



# **CONSTRUCTION METHOD STATEMENT**

**Land off Moorslade Lane,  
Falfield**

**April 2019**

**Linden Homes  
Linden House  
The Jacobs Building  
Berkeley Place  
Clifton  
Bristol BS8 1EH**

**Land off Moorslade Lane,  
Falfield**

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**CONSTRUCTION METHOD STATEMENT**

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**AMENDMENTS PAGE**

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<b>Rev.</b>	<b>Date</b>	<b>Description</b>	<b>By</b>
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**Land off Moorslade Lane  
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**1.0 INTRODUCTION**

**1.1 Background**

This development is located off Moorslade Lane, north of Falfield and West of the A38 & M5. Planning Consent PT17/4800/O dated 19<sup>th</sup> December 2017

Condition 14 of the consents requires a Construction Method Statement (CMS) which is to be approved prior to the commencement of the development. It should be read in conjunction with the Construction Ecological Management Plan: Biodiversity to discharge Condition 21, The Hedge Translocation Method Statement to discharge Condition 22 and the Arboricultural Impact Assessment, Method Statement and Tree Protection Plan to discharge Condition 15.

**1.2 Objective**

The objective of this CMS is to ensure that management controls are in place during the construction activities associated with this development and to satisfy the requirements of Planning Condition 14.

Conditions 14 states:

Construction Method Statement prior to the commencement of development, including any works of demolition, a Construction Method Statement shall be submitted to and approved in writing by the Local Planning Authority. All works shall proceed in accordance with approved details. For the avoidance of doubt, the Statement shall include details of:

- (i) The hours of working
- (ii) Site Security
- (iii) Fuel, oil storage, bunding delivery and use
- (iv) The containment of silt/soil contaminated run-off
- (v) The disposal of contaminated drainage, including water pumped from excavations
- (vi) The site induction for the workforce highlighting pollution prevention and awareness (invitations for sub-contracted tenders must include the agreed details).
- (vii) The parking of vehicles of site operatives and visitors
- (viii) Loading and unloading of plant and materials
- (ix) Storage of plant and materials used in constructing the development
- (x) The erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate
- (xi) Wheel washing facilities
- (xii) A detailed Dust Management Plan (DMP), with measures to control the emission of dust and dirt during construction
- (xiii) A scheme for recycling/disposing of waste resulting from demolition and construction works

**1.3 Programme**

The Section 278 works (off site works and site access) are provisionally programmed to commence in Summer 2019 (June/July) and will last 16 weeks.

Provisional commencement date on works on the main site is Winter 2019 with an anticipated programme of 3-4 years.

## **1.4 Development Description**

This development comprises the construction of 85 dwellings a Park and Share Facility, Community Hub and associated parking, landscaping and infrastructure.

The main construction activities are: -

- Excavations
- Sub-structure foundations
- Drainage
- Estate roads
- Off-site roads and infrastructure
- Public utilities
- Superstructures
- Landscaping

## **2.0 WORKING HOURS**

Normal working hours on this site are:-

- Monday – Friday      0730 – 1800 hours
- Saturday                0800 – 1300 hours

No heavy plant, noisy equipment or operations and deliveries will be permitted outside of these hours, including the collection or deliveries to site or on a Sunday or Bank Holiday without prior notice to the Local Planning Authority (LPA), subject also to any restrictions or requirements they may impose, and local residents being informed in advance of the proposed activities.

## **3.0 TRAFFIC MANAGEMENT**

The main access/egress to site for construction traffic, deliveries, site staff and visitors will be from Moorslade Lane, via the A38 as identified on the Delivery Route Plan.

The S278 works, will begin in Summer 2019, during school holidays to minimise the adverse effect on traffic. The work will be carried out by a suitable contractor out under a road works licence as agreed and granted by the council. The licence will agree the traffic control measures required throughout the entirety of the construction process.

Initial works are to construct the main roads and sewers network from the access point. This will provide the permanent access and egress point for the development.

The Construction route to the site will be clearly signposted and routing information will be passed directly to all suppliers, contractors etc.

Non-compliance by suppliers and trade contractors with these requirements may lead to the supplier/trade contractor being removed from the site.

The Site Strategy Plan details the traffic movements within the site along with pedestrian routes identified. All construction traffic will be segregated from pedestrian routes and clearly demarked using pedestrian barriers. Traffic management arrangements on site need to be flexible so they can adapt to site needs and local concerns. This plan will be developed/revised as work progresses (live document) including the occupation of completed dwellings as they occur.

