

Wrenbridge (FRELD Reading) LLP

SHINFIELD PARK, READING

FRAMEWORK CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

REV 01

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1.0 INTRODUCTION

1.1 Overview

- 1.1.1 Wrenbridge (FRELD Reading) LLP ('the Applicant' hereafter referred to as Wrenbridge), in coordination with the wider project team, have prepared a Framework Construction Environmental Management Plan (CEMP) (this report) for the redevelopment of site.
- 1.1.2 This Framework CEMP which will govern the construction works associated with the proposed development for all contractors. It sets out in broad terms, the methods to avoid, reduce and mitigate construction effects on the environment.
- 1.1.3 The CEMP is a 'live' working document, that will be owned and implemented throughout construction by the Principal Contractor.

1.2 The Site

- 1.2.1 The Site extends to c.5.5ha and comprises an established, albeit now vacant, office complex located on the southern outskirts of Reading, north of the M4 motorway.
- 1.2.2 There is a Public Right of Way (PRoW) which crosses the northern part of the Site, identified as SHIN10 on the definitive map. The Site is located within the administrative boundary of Wokingham Borough Council. The residential area to the north-east is also known locally as Shinfield Park. The residential area to the west is known as Whitley Wood. The main road to the south is called Lower Early Way or B3270. The access road serving the site to the south of Unit 5 is called Whitley Wood Way. The ancient woodland to the north is called Nores Hills Wood. The local wildlife site to the west is called Shinfield Park, Nores Hill.
- 1.2.3 A Site Location Plan is provided in **Appendix A**.

1.3 Proposed Development

- 1.3.1 The application to Wokingham Borough Council seeks full planning permission for:
Redevelopment of the existing site for flexible employment use (Use Class E(g)(ii)-(iii)/B2/B8) together with associated servicing areas, parking, landscaping and other associated works (including demolition). Proposed floorspace to be 20,102 sqm GIA / 21,247 sqm GEA.
- 1.3.2 The Proposed Development is illustrated by the Proposed Site Plan provided in **Appendix B**.

1.4 Construction Programme

- 1.4.1 It is estimated that construction would take place over an 18-month period, commencing in Q3/4 2025.

1.5 Purpose of this Document

- 1.5.1 A CEMP is the lead environmental management document that helps to define and pull together the procedures for achieving relevant environmental policy objectives, best practice construction techniques, and identified environmental performance targets. The CEMP helps to make sure the environmental impact of the construction of the development is adequately mitigated, in the interests of the environment and the amenity of nearby residents/occupiers.
- 1.5.2 This document provides a framework for the CEMP which will be a 'live' working document owned and implemented by the Principal Contractor. It outlines a series of mitigation measures, standards of work / method statements and control plans which shall be applied by the nominated undertaker and its contractors throughout the construction period to:
- Provide effective planning, management and control during construction to control potential impacts upon people, businesses and the natural and historic environment.
 - Provide the mechanisms to engage with the local community and their representatives throughout the construction period.

- 1.5.3 Once the Principal Contractor has been appointed, they will be responsible for taking this framework document and developing the final working CEMP to be used on Site during construction. The Principal Contractor will comply, as a minimum, with applicable environmental legislation at the time of construction. Further guidance on specific areas, such as soil handling and dust management, are considered within this CEMP drawing on industry best practice guidance documents as set out in each discipline section. The references to guidance documents within this document are not intended to be exhaustive.
- 1.5.4 In summary, the objectives of this CEMP are to:
- Minimise, (eliminating where practicable), the environmental effects of the construction of the proposed development.
 - Document the environmental controls to be adopted during construction.
 - Enable agreement with the relevant approval authorities on mitigation measures to be adopted during construction.
 - Provide a framework for contractors to manage potential construction impacts.
- 1.6 Structure of the CEMP**
- 1.6.1 Chapters 2, 3 and 4 outline general site management issues related to good practice in environmental site management, including:
- Roles and responsibilities.
 - Communications and training.
 - Emergency and incident planning.
 - Monitoring and reporting.
- 1.6.2 This CEMP covers a range of topics relating to identification and management of potential environmental effects of construction. These topics are:
- Flood Risk, Hydrology, and Drainage.
 - Air Quality and Dust.
 - Ecology.
 - Noise and Vibration.
 - Access, Transport and Traffic.
- 1.6.3 Each of these topics is covered by individual Chapters 5 to 10. They consider the general issues for construction, potential impacts, mitigation of these impacts, and relevant topic specific legal compliance.

