment will be used in favour of diesel or petrol driven plant and equipment wherever practicable.
- Care is to be taken to always select the quietest available equipment, wherever practicable, and to keep that equipment well maintained in accordance with manufacturer's instructions.
- All equipment covered by European Directive 2000/14/EC on the noise emission in the environment by equipment for outdoors is to bear the CE marking and the indication of the guaranteed sound power level (and to be accompanied by an EC declaration of conformity).
- Any equipment not covered by the EU Directive should comply with the generic plant noise emissions in Annex C of BS 5228 and should be properly silenced and maintained in accordance with manufacturers' instructions.
- Plant and equipment in frequent use should be replaced every three years to ensure that noise levels are minimised by using the most efficient and well maintained machinery.

Key construction processes and equipment

- Wherever practicable non-percussive techniques are to be used. Equipment that demolishes structures by crushing, bending, shearing, cutting or hydraulic splitting are to be used wherever practicable. Wherever practicable building elements are to be detached from a structure and lowered to the ground.

- Wherever practicable floor slabs will be broken up using non-percussive techniques and wherever practicable slabs are to be levered from their position and removed from site for breaking up/crushing elsewhere. Where this is not possible slabs are to be cut and separated around their perimeter to isolate the slab from the rest of the structure before breaking up.
- Where percussive breakers are to be used, multiple breakers are to be employed where practicable to minimise the time taken to break up concrete and floor slabs.
- The contractor is to communicate with neighbours to ensure that they are well informed about timing and to minimise disturbance as far as practicable.
- Wherever practicable non-percussive pile reduction techniques are to be utilised.
- Excavation plant will be switched off when not in use and will be subject to regular maintenance and checks and servicing.
- Spoil conveyors will be electrically powered with drive motors located as far from neighbouring properties as practicable and sound insulated. All conveyors must have a service contract to ensure regular maintenance and replacement of worn parts.
- Concrete pours are to take place only within permitted hours. Careful planning will be necessary by the contractor and design team to ensure that the volume of pours make this possible and that sufficient contingency is allowed for potential delays on any given day.
- Steelwork fabrication and cutting is to take place off site wherever practicable. Where this is not practicable cutting and fabricating is to take place within a mobile acoustic enclosure.
- Hydraulic or pneumatic shears are to be used to crop rebar if necessary in preference to angle grinders.
- Electrical generators and air compressors are not to be used during construction unless unavoidable. Where unavoidable these are to be located within the site itself and acoustically screened from neighbouring properties.
- A temporary builder's power supply is to be used from the outset to avoid the need for generators.
- Where generators or compressors must be used the contractor will demonstrate that they are the quietest available super or ultra-silent units incorporating sound attenuating acoustic enclosures or other sound reduction techniques.
- Generators and compressors must be switched off when there is no demand on site.

- Where appropriate generators and compressors must be isolated from adjacent structures to avoid transfer of noise and vibration to adjoining properties.

10.7 Proposed Steps to Minimise Dust

Site Management

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner and record the measures taken. Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on or off site and the action taken to resolve the situation in the log book.
- 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.

Preparing and maintaining the site

- Plan site layout so that machinery and dust causing activities are located away from receptors as far as is possible. Use intelligent screening where possible
- Erect solid screens or barriers around the site boundary.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers clean.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. lf they are being re-used on site then re-cover.
- Depending on the duration that stockpiles will be present and their size, cover, fence or water to prevent wind whipping.

Operating vehicle/machinery and sustainable travel

- Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone, where applicable.
- Ensure all vehicles switch off engines when stationary.
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.

- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Implement a Travel Plan that supports and encourages sustainable staff travel {public transport, cycling, walking and car-sharing).

Operations

- Use only 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.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible.
- Use enclosed chutes, conveyors and covered skips where practicable.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- 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.

Waste management

- Use only registered waste carriers to take waste off site.
- Avoid bonfires and burning of waste materials.

Measures specific to demolition

- Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
- Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
- Avoid explosive blasting, using appropriate manual or mechanical alternatives.
- Bag and remove any biological debris or damp down such material before demolition.

Measures specific to construction

- 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.
- For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.

10.8 Publicity and Communication

Good public relations and extensive consultations with local authorities are of paramount importance to minimise the impact of construction work. In particular, local residents will need to be advised that any higher levels of noise will only be for a short period of time and that publicised works schedules will be adhered to.

Careful consideration should be given to occupiers of adjoining properties.

10.9 Noise Monitoring

In order to meet appropriate noise levels, it is recommended that noise monitoring is carried out for the duration of noisy works with Class 1 integrating logging sound level monitors. The monitors will be installed and calibration verified (before and after) with a Class 1 acoustic calibrator. The instrumentation will have been fully calibrated by the manufacturer, or other approved body, as required by the relevant British Standard, with current calibration certificates available. The meters will be set to measure and store samples of various acoustic parameters such as L_{Aeq}, L_{A90}, L_{A10} and L_{Amax}. Data would be downloaded remotely on a regular basis.

It is proposed that the meters are configured to log continuous 1-hour samples of noise throughout the working day, which will be used to calculate a 10-hour (daily) L_{Aeq}. Monitoring Locations, daily limits and hourly action levels will be agreed with the Council prior to the works.

10.10 Vibration Monitoring

It is recommended that vibration monitoring is undertaken for the duration of the works, measuring the peak particle velocity [ppv]. The instrumentation will have been fully calibrated by the manufacturer, or other approved body with current calibration certificates available. Data would be downloaded remotely on a regular basis.

It is proposed that the meters are configured to log continuous 5 minute samples of maximum ppv levels throughout the working day. Monitoring Locations, daily limits and hourly action levels will be agreed with the Council prior to the works.

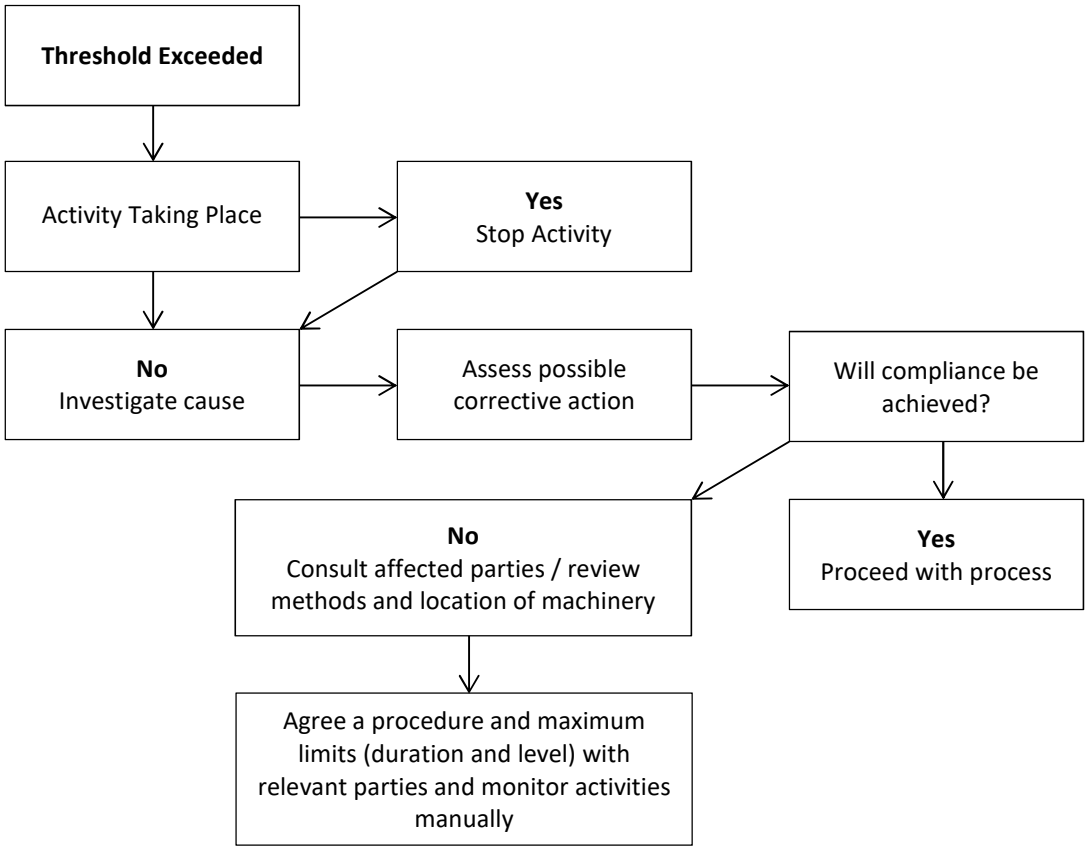
10.11 Noise and Vibration Monitoring Alert Systems

In order to ensure that the site manager and relevant parties are made aware of noise limits being exceeded at a specific monitoring location at any time during the works, we recommend that the following alert systems are implemented:

- SMS alert sent to a mobile telephone number (site manager) as soon as the threshold is exceeded. The text message would contain information on the noise level which triggered the alert.
- Email alert sent to an email address as soon as the threshold is exceeded. The email would contain information on the noise level which triggered the alert.

10.12 Incident Procedure

Should the noise criteria agreed with the Local Authority be exceeded during the demolition and construction programme, the following procedure should be followed:



Any exceedances caused and the subsequent action taken should be recorded in a table as follows:

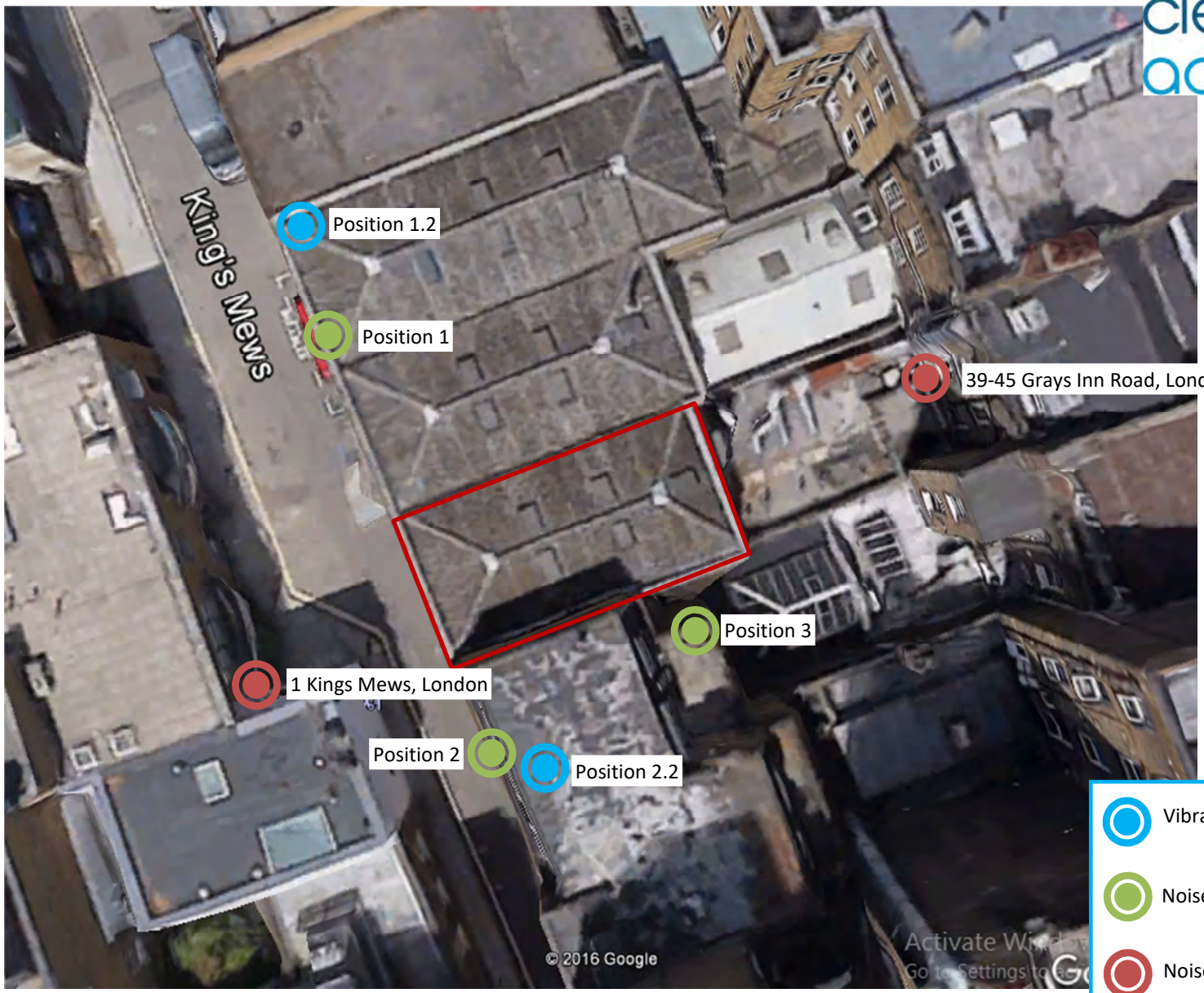
Date	Time	Findings of Investigation and Action Taken

10.13 Complaints Procedure

All Complaints to be investigated immediately by site manager for investigation and follow up.

Any complaints should be logged as follows:

Date of receipt	Time of receipt	Contact details of complainant	Description of complaint	Date of investigation	Findings of investigation and actions taken



11923-SP1 Indicative site plan indicating noise monitoring positions and nearest noise sensitive receivers

