

# Construction Environmental Management Plan

## St Athan Road, Cowbridge

July 2022



## CEMP for a Proposed Development at:

St Athan Road, Cowbridge

### Issue and Revision Record

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## 1. INTRODUCTION

### *Background*

*This site specific Construction Environmental Management Plan (CEMP) has been prepared in support of a planning application for 105 residential dwellings at St Athan Road, Cowbridge*

*This CEMP includes the following:*

- General Construction Site Information;
- Construction Programme;
- Construction Traffic Management Plan;
- Storage & Compound Details;
- Fencing, Security & Site Hoarding Details;
- Noise & Vibration Management Plan;
- Dust, Emissions & Odours Management Plan;
- Cementitious Materials Controls;
- Lighting Management Plan;
- Contaminated Material Plan;
- Construction Drainage Plan;
- Green Infrastructure Plan;
- Site Waste Management Plan; and
- Contacts & Complaints.

*The overall objective of this CEMP is to ensure that, throughout the construction period, any disruption is kept to a minimum.*

## 2. GENERAL CONSTRUCTION SITE INFORMATION

### *Health & Safety*

*Redrow Homes takes the task of building new homes and the resulting obligations for the welfare of staff, contractors, occupiers and local residents very seriously.*

*We have developed a comprehensive suite of General Environmental Standards (GSTAN) and Process Environmental Standards (PSTAN) which provide guidance on mandatory legislation and best site practice to support construction in the planning and build phases. All activities on site must comply with the Redrow Environmental Standards.*

*The Site Manager will be responsible for the implementation of the GSTANs, PSTANs and CEMP and will be overseen by the Area Construction Manager. They will be communicated to all site personnel including contractors, sub-contractors and visitors during the Health & Safety induction when first entering the development. The induction will inform them of the requirement to sign in and sign out daily and informs the person(s) of the works which are being carried out on a day to day basis on the development, and all inductees will be appropriately trained and checked to ensure that all relevant HSE requirements have been complied with. This includes checks on the validity of CSCS cards, driving licenses, plant operator's licenses, training certificates, and the provision of correct PPE equipment.*

*Periodic tool box talks will also be undertaken that highlight the need for good working practices to prevent pollution and harm to the environment during construction and any health and safety issues that may arise on site.*

*Redrow Homes' own internal health & safety advisers will also carry out periodic site inspections and produce written reports of their findings.*

*All sub-contractors must submit risk assessments and method statements for their individual activities, plus any licenses or permits to work required for daily activities.*

*All statutory inspections are recorded on the relevant forms, with the standard F10 HSE notification of site start already submitted to the relevant authorities as required under current CDM procedures.*

*A minimum of one fully trained First Aider will be available at the times and First Aid kits will be available on site. Directions to the nearest A&E Hospital department will be displayed in both the site office and welfare facilities. All trades will be required to supply RAMS which will be checked by our health and safety consultant prior to them commencing work on site.*

### *Emergency Procedures*

*At the project planning stage, it is essential to think through the possible incidents and emergencies which could arise during construction works and plan accordingly via risk assessments and an emergency response plan.*

*The emergency response plan will be communicated to all site staff at site induction and will include pollution incidents such as spillages, failure of temporary works, bank collapse, vandalism and fire or extreme weather events such as heavy rainfall, flooding, severe frost and snow.*

*Site staff responsible for taking action in emergencies must be aware of their responsibilities and trained to use the necessary equipment such as spill control equipment and shut-off valves.*

*In an emergency, Natural Resources Wales can also be contacted on 0300 065 3000.*

### *Considerate Constructors Scheme*

*The site will be registered with the Considerate Constructors Scheme (CCS). Contact information will be placed on display boards at the site entrance along with CCS banners. The site will adhere to conform to the CCS compliance scoring scheme.*

### 3. CONSTRUCTION PROGRAMME

#### *Site Stage*

*The project has a number of distinct stages as follows:*

#### *Site Set Up & Enabling Works*

- Erect secure perimeter fence & any tree & hedgerow protective fence;
- Set up site compound;
- Site strip/clearance work;

- Site Start

- Form site access, install drains & services & construct main road to base course;
- Build-out site;

- Site Close

- Removal of compound, perimeter fence & any tree & hedgerow protective fence.

