



Construction Method Statement
Great Wilsey Park
Haverhill
Suffolk
Redrow Homes

St Edmundsbury Borough Council

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Issue	Initial	Date
1	GC	08/12/18

INTRODUCTION

The development was granted Outline Planning Permission (OPP) by St. Edmundsbury Borough Council on 10th October 2017 under reference DC/15/2151/OUT.

The outline planning permission is for the creation of a residential development of up to 2,500 units (within classes C2/C3): two primary schools; two local centres including retail, community and employment uses (with use classes A1/A2/A3/A4/A5, B1 and D1/D2; open space; landscaping and associated infrastructure.

Condition 12 of the planning approval states the following:

“No development shall take place within any phase or reserved matters application, including any works of demolition, until a Construction Method Statement (CMS) has been submitted to, and approved in writing by, the Local Planning Authority. The approved Statement shall provide for:

- I. The parking of vehicles of site operatives and visitors*
- II. Loading and unloading of plant and materials*
- III. Site set-up including arrangements for the storage of plant and materials used in constructing the development and the provision of temporary offices, plant and machinery.*
- IV. The erection and maintenance of security hoarding including external safety and information signage, interpretation boards, decorative displays and facilities for public viewing where appropriate.*
- V. Wheel washing facilities*
- VI. Measures to control the emission of dust and dirt during construction*
- VII. A scheme for recycling / disposing of waste resulting from demolition and construction works*
- VIII. Hours of construction operations including times for deliveries and the removal of excavated material and waste.*
- IX. Noise method statements and noise levels for each construction activity including piling and excavation operations*
- X. Access and protection measures around the construction site for pedestrians, cyclists and other road users including arrangements for diversions during the construction period and for the provision of associated directional signage relating thereto.*
- XI. Surface water management plan detailing how surface water and storm water will be managed on site during construction*
- XII. Identification of biodiversity, hedge and tree protection zones, use of protective fences, exclusion barriers and warning signs.*
- XIII. Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts on habitats and species during construction (this may be provided as a set of method statements).*
- XIV. The location and timing of sensitive works to avoid harm to biodiversity features including but not exclusively site clearance.*

- XV. *The times during construction when specialist ecologists need to be present on site to oversee works. Responsible persons and lines of communication and the role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.*

Overview

The CMS covers specific legislative requirements; compliance with British Standards and general aspects of the construction works potentially affecting local residents and the environment.

The requirement to meet the obligations of the CMS will be placed by Redrow Homes Limited on all contractors through their building contracts. The Principal Contractor for each project, i.e. the contractor with overall responsibility for the construction site and works, will be responsible for ensuring the implementation of the CMS.

In this CMS, the term 'construction' relates to all activities carried out on the site, relating to all intrusive ground investigations, site preparation, excavations, materials delivery, spoil disposal and removal, waste removal and all related engineering and construction activities.

In this CMS the term 'Contractor' will be either Redrow Homes or a nominated contractor / sub-contractor working on their behalf.

The contractor(s) appointed for this scheme shall hold and maintain, for the duration for a project, a CMS certified to the international standard ISO14001. It has been agreed that the system would be adopted for implementation during the construction period.

The CMS would fall within the scope of the Contractor's externally certified international environmental management system, and as such would be subject to regular independent audits by the Contractor's certification body. A draft of the CMS would be circulated to all Statutory Authorities prior to works commencing for information and comments. All works on site would be undertaken in compliance with the CMS.

The CMS will remain in place for the duration of the construction project and the protocol set out in this document will be observed during all construction operations, unless otherwise agreed with St Edmundsbury Borough Council.

The CMS forms part of the overall project management of the scheme's construction and the measures set out will be integrated with relevant environmental and health and safety management processes and legislation.

Structure of this Document

This CMS is set out in the following sections:

- Section 1 provides background information relating to the CMS and its enforcement;
- Section 2 sets out site arrangements such as:
 - Site access
 - Site Management team contact details
 - Hours of working
 - Welfare facilities
 - Car parking provision /temporary hardstanding
 - Site security
 - Traffic Management
 - Community liaison
- Section 3 sets out the minimum standards of construction practice and the mitigation measures for the following:
 - dust and air quality
 - traffic and accessibility;
 - Wheel washing facilities
 - noise;
 - ground conditions / contamination
 - groundwater / surface water management;
 - landscape and visual;
 - ecology / biodiversity
- Section 4 provides details of how the demolition /site clearance will be undertaken
- Section 5 sets out how the contractors employed on site will be registered
- Section 6 provides details on the relevant legislation and guidance applicable at the time of writing.

1.0 Commitment to Standards of Implementation

Redrow Homes Ltd are committed to best practice standards of implementation to ensure safe and secure implementation of the project with the minimum possible environmental harm. These commitments are set out generally in the sections below. Project-specific environmental commitments have been made public in the Sustainability Statements accompanying the planning.

