# Construction Management Plan

pro forma v2.0

Regents Park Estate

By; Lovell Partnership Limited

5th Draft issued on 11 Mar 2016 following comments from Camden Officers issued on against the 4<sup>th</sup> draft issued on 23 Dec 2015



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# **Appendices:**

- A Programmes
- **B Existing Site Utility Survey Plans**
- C Utility Trackers setting out current progress of discussions with the utility companies
- D SD5 Pre-application Consultation Statement May 2015
- **E Considerate Constructions Poster (typical for one site)**
- F CLOCS Standard for construction logistics managing work related road risk
- G "Meet The Contractor" Poster, Records of residential liaison meetings & the Code of Conduct and Terms of Reference for the Working Group
- H Site Logistics Plans & Site Descriptions TO BE REVIEWED BY IJ
- I Demolition Method Statement (Cape of Good Hope site)
- J Dust Mitigation Measures
- K Template Site Waste Management Plan
- L Swept Path Analysis
- M SD11 Noise & Vibration Baseline Report



# Review

# For Internal use only

Please initial and date in the relevant section of the table.

The **highlighted areas** of the Draft table will be deleted by their respective teams during pre app review if these sections are no longer applicable.

# Pre app

Community liaison	
CLOCS	
Transport	
Highways	
Parking	
Environmental health	
Sustainability	(attach appendix if necessary)
Sign off	

# Draft

Community liaison	
CLOCS	
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Sustainability	
Sign off	

INDICATES INPUT REQUIREMENT FROM MULTIPLE TEAMS THROUGHOUT DOCUMENT



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

The completed and signed CMP must address the way in which any impacts associated with the proposed works, and any **cumulative impacts of other nearby construction sites**, will be mitigated and managed. The level of detail required in a CMP will depend on the scale and 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 <u>Transport for London's</u> (TfL's Standard for <u>Construction Logistics and Cyclist Safety</u> (**CLOCS**) scheme) and <u>Camden's</u> Minimum Requirements for Building Construction (**CMRBC**).

The approved contents of this CMP must be complied with unless otherwise agreed with the Council in writing. The project manager shall work with the Council to review this CMP if problems arise 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 "<u>Demolition Notice</u>"

Please complete the questions below with additional sheets, drawings and plans as required. The boxes will expand to accommodate the information provided, so please provide as much information as is necessary. It is preferable if this document is completed electronically and submitted as a Word file to allow comments to be easily documented.

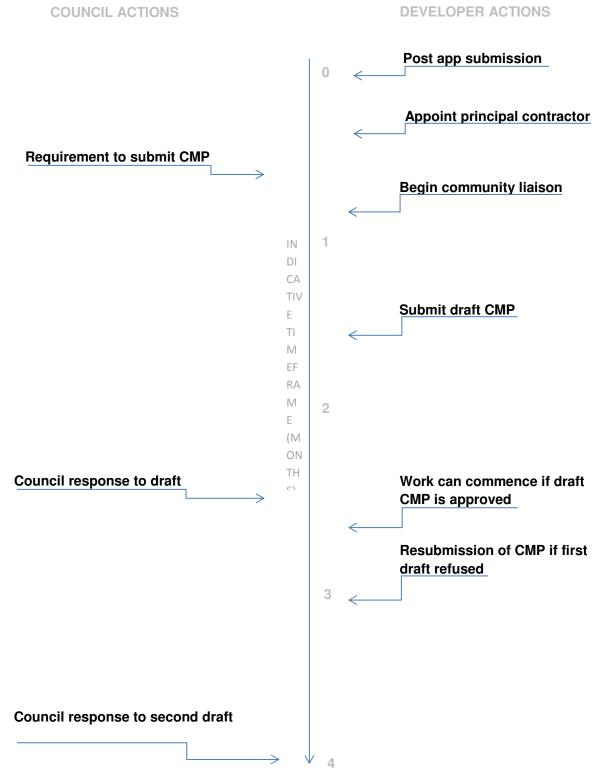
(Note the term 'vehicles' used in this document refers to all vehicles associated with the implementation of the development, e.g. demolition, site clearance, delivery of plant & materials, construction, etc.)



Revisions to this document may take place periodically.



# **Timeframe**





# **Contact**

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

Address: Regents Park Estate

Planning ref: 2015/3076/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: Steve Bartram

Address: Tasman House, The Waterfront, Elstree Road, Elstree, Herts. WD6 3 BS

Email: steve.bartram@lovell.co.uk

Phone: 020 8731 3800

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: Mark Tipping

Address: : Tasman House, The Waterfront, Elstree Road, Elstree, Herts. WD6 3 BS

Email: mark.tipping@lovell.co.uk

Phone: 020 8731 3800



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: Ian Jerrett

Address: : 78 Albany Street, London NW1 4EE

Email: ian.jerrett@lovell.co.uk

Phone: 020 8731 3800

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

Name: Lucy Gick

Address: 11th floor 5 Pancras Square London N1C 4AG

email: lucy.gick@camden.gov.uk

Phone: 020 7974 3705

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

Name: Andy Males

Address: : Tasman House, The Waterfront, Elstree Road, Elstree, Herts. WD6 3 BS

Email: andy.males@lovell.co.uk

Phone: 020 8731 3800



# 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 sites are located within the Regent's Park Estate which is located to the north of the A501 (Euston Road), the west of Euston Station and the east of Regent's Park.



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).

Each of the eight sites within the Regent's Park Estate is unique suffice to say that they are all bounded by existing occupied residential properties and live public highways. The eight sites are as follows:



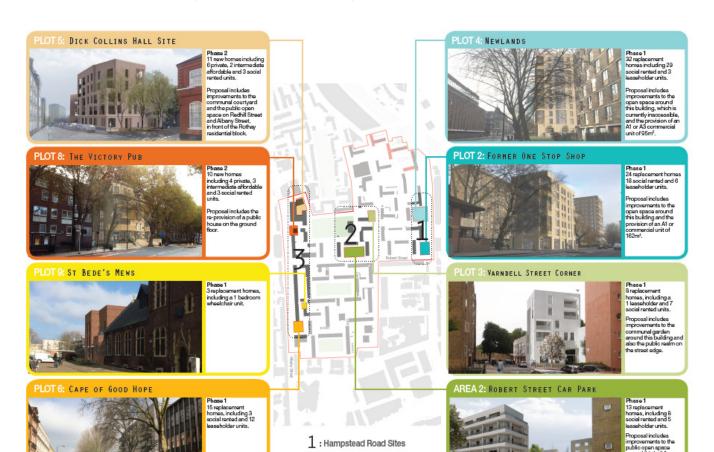
- Former One Stop Shop current open land
- Robert Street Car Park current car parking
- Newlands Open Space- current open land
- Varndell Street currently gardens
- St Bedes Mews current car parking
- Cape of Good Hope currently the site of a former pub
- Dick Collins Hall Site current site of the community hall
- Victory Site currently the site of an operational pub

Of the above sites; Rydal Water, Robert Street, Newlands, Varndell Street and St Bedes Mews are currently either open space or car parking and with limited enabling works will be ready for new build construction. Cape of Good Hope, Dick Collins Hall and the Victory Site all have existing buildings and will need to be treated as demolition sites in the first instance to prepare them for construction.

Have inspected the site(s) on numerous occasions Lovell are fully aware of the proximity of the existing occupied buildings and the live highways that run though the estate and bound the estate.

For the 8 sites for which there will be a consistent approach to the construction of each site with site enabling works and/or demolition, groundworks and foundations, reinforced concrete frames, cladding and fit out – the summary of each site is:

- Former One Stop Shop 24 units over 7 storeys
- Robert Street Car Park 13 units and community centre over 5 storeys
- Newlands Open Space- 32 units over 11 storeys
- Varndell Street 8 units over 6 storeys
- St Bedes Mews 3 units over 3 storeys
- Cape of Good Hope 15 units over 6 storeys with a basement
- Dick Collins Hall Site 11 units over 5 storeys
- Victory Site 10 units over 5 storeys



# General overview sequence of build for all sites

### Substructure

Each building will be supported by piled foundations grouped below the cores, walls and columns with associated RC pile caps and ground beams. The reinforced concrete slab will be suspended between supporting ground beams and pile caps.

# Superstructure

The superstructure will be constructed as a reinforced concrete frame with flat slabs and vertical elements consisting of concrete walls and columns. Structural stability to the structure will be provided by the lift cores and stair enclosure walls. The cross walls and columns will also provide lateral stability. The envelope will be made up of the various material demonstrated in the planning approval details.

# Fit out

The fit out will consist of metal stud and partition walls to form the sub-division of all apartments and communal areas

# Mechanical and Electrical

The domestic and commercial unit heating has been determined as CHP, hot water for heating and domestic uses will be distributed from the proposed Plant Room through the scheme via pipework. A detailed Fire and Smoke Control Strategy is to be evolved including the use of ventilation and extraction. Lifts will be provided as indicated on the planning drawings.

### External and Other Works

Each of the sites will include Communal Areas, associated cycle stores, storage areas, footpaths, drainage, external lighting, and general external works and landscaping and communal gardens.