The Site Strategy Plan will be clearly displayed on site and all contractors, when appointed, will be made aware of the plan and the key elements in advance of works commencing and also as part of the site induction training.

Upon occupation of the residential development the access to completed properties shall be maintained at all times. Sufficient notice shall be given and customers informed of all works and restrictions including health and safety issues in a pro-active manner

### **3.1 Road Cleaning**

Throughout the construction period a road vacuum sweeper will be deployed on a regular basis to ensure all on-site and affected off-site roads are kept clean and free from mud and debris. Road gullies to be inspected on a regular basis to avoid the build-up of silt/detritus and where necessary gullies cleaned & connections jetted.

Additional visits will be implemented if the site management team, management company or highway authority note a build-up of debris/deposits on the public highway.

### **3.2 Cold Weather Precautions**

Precautions are to be put into place to deal with icy conditions effectively. The Construction Phase Health & Safety Plan should contain details of the management of any water on the highway during freezing conditions. The CPH&SP will contain full details, but in summary the site management team will prepare for cold conditions by holding a stock of road grit on site to deal with any minor areas of ice. If weather is extremely cold and conditions are hazardous, the site management team will close the site.

## **4.0 SITE STRATEGY**

### **4.1 Site Compound**

A site compound will be located as identified on the Site Strategy Plan and will include all welfare facilities for the workforce in accordance with standard arrangements.

### **4.2 Parking**

Off street parking of adequate size will be provided to accommodate all site personnel and visitors. No plant or vehicles shall be parked on the public highway or adjacent estate roads.

Off-street parking provisions are identified on the Site Strategy Plan. **NB:** This plan will need to be developed/revised as work progresses and will be dependent on construction phasing.

No parking will be permitted on Moorslade Lane or the A38. The site management team will carry out regular inspections to ensure Linden Homes employees or contractors are not abusing the site rules.

Non-compliance by suppliers or contractors with these requirements may lead to the supplier/contractor being removed from the site.

### **4.3 Delivery, Loading & Unloading of Plant and Materials**

Designated loading and unloading areas will be provided within the development these will be clearly defined both on the site strategy plan and on the ground. Sufficient space shall be provided

to assist all delivery and construction traffic to be able to turn on site and leave in a forward gear/direction. Banks men will be used for all reverse manoeuvring operations. No loading/unloading will be permitted on the public highway.

To avoid congestion on the local highway network the following will be considered: -

- The setting of specific delivery and collection times.
- A system of 'just in time' deliveries.
- Timed delivery slots between the hours of 8:30 and 16:00 Monday - Friday
- Even distribution of deliveries to prevent congestion and waiting of vehicles on the public highway to enter the site.
- Deliveries to be timed during normal working hours only.

#### **4.4 Storage of Materials**

Materials will be stored in locations that are strategically planned, and shown on the site strategy plan. The locations for materials storage will be within security fencing and lockable gates. Best practise methods of storing materials are to be followed, including ensuring that the locations are away from any root protection areas, the ground is levelled and prepared, to ensure materials are safe and do not fall and break creating wastage, proprietary lockable COSHH stores within secure containers, banded and well housed fuel storage in suitable planned locations. Linden standards will be followed as detailed in *HS&S-STD-H02 Hazardous Materials Incorporating COSHH*. The material storage facility will be located within the site compound as shown on the site strategy plan.

#### **4.5 Site Security**

Linden Homes will be responsible for the security of their land. This will in the form of 'solid' hoarding or 'Heras' type fencing as identified on the site strategy plan. No hoarding or Heras fencing will be erected within vehicle or pedestrian visibility zones to maintain sight lines. As detailed within the CEMP, fencing will contain a gap along the base of 20cm to allow badgers to pass beneath.

The existing public highway/footway, leading to the development shall be maintained in a suitable condition to permit safe passage by the general public. Particular attention will be needed to ensure the public are protected from the work areas and appropriate precautions (signage, fencing etc.).

#### **4.6 Site Lighting**

Consideration will need to be given to the location of any site lighting to minimise the potential impact of light spillage and disturbance to local residents and ecology. Where lighting is not required during night hours it is to be switched off. Where lighting is required for security purposes the lights will be fitted with directional hoods and the use of energy efficient lamps to ensure that it is sensitive to the surrounding natural environment. Please refer to the CEMP lighting strategy for further information.

#### **4.7 Wheel Washing**

A wheel washing facility will be located as shown on the Site Strategy Plan at the egress point of the construction roads. All construction vehicles wheels, wheel arches etc. must be clean before leaving the site to ensure that mud/debris is not deposited on the public highway.