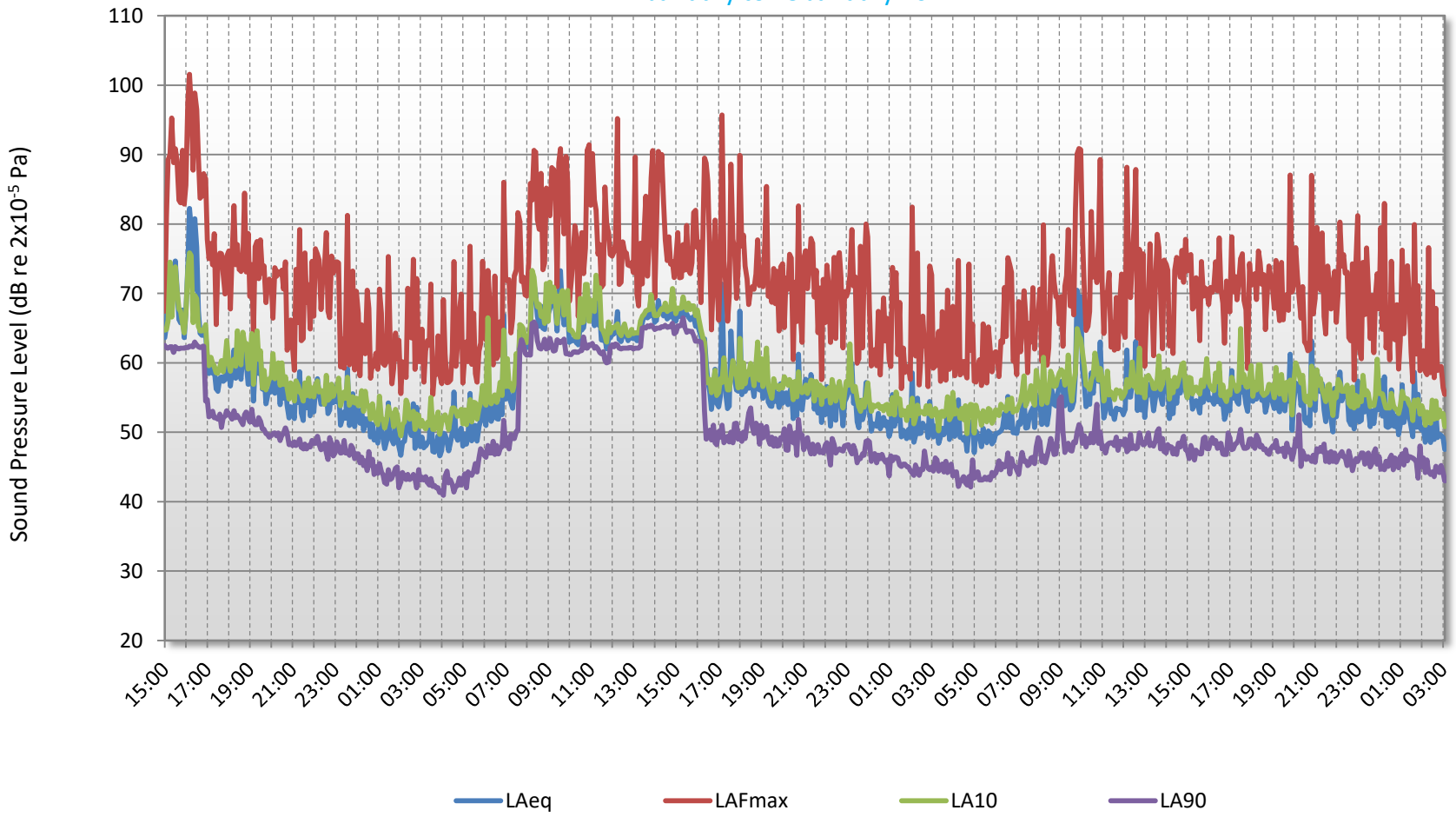
Date: 07 February 2017

28 Kings Mews, London

Position 1

Environmental Noise Time History

12 January to 15 January 2017



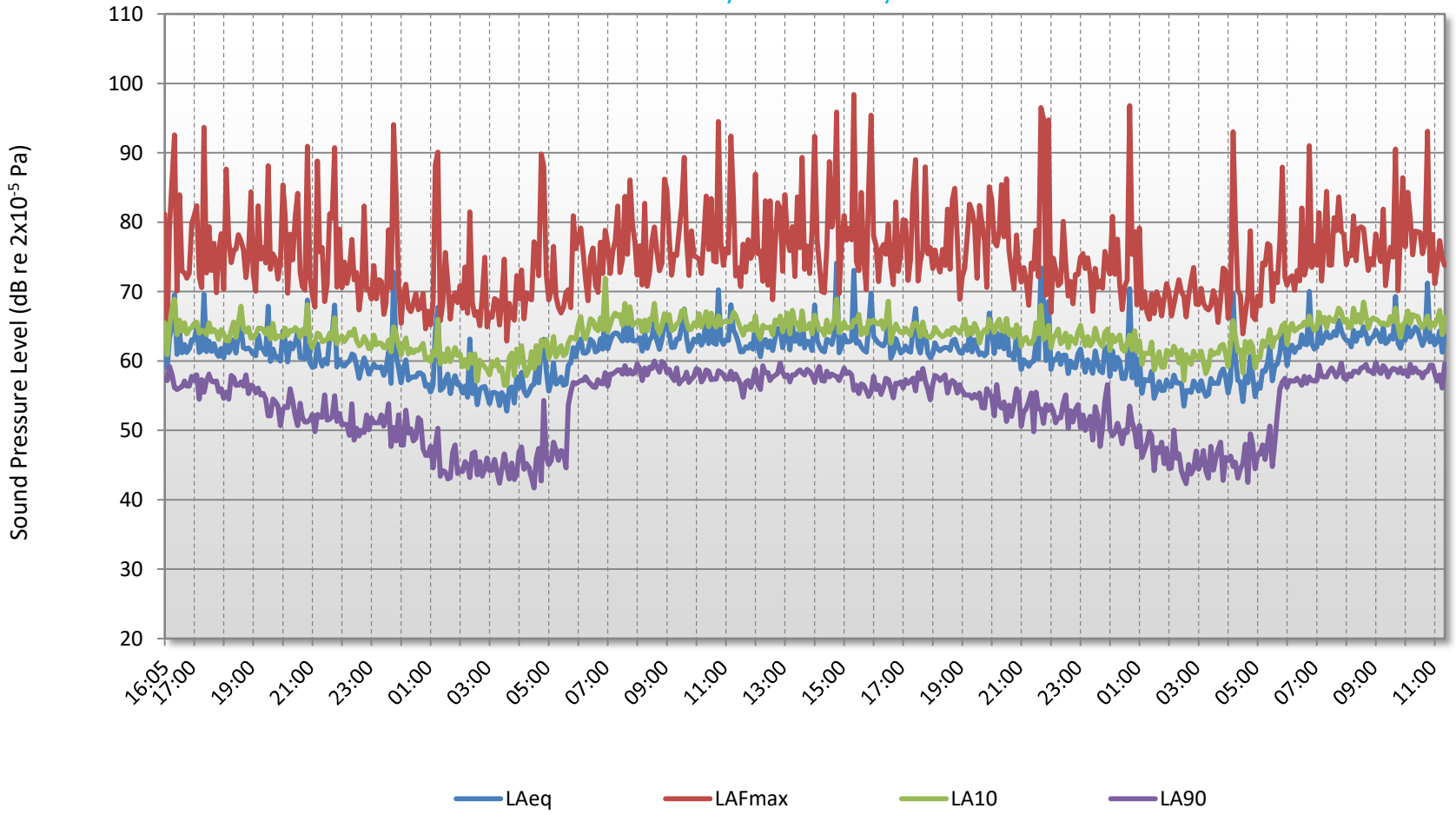
11923-TH1

28 Kings Mews, London

Position 2

Environmental Noise Time History

17 January to 19 January 2017



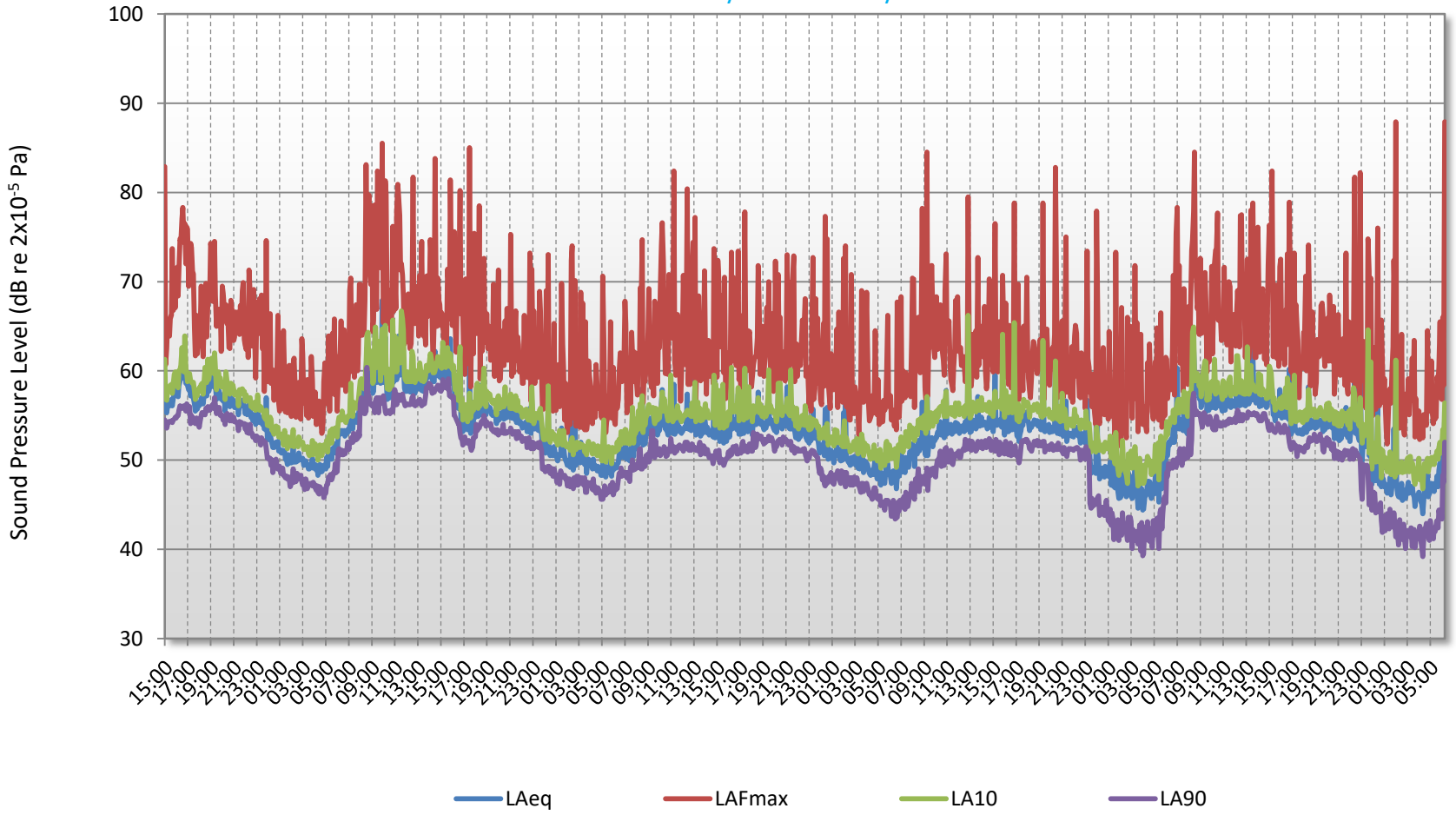
11923-TH2

28 Kings Mews, London

Position 3

Environmental Noise Time History

12 January to 17 January 2017



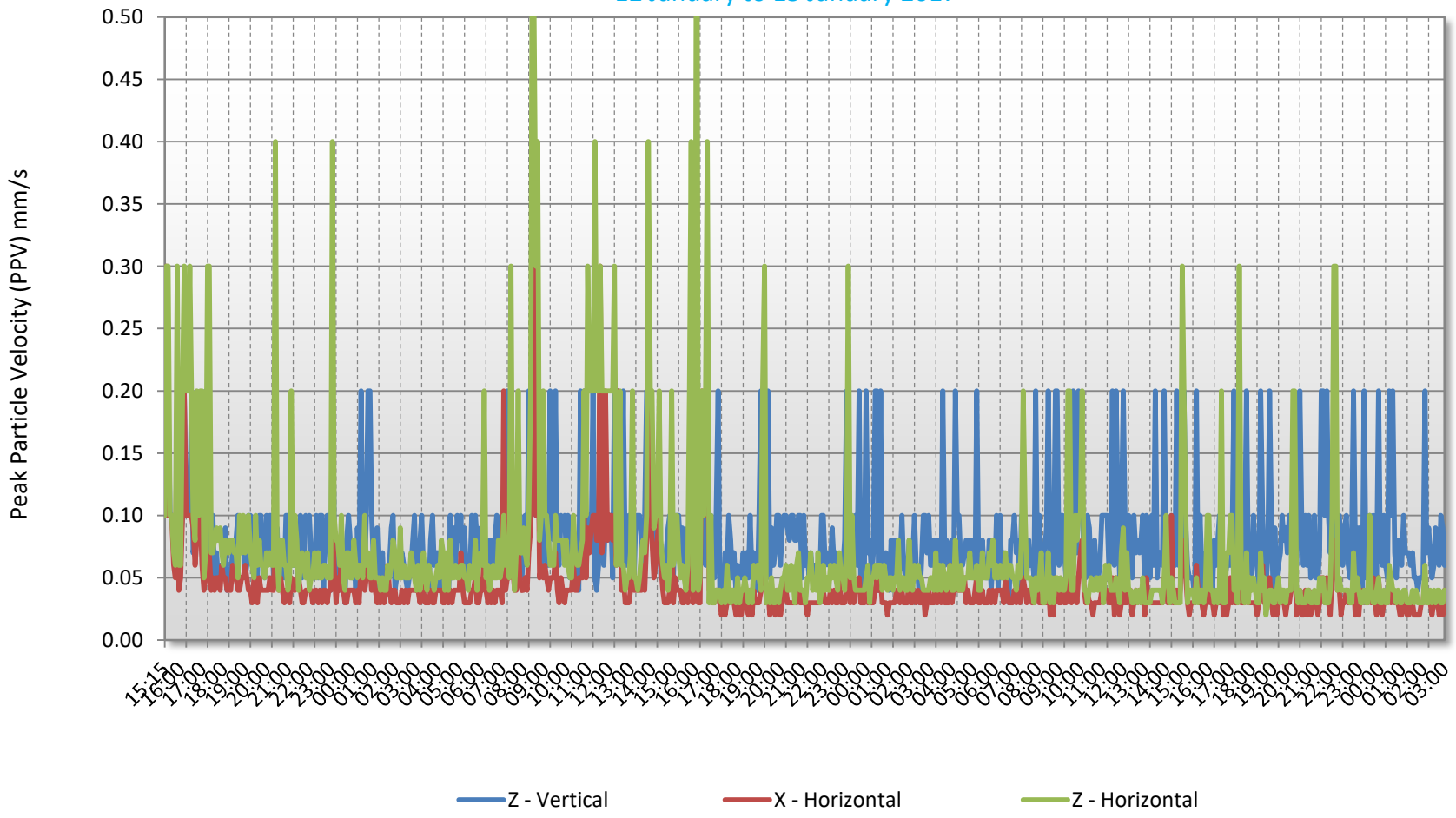
11923-TH3

26 Kings Mews - Party Wall

Position 2.2

Environmental Vibration Time History

12 January to 15 January 2017



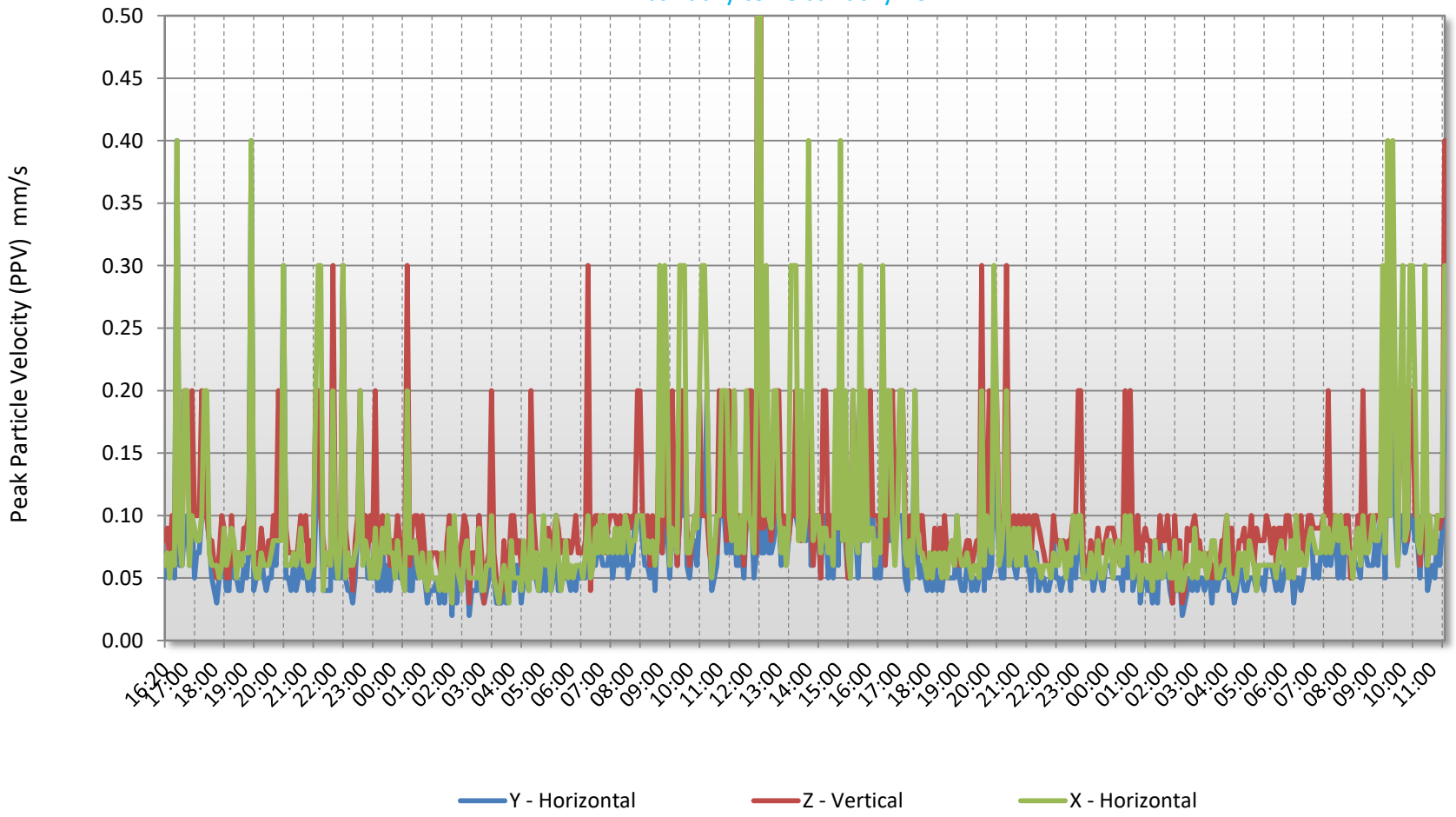
11923-VIB1

28 Kings Mews - Party Wall

Position 1.2

Environmental Vibration Time History

17 January to 19 January 2017



11923-VIB2

Construction Noise Schedue For Front of Building

11923

28 Kings Mews, London

Activity	Plant/Equipment	Data Source	No(1)	Plant dB at 10m	% on time	Start Date	Finish Date	Screening
Site Prepatation and enabling works	Makita Combi Drill	106dBA SWL from Bosch website	2	78	50	06/03/2017	10/03/2017	5dB
Underpinning/bulk excavation	1.5T Excavator	BS 5228-1:2009 Table C.3:20	1	68	80	10/03/2017	09/06/2017	5dB
Slab breakout cose to perimeter walls	Heavy duty breaker	BS 5228-1:2009 Table C.9:12	2	85	15	13/03/2017	16/03/2017	5dB
Rubbish Collection	Grab Lorry 17T	BS 5228-1:2009 Table C.5:11	1	73	10	17/03/2017	17/03/2017	0dB
Underpinning	Medium Breaker	LwA (107) from data sheet spectrum from BS5228 (C.1:6)	2	74	20	17/03/2017	09/06/2017	5dB
Underpinning	9" angle grinder	BS 5228-1:2009 Table C.4:93	1	81	15	19/03/2017	20/06/2017	5dB
Underpinning	Conveyor drive unit	BS 5228-1:2009 Table C.10:21	1	76	20	20/03/2017	09/06/2017	0dB
Underpinning	Makita Combi Drill	106dBA SWL from Bosch website	2	78	10	20/03/2017	25/06/2017	5dB
Structural concrete pours	Concrete mixer with pump	BS 5228-1:2009 Table C.4:20	1	80	15	20/03/2017	25/06/2017	5dB
Bulk Excavation	Grab Lorry 17T	BS 5228-1:2009 Table C.5:11	1	73	20	10/04/2017	09/06/2017	5dB
Steel installation	9" angle grinder	BS 5228-1:2009 Table C.4:93	1	81	10	17/04/2017	20/06/2017	5dB

Construction Noise Schedue For Rear of Building

11923

28 Kings Mews, London

Activity	Plant/Equipment	Data Source	No(1)	Plant dB at 10m	% on time	Start Date	Finish Date	Screening
Site Preparation and Enabling Works	Makita Combi Drill	106dBA SWL from Bosch website	2	78	50	06/03/2017	10/03/2017	10 dB *
Slab breakout close to perimeter walls	Heavy duty breaker	BS 5228-1:2009 Table C.9:12	2	85	20	13/03/2017	16/03/2017	10 dB *
Underpinning/Bulk excavation	1,5T Excavator	BS 5228-1:2009 Table C.3:20	1	68	80	10/03/2017	09/06/2017	10 dB *
Underpinning	Conveyor drive unit	BS 5228-1:2009 Table C.10:21	1	76	40	20/03/2017	09/06/2017	10 dB *
Underpinning	Medium duty beaker	LwA (107) from data sheet spectrum from BS5228 (C.1:6)	2	74	30	17/03/2017	09/06/2017	10 dB *
Underpinning	9” angle grinder	BS 5228-1:2009 Table C.4:93	1	81	15	19/03/2017	20/06/2017	10 dB *
Underpinning	Makita Combi Drill	106dBA SWL from Bosch website	2	78	15	20/03/2017	25/06/2017	10 dB *
Steel installation	9” Grinder	BS 5228-1:2009 Table C.4:93	1	81	15	17/04/2017	20/06/2017	10 dB *

*Screening provided by the building envelope

APPENDIX A

GLOSSARY OF ACOUSTIC TERMINOLOGY

dB(A)

The human ear is less sensitive to low (below 125Hz) and high (above 16kHz) frequency sounds. A sound level meter duplicates the ear's variable sensitivity to sound of different frequencies. This is achieved by building a filter into the instrument with a similar frequency response to that of the ear. This is called an A-weighting filter. Measurements of sound made with this filter are called A-weighted sound level measurements and the unit is dB(A).

L_{eq}

The sound from noise sources often fluctuates widely during a given period of time. An average value can be measured, the equivalent sound pressure level L_{eq}. The L_{eq} is the equivalent sound level which would deliver the same sound energy as the actual fluctuating sound measured in the same time period.

L_{10}

This is the level exceeded for not more than 10% of the time. This parameter is often used as a "not to exceed" criterion for noise

L_{90}

This is the level exceeded for not more than 90% of the time. This parameter is often used as a descriptor of "background noise" for environmental impact studies.

L_{max}

This is the maximum sound pressure level that has been measured over a period.

Octave Bands

In order to completely determine the composition of a sound it is necessary to determine the sound level at each frequency individually. Usually, values are stated in octave bands. The audible frequency region is divided into 10 such octave bands whose centre frequencies are defined in accordance with international standards.

Addition of noise from several sources

Noise from different sound sources combines to produce a sound level higher than that from any individual source. Two equally intense sound sources operating together produce a sound level which is 3dB higher than one alone and 10 sources produce a 10dB higher sound level.

Attenuation by distance

Sound which propagates from a point source in free air attenuates by 6dB for each doubling of distance from the noise source. Sound energy from line sources (e.g. stream of cars) drops off by 3dB for each doubling of distance.

Subjective impression of noise

Sound intensity is not perceived directly at the ear; rather it is transferred by the complex hearing mechanism to the brain where acoustic sensations can be interpreted as loudness. This makes hearing perception highly individualised. Sensitivity to noise also depends on frequency content, time of occurrence, duration of sound and psychological factors such as emotion and expectations. The following table is a reasonable guide to help explain increases or decreases in sound levels for many acoustic scenarios.

Change in sound level (dB)	Change in perceived loudness
1	Imperceptible
3	Just barely perceptible
6	Clearly noticeable
10	About twice as loud
20	About 4 times as loud

Barriers

Outdoor barriers can be used to reduce environmental noises, such as traffic noise. The effectiveness of barriers is dependent on factors such as its distance from the noise source and the receiver, its height and its construction.

Reverberation control

When sound falls on the surfaces of a room, part of its energy is absorbed and part is reflected back into the room. The amount of reflected sound defines the reverberation of a room, a characteristic that is critical for spaces of different uses as it can affect the quality of audio signals such as speech or music. Excess reverberation in a room can be controlled by the effective use of sound-absorbing treatment on the surfaces, such as fibrous ceiling boards, curtains and carpets.

Appendix D

Includes:

- Risk Assessment

Method Statement & Risk Assessment for Reduced Level Excavation, Underpinning and Basement Construction Works.

At the Project of: -

28 Kings Mews,
London,
WC1N 2JB.

On Behalf of:

Knowles & Associates Ltd

Knowles

Contents

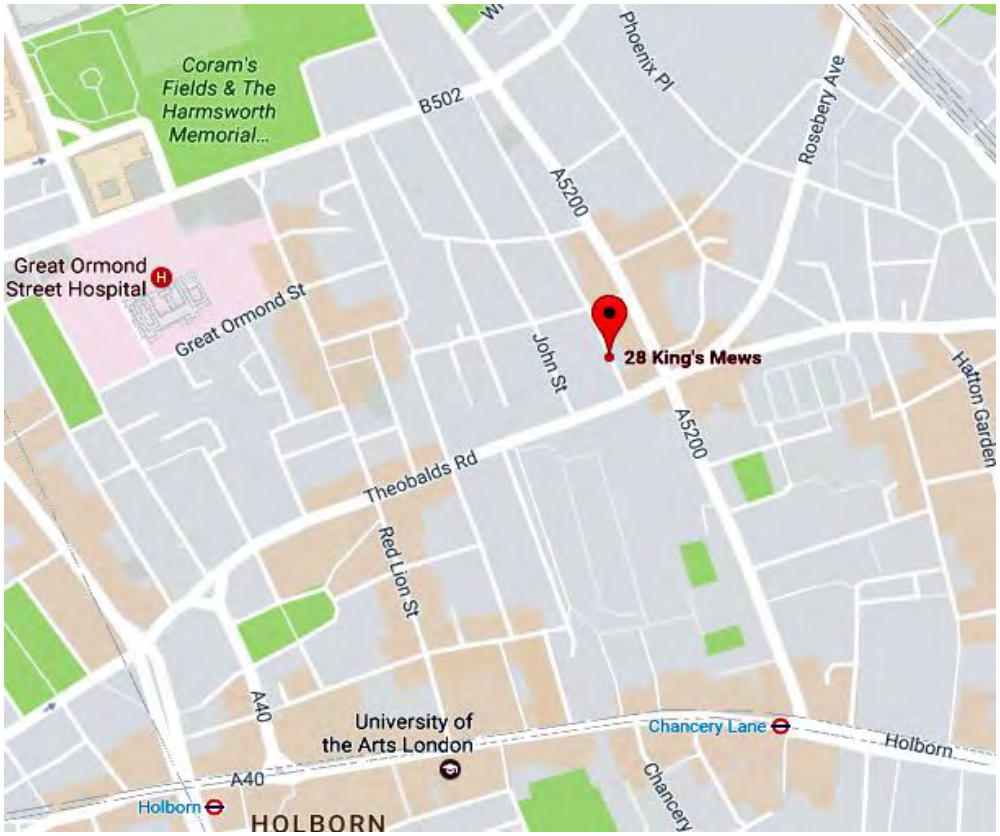
1. Description of works.

The operations referred to within this document comprises of our arrival to site at 28 Kings Mews London WC1N 2JB, the initial site set-up of conveyor system and unloading of any initially required small tools, plant and materials required to commence with the specified installation of the permanent structural steel frame, temporary propping and enabling works i.e. initial breakout of the existing concrete floor and subsequent underpinning of the existing party walls, together with final excavation and installation of Delta membrane waterproofing system to construct a new basement in accordance with the Project specification, approved construction issue drawings and any temporary works designs or instructions given by the appointed Engineer, Temporary Works Coordinator and the Client/Clients representative.

