# WEST HENDON SITEWIDE CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT PLAN

June 201

**Barratt Metropolitan LLP** 



### CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

SITE WIDE - WEST HENDON, LONDON NW9 7BJ





7<sup>th</sup> June 2013 – Rev A



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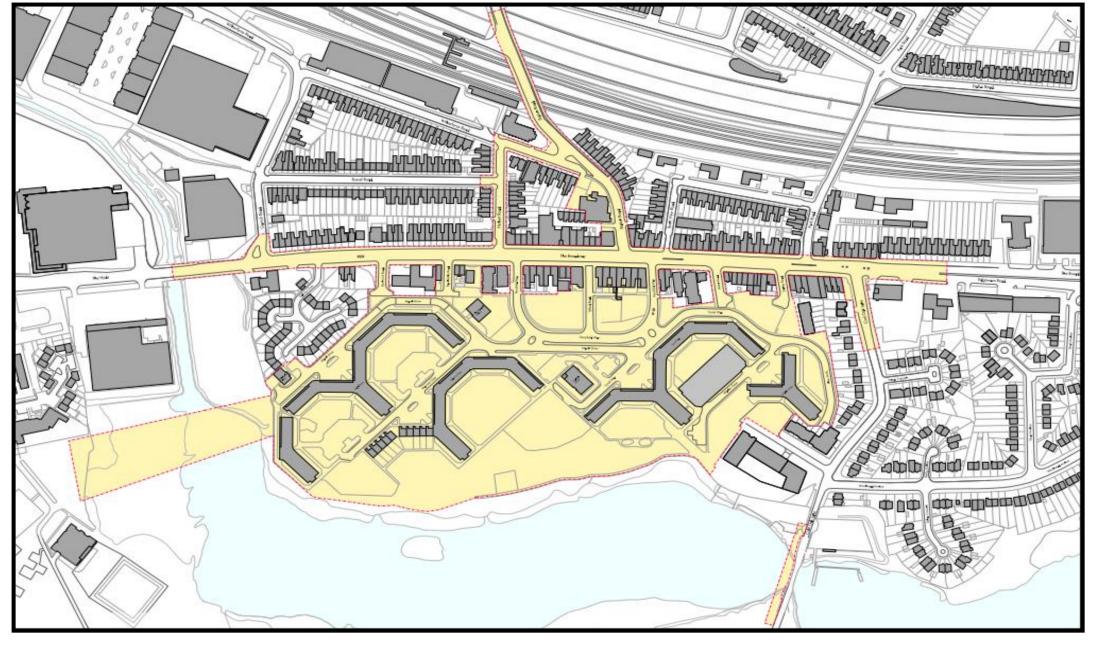
### 1.00 INTRODUCTION

This document represents the strategy for the entire regeneration project; each individual phase will include a specific construction management plan when submitting for details planning permission. The document follows guidelines set out within the London Borough of Barnet construction guidance document entitled "Environmental health section construction site guidelines, 2006."

The West Hendon regeneration includes the creation of 2000 new dwellings within 11 blocks ranging from 3 to 21 storeys' and will also include commercial property, updates to services & infrastructure and a new play area. The regeneration will be phased over approximately 17 years and will involve the demolition of the existing buildings built in the 1960's.

The regeneration area extends from Garrick Road to the North and Cool Oak Lane to the South. The Welsh Harp Reservoir abuts the area from the South West and the West Hendon Broadway (A5)/Station Road forms the boundary to the East. Exclusions of the boundary include St Patricks Church, next to Milton Road and properties 129-165 West Hendon Broadway.

The Welsh Harp Reservoir is a Site of Special Scientific Interest (SSSI) and as such Barratt West London is working closely with all key parties to ensure that requirements for protection of this area are met.





### 2.00 ENVIRONMENTAL STATEMENT

Barratt West London, an ISO14001 accredited company, ensures mitigation measures are put in place to prevent any impacts on the environment and uses good management to maintain it. Site activities will be regularly reviewed and will respond to bespoke requirements within each phase.

In accordance with planning conditions for each phase the site management team will develop a Construction Phase Plan which will stipulate the environmental aims and objectives during the demolition and construction phase of the development.