#### **5.0 SURFACE WATER MANAGEMENT**

Site clearance works, topsoil stripping and earthworks operations could lead to possible erosion of the sub-soil by wind and rain and generate dust. These operations have the potential for suspended solids and dissolved materials to affect existing watercourses near to the site.

Groundwater and surface water run-off control during the construction phase will include;

- Groundwater pumping to settlement detention/lagoons to allow natural removal of suspended solids prior to filtration into the sub-soil or pumping into the on-site ditches. These lagoons will need to be maintained on a regular basis.
- Surface water run-off will be intercepted by silt fencing. If necessary interceptor ditches/bund will also be provided as a suitable cut-off/barrier mechanism providing storage and act similar to settlement lagoons.
- Conduct all land-disturbing activities in a manner that effectively reduces accelerated soil erosion and reduces sediment movement & deposition off site.
- Schedule construction activities to minimise the total amount of soil exposed at any given time to reduce the period of acceleration soil erosion.
- Establish temporary or permanent cover on areas that have been disturbed as soon as possible after final grading is complete.
- Stabilise the areas of land disturbance with permanent vegetation cover as soon as practicably possible.

## **5.1 Fuel Spillage**

Fuel spillage kits are to be provided and made accessible at all times. Appointed site staff will be trained in its use. The correct protocols for dealing with a spillage is covered by a module in the Site Managers 'Site Management Safety Training Scheme'.

The Environmental Reporting Procedure will be instigated should a fuel spillage occur. A summary follows of the issues to control and best practice to adopt:

### Containers

- Use containers designed to minimise spills.
- Ensure that containers used are appropriate to the substances contained (e.g. Do not react with the substance, resistant to corrosions).
- Ensure that containers are maintained in good conditions and securely closed. Locate secondary containment store as far away from environmentally sensitive areas such as watercourses and water discharge points as possible.
- Store goods away from heavily trafficked areas to avoid container damage.
- Storage containers shall be safely and securely sited so as to prevent pollution in the events of spills or leakage
- Fuel and oil storage tanks shall be surrounded by an impervious oil/watertight bund having a capacity of at least 110% of the tank.
- In each storage area:
  - Ensure that only the substances specified are stored.
  - Provide secondary containment or drip trays, and impermeable floor and bunding.
  - Prevent unauthorised access by providing locks to the storage areas.

### Cleaning up minor spills

- Use sand, saw dust, or spill kit to absorb the spill and prevent it from spreading.

- Dispose of the contaminated absorbent material as chemical waste.
- Ensure that saw dust, spill kits, etc. are readily accessible and of enough quantity.

#### Inspection and Maintenance

- Periodically inspect, and where necessary test, the condition of storage drums, tanks and pipelines (especially flanges and gaskets)
- Inspect and maintain all plant and equipment to prevent leakage of chemicals/fuel.

#### Major Spills\*

- Contain the spill to minimise reduce land contamination and pollution of nearby watercourse.
- Inform the Project Manager immediately.
- The Project Manager shall arrange for appropriate removal and disposal of the chemicals by authorised organisations, and determine if other parties (e.g. Environment Agency need to be informed).

\* Spills on the worksite are likely to be hydraulic oil or engine oil spilled from plant items. If a spillage occurs the following procedure is to be followed:

- Immediately identify the spilled material and notify the Site Management Team. The Site Managers are to notify the BHL Project Manager.
- Contain the spill as soon as possible so it doesn't spread. Refer to Material Safety Data Sheets (MSDS for personal protective clothing needed)
- If containment is required, contain using earth mound and / or absorbent socks / spill kit. If you can't do this let your Supervisor know.
- Use the relevant clean up procedure as instructed by the MSDS.
- Once the spill has been contained, your Supervisor will arrange removal and disposal as soon as possible. Dispose of material using a licensed contractor and keep records of disposal on site.
- Complete an Incident Reporting Form (form F03) and forward it to the Project Manager.

In specific regard to refuelling on site. In accordance with PPG6 Pollution Prevention Guidelines re dispensing pumps for refuelling plant and site vehicles

Use proper fuel dispensing pumps for refuelling plant and site vehicles. This reduces the chance of oil spills because:

- fuel tanks can be sited at ground level and installed on a properly designed and constructed base making tank filling, inspection, maintenance and dispensing easier and safer
- it's more secure; dispensing pumps (electrical or mechanical) can be isolated from unauthorised use and interference when not in use
- there's no flexible pipe work connected directly to the tank which is vulnerable to damage by thieves (to steal oil), vandals or accidents
- Oil can't drain down by gravity and be lost.