# Sequence of Works for each site

The development will be constructed in the following parts;

- Enabling Works; Site Set up, Finalise Party Wall Awards, Hoardings, Soft Strip & Demolition
- Groundworks & Superstructure
- Fit Out & Landscaping



# Sequence of Works:

# **ENABLING WORKS**

**MOBILISE & SITE INVESTIGATIONS** 

**FINALISE PARTY WALL AWARDS** 

**SETUP SITE OFFICES AND WELFARE** 

**ERECT HOARDING** 

# CONSTRUCTION ACTIVITIES – GROUNDWORKS & SUPERSTRUCTURE

PROTECTION AND PROPPING TO SECTION OF RETAINED BUILDING

REDUCE LEVELS AND PREPARE PILING MAT

INSTALL PILE WALL FOR LOCAL BASEMENT (Cape of Good Hope Only)

INSTALL CAPPING BEAM (Cape of Good Hope Only)

INSTALL TEMPORARY PROP BEAMS (Cape of Good Hope Only)

EXCAVATE BASEMENT TO FORMATION LEVEL (Cape of Good Hope Only)

INSTALL BASEMENT; SLAB, DRAINAGE AND RE COLUMNS (Cape of Good Hope Only)

# **CONSTRUCTION ACTIVITIES – FIT OUT & LANDSCAPING**

**INTERNAL CORES/WALLS** 

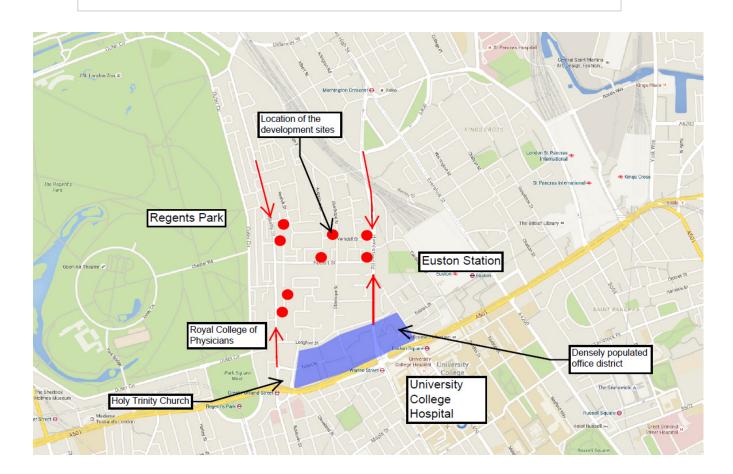
**INTERNAL FIT OUT** 



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.).

As noted in section 2 above the eight sites are all within the existing and occupied Regents Park Estate and the occupied residential dwellings adjacent to each site will be aware of the construction activities – the measures site out in this CMP will seek to mitigate; noise, vibration, dust, fumes, lighting, etc

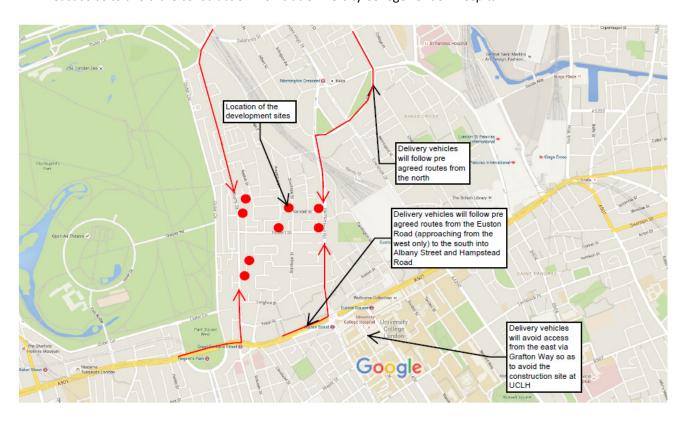
The plan below locates land users adjacent to the Regents Park Estate





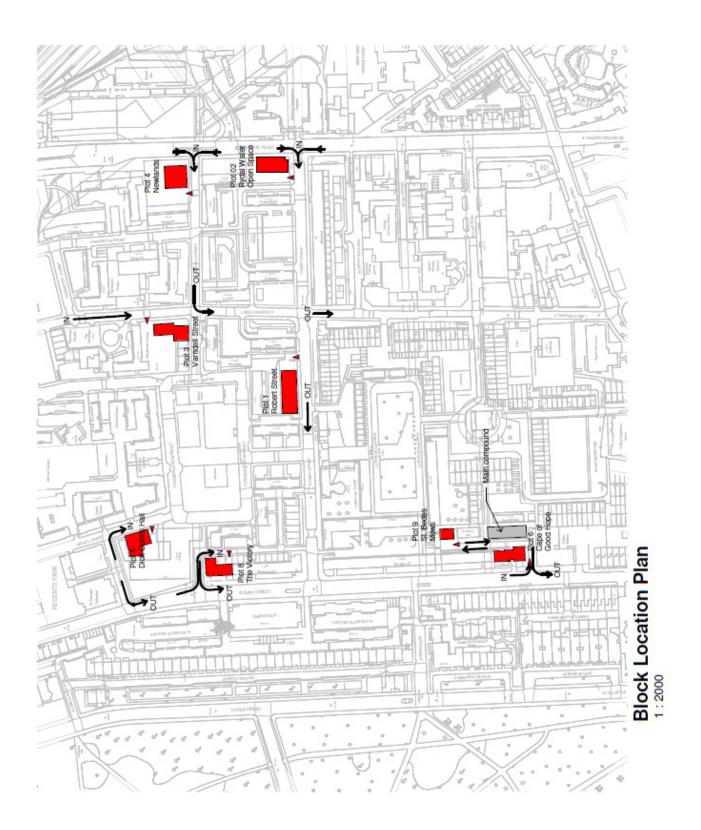
4. Please provide a scaled plan detailing the local highway network layout in the vicinity of the site. This should include details of on-street parking bay locations, cycle lanes, footway extents and proposed site access locations.

Due to the location of the site all construction traffic will access the site via Albany Street and Hampstead Road which are both part of the TFL Road Network. Construction traffic will follow the routes shown on the plan below. Construction traffic will be instructed to <u>not</u> approach from the east so as to avoid the construction works at University College London Hospital.



Within the Regents Park Estate the construction traffic will following the routes noted on the plan below







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).

The project start date is: Late January 2016

The overall planned completion date is: Summer 2018

The Construction programme on the next page sets out the planned construction durations for each of the eight sites. More detailed GANTT charts are attached at Appendix A.

Site	Planned Start	Planned Completion
Rydal Water	01/2/16 (piling)	July 17
Robert Street	25/1/16 (piling)	March 17
Newlands	25/1/16 (piling)	June 17
Varndell Street	25/1/16 (piling)	Jan 18
St Bedes Mews	25/1/16 (piling)	Nov 16
Cape of Good Hope	22/2/16 (piling)	Sept 17
Dick Collins Hall	May 17 (piling)	May 18
Victory Pub Site	May 17 (piling)	July 18



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

The site hours will be:

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

Each of the sites forming part of the Regents Park Estate have existing utility services that need to be altered, disconnected or diverted. Lovell are aware of these works and have commissioned existing utility services surveys by TDS via the use of ground radar survey – these surveys are annexed to the CMP at appendix B.

A detailed programme and plan of works will be developed with the respective utility companies to disconnect and or divert their services as necessary.

Attached at appendix C are trackers for each site setting out the progress of the discussions with each of the utility companies.



# **Community Liaison**

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

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

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

# **Cumulative impact**

Sites located within high concentrations of construction activity that will attract large numbers of vehicle movements should consider establishing contact with other sites in the vicinity in order to manage traffic routeing and volumes. Developers in the Tottenham Court Road area have done this to great effect.

# Lovell statement on Cumulative impact and effect:

We are aware of Camden's requirement for us to consider the cumulative effect of our construction site on the local neighbourhood and environment should there be concurrent construction sites in the immediate location of the site. We have defined what we understand to be the "Local Area" at section 3 (the Site) of this document and currently there are a number of significant construction projects underway – this is King's Cross and therefore a major regeneration area for London.

We envisage that will need to coordinate our major plant deliveries (piling rigs, tower cranes and large excavators) so that they are not happening on the same day as another site's major delivery. We will achieve this by sharing our details with the site management teams on other sites in the area. We would seek to have regular meetings with the site manager(s) of other large sites and look



for them to be part of our Construction Working Group as noted in the consultation part of this document.

It is intended that development of the eight sites that make up the Regents Park Replacement Housing project will be delivered in two phases which should minimise impact on the estate and the surround area.

In addition, the delivery of Phase 1 sites will be managed and coordinated in such a manner as to lessen construction impact. For example sites will be managed in pairs, with all deliveries scheduled by 1 logistics manager. At the same time each site will have its own traffic marshall as well as welfare facilities.

### 1. Consultation

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

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.

