



Quod

Outline Construction Environmental Management Plan

North Hemel Hempstead

December 2025

Q240503

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1 Introduction

1.1 Purpose

- 1.1.1 This Outline Construction Environmental Management Plan ('Outline CEMP') was prepared by Quod and a team of technical specialists for Bloor Homes Limited and Pigeon Homes Limited (the 'Applicants'). It supports the outline planning application with all matters reserved, except for access from the B487, for a residential-led mixed-use development (the 'Development') on land to the north of the B487 (Hemel Hempstead Road / Redbourn Road) ('the Site').
- 1.1.2 The purpose of this Outline CEMP is to provide a framework for managing and minimising potential adverse environmental effects during the construction of the Development. It outlines how the commitments made in the planning application will be implemented, controlled, and monitored during the construction phase.
- 1.1.3 Once appointed, the Contractor(s) will refine the Outline CEMP to ensure it is specific to the enabling works and construction works for the development of the Site, producing a detailed CEMP(s). A detailed CEMP will also be issued for approval for the highway works associated with Section 278 Works.

1.2 Site and Surrounding Area

- 1.2.1 The Site is located between the eastern urban edge of Hemel Hempstead and the village of Redbourn, approximately 4 km north east of Hemel Hempstead's town centre. The Site is centred at National Grid Reference TL 08275 10791 and extends to approximately 105.59ha. A Site location plan and red line boundary is provided in Figures 1.1 and 1.2.
- 1.2.2 Approximately 4 ha of land including residential properties and associated gardens on Little Revel End are excluded from the centre of the Site, as shown on Figure 1.2. Other surrounding land uses include:
- **Residential:** Great Revel End Farm and Woodhall Farm residential neighbourhood is located to the west of the Site. There are also a small number of properties on Little Revel End, Gaddesdon Lane and Holtsmere End Lane located adjacent to the Site boundary. Spencer's Park residential development is under construction approx. 600m south west of the Site.
 - **Agricultural** – Land to the north, east and south of the Site are predominantly in agricultural arable use. Land to the south is allocated for residential-led development, with an application being brought forward by a separate applicant - The Crown Estate.
 - **Other** - Tullochside Farm, to the east of the Site, includes a dwelling, gypsy and traveller site with caravans and other buildings. A kennels, cattery and business units are located at Little Revel End Farm.
- 1.2.3 Figure 1.3 identifies the key environmental sensitivities in and near the Site.

Figure 1.2: Site Boundary Plan

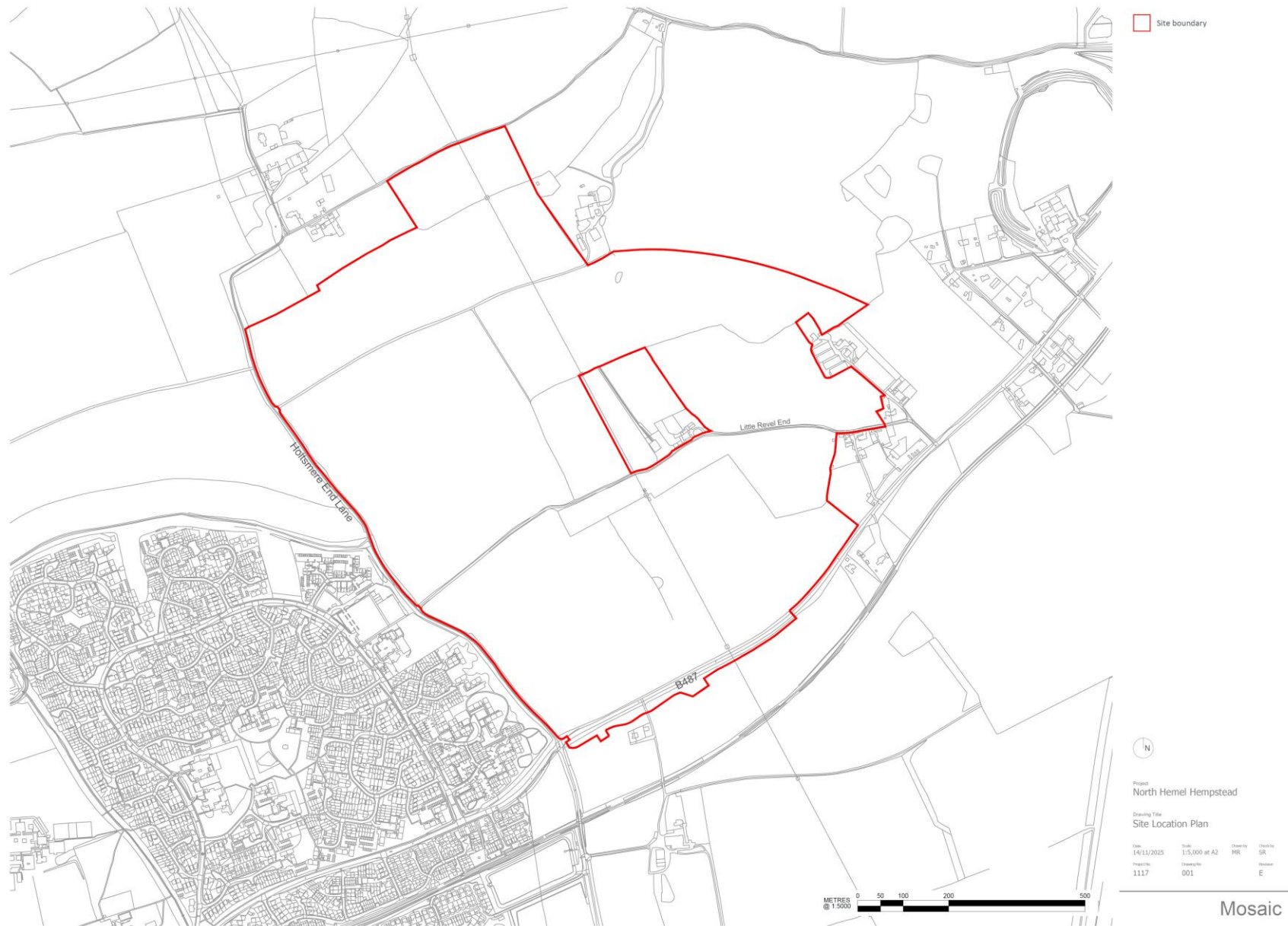
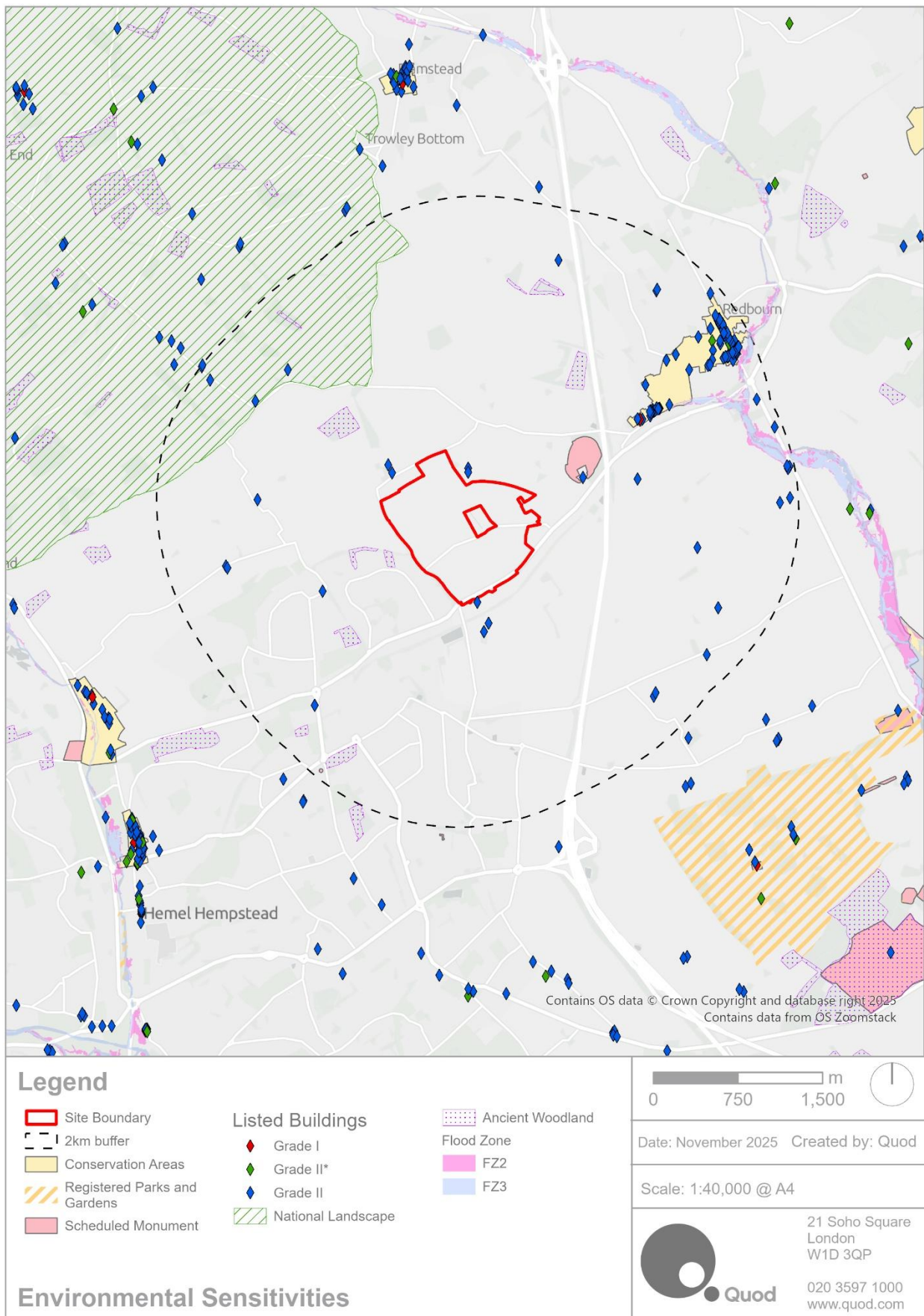