Normal working hours:

Monday – Friday	08.00 – 18.00.
Saturday	(T.B.C)
Sunday	No works
Bank holidays	No works

Please see below map:



2. Method of Working

2.1 Knowles & Associates Ltd will obtain authorisation from the Client to commence work on site and will confirm the works area, compound and stockpile area together with any site-specific health and safety rules, requirements and restrictions by way of a project specific safety induction.

Details of Operatives and Supervisor Training, i.e. SMSTS, SSSTS, First Aid at Work certification will be presented, upon request and in any case be available on site whilst the works are in progress.

2.2 Knowles & Associates Ltd will ensure that the area is ready to accept scheduled deliveries by removing any obvious hazards and materials that may impede the safe placement of these materials.

2.3 In addition, all suppliers have been notified of their requirement to implement suitable and sufficient control measures to eliminate or reduce the risks associated with working at height during loading and unloading operations.

Delivery drivers will be requested to provide evidence of training in relation to the operation of any vehicle mounted cranes (HIAB) and certificates of thorough examination for the lifting equipment and any accessories used for lifting the required materials.

Once satisfied that all necessary materials, plant and equipment have been safely unloaded and stored correctly within the designated areas, the designated Site Foreman will fully brief all Knowles & Associates Ltd personnel in relation to the scope and nature of the works and ensure that they are made aware of their responsibilities and the requirements of this method statement and associated risk assessments.

Installation of structural steelwork & propping to support the existing structure.

2.4 The first stage of our works will include for the installation of permanent structural steelwork and temporary propping to the existing structure to ensure the stability of the existing superstructure prior to the commencement of any further dismantling and/or demolition works in accordance with the Structural Engineer's instructions and construction issue drawings provided.

The specified structural steelwork will be manually transported to the desired location and lifted into position, wherever reasonably practicable using Genie SLA10 material hoists to lift and support the steel until such time as they can be welded into position by our competent and coded welders.

2.5 In addition to the above, reinforced concrete padstones will then be constructed to support the new structural steel columns. The new steel columns will then be manually transported and supported whilst the attending operatives drill and fix the holding down bolts into position. The columns will be checked for verticality by our Site Foreman.

2.6 Once satisfied that the existing structure has been adequately supported, any existing redundant steelwork and masonry will be carefully dismantled and removed to a designated area awaiting collection and subsequent disposal by a registered waste carrier to an approved and licensed facility accepting clean/inert material.

2.7 The existing ground floor slab will be broken out using hand held; compressed air fed, anti-vibration medium duty breakers i.e. Breakers (Hand Vibration 3.5m/s^2).

2.8 The extent of the breakout and subsequent reduced level excavation of the sub-strata material will be to suit the nearest "pin" ensuring that operatives are provided with sufficient working space.

2.9 Once satisfied that the excavation works are complete, our Site Foreman will ensure that consideration is afforded to erecting suitable barriers around any part of the excavation giving rise to a risk of injury arising from persons falling into the excavation.

Hazard warning signage E.G. Danger Deep Excavation, Underpinning Works in progress Etc. will be displayed prominently around the perimeter of the excavation.

Conveyor Installation

2.10 Following completion of the structural steel installation and any necessary temporary propping, the Site Foreman will carry out a secondary survey of the building and agree the layout of the proposed conveyor system provided for the purpose of removing all arising's during the breakout and removal of the existing basement slab and excavation of sub-strata material.

It is proposed to install the conveyor system at the front of the building, utilising a designated parking bay (which has a relevant local authority permit in place), to position a wait and load skip/muck away lorry, ensuring that a suitable exclusion zone is established around the skip or lorry location in the interest of preventing access to unauthorised persons and protecting third parties from coming into contact with the conveyor and any arising's, this will be achieved by way of a trained Traffic Marshall being in place to supervise any muck away operations, consideration to the safety of third party users of the footpath will be given at all times.

2.11 Although an initial survey has been carried out and a proposed layout agreed provisionally, the Site Foreman must ensure that our specialist conveyor system is suitable for the length of runs required and is positioned in a manner that does not obstruct any means of escape, fire points or emergency access points.

2.12 In light of the initial survey and proposed location of the conveyor, it is not foreseeable that this will cause any obstruction to existing pedestrian traffic routes or walkways, however where it may be necessary to relocate the conveyor for any reason, then consideration will be afforded to providing crossing points or ramps, where the conveyor may intercede with any access threshold, pedestrian walkways.

2.13 Any such ramp or temporary steps should incorporate handrails and in addition, provide full protection against any person or material from falling onto the conveyor belt.

2.14 Furthermore due to the conveyor system, which by its very nature gives rise to a risk of injury arising from contact with moving machinery parts, particularly where it is not practicable to fully enclose or provide fixed guarding, the Site Foreman shall ensure that suitable and sufficient barriers and hazard warning signage is provided to prevent access.

Emergency stop controls shall be situated in prominent positions, clearly marked and readily available in the event of an emergency.

2.15 The conveyor system will be fitted with a hopper system and protective cowling at the point of loading and will transport the arisings from the site of the excavation works directly to the skip/muck away lorry for subsequent collection and disposal by a licensed and registered waste carrier to an approved facility accepting clean/inert waste.

2.16 The isolation/emergency stop controls will be utilized to effectively isolate the conveyor system, prior to and during any cleaning or maintenance works.

2.17 The Site Foreman will be responsible for ensuring that the conveyor system remains isolated, until such time as the cleaning/maintenance/inspection works are complete.

2.18 The conveyor will be subject to weekly inspection (as for all Plant/Equipment); furthermore where the conveyor belt system is used (inclines only) will be subject to thorough examination, prior to first use and thereafter at intervals not exceeding 12 months.

Excavation and Underpinning.

2.19 Prior to and during any excavation of the area, ground conditions will be assessed by a competent person to determine the means and method of support to ensure the stability of the excavation. Consideration will be afforded to ensuring that advice is sought from our structural/temporary works engineer where ground conditions may indicate that specialised engineering methods may be necessary to ensure the stability of the excavation i.e. de-watering, temporary work designs etc.