*A Construction Phasing Plan is included in Appendix A.*

#### *Duration & Timing of Works*

*The project has a duration of approximately 3 years from commencement of build.*

*The core working hours in keeping with accepted industry standards will be 0800 to 1800 Monday to Friday and 0800-1300 on Saturdays. There will also be no Sunday or Bank Holiday working for plant and machinery.*

*However, in order to maximise productivity within the core working hours, start-up and close-down periods of up to an hour before and after core working hours may be used for activities such as arrival of workforce and staff; deliveries and unloading; movement to place of work; maintenance and checking of plant and machinery; general refuelling; site inspections and safety checks prior to commencing work; site meetings; and general site clean up and departure.*

*It will not include operation of plant or machinery likely to cause a disturbance. These periods will not be considered an extension of core working hours.*

## 4. CONSTRUCTION TRAFFIC MANAGEMENT PLAN

### *Site Operation*

*All construction traffic entering and leaving the site will be restricted to normal working hours which will be 0800 to 1800 on weekdays and 0800 to 1300 on Saturdays (there will be no working on Sundays or Bank Holidays except for internal trades). There will be no public access to the construction area.*

*However, in order to maximise productivity within the core working hours, start-up and close-down periods of up to an hour before and after core working hours may be used for activities such as arrival of workforce and staff; movement to place of work; maintenance and checking of plant and machinery; general refuelling; site inspections and safety checks prior to commencing work; site meetings; and general site clean up and departure. For clarity this does not include consideration to deliveries which is covered under 'Deliveries' below.*

*Speed limit signs and warning signs will be erected on site restricting the site speed limit as per Redrow site rules due to the large amount of activity and heavy machinery likely to be present on site at any one time.*

*A Construction Management Plan is included in Appendix A.*

### *Deliveries*

*Vehicles making deliveries to the site will be carefully planned by the site manager to avoid peak traffic periods and the 'backing up' of lorries through the effective co-ordination and storage of materials to minimise unnecessary deliveries.*

*At no point will offloading take place on the existing highway network.*

*Upon arrival at site, the site manager will arrange for a banksman to guide the delivery safely on to site where necessary and 'Caution Construction Vehicles' signs will be erected on the approach roads to the site entrance.*

*The loading area will be clear of vehicles and materials before the next delivery arrives, engines will not be kept idling and drivers will stay with their vehicles at all times.*

*Vehicles will be able to turn on the development minimising the necessity to reverse out onto the highway.*

*Vehicles collecting waste material skips from site will also be carefully planned and will be covered with sheeting or netting prior to leaving the site.*



### *Construction Vehicles*

*Where practical, construction traffic will be separated from resident and visitor traffic and site construction vehicles will only be operated by those people who have received the relevant training, have produced a copy of their certificates of competency and are authorised to use the vehicle/plant. They will also be inspected, tested and serviced to ensure that they comply with relevant regulations and a regular maintenance schedule will be followed to ensure that they are running correctly. Where construction vehicles are operating or being used on roads or other areas where the public have access, roof beacons and headlights must be used.*

*Where construction vehicles are operating or being used on roads or other areas where the public have access, roof beacons and headlights must be used.*

*A telehandler will be used to transport superstructure materials around the site and a speed limit will be strictly enforced as per Redrow site rules.*

*Where specific hazards may produce additional risks to traffic movements, a physical barrier will be put in place.*

*A number of different vehicles will be used during construction as illustrated in Appendix B.*

### *Parking*

*During construction, designated site operative parking will be located within the site.*

### *Sustainable Transport*

*The promotion of more sustainable modes of transport will be encouraged to and from site.*

*Car/van sharing will be encouraged for all where safe (post Covid-19) and practical to do so. For example, certain contractors that operate in 'gangs' such as brick layers and roofers are requested to travel to and from site in shared vans.*

*Secure cycle parking facilities will be provided within the site. Within the welfare facilities provided on site details will be displayed of the nearest bus stops and bus routes that operate to and from the Cowbridge area.*

### *Pedestrians*

Once occupations commence and in relation to the public right of way that passes through the site pedestrian traffic will be separated from plant and vehicles and dedicated segregated pedestrian walkways with appropriate signage will be provided across the part of the site that is currently under construction for all site operatives and visitors. Footpaths will also be constructed at the earliest opportunity to provide clear walkways around the development for use during and post construction.