We will closely monitor the environmental and health and safety performance of all sub-contractors subject to compliance with the CMS through all normal electronic and written media, telephone conversation and at least weekly visits.

We will seek remedy within the law in relation to any breach of the requirements of this document by any sub-contractor.

1.1 Sustainable Development Policies

Our aim is to deliver a long term sustainable development in accordance with the respective companies' mission statement. A suite of policies have been developed with the guidance and assistance of stakeholders. Details of the following policies are found within this section:

- Environmental Policy
- Climate Change Statement

1.2 Environmental Policy

Redrow is one of the UK's most successful house builders. As well as maintaining and delivering the highest quality products to customers, we aim to be a responsible business with a focus on positive engagement with other key stakeholders.

This policy focuses on the environmental aspect of responsible business and is the cornerstone of our environmental management system, setting out our broad aims and objectives, complemented by our Climate Change Statement.

1.3 Our over-arching principles are to:

- Limit pollution from our activities
- Comply with current environmental legislation and be proactive in anticipating forthcoming requirements.
- Focus on improving resource efficiency.
- Continually monitor and improve our environmental performance.
- Place environmental issues at the core of our business culture through effective communication of environmental issues, both internally and externally.

More specifically we will:

- Reduce the amount of waste we generate, both through product design and on-site management.
- Reduce energy and water use from our activities.
- Provide a continuous programme of communication, information and training for staff, to ensure that they are aware of their responsibilities and their successes.
- Work with sub-contractors and suppliers to ensure they comply with our policies and help them reduce their impact on the environment.
- Continue our strategy of developing land opportunities involving regeneration of brown field sites,
- Implement procedures to protect and enhance biodiversity.
- Reduce the environmental impact of our homes throughout their design construction, use and final disposal.

We will monitor our progress through the setting and reviewing of objectives and targets and publish an annual environmental performance review.

1.4 Climate Change Statement

Redrow Ltd recognise that there is convincing evidence to support the reality of climate change, and that one of the primary influencing factors highlighted by science is the build-up of “greenhouse gases”, which arise from human activities across the globe.

We understand that we have a part to play in ensuring that our businesses and our products have minimum impact on the environment and climate and that we must work towards reducing reliance on fossil fuels, reducing energy demands, carbon emissions and maximising our efficient use of natural resources.

We are meeting these challenges on a number of fronts, from the perspective of our business activity and our products. In both these areas we are setting performance targets and through the efforts of Redrows dedicated Research and Sustainability Team we are ensuring that all our staff are aware of our aims and can play their own part in reducing the impact of our business on the environment.

Development of our products is a continuous process, with full involvement of the Executive Board and the Chairman.

As the Government’s energy strategy has unfolded, we have undertaken significant and invaluable development work in reducing energy demands in the home, which has informed industry and contributed to the shaping of current and future regulation and standards. We continue to build upon the foundations of this work in all aspects of sustainability, developing solutions to enable our core product to meet the demanding performance levels which move us towards the carbon emission targets of 2016 and through our committed and proactive engagement with Government, related industry task groups, our colleagues in

the industry and through response to consultation. At the same time we strive to deliver the highest quality homes consistent with the demands of our customers.

We understand the value of engagement with our supply chain to ensure that we minimise our environmental impact and expect our suppliers and sub-contractors to demonstrate their commitment to the environment through their own codes of practice. These expectations cover issues such as sourcing of materials, transportation and delivery, packaging, health and safety, workforce competency, training and welfare as well as payment and pricing terms. It is incumbent upon supply chain partners that they are compliant with Redrow's Customer Service and Supplier Service Agreements.

Where possible, we specify products and materials which generate the least environmental impact, including timber from properly managed, certified plantations, key materials from our supply partners closest to specific sites and non-toxic paints.

We have an Environmental Policy underpinned by an Environmental Management System based around the themes of resource efficiency, preventing pollution and ensuring legal compliance which incorporates a robust internal auditing system for all sites, where these issues are examined on a regular and continuous basis and the performance of each of our regional Divisions is reported monthly to the Main Board.

To assist us in targeting improvements in our performance we have committed to set benchmarks in the following key areas which complement our Environmental Policy:-

- Our carbon footprint
- Water consumption in our offices and on our sites
- Waste management and re-cycling
- The products and materials we specify

1.5 Purpose of the CMS

The purpose of this statement is to define the minimum standards of construction practice that are required of the appointed Contractor in so far as they affect the environment, amenity, safety and wellbeing of local residents, the general public and employees of local businesses. It aims to assure local residents and affected parties that potential impacts to the environment will be mitigated in accordance with recognised best practice, guidance and legislative standards.

The CMS will be adopted by the Contractor through discussions with St. Edmundsbury Borough Council and other statutory bodies in particular the Environment Agency. It will apply throughout the construction period.