2.20 Consideration shall also be afforded to the provision of suitable and sufficient specialised materials i.e. Acrow props, screw jacks, steel sheet piles Etc. so as to ensure that where necessary the excavation can be suitably shored to prevent any unintentional collapse.

2.21 The area to be excavated will be checked using existing service drawings for the location of possible hidden/buried services and scanned by a competent person, using cable avoidance tools and signal generator, where necessary.

2.22 Consideration has been afforded to confined space working, therefore force air ventilation will be provided and monitored during all operations when any combustion engine driven plant is being utilized within the building, in the interest of eliminating the foreseeable risks associated with the ingress of gas, fume or vapor.

Consideration with regards to some of the excavation works being carried out using electric powered hand held tools (clay spades) with consideration afforded to ensuring that operatives are not exposed to levels of hand-arm vibration above the Daily Exposure Level of 2.8m/s^2 8Hr TWA, in the interest of reducing the foreseeable risks associated with the above mentioned hazards.

The Site Foreman will be required to record the vibration levels and operation times of those operative engaged in any excavation and employ task rotation so as to limit the personal daily exposures.

2.23 The initial excavation will commence, to remove sufficient material from below the existing foundation in accordance with the plan and section drawings provided and in accordance with the sequence of underpinning provided by our temporary works engineer.

The areas to be underpinned will be clearly marked upon the existing walls, adjacent to each pin, clearly showing the construction sequence and any datum information considered necessary to ensure that the correct design depth is reached.

2.24 The attending operatives, under the direct Supervision of the Site Foreman will ensure that the initial excavation work provides sufficient working space around each pin location; approximately 1200mm x 1500mm wide bays.

2.25 The excavation will be checked, so as to ensure its stability or to determine the nature of any required additional shoring and to ensure that edge protection or barriers are in place prior to the commencement of works. These checks shall be made at the start of each shift.

2.26 The excavation will proceed to the specified drive design depth, allowing for the attending underpinners to access the excavation, using a timber or steel, industrial (Class 1 or 2) rated pole ladder of sound construction to access the excavation for the purpose of installing the necessary temporary shoring/support in accordance with the temporary works designs provided and facilitating the removal of any further arising's.

2.27 The ladder access will be securely tied and or footed, using timber battening or the trench sheets to secure the ladders and prevent any unintentional displacement.

2.28 Where sub-structure brickwork is encountered, the brickwork will be assessed, in consultation with our structural/Temporary Works Engineer, to determine the necessity and method of providing any additional temporary propping required, ensuring the stability of the s/s brickwork prior to the commencement of any further excavation works.

2.29 Once satisfied that the excavation of the underpinning has reached it specified depth, the Site Foreman will check the pin to satisfy himself that sufficient material has been removed and that the temporary support has been installed correctly, before instructing the attending underpinners to place and secure the required reinforcement in accordance with the structural detailing/section drawings provided.

2.30 All reinforcement will then be secured by way of tying wire in accordance with the structural detailing provided by the appointed engineer.

2.31 Following the completion of the process outlined above, competent underpinners shall commence with the forming of the face shutter and subsequent propping. Propping of the face shutter shall be achieved using a suitable and sufficient number of "Acrow Props" secured through each base plate using timber packers and supported against the central "dumpling" (existing substrata) to ensure that the loads imposed by the concrete cannot displace the formwork during or immediately following the concrete pour.

2.32 The Site Foreman will then instruct our attending operatives to commence with the batching of the specified concrete, using a 5/3 110V Electric Mixer with consideration afforded to ensuring that mixing of the concrete is carried out in a careful manner so as to reduce the production and migration of respirable dusts by a competent operative, who will be provided with and instructed to wear suitable respiratory protection i.e. FFP2 face mask.

The Site Foreman will also afford consideration to the collection of mixed concrete and taking of cubes for any designed mix, ensuring that those responsible for the taking of cubes are trained and that the cubes are correctly stored and cured on site until such time as they can be collected and sent to an approved UKAS accredited facility for testing.

2.33 The batched concrete will be placed either by hand using buckets or a wheelbarrow and timber chute to place the mix directly into the shuttered area. Operatives shall ensure that they wear suitable and sufficient work clothing i.e. long sleeve jackets and personal protective equipment to include suitable eye protection and gloves during the concreting operation.

2.34 Once all concreting operations have been completed in accordance with the specification, up to within approximately 75mm of the u/s of the existing foundation, the concrete will be vibrated using 110 Volt hand held vibrating pokers to remove any air pockets and reduce the risk of void formation.

Operatives must allow at least 24 hours for the curing process. During which time operatives may then commence with the preliminary excavation work to the next sequence of underpinning as shown on the drawings.

2.35 Subsequent to the concrete reaching the required compressive strength, operatives will revisit the location to dry pack the void immediately above the concrete underpin. Operatives will commence with dry packing the void using sand and cement mix containing non-shrink additive. Dry packing will be compacted using a packer (section of timber) and hand tools to ensure solid compaction below the existing footing.

2.36 Once the pin has been completed, any protrusions or excrescences will be removed, flush to the face of the wall, using hand tools to prevent any damage to the existing foundation.

2.37 The process described above will then be repeated in strict sequence in accordance with the drawings provided; ensuring that any required continuity reinforcement has been correctly installed.

Reinforcement dowels will be drilled and fixed.

2.38 Operatives shall, on request, be instructed to take a sufficient number of cube samples from the deliveries and arrange for collection so as to ensure the consistency of the concrete batched on site. Operatives will be trained in the forming of cube samples and curing techniques.

2.39 Once the concrete has cured sufficiently, the timber formwork will be struck from the face of the vertical walls and de-nailed before stacking safely within a designated area for cleaning and re-use.

2.40 Once all underpinning works have been completed the remaining mass will be removed using the conveyor to transfer the material to the designated skip and allow for the base of the excavation to be prepared in readiness for a final pour to construct the reinforced slab.

2.41 Operatives shall once again access the excavation using a suitable ladder of sound construction, secured against displacement by use of a timber footing and secure anchorage to the previously cast vertical wall to facilitate the placement of reinforcement mesh and placement of concrete within the base of the excavation in accordance with the specification.

2.42 The basement slab will be constructed using ready mix concrete, delivered directly to site and placed using a static pump and suitable hoses to place the concrete within the prepared area.

Operatives will be reminded to wear suitable work clothing (no short sleeve tops or shorts) and protective equipment i.e. eye protection, gloves, safety boots or wellington boots.

2.43 Upon completion of the underpinning and ground bearing slab construction, the area will be cleared of any remaining waste and plant, equipment and any excess materials cleared from site and/or returned to the designated storage area.

2.44 The Site Foreman will then instruct our skilled and competent operatives to install the Delta waterproofing membrane in accordance with the manufacturers literature, ensuring that only the proprietary fixings are used i.e. plugs and sealant to provide the completed watertight basement in accordance with the Project specification and construction issue drawings provided.

3. Sequence of operations.

3.1 Delivery of materials and equipment

Arrangements will be made to ensure that adequate time allowance is available for the movement and set down of materials.

Materials will be brought to the work site by a suitable vehicle, i.e. rigid chassis 8 wheeler or drop-sided lorry with HIAB and will be parked in an area specifically dedicated to the delivery of materials.

Consideration has also been afforded to informing our suppliers of the nature of the site, proximity of residential properties and signing in procedure.

Suppliers will also be required to provide a minimum of 48 hours' notice prior to delivery so as to ensure that sufficient space is available within our designated laydown area for the placement and safe stacking of the materials and any additional equipment.

Materials will not be stacked in any access and egress routes but will be stored temporarily within a designated area provided by the Principal Contractor until the materials are required on site.

In accordance with the Manual Handling Operations Regulations 1992, loads will be reduced and loads split between operatives.

A restriction will be placed on the amount of materials placed in one area at any one time on site to ensure that there is no overloading of the ground and trip hazards are reduced with access / egress routes remaining clear.

All materials will be placed to as close to the work area as possible (given the space constraints), in the prevention of manual handling tasks.

3.2 Preparation.

Others within the work area will be advised of the works to be undertaken in the area and of any risks present e.g. slippery surfaces, uneven ground conditions or unstable ground conditions etc. Where excavation works are in progress, signage will be displayed upon barriers warning of dangers e.g. "Danger Construction Work in Progress", "No Unauthorised Admittance" etc.

Operatives will be involved in a pre-works talk to discuss this method statement and to ensure that they are familiar with the method of works specific to this particular document and site conditions. All personnel working for Knowles & Associates Ltd are familiar with the system of work to be used and use of tools and equipment required in their particular areas of work and have undertaken a history of tasks identical in all respects to the tasks required to be undertaken.

The Site Foreman for Knowles & Associates Ltd will however, highlight to operatives arriving on site additional hazards that may be present in their immediate environment.

In addition, daily activity briefings will be carried out by the Site Foreman to ensure that any previously unforeseen risks are brought to the attention of those persons at point of works.

3.3 Commencement of the works in accordance with Section 2.

3.4 Site Clearance

All debris and excess materials will be removed from the work area, by conveyor and deposited to a stockpile area, awaiting removal by a licensed waste removal contractor.

Should materials and/or debris become a hazard due to the volume, fire risk or due to trip and slip hazards of wet materials it will be removed from the work area/site immediately.

At all times Knowles & Associates Ltd will take particular care to ensure that trip hazards are reduced or removed and access / egress routes remain clear.

4. Arrangements

4.1 Access and Egress

Access to site will be via the security hoarding off of Kings Mews via the front entrance to the property, leading to the main site area, and Site Office.

All personnel will be required to sign in upon arrival and report directly to the site office for a site induction before commencing on site.

Pedestrian walkways will be used where provided and operatives will ensure that they use only recognised and authorised routes of entry into site.

4.2 Permits to work.

It is envisaged that these operations fall within the scope of a permit to work operated by Knowles & Associates Ltd and any necessary permit requirements will be strictly adhered to, prior to commencing with any excavation or underpinning likely to give rise to a risk of working within confined spaces.

4.3 Emergency procedures.

Emergency procedures will be arranged on site and will be communicated to the persons undertaking the works during the site induction. The Site Foreman has been provided with a mobile telephone to ensure that emergency services can be contacted in the event of an emergency.

Should an emergency occur on site, which may affect other trade contractors or neighbouring activities, they will be contacted and made aware at the first opportunity.

Although as previously stated, Knowles & Associates Ltd have implemented control measures to avoid and reduce the risks associated with confined space entry and working.

4.4 Environmental control.

Ensure all waste is correctly kept and disposed of in accordance with The Environmental Protection Act 1990. Prevent so far as is reasonably practicable, pollution of the atmosphere by the discharge of dusts, smoke or fumes and prevent the unauthorised discharge of substances harmful to the environment into adjacent sewers, run offs or nearby waterways.

A suitable area shall be designated on site to allow the washing down of the concrete mixer and associated equipment. This will take into account the position of any gullies or manholes so as to avoid any possible contamination of the existing drainage system and any necessary protection shall be afforded to watercourses and inspection chambers.

4.5 Equipment.

All materials shall be checked before first use, following its delivery to site, so as to ensure that all materials are present and in good condition

All materials and equipment, when reasonably practicable will be taken to the work area via mechanical means, as this will reduce the requirement for excessive manual handling.

Lifting equipment and accessories shall be checked before use and kept clean, any damage to plant, tools or equipment shall be reported immediately to the Supervisor who shall then ensure that it is replaced or repaired as necessary. Tests of Certificates of Thorough Examination will be retained on site for all items of lifting equipment used on site i.e. Chains, slings, strops etc.

All Lifting equipment must have been tested within the last 12 months and lifting equipment for lifting persons, together with all lifting accessories, must have been tested within the last 6 months.

Any electrical equipment for use on site must be 110 Volt centre-tapped to Earth and must have been subjected to a Portable Appliance Test within the last 3 months.

4.6 First-aid arrangements.

First Aid requirements including the identity of the First Aider/Appointed person will be arranged on site and the details communicated to all operatives. A First-Aid box will also be provided on site adequately stocked for risks highlighted by this Method Statement.

4.7 Housekeeping

Due to the type of works undertaken, waste material will be produced however all debris will be removed from the works area to a storage place of safety until such time as this material can be removed by a licensed "Waste Carrier".

At all times Knowles & Associates Ltd will take particular care to ensure that trip and slip hazards are reduced or removed and access / egress routes remain clear.

4.8 Manual Handling Operations.

Knowles & Associates Ltd are aware of their responsibilities with regards to the Manual Handling Operations Regulations 1992 and will use mechanical or alternative manual handling aids in situations where they are practicable or they will endeavour to reduce the weight of loads to be lifted.

Pallets of materials will be set down as close to the works area as is practicable.

A suitable pallet truck or turntable trolley will be used to transfer materials from the temporary laydown area to the working locations within the building.

When this is not practicable loads will be reduced in size and weight and sufficient rest areas provided.

In addition, personnel will receive instruction and training in relation to the use of kinetic or team handling techniques, particularly when installing structural steelwork/temporary propping.

4.9 Personal protective equipment.

In accordance with The Personal Protective Equipment at Work Regulations 1992 (As amended). Knowles & Associates Ltd will reduce the risks to employees as far as is reasonably practical by the implementation of control measures within systems of work. Should control measures not be available or they are deemed impractical, as a last resort, operatives will be provided with the necessary protective equipment.

The foreseeable safety equipment deemed necessary to control the hazards highlighted by this Method Statement include hard hats, gloves, boots, hearing protection, gloves, Hi-visibility clothing and masks in some circumstances. PPE will also be worn as per the requirements of Principal Contractor's site rules.

It is envisaged that noise will be produced during this task, therefore consideration will be afforded to hiring only equipment that has been regularly serviced and fitted with anti-vibration dampers/muffles or other means of attenuation.

Where this is not reasonably practicable then noise exposure will be controlled using personal protective equipment, ear protection will be used should noise levels exceed 84dB(A).

All protective equipment shall conform to the most current European Norm and/or British Standard.

4.10 Safety of third parties.

The protection of third parties will be considered before the commencement of all tasks. Access and egress will be kept clear at all times.

Should visitors be invited onto site by the Principal Contractor they will be required to wear all necessary Personal Protective Equipment.

4.11 Supervision.

Throughout the project Knowles & Associates Ltd shall ensure that a Site Foreman or other trained and competent person is available permanently to oversee the works being undertaken. Works will be supervised to ensure that risks identified by this method statement are controlled or are lowered so far as reasonably practicable and further controls are implemented as required.

The Appointed Project Manager for this project, Mr. Paul Baguzis will provide the necessary level of supervision and management throughout the duration of this contract.

4.12 Vibration.

All operatives will be informed of the risks associated with exposure to high levels of vibration from plant and tools used on site. The Senior Site Supervisor shall ensure that all necessary control measures are taken to restrict exposure times in accordance with The Control of Vibration at Work Regulations 2005.

All exposure times will be recorded by the Site Foreman to ensure that operatives do not exceed the maximum personal daily allowance.

5.0 Non-standard operations.

This method statement will be amended as necessary if the works fall outside the scope of this document or the sequence of work changes.

6.0 Appendices.

6.1 Method Statement Register

6.1

Method Statement Register

Before any task is undertaken the Method Statement for that task MUST be read and understood.

To enable Knowles & Associates Ltd to comply with this, please ensure you print your name, date and sign this register.