### *Wheel Washing and Road Cleaning*

*The construction sequence of the site will be phased to ensure that the roads are constructed as early as practicable in order to provide a clean, solid running surface throughout the development that can be easily maintained.*

*A jet wash will be positioned at the site entrance for use at all times and a road sweeper will also be used where necessary to clear off any debris, dirt and nuisance material inadvertently tracked out of the site area onto local roads. These vehicles can rapidly attend site and commence cleaning very quickly and so will be available to increase frequency if conditions require.*

*In addition, a road brush will be permanently on site during periods of muck-shifting and will be specifically tasked with maintaining the cleanliness of both the local public highway and estate roads.*

### *Site Occupations*

*Prior to occupation, residents will be informed of the possible dangers of living on a construction site and any construction traffic needing to gain access through an area where dwellings are occupied will adhere to the speed limit and respect the residents.*

## 5. STORAGE & COMPOUND DETAILS

### *Compound*

*The construction site will be fully secured and managed from the site office within the site compound.*

### *Materials Storage*

*General materials will be stored safely and securely in designated areas of the compound after careful consideration of the position of existing properties with material set-down points as required and forklifts utilised for material delivery, handling etc. where necessary.*

*Materials such as bricks, blocks, concrete rings, steels, timber and any similar materials that require stacking must be stacked on a good firm level base to prevent any unwanted movement of the materials.*

*Bricks and blocks must not be stored more than two packs high; this will reduce the risk of packs accidentally tipping. Only good sound pallets that are the correct size for the packs must be used. Space must be allowed for machines to move between the packs to prevent the machine displacing any part of the loads or packs. A stacking area must be provided away from public access and, if possible, be fenced off.*

*Concrete rings that are large in circumference and narrow in width must be laid flat so they cannot be moved or rolled by any person, especially children.*

*Timbers must be de-nailed and stacked in a manner so that they cannot be easily displaced. Packing should be used underneath the stack so that forks or slings can be used to reposition them at a later date.*

*Steel/reinforcement bars must be stacked in an area adjacent to the works to reduce the amount of handling and carrying. Timber packing must be used underneath steel; this will allow for forks and slings to be positioned for the next movement and help to prevent accidental slips of the materials.*

### *Waste*

*Waste is to be removed from storage as it is produced. Incoming deliveries will be controlled to match production & available space. Any surplus materials will be returned to storage area(s) and not left around site. Restock surplus materials to be returned from site in good order.*

### *Liquids & Fuels Storage*

*Liquids and fuels including diesel fuel will be stored in a double bunded tank in an impermeable bund with petrol stored in suitable containers. Locks and valves will be used to prevent spills, there will be a designated re-fuelling area with sanded drip catchment and, in the unlikely event of a spill, the relevant incident response procedure will be followed. Spillage kits and sand will also be available on site and additional grips and bunds will be formed as required.*

*There will be a weekly check of all containers, secondary containment systems, pipework and other ancillary equipment as well as annual inspections and services carried out by a qualified technician.*

### *Plant*

*At the end of the day, mobile plant will be parked and made secure, the ignition key removed, the cab locked and any windows and covers closed.*

## 6. FENCING, SECURITY & SITE HOARDING DETAILS

### *Fencing*

*Secure fencing will be erected around the site boundary and the part of the site currently under construction with access to the construction site restricted to normal working hours which will be 0800 to 1800 on weekdays and 0800 to 1300 on Saturdays (there will be no working on Sundays or Bank Holidays except for internal trades).*

*Protective tree/hedgerow fencing will also be erected where necessary, see Chapter 13 - Green Infrastructure Plan for more details.*

### *Security*

*The fencing around the part of the site currently under construction will prevent any access from members of the public to the construction site and ensure that the occupied areas of the development are separated from the areas under construction with signs clearly defining the boundary of where the construction site begins.*

*The fencing will be checked regularly to ensure it is in sound condition and records kept.*

### *Site Hoarding Details*

*If the site is registered with the Considerate Constructors Scheme (CCS), display boards and banners will be displayed at the site entrance.*

## 7. NOISE & VIBRATION MANAGEMENT PLAN

### Noise

*The processes anticipated for the construction of the site do not present a significant continuous noise nuisance but there will be some low to medium level continuous noise nuisance during construction of the proposed development.*

*As a result, Redrow Homes will, as far as reasonably practicable, control and limit noise and vibration levels generated during construction so that affected properties and other sensitive receptors are protected from excessive noise and vibration levels associated with construction activities as summarised in Table 7.1 below.*