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

At the planning stage of the scheme there was extensive consultation that was carried out by the design team with the residents and officers at Camden Council. The full findings of this consultation is set out in the document titled "New Homes on Regent's Park Estate, SD5 Pre-Application Consultation Statement, dated May 2015". A copy of this document is attached at Appendix D.

A summary of the consultation that took place is:

Event	Timing	Topic
Housing Need Survey	Spring 2013	Survey of all residents within the HS2 affected areas
Replacement housing Sites	Summer/ autumn 2013	Potential sites for new housing & initial architectural feasibility
Addition replacement housing sites	Spring 2014	Introducing new sites in replacement housing programme
Architectural design competition	Autumn 2014	Selection of architects firms
Design and Community Vision Workshop	20 November 2014	Meeting the Architect and emerging concept designs. Plus Community Vision workshop



Camden Town District Management Committee	November 2014	Presentation of consultation feedback and programme for HS2 replacement housing programme.
RIBA Stage 2 Designs	Spring 2015	Design development on 9 sites pre – planning application
Planning Application Exhibition	June 2015	Presentation of the full application submitted as a drop in session for local residents from the area
Meet the Contractor Event	10 Dec 2015	Meet the contractor resident liaison meeting

Lovell will implement the following in connection with Community Liaison and Consultation in connection with the development and see regular improvement and upkeep of the Construction Management Plan.

### Communication will be via:

- A quarterly newsletter will be published and delivered to our neighbours. The newsletter will also be displayed on a fixed notice board that will be mounted on site gates.
- Our Site Manager will be our first point of contact for any liaison with the local community including addressing any complaints or concerns. We will also use a resident liaison officer for this project to assist with communications.
- The contact details for our site manager will be displayed prominently on the site gates with communication available with the site manager 24/7.
- "Meet the Contractor" events

Consultation will also be sought throughout the project via a Working Group where we can report on our progress and key construction activities but at the same time seek feedback and comment from the group with a view to constant improvement of the Construction Management Plan. The Working Group would include, but not be limited to the following:

- The immediate residents who are neighbours to the site
- Estate Managers
- The Local Ward member for which the site falls within
- The head of the Netley School in Stanhope Street

Our Site Manager will maintain a log of all visits to the site by the public and neighbours where they wish to make any complaints – any such complaints will be acted upon and report at the Working Group. We propose that the Working Group will be held bi-monthly but the Site Manager(s) will be available to address any concerns or questions from residents every day.

Since Lovell's involvement with the project the following consultation has taken place:

 On 6 October 2015 a Working Group meeting was held to keep residents informed of progress of the project



- The second Working Group meeting was held on 18 November 2015 including presentation of draft CMP
- "Meet the Contractor" event on 10 December 2015

Records of the above are attached at appendix G along with the Code of Conduct and the Terms of Reference for the Working Group.

# 2. Construction Working Group

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, the way in which 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.

Since Lovell's involvement with the project the following consultation has taken place:

- On 6 October 2015 a Working Group meeting was held to keep residents informed of progress of the project
- The second Working Group meeting was held on 18 November 2015 including presentation of draft CMP
- "Meet the Contractor" event on 10 December 2015

Records of the above are attached at appendix G along with the Code of Conduct and the Terms of Reference for the Working Group.

# 3. Schemes

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".



Each of the sites have been individually registered with the following registration numbers:

Nr 92255 – Robert Street

Nr 92256 – Rydal Water

Nr 92257 – Varndell Street

Nr 92258 - Newlands

Nr 92259 – Cape Of Good Hope

Nr 922260 - St Bedes Mews

A sample site poster setting out the project is attached at Appendix E.



Lovell will reinforce its determination to contribute positively to the local environment by registering the project with the Considerate Constructor scheme. Particular initiatives within this plan will include:

- Control of the works so that dust and waste from the construction activities cannot blow into surrounding areas;
- Noise minimisation consistent with good construction practice;
- Clean and neat front of house site presentation;
- Wheel washing of construction vehicles prior to leaving site;
- Road cleaning vehicle as necessary;
- Courteous approach to the public by site personnel and security guards;
- Carefully scheduled deliveries so that lorries do not back up; and
- Local employment wherever possible.
- A newsletter describing current works will be made available to local residence.
- Regular communication with the Head at the Netley School

Lovell will set itself a target of achieving a minimum score for each CCS inspection criteria of "very good".

very good .
A sample site poster setting out the project is attached at Appendix E.



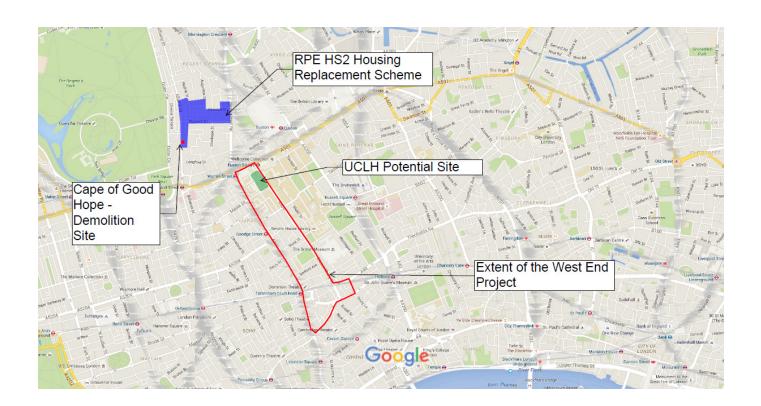
# 4. Neighbouring sites

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

There are currently not any live construction sites in the immediate vicinity of the proposed works at Regents Park Estate. We understand that there are proposed works for UCHL, the establishment of a project office for the HS2 works and the "West End Project".

Information is available from the HS2 (HS2's Environment Statement) shows that the scheme is programmed to achieve Royal Assent in December 2016.

If and when these project come on stream Lovell will communicate with the managers of these sites and work with them to coordinate construction traffic and routes so as to





# **Transport**

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

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

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

Checks of the proposed measures will be carried out by the council to ensure compliance. Please refer to the CLOCS Standard when completing this section. Guidance material which details CLOCS requirements can be accessed <a href="here">here</a>, details of the monitoring process are available <a href="here">here</a>.

Please contact <a href="CLOCS@camden.gov.uk">CLOCS@camden.gov.uk</a> for further advice or guidance on any aspect of this section.

Please refer to the CLOCS Overview and Monitoring Overview documents which give a breakdown of requirements.



# **CLOCS Considerations**

1. Name of Principal contractor:	
Lovell Partnerships Limited	

2. Please submit the proposed method for checking operational, vehicle and driver compliance with the CLOCS Standard throughout the duration of the contract (please refer to our CLOCS Overview document in the appendix and CLOCS Standard point 3.4.7).



Having reviewed the CLOCS documentation we will at Lovell be including within our sub contract orders the requirements for compliance, including:

- All contractors vehicles will be certified by the Fleet Operators Recognition Scheme (FORS)
- Any collisions or incidents involving vehicles serving our sites will be thoroughly investigated
- Traffic routing will be strictly policed (see routes defined earlier in the CMP)
- Vehicles will be fitted with all necessary warning signage, side protection, blind spot mirrors & vehicle manoeuver warnings
- Drivers will receive awareness training and be FORS registered

Consultation has also taken place with Jessica Wiles (Camden's Cycle Safety Project & Contracts Officer) who has provide the information attached at Appendix F to inform our supply chain.

# 3.4.7 Supply chain compliance

# Requirement

Clients shall ensure contractor and subcontractor compliance with requirements 3.1.1 to 3.3.2.

# Purpose

To ensure that requirements are being adhered to across the supply chain.

# Demonstration

The client should ensure that it is a contractual requirement for the contractor to check vehicles entering site and to take the appropriate action under the contract.

The client should request from the contractor a plan and / or process for complying with the contract.

The client should also undertake regular audits of the contractor's process and compliance checks. This audit should include random vehicle compliance checks undertaken by the client.

The client may request that every reporting period the contractor should submit to the client a summary of those checks and details the corrective action taken in the case of non-compliance.

3. Please confirm that you as the client/developer and your principal contractor have read and understood the <u>CLOCS Standard</u> and included it in your contracts. Please sign-up to join the <u>CLOCS Community</u> to receive up to date information on the standard by expressing an interest online.

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



I, Steve Bartram (Contracts Manager) at Lovell Partnerships and my team have read, are aware and will abide by the CLOCS Standards.

I can also confirm that my team have met with Jessica Wiles at Camden

Please contact <a href="CLOCS@camden.gov.uk">CLOCS@camden.gov.uk</a> for further advice or guidance on any aspect of this section.



