Land East of Garden Walk and North of Newmarket Road, Royston

Construction Management Plan & Environmental Code

Access, Phase 1 & Phase 2

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Appendix 1 – Site Shutdown Checklist

1. Introduction

This construction management plan has been produced for Land east of Garden Walk and north of Newmarket Road, Royston in accordance with all current Linden Homes procedures. Set out below is a brief overview of the systems and procedures we would intend to utilize in controlling the construction operations on site, ensuring all Linden Homes Eastern standards and protocols are adhered to in order to progress the project in the most safe and efficient manner possible. This plan has been drawn up in conjunction with Health & Safety Management Systems and Environmental Management Systems in place. This plan also will ensure strict adherence to the planning conditions in respect of working hours and standards required by the environmental department. The persons responsible for implementing and monitoring of this plan are:

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2. Site location and Boundaries

The development is located off the A505, Royston. Boundaries include existing housing (rear gardens) and a recreation ground to the West; fenced playing fields (Meridian School) to the North; to the East by hedgerows with the A505 beyond, and to the South by woodland with Newmarket Road beyond.

3. Scheme Summary and Construction Stages

This project is a site of 330 units with associated infrastructure and landscape. The project is to be delivered in three phases plus off-site highway works to construct the site access, and this document addresses Phase 1 and 2 and the off-site highway works. Phases 1 and 2 comprise 83 and 108 residential units respectively, infrastructure, strategic drainage and flood risk mitigation, and community open space. The access is a new roundabout being constructed on the A505 under a S278 agreement.

The temporary site access will be constructed off the A505 adjacent to the proposed roundabout. Initially an earthworks exercise will be carried out on site, upon completion of this construction of the infrastructure and dwellings will commence (refer to drawings HPP001 and CMP001). Alongside the on-site works, the new roundabout will be constructed with all necessary approvals and agreements in place from Hertfordshire County Council.

4. Roundabout Construction

Please refer to drawing SAP001.

- Prior to commencement Road Opening Notice and traffic management plan will be submitted to the Highways authority for approval.
- Install temporary speed limit restrictions
- Improve current existing access with hard standing in front of existing entrance
- Construct temporary access facility and on site haul road to compound including wheel wash area.
- Set up compound
- Set up Traffic Management
- Commence construction of southern section of roundabout incorporating temporary access road diversion.
- Sweep temporary access onto new south entrance.
- Re set traffic management taking traffic onto new half of roundabout.
- Commence construction of northern side.
- Remove existing carriageway
- Remove Traffic management.

5. Working hours

Our normal site working hours including deliveries and waste removal will be as follows

Monday to Friday: 8.00 -18.00
Saturday: 8.00 -13.00
Sunday/Bank Holidays: No work on Sundays or Bank Holidays.

Notwithstanding this there may be certain occasions when work outside these hours may be necessary. In the event of this, work would only be carried out following consultation and agreement with the Environmental Health Officer.

6. Site Access and Egress

A traffic management risk assessment identifying the site specific controls for this project will be developed prior to start on site, and as the site progresses through its phases. We will arrange a meeting with the Local Authority highways officer to arrange licences for hoardings, crossovers and agree traffic routes and signage. The Planning Officer (North Hertfordshire District Council) will be kept informed of meetings and outcomes.

The traffic management plan and a traffic management risk assessment will be provided to the site team for this project and these documents will be updated and briefed to site operatives as necessary throughout the project's life-time.

Access for emergency services on site will be via the site access routes (A505 Road). The traffic marshals located at the site entrances will ensure that safe access routes are always maintained for emergency services. No access will be permitted from Garden Walk.

Please refer to the Construction Traffic Route at the end of this document for our proposed route for delivery vehicles. The site management team will ensure that site and/or delivery vehicles do not impede traffic on the public highway and that traffic flow is maintained at all times. No loading/unloading or stacking will take place on the A505 or Newmarket Road. A traffic marshal/ banksman will be employed as necessary. All gates on site will open inwards and will not impede the public highway or footpaths at any time.

Strict material delivery procedures will be imposed on the project based on just in time deliveries to ensure that congestion is avoided. Each delivery will be allocated an allotted area from which to load or unload. This will be suitable for the material being delivered and will adhere to site working hours. Contractors and suppliers are required to notify our Site Logistics co-ordinator to agree delivery dates and times based around the peak time restrictions.

General construction material deliveries would average up to 20no per day throughout the project. These would be a mix of flatbed lorries and box vehicles. During the initial groundworks period of approximately three months, heavy goods vehicle movements will be upto 50no per day.