Activity	Noise Potential	Mitigation Measures
Plant & Machinery	Medium	<ul style="list-style-type: none"> <li>• Working hours to be observed.</li> <li>• All plant used on site will be maintained in good and efficient working order and electrically powered plant will be preferred, where practicable, to mechanically powered alternatives. It will be operated so that noise including reversing alarms and exhaust emissions are minimised, as far as reasonably practicable, through the use of acoustic enclosures &amp; silencers;</li> <li>• Any plant with defective noise control equipment will not be operated until repaired.</li> <li>• Machines in intermittent use should be shut down or throttled down to a minimum during periods between work.</li> <li>• Bolts to removable covers to be kept tight to prevent rattling.</li> <li>• Hinged access panels to be closed in operation and rubber inserts fitted to prevent rattling.</li> <li>• Silos to be used instead of diesel mixers wherever possible.</li> </ul>
Deliveries	Low	<ul style="list-style-type: none"> <li>• Deliveries will only be made during site operating hours, unless otherwise agreed with the Local Planning Authority.</li> </ul>

**Table 7.1: Noise Mitigation Measures**

*The Site Manager will plan activities with noise control in mind with plant being positioned with consideration to adjoining properties and liaison with local residents undertaken to ensure that they are kept informed of site activities by mail drop if necessary. The Site Manager will also facilitate access to the site at all reasonable times for inspection and/or noise measurements by Local Authority Environmental Health Officers.*

*The noise emitted from fixed plant and equipment on the site will be in accordance with the manufacturer's instructions and meet the relevant British Standard as a minimum if necessary.*

*Generators will be used within the site compound for welfare and silo supply during working hours but will be silenced and operated on timed hours through the use of hybrid battery systems to minimise any impact on surrounding neighbours. Small portable generators, which are quiet, will also be used in plots by labourers during working hours.*

### *Vibration*

*Nuisance from vibration can be caused by compaction activities and rock breaking and so the site has been engineered with regards to levels to minimise rock breaking where possible and compaction plant will be selected to reduce the effects of vibration on adjacent properties.*

*Vibration rollers will also only be used for short periods where possible and will be turned off when not in use.*

*Furthermore, given the ground conditions on site, it is unlikely that vibration will resonate outside the immediate work areas and will therefore not affect neighbouring properties.*

*Where complaints of excessive vibration are received, consultation with the affected property owners and other neighbours will be undertaken to identify if additional mitigation can be achieved.*

## 8. DUST, EMISSIONS & ODOURS MANAGEMENT PLAN

### *Dust*

*The processes anticipated for the construction of the site do not pose a long term threat to air quality but there is likely to be some localised impacts during certain construction activities such as demolition.*

*Complaints can also be avoided by adopting good working practices:*

- Identify sensitive receptors and inform the authorities of any likely nuisance that may occur;
- Instigate control measures to mitigate any negative impacts; and
- Develop a monitoring regime to record dust conditions while noting weather conditions, construction activities, their location and duration on site.

### *Dust Suppression*

*Roads and footpaths will be constructed to base course as soon as practicable; the length and width of haul roads will be minimised to reduce the surface area; heavily used areas will be paved and swept regularly; vehicles movements will be minimised and they will stick to the site speed limit as slower speeds generate less dust.*

*All vehicles likely to cause dust will be suitably covered and a maximum speed limit as per Redrow site rules will be imposed and signposted on both surfaced roads and unsurfaced haul roads and work areas. They will also have their wheels cleaned before leaving site if necessary.*

*The location of the site compound is such that machinery and dust causing activities are located away from receptors as far as possible; waste skips will be enclosed or covered; the use of cutting, grinding or sawing equipment will be used as a last resort and in conjunction with suitable dust suppression techniques; and bulk cement and other fine powder material deliveries will be in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.*

*Stockpiles will be sealed to prevent wind whipping.*

### *Damping Down*

*Dust will be controlled by damping down with hoses or bowsers as required in unpaved work areas and areas subject to traffic or wind. Fine spraying of water is the most effective way to suppress dust with regular repeat spraying, especially during windy and sunny weather when water will evaporate quickly, whilst minimising run-off into drains and watercourses.*

### *Monitoring Regime*



*A monitoring regime will be in place which will note weather conditions, construction activities and their location and duration on site.*

#### *Emissions & Odours*

*Plant and machinery is to be correctly maintained to reduce exhaust emissions; unnecessary running is to be avoided; low sulphur/unleaded fuel to be used; and where possible, fixed plant is to be positioned away from site boundaries and occupied areas.*

*No burning of waste materials is to occur on site.*

*Consideration will be taken when planning activities likely to emit aerosols, fumes, odours or smoke, such as painting and adhesive operations, as to where venting will be located so as to minimise the disruption for neighbours.*

*Site toilets will be positioned so effluent tanks are as far away from occupied dwellings as possible.*