1.6 Compliance with Relevant Standards, Legislation and Guidance

There are numerous Codes, Standards and Acts of Parliament which cover environmental and related matters and these are referred to as applicable in this CMS. Notwithstanding those references, compliance with this CMS will not absolve the Contractor or its sub-

contractors from compliance with all legislative requirements applicable at the time of construction activities. Wherever this Statement makes reference to Legislation, Standards or Codes it shall be the Contractor's responsibility to ensure that the current versions are used at all times. Examples of key relevant legislation include:

- The Control of Pollution Act 1974;
- Health and Safety at Work Act 1974;
- Environmental Protection Act 1990;
- The Construction (Design and Management) Regulations 2015;
- Management of Health and Safety at Work Regulations 1999;
- Control of Substances Hazardous to Health Regulations 1999.

1.7 Responsibilities and Incident Reporting Procedures

The appointed Contractor will nominate a senior member of staff to supervise the activities on the construction site at all times when the site is operational. The appointed person will be responsible for ensuring the CMS is adhered to and will hold meetings with Redrow, St. Edmundsbury Borough Council and statutory bodies as necessary.

Regular audits would be completed to verify that the project is compliant with the established CMS, contractual requirements and legislation. The project would also fall within the Contractor's ISO14001 Registration and as such would receive regular independent audits by the certification body.

This person must also inform the management teams of any incidents of non-compliance with the CMS as soon as reasonably practicable. Redrow have ultimate responsibility in the event of non-compliance by a Contractor in respect of constructing the development but may apply by contract disclaimers that it would be for a court of law to determine.

The designated person from the Contractor will be the first point of contact for members of the public in the event that there are complaints or disturbance. Contact details should be clearly displayed on hoardings around the site. All complaints must be logged and appropriate action taken within two days. A written response must be provided within 5 days.

Site Arrangements

2.0 Site Access

The overall development site is located to the north east of Haverhill with approved access locations from the A143 (Haverhill Road) to the north and Chalkstone Way to the south. The development site is currently used for agriculture and contains significant areas of mature woodland and a substantial more recently planted tree belt. The site predominantly falls from north and south into a central valley in which an Ordinary Watercourse flows from the north western boundary to the south eastern boundary. The overall site is split into a number of individual fields which are divided by small watercourses and hedgerows / mature trees.

A separate construction access is proposed from Haverhill Road which will serve the northern land parcels and the majority of the Phase 1 infrastructure works. This proposed location is situated immediately to the east of the proposed site access through the vendors retained land. The proposed roundabout site access will be utilised as a sales access / residents access. This arrangement will reduce the conflict between construction vehicles and the public

A similar arrangement is proposed to be implemented for the southern land parcels whereby the development roundabout access from Chalkstone Way will be utilised for sales and residents. A separate access opposite Gannet Close is proposed for construction vehicles. This construction access will serve Redrow parcels A7, A8 and a small section of infrastructure road as well as the whole of the Phase 2 development.

2.1 Construction Overview / Traffic Management

The residential development will be constructed over a number of years. Once the temporary site accesses have been established both permanent site accesses will be constructed. Subsequently it is the intention to construct the primary infrastructure roads from north to south.

To reduce the impact of HGV traffic movement on Chalkstone Way a HGV holding area (with unique post code) is also proposed from the northern construction access which will hold construction traffic and release in a convoy at suitable intervals along Chalkstone Way. This will also ensure that all construction traffic avoids school periods.

A Traffic Management Plan will set out the development's pedestrian and plant segregation and illustrate other key information to all personnel visiting and working on the development.

Pedestrian and cyclist safety around the development will be paramount and as such signage will be situated at entrance and exit points to the site to ensure any traffic entering or leaving the site are aware of potential pedestrians and cyclist.

The contractor shall ensure that a traffic marshal or banksman is utilised when necessary.

2.2 Site Management team contact details

At the time of writing this CMS the Site Manager for the development has yet to be appointed. Until such appointment is made any representations should be directed to the following personnel:

Gary Cheek (Head of Construction –Redrow Homes) – 07990 442681

2.3 Hours of Working

The working hours on site will be as follows:

- Monday to Friday 08:00 to 18:00 hours
- Saturdays 08:00 to 13:00 hours.

No works are to be undertaken on Sundays or bank holidays unless in exceptional circumstances, for example for highway or health & safety reasons. These works where practicable will be agreed prior to being carried out with St Edmundsbury Borough Council.

Where piling works are required these operations will only take place between the hours of 09:00 to 18:00 on weekdays.

2.4 Welfare facilities

Portable cabins providing temporary offices, rest rooms, lockers, showers and toilets will be provided as part of the compound facilities. Also included will be secure storage containers for materials. Plant and machinery will be locked behind secured gates within the compound following the completion of each day. Two separate compounds are proposed; one for the northern development area and the other for southern area. The location and size of the respective compounds are shown on the Build strategy plan provided at Appendix A.

The Contractor shall ensure that the risk of infestation by pests or vermin is minimised by adequate arrangements for the disposal of food waste or other material attractive to pests. If infestation occurs the Contractor shall take such action to deal with it as required by the local authorities.