Once on site, we will ensure that traffic is routed away from work areas wherever possible with pedestrian and vehicle segregation in areas where this is not possible.

A pedestrian access gate will enable all operatives, staff and visitors to enter site from Newmarket Road. A segregated pedestrian walkway will be provided to the welfare facilities and subcontractor storage areas. Operatives can only access the site working areas after completing the induction process.

7. Prevention of Mud Transfer to Carriageway

To prevent the transfer of mud to adjoining roads a mechanical wheel wash station will be utilised adjacent to the temporary site access in the initial stages of the project, where muck away is required, eg earthworks and infrastructure works. Waste water is collected in the wheel wash unit and with solids separated for removal and water recycled. During later stages where infrastructure works are largely complete, an operative manually cleaning wheels with a jet wash will be employed. A washing bay will be constructed laid to falls with a gully in the middle connected to a catch pit / silt trap. A road sweep will also be used as required on the site roads to maintain their cleanliness.

8. Parking Arrangements

We estimate there will be 45 subcontractors employed for the scheme with a maximum of 70-80 personnel on site at any one time, together with 4 staff from Linden Homes.

All contractors' vehicles to be parked on site and not to cause a nuisance to nearby residents or have a detrimental impact on the general traffic flow on the surrounding highway. Operatives will be encouraged to car share, use public transport or cycle to work.

Clear instructions will be provided to all contractors as part of the procurement process advising them of the delivery requirements and parking restrictions.

9. Plant on site

There will be a variety of plant on site during the build.

A telescopic telehandler will carry out most of the lifting processes on site, however during the roof stages there will be a visiting mobile crane. In additional to this the groundworkers will have various 360 degree excavators and dumper trucks, subject to soil investigation reports there maybe a need for a piling rig on site for a short duration, which would be notified in due course.

10. Security & Site Boundaries

All boundaries to the project will be closed off using 1.8m high herras fencing, with various areas having 2.4m high hoarding. All hoarding and fencing will be maintained and kept in good repair at all times and hoarding will be painted in Linden Homes corporate colours.

Temporary hoarding will be erected at various stages of the external works adjacent to the public highway and temporary herras fencing will be utilised to safeguard the public. Internal access routes and storage compounds will be segregated utilising herras fencing panels.

The fencing will not be used for display of adverts or political posters except advertising for the development.

Security during site working hours will be maintained by the use of locked gates; all vehicular gates will be closed when not in use and controlled by our site team for vehicle movements.

Out of hours Security will be provided with the use of remotely monitored cameras and responding guards to deter theft and damage.

We will liaise closely with the local Community Officers and police that patrol the areas.

Fire escape routes, fire fighting stations, alarm points, muster points and practice drills within the works will all be as Linden Homes Health and Safety Procedures and agreed with local fire officer.

Site management will be responsible for seeing that all plant and materials are stored safely and securely after the workday ends.

11. Protection of Third Parties

All site activities are to be contained within the confines of the site boundary and a comprehensive traffic management plan will be implemented to ensure no disruption is caused to traffic or pedestrians on the adjoining roads or walkways. Specific loading and unloading areas have been designated inside the site boundary.

Where construction works are to be carried out above the hoarding level adjacent to the public highway and there is a risk of falling materials, appropriate monaflex sheeting or debris netting will be installed on the scaffold as a safety precaution with protection fans where required. Provision will be made for controlling access and conflict between show home visitors and residents during construction.

12. Site offices and welfare accommodation

We will be providing a secure, two-storey prefabricated office and welfare accommodation block, this will comprise of a drying room, canteen and toilet/shower areas and office facilities.

Sub-contractors will have a designated area within the compound for storage. Electricity, water and communications links will be provided to the area for quick and easy connections. Subcontractors will share the main contractor's welfare facilities.

Site notice boards will be displayed at the site entrance and will display the project contact details, access and egress procedure, site rules and all necessary health and safety information.

13. Material control and storage

Secure storage of materials, plant, chemicals and gases will be controlled in accordance with our Health & Safety Procedures and Environmental Policy.

"Just in Time" scheduling of deliveries where possible will minimise storage capacity required, double handling and congestion around the site.

Where "Just in Time" deliveries are not economic or practical, site storage of materials and plant will be very carefully controlled by restricted allocation of zones within the compound

to particular trades. Detailed plans of the site will be drawn up outlining areas available for moving and storing materials during the various stages of the project.

Wherever possible materials will be delivered shrink-wrapped and palletised to be unloaded and distributed safely.