A comprehensive Environmental Statement was submitted in support of the planning application and incorporates within its scope all subjects requested from the London Borough of Barnet. The following highlights the mitigation measures to be implemented within each phase.

### **Dust Generation**

The production of dust emissions will be minimised and/or controlled in order to reduce the impact on local residents, members of the public, construction personnel and ecological receptors. When making assessments the site management team will consider the Control of Pollution Act 1974, Planning Policy Guidance, London Borough of Barnet Environmental health section construction site guidelines, 2006, Greater London Best Practice Guidance 2006 and the requirement of the Control of Substances Hazardous to Health (COSHH).

The following activities have been identified for potential dust generation – All subcontractors will be responsible for ensuring method statements include monitoring and prevention methods.

- Demolition Dust screens and water suppressants will be used where necessary and where reasonable all operations will be positioned to ensure dust is retained within the development.
- Concrete Crusher Dust screens and water suppressant will be used where necessary
- Vehicle Movements Wheel wash and Road Sweepers will be used when necessary
- Brick / Concrete Cutting A screened acoustic enclosure will be setup

Barratt West London will ensure that hoses will be able to reach all areas of dust creation prior to works commencing.



### **Noise & Vibration Management**

### **Working Hours**

In accordance with London Borough of Barnet Construction Guidance 2006 working hours will be restricted to the following:

Monday to Friday: 8am – 6pm Saturday: 8am – 1pm Sunday and bank holidays: No work allowed

All noisy operation outside of the permitted times will not be undertaken without prior consent from the London Borough of Barnet.

Regular noise monitoring will be undertaken by the Divisional Safety, Health and Environment (SHE) Manager and a copy will be retained in the Site Safety Management System record folders. A copy of these assessments can be viewed on site.

Barratt West London will also comply with the requirements of the Control of Vibration at Work Regulations 2005 and British Standard 5228 (BS5228) 'Noise and Vibration Control on Construction and Open Sites' (2009). Assessments will be undertaken in order to determine the potential for vibration production and the impact on the neighbouring buildings; suitable mitigation measures will be introduced where the site team can reasonably remove the need for vibration works.

Mitigation against noise, where reasonable, will include the use of the quietest plant that can be used for the task. Regular checks will be undertaken to ensure that the plant is in good working order.

Should noise levels not be sufficiently reduced then noise barriers as recommended in the London Borough of Barnet Construction Guidance 2006 will be followed.

All piling will be non-driven to reduce noise and vibration impacts on existing buildings and residents.

All workers on site will be made aware of the need to keep noise and disruption to a minimum from plant, radios and vehicles. Site managers will ensure this is conveyed as part of the initial site induction and is maintained with good site management. Should any noise levels become unacceptable tool box talks will be used to ensure all site personnel are aware of environmental constraints.

A suitably qualified acoustic consultant will be appointed for each phase to give advice on acceptable noise levels.

The following activities have been identified for potential noise and vibration – All subcontractors will be responsible for monitoring and implementing prevention methods.

- Demolition
- Concrete Crusher
- Vehicle Movements When idle, all construction vehicles will be required to have their engines switched off.
- Concrete Pours
- Brick / Concrete Cutting



### **Air Pollution**

Barratt West London will conform to the Control of Pollution Act 1974 and the Environmental Protection Act 1990. In accordance with the London Borough of Barnet Environmental health section construction site guidelines and will therefore not burn any materials on site and will regularly check machinery which burns fuel to ensure it does not emit dark smoke once at working temperature and is well maintained.

The Barratt West London site management team will control emissions from plant by undertaking a SHE 55 Plant Arrival Check Sheet in order to ensure that items of plant are in good order before being allowed to work on site.

### Fuel Storage/ Hazardous substances

In order to control fuel storage on site the Barratt site management team will comply with Health and Safety requirements set out in our Occupational Health, Safety and Environmental Management Plan which details Chemical Storage, Discharge and Spillages. Each Barratt West London development will obtain a Hazardous Waste Registration for the Environment Agency. All fuels will be assigned designated storage areas, as highlighted on the Site Environmental Plan, with suitable bund arrangements located, where possible, away from the SSSI. Hazardous waste stations will also be located in the waste compound.