Hardstanding for contractors car parking will be provided adjacent to the compound facility and HGV holding area. The majority of site personnel will be instructed to utilise the large parking facility to the north adjacent to the HGV holding area to reduce the number of traffic movements on Chalkstone Way. These are shown indicated on the Build Strategy Plan. As a minimum the hardstanding will consist of compacted stone over a layer of geotextile to provide a clean and firm base suitable for cabins and heavy traffic.

On completion of the project, the Contractor shall clear and clean all working areas and accesses as work proceeds and when no longer required for the works.

All surplus soil and materials, plant, sheds, offices and temporary fencing shall be removed when they are no longer required on site

2.5 Site Housekeeping

A 'good housekeeping' policy shall be applied on the site at all times. This shall include, but not necessarily be limited to, the following requirements:

- All working areas to be kept in a clean and tidy condition.
- All working areas shall be no-smoking.
- Open fires shall be prohibited at all times.
- All necessary measures shall be taken to minimise the risk of fire and the Contractor shall comply with the requirements of the local fire authority.
- Audio equipment (radios), other than for communication purposed shall not be operated on site.
- Waste is to be stored in designated and enclosed containers and removed at frequent intervals.
- Toilet facilities will be provided for all site staff.
- Food waste will be removed frequently.
- Working areas will be inspected frequently and Redrow Homes will carry out site inspections at any time without prior notice.
- Boundaries will be inspected regularly and appropriate warning signs erected indicating emergency and out of hours contracts

2.6 Site Security - Fencing and Hoardings

The Contractor shall ensure that all working areas are sufficiently and adequately fenced off from members of the public and to prevent animals from straying on to the working area. Temporary hoardings will be erected as shown on the Build Strategy Plan and will consist of either:

- a wire mesh fence, where appropriate for minimum security needs; or
- a 2.4 m minimum height, plywood faced, timber framed boundary hoarding or other hoarding providing equivalent security and noise attenuation, in the vicinity of noise sensitive neighbours.

All hoardings shall be maintained in a neat and tidy condition and will be regularly inspected for damage and security integrity. Any damage will be repaired without delay. All fencing and hoarding shall be removed as soon as reasonably practicable after completion of works.

Trees as indicated on the Tree Protection Plan will be fenced off in accordance to BS standards BS5837

There are a number of Public Rights of Way (PROW) that cross the development and will remain in operation throughout the construction process. Adequate protection will be provided along the route of the PROW with designated crossing points as required to ensure that members of the public are kept away from the construction area.

2.7 Lighting and Security

Construction equipment and lighting shall be sited so as to minimise visual intrusion and light spillage at nearby residential properties, in so far as is consistent with site safety.

Site lighting shall be positioned and directed to minimise nuisance to residents and disturbance to wildlife.

The Contractor shall comply with the Institute of Lighting Engineers document Guidance Notes on Reduction of Light Pollution (2000) in so far as is reasonably practicable and applicable to the construction works.

Adequate security shall be exercised by the Contractor to prevent unauthorised entry to or exit from the site. Site gates shall be closed and locked when there is no site activity and site security measures shall be implemented. Lighting for security purposes will be sited so as to minimise visual intrusion and light spillage.

2.8 Site Safety

The Contractor shall prepare and maintain a set of Emergency Procedures and Contacts which should be prominently displayed on the site at all times. Such procedures must be followed in the event of a site emergency.

They shall contain emergency phone numbers and the method of notifying emergency services. Copies of the Procedures will be issued to St. Edmundsbury Borough Council, the Fire Brigade, the Police, the Ambulance Service and the relevant statutory bodies.

Special precautions in relation to contaminated material (including asbestos) shall be displayed on a Safety Information Sheet to be prominently displayed in rest/mess rooms and wash rooms covering hygiene, work practices, clothing requirements etc. Further information concerning disposal of contaminated materials is described in Section 3.5.

All site work will be carried out under the provisions of the Health and Safety at Work Act 1974. Health and Safety briefings will be made to all staff before they enter the development, through signage and all workers and visitors will be specific site inducted.

2.9 Community liaison

As noted within section 1.7 the Site Manager will be the first point of contact for members of the public in the event that there are complaints or disturbance. All complaints will be logged and appropriate action taken within two days. A written response will be provided within 5 days where possible.

3.0 MANAGING THE ENVIRONMENTAL IMPACT OF CONSTRUCTION

3.1 Introduction

This section sets out the mitigation measures that are proposed in relation to the development in order to minimise and to manage the potential environmental impact of construction.

3.2 Dust and Air Quality

Measures to reduce the levels of dust and prevent the deterioration of local air quality are included in a CMS as best practice and ensure that levels do not become significant.