Diesel fuel for site plant will be stored in sealed tanks inside bunded walls in accordance with Linden Homes Environment Policy. The use of diesel driven plant and equipment will be kept to an absolute minimum. Wherever possible equipment and plant will be electrically powered to reduce noise and prevent emissions.

Spill kits will be provided for use in an emergency.

14. End of Day Procedures

The site management team will use the 'Site Shutdown Checklist' (appendix 1) at the end of each day to ensure the site is left in a tidy, safe and secure condition.

15. Waste removal, management and recycling

An important part of the site management process involves site cleaning, rubbish removal and recycling.

We will produce a detailed Site Waste Management Plan in accordance with Linden Homes Environmental Policy.

This will include details of how we intend to reduce and manage site waste:

- Reuse of existing topsoil and clean spoil excavated for the new buildings, is limited and will be removed directly from excavations without double handling to an approved waste transfer station for recycling if possible.
- Enforcing good housekeeping measures e.g. proper storage of materials to minimise spillage.
- The use of raw materials as per manufacturer's instructions.
- Monitoring the generation of waste in order to identify trends and areas for further reduction.
- Identifying recyclable and salvageable materials and where feasible find secondary or alternative uses.

- Segregate waste types on site into skips to facilitate recycling activities. Skips will then be collected and taken to a waste transfer station by our waste contractor.

- Working with suppliers / subcontractors to minimise surplus material delivered to site.

- Working with suppliers to ensure only the necessary minimum of packaging is used and where pracitical packaging to be of recyclable materials.

- Consideration of alternative materials with lower wastage levels.

- Ensuring that all Duty Of Care and other legal requirements are complied with during the disposal of wastes.

- Consulting with suppliers to determine correct / appropriate disposal routes for waste products and containers.

- Assessing the project design to identify ways in which waste generation through raw material wastage and from temporary and permanent works activities can be avoided and minimised.

- Setting waste reduction targets as well as educating and informing site staff.

- Reducing useage of diesel, electricity and water on site by adopting Linden Homes Site Waste Impact recording and monitioring practices and procedures

General construction waste management will be managed by individual specialist subcontractors and overseen our site team.

Where gypsum plaster products are used the specialist contractors will be required to arrange recycling directly with the manufacturer or an approved disposer.

Data will be provided by the waste management contractor on the level of waste produced and the level to which this material has been recycled.

It will be the responsibility of each site manager to keep the site area under his control safe from build up of rubbish.

It is Linden Homes Eastern aim to continually reduce the percentage of waste going to landfill and all our contractors and suppliers are required to provide details of all waste removed from site and how it has been managed. Our current target is 97% diverted from landfill and we expect to meet or improve upon this target. We publish details of our waste recovery figures on site to all operatives and within our newsletters to the local community.

16. Reduction of energy usage and carbon footprint

Linden Homes Eastern are actively involved on all sites with reducing energy usage and reducing our carbon footprint.

We have established procedures to record fuel and water use on site and targets are set for the annual reduction in energy across the company.

We provide push button taps, dual flush wc cisterns, PIR controlled lighting, and switch off heating when not required.
We encourage the use of local labour, suppliers and subcontractors to reduce distances travelled and we record the mileage of all staff, operatives, visitors and deliveries so we can measure our carbon footprint and review how we can further reduce this.

17. Local Environmental considerations

As the site is located within a residential area it is our intention to minimise the impact that the construction process could cause to the Local Environment and the neighbouring community. We will also inform all local businesses and organisations of our activities on site so they are fully informed of our site activities.

Due care will be taken not to cause the primary environmental nuisances, noise and dust pollution. All reasonable measures will be taken to control noise levels to within or lower than the regulated decibel levels to comply with the statutory noise restrictions as stated in The Control of Noise at Work Regulations 2005 and Statutory Nuisance Act 1993. A sound / noise meter will be kept on site at all times to check noise levels at the site boundaries during certain operations. Inside the site, and closer to noise sources, hearing protection zones, where hearing protection must be provided and worn if noise levels reach 80 – 85 Db, will be set up. Below are some actions that will be carried out to abate these problems.

Reduction in noise disruption will be achieved by: -

- Co-ordinated delivery times and efficient traffic management to prevent queues of traffic accessing the site
- Ensuring all plant is equipped with baffles, lined compartments and silenced exhausts to reduce the machines operating noise level to within or lower than the regulated decibel levels to comply with the statutory noise restrictions.
- Utilising construction techniques that minimise the production of noise.
- Strict adherence to the site working hours.