Figure 1.3: Environmental Sensitivities



1.3 Overview of the Development

- 1.3.1 The Development consists of a residential-led scheme of up to 1,500 residential dwellings (40% affordable) in addition to a nursing home (Use Class C2) (approximately 70 beds). Approximately 170,000 sqm of residential development (Use Class C3 and C2) is located in the western side of the Site whilst approximately 288,000 sqm of the eastern side of the Site is expected to be occupied by Suitable Alternative Natural Greenspace (SANG). The Development also provides for a primary school (3,500 sqm), local centre and mixed use development area (1,500 sqm). There will be up to 38,650 sqm of sports provision on-site.
- 1.3.2 The application seeks detailed permission for two new junctions on the B487:
- Eastern Junction: Main access for all transport modes via B487 Hemel Hempstead Road. This shared STC junction links the site with Draft Site Allocation H2 (East Hemel Development) and was developed with TCE.
 - Western Junction: Secondary access west of the Eastern Junction for buses, pedestrians, and cyclists only.
- 1.3.3 A Sustainable Transport Corridor (STC) will serve as a spine road through the Development for primary vehicle / cycle / pedestrian access. The STC will connect all key facilities within the Development to the main residential internal road accesses as well as the Site access / egress points.
- 1.3.4 Construction of the Development would be phased, and therefore some residents would be in occupation whilst construction activities are ongoing. An indicative construction phasing is provided below:
- 1) Access (B487 Western and Eastern Junctions).
 - 2) Bus link, southern (Pigeon) plots, care home and part of STC with SANG to the south of Little Revel End Lane and the SANG car park;
 - 3) Continuation of STC into northern (Bloor) plots for delivery of school. Start of Bloor plots – and SANG to the north of Little Revel End Lane;
 - 4) Continuation of STC and northern plots. Sports pitches; and
 - 5) Continuation of STC to Site boundary and balance of northern (Bloor) plots. Delivery of allotments and community orchard.
- 1.3.5 Table 1 presents the estimated construction years of the Development.

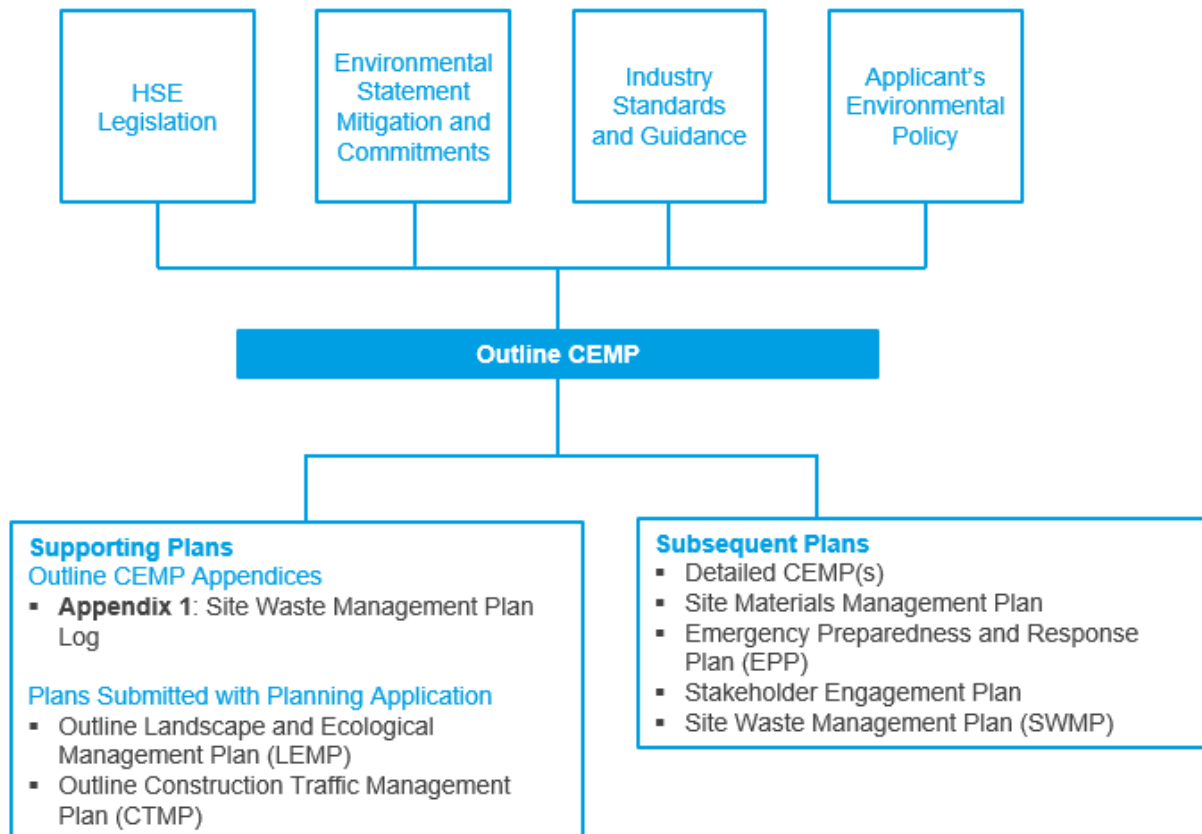
Table 1: Construction Milestone and Estimated Years