Dust

The Contractor shall take all necessary measures to avoid creating a dust nuisance during construction. Best Practicable Means will be used to minimise the creation and emission of dust, the following measures take into account guidance prepared by the Buildings Research Establishment (BRE) on the Control of Dust from Construction and Demolition Activities. These include:

- water suppression or dust extraction technology to be fitted to drilling and grinding equipment;
- where appropriate, drilling and excavation surfaces will be wetted;
- during dry conditions, debris piles will be kept watered as necessary so that no dust nuisance may be caused;
- The orientation, shape and location of any stockpiles are to be controlled to minimise risk of dust rising through wind action.
- suitable measures will be taken during the construction period to prevent the deposition of mud and dirt on the public roads and to prevent the propagation of dust from the site;
- sheeting of lorries during transportation of construction materials and spoil export; and
- all containers will be totally enclosed or covered by tarpaulins to prevent escape of dust or waste materials during loading and transfer from site.
- Maximum speed limit of 6 mph is to be enforced over all unmade surfaces

Local Air Quality

The Contractor shall take precautions to prevent the emission of smoke or fumes from construction vehicles, site plant and stored materials including volatile substances. Vehicles and plant shall be well maintained and measures shall be taken to ensure that engines and motors are not left running for long periods when not in use.

The Contractor shall comply with the provisions of the Environment Act 1995, the Clean Air Act 1993 and the Health and Safety at Work Etc. Act 1974.

The Contractor shall comply with the Control of Substances Hazardous to Health Regulations (COSHH) 1999 and Health and Safety Executive (HSE) Guidance Notes EH 40/90 and EH 40/97 on Occupational Exposure Limits.

The Contractor shall take precautions to prevent the occurrence of smoke emissions or fumes from site plant or stored fuel oils. Plant shall be well maintained and measures shall be taken to ensure that it is not left running for long periods when not in use. There will be no burning of waste on site.

3.3 Traffic and Accessibility

The predicted traffic generation associated with the construction works are not expected to result in significant impacts on existing traffic on the surrounding road network. Nevertheless, a number of mitigation measures will be implemented to minimise the effects of construction traffic movements, particularly HGVs, as far as possible. These include the following:

- Material deliveries and the removal of excavated materials / waste will be restricted, where possible, to non-peak traffic periods and will be scheduled to avoid the school opening / closing times.
- Deliveries to the southern land parcels off Chalkstone Way will be directed to the HGV holding area (with a unique post code) and released in a convoy at suitable intervals along Chalkstone Way.
- All loading and unloading of vehicles will take place under supervision within the site.
- There will be sufficient space for HGVs to turn around within the site and exit in forward gear. In the unlikely event that it is necessary for a vehicle to reverse out of the site, this manoeuvre will be overseen by a qualified marshal working from a position outside the vehicle.
- Scheduled construction shift times will be outside of normal weekday peak traffic periods where possible to minimise potential traffic impacts on the surrounding road network;
- where possible, heavy and special loads, will be delivered to the site during off peak hours subject to agreement with the Council and providing this does not give rise to additional levels of construction noise;
- materials and equipment will be stored securely on site to minimise unnecessary traffic movements;

- The Contractor will ensure that delivery and construction vehicles do not park on, or obstruct the highway;
- The contractors will have Parking on Site and visitors will utilise the dedicated sales car parking provision. Contractors will be encouraged to introduce car sharing schemes, to encourage the use of bicycles and to provide secure cycle storage, and shower facilities and to provide up to date information on public transport services
- Vehicle access will be controlled using a gateman / Banksman who will be responsible for the vehicle movement in and around the gate area when deemed necessary.

Specific measures relating to mud on roads will be implemented across the site, these include:

- The provision of easily cleaned hardstanding's for vehicles entering, parking and leaving the site;
- The provision of wheel washing facilities; a drive through wheel wash will be provided adjacent to the entrance/ exit of the northern and southern construction accesses. These are shown on the Build Strategy plan. Once the vehicles have driven through the wheel wash, wash sludge will pass to a recycling tank with the solids typically sinking to the bottom of the tank leaving the wash water for continued use in washing vehicles. The settled solids will be periodically removed from the tank and removed from site.
- The Gateman will sweep the road immediately of any loose debris,
- The routine use of a mechanical road sweeper to clean the site of hardstanding and any mud or debris deposited by the site vehicles on roads or footpaths in the vicinity of the site.
- The adequate sheeting of each lorry load of spoil removed, to prevent spoil falling off during its journey.

A photographic survey will be undertaken prior to commencement of the works to identify the existing highway condition of Chalkstone Way across the development frontage and to the extent of the proposed visibility splays. This will be submitted to the Highways Engineer at Suffolk County Council for information and review. Following completion of the Redrow development works should any degradation of the existing surfaces within this extent be noted then Redrow will remediate as required.

The local residents / public will be kept informed of any site activities that may affect them (i.e.) Footpath Closures and temporary diversions with leaflet drops. The Hoarding will also display a contact telephone number in the case of Emergency or general information requirements.