Name	Method Statement Title	Date	Signature

6.0 Risk Assessment

Risk assessment for Reduced Level Excavation Basement Construction

P = Probability	1 = Remote	2 = Unlikely	3 = Possible	4 = Probable	5 = Likely
S = Severity	1 = Injury not requiring First-aid	2 = First-aid only required	3 = Over 7 day injury	4 = Serious Injury	5 = Fatality
R = Risk Rating (p x s)	1-3 = Negligible	4-6 = Low	7-12 = Medium	13-16 = High	17-25 = Very High
RR – Residual Risk	1-3 = Acceptable No further controls necessary.	4-6 = Acceptable. Regular close monitoring and review required.	7-12 = Unacceptable Further controls must be implemented to reduce the risk.	13-16 = Unacceptable Review the assessment process, activity and re-evaluate and apply additional controls.	17-25 = Activity or process should be abandoned; no works to continue unless a full review of the work has been undertaken.
Probability x Severity – Risk Rating	E = Employees	C = Contractors	T = Third Parties		

S
E
V
E
R
I
T
Y

5	10	15	20	25
4	8	12	16	20
3	6	9	12	15
2	4	6	8	10
1	2	3	4	5

PROBABILITY

1 – 3	NEGLIGIBLE	
4 – 6	LOW	
7 – 12	MEDIUM	
13>	HIGH	

Process	Hazard	Person at Risk			Risk			Control Measures Required	Residual Risk
		E	C	T	P	S	R		
Reduced level excavation and Underpinning	Ground Instability	✓	✓	✓	3	5	15	See Attached	**3**
	Working at Height/Falls into Excavations	✓	✓		3	5	15	See Attached	**2**
	Contaminated ground	✓	✓		1	4	4	See Attached	**2**
	Contact with Sewage/Biological hazard	✓	✓		1	5	5	See Attached	**1**
	Weils Disease	✓			3	4	12	See Attached	**2**
	Agents of anoxia e.g. CO2/Confined space working	✓			1	4	4	See Attached	**2**
	Head Injury	✓	✓		2	4	8	See Attached	**2**
	Dropped Loads e.g. trench supports/hydraulic frame sections	✓	✓		3	5	15	See Attached	**3**
	Third Parties / Pedestrians	✓		✓	3	4	12	See Attached	**1**
	Manual Handling	✓	✓		3	4	12	See Attached	**1**
	Foot and Hand Injuries	✓	✓		4	3	12	See Attached	**2**

	Underground Services	✓	✓	✓	3	5	15	See Attached	**2**
	Plant Contact	✓	✓	✓	4	4	16	See Attached	**2**
	Noise from working in confined space use of plant, i.e. quick cut saws, breakers.	✓	✓	✓	5	4	20	See Attached	**3**
	Concrete contact	✓	✓		4	3	12	See Attached	**2**
	Hand-arm Vibration	✓			3	2	6	See Attached	**1**
	Building instability/Falling Materials	✓	✓	✓	2	5	10	See Attached	**2**
	Harmful/Respirable Dusts	✓	✓	✓	3	3	9	See Attached	**1**

HAZARD	CONTROL MEASURES
Ground Stability	Existing ground conditions will be inspected to ensure their integrity at the start of each shift, with an assessment undertaken by a competent person of the stability of the ground to ensure that all temporary support required will be available on site as the excavation is made and placed as required. Any equipment (Conveyor, compressor Etc.) used during the excavation of the sub-strata material will be positioned/located a suitable distance away from the edge of any excavation, in the interest of reducing the potential for vibration or the weight of the equipment increasing the potential for over loading the adjacent ground. Spoil from the excavation will be placed directly onto the conveyor system and transported to the designated skip location situated adjacent to the main entrance to site and the scaffold gantry. Where the excavation may exceed a depth capable of being stabilised by way of benching or battering back, a temporary works engineer shall be consulted to determine the adequacy of the shoring arrangements and to offer advice and assistance in specifying any temporary support/shoring of the excavation.
Working At Height/Falls into Excavation	Where there is a foreseeable risk of persons falling into the excavation, suitable and sufficient trench sheets shall be installed, consideration shall be afforded to ensuring that sheet are oversized, where reasonably practicable in the interest of ensuring that the sheets protrude above the excavation a minimum of 950mm, thereby providing suitable and sufficient edge protection around the perimeter of the excavation. Where this may not be reasonably practicable i.e. where this restricts access into the excavation, particularly for the transfer of materials within the excavation, consideration shall be afforded to temporarily removing any support necessary and reinstate the edge protection immediately following the transfer of materials. Any such edge protection provided shall include a minimum uppermost guardrail of 950mm and shall afford such protection as will not offer any unprotected gap of greater than 470mm. This may be achieved by use of an intermediate handrail or close linked and secured fencing of such a robust nature as will prevent a person falling against it from falling from height likely to cause injury.

Equipment and materials falling into excavation	Consideration shall be afforded to ensuring that plant, tools and materials are stored away from the edge of any excavation in the interest of reducing the risk of those items from falling into the excavation and potentially injuring those working below. Wherever necessary, toe-boards shall be fixed along any excavation edge to prevent any materials from falling into the excavation.
Contaminated ground	At this time, the Geographical investigation offers no indication of the presence of any contamination, however should contaminated ground be suspected due to physical appearance or smell etc. work will stop until a survey has been undertaken or a competent person authorises a continuance of works. A separate method statement and risk assessment outlining the control measures necessary to prevent exposure to harmful contaminates will be produced for any task that may give rise to a risk of contact or exposure to contaminated ground.
Contact with sewage	Before works commence operatives will be reminded of the importance of hygiene standards and the quality of the welfare facilities will be checked on site. Operatives will be required to wear suitable rubber gloves and have a change of clothing available should contamination occur; heavily soiled clothing is to be disposed of and treated as hazardous waste.
Weils Disease	If there is a possibility that rats are present on the project, there will therefore be a risk of contracting Leptospirosis (Weils disease). As a control all operatives will be informed of the following in connection with Leptospirosis: what Leptospirosis is? What the symptoms are? How it may be contracted and prevention methods.

Agents of anoxia e.g. CO2	If at any time it is suspected that agents of anoxia may be present due to smell or ground type e.g. dark noxious spoil/arising, viscous semi-solid leachate etc. All works shall be stopped and an analysis of the sub-strata material carried out by a competent specialist sub-contractor. Where there is any foreseeable specific risk of asphyxiation, fire or flooding leading to a risk of drowning, or the presence of gas, fume, vapour or free flowing solid, a separate specific assessment of the risks present shall be undertaken and the procedures for ensuring a safe system of works shall be prepared i.e. those operations shall be treated as Confined Spaces in accordance with the Confined Spaces Regulations 1997. Should it be necessary to operate any mechanical plant within the area, consideration must be afforded to ensuring that particulate filters (scrubbers) are fitted to the exhaust system of any combustion engine fitted plant i.e. generator/compressors/mini diggers etc.
Head Injury	Toe boards will be placed where operatives are required to work within the excavation, adjacent to an area where it is necessary to store any materials likely to cause injury. Anti-whip check fittings shall be fitted to all compressor line connections as to reduce the potential for hoses to become detached/rupture due to corrosion/poor fitting. Head protection shall be worn in accordance with the Personal Protective Equipment Regulations 2002 (as amended)

Dropped Loads e.g. Pipes, trench support	All lifting operations (i.e. unloading using the vehicle mounted HIAB crane) will be undertaken with the use of a competent plant driver, banksman and slinger. SWL's will be checked and lifting devices inspected by a competent person in accordance with the Lifting Operations and Lifting Equipment Regulations 1998. Details of the operator's training and certificates of thorough examination of the HIAB and associated accessories shall be checked prior to carrying out any unloading of materials within the designated unloading/loading areas.
Third Parties / Pedestrians	Barriers and signage will be placed to ensure that operatives / visitors and public have suitable segregation to protect the pedestrians from operations that are being undertaken.
Manual Handling	Where mechanical means are available to perform a task, operatives will not be expected to undertake tasks by way of manual handling. Where no alternative exists loads will be broken down to reduce the risk, or team lifting used. All plant and equipment will be loaded/unloaded with the use of a machine with materials being dropped as close to the work area as is reasonably practicable. A separate specific assessment shall be carried out for all operations offering a significant risk of injury arising from manual handling operations, any such assessment shall consider the nature of the task, the individual(s) selected to carry out the task, the loads involved and the environment in which the task is to be undertaken.
Foot and Hand injuries	During the works general hand and foot injury may occur therefore steel toed boots will be worn by operatives at all times and gloves will be worn during periods when knocks, hand injuries or abrasion may occur. Should there be a new hazard on account of the use of gloves e.g. entanglement or the dexterity of the hand is needed gloves need not be worn. In particular, operatives must wear suitable hand protection during the connection of any lifting accessories i.e. during the slinging of loads or installation of any required temporary support/shoring.

Underground services	Plans of all underground services will be obtained from the utilities companies of the Client/Main Contractor. Digging operations will be undertaken in accordance with HS(G) 47 avoiding danger from underground services and cable avoidance measures used e.g. cable avoidance tool/signal generator and hand digging with a spade where cables are known to be. Operatives will be informed of the location of the services and a suitable indication used on site e.g. signage, warning tape etc.
Plant contact	Plant will have adequate space to work and there will be suitable communication between plant operators in the prevention of collisions and contact. General supervision will also be undertaken on site by supervisors to ensure that tasks are performed in separate areas of the site when practicable and safe systems of work used. In particular, access to the conveyor belt system will be strictly controlled. Emergency stop controls/isolation points will be clearly and prominently located with consideration afforded to ensuring that they are easily and readily accessible. Given that the belt can become easily blocked due to the nature of the material to be removed, the use of fixed guarding will be used so far as is practicable, however where the use of fixed guarding is not practicable or where this may increase the frequency of breakdowns/maintenance requirements (and therefore risks associated with such operations), the conveyor belt will be protected using linked barriers to ensure that no person intentionally or unintentionally enters any area giving rise to risk of injury associated with coming into contact with any part of the conveyor system.
Noise from working in confined space use of plant, jack hammer, piling machine, mini digger etc.	Operatives will be informed of the risk to their hearing by ways of a tool box talks before any noisy works are undertaken. All operatives shall be provided with Ear Protection and advised to wear it unless the noise level reaches 90db where the operatives will be instructed by management that they are to wear hearing protection at all times. Job rotation and regular breaks will be in place along with noise monitoring and records kept on site.

Concrete Contact	Operatives will be given the Risk Assessment and method statement for the works to be undertaken and ensured that they have read and understood the safe system of work. There will be made available onsite suitable and sufficient welfare facilities to enable operatives to wash/shower if necessary with an eye wash station and first aid kit kept on site all times. Operatives will also be given appropriate P.P.E i.e. gloves, goggles and hard hats which should be worn at all times. There will be supervision at all times during the works to be undertaken and a first aider available on site at all times. Only competent operatives shall be undertaking the works required.
Hand-arm Vibration	In light of the nature and scope of works, the use of anti-vibration damped hand held equipment has been considered. Consideration is currently being afforded to the use of a "drill and burst" method of removing the ground bearing slab. All personnel will be made aware of the risks associated with exposure to high levels of vibration and will receive a specific toolbox talk in relation to the health risks and the control measures necessary to reduce those risks to the lowest reasonably practicable level. In addition, The Site Supervisor will be required to record the exposure times of the operatives using any vibrating tools and/or equipment so as to ensure that they are not exposed to levels of vibration above the daily exposure limit.
Building instability/Falling Materials	All temporary works i.e. propping and shoring of the existing superstructure has been surveyed and will be subject to temporary works design. In addition, it has been agreed that the on-site Engineer will monitor the structure for any movement at pre-determined frequencies, throughout the execution of the excavation and underpinning works.

Harmful/Respirable Dusts	Consideration is currently being afforded to using a method of drilling and bursting the existing ground bearing slab, however there may still be times when concrete obstructions may need to be broken out/cut back. Therefore in light of the nature and limited extent of the breakout works, Operatives will be required to wear suitable tight fitting respiratory protection i.e. disposable FFP2 type masks (to EN149).
Electrical faults/Failure	All electrical equipment i.e. Conveyor system, Tools Etc will be 110 Volt centre taped to Earth and subject to Portable Appliance testing in accordance with HS(G) 107 i.e. every 3 months. The Site Supervisor will be responsible for pre-use inspection of ALL equipment and will remove any damaged and/or faulty equipment, securing any such equipment and preventing any person from using the damaged tools/plant.

Appendix E

Includes:

- Asbestos Survey

Asbestos-Containing Building Material Refurbishment and Demolition Survey Report

Project 3234AS

25 - 30 Kings Mews, London.

Prepared for:
Inga Kooij,
NJ Low-Beer,
Nick Rae,
Mike Rae and
Simon McDonald

Prepared by:
PHH Environmental (UK) Limited,
Titan House,
Cardiff Bay Business Centre,
Lewis Road,
Cardiff,
CF24 5BS.

5th January 2012

This page is intentionally blank

This page is intentionally blank

EXECUTIVE SUMMARY

PHH Environmental (UK) Ltd was retained by Inga Kooij on behalf of Inga Kooij, NJ Low-Beer, Nick Rae, Mike Rae and Simon McDonald to carry out a Refurbishment and Demolition survey for asbestos-containing materials (ACMs) within the building located at 25-30 Kings Mews, London, WC1N 2JB. The purpose of the survey was to identify and quantify ACMs for due diligence and compliance with regulation prior to demolition.

Please note that ACMs in good condition and undisturbed are not a hazard to health. Please note that as a Refurbishment and Demolition intrusive survey was carried out and ACMs have been recommended for removal by PHH, those ACMs that are in good condition, sealed and/or repaired and are not to be disturbed may be left in place. Please see Annex II for details of which ACMs are recommended for abatement.

Seven instances of ACMs were identified, contaminated or presumed in the following material types and areas:

Material Description	Location
'Cement - Profiled sheets'	Hipped roof coverings
'Cement - Pre-formed moulded or extruded products'	Guttering to hipped roofs and pre-formed roof light units
'Insulating board'	Internal linings to fire doors between ground and first floor party walls to 27 and 28 Kings Mews
'Textiles - Gaskets & washers'	Gaskets to 30 Kings Mews ground floor warm air heater

The above may not include reference to all detailed locations of the ACM material types; for details please see Annex II. It is noted that the building is scheduled for demolition and this report is based on that information.

Recommendation is 'removal' by licensed contractor; please see Annex II for details. The recommendation(s) are based on the Material Risk Ratings (see 2.2 & Annex II), and the surveyor's assessment of the ACMs in situ.

1.0 INTRODUCTION

PHH Environmental (UK) Ltd was retained by Inga Kooij on behalf of Inga Kooij, NJ Low-Beer, Nick Rae, Mike Rae and Simon McDonald to carry out a Refurbishment and Demolition survey for asbestos-containing materials (ACMs) within the building located at 25-30 Kings Mews, London, WC1N 2JB.

The purpose of the survey was to identify and quantify ACMs for due diligence and compliance with regulation prior to demolition.

Please contact the author referenced in section 5.0 on 0845 2601983 if you have any questions.

1.1 Scope of Work

The scope of work included:

- A room-by-room and external, intrusive inspection of the building materials, components and finishes that are suspected to contain ACMs with the exception of those areas that could not be accessed as detailed in the executive summary.
- Sampling and analysis of representative suspect ACMs.
- Production of an ACM Register & Management Plan (draft) detailing the extent, type and condition of ACMs within the premises, (subject to identification of any suspect ACMs). Please see Annex II for details.
- Assessment of the risk of ACMs and derived scores for material risk (subject to identification of any suspect ACMs, priority scores not applicable if removal recommended on Refurbishment and Demolition survey).
- Proposals for management action to ensure ACMs are properly dealt with, (subject to identification of any suspect ACMs).

The survey was performed on 22nd December 2011 by Christopher Copley (Surveyor) and Christopher Copley (Surveyor) and Ashley Birkett (Trainee Surveyor) and included all areas of the building accessible to visual inspection. The findings and recommendations provided in this report are intended to facilitate compliance with respective guidelines and regulations. Applicability of any regulations and recommendations will depend on the final use of the subject property.

1.2 Facility Description

The building comprises a purpose built, mid-terraced, three storey property with a pitched corrugated cement roof and flat roof areas. The building is currently used as offices and workshops with a flat to the second floor of 30 Kings Mews.

1.3 Limitations and Exclusions

This report refers to ACMs within, and forming part of, the building envelope only. The survey only considered issues of the structure and finishes, excluding portable mechanical equipment. The survey did not consider current or past owner or occupant articles within the building (i.e. process materials or equipment, curriculum items and furniture).

This report is based on observations made at the time of the survey. Please note therefore, that since the issue of this report, the condition of the identified asbestos-containing material (ACM) may have deteriorated due to damage or wear and tear etc. If the condition has deteriorated, the risk score and recommendation noted in this report may be inappropriate. The Approved Code of Practice, 'The Management of Asbestos in Non-Domestic Premises' L127, published by the Health & Safety Commission recommends, "As a minimum, the material should be checked every six to twelve months even if it is in good condition and not going to be disturbed, as it may for example be accidentally damaged."