Construction Milestone	Year
Commencement of Construction	2028
Peak Year of Construction	2033
Completion of Construction	2041

1.4 Structure of the Outline CEMP

- 1.4.1 To prepare the Outline CEMP, the Applicant has considered mitigation requirements identified in the ES, the Applicants' broader policy and management system, and relevant legislation. Several topic-specific plans are appended to this document, or commitments are made for their preparation, forming part of the CEMP's suite of documents. Figure 1.4 illustrates the relationship between the Outline CEMP and other relevant plans and policies.

Figure 1.4: Outline CEMPs Relationship to Other Plans and Policies



2 Environmental Management Framework

2.1 Environmental Policy

- 2.1.1 The Applicants are committed to sustainable development and environmental stewardship. This policy outlines their commitment to minimising the environmental impact of the activities regarding the construction (and operation) of the Development. The Applicants recognise that their project activities have social, environmental and economic impacts. They want their employees, sub-contractors, the local communities of their projects, and the wider society to benefit from their activity by helping to creating positive social and environmental outcomes.
- 2.1.2 Sustainability is integral to the Applicants' business and helps to create lasting value, manage regulatory risks, care for their reputation and deliver positive outcomes for them and their clients. The Applicants go beyond compliance with relevant legal and other minimum requirements and commits to continuous performance improvement. Their performance is to be accountable through objective measurements and will be audited and reported on sustainability performance and achievements.
- 2.1.3 In meeting these objectives, the Applicants will:
- Comply with legal requirements and adhere to good industry practice and other requirements that relate to its environmental aspects.
 - Minimise environmental and social impacts and continually improve environmental and social performance as an integral part of its operating strategy;
 - Endeavour to prevent pollution and aim to use resources efficiently and to minimise waste, usage of water, energy and other consumables.
 - Respect stakeholders, the environment and cultural heritage.
 - Constructively engage with affected communities and other stakeholders and address complaints about any breach of this policy promptly
 - Provide ongoing education and training for all employees on relevant environmental and sustainability issues.
 - Ensure that employees and contractors understand this policy and conform to the high standards required.

2.2 Training and Awareness

- 2.2.1 Environmental training and awareness program will be provided for all employees and contractors. These programs will cover key environmental policies, procedures, and good practices relevant to the project. Participation in environmental initiatives will be encouraged, and a culture of environmental responsibility will be promoted. Efforts contributing to environmental sustainability will be recognised and rewarded.

- 2.2.2 Contractual arrangements will require all contractors to provide suitably qualified staff to manage and execute their responsibilities. The Contractor will ensure that all employees demonstrate appropriate awareness of local sensitivities (e.g., location of residents/businesses), relevant legislation, codes of practice, and guidance.
- 2.2.3 The Contractor will develop the details of the training regime and set them out within the detailed CEMP(s). This may include:
- **Site Inductions:** Introduce all site personnel to the environmental issues connected with the Development, important environmental controls for day-to-day operations, and emergency procedures.
 - **Toolbox Talks and Method Statement Briefings:** Provide these as work proceeds, covering environmental management and control measures regarding specific activities.
- 2.2.4 All training records will be maintained and filed on-site. The records shall include the content of the courses (induction and toolbox training), record of attendance and schedule of review.

2.3 Emergency Response and Environmental Incidents

- 2.3.1 Protocols for handling emergencies and environmental incidences will be set out in the detailed CEMP(s). Upon appointment, the Contractor will develop an Emergency Preparedness and Response Plan (EPP).
- 2.3.2 Once the EPP is completed, all site personnel will be trained and informed about it. In the event of an incident, the Contractor's Environmental Health and Safety Team and the Applicants will be notified.

2.4 Monitoring, Records, Audits and Corrective Action

- 2.4.1 The detailed CEMP(s) will define procedures for the management of potential environmental impacts arising during enabling works and construction works. A robust monitoring programme to track performance and potential environmental effects and ensure compliance with environmental standards will be implemented to agreed requirements. This programme would:
- Track emissions, waste management, and resource usage to ensure adherence to environmental standards.
 - Evaluate the effectiveness of environmental mitigation, and identify environmental issues and appropriate responses at an early stage;
 - Ensure works are carried out in accordance with the management plans;
 - Identify and implement any environmental improvements that would contribute to the overall environmental performance of the Development; and
 - If required, regularly report on environmental performance to stakeholders and regulatory bodies.

- 2.4.2 Detailed records of training sessions, environmental performance, and compliance activities will be maintained.
- 2.4.3 Regular site inspections and formal audits will be conducted to assess compliance with environmental policies, regulations and the agreed management plans. These audits will help identify areas of non-compliance and opportunities for improvement.
- 2.4.4 If non-compliance or potential issues are identified, corrective actions will be implemented to address the root cause and prevent recurrence. This may involve developing and executing action plans to rectify deficiencies.

2.5 Review and Continuous Improvement

- 2.5.1 The detailed CEMP(s) will define timescales for periodic reviews of the environmental management framework. It is a dynamic system that will evolve based on feedback, audit findings, and changing environmental regulations. Reviews will be conducted to evaluate its effectiveness and identify areas for improvement.

3 Roles and Responsibilities

3.1 Construction (Design and Management) Regulations 2015

- 3.1.1 According to the Construction (Design and Management) Regulations 2015 (CDM Regulations)¹, the Applicants must appoint a Principal Designer and Contractor before starting on-site work. If the Applicants fail to appoint either role, they must assume those duties in compliance with the CDM Regulations.
- 3.1.2 The Contractor will have the central role in managing Safety, Health, Environment and Quality (SHEQ) issues during enabling works and construction activities. The Contractor and all sub-contractors will be required to implement the environmental management and control measures set out within the Outline CEMP.

3.2 Key Roles and Responsibilities

- 3.2.1 The specific roles and responsibilities of team members are not detailed in this Outline CEMP. They will be confirmed by the Applicants and Contractor and included in the detailed CEMP(s). The roles of the Site Manager during construction for managing environmental impacts include:
- Responsibility for all on-site activities and based on-site full-time.
 - Ensuring all elements in the CEMP and all environmental legal and other requirements are implemented, resourced, managed, reviewed, and reported.
 - Managing environmental aspects on-site, ensuring compliance with environmental legislation and best practice. Oversees environmental monitoring, conducts regular site inspections, and responds to incidents or non-compliance. Liaises with relevant environmental bodies and 3rd parties.
 - Leading discussions with local communities and acts as the primary contact for queries or complaints.
- 3.2.2 The Contractor will be responsible for monitoring sub-contractors' environmental performance, acting as a point of contact for consultation and feedback, and developing mechanisms to resolve on-site issues as needed.
- 3.2.3 All sub-contractors must produce method statements demonstrating adherence to procedures, regulations, and best practices regarding environmental control. These method statements will be reviewed for adequacy by the Contractor before work commences. All contractor method statements must be supported by suitable and sufficient safety, health, and environmental risk assessments addressing relevant impacts associated with the work activities.