# Site Traffic

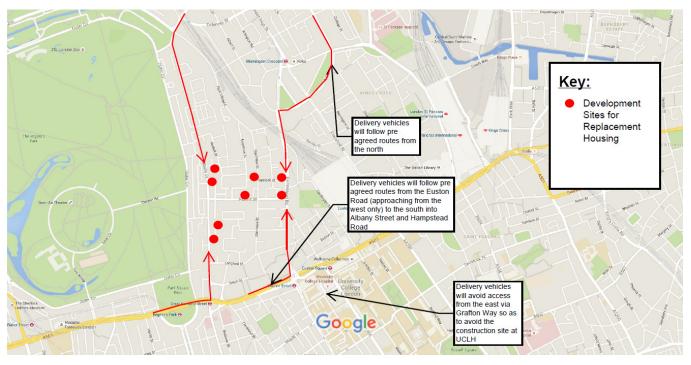
Sections below shown in blue directly reference the CLOCS Standard requirements. The CLOCS Standard should be read in conjunction with this section.

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

Routes should be carefully considered and risk assessed, taking into account the need to avoid where possible any major cycle routes and trip generators such as schools, offices, public buildings, museums etc. Where appropriate, on routes that use high risk junctions (ie. those that attract high volumes of cycling traffic) installing Trixi mirrors to aid driver visibility should be considered.

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

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 <u>Transport for London Road Network</u> (TLRN).



Due to the location of the site all construction traffic will access the site via Albany Street and Hampstead Road which are both part of the TFL Road Network. Construction traffic will follow the routes shown on the above plan.

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.



We will ensure that all sub contractors and suppliers that are part of our supply chain who have to make deliveries to site will be members of Transport for London's Fleet Operator Recognition Scheme (FORS) or similar at the Bronze level. We will use our contractor selection process and procurement process to only select contractors who are members of FORS (or similar), by doing this we will be using drivers who are aware of the demands of driving large vehicles in central London in particular the awareness of cyclists.

By using suppliers and subcontractors who are FORS (or similar) members then all delivery vehicles will have:

- i. Have Side Guards fitted, unless it can be demonstrated to the reasonable satisfaction of the Employer, that the Lorry will not perform the function, for which it was built, if Side Guards are fitted.
- ii. Have a close proximity warning system fitted comprising of a front mounted, rear facing CCTV camera (or Fresnel Lens where this provides reliable alternative), a Close Proximity Sensor, an in-cab warning device (visual or audible) and an external warning device to make the road user in close proximity aware of the driver's planned manoeuvre.
- iii. Have a Class VI Mirror
- iv. Bear prominent signage on the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.

All contractors, sub contractors and suppliers will be made aware of the location of the Netley School in Stanhope Street. We will place restrictions on any vehicle movements in Stanhope Street when the school children are arriving and leaving school, i.e. no construction traffic in Stanhope Street between 8.30am and 9.15am and 3.00pm and 3.45pm.

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

Construction vehicle movements 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 <u>Guide</u> <u>for Contractors Working in Camden</u>).

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.

Set out in the table below is the expected deliveries and vehicle movements per site. In planning the works there has to be a balance of the impact of site traffic on the area and the need to deliver replacement homes by Summer 2017, ahead of the HS2 project and the demolition of the red blocks.

Clear directives will be given to all contractors and suppliers that if lorries are waiting to deliver to a site then engineers must be turned off – there is to be no idling of engines.



The programme for the project demands that there will be a variety of vehicles coming and going from the sites – the approximate vehicle movements and types will be as follows.

These trips will apply to each site and will follow the programme set out at Appendix A.

Activity	Vehicle Frequency	Type of Vehicle
Demolition at Dick Collins Hall and The Victory Pub sites only Approx 8 weeks	Max of 6 movements per site over a 6 week period which is the bringing and taking away of machinery	Rigid tipper lorries. Plus articulated lorries for the one off delivery and removal of the large 360 degree machine
Groundworks and bulk excavation Approx 8 weeks	Average of 15 per day but peeking to 20 per day for the bulk excavation	Rigid tipper lorries and concrete lorries. Plus articulated lorries for the one off delivery and removal of the large 360 degree machine
Concrete Works Approx 24 weeks	Average of 10 per day	Rigid concrete lorries and deliveries of steelwork. There will be one off deliveries of the concrete formwork that will be via articulated lorries
Cladding works  Approx 16 weeks	2 per day	Rigid lorries used to deliver; bricks, insulation, roofing materials and windows
Fit out works	2 per day	Rigid lorries used to deliver materials for the fit out
Approx 18 weeks		



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

We have assessed the local area and the main route to the site(s) and believe that there are not any current projects of significance that will impact on our works or our works on theirs. Should other projects come on-line when we will liaise with these projects and expect them to contract us so that our planning and traffic management is coordinated.

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

All deliveries will be pre booked and all delivery times will be known for each site. This will be controlled and managed by our on-site Logistics Manager. This will be achieved via the use of our sub-contractor coordination meetings were will have short term look-a-head programmes that will include the booking of deliveries.

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. Please refer to question 5 if any parking bay suspensions will be required for the holding area.

Due to the nature of the works at Regents Park Estate Lovell do not anticipate the need for any off site holding areas, this being due to the fact that each project within the Regents Park Estate is a "small project" and are "infill sites" that can be contained within each sites hoardings. However we will work with Camden and our supply chain to review the frequency of deliveries and if needed we will approach Camden to agree a suitable location for an offsite holding area either within the Borough or further afield.

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

Due to the nature of the works at Regents Park Estate Lovell do not anticipate the need for any construction material consolidation centres. We will be working with our supply chain to ensure that materials are delivered "just in time" for use on each site.

However, as noted at question 5d above we will review this and if need be work with <a href="mailto:Nigel.Symonds@camden.gov.uk">Nigel.Symonds@camden.gov.uk</a> at Camden to use the Camden consolidation centre



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

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

Detailed at Appendix H are our site logistics plans setting out the detail for each site in connection with access and egress to each site.

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



All deliveries are to be supervised by a traffic marshall and reported to the Site Manager. All deliveries will be pre booked so that the traffic marshal know when the delivery is coming and will take measures to ensure that the public are not affected by the delivery. The traffic marshall must be obeyed and no phones or hands-free kits are to be used whilst driving, either on site roads or on public roads. A walkie-talkie system will be used so that the traffic marshalls in Albany Street and Hampstead Road can communicate with the local marshalls at each site.

Lovell will plan works including; vehicle movement, deliveries, temporary routes and facilities to ensure that the safety of the public is maintained at all times.

All deliveries will be co-ordinated and programmed to aleviate pressure on the road network. Deliveries will have to be pre-booked with site so that there is not any delviery vehicles waiting in the street. This will be achieved via the use of our weekly sub contractor meetings where deliveries will be planned and booked. Deliveries will only take place between 08.30 and 17.00 Mon—Fri and 8.00 to 1.00 on Saturdays.

During school opening and closing times all construction traffic will be prevented from using Stanhope Street.

All suppliers and sub contractors who are supplying materials to the site will be issued with a transport plan which will include a prescribed route into the site to deliver materials from the Transport for London Road Network; refer to plans earlier in this CMP.

As part of our plans to mitigate the impact of the project and its deliveries on the road network we will in the first instance look to our supply chain to store materials off site and only deliver the materials when they are needed.

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).

Detailed swept path analysis has been carried and the results are attached at Appendix L all sites are accessible and can be safely served. It is our intention that only rigid vehicles will be used to serve the sites.

A consultation meeting was held with Robert Slaney of Camden Network Management where each site was discussed in detail. Vehicle movements which conflicted with parking bays and any pedestrians have resulted in requests having been made to suspend bays or make Temporary Traffic Orders (TTO) – at the time of preparing v.5 of this CMP TTO's have been made where necessary.

d. Provision of wheel washing facilities should be considered if necessary. If so, please provide details of how this will be managed and any run-off controlled.



In order to keep roads and footpaths free from deposits of soil, mud and the like we will ensure that the wheels of any vehicles leaving this site are thoroughly cleaned and hosed down prior to going on the public roads. If any mud or construction debris does get onto the street within the vicinity of the site then these areas will be keep clean via the use of water hoses and manually swept. In addition a mechanical road sweeper will be used to clear any debris.

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

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 outline in question 8 if any parking bay suspensions will be required.

Detailed at Appendix H are our site logistics plans setting out the detail for each site in connection with the unloading areas for each site.

All unloading will be controlled by our banksmen and traffic marshalls with the public protected at all times.

### **Highway interventions**

### **8.** Parking bay suspensions and temporary traffic management orders

Please note that a parking bay suspension should only be requested where absolutely necessary. Parking bay suspensions are permitted for a maximum of 6 months, suspensions whose duration exceeds 6 months must apply for a Temporary Traffic Order (TTO). For parking bay suspensions of one year or longer, a Traffic Management Order (TMO) must be applied for.

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



Information regarding parking suspensions can be found here.

Parking bay suspension and temporary cross overs and access points are required to certain sites – these applications will be applied for in advance of the works commencing and for durations to meet the programme. The attached site logistics plans (at Appendix H) make reference to the necessary parking bay suspensions. The site specific suspensions and highway closures are:

- Cape of Good Hope area of footpath on Albany Street to be closed temporarily
- Dick Collins Hall Section of pavement closure and parking bay suspension on Redhill Street
- Newlands car parking bay suspension on Varndell Street
- Robert Street Car Park Site there is a section of "off street" footpath to close to the east of the site to facilitate the build
- Rydal Water Site Car parking bays to be suspended in Robert Street
- St Bedes Mews there are car parking bays to suspend and sections of footpath to close to enable the works
- Victory Pub Site there is a section of footpath to close to the north and west of the site
- Varndell Street site there is a section of footpath and car parking bays to suspend in Varndell Street

As noted in our answer to Question 6c we have consulted with Robert Slaney of Camden Network Management and TTO's have been submitted and approved.