Suspect ACMs that may be present have been excluded from the scope of work due to lack of access include those checked items below:

Item	Excluded?	Item	Excluded?
• caulking or expansion joints	☐	• adhesives	☐
• mastics	☐	• exterior decorative plaster or stucco	☐
• asphalt or bituminous floor screeds	☐	• roofing	☐
• damp proof membranes & courses	☐	• vermiculite	☐
• transport, machinery and lifts brake shoes and clutches	☐	• cores & linings of composite products such as cladding & fire doors etc	☐
• gaskets and packings	☐	• chalkboards	☐
• conveyor drive belts	☐	• flues	☐
• cloth to electrical wiring	☐	• thermal insulation to flues	☐
• light fixture heat shields	☐	• acoustic insulation to air conditioning	☐

Since the date of the survey, ACMs may have been removed from or added to the surveyed area. Due to the nature of building construction, some inherent limitations exist regarding the extent of the survey. For example, it was not possible to test all suspect ACMs on a foot-by-foot basis.

Sampling of each material was limited to one sample of each visually homogeneous material type, with enough total samples for confident determination of asbestos presence. No air sampling for dusts or mists was conducted as part of this survey. No other hazardous materials were included in this investigation other than what is described in the scope of work. Density tests of cement based ACMs have not been carried out to confirm cement content.

Where appropriate and reasonably practicable, demolition of structural walls, ceilings or other features was conducted to access and sample hidden ACMs. Every reasonable effort was made to access interiors of walls, floors, ceilings, roof space at eaves and concealed spaces. Every reasonable effort was also made to access any existing fire stops between floors or compartments and around soil and vent pipes, if present.

2.0 SURVEY METHODOLOGY

The surveyor entered each pre-defined area or room where possible. Nineteen samples of suspect ACMs were collected and analysed. Sketches denoting reference and sampling locations are included in Annex III. Representative photographs of Sample or Reference Point Locations of identified ACMs can be found in Appendix 3 with the exception of presumed no access areas. The survey was carried out in accordance with Health & Safety Executive guidelines contained in HSG264 "Asbestos: The Survey Guide" (ACMs) and our in house survey methodology procedure P14. The survey was a Refurbishment and Demolition as defined in HSG264. PHH Environmental UK Limited are UKAS accredited inspection body No. 384 to ISO 17020 for the provision of undertaking Management, Refurbishment and Demolition asbestos surveys, asbestos bulk sampling and provision of material and priority risk ratings.

2.1 Asbestos Identification

Identification of asbestos-containing building materials was performed visually, through bulk sampling and subsequent laboratory analysis by an independent laboratory accredited to ISO 17025. Representative Samples were taken of each homogenous building material suspected to contain asbestos. In some unambiguous situations, non-friable cementitious asbestos materials (i.e. asbestos cement boards or piping, etc.) were identified by appearance and may not have been sampled.

Obvious fibreglass insulation and cellulose materials were identified visually and were not tested. In accordance with accepted sampling procedures, visual extrapolation of materials was conducted. For example, if a certain size and pattern of floor tile was observed in more than one location, it has been assumed that the asbestos result is the same (either positive or negative) for both locations. Samples results were also extrapolated on a room basis. For example, if a board sample from one wall was positive, then all walls in that room were assumed to be positive. The extent of sampling and extrapolation related to several factors such as functional areas, renovation zones, construction phases and dates, etc. In each case the extrapolation was based on unequivocal observations made by the surveyor. The results of the sample analysis refer specifically to the location defined. Experience has shown that materials can vary greatly in relatively short distances from sample points, especially with less homogenous materials such as 'Artex'.

2.2 Material Assessment

Each visually homogeneous application of suspected ACM was assessed for product type, extent of damage or deterioration, surface treatment and asbestos type. The Material Assessment included in Annex II has been carried out in accordance with HSE HSG264.

Materials with scores of 10 or more should be regarded as high risk with a significant potential to release fibres if disturbed. Those with scores between 7 and 9 are regarded as medium risk, those between 5 & 6 are low risk and scores of 4 or less are very low risk.

As recommended in HSE HSG264 the 'Extent of Damage' and 'Surface Treatment' categories are shown separately in Annex II. Please use the table below to see the definition of the 'score' in Annex II.

The following definitions apply:

Sample variable	Score	Examples of scores
Product type:	1	Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi rigid paints or decorative finishes, asbestos cement etc).
	2	Asbestos insulating board, millboard, other low-density insulation boards, asbestos textiles, gaskets, ropes & woven textiles, asbestos paper & felt.
	3	Thermal insulation (e.g. pipe & boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing
Extent of damage or deterioration:	0	Good condition: no visible damage
	1	Low damage: a few scratches or surface marks; broken edges on boards, tiles etc
	2	Medium damage: significant breakage of materials or several areas where material has been damaged revealing loose asbestos fibres.
	3	High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris.
Surface treatment:	0	Composite materials containing asbestos reinforced plastics, resins, and vinyl tiles.
	1	Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), asbestos cement sheets etc
	2	Unsealed AIB, or encapsulated lagging and sprays.
	3	Unsealed lagging and sprays
Asbestos type:	1	Chrysotile
	2	Amphibole asbestos excluding crocidolite
	3	Crocidolite

2.3 Priority Assessment

A Priority Assessment on each ACM would normally be carried out in accordance with HSE HSG227 A Comprehensive Guide to Managing Asbestos in Premises. However, as the building is scheduled for works prior to demolition and ACMs are recommended for removal a priority assessment is not applicable. Please note that the 'Accessibility' section of Annex II is not applicable, which has been denoted by the letters 'NA'.

2.4 Total Risk

By adding together the scores of Material Assessment and the Priority Assessment a Total Risk score would normally be determined. However, as the building is scheduled for works prior to demolition and ACMs are recommended for removal, this is not applicable.

2.5 Method of Sample Analysis

Bulk samples were visually examined and any fibrous materials were analysed by polarised light microscopy (PLM) in accordance with Health & Safety Executive HSG 248 ASBESTOS - The Analysts' Guide For Sampling, Analysis and Clearance Procedures.

The confirmation of the presence and type of asbestos material in each bulk sample of asbestos was made by dispersion staining optical microscopy.

3.0 RESULTS

The summary given below includes all major systems, lines, or equipment where suspect asbestos-containing materials were examined. Please refer to Annex I for laboratory results of suspect materials. A detailed assessment of each visual homogeneous application of suspect asbestos and specific control options is included in Annex II.

3.1 Positive Samples and Extent of Visual Extrapolation.

Section A of Annex II lists all positive laboratory ACM samples. In each case the positive sample has been extrapolated to the area and extent noted.

3.2 Strongly Presumed ACMs but Not Sampled.

Section B of Annex II lists all strongly presumed ACMs, which have been extrapolated from positive laboratory ACM samples.

3.3 Negative Samples

Section G of Annex II lists those suspect ACMs that were tested by the laboratory as negative.

3.4 Discounted Material (not sampled)

Section H of Annex II lists materials that based on previous sampling and visual examinations are not suspect ACMs. They have been noted in Annex II for clarification purposes, as they are materials commonly confused with ACMs.

(Please note sections C, D, E & F are not relevant to this report and as such are not included in Annex II)

4.0 RECOMMENDATIONS

4.1 Asbestos-containing Materials

Please refer to Annex II ACM Register & Management Plan for a table of recommendations. The recommendations in Annex II are based on the guidance within HSE Guide 227, "A Comprehensive Guide to Managing Asbestos in Premises".

Based on the advice from the client that the building is scheduled for works prior to demolition the ACMs recommended for removal should be removed by licensed contractor for asbestos removal prior to these works. This is reflected in the table of recommendations at Annex II ACM Register & Management Plan.

Note, ACMs noted in Annex II as *'Licensed Work?' – 'Yes'*, must be removed or worked on by a contractor that is licensed unless the exposure of employees to asbestos is sporadic and of low intensity and it is clear from a risk assessment that the exposure of any employee to asbestos will not exceed the control limit; and the work involves short, non-continuous maintenance activities or removal of materials in which the asbestos fibres are firmly linked in a matrix or encapsulation or sealing of asbestos-containing materials which are in good condition; as defined in the Control of Asbestos Regs Part 1 sect. 3 (2) see HSE ACoP L143. Any ACM removed must be disposed of at a licensed tip. Employees are subject to the requirements of the Control of Asbestos Regulations and must observe the required safety precautions.

Note, ACMs noted in Annex II as *'Licensed Work?' – 'No'*, may be removed or worked on by a competent contractor that is not licensed but they must observe the required safety precautions and the ACM must be disposed of at a licensed tip. Employees are subject to the requirements of the Control of Asbestos Regulations. Please note this assessment is only applicable to the ACM in the condition it is in at the time of survey. Materials should be carefully risk assessed prior to any work to confirm the work can be done by an unlicensed contractor as defined in the Control of Asbestos Regs Part 1 sect. 3 (2) see HSE ACoP L143.

As some ACMs will be required to be removed or worked on by a licensed contractor, it is recommended that all ACMs to be removed or worked on are done so and disposed of (if appropriate) by the licensed contractor. A licensed contractor should be fully aware of the precautions to take in relation to ACMs.

If during any future maintenance, demolition or renovation of any areas noted in section 1.3 above, e.g. bituminous based damp proof course, are exposed and identified as containing suspect asbestos-containing materials, it is recommended that PHH Environmental UK Limited is invited to return to site and sample such suspect material prior to further work.

Where ACMs have been visually identified as cement based products these have been noted in Annex II as 'Licensed Work' – No'. Please note the limitation at 1.3 above.

All work with asbestos which does not normally require a licence must be dealt with in accordance with HSE ACoP L143 or equivalent. Please note HSE ACoPs have a special status in law. Work should maintain the required fire protection or separation properties where appropriate.

4.2 Selection of Management Options.

The recommendations in Annex II ACM Register & Management Plan are based on the surveyor's assessment during the survey.

Please note the 'scores' for material ratings are a guide only. In some cases the surveyor may have recommended ACMs for removal that have a lower score than others recommended for 'Record, Manage & Monitor', this is based on the surveyors experience and assessment of the conditions specific to each location.

For generic descriptions of the management options available, please refer to Appendix 2.

5.0 WARRANTY

PHH Environmental (UK) Ltd (PHH) warrants to the company, organisation, or individual to whom this report is addressed that the investigation described in this report has been conducted with a reasonable level of care and skill, in accordance with standards currently prevailing in the health, safety, and environmental consulting profession.

The warranty stated above is subject to the following:

(i) the investigation conducted by PHH has been limited to the scope of work and budget described in our quotation and contract and this report,

(ii) this report has been prepared taking into account current government regulations, and does not reflect regulations which may be enacted in the future,

(iii) except as stated, PHH has not made an independent verification of historical or analytical results provided by third parties,

(iv) where indicated or implied in this report, conclusions are based on visual observation of the site at the time of this assessment, and

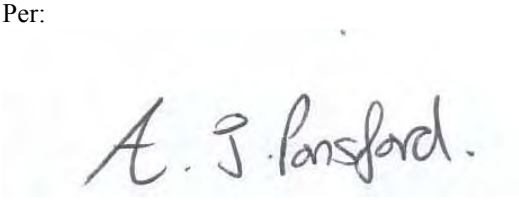
(v) the conclusions of this report do not apply to any areas of the site not available for testing or inspection.

This report is intended for the exclusive use of the company, organisation, or individual to whom it is addressed. It may not be used or relied upon in any manner whatsoever, or for any purpose whatsoever, by any other person. PHH makes no representation of fact or opinion of any nature whatsoever to any person other than the company, organisation, or individual to whom this report is addressed. The warranty stated above may not be assigned.

Authored by:
PHH Environmental (UK) Ltd
Per:

Name:Christopher McFadden MESci (Hons) DipNDEA
Title: Technical Manager
For & on behalf of:
PHH Environmental (UK) Ltd

Reviewed by:
PHH Environmental (UK) Ltd
Per:



Name:Amanda Ponsford BSc. (Hons)
Title: Project Manager
For & on behalf of:
PHH Environmental (UK) Ltd

6.0 REFERENCES

1. Health & Safety at Work Act, HMSO, 1974.

2. Control of Asbestos Regulations (CAR), HMSO, 2006

3. The Management of Asbestos in non-domestic premises Reg. 4 CAR 2006. HSE Approved Code of Practice & Guidance L127, HSE, 2006.

4. HSE HSG264 "Asbestos: The Survey Guide", First edition, HSE 2010.

5. HSE HSG227 Managing Asbestos in Premises, HSE, 2004.

6. ISO 17025: 2000 General requirements for the competence of testing and calibration laboratories, ISO copyright office Geneva, 2000.

7. HSE HSG213 Introduction to Asbestos Essentials. Comprehensive guide to working with asbestos in the building maintenance and allied trades, HSE, 2001.

8. HSE HSG210 Asbestos Essentials Task Manual. Task guidance sheets for the building maintenance and allied trades, HSE, 2003.

9. Work with materials containing asbestos - Control of Asbestos Regulations 2006, Approved Code of Practice and guidance L143, HSE, 2006.

10. ASBESTOS - The Analysts' Guide for Sampling, Analysis and Clearance Procedures. HSG 248, HSE, 2005.

11. The Management of Health and Safety at Work Regulations, HMSO, 1999.

12. Workplace (Health, Safety and Welfare) Regulations, HMSO, 1992.

ANNEX I - Laboratory Results

NG Associates (UK) Limited

8 Panteg, Pentyrch, Cardiff, CF15 9TL
Tel/Fax: 02920 899378

4108

Certificate of Bulk Fibre Analysis

Certificate No: NGA5624

Client: PHH Environmental (UK) Ltd, Titan House, Cardiff Bay Business Centre, Lewis Road, Cardiff, CF24 5BS	Site: 25 – 30 Kings Mews, London

Sampled by: Client	Date received: 27/12/11
Analyst: Neil Grabham	Date of analysis: 27/12/11

Results:

Client or site sample number	Laboratory Sample No.	Location	Description	Asbestos fibre type present
001	024234	3234AS-001	Artex	No asbestos detected
002	024235	3234AS-002	Artex	No asbestos detected
003	024236	3234AS-003	Artex	No asbestos detected
004	024237	3234AS-004	Lining board	No asbestos detected
005	024238	3234AS-005	Gaskets	No asbestos detected
006	024239	3234AS-006	Roofing sheet	Chrysotile & Crocidolite
007	024240	3234AS-007	Guttering	Chrysotile & Crocidolite
008	024241	3234AS-011	Putty	No asbestos detected
009	024242	3234AS-012	Wire flex	No asbestos detected
010	024243	3234AS-013	Insulating board	Amosite
011	024244	3234AS-014	Cream tiles	No asbestos detected
012	024245	3234AS-018	Bitumen adhesive	No asbestos detected
013	024246	3234AS-020	Bitumen felt	No asbestos detected
014	024247	3234AS-021	Grey tiles	No asbestos detected
015	024248	3234AS-022	Grey tiles	No asbestos detected
016	024249	3234AS-023	Cream tiles	No asbestos detected
017	024250	3234AS-024	Gaskets	Chrysotile
018	024251	3234AS-025	Gaskets	Chrysotile
019	024252	3234AS-027	Brown tiles & adhesive	No asbestos detected

Signed Analyst 

Analyst's Name: Neil Grabham **Date:** 27/12/11

Method used:
Notes:
1. The method of analysis is NG Associates (UK) Limited procedure P1 described in Appendix 2 of HSG 248 'The Analysts Guide' 2005' - Fibre identification by PLM
2. NG Associates (UK) Limited are only accredited for the analysis of bulk samples. Any opinions & interpretations of test results expressed are outside the scope of accreditation
3. The results reported above only relate to the samples received & tested. Samples are assessed using information supplied by the client and NG Associates (UK) Limited accepts no liability for the future use of the information contained in this certificate

For and on behalf of NG Associates (UK) Limited

ANNEX II – ACM Register & Draft Management Plan, inc. Sample or Reference Point List

Remove:	Exposed and/or damaged friable asbestos should be controlled by removal to prevent fibre release.
Encapsulate:	Exposed and/or damaged friable asbestos should be controlled by encapsulation to prevent fibre release. Once controlled through encapsulation, then management is recommended.
Enclose:	Exposed and/or damaged friable asbestos should be enclosed to prevent fibre release. Once controlled through enclosure, then management is required.
Manage:	Enclosed and/or encapsulated friable asbestos in good condition and non-friable asbestos should be managed by implementing an Operations and Maintenance (O&M) Program. Major elements of the O&M Program include: administrative controls; training; exposure control plan and identification with labels or signs.