¹ Health and Safety Executive, 2015. Construction (Design and Management) Regulations 2015

4 Site Management

4.1 Layout and Management of Construction Areas

4.1.1 The Contractor will ensure the following measures are detailed in the CEMP(s) to minimise environmental incidents or nuisances:

- **Hoardings:** Erect hoardings around construction areas to demarcate between occupied and construction areas, providing an acceptable visual outlook and displaying information about the Development and construction progress.
- **Site Layout and Environmental Risk Drawing:** Prepare a site environmental risk drawing showing key areas (e.g., loading and unloading areas, material storage, plant / equipment storage, spill kits, waste storage, drains, welfare facilities, parking areas) and place it on site notice boards.
- **Lighting and Security:** Implement appropriate lighting to reduce visual intrusion and adverse effects on sensitive receptors. Include security measures such as CCTV.
- **Positioning of Equipment:** Carefully position storage, machinery, equipment, and temporary buildings to reduce environmental impact.
- **Drain and Sewer Management:** Remove, stop, and seal drains and sewers taken out of use, and prevent Site runoff discharge without appropriate authority approval.
- **Welfare Facilities:** Provide adequate welfare facilities, designated smoking areas, and waste containers.
- **Fire Prevention:** Prohibit open fires and implement measures to reduce fire risks.
- **Wheel Washing:** Install wheel washing facilities for vehicles leaving the construction areas.

4.2 Site Rules

4.2.1 Site rules will include environmental controls where applicable and will be displayed in on-site offices and welfare facilities. Key rules include:

- **Induction Training:** All personnel must complete induction training prior to accessing the Site.
- **Communication and Cooperation:** Maintain clear communication with your team and supervisors, and ensure cooperation for health and safety. Use of audio equipment is not permitted on-site, except in designated areas.
- **PUWER Compliance:** Ensure all plant / equipment complies with Provision and Use of Work Equipment Regulations 1998 (PUWER)², with maintenance and relevant certificates retained on-site.

² HSE, 1998. Provision and Use of Work Equipment Regulations 1998

- **COSHH Compliance:** All substances to be used or handled on-site must have Control of Substances Hazardous to Health (COSHH)³ assessment available on-site for staff members to consult.
- **Safety and Conduct:** Follow safety method statements, abide by safety signs, and maintain safe and responsible behaviour.
- **Tools and Equipment:** Only use tools and equipment that you are trained and authorised to use.
- **Personal Protective Equipment (PPE):** Wear standard PPE at all times, with additional PPE as needed for specific tasks.
- **First Aid:** A qualified First Aider must be present on-site at all times.
- **Clean Welfare Facilities and Work Areas:** Maintain cleanliness and functionality. Ensure free of debris.
- **Signage:** Work areas must have clear, well-maintained signage.
- **Fire Safety:** Maintain appropriate firefighting equipment on-site. No fires are permitted.
- **Waste Management:** Collect and remove waste regularly. Offenders will be removed and permanently excluded from the Site.
- **Securing Access:** All means of access, e.g. steps, ladders, must be secured/removed at the end of the day to prevent unauthorised persons and accessing hazardous areas.
- **Report Hazards Immediately:** Report any unsafe conditions or hazards to the site manager immediately.
- **Emergency Procedures:** Be familiar with and follow the construction site's emergency procedures.
- **Smoking and Substance Use:** Smoking is allowed only in designated areas. Possession or use of alcohol and drugs are prohibited.
- **Violence and Threats:** Zero tolerance for threats or violence.

4.3 Working Hours

4.3.1 Standard Working Hours:

- Monday to Friday 07:30 – 18:00;
- Saturday 08:00 – 13:00; and,
- No working on Sundays or Bank Holidays.

4.3.2 **Non-Noisy Activities:** To maximise these hours, non-noisy activities are allowed during start-up and close-down periods. These activities include:

- Arrival and departure of workforce;

³ Secretary of State (SoS), 2004. The Control of Substances Hazardous to Health (Amendment) Regulations 2004

- Deliveries and unloading;
- Plant and machinery checks, examinations and essential repairs / maintenance;
- Site inspections and safety checks; and
- Site clean-up.

4.3.3 **Exceptions:** These hours will be strictly adhered to unless:

- An emergency requires continuation of work on safety reasons;
- Minor internal works are carried out within the building envelope; and
- Completing an operation to avoid greater interference with the environment or public.

4.3.4 **Approval for Extended Hours:** Approval from SADC is required for any work outside of permitted hours. SADC may vary these hours for works near sensitive businesses or residential properties.

4.4 Security

4.4.1 The Contractor will ensure the following measures are detailed in the CEMP(s) to ensure the Site is safe and secure:

- **Hoardings and Access:** Erect a 2.4m high solid construction hoarding around the perimeter before work begins, with gated access. Banksmen will assist HGVs entering and exiting the Site, managing gate operations.
- **Authorised Personnel and Visitor Requirements:** Only authorised personnel are permitted on-site. Visitors must enter through the main entrance, report to the Construction Manager/Site Manager, and sign in and out to track the number of people on-site in case of an emergency. Visitors must undergo induction training, wear necessary PPE (safety helmet, hi-visibility attire, safety footwear), and be accompanied by a representative at all times.
- **Daily Checks:** Check hoardings and storage areas daily to ensure they are in good condition and secure. Keep all entrance and exit gates secure at all times.
- **Equipment Security:** Park all mobile plant/equipment safely and lock them in a designated area to prevent tampering. Keep keys to all plant/equipment in a secure location.

5 Environmental Control Measures

- 5.1.1 This section outlines the mitigation and management measures to be included in the detailed CEMP(s). It also identifies proposed monitoring to assess the effectiveness of these measures.

Pre-phase Activity Planning

- 5.1.2 All activities shall be risk assessed and reviewed as per Risk Assessment Method Statement (RAMS) Creation and Evaluation procedures. All RAMS shall consider environmental risks, as well as health and safety risks. Risk Assessments shall be submitted six weeks prior to planned start of work date.
- 5.1.3 In addition, a Take Time Point of Work Risk Assessment (POWRA) will be applied to all work activities with the potential to cause harm and must be implemented before commencing every such activity. A POWRA will ensure the work group / worker assess the risks associated with an activity immediately prior to work commencing.

Construction Traffic Management

Access Routes

- 5.1.4 During construction, vehicles will access and egress the Site via Hemel Hempstead Road (B487), vehicles will also be required to route along the A5183 before accessing the M1. HGVs are required to use these access roads and will be routed away from residential streets as far as possible. It is expected that approximately 92% of construction traffic will be disbursed on the M1 with the remaining 8% routing via the A5183.