If you can't avoid gravity dispensing:

- support and install tanks properly
- design secondary containment for the tank and its ancillary equipment to take into account oil 'jetting' from the tank if there's an overfill, or damage to tank or pipe work
- use a top draw-off, with anti-syphon protection
- ensure flexible delivery pipe work, nozzles and valve security locks comply with regional oil storage regulations

- Protect operators working at height (to fill, inspect, maintain and draw off) by providing suitable ladders, railings and other health and safety equipment.

Refuelling and dispensing should:

- be carried out carefully in a designated area with an impermeable surface sited away from any watercourses, ditches or drains
- always be supervised and never left unattended
- be by pump, where possible, (see above) with automatic cut-off trigger nozzles, which can't be left propped open.

If refuelling or dispensing (for example using mobile bowsers) has to be done away from a designated area you should:

- complete refuelling or dispensing over a drip tray or other secondary containment solution; never allow oil to spill onto the ground
- use funnels or other appropriate filling equipment to avoid spills
- return all oil containers (including mobile bowsers), funnels, couplings, pipes, taps and cloths to the designated storage area after use
- deal with any spilt oil and drips in the secondary container immediately using proprietary spill clean-up materials

## **6.0 NOISE & VIBRATION SUPPRESSION**

### **6.1 Noise**

Best Practice procedures will be implemented on site to mitigate noise pollution. Linden standards will be followed as detailed in *HS&S-STD-N01 Noise Management* (see appendix)

Control measures being:-

- Switch off engines of plant and vehicles when not in use.
- All plant and equipment shall be suitably chosen, sited, operated and serviced so as to minimise noise.
- Close doors on generators – switch off when not in use.
- Comply with site working hours.
- Screen extremely noisy activities.
- Radio noise shall not be audible at the boundary of the site.
- All pneumatic percussion tools to be fitted with integral silencers.

If particular unavoidable noisy works are expected that affect sensitive receptors, such as residential/occupied areas then the sensitive receptor and North Somerset (Environmental Services Department) must be pre-notified, prior to work commencing with the following information: -

- Site location.
- Type and duration of site operation likely to cause noise and their hours of work.
- Details of the Site Management Team so that the community feel assured that information is available and the complaints will be handled expeditiously.

### **6.2 Vibration**

Best Practice procedures will be implemented on site to mitigate the level of vibration caused through construction activities. The priority will be to avoid the generation of vibration and where vibration is unavoidable to control vibration at source. All plant and equipment shall be suitably chosen, sited, operated and serviced so as to minimise vibration.

Control measures being: -

- Restrict vibration levels to  $0.3\text{mm}\cdot\text{s}^{-1}$  max as set out in BS5228-2:2009

The construction activity that has the potential to cause disturbance and nuisance to sensitive receptors is vibrating compaction rollers during the initial road construction and the placement of fill materials for the raising of ground levels where necessary.

Vibration levels which have the potential to cause damage will not be allowed.

The development is not in an urban location. It is anticipated that by achieving the vibration levels above would not cause vibration disturbance at neighbouring properties.

If vibration at a sensitive receptor, such as a residential property, is considered likely to exceed the above referred level, the sensitive receptor and the LPA must be pre-notified, in writing, at least 5 full working days prior to work commencing, with the following information:

- Site Location – the location of a site in relation to the sensitive receptor
- Duration of site operations, including schedule of operations likely to cause vibration and their hours of work
- Vibration characteristics – e.g. whether it is continuous, intermittent or impulsive
- Effect on buildings – it is important to assure the community that vibration levels will not cause building damage
- Details of site operator community liaison – so that the community feel assured that information is available and that complaints will be handled expeditiously

In the event that complaints are received from neighbouring properties with respect to vibration, it may be necessary to carry out monitoring at the property in order to demonstrate that vibration levels are below the maximum level of vibration referred to above.

## **7.0 DUST SUPPRESSION**

Control measures being:-

- Damping down traffic routes, storage areas etc.
- Earliest implementation of hard surface areas to ease cleaning.
- Regular cleaning by brushing.
- Stockpiles of dusty materials to be covered or wetted to prevent dust blow.
- Vehicles carrying waste material off-site to be covered or sheeted at all times.
- Provision of wheel washing facilities.
- Burning of waste material not permitted on-site.
- All plant and equipment shall be suitably chosen, sited, operated and serviced so as to minimise dust and fumes.

The Construction Phase Health & Safety Plan will contain further details of controlling dust. Site Induction training for all site personnel will also include reference to dust control.