25-30 Kings Mews, London.						Survey Type >		Refurbishment and Demolition			Initial Survey Date(s) >							22/12/2011			
3234AS															Risk ratings			Management Action			
Report Section	Extrapolated from Site Ref	UPRN (If applicable)	Lab Ref	Site Ref	Area or room	Position	Component description	Material	Asbestos ID	Extent / approx quantity	** Accessibility	** Damage	** Surface treatment	Asbestos type (1 = Chrysotile, 2 = Amosite, 3 = Crocidolite)	Total Material Risk rating "A"	Total Priority Risk rating "B"	Total Risk Rating "A+B"	PHH ENVIRONMENTAL Recommendation	Last date ACM inspected	Last date ACM modified	Note	Licensed work?
A			NGA5624-6	3234AS-006	Hipped roofs	Roof coverings	Roofing sheets	Cement - Profiled sheets	Positive asbestos sample	200SM	NA	1	1	3	6	NA	NA	Remove	22/12/11			No*
A			NGA5624-7	3234AS-007	Roofs	Valley guttering	Guttering	Cement - Pre-formed moulded or extruded products	Positive asbestos sample	50LM	NA	1	1	3	6	NA	NA	Remove	22/12/11			No*
A			NGA5624-10	3234AS-013	First floor between 27 and 28 Kings Mews	Fire doors	Internal lining	Insulating board	Positive asbestos sample	2SM	NA	1	1	2	6	NA	NA	Remove	22/12/11			Yes
A			NGA5624-17	3234AS-024	30 Kings Mews - Ground floor warm air heater	Burner gasket	Gaskets	Textiles - Gaskets & washers	Positive asbestos sample	Small Quants	NA	0	1	1	4	NA	NA	Remove	22/12/11			No
A			NGA5624-18	3234AS-025	30 Kings Mews - Ground floor warm air heater	Internal	Rope gaskets	Textiles - Gaskets & washers	Positive asbestos sample	Small Quants	NA	0	1	1	4	NA	NA	Remove	22/12/11			No
B	3234AS-006			3234AS-008	Roofs	Roof lights	Pre-formed roof light units	Cement - Pre-formed moulded or extruded products	Strong presumption (extrapolation)	18No	NA	1	1	3	6	NA	NA	Remove	22/12/11			No*
B	3234AS-013			3234AS-026	Party wall to 27 and 28 Kings Mews	Fire door	Internal lining	Insulating board	Strong presumption (extrapolation)	2SM	NA	1	1	2	6	NA	NA	Remove	22/12/11			Yes
G			NGA5624-1	3234AS-001	25 Kings Mews - Ground floor	Floor	'Artex' - 'Debris'	Textured coatings & joint compound	Negative asbestos sample	1SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-2	3234AS-002	25 Kings Mews - Ground floor	Ceiling	'Artex' - 'Stipple'	Textured coatings & joint compound	Negative asbestos sample	75SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-3	3234AS-003	25 Kings Mews - First floor	Ceiling	'Artex' - 'Stipple'	Textured coatings & joint compound	Negative asbestos sample	75SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-4	3234AS-004	25 Kings Mews - First floor	Boiler	Insulation board plinth	Insulating board	Negative asbestos sample	1No	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-5	3234AS-005	25 Kings Mews - First floor	Within boiler	Gasket	Textiles - Gaskets & washers	Negative asbestos sample	Small Quants	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-8	3234AS-011	26-30 Kings Mews	To windows	Putty	Bitumen mastic & putty	Negative asbestos sample	Small Quants	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-9	3234AS-012	27 Kings Mews - First floor	Wiring to electrics	Wire flex	Textiles - cloth	Negative asbestos sample	Small Quants	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-11	3234AS-014	30 Kings Mews - Second floor flat cupboard and bedroom	Floor and under frame to bath panel	Cream vinyl tile	PVC vinyl floor tiles & unbacked PVC flooring	Negative asbestos sample	3SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-12	3234AS-018	30 Kings Mews - Second floor flat lounge	Under carpet by balcony doors	Bitumen adhesive	Bitumen adhesive & paints	Negative asbestos sample	4SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			

25-30 Kings Mews, London.						Survey Type >		Refurbishment and Demolition			Initial Survey Date(s) >					22/12/2011					
3234AS															Risk ratings			Management Action			
Report Section	Extrapolated from Site Ref	UPRN (If applicable)	Lab Ref	Site Ref	Area or room	Position	Component description	Material	Asbestos ID	Extent / approx quantity	** Accessibility	** Damage	** Surface treatment	Asbestos type (1 = Chrysotile, 2 = Amosite, 3 = Crocidolite)	Total Material Risk rating "A"	Total Priority Risk rating "B"	Total Risk Rating "A+B"	PHH ENVIRONMENTAL Recommendation	Last date ACM inspected	Last date ACM modified	Note	Licensed work?
G			NGA5624-13	3234AS-020	All flat roofs	Roof covering	Roofing felt	Bitumen roofing felts	Negative asbestos sample	150SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-14	3234AS-021	30 Kings Mews - Second floor flat	Within roof voids	Sarking felt	Bitumen roofing felts	Negative asbestos sample	60SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-15	3234AS-022	30 Kings Mews - Ground floor workshop and office	Floor	Grey vinyl tiles	PVC vinyl floor tiles & unbacked PVC flooring	Negative asbestos sample	60SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-16	3234AS-023	30 Kings Mews - Ground floor toilet	Floor	Cream vinyl tiles	PVC vinyl floor tiles & unbacked PVC flooring	Negative asbestos sample	8SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
G			NGA5624-19	3234AS-027	26 to 27 Kings Mews - Ground floor offices and corridor	Floors	Brown vinyl tile and adhesive	PVC vinyl floor tiles & unbacked PVC flooring	Negative asbestos sample	50SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
H				3234AS-009	All units	Within cavity walls and low level brickwork	D.P.C.	Bitumen damp proof courses	Discounted material (not sampled)	500LM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11		Rubber. Area estimated.	
H				3234AS-010	25 Kings Mews - Ground floor	Below flat roof	"Stramit board"	Insulating board	Discounted material (not sampled)	20SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
H				3234AS-015	30 Kings Mews - Second floor flat kitchen	Under side sink top and drainer	Bitumen pads	Bitumen coatings on metal	Discounted material (not sampled)	2No	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
H				3234AS-016	30 Kings Mews - Second floor flat kitchen and bathroom	Floors	Cream vinyl sheet flooring	PVC vinyl floor tiles & unbacked PVC flooring	Discounted material (not sampled)	20SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
H				3234AS-017	30 Kings Mews - Second floor flat kitchen	Under units and cream vinyl sheet flooring	Grey vinyl tiles	PVC vinyl floor tiles & unbacked PVC flooring	Discounted material (not sampled)	10SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			
H				3234AS-019	30 Kings Mews - Second floor flat	External cladding	Cement slates	Cement - Fully comp flat sheet, tiles, slates & boards	Discounted material (not sampled)	40SM	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11		Natural slate	
H				3234AS-028	26 to 27 Kings Mews - Ground floor stores	Loose on floor	Ceiling tiles	Insulation board as ceiling tiles	Discounted material (not sampled)	Small Quants	NA	NA	NA	NA	NA	NA	NA	No action not an ACM	22/12/11			

ANNEX III – Floor Plan Layout Showing Sample or Reference Point Locations

Site reference points colour coding:

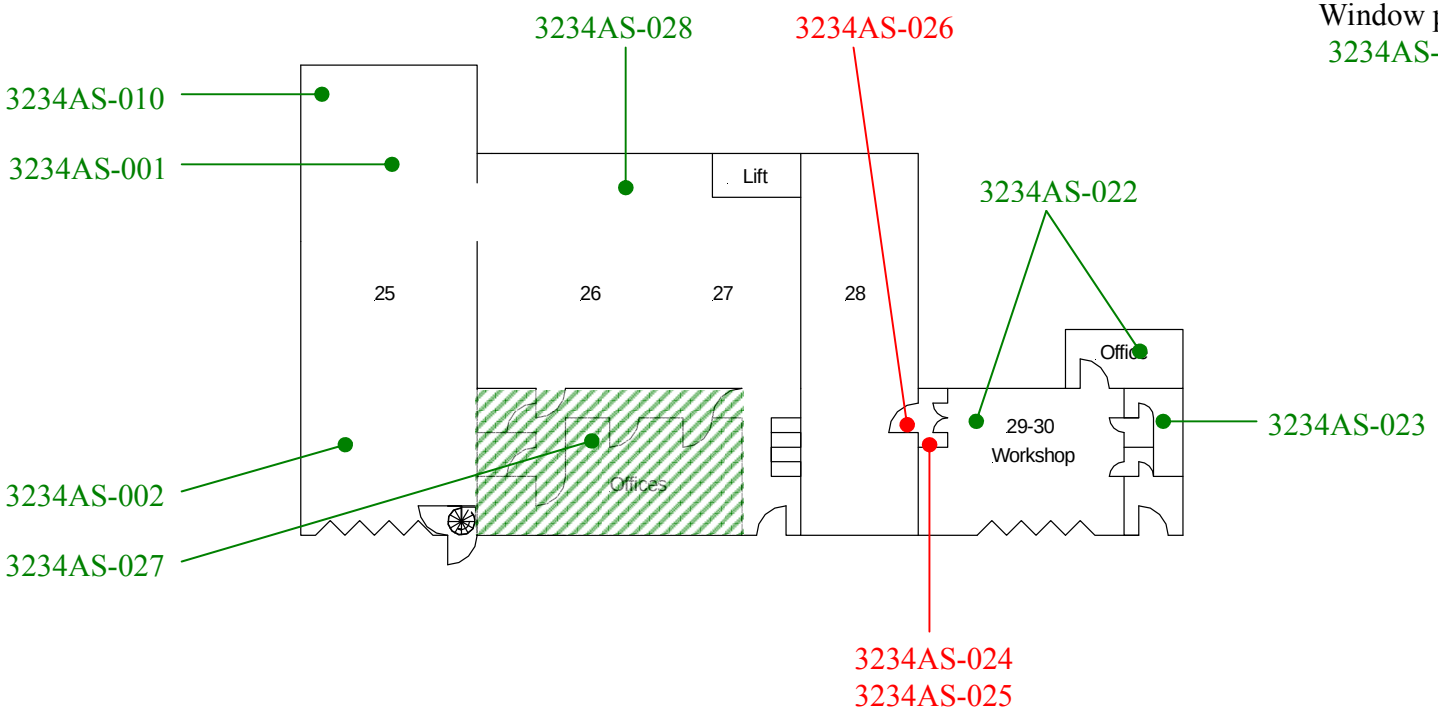
RED for 'positive', 'strongly presumed', 'presumed' and 'contaminated' ACMs
BLUE for 'no access'
GREEN for 'discounted materials', 'no asbestos suspected' and 'negative'
BLACK for removed ACMs

Do not scale, not dimensionally accurate.

Please note front, rear, left and right observations are as viewed from the adjacent highway which forms part of the postal address of the property. If this is not appropriate descriptions will be based on compass points, i.e. N, NE, E, SE, S, SW, W, NW.

D.P.C.
3234AS-009

Window putty
3234AS-011



Site reference points colour coding:

RED for 'positive', 'strongly presumed', 'presumed' and 'contaminated' ACMs

BLUE for 'Presumed to contain ACMs due to no access'

GREEN for 'discounted materials', 'no asbestos suspected' and 'negative
BLACK for 'removed' ACMs

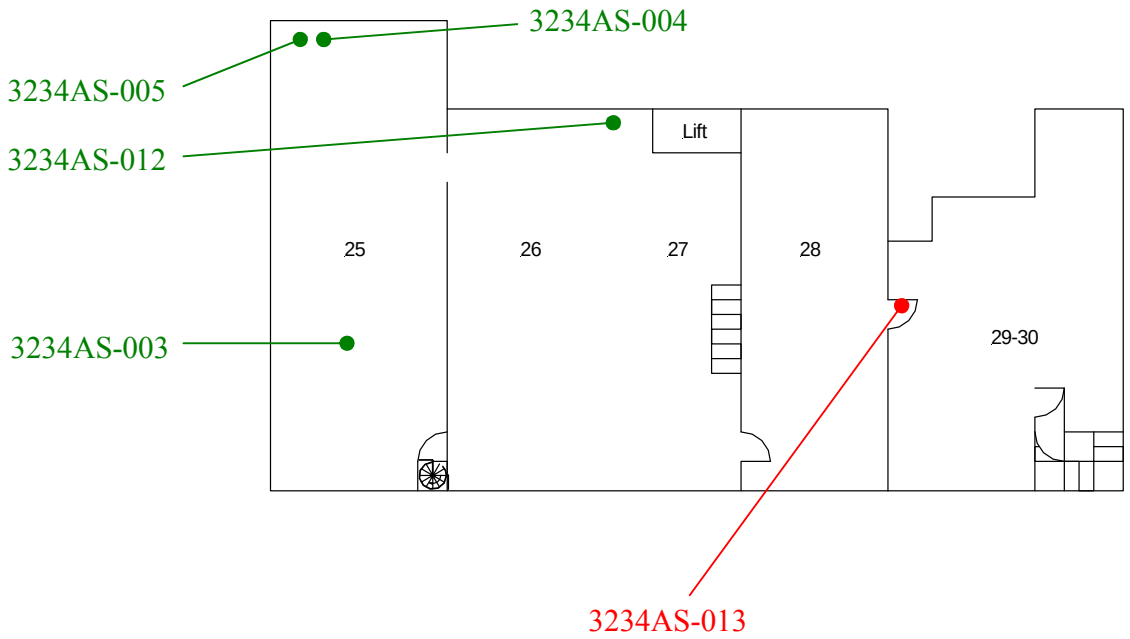
Do not scale, not dimensionally accurate

Note:

This must be reproduced in colour and is to be read in conjunction with the full report.