Site Parking

- 5.1.5 On-site parking for construction workers will be restricted to an absolute minimum. This will only be made available to those construction personnel who need to carry heavy equipment or materials to the Site. Unapproved parking on public roads will not be allowed and the labour force will be encouraged to use sustainable transport modes including car pooling and use of local buses. Any local traffic management measures for Site access will be agreed with the SADC prior to construction commencing.

Loading and Unloading

- 5.1.6 All goods deliveries will be directed to a designated area on-site where all vehicles will be unloaded and the materials taken to the appropriate storage area.

Vehicle Cleaning Facilities

- 5.1.7 Wheel washing facilities and other appropriate means will be used for vehicles leaving the Site to minimise the amount of mud and debris deposited on the road.
- 5.1.8 A high-pressure spray system comprised of either the manual washing of the vehicle, by site staff member, in a designated wash area; or the installation of an automated drive

through wheel washing facility that sprays water over the tyres of the vehicle as it drives through or stands on a raised platform.

Waste Management

- 5.1.9 Waste produced on-site will be subject to the Duty of Care under the Environmental Protection Act (1990)^{iv} and The Environmental Protection (Duty of Care) Regulations 1991^v as well as the waste hierarchy. It is the joint responsibility between the Contractor and the Applicants to ensure that waste produced on-site is disposed of in accordance with relevant legislation. The transportation of waste to and from the Site will also comply with the Duty of Care requirements.
- 5.1.10 The Development will seek to maximise the reuse of materials generated on-site, where possible, in order to minimise waste disposal. Additional intrusive site investigations may be required prior to construction commencing to identify any areas of contamination present on-site. Further soil sampling during construction activities will be undertaken for classification and disposal of waste soils, if required, and will follow the methodology described in the following the three EA publications: Dispose of waste to landfill^{vi}; Waste classification technical guidance^{vii}; and Waste acceptance procedures for deposit for recovery^{viii}. All soil sampling and testing will be undertaken in accordance with BS 10175: Investigation of Potentially Contaminated Sites: Code of Practice^{ix}.
- 5.1.11 Waste materials will be disposed of by the contractor/s to appropriate recycling facilities or appropriately licensed landfills. The appropriate landfill for the disposal of any contaminated soil off-site will depend on the waste classification determined from the chemical analysis or Waste Acceptance Criteria testing, as necessary. The Site Manager will audit waste carriers and disposal facilities and maintain documentary evidence that these requirements are being met, including a register of waste carriers, disposal sites (including transfer stations) and relevant licensing details for each waste stream. Waste contractors who remove waste should be registered with the EA.
- 5.1.12 Materials used during the construction works such as oil, chemicals, cement, cleaning materials and paint have the potential to cause serious pollution. Therefore, the EA's Guidance for Pollution Prevention (GPP) notes and other relevant guidance will be followed during the handling, storage and use of such materials.
- 5.1.13 Procedures will be set in place to respond to any emergency incidents which may occur on the Site.
- 5.1.14 All relevant contractors will be required to investigate opportunities to minimise and reduce waste generation in line with the Government aim of *“Work towards eliminating all avoidable waste by 2050”* through:

^{iv} Her Majesty's Stationary Office (1990). The Environmental Protection Act 1990.

^v Her Majesty's Stationary Office (1991). The Environmental Protection (Duty of Care) Regulations 1991.

^{vi} EA (2020, updated 2025). Dispose of waste to landfill

^{vii} EA (2014, updated 2021). Waste classification technical guidance

^{viii} EA (2023). Waste acceptance procedures for deposit for recovery.

^{ix} BSI (2017). BS 10175: Investigation of Potentially Contaminated Sites: Code of Practice

- Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;
- All work areas shall be maintained in a state of good housekeeping and no litter removed from all work areas. Regular maintenance of work and laydown areas shall be undertaken to remove waste, wind-blown debris and dust or loose materials from footpaths and carriageways;
- Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;
- Use of standard size components in design detailing to eliminate risk at source where possible to do so;
- Attention to material quantity requirements to avoid over-ordering and generation of waste materials;
- Re-use of materials wherever feasible, e.g. re-use of excavated soil for landscaping;
- Segregation of waste at source where practical;
- Re-use and recycling of materials off-site, where feasible, and where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or re-processing);
- Skips will be colour coded and signposted to reduce risk of cross contamination and covered to prevent dust and debris blowing around the Site, these will be cleared on a regular basis; and
- Burning of wastes or unwanted materials will not be permitted on-site.

Site Waste Management Plan

- 5.1.1 A Site Waste Management Plan (SWMP) is to be developed and implemented as part of the construction of the Development. The SWMP will define and create provisions of space for later recordings including:
- Target benchmarks for resource efficiency in accordance with best practice;
 - Procedures and commitments to minimise non-hazardous construction waste at design stage;
 - Procedures for minimising hazardous waste; and
 - Monitoring, measuring, and reporting of hazardous and non-hazardous site waste production;
 - Space for the recording of actual figures against the estimated figures;
 - Space for the recording and identification of stakeholders responsible for removing waste from Site and details of the sites/facilities that they will be taking it to; and
 - Space to record explanations for any deviations from what has been set out in the SWMP, including explanations for differences in actual waste arisings compared to the estimates.
- 5.1.2 The SWMP will be used to document an record of anticipated quantities of waste arising during construction works as well as the actual values as set out using the framework in Appendix 1.

Noise and Vibration

- 5.1.3 All works must comply with BS 5228: Noise and Vibration Control and the construction and Open Sites Part 1: Noise and Part 2: Vibration^x. In order to ensure compliance with BS 5228 the following monitoring will be conducted:
- A regime of noise monitoring will be adopted by the appointed contractor over the duration of the works, above which consideration would be given to the use of alternative techniques and / or other means of controlling noise levels, if required by SADC. Readings will be recorded and kept on-site, and made available for review by SADC, if requested.
- 5.1.4 The primary method for the control of noise will be a Section 61 consent under the Control of Pollution Act 1974 ("COPA") with SADC. A Section 61 consent enables a contractor to carry out works which it is considered would exceed the agreed noise limits or must occur at times when such work is otherwise not approved.
- 5.1.5 The Contractor and other contractors shall be required to plan their works to minimise noise where possible and implement further mitigations appropriate to their scope if noise limits are breached. Contractors shall notify the Contractor in advance of any construction work associated with the Works which may generate elevated levels of noise. Should it be necessary at any time to exceed permitted or recommended noise limits, for instance during steam blow, the local authority shall be notified in writing with details of any procedure which will exceed the stipulated noise levels and the duration of such procedures. If the period is expected to last more than 24 hours then local residents in noise sensitive locations shall be informed stating the reasons for the noise and expected duration.
- 5.1.6 In the event of any noise or vibration complaints, the procedure detailed in the EPP shall be followed, and if necessary additional noise and / or vibration monitoring shall be carried out and the results made available to SADC if requested.
- 5.1.7 The following measures will be adopted, where reasonably practicable to reduce noise and vibration during the works:
- Noisy plant or equipment will be situated as far as possible from noise sensitive buildings and orientated in such a way that noise is directed away from sensitive areas wherever possible;
 - Application of the principle of Best Practicable Means as defined in Section 72 of the COPA, by carrying out all work in such a manner as to reduce any disturbance from noise to a minimum;
 - All plant brought on-site will comply with the relevant EC / UK noise limits applicable to that equipment or will be no noisier than would be expected based the noise levels quoted in BS 5228-1;