### 9. Scaled drawings of highway works

Please note that use of the public highway for storage, site accommodation or welfare facilities is at the discretion of the Council and is generally not permitted. If you propose such use you must supply full justification, setting out why it is impossible to allocate space on-site. 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.

• a. Please provide accurate scaled drawings of any highway works necessary to enable construction to take place (e.g. construction of temporary vehicular accesses).



For each site there will be requirement for Section 278 & 26 Agreements for permanent and temporary crossovers – these will be progressed with Camden.

Our site logistics plans attached at Appendix H set out what needs to be suspended in the highway to enable the works. TTO's have been applied for and are in place.

b. Please provide details of all safety signage, barriers and accessibility measures such as ramps and lighting etc.

Lovell will deploy and use all necessary and appropriate safety signage and barriers to ensure that the public are protected and our operatives and work safely at all times.

See image below of typical hoardings and signage on our sites:



### 10. Diversions

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).



Please refer to the site logistics plans at Appendix H for impacts of the works on the public highway.

We do anticipate that there will be connections made on each of the site to the passing utility mains (gas, water, electric & sewers). This will mean that each of these utility companies will need to apply to Camden for the necessary licenses for each operation. Lovell will be coordinating this process and will seek to minimise the opening up of the highway for these connections by getting the utility companies to work under one closure notice per site.

### 11. VRU and pedestrian diversions, scaffolding and hoarding

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

Any work above ground floor level may require a covered walkway adjacent to the site. A licence must be obtained for scaffolding and gantries. The adjoining public highway must be kept clean and free from obstructions. Lighting and signage should be used on temporary structures/skips/ hoardings, etc.

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

a. Please provide details describing how pedestrian and cyclist safety will be maintained, including any proposed alternative routes (if necessary), and any Traffic Marshall arrangements.



When vehicles are entering or leaving the site, these will be supervised by our traffic marshals, not only at each site gate but also in Albany Street and Hampstead Road. Where possible vehicles will be unloaded from within the sites but where this is not possible off loading areas will be defined and marshalles – these are noted on the site logistics plans attached.

The general public/pedestrians will have the right of way along the pathways that surround the. We do not envisage the need for any pavement closures.

The construction site gates will be kept closed and monitored by site security, only when deliveries are made to the site will they be opened to allow vehicles onto the site, at which time barriers will be used to prevent access by pedestrians and warn any passing cyclists. These barriers will be manned by our site security. All delivery vehicles will be supervised/controlled by a traffic marshall.

The Site Manager will also ensure that the external perimeter of the site is regularly patrolled (twice a day) to ensure that any debris is kept clear of the pavements.

Should there be any complaints arising from the works, local residents will be able to call personally to the site offices. Any residents visiting site to raise a complaint will be requested to sign-in and our security guard will escort the visitor to the site offices.

We will as part of our sub contractor procurement process ensure that all sub contractors and suppliers delivering materials to the site follow the conditions outlined in the Standard for Construction Logistics and Cycliest Safety (CLOCS).

Our Regional Director will deal personally with comments or complaints from the public or neighbours and will ensure that they are resolved swiftly. A record will be kept of all comments and complaints.

b. Please provide details of any temporary structures which would overhang the public highway (e.g. scaffolding, gantries, cranes etc.) and details of hoarding requirements or any other occupation of the public highway.

The location of hoardings and scaffold is detailed on the site logistics plans attached at Appendix H.

Where necessary all hoarding licenses will be applied for at Camden

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# **Environment**

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

1. Please list all <u>noisy operations</u> and the construction method used, and provide details of the times that each of these are to be carried out.

By its nature demolition and construction works can cause noise, noise being created by; mechanical plant, cutting, drilling, hammering and sawing. All noisy work will be restricted to occur only after 8.30am and and before 5.00pm Monday to Friday (excluding Bank Holidays). We will always seek to not carry out noisy work on a Saturday when we are permitted to work between 8am and 1pm.

Lovell will commission its acoustic consultant, Sol Acoustics Ltd, to undertake a full BS5228 site noise and ground borne vibration assessment for each of the various sites, as taking full account of all proposed site plant, processes, machinery and vehicular movements et al, per construction programme stage (e.g. Demolition, Ground Clearance, Foundations etc.), per noise-sensitive premises (NSPs).

This will, by definition, identify and list all noisy operations and basic construction methods, together utilisation rates and any specific noise mitigation measures, such as temporary acoustic enclosure or screening of specific processes such as auger piling.

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.

A noise survey was carried out by Campbell Reith Consulting Engineers for Camden in May 2015 as was used to support the planning. This report will be used for baseline (i.e. pre-existing) ambient noise data. A full copy of the report SD11 is attached at Appendix M

A copy can be provided.



#### 8.0 CONCLUSION

- 8.1. In order to support a planning application for the proposed re-development of Regents Park Estate in Camden, a detailed noise and vibration assessment has been carried out.
- 8.2. The assessment has identified the level of façade sound insulation that will be required for each proposed block, and has taken into account the future noise levels once High Speed 2 (HS2) is operational. The noise levels on the proposed balconies have also been assessed and, where necessary, noise mitigation has been specified. The level of sound insulation identified would achieve compliance with the guidelines of LBC, BS8233 and the WHO guidelines for the daytime and night-time periods.
- 8.3. It has been identified that the levels of vibration from existing sources at the proposed blocks are below the "low probability of adverse comment" set out in BS 6472 and LBCs vibration criteria during the daytime period. The derived night-time vibration levels exceed the criteria set by LBC and BS 6472, however, this is highly unlikely to occur as the number of heavy goods vehicles will be greatly reduced during the night-time period. Therefore the derived vibration levels are significantly higher than that which would actually be experienced. This indicates that it is extremely unlikely that any adverse comment will be generated with respect to vibration and therefore no mitigation for vibration is considered necessary.
- 8.4. Achievement of the target noise criteria ensures compliance with the overall aims of paragraph 123 of the NPPF in that noise will not result in any significant adverse effects on health or quality of life for future occupants of the proposed developments.
- 8.5. The noise and vibration effects of the construction phase of HS2 have also been assessed within Chapter 7 and it has been identified that the construction noise levels are not likely to have a significant effect during the day, or at night.



Lovell will commission its acoustic consultant, Sol Acoustics Ltd, to undertake a full BS5228 site noise and ground borne vibration assessment for each of the various sites, as taking full account of all proposed site plant, processes, machinery and vehicular movements et al, per construction programme stage (e.g. Demolition, Ground Clearance, Foundations etc.), per noise-sensitive premises (NSPs).

This will, by definition, provide detailed predictions for noise at NSPs, and also estimates for ground borne vibration occurring. identify and list all noisy operations and basic construction methods, together utilisation rates and any specific noise mitigation measures, such as temporary acoustic enclosure or screening of specific processes such as auger piling.

During demolition & construction works noise will be continuously monitored, this will be compared against the baseline survey that was carried out at the Town Planning stage of the project and prior to any works taking place.

The baseline survey data was carried out at the town planning stage of the project and is contained in SD11 "Regents Park Noise & Vibration" on page 5, table 3.1 "HS2 Baseline and Operational Noise Levels...", column 3 "Baseline Noise Level", "Day" LAeq (12 hour)

The following trigger levels are proposed:

**Green** if 3dB or less above baseline ambient noise level, L<sub>Aeq(07:00-19:00)</sub> for any 1 hour period – No action.

Amber if between 3dB and 8dB above baseline ambient noise level,  $L_{Aeq(07:00-19:00)}$  for any 1 hour period – continue works but carry out site personnel level works assessment and propose mitigation measures if required.

Red if above baseline ambient noise level, L<sub>Aeq(07:00-19:00)</sub> by 8dB or more for any 1 hour period – Immediate in depth review of works at site personnel and acoustic consultant level, and enforce changes to methodology, equipment in order to mitigate noise to acceptable levels.

The trigger levels described above will continue to be used during duration of the Project, subject to finalisation of detailed BS5228 acoustic assessment, however the monitoring regime will be then reduce to twice weekly measurements at strategic locations.

Further controls will be detailed within activity method statements and compliance monitored as necessary throughout the work process.

Records of controls and exposures of persons/environments will be kept in accordance with requirements and Company Procedures.



The following Table lists the baseline ambient noise levels adopted for each of the various sites (including future predicted HS2 environmental noise impact), in LAeq(07:00-19:00) terms (all as reproduced from Table 5.2 Campbell Reith Hill LLP noise and vibration assessment report). These shall form the basis of the 'Green', 'Amber' and 'Red' trigger levels, per site:

Block	Baseline Ambient Noise Level, incl. HS2 operational noise			
	<b>L</b> Aeq(07:00-1900 hours)			
1	61dB			
2	71dB			
3	61dB			
4	72dB			
5	62dB			
6	72dB			
8	66dB			
9	72dB			



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.