*No other processes are anticipated that will emit noxious odours or airborne pollutants and, in the unlikely event complaints are received of this nature, Redrow Homes will work with the Environmental Health Officer at the Local Authority to mitigate/minimise any emissions.*

## **9. CEMENTIOUS MATERIALS CONTROLS**

### *Method Statement*

*Cement bags will be sealed after use to prevent leaks and dust. Large areas of concrete will be swept down to reduce the dust present. Concrete, cement and mortar materials will be stored away from any watercourses or drains. The COSHH procedures will be followed by those working with cementitious materials to reduce the risks to health.*

## 10. LIGHTING MANAGEMENT PLAN

### *Construction Lighting*

*By adhering to the working hours mentioned above, there will be no night working and so the need for site wide lighting will be avoided and any external artificial lighting, which will be restricted to the site entrance, compound, welfare facilities, parking areas and fuel and plant storage areas, during low light periods at the start and end of the working day, will be angled down to prevent unnecessary light pollution and nuisance.*

*Lights will be visible on all construction vehicles in order to provide awareness and visibility to people when moving around the site.*

*Certain operations will require task lighting, but this will not cause a nuisance to occupiers and, on the rare occasions artificial lighting (over and above proprietary lighting fixed to mechanical plant) is required to illuminate site operations, the local Environmental Health Officer will be consulted prior to its use.*

*As such, there will be negligible impact upon the surrounding area in terms of light pollution and, it is noted that, should a nuisance occur in future, this can be monitored and dealt with under the relevant legislation by the Environmental Health Officer.*

### *Residential Lighting*

*Street lighting will be provided prior to occupation. It will have a vertical emphasis and there will be no direct back spill of light from this source outside the site.*

### *Ecological Lighting*

*All temporary and permanent site lighting will be directed away from boundaries, including trees and hedgerows to ensure no adverse impact on ecological features in, on or around the site or on sensitive species as discussed in more detail below.*

*In relation to nocturnal species, a sensitive approach will be adopted towards lighting where necessary through:*

- the adoption of appropriate measures to minimise any increase in lightspill into retained and newly planted area and hedgerow habitat features with particular care being given to limiting lighting levels within habitat corridors;
- the creation of a plan showing Lux levels through the proposed development, including sensitive areas of the site, identifying precise areas of lightspill and enabling detailed consideration to be given as to potential impacts which could arise;
- where highway requirements dictate that lighting columns need to be provided in close proximity to retained and newly provided habitat features, measures will be adopted to direct lighting to where it is needed thereby minimising lightspill to the lowest possible level. Potential avoidance and mitigation measures to be employed in areas of particular concern may include:
- minimising any upward lighting to avoid light pollution;

- using hoods and cowls to direct light below the horizontal plane and away from habitat features to ensure that dark areas are retained;
- using low pressure sodium lamps or LED lighting which result in lower levels of light spill.

*In relation to bats, the following additional measures will also be taken if necessary:*

- retaining any trees identified as having potential for roosting bats if possible and locating areas subject to artificial lighting as far as practicably possible away from them;
- retaining and enhancing the vast majority of suitable foraging and commuting habitats; and
- minimising light spill and safeguarding dark corridors of potential value to local bat populations.

*Ultimately, where appropriate, measures will be taken should light become obtrusive to residents and sensitive ecological features or species.*

## **11. CONTAMINATED MATERIAL PLAN**

### *Imported Materials*

*Any topsoil (natural or manufactured), or subsoil, to be imported shall be assessed for chemical or other potential contaminants where necessary.*

*Any aggregate (other than virgin quarry stone) or recycled aggregate material to be imported shall be assessed for chemical or other potential contaminants where necessary.*

*Any hazardous waste generated by the site will be disposed of in an environmentally friendly manner.*

## 12. CONSTRUCTION DRAINAGE PLAN

### *Site Set Up*

*Upon commencement of development, the compound will be set up, haul roads provided as appropriate and surface water drainage as required with silt barriers will be constructed.*

*Following the site set up works, the site will be phased so roads, drainage and plot works can commence.*

*Prior to construction site starting an independent drainage consultant (Yellow Sub) will review the construction practices to be undertaken and produce a surface water management plan to ensure controlled and clean surface water discharges from the site during the development. The surface water management plan will be reviewed and updated through the different stages of development. Silt barriers and water infiltration systems will be utilised as part of the surface water management plan. The operations of the surface water management controls will be checked weekly (daily following any heavy rainfall event) and cleaned/repaired as necessary. These checks will be undertaken by the Redrow site manager.*