3.4 Noise and Vibration

Unacceptable impacts arising from construction noise are not expected on the site. In general, 'Best Practicable Means' as defined in Section 72 of the Control of Pollution Act, 1974 will be employed to minimise noise and vibration, furthermore, the guidance provided in British Standard 5228-1:2009 - Code of practice for noise & vibration control on construction & open sites-Part 1: Noise will be followed. Such measures control the noise at source by using effective acoustic enclosures, screens and barriers and ensuring regular maintenance of vehicles. The following measures will be implemented:

- Agreed working hours will be 08:00 to 18:00 hours Monday to Friday and 08:00 to 13:00 hours on Saturdays, with no works taking place on Sundays or bank holidays.
- The Contractor will use only the most environmentally acceptable and quietly operating plant and equipment compatible with the safe and efficient execution of the works.
- Noise emitted by plant items should not exceed the limits quoted in either the relevant EC Directive, UK Statutory Instrument or BS 5228-1:2009.
- Items of plant operating on site will be shut down in intervening periods of use.
- Compressors brought onto the site will be silenced or sound reduced models fitted with acoustic enclosures.
- All pneumatic tools will be fitted with silencers or mufflers
- The excavation and demolition of the onsite buildings / site clearance will, wherever possible be undertaken without pneumatic breakers; hydraulic attachments will be used in preference to breakers. Where the use of impact hammers is necessary, their attachment to larger and heavier excavators can often reduce the level of vibration.
- Care will be taken during the erection of scaffolding to avoid impacts from banging steel.
- Deliveries will be programmed to arrive during working hours only. Care will be taken when unloading vehicles and construction vehicles will be routed on major roads only.

In addition, liaison with the Environmental Health Officer at St Edmundsbury Borough Council will be maintained throughout the construction period.

3.5 Ground Conditions

General

All materials used in the construction must be of clean, inert composition. No material that may be a source of significant potential contamination must be introduced into the site.

If during development, in areas where contaminated land may be present, the ground must be engineered in such a way as to minimise risk to potential receptors (humans, animals and plants). This may require the removal of contaminated material to a location where it can be safely treated, in situ treatment/remediation or encapsulation in accordance with a remediation strategy.

Contaminated Land

A Geo-Environmental Desk Study and Site Investigation Report has been produced which researched the history and reviewed data for the site and the surrounding area in order to identify factors that may impact on any proposed site development for residential uses.

The conceptual site model and preliminary risk assessment identified herbicides / pesticides (including DDT and dieldrin), localised spillages of fuel from machinery and historically imported / fly tipped material as potential contamination sources. However, the chemical analysis undertaken as part of the strategic phase 2 ground investigation did not identify any concentrations of contaminants above the relevant critical levels. The report therefore indicates that the contamination linkages to vulnerable receptors to be low to negligible.

In the unlikely event of ground conditions being encountered during the excavation phase of construction that are suspected to contain localised contaminated sources then work in the particular area should cease immediately. The situation should then be reported to the geotechnical consultant who will arrange for the material to be sampled and analysed to confirm the most appropriate course of action.

The risk to construction works can be mitigated through adequate personal protective equipment and compliance to the various policy and legislation.

The contractor will comply with the provisions of the Environmental Protection Act 1990, and the Special Waste Regulations 1996 (as amended). The removal and disposal of contaminated materials will be conducted under a strict consignment note system. Disposal sites will be agreed with the Environment Agency.

The Environmental Protection Act 1990 (s.34) imposes a Duty of Care on any person who produces, imports, carries, keeps, treats or disposes of controlled waste. The Contractor will comply with this duty as set out in the Waste Management; the Duty of Care - Code of Practice March 1996.

The contractor will comply with the Control of Substances Hazardous to Health Regulations (COSHH) 1999 and HSE Guidance Note EH 40/99, Occupational Exposure Limits 1999, to ensure that contaminated excavated materials are handled and disposed of safely and properly.

In undertaking work on contaminated sites, useful information concerning the safe operation and redevelopment of contaminated sites may be found in HS(G)66 Protection of Workers and the General Public during the Development of Contaminated Land 1991. Precautions include:

- Protective clothing including overalls, hand protection, head protection and safety boots to be worn at all times;
- If it is necessary to remove contaminated material from site, then lorries or skips used for the removal of the material should be fully covered.
- Detailed records of disposal should be discussed and agreed with the Environment Agency. Only licenced skip providers will be utilised on this project and all waste will be disposed at licenced waste disposal sites.

3.6 Groundwater

Construction methods employed within the scheme will be designed to prevent significant short-term and residual impact to both the groundmass and groundwater conditions on the site. Where sub-surface structures are constructed, such as piles, the techniques employed should be developed in accordance with the guidance provided in National Groundwater and Contaminated Land Centre report NC/99/73, Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution and Prevention. The results of the site investigation will be taken into account to ensure that the most appropriate method of construction is designed.