The required mitigation measures (e.g. acoustic screening, specific attenuation and environmental noise specification of plant noise sources such as generators etc,) shall be as determined by the Sol Acoustics Ltd BS5228 acoustic assessment.

In broad terms, however, Lovell shall ensure that disruptive sound levels will be kept to a minimum. A variety of measures will be used to effect the reduction of noise transmitted from site, as using best practicable means; this will include:

- Coordinated delivery times and efficient traffic management to prevent queuing traffic accessing the site.
- Ensuring all plant has sound reduction measures (mufflers, baffles or silencers).
- Utilising construction techniques that minimise the production of noise.
- Utilisation of baffle system during the demolition process
- Strict adherence to the site working hours.
- Using acoustic hoarding where deemed required by BS5228 acoustic assessment.
- Carry out daily noise surveys and continuous noise and vibration monitoring also, where deemed required (e.g. for key programme stages) at perimeter of site and record findings.
- Implement action plan where noise levels exceed acceptable levels.
- Positioning plant away from properties
- Machines in use will be throttled down a to a minimum
- Cutting operations will be kept off site as much as possible by prefabrication
- Localised shrouding of plant in accordance with BS5228 assessment

All works will be carried out to ensure that the ground vibrations are contained within limits set out below, subject to forthcoming BS5228 acoustic assessment:

- A peak particle velocity of 1mm/s at any occupied residential property
   Peak particle velocity of 3mm/s at any other property in any orthogonal direction.
- 5. Please provide evidence that staff have been trained on BS 5228:2009



At Lovell all Managers have attended the Site Managers Safety Training Scheme as run by the CITB. All sub contractors supervisors will have attended the Site Supervisors Safety Training Scheme as run by the CITB.

Noise awareness will be cascaded via toolbox talks.

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



There are two sites with demolition with the RPE project and hence these site will have a greater risk of dust arising.

Lovell will adhere to the key legislation on noise and vibration as detailed in the:

- Control of Pollution Act 1974
- Environmental Protection Act 1990 (ss79-82)
- BS 5228:1997, Code of Practice on Construction and Open Site.

At the time of writing we have appointed our demolition contractor who is currently preparing their detailed Risk and Method Statement – this method statement will confirm the controls, checks and monitoring that will be put in place in connection with the control of dust and noise on site during the demolition.

Site operations will be controlled so that all plant and machinery noise emissions (including the provision of ventilation, heating and cooling) shall be designed, installed and operated at noise levels that do not cause noise nuisance to the nearest adjoining residential properties.

We will, with our demolition and construction contractors we will implement a Dust Management Plan (DMP) that we will seek input and approval of from Camden. The DMP will include but not be limited to:

- Monitoring of dust levels in agreement with Camden
- · Reacting to results from dust monitoring
- Establish site recording of levels of dust
- Plan our site management and logistics so that receptors for demolition arisings are not located where they might cause a nuisance to our neighbours
- · Avoid site run off from vehicles
- Regular boundary inspections
- Use scaffold protection screeds
- Clean down hoardings using wet cleaning methods
- Establish hard standing areas for clean down vehicles before they leave site including wheel washing facilities
- Keep the public highway clear of any debris using wet cleaning methods
- Damp down any stock piled excavated materials on site
- Water suppression will be used during demolition

We are aware of the Dust & Air Emissions Mitigation Measures as prepared by the Institute of Air Quality Management and will use their mitigation and control measure to ensure that dust is controlled on site both during demolition and construction. The Risk Assessment template that

At the planning stage of the project there was an Air Quality Assessment carried out by Campbell Reith (a copy can be provided). This document includes baseline data that will be used to monitor dust from the works. The conclusion from this report is set out below:



#### 6.0 CONCLUSIONS

### 6.1. Dust impacts

6.1.1. Dust emissions arising from construction are not significant. However, even with a rigorous dust management plan in place, it is not possible to guarantee that the dust mitigation measures will be effective all of the time, for instance under adverse weather conditions. The local community may therefore experience occasional, short-term dust annoyance. The scale of this would not normally be considered sufficient to change the conclusion that the effects will not be significant.

### 6.2. Road traffic impacts

6.2.1. The impacts of local traffic on the air quality for residents living in the proposed development have been shown to be acceptable with respect to the PM<sub>10</sub>, PM<sub>2.5</sub> and 1-hour mean nitrogen dioxide objectives. Due to high background levels in the study area, annual mean nitrogen dioxide concentrations are predicted to exceed the annual mean objective across the nine plots.

### 6.3. Operational Impacts

- 6.3.1. The overall operational air quality impacts of the development are judged to be moderate based on the concentrations being well above the objectives at a number of new residential properties. Measures to mitigate against poor air quality should be built into the design for each block to improve air quality for new residents of the eight blocks included in the planning application.
- 6.3.2. The building emissions associated with the proposed development of eight sites covered by the planning application are below the relevant benchmarks; the transport emissions for the proposed development are however slightly above the benchmark. Appropriate mitigation measures may need to be determined in order to ensure that the development meets the requirements of 'Air Quality Neutral' as defined in the GLA's (SPG) on Sustainable Design and Construction.

### 6.4. HS2

6.4.1. It is considered unlikely there will be any significant cumulative impacts associated with the proposed development of the nine sites and the HS2 project.

<sup>7.</sup> 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.



Lovell will deploy the use of a mechanical road sweeper to clear the road of excessive dust and dirt as a result of site operations – however any vehicle leaving site will be cleaned first.

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

See statements at parts 4 & 6 above

9. Please confirm that a <u>Risk Assessment</u> has been undertaken at planning application stage in line with the <u>GLA's Control of Dust</u> and Emissions Supplementary Planning Guidance (SPG), and the risk level that has been identified, with evidence. Please attach the risk assessment as an appendix if not completed at the planning application stage.

Lovell were not appointed on the scheme at the planning application stage.

10. Please confirm that all of the GLA's 'highly recommended' measures from the <u>SPG</u> document relative to the level of risk identified in question 9 have been addressed by completing the <u>GLA mitigation measures checklist</u>. Please attach this as an appendix.

The dust mitigation measures checklist as prepared by the GLA has been reviewed and checked. It is Annexed to this CMP

¶ 11. If the site is a High Risk Site, 4 real time dust monitors will be required, as detailed in the SPG. Please confirm the location, number and specification of the monitors in line with the SPG and confirm that these 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.



The sites at Regents Park Estate are as individual stand along site not to be considered as High Risk sites and the use of dust monitors is not expected.

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

28 days prior to the demolition of the existing buildings Lovell will instruct an qualified pest control firm to survey the existing buildings to establish the existence of any pests – in particular rodents. If there is evidence of rodents following the survey then the qualified pest control firm will follow the procedures set out by the HSE in Information Sheet MISC515 for the laying of baits. The baits being approved under the Control of Pesticides Regulations 1986 (as amended 1997)/Biocidal Products Products Regulations 2001 (as amended 2003). As part of the work by a qualified pest control firm Lovell will require detailed method statements which can be issued to the Council.

There is evidence that rodents live in the sewer system. Lovell will ensure that existing drains and sewers that are serving the existing building are either sealed up and/or grubbed out.

During the demolition works the monitoring for the evidence of rodents will continue.

Evidence of the pest control that has to be carried out will be provided to the Council in the form of payment survey reports, method statements and payment receipts for the work carried out by the pest control firm.

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



Demolition is required on; Dick Collins site, Victory Pub site and Cape of Good Hope site.

Prior to any demolition pre demolition hazardous surveys will be carried out and any notifiable asbestos or hazardous materials removed by our approved specialists to approved and licenced tips.

For reference the site specific Demolition and Method Statement for the Cape of Good Hope site is attached at appendix I.

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.

At Lovell we do not tolerate any bad language or unnecessary shouting on our sites. We operate a "red card" system whereby any operative found to be acting in an anti social way or smoking outside of designated smoking area will be given a "red card" and asked to leave the site immediately.

Lovell police a policy of not allowing radio's on site.

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# Agreement

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

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

Signed:

Date: 11 March 2016

**Print Name:** Mark Tipping

**Position:** Contracts Manager

Please submit to: <a href="mailto:planningobligations@camden.gov.uk">planningobligations@camden.gov.uk</a>

End of form.