Operatives will be briefed at their induction on the control measures and Spill Kit Emergency Procedure will be available on site. Any waste oils/fuels will be removed from site by licensed waste carriers to a nominated and licensed waste management facility. Control documentation in the form of consignment notes with relevant European Waste Code reference numbers will be retained on site where they can be reviewed.

To ensure that materials are not improperly used suitable method statements and risk assessments will be put in place and reviewed by the site management team. All substances will be securely locked away when not in use.

### **Surface Water Run off**

Existing drainage will be protected by sediment traps and maintained to ensure regular discharge is not impeded by Barratt West London works.

Silt fences and sediment traps will be incorporated into hoarding and manholes to prevent the pollution into the local area.

Wheel washing facilities will include for suitable filtration methods to ensure that they do not impact on the local environment.

### **Artificial Lighting**

The site will be provided with artificial lighting in order to ensure safe access and egress to the working areas. Consideration will, however, be given to the impact that such lighting will have on local residents and these lights, will be positioned/guarded to minimise the impact beyond the site boundary.

The site management team will carry out a review of the development at the end of each day in order to ensure that all lighting items are reduced. Where possible, lighting will be operated on a timer system or PIR control system. This will have an added benefit of reducing the environmental impact during the demolition/construction phase of this development.

Due to the sensitive nature of the site boundary to the SSSI lighting levels will be reduced where necessary.



### **Tree Protection**

Where tree works are necessary during the breeding season (March- August inclusive) a suitably qualified ecologist will be employed to create a suitable tree removal strategy.

All trees that have been identified as remaining will be protected in accordance with BS 5837.

### **Ecology**

An ecology management plan and SSSI management plan as required under planning permission are being produced; the recommendations will be implemented to ensure that site activities do not adversely impact on the local ecology.

### **Asbestos Removal**

A building management survey will be undertaken prior to a phase which includes demolition. Should asbestos be found removal will be in accordance with recommendations set out within the survey and the Control of Asbestos Regulations 2012.

### **Contaminated Land**

Prior to each phase a soils report will be undertaken by qualified professionals to ascertain the extent of contamination. Remediation strategies will be implemented post investigation where required.

### **Spread of Non-native Invasive Species**

Ecology reports undertaken show that no non-native invasive plants have been found within the site regeneration boundary. However, Giant Hogweed has been found within close proximity to the Silk Bridge. Prior to commencement of works within the Silk Bridge area a suitably qualified ecologist will produce a remediation strategy.

### **Unexploded Ordnance Survey**

An Unexploded Ordnance survey (UXO) will be undertaken prior to each phase and all mitigation measures will be subject to findings.



### 2.01 SITE WASTE MANAGEMENT PLAN

### Recycling

Barratt West London will appoint a suitably qualified recycling company to ensure maximum waste removal from site is recycled. Barratt West London aims to reduce the waste created through the design process, and then look to re-use waste produced on site. Where this isn't practicable we aim to recycle.

All waste removal will be monitored and recorded and the data will be used to identify areas where we can improve recycling and divert more refuse away from landfill sites. All removal will be in accordance with the Site Waste Management Plan (SWMP).

### **Waste Champion**

Barratt West London will appoint a logistics manager to become the Waste Champion and their role will include review of processes and ensuring site personnel are aware of what can and cannot be diverted from landfill.

The Waste Champion will ensure, through tool box talks and during the site induction, that the importance of recycling correctly is well understood by all subcontractors. The site team will also visually inspect the site perimeter to ensure no waste has escaped the site and gone into the SSSI or the surrounding area.

The Barratt West London site team will respond to the waste needs of each phase accordingly; concrete crushers will be considered for use during phases which include demolition.



### 2.02 PUBLIC HIGHWAYS

The following highways works have been identified for each phase, subject to final agreement. A suitable traffic management plan will be implemented to respond to the design requirements to ensure that the correct methods or public safety measures are agreed with the London Borough of Barnet and are undertaken efficiently.