3.7 Surface Water Management

Prior to the commencement of works the Principal Contractor will provide a method statement detailing the control measures to be implemented to manage the groundwater / surface water run-off during the construction period to prevent the siltation of the drainage systems (direct and indirect discharge).

The roads and drainage on the development are to be established as primary works to retain surface water overland flow in exceedance events.

In addition the following measures are proposed in accordance with Environment Agency Pollution Prevention Guidelines (PPGs). Pollution Prevention Guidance comprises a set of guidance notes aimed at providing developers and contractors with a set of best practice methods to minimise impacts on the water environment, specifically PPG5: Works in, Near or Liable to Affect Watercourses.

- The Environment Agency will be notified in advance of all works to allow pollution prevention and emergency procedures to be agreed.
- Exposed ground and stockpiles will be minimised to reduce silty runoff - if necessary, geotextiles will be used to shield spoil mounds.
- Concrete, cement and silt laden run off will be prevented from entering the watercourses and stockpiles of materials will be kept away from river and canal side locations.
- Spill kits etc. will be available in the unlikely event of a spill, and site personnel will be trained in their use.
- Potentially contaminative liquids such as oils and lubricants will be stored in bunded and lockable oil storage tanks, with hoses and gauges kept within the bund; the capacity of the bund will be equal to 110% of the storage tank volume.
- Adequate provision for the collection, treatment and disposal of sewage from site offices and accommodation should be provided.
- Earth moving operations that have the potential to give rise to contaminated drainage will be undertaken in compliance with British Standard Code of Practice for Earthworks, BS 6031, 1987.

3.8 Landscape and Visual

To reduce landscape and visual impacts throughout the construction phase, the following mitigation measures will be implemented:

- materials and machinery will be stored tidily during the works - tall machinery will not be left in place for longer than required for construction purposes, in order to minimise its impact in views;
- lighting of compounds and works sites will be restricted to agreed working hours and that which is necessary for security;
- roads providing access to site compounds and works areas will be maintained free of dust and mud, as will the access road to the south of the site;
- contractors' compounds will be located away from sensitive receptors eg nearby residential properties, watercourses';
- on completion of construction works, all remaining construction materials will be removed from the site; and

3.9 Ecology and Nature Conservation

To ensure potential impacts on terrestrial ecology and biodiversity are reduced to a practical minimum protection and mitigation will be undertaken strictly in accordance with the recommendations contained in the Biodiversity Monitoring Strategy and Ecological Implementation Strategy Mitigation prepared by Ecology Solutions and submitted to the LPA relative to the approval of conditions 42 and 45. This document can be found at Appendix B.

3.10 Site Waste Management Plan

Redrow Homes

For the residential development Redrow will establish a dedicated Waste Management Coordinator (the Site Manager) who will be tasked with overseeing the removal of all waste from site. A recycling regime for materials and packaging will be put in place to achieve a minimum of 80% recovery. The waste management coordinator will compile a report quantifying the materials recovered.

It is planned that site waste will be reduced through segregation and recycling.

Redrow intends to segregate the following materials in the material recovery programme;

- Wood
- Brick and Rubble
- Metal
- Plasterboard
- Mixed Waste
- Hazardous Waste

Dedicated skips will be provided for the collection of the listed materials about the site.

All contractors working on the site will be supplied with refuse bins by waste management coordinator. Once the bins are filled the waste management team will consolidate the waste and remove it from the site.

The consolidated waste will be collected from site by licensed waste carrier. Waste materials fall into three categories for management, these are;

- Reuse
- Recycle
- Landfill (disposal)

Reused – If surplus materials can be used in the permanent works they are classified as materials, which have been reused. If they are surplus to requirements and need to be removed from the site and they can be removed and used in their present form, they can be

removed from the site for subsequent reuse. For example the material from any hardstanding's could be reused as crushed material for roads onsite.

Recycling – if a surplus material cannot be reused in its present form but could be used in a different form, it is sent for recycling. An example is recycled timber to make chipboard.

Landfill – If either of the above cannot be satisfied then the only option left is to send the waste materials to landfill. Landfill is only a last resort.

Waste certificates will be collated for all waste deposited at Environmentally Controlled Waste Reception Centres. Copies of all waste transfer notes will be kept for two years. Records will be gathered about the waste gathered on site including volume, type and cost - including how it was packaged, when it was transferred, where it went to and who it was transferred to. These are all requirements of the duty of care.

Any hazardous waste that is removed from the site will be monitored and tracked to record compliance with the site waste management plan.

Site Security: Redrow Homes Limited will take reasonable steps to ensure site security measures are in place to prevent the illegal disposal of waste.

Monitoring: Skips need to be monitored continuously to ensure that contamination of segregated waste does not occur. During this monitoring we will regularly update on how the waste management system is working.

A record will be kept to continually review the type and amount of surplus material being produced and where possible/practical alter the site set up to maximise on reuse or recycling to maintain the use of disposal as a last resort.