^x BSI (2009). BS 5228: Noise and Vibration Control

- Plant is to be properly maintained and operated in accordance with manufacturer's recommendations. Electrically powered plant is preferred, where practicable, to mechanically powered alternatives;
- Vehicles shall be required to comply with speed limits and roads shall be well maintained;
- The use of radios, personal music players or the like will not be permitted on-site at any time;
- When appropriate all mechanically powered plant will be fitted with suitable silencers. Items of plant on-site operating intermittently are to be shut down in the intervening periods between use;
- Where feasible, all stationary plant would be located so that the noise effect at all occupied residential and commercial properties is minimised and, if practicable, every item of static plant when in operation is to be sound attenuated using methods based on the guidance and advice given in BS 5228-1;
- Trade contractors would at all times apply the principle of Best Practicable Means as defined in Section 72 of the COPA and carry out all work in such a manner as to reduce any disturbance from noise and vibration to a minimum;
- The Development phase(s) or works will be surrounded by a hoarding, generally 2.4m high, which provides some acoustic shielding at ground level. The hoarding consists of plywood sheets or similar, with all knotholes, cracks and other joints sealed to minimise the escape of noise. It may be moved from time to time to suit the progress of the works;
- Siting of delivery compounds away from receptors where practicable and use of low noise techniques;
- Barriers (e.g. huts, acoustic sheds or partitions) will be used to reduce the levels of noise reaching noise sensitive receptors;
- Vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers, maintained in good and efficient working order and operated in such a manner as to minimise noise emissions. The contractor shall ensure that all plant complies with the relevant statutory requirements;
- Machines in intermittent use should be shut down or throttled down to a minimum when not in use;
- Compressors should be fitted with properly lined and sealed acoustic covers which should be kept closed whenever in use. Pneumatic percussive tools should be fitted with mufflers or silencers of the type recommended by the manufacturers;
- No part of the works nor any maintenance of plant shall be carried out in such a manner as to cause unnecessary noise except in the case of an emergency when the work is absolutely necessary for the saving of life or property or the safety of the works;
- In the event that it is not possible to erect hoarding around the Site due to the nature of the works, i.e. earth works, mobile hoarding will be erected to reduce the effect on receptors;
- Vehicles employed for any activity associated with the construction works will, where reasonably practicable, be fitted with effective exhaust silencers and shall be

maintained in good working order and operated in a manner such that noise emissions are controlled and limited as far as reasonably practicable;

- The use of sufficient clear signage to ensure that construction vehicles use only designated routes;
- Strict control to prevent temporary parking on kerbside in the vicinity of noise sensitive receptors near the Site;
- Shouting and raised voices shall be kept to a minimum;
- Vehicles will not wait on the public highway with engines running;
- The site layout will be designed to minimise the need for reversing;
- Substitution of construction plant with quieter or lower vibration options;
- Equipment siting away from NSRs;
- Screening NSRs from noisy activities through the use of site hoardings, site cabins, material stores, or other localised acoustic screens/enclosures;
- Working methods including reducing the number of concurrent noisy activities, completing activities close to NSRs quickly and efficiently, shutting down noisy equipment when not in use, minimising startup/rundown of vibratory compactors close to NSRs;
- Adhering to hours of work agreed with SADC, or otherwise seeking prior agreement for any work requirement outside of those hours with reasonable notice;
- Incorporating noise and vibration control into risk assessments and method statements at an early stage;
- Providing proactive links between noise management activities and community relations activities to keep local residents informed of periods of likely intensive construction activities, including changes to hours of work, and appointing a site contact to whom complaints/queries about noise and vibration can be directed, investigated and acted upon;
- Developing a noise and vibration monitoring protocol to ensure compliance with any acoustic commitments and consents and enable action upon potential breaches quickly and efficiently;
- Toolbox talks will instruct workers on noise and vibration issues; and
- A Site inspection will be undertaken daily to identify and rectify any issues which may increase noise and/or vibration.

Light

5.1.8 Standard environmental management measures to minimise light pollution shall include, but may not be limited to:

- Use of controlled light distribution and luminaires with optic lens or shielding to limit undue light spill onto adjacent and surrounding areas;
- Use of luminaires with no distribution above 90 degrees; and

- Use of luminaires with limitation on visible light sources and use of luminaires projecting light in the horizontal plane. Use of luminaire shield where applicable to limit direct light onto sensitive receptors.

Climate Change and Greenhouse Gases

- 5.1.9 For construction workers' welfare, the following good-practice measures drawn from HSE guidance^{xi}, will be incorporated into the CEMP.

Cold Environments

- Ensure the personal protective equipment issued is appropriate;
- Provide mobile facilities for warming up, and soup or hot drinks;
- Introduce more frequent rest breaks;
- Consider delaying the work until warmer times of the year without compromising on safety; and
- Make sure workers can recognise the early symptoms of cold stress, such as a cough or body aches.

Hot Environments

- Reschedule work to cooler times of the day where needed;
- Provide more frequent rest breaks and introduce shading to rest areas;
- Provide free access to cool drinking water;
- Introduce shading in areas where people are working;
- Encourage workers to remove personal protective equipment when resting to help encourage heat loss; and
- Make sure workers can recognise the early symptoms of heat stress.

- 5.1.10 Standard environmental management measures to minimise any construction-related climate change and greenhouse effects shall include, but may not be limited to:

- Construction materials should be sourced locally where possible, to minimise the impact of transportation;
- Vehicles used in road deliveries of materials, equipment and waste arisings on- and off-site should be loaded to full capacity to minimise the number of journeys associated with the transport of these items;
- All machinery and plant should be procured to adhere with emissions standards prevailing at the time and should be maintained in good repair to remain fuel efficient;
- When not in use, vehicles and plant machinery involved in site operations should be switched off to further reduce fuel consumption;

^{xi} HSE, (undated): Outdoor Working. Available at: <https://www.hse.gov.uk/temperature/employer/outdoor-working.htm>. Last accessed 11/07/25

- Where possible, local waste management facilities should be used to dispose of all waste arisings, to reduce distant travelled and associated emissions;
- The volume of waste generated should be minimised, and resource efficiency maximised, by applying the principles of the waste hierarchy throughout the construction period including use of segregated waste storage to maximise recycling potential for materials;
- Where possible, welfare cabins, site lighting and similar equipment which incorporates on-site renewable energy supply should be procured; typically units with PV panels and where applicable battery storage are commercially available; and
- Where possible, hiring/purchasing alternative fuel/electric construction plant; at the time of writing, fully electric, hybrid or hydrogen-adapted (fuel cell or hydrogen reciprocating engine power packs) plant is starting to become available as demonstrators or (for smaller plant items) available on the market from the major manufacturers and such plant may become more widely available at the time of construction work from 2029 onwards.

Air Quality, Dust and Odour

- 5.1.11 The following good practice mitigation measures will be implemented to minimise the effects of dust produced during construction works which will be included within the detailed CEMP(s). These control measures include the ones listed within Table 1.