### **During Phase 3A**

- Stopping of public highway and new access routes north of Perryfield Way;
- New Estate Road with access points to BlockE1/E4/E2 with limited street parking and temporary connection to Tyrell Way;
- Access to Blocks G1 and G2 under croft parking directly from Perryfield Way;
- Interim footway improvements along Station Road addressing current shortcomings including crossing points identified in PERS survey;
- Footway improvements to West Hendon Broadway addressing current key shortcomings identified in PERS survey;
- Bus Stop improvements on West Hendon Broadway with reference to TFL Accessible bus stop design guidance; and
- Re-timing of traffic signal along A5 Corridor.

### **During Phase 3B**

Estate Road adjacent and access points to Block F5/F6 with temporary connection to Marsh Drive connection to Phase 3A estate roads.

### **During Phase 3C**

- Estate Road adjacent to and new access points to development blocks;
- Access points to Blocks F1 and F2 from Marsh Drive;
- Interim improvements to Cool Oak Lane Junction with the A5;
- Northern section of the main east-west pedestrian Corridor from the Broadway (towards York Park);
- Temporary pedestrian crossing to Perryfield Way with links through to York Park;
- Provision of Silk stream Bridge and associated pedestrian and cycle links to north of the site;
- During Phase 3, construction traffic will use existing highways to access the site, but will be managed in accordance with the construction management plan to minimise impacts.

### **During Phase 4**

- Widening of Station Road;
- Major highway improvements to the A5;
- Introduction of two new and two improved pedestrian crossings to A5;
- Introduction of right turn movement from A5 to Station Road;
- Comprehensive streetscape improvements to Station Road and the Broadway;
- Removal of Perryfield Way Loop;
- Pedestrianisation of northern section of Perryfield Way;
- Removal of through traffic from Garrick Road and Wilberforce Road;
- Reversal of traffic direction and traffic calming on Herbert Road;
- Provision of estate roads and access points to blocks F1/F2/F6/J1/J3/J4/J5/J6/J7;
- Connection of estate roads to Milton Road and Stage 2 Roads;



- Completion of main east-west pedestrian corridor from the Broadway to York Park; and
- During Phase 4, construction traffic will use existing and new highways to access the site but will be managed in accordance with the construction management plan to minimise impacts.

### **During Phase 5**

- Provision of estate roads adjacent and access points to Blocks B1/C1/C2/C3/C4;
- During Phase 5, construction traffic will be predominantly using new roads but will be managed in accordance with the construction management plan to minimise impacts.

### **During Phase 6**

- Access points to all D Blocks;
- Access to school; and
- Provision of new pedestrian bridge adjacent to existing Highway Bridge on Cool Oak Lane;
- Construction traffic will use existing and some new highways to access the site but will be managed in accordance with the construction management plan to minimise impacts.



### 2.03 TRAFFIC MANAGEMENT

Barratt West London understands the importance of safety to people both within the site and more importantly surrounding it. As such site managers will ensure mitigation measures are put in place to improve clarity to local residents and site personnel of what impacts site traffic will have on roads.

Measures include the following:

### Site Vehicle Access and Movement/HGV Impact

The site management team will develop a Site Traffic Management Plan which will incorporate the agreed working hours as agreed in the Local Authority Planning Consents and be displayed in the site office where inductions will take place. All vehicle movements entering and leaving site will adhere to these requirements.

Key contractors will provide nominated vehicle Banksman during the initial phase of the development in order to assist with the co-ordination and unloading of their deliveries, in particular, timber, steel reinforcement and concrete delivery vehicles.

BWL gateman will see in all deliveries to site and hold them at the entrance after which the sub-contractors Banksman will take them to the desired location. The Barratt West London gateman will keep a Log of every vehicle. All deliveries to site are to be pre-booked during a weekly delivery/hook time meeting and a copy of the schedule will issued to the Gatemen. No deliveries will be permitted to site outside the hours of 8am and 6pm.

During construction vehicles will be expected to give priority to members of the public and to be courteous at all times.

Vehicle reversing movements should be kept to a minimum but when they are requires a Traffic Marshall must accompany all reversing vehicles. All delivery vehicles will be fitted with mirrors in accordance with SHE 55 and have an audible reversing alarm and hazard warning lights. Operatives assisting vehicles must wear high visibility clothing.