The plan shall be communicated to the whole project team prior to commencement and at every revision stage. Business wide updates including the KPI'S (Key Performance Indicator's) will be communicated and discussed at Management meetings.

4.0 DEMOLITION / SITE CLEARANCE AND WASTE PROTOCOL

There are no existing structures at the site, so demolition works are not required. The site will be cleared to facilitate the proposed scheme development shown on approved drawings.

As set out in Redrow's environmental policy Redrow will aim to reduce the amount of waste we generate, both through product design and on-site management. Any waste that is produced through the construction of units will be carefully segregated and recycled wherever possible and where it cannot be recycled it will be disposed of in the correct manner.

We will set up a waste management plan for this development which will monitor and record all waste movement.

5.0 CONSIDERATE CONSTRUCTORS SCHEME

The site will be registered under the Considerate Constructor's Scheme; it is Redrow's aim to exceed the standard level of considerate constructors. Details of the scheme registration number and site manager contact details will be displayed at the site entrance.

The Site Code of Considerate Practice forms the basis of all the Scheme's requirements. Which include;

Considerate: All work is to be carried out with positive consideration to the needs of traders and businesses, site personnel and visitors, and the general public. Special attention is to be given to the needs of those with sight, hearing and mobility difficulties.

Environment: Be aware of the environmental impact of your site and minimise as far as possible the effects of noise, light and air pollution. Efforts should be made to select and use local resources wherever possible. Attention should be paid to waste management. Reduce, reuse and recycle materials where possible.

Cleanliness: The working site is to be kept clean and in good order at all times. Site facilities, offices, toilets and drying rooms should always be maintained to a good standard. Surplus materials and rubbish should not be allowed to accumulate on the site or spill over into the surroundings. Dirt and dust from construction operations should be kept to a minimum.

Good Neighbour: General information regarding the Scheme should be provided for all neighbours affected by the work. Full and regular communication with neighbours, including adjacent residents, traders and businesses, regarding programming and site activities should be maintained from pre-start to completion.

Respectful: Respectable and safe standards of dress should be maintained at all times. Lewd or derogatory behaviour and language should not be tolerated under threat of severe disciplinary action. Pride in the management and appearance of the site and the surrounding environment is to be shown at all times. Operatives should be instructed in dealing with the general public.

Safe: Construction operations and site vehicle movements are to be carried out with care and consideration for the safety of site personnel, visitors and the general public. No building activity should be a security risk to others.

Responsible: Ensure that everyone associated with the site understands, implements and complies with this Code.

Accountable: The Considerate Constructors Scheme poster is to be displayed where clearly visible to the general public. A site's contact details should be obvious to anyone affected by its activities.

6.0 RELEVANT LEGISLATION, STANDARDS AND GUIDANCE

Legislation

- The Control of Pollution Act 1974
- Health and Safety at Work Act 1974
- Wildlife and Countryside Act 1981
- Environmental Protection Act 1990
- Water Resources Act 1991
- Clean Air Act 1993
- The Construction (Design and Management) Regulations 2007
- Special Waste Regulations 1996 (as amended)
- Management of Health and Safety at Work Regulations 1999
- Control of Substances Hazardous to Health (COSHH) Regulations 1999
- Pollution Prevention and Control (England and Wales) Regulations 2000
- Countryside and Rights and Way Act 2001
- Traffic Regulations and General Direction 2002 (as amended)

Standards

- BS 5228-1:2009 - Code of practice for noise & vibration control on construction & open sites-Part 1: Noise
- BS 5837 – Guide for Trees in Relation to Construction
- BS 6031 – Code of Practice for Earthworks
- BS 6472 – Guide to Evaluation of Human Exposure to Vibration in Buildings
- DoE Advisory Leaflet 72 – Construction Noise Limits Applicable at Residential Locations During daytime hours.

Guidance

- Building Research Establishment – Control of Dust from Construction and Demolition Activities
- Environment Agency Pollution Prevention and Guidance Notes
- National Planning Policy Framework (2012)
- PPG01 – General Guide to Water Pollution Prevention
- PPG02 – Above Ground Oil Storage Tanks
- PPG05 – Works In, Near or Liable to Affect Watercourses
- PPG21 – Pollution Incident Response Planning
- PPG24 – Planning and Noise
- BS5228: Part 1: 2009 – Noise control
- HSE Guidance Notes EH40/90 and 40/97 – Occupational Exposure (1999)
- HSE Guidance Note MS 13 – Asbestos (1991)
- HSE Guidance Note HS(G) 66 - Protection of Workers and the General Public during Development on Contaminated Land (1991)
- Lighting Engineers - Notes on Reduction of Light Pollution (2000)

- National Groundwater and Contaminated Land Centre Report NC/99/73 – Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination; Guidance on Pollution and Prevention

APPENDIX A

BUILD STRATEGY PLAN

APPENDIX B

Biodiversity Monitoring Strategy and Ecological Implementation Strategy Mitigation by Ecology Solutions