Table 2: Control Measures for Construction Phase Fugitive Dust and PM₁₀ Emissions

Issue	Control Measure
Communications	▪ Display the name and contact details of person(s) accountable for air quality and dust issues on the Site boundary ▪ Display the head or regional office contact information ▪ Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by SADC
Site Management	▪ Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken ▪ Make the complaints log available to SADC when requested ▪ Record any exceptional incidents that cause dust and / or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book ▪ Hold regular liaison meetings with other high risk construction sites within 250 m of the site boundary, to ensure plans are coordinated and dust and particulate matter emissions are minimised
Monitoring	▪ Undertake appropriate on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to SADC when asked

Issue	Control Measure
	▪ Carry out regular site inspections, record inspection results, and inspect log available to the local authority upon request ▪ Increase the frequency of site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions
Preparing and Maintaining the Site	▪ Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible ▪ Erect solid screens or barriers around dusty activities or the site ▪ Fully enclose site or specific operations where there is a high potential for dust production and they are active for an extensive period ▪ Avoid site runoff of water or mud ▪ Keep site fencing, barriers and scaffolding clean using wet methods ▪ Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used ▪ Cover, seed or fence stockpiles to prevent wind whipping
Operating Vehicle/Machinery and Sustainable Travel	▪ Ensure all vehicles switch off engines when stationary - no idling vehicles ▪ Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable ▪ Impose and signpost a maximum speed limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas ▪ Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials ▪ Implement a Travel Plan that supports and encourages sustainable travel
Operations	▪ Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques ▪ Ensure an adequate water supply on the site for effective dust suppression, using non-potable water where possible and appropriate ▪ Use enclosed chutes and conveyors and covered skips ▪ Minimise drop heights and use fine water sprays wherever appropriate ▪ Ensure equipment is available to clean any dry spillages, and clean up spillages as soon as reasonably practicable using wet cleaning methods
Waste Management	▪ Avoid bonfires or burning of waste materials
Earthworks	▪ Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable ▪ Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable

Issue	Control Measure
	▪ Only remove the cover in small areas during work and not all at once
Construction	▪ Avoid scabbling (roughening of concrete surfaces) if possible ▪ Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out ▪ Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos ▪ For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust
Trackout	▪ Use water-assisted dust sweeper on access and local roads, if required ▪ Avoid dry sweeping of large areas ▪ Ensure vehicles entering and leaving site are covered to prevent escape of materials ▪ Inspect on-site haul routes for integrity and instigate necessary repairs ▪ Record all inspections of haul routes and any subsequent action in a site log book ▪ Install hard surfaced haul routes which are regularly dampened down ▪ Implement a wheel washing system, if required ▪ Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exist, wherever size and layout permits ▪ Access gates to be located at least 10m from receptors where possible

Ecological Management

5.1.12 Measures for the protection of ecological and arboricultural resources that will be adopted during construction works include the following:

- Removal of trees and other suitable bird nesting habitat will be undertaken outside of the main bird nesting season (March to August inclusive), unless a scheme to minimise the impact on nesting birds has been approved in writing by SADC. If clearance during this period is unavoidable, a qualified ecologist will conduct pre-clearance surveys to identify active nests. Buffer zones will be established around any active nests until fledging is complete;
- A variety of bird boxes should be provided throughout the Development, including small holes nest boxes for common tit species, open fronted nest boxes for robin and blackbird and a variety of boxes or integrated bricks for urban species such as house sparrows and swallows;
- Bat boxes will be installed on existing mature trees across the Site and bat tubes could be incorporated into the residential dwellings. Bat boxes and tubes/bricks

should be arranged around the Development close to green infrastructure and on different aspects;

- Construction Working Methods Statements, to ensure impacts on fauna are minimised, e.g. casualties to Bats. If required to be removed, trees with identified low bat roost potential shall be subject a soft-felling methodology;
- Construction Exclusion Zones, to be secured by means of temporary protective fencing with weatherproof signage, will be used for the protection of trees (inclusive of their root protection zones) to be retained as part of the Development where no unauthorised access or construction operations are permitted. The fencing will adhere to British Standard BS 5837:2012^{xii} and regular inspections will be conducted to maintain the integrity of the fencing throughout the construction process;
- A licence granted by Natural England that allows the eviction or exclusion of badgers from setts or allows setts to be destroyed for development is required. Should any ecological issues be identified during the course of development, consultation with the relevant statutory and advisory bodies such as Natural England (NE) and the EA will be undertaken as appropriate;
- Pollution prevention measures to minimise degradation to nearby parcels of priority deciduous woodland and nearby Local Wildlife Sites;
- Offsite skylark mitigation options may include an area of the SANG that will be managed specifically for skylark to provide permanent, high quality, foraging habitat for this species. This will include species-rich grassland with areas of bare ground and varying sward heights to create a diverse grassland with a large quantity of invertebrate foraging resources; and
- Construction lighting will be kept to a minimum by time and season to avoid impacts on nocturnal animals, notably bats.

5.1.13 Prior to the start of works commencing, all construction Site members will receive a briefing on the species and habitat protection measures by the Site Manager/Ecologist and will include reference to the following legislation:

- Schedule 1, Part 1, of The Wildlife and Countryside Act 1981^{xiii} (and amendments) lists birds protected by special penalties at all times. It prohibits intentional killing/injuring, taking, possessing, disturbing and selling (including parts and derivatives, eggs, nests, etc. as applicable) as well as damaging, destroying or disturbing nests in current use or dependent young, etc.;
- Schedule 5 of The Wildlife and Countryside Act 1981 (and amendments) prohibits deliberate killing, injuring, taking, possessing, disturbing and selling (including parts and derivatives) as well as damaging, destroying or obstructing any structure or place of refuge of listed fauna, such as bat species or badger;
- Under the Conservation of Habitats and Species Regulations 2017^{xiv} it is illegal to kill, disturb, destroy eggs, breeding sites or resting places, to pick, collect, take cuttings,

^{xii} BSI (2012). BS 5837:2012. Trees in relation to design, demolition and construction.

^{xiii} HMSO, (1981). Wildlife and Countryside Act 1981.

^{xiv} HMSO, (2017). The Conservation of Habitats and Species Regulations.

uproot or destroy in the wild as well as keep, transport, sell/exchange and offer for sale/exchange species listed;

- The Countryside and Rights of Way Act 2000^{xv} increases the protection given by The Wildlife and Countryside Act 1981 (and amendments). The offence to intentionally damage any structure or place that a wild animal listed in Schedule 5 of the Act uses for shelter or protection or deliberately disturbing any such animal while in such a structure or place is extended so that the offence also covers reckless damage or disturbance; and
- The Natural Environment and Rural Affairs Act 2006^{xvi} Section 14 provides a list of Priority Habitats and Species that will be specially protected by the construction activities.

- 5.1.14 If during the construction works, any protected species (including, but not limited to Badger, bats, reptiles, and nesting birds) are found on-site, work will cease, and the project ecologist will be contacted immediately.
- 5.1.15 In order to prevent any mammals from becoming trapped, any excavations, trenches or open pipework with an outside diameter of greater than 120 mm will be covered at the end of each workday and excavations will either be covered at night or fitted with suitable mammal ramps i.e. planks of wood.
- 5.1.16 Existing mammal pathways will not be obstructed by Site fencing or parked machinery, etc.
- 5.1.17 Removal of trees which contain bats or birds in any active nests require the employment of a soft-felling approach. This involves gradual cutting, allowing bats and birds in any active nests to vacate naturally, under the supervision of an ecologist.
- 5.1.18 To prevent the spread of invasive non-native species, any such species identified within or immediately adjacent to the Site during the construction works will be treated with caution and will be removed or avoided (with suitable barriers installed where necessary) as is deemed most appropriate.
- 5.1.19 Any construction lighting should be carefully installed to minimise potential disturbance and fragmentation impacts on sensitive receptors, with full details on lighting requirements and positions to be outlined within the Site-specific CEMP. Examples of good practice include:
- Avoiding lighting outside of construction hours or otherwise limiting to the minimum necessary;
 - Limiting the lighting period to from one hour after sunrise until one hour prior to sunset to minimise disturbance to nocturnal species;
 - Implementing controls to ensure lighting is only active when needed, with the use of timers or motion sensors as appropriate;

^{xv} HMSO, (2020). Countryside and Rights of Way Act.