## **8.0 SOIL MANAGEMENT**

Initially all topsoil and sub-soil arising's will be retained on site for re-use to accommodate the proposed finished levels. Any surplus material will be disposed of off-site once the site in accordance with regulations.

Temporary stockpiles to be restricted to 5.0m high max.

## **9.0 PUBLIC LIAISON**

Respective Site Managers are the contact point to deal with all environmental and construction issues, and emergencies on site- any issues raised will be dealt with by the site manager responsible. Contact information will be displayed at the site entrance and at prominent points around the site perimeter.

Any complaints which concern any aspect of the site operations will be recorded and investigated. A Complaints Register will be maintained and will detail the nature of the complaint, the complainant, the date, actions taken as a result of the investigation and complainant informed. The Complaints Register will be available for inspection by the Council upon request.

## **10.0 METHOD STATEMENTS & GOOD PRACTICE**

Method Statements are a working document and will be amended/enhanced should circumstances change on site.

CIRIA publication C650 – Environmental Good Practice – contains a series of on-site checklists and tool box talks providing key advice for the Site Management Team.

The site management team will be responsible to ensure that all contractors comply with and instigate the recommendations made within this CEMP.

Some of the more pertinent Linden Homes HS&S Standards are provided in the appendix. These are correct at the time of writing. Updated versions may be used (accessed from our intranet).

## **11.0 TREE PROTECTION**

In order to protect the above and below ground features and characteristics of retained trees from damage during construction, tree protection fencing will be installed throughout the site. The Tree & Hedgerow protection plan/s will detail the locations of the protection fencing required.

Tree Protection barriers will be fully installed to appropriate areas before the arrival of any plant or construction activity on-site. Tree protection barriers will remain in place for the duration of construction works until the site is deemed complete.

Tree protection fencing for 'Category A' trees will consist of the default specification recommended with BS5837: 2012, comprising of scaffold framework, well braced to resist impacts, with vertical tubes spaced at a maximum of 3 metres to add further stability. Onto this, weldmesh panels will be securely fixed with wire or scaffold clamps.

Tree protection fencing for 'Category B and C' trees will consist of the alternative BS5837:2012 standard with heras fencing joined together using a minimum of two anti-tamper couplers (installed so they can be removed from inside the fence) and braced with ground pins/struts.

Special attention is essential in maintaining the protective barrier during the construction phases, ensuring that it remains rigid and complete as well as fit for the purpose intended. In order to avoid disturbances to the protective barrier once it is installed, it will be inspected on a regular basis, including during site visits by the consultant arboriculturalist. Repairs shall be made immediately where required.

All weather notices will be attached to the barriers with words such as 'Construction Exclusion / Tree Protection Zone – No Access'.

## **12.0 PRECAUTIONARY WORKING MEASURES**

### **12.1 Ecology and Arboricultural Impact**

Matters associated with construction management practices to protect the ecology have been covered in the CEMP been prepared by EDP, and submitted to discharge condition 21. The Hedgerow Translocation Method Statement, prepared by EDP and submitted to discharge Condition 22 and the Badger Report prepared by EDP to discharge Condition 6.

An Arboricultural Impact Assessment, Arboricultural Method Statement and Tree Protection Plan, have been prepared by Tyler Grange to discharge Condition 15 and provide the details of tree protection during construction works.

### **13.0 CONCLUSION**

This CMS has demonstrated that:

- Construction is a temporary, but an essential activity associated with all developments, and therefore extensive preventative measures will be put in place to control construction and to minimise the inconvenience to neighbouring residential areas, business, etc.
- Impacts associated with construction traffic will be kept to a minimum and due diligence will be used.
- It is acknowledged that small variations to the CMS may be necessary as development progresses and may have to be subject to appropriate alterations due to ongoing developments on the ground. This can be addressed through an “open book approach”, for the full benefit of the LPA and local residents.
- Linden Homes commitment to this CEMP demonstrates consideration, structure and robustness to the process. The flexibility of the CEMP provides the ability to deal proactively during the construction process through an efficient, well-managed regime to the benefit of all parties involved.

**Land off Moorslade Lane,  
Falfield**

**CONSTRUCTION METHOD STATEMENT**

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**APPENDIX 1**

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**DELIVERY ROUTE PLAN**

**Land off Moorslade Lane,  
Falfield**

**CONSTRUCTION METHOD STATEMENT**

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**APPENDIX 2**

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**SITE STRATEGY PLAN**

**Land off Moorslade Lane,  
Falfield**

**CONSTRUCTION METHOD STATEMENT**

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**APPENDIX 3**

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**LINDEN STANDARDS**