Reduction in dust pollution and other airborne debris will be achieved by: -

- We will be establish air quality procedures to minimise dust generation using a water bowser to dampen down dust.
- Control plant and vehicle exhaust emissions.This will be monitored to ensure no overun of plant and machinery when not in use
- Ensure that all materials transported to and from site are in enclosed containers or fully sheeted.
- Ensuring stock piles of excavated materials etc are kept below hoarding heights and kept damp in dry windy conditions.
- During dry periods the works are to be damped down to control the generation of dust.
- Ensuring materials have a minimum of packaging
- Ensuring all polystyrene and similar light weight materials are weighted down
- Making sure all dust generating materials are adequately packaged
- Ensuring all vehicles leaving the site have received a wheel wash and that loads are covered where spoil, waste or demolition material is being removed.
- Provide regular road cleaning using road sweepers or brushes to control dust and mud.
- Keeping the loading drop heights of spoil into lorries as low as possible.
- Implementing an effective procedure to deal with complaints from third parties to ensure issues are dealt with efficiently and quickly, via an advised and dedicated telephone number.

In addition to the above provisions the following measures will be taken to reduce any further negative effects on the environment: -

- Ensuring all contaminants kept on site are safely stored with the necessary procedures put in place for leaks and spillages etc. as set out in Linden Homes Environment Policy.
- A waste management system will be implemented on site**.**

We treat environmental issues seriously and will carry out good management practises to minimise the effects of noise and dust on the environment and local community. We will also liaise with the local neighbours regarding any other sensitive environmental issues that need to be addressed.

18. Tree Protection

The Tree Protection Plan details trees and hedgerows to be removed or cut back, as well as tree protection requirements during construction, and hand dig areas. Works will be carried out in accordance with the Arboricultural Method Statement.

19. Induction / Site rules /consultation

Every person who enters the project will receive a specific project induction from Linden Homes site management before they are allowed to leave the compound and commence work on site.

Site access will only be granted following site induction by Linden Homes Management Team. All site operatives and visitors will be inducted prior to commencement on site in a clearly defined facility without exception.

Our induction talks for operatives new to the site will include site rules which cover among other things:

- Behaviour toward others on site and nearby
- Drugs and alcohol
- Smoking areas
- PPE and safety issues
- Welfare facilities and use of
- Security issues
- Emergency procedures
- Good and bad practice

We also provide site inductions in languages other than English where appropriate.

We will hold regular consultation meetings with the workforce to assess safety performance on site and review were can be improved, these will be open to all on site, in addition to this we will actively encourage the use of a ‘comment box’ so that site observations can be forwarded and actioned in a confidential manner.

We require regular ‘tool box talks’ to be undertaken by the Principal Contractor and all subcontractors to site operatives outlining a variety of relevant Health and Safety issues.

All subcontractors' site managers are required to produce records of their induction training, method statement and risk assessment explanation to their operatives.

20. Health and Safety

To minimise risk and control exposure, our Health, Safety and Environmental Department will give advice at planning stages on all activities and all H&S requirements. H&S is diligently monitored throughout our projects and reported to the main board.

Linden Homes treats safety as a highest priority and has developed a successful programme of initiatives in order to improve Health and Safety awareness and performance on all of our projects. These work by actively encouraging site operatives to think in a manner that assesses personal safety and the safety of others, not only on site but also throughout their lives.

The layout of the site accommodation ensures that all staff, visitors and operatives will have the ability to store and retrieve the correct PPE before entering the construction area. PPE must be worn within the designated areas and a supply will be maintained for visitors.

We undertake regular reviews of training needs for our staff and require the subcontractors to undertake the same approach. We will in conjunction with the subcontractors arrange for any necessary training courses so identified to be held.

21. First Aid

The majority of Linden Homes site management are qualified First Aiders and as a company, we strive to increase the percentage of competently trained site staff. The site will have First Aid attendance at all times. We also expect subcontractors to provide their own first aiders. All first aiders will have clear identification on their hard hats.

22. Fire Safety Plan

A Fire Plan for the site will be established on commencement and this will be monitored and reviewed throughout the life off the project by the appointed Fire Marshall**.** This plan will contain floor plans of all designated escape routes, assembly points and fire station locations together with fire control procedures in accordance with Linden Homes Health & Safety Policy

The office and welfare buildings will be fitted with smoke and/or heat detectors and fire blankets in accordance with Linden Homes' policy requirements.

Fire stations will be provided at designated points containing fire extinguishers and alarm points together with fire action plans and means of escape signage will be provided on all designated escape routes. An assembly point will be established outside the site for all operatives and staff to gather on an alarm.

We will appoint the appropriate number of trained fire marshals to manage the fire drill and escape procedures in accordance with Linden Homes policy.