^{xvi} HMSO, (2006). Natural Environment and Rural Communities Act.

- The use of low-level bollard lighting in preference to columns, with consideration given to directional lighting to reduce light spill, e.g. by installing bespoke fittings or using hoods or shields. For example, downlighting can be used to illuminate features such as footpaths whilst reducing the horizontal and vertical spill of light; and
- Consideration of lamp specification, with preference given to warm white directional LED luminaires that have a maximum Colour Correlated Temperature (CCT) of 3000K, thereby reducing the levels of blue light which are known to be determinantal to bats.

Materials Management, Soil Handling and Land Contamination

- 5.1.20 The Site shall be handed over to Contractor who will undertake the civil engineering work before handing the Site back to the Developer. Spoil from excavations shall be deposited at an agreed location with the Contractor. Handling of materials shall be in accordance with the Site Materials Management Plan and in line with good practice as detailed in Control of Asbestos Regulations 2012: Interpretation for Managing and Working with Asbestos in Soil and Construction & Demolition materials: Industry Guidance.
- 5.1.21 Spillages and soil erosion will be minimised and controlled. Specific mitigation measures will include, but not be limited to:
- Storage of fuel, oils and chemicals will be within suitable bunded container on impermeable surface in accordance with GPP2^{xvii} and GPP8^{xviii};
 - Static machinery and plant will, where practicable, have integral drip trays of 110% of the capacity of the fuel tank;
 - Subject to the nature of the material, stockpiled materials should be on an impermeable surface and covered when not in use;
 - Dampening exposed soils and other measures as appropriate;
 - Settled solids will be regularly removed and disposed of by an appropriate licensed contractor;
 - The use of biodegradable oils and lubricants will be used, where practicable;
 - Refuelling will be undertaken in a designated and lined refuelling area;
 - Use of track mats to prevent unnecessary soils compaction, damage to vegetation, and/or erosions;
 - No stripping of soils and / or vegetation clearance during periods of extreme rainfall (as defined by Met Office severe weather warnings);
 - Machinery will be routinely checked to ensure it is in good working condition to reduce the risk of leaks;
 - Any tanks and associated pipe work containing oils and fuels will be double skinned and be provided with intermediate leak detection equipment; and

^{xvii} NIEA, NRW and SEPA (2021). GPP 2: Above ground oil storage. June 2021

^{xviii} NIEA, NRW and SEPA (2021). Safe storage and disposal of used oils. June 2021

- Any visual/olfactory signs of contamination encountered during excavation should be reported and investigated.

5.1.22 Ongoing liaison will be maintained with relevant regulators including SADC and the Environment Agency. This will ensure that, in the unlikely event of an accidental spillage, surface and groundwater will remain protected.

5.1.23 Control of sediments and potential pollution will be controlled by ensuring that:

- Sediment control measures, drains and potholes will be regularly inspected and cleared / infilled/ repaired;
- Covers will be used by lorries transporting materials to or from the Site;
- Where reasonably practicable, precast concrete will be used in preference to wet pouring of concrete;
- No concrete batching will be permitted within the Site. A washout facility will be available on-site for concrete delivery vehicles;
- Smaller equipment washout will occur in a lined and bunded area and all resulting liquid will be managed in the line with the Environment Agency's RPS 235^{xix};
- Cement/concrete mixes will be calculated to ensure that sufficient quantities are supplied (without needing to dispose of any excess) and that the cement/sand mix ratio will be monitored for consistency and suitability;
- Pouring of concrete for foundations will take place within well shuttered pour to prevent egress of concrete from the pour area; and
- Pouring of concrete or cement bound sand during adverse weather conditions will be avoided, where possible.

5.1.24 Welfare facilities will be provided on-site for construction workers. The flows will be collected and tankered from the Site for treatment and disposal at a suitably licenced facility.

5.1.25 A spill procedure will be documented, and spill kits kept in the vicinity of potentially hazardous materials storage areas. All staff will be trained on the use of these spill kits.

Archaeology

5.1.26 Development groundworks within the Site would have a direct impact on any archaeological remains present but any impacts could be mitigated through an agreed programme of archaeological works, if deemed necessary, developed in conjunction with the SADC archaeological advisor.

5.1.27 The exact scope and extent of any mitigation will be agreed in discussions with the Council Planning Archaeologist as necessary. Any mitigation fieldwork would need to be undertaken in accordance with an approved Written Scheme of Investigation (WSI).

^{xix} EA (2020, updated 2024). Environment Agency's RPS 235: Treating and using water containing suspended solids at construction sites. September 2020.

- 5.1.28 All archaeological fieldwork would be monitored by the SADC archaeological advisor to ensure that the works comply with the agreed WSI. The SADC archaeological advisor would also review all reporting on the archaeological fieldwork.
- 5.1.29 Notwithstanding, in the event that unexpected, potentially significant archaeological resources are identified during the construction phase, the employer's appointed archaeologist would be contacted immediately, as well as the SADC archaeological advisor. The Applicants' appointed archaeologist would investigate, with the consultees whether preservation in situ is feasible.
- 5.1.30 If preservation in situ is required, measures to protect the archaeological remains during the construction programme will include fencing and signage.
- 5.1.31 If preservation in situ is not feasible, the Applicants' appointed archaeologist would produce an updated risk assessment method statements to include works appropriate to conduct an archaeological excavation on the Site and achieve preservation by record. A time period for archaeological recording and excavation would be determined in consultation with the statutory consultees.

6 Conclusions

- 6.1.1 The Outline CEMP outlines the mechanisms, management systems, plans, and procedures to control environmental effects during the Development's construction. As an initial document, it will be updated with additional details once the Contractor is appointed and construction methods are confirmed. Detailed CEMP(s) will be produced in line with this Outline CEMP after planning permission is granted and will be agreed upon with SADC and relevant statutory consultees before starting the works.

Appendix 1 – Site Waste Management Plan Log

Table A1: Approximate Quantities of Waste arising during Construction Works

Material	European Waste Catalogue (EWC)	Composition of Construction Waste Stream (%)	Anticipated Qty of Construction Waste (Tonnes)	Recorded Qty of Construction Waste (Tonnes)	Discrepancy (Anticipated – Recorded)	Reason for Discrepancy
Asphalt	17.03.02					
Canteen/Office/Adhoc Waste	20.03.01					
Concrete	17.01.01					
Hazardous	17.09.03					
Inert	17.01.17					
Metals	17.04.07					
Mixed	17.09.04					
Plastics	17.02.03					
Timber	17.02.01					
Others/Misc.	----					
Total		100%	XX Tonnes	XX Tonnes	XX Tonnes	