### *Silt Management*

*As required, temporary drainage grips or earth bunds with temporary silt barriers will be constructed around the working areas (re-profiling and house build stages) to control any rainwater accumulations and will be dealt with by conventional pumping techniques with silt control for discharge. Regular inspections will be carried out to ensure efficiency of pumping equipment.*

*Excavation works and soil movement will be avoided during heavy rainfall events and temporary silt barriers will be erected as required to control surface water around specific working areas that will be made up of a geotextile membrane, allowing water to pass and filter out the silt. Any barriers will be regularly checked to ensure that they remain effective throughout the construction process.*

*All newly constructed road gullies will be protected with silt bags installed in the gully pots and maintained through the life of the development by means of daily inspection by the site manager.*

### *Pesticides*

*In the event that such an application should be required, the contractor shall be aware of the proximity to water courses and ecological interests.*

*Herbicides may only be used in accordance with the Control of Pesticides Regulations 1986 and COSHH Regulations, be used only by certified operatives and apply herbicides strictly in accordance with the manufacturers' label recommendation and complying, where applicable, with the Code of Practice for Herbicides near Water.*

*Equipment used shall be shielded to prevent drift.*

*Records of all pesticide use shall be approved by the site manager prior to use with records of use (including but not limited to reason for use, location of use (plan), chemical name, COSHH data sheet, amount, type of application, weather conditions) submitted to the site manager on the same day as the application.*

*No herbicides to be applied to stockpiled soils unless otherwise approved.*

*Pernicious weeds identified within topsoil or any other material imported or exported from site will be treated appropriately. The use of chemical control methods will be considered.*

### *Foul Drainage*

*Foul drainage from the site compound will enter a live sewer. If a live sewer cannot be connected to at any part of the build then foul drainage will be confined in a suitably contained tank. The tank will be emptied every week where the operative will follow their company's best practice manual whilst carrying out the work.*

### *Emergency Procedure*

*All site staff and contractors (especially ground workers and plant operators) will be briefed on the agreed control measures and actions to take in the event of an emergency. The briefing will include advice on how individuals can assist in controlling construction drainage during their work activities.*

## 13. GREEN INFRASTRUCTURE PLAN

### *Trees and Hedgerows*

13.1 *Prior to any construction work starting, protective fencing will be installed and maintained to protect the green infrastructure (trees and hedgerows) on site as shown in the Tree Protection Plan.*

*Retained tree root protection areas (RPAs) will be demarcated and protected with heras fencing or similar to ensure that plant, machinery and personnel cannot enter under their canopies and kill or damage them accidentally. Such areas will be appropriately signed.*

*Land levels within RPAs will not be altered without the prior approval of the LPAs Tree Officer.*

*All vegetation works (felling, lopping, pruning etc) will be undertaken by a certified arboriculturalist outside of the breeding bird season (March to September) unless approved by, and under the supervision of, a suitably experienced ecologist.*

*All arboricultural works to trees with potential for bat roosts will be subject to an update ground-level inspection by a suitably qualified ecologist to determine their current potential to support roosting bats. Where trees are identified as having moderate or greater potential, then such trees will be subject to a further detailed aerial inspection whereby all suitable roosting features will be checked at height for the presence of bats. Aerial surveys will be undertaken by a suitably qualified and Natural Resources Wales (NRW) bat licensed ecologist, arboricultural contractor with a NRW bat survey licence, or with experience of working with bats and under the supervision of a NRW bat survey licence holder.*

*If any bats are discovered during the aerial inspection, owing to the strict legal protection afforded to bats and their roosts, works are likely to require a European Protected Species (EPS) Mitigation Licence from NRW before works can continue.*

*If no evidence of roosting bats is uncovered during the aerial inspection, works may proceed without an EPS Mitigation Licence from NRW. However, regarding those trees identified as having potential to support roosting bats, a 'soft felling' technique' involving the sectional dismantling of the tree will be adopted.*

*No construction work or material storage is to take place inside the protection zones and their presence will be highlighted during the site induction to all visitors on the site and will include the protocol for what should be done when any protected species are encountered, i.e. stop work, make the area safe and contact the designated site ecologist.*

*An ecologist will also instruct the site management team on the content of the induction prior to any works commencing and a pre-start meeting on site will include the ecologist where a site walk will take place and Redrow will agree the course of action at each stage of construction with the ecologist. This will be reviewed regularly to ensure it is kept up to date. In addition, the ecologist will be contacted before any clearing or stripping works to advise and if needed, supervise any works. The contact details of the chosen ecologist shall be provided on request.*