A Hot work permit system will be operated in accordance with Linden Homes Health & Safety Policy.

Regular Fire Drills will be undertaken throughout the course of the Project.

Fire procedures will be explained in detail at operatives induction and where appropriate during specific Tool Box talks.

23. Notifications

Communications will be initiated to the following authorities:-

- Meetings with Local Planning Authority
- F10 notification served to the Health and Safety Executive
- Meetings with Hertfordshire County Council Highways department
- Liaison with local residents, schools and businesses.
- Notification to the emergency services giving full details of the construction works.

24. Community liaison and good neighbour policy

We pride ourselves on the good rapport we have established with a variety of different neighbouring parties on all our construction schemes and aim to continue this on this development. Our experience of construction within this type of environment has led us to develop an effective system to manage our activities in a proactive and consultative manner to avoid conflicts for the benefit of everyone involved.

Our Site Manager will be appointed to liaise with all local neighbours. He/she will be able to deal with any complaints received and ensure that they are successfully addressed. Any complaints will be advised to our Contracts Manager.

Our Site Manager will be the liaison contact point throughout the project. He will have the ultimate responsibility on site and the necessary authority to direct operations.

Information will be distributed to the neighbours on a regular basis to advise them of our planned operations and any impact they will have upon them.

The members of the public will be able to communicate with us via our dedicated “24/7 hot line”. The number will be posted on our hoarding and distributed to the neighbours in all our regular news letters. We will meet Council Officers when required on site.

We will approach the local schools and community centres to arrange to visit and explain our works to the staff and students. We would also provide health and safety advice.

We will also arrange site visits for the staff and pupils when safe to do so and try and gear our presentation to suit the learning requirements of the school curriculum where possible. We will liaise with Council Officers to maintain community involvement.

Appendix 1 – Site Shutdown Checklist

✓	Item	Description	Frequency
	Excavations	All excavations left in a safe condition?	Daily
	Compound	Secured and lighted when necessary? All services switched off.	Daily
	Plant/Machines	Plant and machinery secured and immobilized.	Daily
	Fencing	Construction area secured with HERAS anti-climb fencing or permanent fencing.	Daily
	Storage Areas	Storage areas secured and material stacked safely.	Daily
	Footpaths and Roadways	Are they secure, clean and properly maintained?	Daily
	Manholes/Raised Iron Works	Make sure they are not a trip hazard or in a dangerous state.	Daily
	Safety Signs	Make sure you have displayed the correct safety signs to warn the public.	Daily
	Lighting	Make sure all your safety/security lighting is working on site and at the Sales Centre.	Weekly
	Lone Workers	Make sure there is nobody left in the construction area on your departure.	Daily
	Water Butts	Secure or drain all water butts before your departure.	Daily
	LPG	All loose LPG cylinders to be secured in the LPG store.	Daily
	Plots	Secure all stock plots and plots under construction, where possible.	Daily
	Spoil Heaps	Make sure spoil heaps are safe. (A favourite for children to play on.)	Daily
	Fires/Hot Works	All fires must be extinguished and any hot work stopped one hour before end of working day. Check all HWP issued and signed off.	Daily
	Diesel Tank	All diesel tanks must be secured. If vandalised by children, where will the spilt diesel go? Spill kits in place with trays.	Daily
	Stand Pipe(s)	Remove stand pipe(s) and ensure the cover(s) have been correctly replaced.	End of working week
	Sales Area Executive	Brief the Sales Executive on health and safety before your departure. Is the sales area safe for the public? Lone worker procedures in place.	Weekly
	Scaffold	Make sure access is denied and there is no risk to passers by or adjoining occupied properties.	Daily
	Meter Boxes	Secure all meter boxes.	Daily
	Mixing Areas	Make sure all mixing areas are left in a safe condition and secure.	Daily
	Plant	Secured and in compound? Within visibility of CCTV (if present)?	Daily
	Site Presentation	Leave the site in a presentable, clean, tidy and safe condition.	Daily
	Thermostats	Make sure all thermostats are set to a reasonable temperature - stock plots, compound and sales.	End of working week
	Skips/Mixers	Empty mini skips, secure waste management/mixing areas and cover skips where necessary.	Daily
	Generators	Secured (where running 24 hours), ensure adequate fuel, emergency procedures explained with key management and breakdown contacts to site security weekend operatives/Manager.	Daily
	Last Item	Lock the gate to the construction area on departure and leave an extra key with the Sales Adviser. Look back! Just in case?	Daily
Site Name			
Checks Completed by		Signed Print name	
Position			
Date			