Drivers of site vehicles will when required be asked to demonstrate that they hold valid appropriate certification (CSCS card) applicable to the type of plant or equipment that they are operating. A register of certification will be kept and maintained by Barratt West London.

Weekly checks of contractor's plant and equipment, driver's qualifications and delivery vehicles will be carried out and a register will be kept within the site office.

When leaving site vehicles will be wheel washed if required by the sub-contractor. A site speed limit of 10mph will be established during the construction activity due to the space constraints on site.

Advanced warning signage will be posted on the approach to the site entrances in order to highlight the on-going construction activity and provide advance warning to drivers of the site entrance as they enter Perryfield Way from A5.

### **Site Pedestrians Access**

Barratt site management will use signage to make people aware off site of entrances specific to a particular phase.

On-site pedestrian movement will be controlled via the use of a manned security point at the entrance and clearly marked routes. PPE designated areas will be clearly marked and all visitors will be suitably inducted or supervised beyond these points.



### 2.04 HEALTH & SAFETY

### **Method Statements and Risk Assessments**

All subcontractors and specialist personnel carrying out works on site, throughout all phases, will be expected to create a risk assessment and method statement. Barratt West London's site team will review and introduce mitigation measures accordingly.

Barratt are committed to and have an excellent Health & Safety record. A key concern will be the safety of local residents & visitors to site and this will be reviewed monthly with the H&S team.

### **Site Safety**

Operatives and visitors to the site will be required to wear high visibility vests, boots, helmets and carry valid CSCS cards when entering the work area. All operatives working on site will be inducted, setting out the procedures for pedestrian access and egress to and from the place of work. When necessary, due to the changing site environment, an updated induction will be given.

### **Fall Prevention**

Managing work at height follows a hierarchy of controls – avoid, prevent, arrest – as such fall restraints and safety netting should only be considered as a last resort if other safety equipment cannot be used.

The following activities surrounding working at height have been identified and mitigation measures have been expressed.

- Roof work Plan safe access, and prevent falls from edges and openings.
- Fragile surfaces The hierarchy of controls for working on or near fragile surfaces is avoid, control, communicate, co-operate. Barratt site team will ensure that all stages are discussed and mitigation measure are expressly written within the Risk Assessment and Method Statements.
- Ladders When it's appropriate to use ladders Barratt site team will ensure the position, condition and safe use of the ladders is reviewed prior to commencing works.
- Tower scaffolds Select the right tower for the task; erect, use, move and dismantle the tower safely; ensure that it is stable; inspect it regularly; prevent falls.



### 2.05 COMMUNITY

The Barratt West London team put as much care into building relationships with existing residents as they do with building high quality buildings. As such the Barratt team will, where possible, give as much notice to residents regarding potential issues arising from site activities as can reasonably be given and will seek to provide clarity and advanced warning of any works that may affect the surrounding community.

The construction site will need to be kept secure and security controlled to ensure that people do not enter the without permission and potentially hurt themselves.

Barratt West London will engage with schools and residents to inform them of the risks associated with each construction phase and the nature and timing of the works in each phase.

### **Considerate Contractors**

Barratt West London will register the site with the Considerate Constructors Scheme, which is an independent inspecting authority aimed at improving the image of the construction industry and subsequently improve relationships between sites and the local community. Headlines items for consideration include Appearance, Community, Environment, Safety and Workforce. For further information on the scheme and its positive approach please visit <a href="https://www.ccscheme.org.uk">www.ccscheme.org.uk</a>.

### Liaison, consultation & publicity arrangements

Prior to, and during works on site, liaison meetings will take place with the Barratt site team together with their Planning and Technical departments and local residents. The arrangements for these meetings will be by one point of contact via hardhat communications.

Barratt site team will ensure that all site staff are respectful to the area and the pedestrians surrounding the scheme and will consider them in any works carried out that may affect them. The Principal Contractor's details will be displayed on site hoarding to encourage people to call should they have any concerns.

### **Employment Opportunities**

Job advertisements and skills training opportunities will be made available to all residents wherever possible. This should include jobs associated with the construction of the project throughout all phases along with employment opportunities associated with the operations phase of the site.