### *Non-Native Invasive Botanical Species*

*Any non-native invasive botanical species such as Japanese Knotweed and Himalayan Balsam that are identified on site will be treated accordingly.*

### *Watercourses and Ponds*

*On new watercourses and ponds safe working practices will be followed to prevent accidental pollution including the use of protective fencing and silt barriers where necessary.*

### *Bats*

*If any bats are discovered during the works, owing to the strict legal protection afforded to bats and their roosts, works are likely to require a European Protected Species (EPS) Mitigation Licence from NRW before works can continue.*

### *Breeding Birds*

*Any areas of habitat suitable for nesting birds or containing active bird nests may need to be removed in order to facilitate development. Therefore, the timing of any construction works must take into account the breeding bird season which lasts from March to September with any works taking place outside of these times unless the area to be removed has been inspected by a suitably qualified ecologist and confirmed clear or protected by netting.*

*As breeding birds are at risk of being disturbed, killed or injured during the construction process, any retained areas that are a suitable habitat for breeding birds will be protected from accidental damage through the use of protective fencing.*

*Should birds be suspected to be nesting on site at any time then works in the immediate vicinity will be halted and the supervising ecologist will be called to site to assess the situation.*

### *Lighting*

*Temporary lighting is not anticipated to be used during the construction phase. However, if required, it will be located and directed accordingly and have regard to best practicable means in order to reduce light spillage onto sensitive habitats.*

### *Site Compound*

The compound will be located on existing asphalt area of the site prior to the eventual development of those areas. Please refer to Construction Management Plan in appendix A.

## 14. SITE WASTE MANAGEMENT PLAN

### *Reduce, Reuse, Recycle*

*Redrow operate a procedure to reduce all waste on site.*

*The first step is to prevent any waste being generated through educating the sub-contractors. This is also done by using factory produced materials to reduce the off-cuts generated.*

*The second step is to reuse any materials or items as many times as reasonably possible before disposal.*

*The third step is to recycle materials. This involves separating materials into hazardous waste, timber, metals etc. The recycle bins will be regularly emptied to avoid any overflowing of the bins. Hardcore materials will be crushed and used as aggregate on site where possible.*

*The final step is to dispose of any leftover material as waste to the respective landfill using a licensed contractor able to provide waste transfer notes along with any other relevant documentation.*

*After following the reduce, reuse, recycle model, the waste from site to landfill is reduced by around 90%.*

*Burning of waste or any other materials is not permitted.*

## 15. CONTACTS & COMPLAINTS

### *Project Team*

*The management team on site consists of a 'Site Manager', an 'Area Construction Manager' and a 'Project Manager' for support and assistance, please see below for more details.*

Site Manager	To be confirmed
Contact Number	To be confirmed
Summary of Role	Health & Safety Management on Site; Site Maintenance; Contractor Management; Calling Off Works.
Area Construction Manager	To be confirmed
Contact Number	02920 549103
Summary of Role	Quality Management; Health & Safety Standards on Site; Programming.
Project Manager	Reuben Cooke
Contact Number	02920 549103
Summary of Role	Technical Project Management; Provision of Information.

*The details and phone number of the site manager will be displayed on a board on the boundary of the site prior to the commencement of construction.*

*The number of the shared regulatory service will also be displayed on a board on the boundary of the site prior to the commencement of construction.*

*Note that these are a brief summary of job responsibilities and change regularly depending on the situation.*

*In an emergency, Natural Resources Wales can also be contacted on 0300 065 3000.*

### *Neighbour Consultation*

*Local residents will be notified via letter drop prior to commencing works on site and to inform them of the exact timings of any potential works which may disrupt their normal day to day activities.*

*Contact details will be provided on these letters should they have any concerns or queries.*

### *Complaints Procedures*

*Any complaint issued to site shall be dealt with promptly and appropriately.*

*Prior to site start, the site manager shall introduce himself to all neighbouring properties and will provide his contact details. These contact details shall provide a direct point of contact at Redrow should any issues arise.*