## **Appendix A - Programmes**



## **Appendix B – Existing Site Utility Survey Plans**



## **Appendix C – Utilities Trackers**



# Appendix D – SD5 Pre-application Consultation Statement – May 2015



### **Appendix E – Considerate Constructors Poster**



# Appendix F – CLOCS Standards for Construction Logistics – managing work related road risk



# Appendix G – Consultation Records, Code of Conduct & Terms of Reference



## Appendix H – Site Logistics Plans



# Appendix I – Demolition Method Statement (Cape of Good Hope site)





# Demolition of the former Cape of Good Hope PH

### 78 Albany Street, London NW1 4EE

### **Document Submittal History: 000**

Revision	Date	Prepared by	Approved by	Accepted by	Reason for Issue
0	21/09/15	Adam Ruscoe	Mick King		Initial document
1	24/11/15	Scott rowlinson	Mick king / Bradley Cooper		

Review and Acceptance Decal			
This decal is to be used for submitted documents requiring acceptance by the <i>Project EAST Manager/Supervisor</i> .			
Code 1. Accepted. Work May Proceed			
Code 2. Not Accepted. Revise and resubmit. Work may proceed subject to incorporation of changes indicated			
Code 3. Not Accepted. Revise and resubmit. Work may not proceed			
Code 4. Received for information only. Receipt is confirmed			



Reviewed/Accepted					
by:(signature)					
Print Name:		Date:			
Acceptance by Project Manager/Supervisor, does not relieve the designer/supplier from full compliance with their contractual obligations and does not					
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# Demolition Method Statement Revision 0 – 21<sup>st</sup> Sept 2015

# Cape of Good Hope PH

78 Albany Street, London NW1 4EE





# METHOD STATEMENT Contract Cape of Good Hope Date: 21st Sept 2015 Method Statement Ref: MS001 Structural Demolition Rev000 Prepared By: Adam Ruscoe Authorised By: Mick King Signed: Afguecce Signed: Mick King Dated: 21st September 2015 Dated: 21st September 2015

### 1. SCOPE OF WORKS

Demolition of 2 storey former public house in confined urban setting. Possible basement extending beyond the main structure footprint.

If basement is found then removal of the basement slab and foundations will be covered by a separate document to be produced in due course

- Bower Contracting will be working as subcontractor to Lovells
- Bower Contracting will provide
  - o demolition specific documentation
  - o site management
  - o waste documentation
  - o hazardous waste control documentation
- The Principal Contractor will provide
  - o site access
  - o boundary controls
  - site security
  - o welfare
  - o asbestos reports
  - o basement protection systems
  - o services disconnection
  - temporary supplies
  - o pre-construction phase and construction phase documentation and control



#### 2. SYSTEMS BRIEFING

Before starting work operatives will receive Site Induction and Method Statement Induction with respect to the particular risk assessments and methods of working applicable to the above operation from the BCL Site Manager.

From reviewing the available documentation there are no additional PPE requirements over and above those detailed in Section 3.

The electrical gas and water supply to the site will be confirmed as terminated with the Principal Contractor prior to works commencement by the client (lovells). Certification to be issued prior to works starting.

Fire Points (including First Aid) will be established within the site with an audible warning system being placed around the works, with notices in the site welfare. Changes to the fire system will require an update either by induction prior to works or as part of the weekly toolbox talks.

Adequate fencing must be in place surrounding the work site to ensure that the public interface is maintained and no encroachment can be undertaken.



### 3. Personnel Protective Equipment

All operatives will be in possession of hard hats, hi-vis waistcoats, gloves, overalls and safety footwear which will be worn at all times when working in the red zones of site.

The site manager will carry out a review of the work in progress and if required uplift PPE and RPE as and when required.

Bower Contracting will ensure that all subcontractors meet required PPE standards at all times.

### **Uplifted PPE**

During soft strip operations operatives will also be required to wear relevant goggles and uprated gloves to avoid debris and drug paraphernalia issues.

Any visitors to site will be provided with adequate PPE for the purpose of their visit ie:

- Hard hat
- High visibility coat or vest
- Gloves
- Safety boots if required

### Scaffolding

Will be used for access for asbestos removal. Scaffold sub contractor will supply rams for works to be approved.

### 4. LABOUR & PLANT

- crow bars
- mattocks
- sledge hammers
- shovels
- oxy propane cutting equipment (as required)
- excavator 20 ton with attachments

#### Training

All operatives will have been provided with the appropriate training and instruction to ensure that the works they are asked to perform can be undertaken in a safe manner.

Evidence of training will be required to be provided during the site induction process and kept on file in the site office

- 1 no Project Manager
- 3 no operatives
- 1 no plant operator



### 5. SUPERVISION

A competent BCL Project Manager will be allocated the site – Mick King

A competent BCL Site Manager will supervise the works on a full time basis - Tony Wybrow

All BCL Operatives will carry CSCS and or CPCS Demolition cards and are all "time served" demolition operatives considered Suitably Qualified and Experienced Personnel.

Training certification for all operatives who carry out any works on site will be held in the site file for inspection upon request.

### First Aid

The designated site First Aider for the works will be tony Wybrow during the project. All first aiders will be made known to site personnel and visitors during the site induction whether provided by BCL or the Principal Contractor

### **Medical Emergency**

In the event of an injury or sudden illness on site the following action is to be taken: -

- First Aid assistance is to be provided by the nominated site First Aider tony Wybrow
- The injured or ill person is to be conveyed to hospital by the quickest possible means if required
- If an ambulance is to be summoned by the Demolition Site Manger ensure that the address is given accurately.
- All incidents, accidents and injuries, no matter how minor, will be recorded in the BCL Site Accident Book and reported to BCL / Clients Safety Department.
- The Site Manager and the PC are to be immediately informed of the incident once any injured person is being treated

### **Hours of Work**

Monday - Friday 08.00 - 17.00

There will be no works outside of these hours without prior approval from the client and Council Environmental Noise Team





### **METHOD STATEMENT**

#### 6. METHODOLOGY

Only formally approved and properly documented site work operations will be allowed to proceed. Any divergence from the planned work, as stated in this documentation, will require the works to cease and the site to be left in a safe manner, at which point all site personnel will leave the works area in a safe manner.

Work will not be allowed to proceed until a revised methodology is drafted and approved. The site team will be briefed where there is a significant change in the methodology required, the works will not proceed until an adequately revised documented and approved method statement / risk assessment appropriate to the revised works has been carried out.

Structural demolition of the main structure will only commence once scaffolding has been provided to all specified elevations of the building.

#### Asbestos removal works

Asbestos is a hazardous material that requires specialist techniques and management to safely remove. Licensed asbestos contractors will be used to remove licensable asbestos. This will be done under a separate plan of works to be provided by our chosen sub contractor.

Licensed asbestos materials will be removed under separate cover supplied by the asbestos contractor.

Non-licensable asbestos removal: All personnel working with asbestos will be asbestos aware and hold non-licensed asbestos removal accreditation. All personnel will wear uprated PPE and RPE to carry out these works, and receive a task specific induction to this effect.

Non-licensable floor tile / floor tile adhesive / false ceiling works: Such works will involve the area being damped down using a hand operated manual pump. Once the asbestos material has been damped the item will be lifted intact as much as possible and placed in a suitable asbestos bag. When the bag is full this will go into a red asbestos bag which will then be located to the asbestos skip for disposal.

In the case of floor tiles / adhesive, these will be lifted using standard floor scrapers, again in tact wherever possible.



#### **Hot Works**

It is not envisaged that hot works will be required on this project.

If hot works are required to be carried out, these works will be carried utilising oxy propane cutting equipment and will be carried out under a hot works permit procedure.

The contents of the buildings that could be flammable will have been removed prior to hot works commencing mitigating the risk of fires occurring.

The materials will be cut free from their place of fixing utilising hop up access scaffolds and / or standard aluminium scaffolds to be erected by a Suitably Qualified and Experienced Operative.

The material being worked upon will be cut allowing the section to fall in a semi controlled manner to the floor area.

The Fire Marshall in attendance (this person will be named on the relevant hot works permit on all occasions) will ensure operatives do not encroach into the hot works area until instructed to do so. The fire marshal will also inspect any areas that have had hot works undertaken one hour after completion of the hot works to ensure no heat source or fire is likely to break out. TO this end any hot works being undertaken will be completed at least one hour before the end of the working day.

#### **SOFT STRIP WORKS**

- 1. The access to the building will be secured using heras type panels and strip out works will be undertaken
- 2. Operatives will use dust suppression techniques as necessary
- 3. Once the strip has been completed the materials will be removed from the building in the bucket of the excavator at ground level and dropped into skips in segregated drop zone from second floor level outside of the building the waste will be processed into waste streams before being moved to appropriate skips or waste holding areas.

Fixed materials will be removed utilizing hand tools as identified above, by wedging and prizing the fixtures from walls or partitions.

Partitions will be similarly removed, thereafter ceiling grid and tiles following by flooring large or heavy items will be dismantled/broken down into manageable sections.

Hot works may be required to flame-cut services for example pipework and associated bracketry, otherwise cold cutting will be undertaken using reciprocating saws where appropriate.



Dust suppression will be undertaken throughout the process if required.							
STRUCTURAL DEMOLITION							

The Cape of good hope building is a two storey brick clad steel framed structure with a flat roof. Asbestos removal works will be undertaken inside the building, with arisings being removed through the front entrance or windows.

The demolition specified excavator will move to the south facing side elevation of the building and demolish the structure from the centre of this elevation towards the neighbouring north boundary wall, leaving the outer walls in situ until the first floor is completely within the footprint of the building. This will mitigate dust emissions from the dropping of these arisings into the site. The 360 excavator with cracker attachment will work in a wave motion removing bays one at a time leaving the last structural bays fully intact . this section of the building will be the last to demolish under careful control as this is the section of building that is adjacent to neighbouring properties.