PHH ENVIRONMENTAL
PART OF THE PINCHIN GROUP

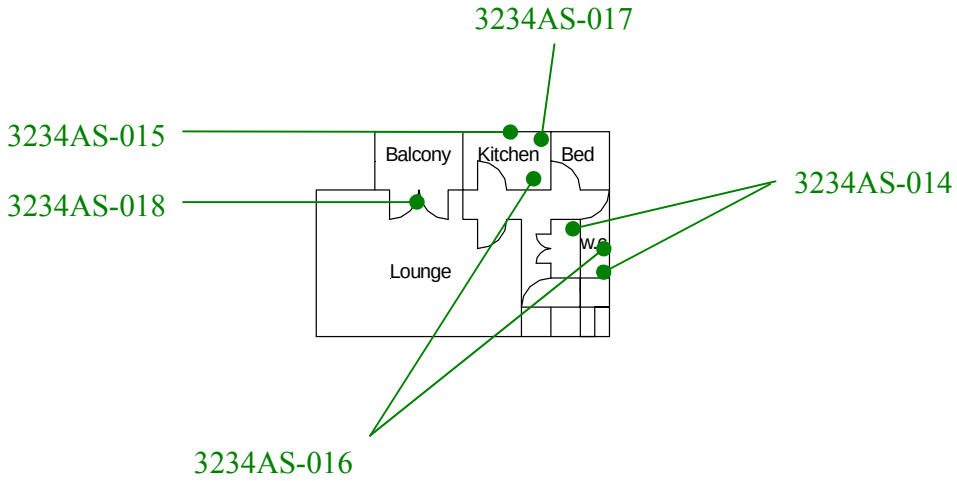
Annex III Project Ref. 3234AS
25-30 Kings Mews, London
Ground Floor Plan



Window putty
3234AS-011

All flat roof covering
3234AS-020

Site reference points colour coding: **RED for 'positive', 'strongly presumed', 'presumed' and 'contaminated' ACMs** **BLUE for 'Presumed to contain ACMs due to no access'** **GREEN for 'discounted materials', 'no asbestos suspected' and 'negative** **BLACK for 'removed' ACMs** **Do not scale, not dimensionally accurate**	**Note:** This must be reproduced in colour and is to be read in conjunction with the full report.	PHH ENVIRONMENTAL PART OF THE PINCHIN GROUP Annex III Project Ref. 3234AS 25-30 Kings Mews, London First Floor Plan



External cladding
3234AS-019

Within roof voids
3234AS-021

Site reference points colour coding:

RED for 'positive', 'strongly presumed', 'presumed' and 'contaminated' ACMs

BLUE for 'Presumed to contain ACMs due to no access'

GREEN for 'discounted materials', 'no asbestos suspected' and 'negative
BLACK for 'removed' ACMs

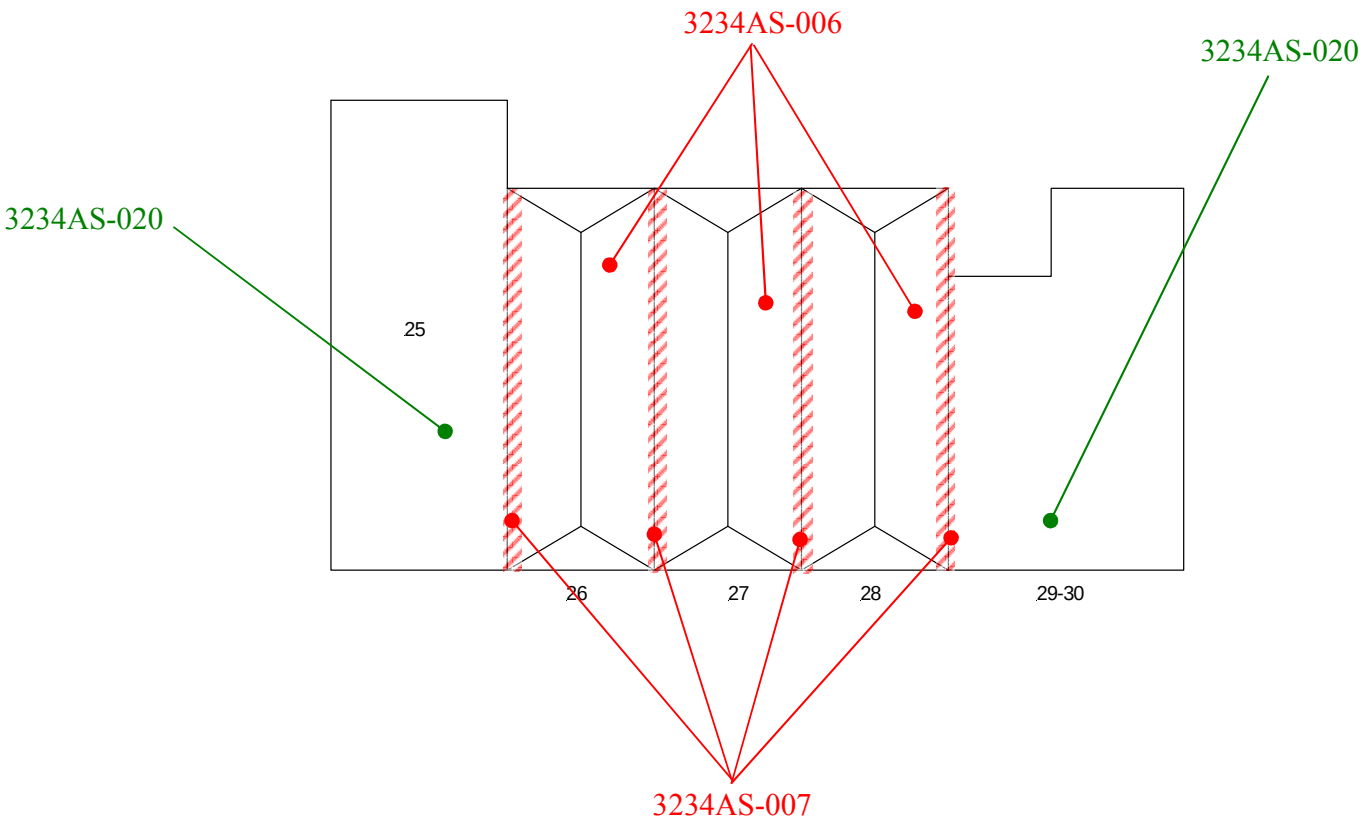
Do not scale, not dimensionally accurate

Note:

This must be reproduced in colour and is to be read in conjunction with the full report.

PHH ENVIRONMENTAL
PART OF THE PINCHIN GROUP

Annex III Project Ref. 3234AS
25-30 Kings Mews, London
Second Floor Plan



Roof lights
3234AS-008

Site reference points colour coding: **RED for 'positive', 'strongly presumed', 'presumed' and 'contaminated' ACMs** **BLUE for 'Presumed to contain ACMs due to no access'** **GREEN for 'discounted materials', 'no asbestos suspected' and 'negative** **BLACK for 'removed' ACMs** **Do not scale, not dimensionally accurate**	**Note:** This must be reproduced in colour and is to be read in conjunction with the full report.	PHH ENVIRONMENTAL PART OF THE PINCHIN GROUP Annex III Project Ref. 3234AS 25-30 Kings Mews, London Roof Plan

Appendix 1 – Regulations and guidance

Appendix 1

Regulations and guidance

There are a number of health & safety regulations that place a duty on an employer in relation to asbestos. These are summarised below:

General

- The Health and Safety at Work etc Act 1974 (HSW Act) requires an employer to conduct their work in such a way that their employees will not be exposed to health and safety risks, and to provide information to other people about their workplace which might affect their health and safety. Section 3 of the HSW Act contains general duties on employers and the self-employed in respect of people other than their own employees. Section 4 contains general duties for anyone who has control, to any extent, over a workplace.
- The Management of Health and Safety at Work Regulations 1999 require employers and self-employed people to make an assessment of the risk to the health and safety of themselves, employees and people not in their employment arising out of or in connection with the conduct of their business – and to make appropriate arrangements for protecting those people's health and safety.
- There are duties to maintain workplace buildings and or premises to protect occupants and workers under the Workplace (Health, Safety and Welfare) Regulations 1992.
- The Construction (Design and Management) Regulations 1994, as amended 2007, require the client to pass on information about the state or condition of any premises (including the presence of hazardous materials such as asbestos) to the planning supervisor before any work begins and to ensure that the health and safety file is available for inspection by any person who needs the information.
- The Control of Asbestos Regulations 2006 (CAR) requires employers to prevent the exposure of their employees to asbestos, or where this is not practicable, to reduce the exposure to the lowest possible level. CAR includes a regulation placing a duty on those who have repair and maintenance responsibilities for premises, because of a contract or tenancy, to manage the risk from asbestos in those premises. Where there is no contract or tenancy the person in control will be the duty holder. There is also a duty of cooperation on other parties. The duty is supported by Health & Safety Executive publications:
  - an Approved Code of Practice (HSE ACoP L127) and there is a further ACoP supporting CAR, directed at work on ACMs (HSE ACoP L143);
  - A Comprehensive guide to Managing Asbestos in Premises HSG227;
  - HSE HSG264 "Asbestos: The Surveying Guide"

Specific Legal Duties under Regulation 4 of CAR 2006

The broad requirements on employers and others are to:

- Take reasonable steps to find materials likely to contain asbestos;
- Presume materials contain asbestos, unless there is strong evidence to suppose they do not;
- Assess the risk of the likelihood of anyone being exposed to asbestos from these materials;
- Make a written record of the location and the condition of the ACMs and presumed ACMs and keep it up to date;
- Repair or remove any material that contains or is presumed to contain asbestos, if necessary, because of the likelihood of disturbance, and its location or condition;
- Prepare a plan to manage that risk and put it into effect to ensure that;
  - information on the location and condition of ACMs is given to people who may disturb them during work activities;
  - any material known or presumed to contain asbestos is kept in a good state of repair;
- monitor the condition of ACMs and presumed ACMs; and
- review and monitor the action plan and the arrangements made to put it in place.

Assessment of the Hazard from Asbestos in Buildings

Control measures for exposed and or damaged friable asbestos may be specified by removal, enclosure or encapsulation to prevent fibre release. Disadvantages to enclosure/encapsulation are: access control and periodic inspections are required for enclosures, fibre release may occur during construction, encapsulated surfaces may delaminate and long term costs in both cases may be higher. Removal presents a permanent solution. Once controlled through encapsulation or enclosure, then management is required.

Enclosed and or encapsulated friable asbestos in good condition and non-friable asbestos must be managed by implementing an Operations and Maintenance (O&M) Program. Major elements of the O&M Program include: administrative controls; training; exposure control plan and a 'permit to work' system and/or identification with labels or signs.

Appendix 2 – General Management Options

General Management Options

Enclosed and/or encapsulated friable asbestos in good condition and non-friable asbestos may be managed by implementing an Operations and Maintenance (O&M) Program. Major elements of the O&M Program include: administrative controls; training; exposure control plan and identification with labels or signs.

Exposed and/or damaged friable asbestos should be controlled by removal, enclosure or encapsulation to prevent fibre release.

Once controlled through encapsulation or enclosure, then management is required.
All ACMs in areas subject to renovation or demolition activities must be removed or safely contained prior to renovation or demolition, by a licensed asbestos removal contractor, except those ACMs such as asbestos cement not covered by the regulation. The HSE or appropriate enforcing agency, e.g. Environment Agency, must be notified in writing before the removal, encapsulation or enclosure of licensed ACMs, or the demolition, dismantling or repair of any building or structure, or parts thereof, in which licensed ACMs have been used.

Record, Manage & Monitor ACMs
ACMs which are in good condition, sealed and/or repaired, and are unlikely to be disturbed, may be left in place. The Client must monitor the condition of any ACMs that are to remain in place. The frequency of checks will depend on the ACM and the activities in the area, however checks should be made no less than annually. If the ACMs are labelled this will assist in monitoring them and warn anyone that may propose to do work in that area. If labelling is not appropriate and has not been done the Client must make sure that they have a management system that communicates the location of ACMs to anyone who is likely to disturb them.

Protection or Enclosure of ACMs
Protecting the ACM means erecting a barrier of some sort to prevent accidental disturbance of the ACM. Enclosing the ACM involves erecting a barrier around the ACM that is as airtight as possible. Beware of disturbing the ACM during the erection of the enclosure. If disturbance is likely then it may fall under the Control of Asbestos Regulations 2006, this will mean you will have to use a licensed asbestos removal contractor to erect the enclosure. This option may ultimately cost as much as removal of the ACM. The enclosed ACM will still need to be monitored.

Seal or Encapsulate the ACM
There are two types of encapsulant; bridging encapsulants which form a durable layer adhering to the surface of the ACM and penetrating encapsulants which penetrate into the ACM before hardening and binding the ACM. There are various types of encapsulant with different life spans. The fire-resistant properties of the encapsulant must be considered if the ACM was to provide fire resistance. Encapsulation of an ACM is only suitable if the ACM is in sound condition and can take the additional weight of the encapsulant. The preparation of the encapsulant must in virtually all cases be carried out by a licensed asbestos contractor.

Repair the ACM.
To be readily repairable the damage needs to be slight, therefore repair should be restricted to patching or sealing small areas. There are a number of methods that can be used depending on the type of material. It is important to consider the fire protection afforded by any ACMs that are treated to ensure that any treatment does not adversely affect the fire resistant or retardant qualities of the ACM. Unless the work is very minor and not covered by the Licensing regulations it should be undertaken by a licensed asbestos contractor.

Remove the ACM.
Where it is not practicable to repair enclose or encapsulate the ACM it will need to be removed. ACMs will need to be removed where a building is going to be demolished or if the area is to undergo refurbishment, which will disturb the ACM. The work will generally have to be undertaken by licensed asbestos removal contractors unless the ACM is asbestos cement or other highly bonded material not covered by the Licensing regulations.

Can I do work that may disturb an ACM?

A Method Statement should be provided for the proposed work following liaison with the client. Liaison with the client is essential to determine the work sequence and appropriate control measures. A firm price for abatement work cannot usually be provided until client liaison has taken place. For work that is not licensed an abbreviated form of the Method Statement may be used but all the key elements such as, inter alia, control measures, personal protective equipment (PPE) & respiratory protective equipment (RPE) and disposal must be covered in the statement. If the work is 'licensed' it can only be done by a licensed contractor; the Method Statement will be prepared by the licensed contractor for licensed work.

If any person is proposing to carry out any work that may disturb an ACM he must carry out a risk assessment **specific** to that work. It will be on the basis of the risk assessment that an option appraisal should then be carried out to confirm the best course of action. An option appraisal should take into account the life cycle costs of dealing with the ACM. Each time, over the life of the building component, that maintenance is required there will be increased costs for dealing with the ACM. There is also clearly a cost involved in 'Record, Manage & Monitor' as this will require an annual inspection with appropriate records; it may also impact on the business of the building occupier. There may also be a need to carry out background reassurance air monitoring on a regular basis; again this will incur repeat costs. In some cases it will be cost effective to leave the ACM in situ, in other cases it may be prudent to remove the ACM. The decision depends on the scope of any proposed work, the potential risk for fibre release and danger to workers and occupiers.

If you are not a licensed contractor as defined by the Control of Asbestos Regs 2006 (CAR2006) (see also HSE ACoP L143) you can only work on ACMs if:

(a) the exposure of employees to asbestos is sporadic and of low intensity;
(b) it is clear from the risk assessment (as defined in CAR2006) that the exposure of any employee to asbestos will not exceed the control limit (as defined in CAR2006) ; and
(c) the work involves—

(i) short, non-continuous maintenance activities,
(ii) removal of materials in which the asbestos fibres are firmly linked in a matrix,
(iii) encapsulation or sealing of asbestos-containing materials which are in good condition.

Appendix 3 - Photographs of Sample or Reference Point Locations

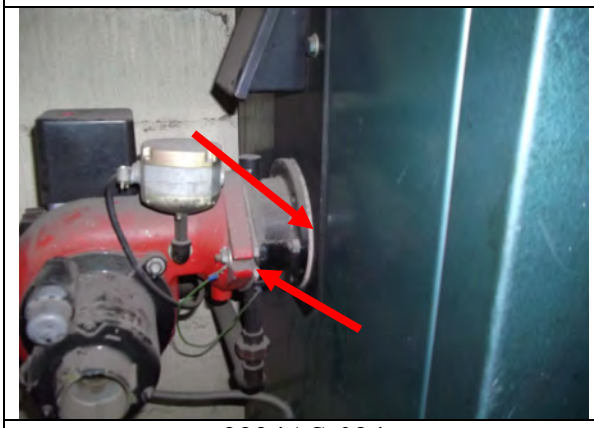
Please note the following are representative photographs of identified ACMs and simple photographs such as ‘Artex’ may be omitted

3234AS-006

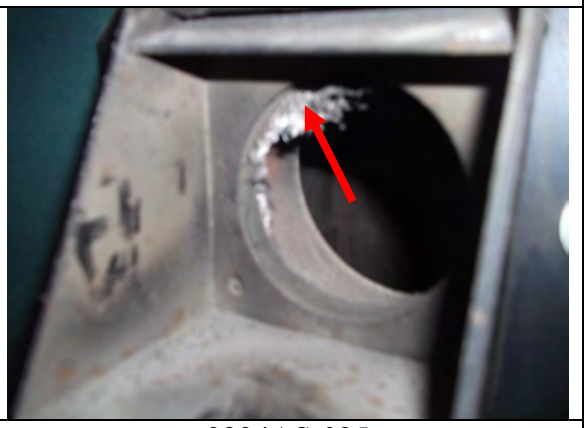
3234AS-007

3234AS-008

3234AS-013



3234AS-024



3234AS-025

3234AS-026

Registered in England & Wales Reg. No 05146856
PHH Environmental (UK) Ltd, Titan House, Cardiff Bay Business Centre,
Lewis Road, CARDIFF, CF24 5BS Tel: 02920 493000
Fax: 02920 493076 info@phhenv.co.uk www.phhenv.co.uk