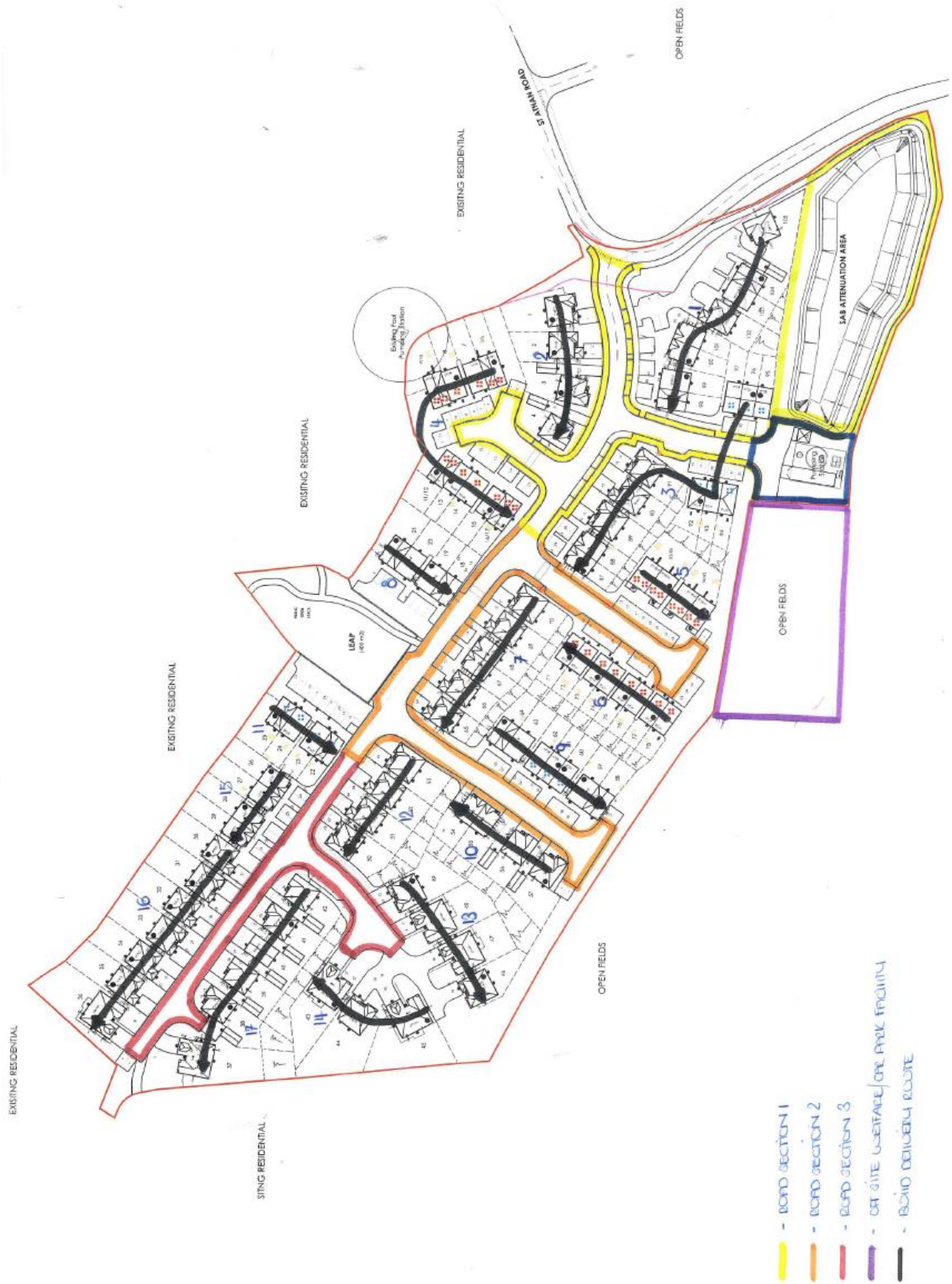
*Any complaints received by the Site Manager shall be recorded and, if appropriate, raised to the required level necessary to resolve.*

*An answerphone service will be available outside working hours.*

*Complaints can also be reported to the site sales office where they will be recorded and passed to the site manager for his attention.*

*Once customers begin to occupy dwellings, Redrow's in-house customer service department shall provide aftercare and assistance. Each customer will be designated a single customer service manager who will be responsible for addressing any issues that arise in a timely manner.*

**APPENDIX A**  
Construction Phasing & Management Plan



**APPENDIX B**  
Construction Vehicles

 <p><b>Excavator</b></p>	 <p><b>Dumper</b></p>
 <p><b>Telescopic Fork Lift</b></p>	 <p><b>Bulldozer</b></p>
 <p><b>Earthmover</b></p>	 <p><b>Road Roller</b></p>
 <p><b>Tipper</b></p>	 <p><b>Soil Transporter</b></p>
 <p><b>Road Sweeper</b></p>	 <p><b>Articulated Lorry</b></p>



**Delivery Lorry**



**Delivery/Contractor's Van**