Once the first floor has been demolished and the arisings have been cleared the excavator will "pull" the outer walls into the footprint of the building leaving only the back wall in situ, which due to it's closeness to the neighbouring structure will have to be demolished by hand.

Once the arisings from the outer walls have been cleared a tower scaffold will be moved into position and using hand tools the wall will be broken down to 2 courses above ground level.



#### **SLAB AND FOUNDATION REMOVAL**

If required by the client (lovells)

Excavator not to be tracked onto basement slab during demolition unless slab is supported with propping system.

The ground slab will be broken and dropped into the basement by the machine using a pecker attachment. Due to the noisy working of this operation this will only be undertaken during "noisy working hours" of 9:00-16:00 Mon-Fri, with non-noisy working operations undertaken outside of these hours.

Due to the noisy working of this operation this will only be undertaken during "noisy working hours" of 9:00-16:00 Mon-Fri, with non-noisy working operations undertaken outside of these hours. Once the slab has been peppered the bucket attachment will be used to lift the sections of slab, any reinforcement will be separated by bursting the slab with a muncher attachment. The materials will then either be put in skips for recycling or stockpiled for recycling via crusher.



#### **Environmental Impact**

#### **Noise**

So as to ensure as far as reasonably practicable the following will be undertaken so as to mitigate noise emissions and disturbance caused during the deconstruction process.

- Restricted hours of work for noisy operations will be adhered to rigorously.
- Site operatives will utilise two way radios for communication if required.
- Cutting operations will be carried out using reciprocating saws or hot cutting avoiding powered wheel saws as far as reasonably practicable.
- Breaking out of concrete structures will be carried out utilising munchers/crackers; hydraulic hammering breaking will be required but will be reduced as far as possible.
- Loading of lorries will be carried out by emptying the bucket as close to the floor of the lorry as possible laying a bed to soften impact and therefore noise.
- General site plant will be modern by design and silenced as far as reasonably practicable.

Site management will monitor works as they progress taking on the workface noise monitoring and boundary noise monitoring to record levels as works progress.

#### Dust.

Demolition of the structures and soft stripping operations will cause dust to generate from the work face. The following will be in place to stop the migration of dust from within the confines of the site as far as reasonably practicable and within acceptable control levels.

- A water supply from the mains will be such to provide adequate water to suppress dust emissions from the work face.
- From each water supply there will be a standard hose with adjustable heads to provide either fine spray or direct forceful application of water.
- During soft stripping operations water spray will applied to the materials being stripped so as to dampen down if required.
- The arising soft strip materials will be moved from the working floors to the ground floors via the drop zone. During the movement of waste from the working floors to the ground floor fine spray will applied to the drop zone if required.
- The materials once located to the ground floor will be moved by either standard demolition excavator or skid steer front loader.
- All drains within the working area will be filled with a filtration system which will be frequently checked and cleaned as required.
- During movement of hardcore and concrete arising fine water will applied to mitigate dust release.
- In eventuality of prolonged dry periods water will be applied site wide to suppress dust emissions from the working surfaces.

#### **Vibration**

Deconstruction of the structure will be carried out by standard demolition excavators with selected attachments so as to mitigate vibration as far as reasonably practicable.

All breaking out operations will be carried out through the noisy working hours of 08.00 and 18.00 Mon to Fri:



Saturday working at present is not being considered subject to program requirements.

If in the eventuality Saturdays are to be worked works will be undertaken between 08.00 and 13.00 Hours.

Vibration transmitting through the site to surrounding houses can not be considered as a potential issue.

#### **Managing Expectations of Neighbours**

One of the key elements to managing the site efficiently will be to keep the adjoining neighbours and adjacent building users informed of our forthcoming operations, this will be carried out as follows;

- Letter drop to all neighbours informing them of our start date and program durations and operations working in conjunction with Morgan Sindall Site Team.
- Posting on the hoardings of up-to-date newsletters and progress photographs
- Providing banks men while vehicles are leaving the site.
- Ensuring workforce is polite and courteous to all pedestrians and adjacent building users at all times.
- Processing arising materials so as to ensure all wagons collecting materials are loaded fully so
  as to reduce as far as possible the logistics to the site.
- Accepting all complaints received investigating and recording any remedial reactive measures taken.
- Keeping the site area clean tidy and manageable.
- Ensuring working hours are adhered to rigorously.
- Ensure that all dust noise and vibration measures are implemented and if found to be substandard uplifted to ensure standards are met.



Method Statement Register								
Contract	Cape of G		Date: 21st Sept 2015					
Method Statement Ref: MS001 Demolition Rev000								
Method Statement to be issued by: BCL Ltd								
OPERATIVES								
alternative working	methods o	inderstand this method statemer carry out additional works with ately to site foreman or manager	out written authorisation. I will					
NAME		SIGNATURE	DATE					



I confirm the above Safe Systems of W			, incorporating the necessary n of the task.
Signed	 	Print Nar	ne
Position	 		



### **Appendix J – Dust mitigation measures**

#### **Regents Park Estate**

Applicants must complete the table below (extracted from the Mayors 'control of dust and emissions during construction and demolition' SPG).

Applicants should include all 'highly recommended measures' as a minimum.

- XX Highly Recommended
- X Desirable

## MEASURES RELEVANT FOR DEMOLITION, EARTHWORKS, CONSTRUCTION AND TRACKOUT

	CIRCLE RISK	CIRCLE RISK LEVEL IDENTIFIED FOR SITE			
MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK	MEASURE WILL BE IMPLEMENTED	
Site management	,	'			
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.		XX	XX	X	
Develop a Dust Management Plan.		XX	XX	Х	
Display the name and contact details of person(s) accountable for air quality pollutant emissions and dust issues on the site boundary.	XX	XX	XX	X	
Display the head or regional office contact information.	XX	XX	XX	Х	
Record and respond to all dust and air quality pollutant emissions complaints.	XX	XX	XX	Х	
Make a complaints log available to the local authority when asked.	XX	XX	XX	Х	
Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection	XX	XX	XX	X	



log available to the local authority when asked.				
Increase the frequency of site inspections by those accountable for dust and air quality pollutant emissions issues when activities with a high potential to produce dust and emissions and dust are being carried out, and during prolonged dry or windy conditions.	XX	XX	XX	X
Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and the action taken to resolve the situation is recorded in the log book.	XX	XX	XX	X
Hold regular liaison meetings with other high risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised.			XX	X
Preparing and maintaining the s	ite		<u> </u>	
Plan site layout: machinery and dust causing activities should be located away from receptors.	XX	XX	XX	X
Erect solid screens or barriers around dust activities or the site boundary that are, at least, as high as any stockpiles on site.	XX	XX	XX	Х
Fully enclosure site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	X	XX	XX	Х
Install green walls, screens or other green infrastructure to minimise the impact of dust and pollution.		X	X	Х
Avoid site runoff of water or mud.	XX	XX	XX	X
Keep site fencing, barriers and scaffolding clean using wet methods.	X	XX	XX	X
Remove materials from site as soon as possible.	Х	XX	XX	X
Cover, seed or fence stockpiles to prevent wind whipping.		XX	XX	X



	Х	XX	X
		X	Х
	X	XX	X
	Х	XX	X
	X	XX	Х
	<u> </u>		
XX	XX	XX	X
XX	XX	XX	Х
XX	XX	XX	Х
XX	XX	XX	X
	XX	XX	X
XX	XX	XX	X
XX	XX	XX	X
	XX XX	XX	X



#### **MEASURES SPECIFIC TO DEMOLITION**

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

#### **MEASURES SPECIFIC TO EARTHWORKS**

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



#### **MEASURES SPECIFIC TO CONSTRUCTION**

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

#### **MEASURES SPECIFIC TO TRACKOUT**

MITIGATION MEASURE	LOW RISK	MEDIUM RISK	HIGH RISK	TICK BELOW WHERE MITIGATION MEASURE WILL BE IMPLEMENTED
Regularly use a water-assisted dust sweeper on the access and local roads, as necessary, to remove any material tracked out of the site.	X	xx	XX	Х
Ensure vehicles entering and leaving sites are securely covered to prevent escape of materials during transport.	Х	xx	xx	Х
Record all inspections of haul		XX	XX	X



routes and any subsequent action in a site log book.				
Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems and regularly cleaned.		XX	xx	Х
Inspect haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable;		XX	XX	Х
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	X	XX	XX	X
Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.		XX	XX	X
Access gates to be located at least 10m from receptors where possible.		XX	XX	Х
Apply dust suppressants to locations where a large volume of vehicles enter and exit the construction site		X	xx	Х



## <u>Appendix K – Template Site Waste</u> <u>Management Plan</u>



# <u>Appendix L – Swept Path Analysis</u>



## <u>Appendix M – SD11 – Noise & Vibration</u> <u>Baseline Report</u>