2.0 ROLES, RESPONSIBILITIES AND COMMUNICATIONS

2.1 Introduction

2.1.1 This chapter covers key roles that will need to be designated in order for the CEMP to be adequately complied with, and what responsibilities will be covered by these roles. The communication protocols are also set out below.

2.2 Role and Responsibilities

2.2.1 The Client

Overall responsibility for the CEMP and ensuring legislative compliance lies with the Client - Wrenbridge. The Client makes sure that all contractors engaged in a particular phase of construction are aware that they have an obligation to comply with good environmental practice for construction including the implementation of this CEMP. All contractors employed by the Client should be registered with the Considerate Constructors Scheme (CCS). The CCS recognises and rewards better than standard industry practice in the following areas:

- Care about appearance.
- Respect the community.
- Protect the environment.
- Secure everyone's safety; and
- Value their workforce.

2.2.3 The Principal Contractor

It is the responsibility of the Principal Contractor to update, manage, co-ordinate and implement the CEMP, and to ensure that all their staff, sub-contractors and site workers are aware of it. The Principal Contractor should ensure that everyone understands the aims and recognises their personal responsibility in its implementation, protection of the environment and legislative compliance.

2.2.4 The Principal Contractor will have responsibility for ensuring that the CEMP, and associated documentation, are kept up to date along with details of any site-specific permits. Documentation recording and monitoring of the CEMP is essential, and the CEMP needs to be updated on a regular basis and verified at the end of the construction phase. It is the Principal Contractor's responsibility to ensure that construction works are undertaken in compliance with all relevant and current legislation applicable at the time of the works.

2.2.4 Sub-Contractors

Sub-contractors and suppliers will be contractually obliged to adhere to the requirements of the CEMP and to ensure that all of their site personnel are inducted on its requirements prior to commencing any work on the Site.

Materials suppliers will provide details to the Principal Contractor of the origin of all materials they supply to the development e.g., concrete. Furthermore, suppliers should, wherever possible, provide evidence of adherence to industry recognised responsible sourcing certification schemes such as the Framework Standard for Responsible Sourcing (BES 6001) developed by BRE Global.

2.2.5 Community Liaison Officer

A Community Liaison Officer will be assigned to act as a single point of contact for the public during construction. The Community Liaison Officer will provide general information on the development and the construction works if requested and respond to any queries or complaints that may come forward. As such they will need to be updated on a regular basis by the Principal Contractor and informed of any planned work, issues, or incidents.

2.3 Overview of Communications

2.3.1 The Principal Contractor, working with the Community Liaison Officer, will be required to establish a series of communication protocols to ensure that relevant stakeholders are kept informed of construction progress and any issues arising. This will help to establish lines of communication should any stakeholders wish to raise issues regarding the construction works. The Principal Contractor will act as a central point of contact between the Client, Principal Contractor, Community Liaison Officer, and other third parties. As above, the Community Liaison Officer will be appointed as the primary point of contact for the public and other interested parties.

The communication protocols will establish appropriate relations between contractors, the Client, any adjacent construction works; and with occupants of properties near construction works, including the current occupiers and the local community, particularly relating to the development access arrangements. Where there is change of

construction personnel between infrastructure delivery and construction stages, appropriate liaison and handover must take place.

- 2.3.2 To minimise disruption to nearby residents, all parties potentially affected by construction works would be contacted. Correspondence would include details of the nature of the work, hours of works, a timetable of works and details of phasing. This will be done through relevant communication channels such as notices on Site hoardings and website communications. These communications should also give contact details for the Principal Contractor and a 24-hour contact telephone number. The Local Planning Authority will be made aware of the work being carried out on site where appropriate.
- 2.3.3 Prior to commencement of construction works, the Community Liaison Officer will instigate a system for recording, investigating, remedying (where appropriate) and responding to comments. The records will keep a note of the date, the name and contact details for the person making the comment, the action taken and the date of the action. The Community Liaison Officer should also consider the requirement for meetings to be set up with the local residents. This could include a 'Construction Practice Liaison Group' being established, comprising the developers, local planning authority and local representatives.
- 2.3.4 A logbook system will be held at the site to provide a place for the general public, visitors and neighbours to make comments regarding the construction works and to note any concerns and/or complaints. The Principal Contractor, as part of their own communications procedure, will need to ensure all site-generated enquiries and/or complaints are effectively logged, communicated to the relevant contractor, and put into action as appropriate.
- 2.3.5 Environmental training is essential to implement the CEMP effectively, protect the environment and minimize impacts during construction activities. It is also necessary to ensure compliance with environmental legislation. A short briefing note on the CEMP will be provided to all workers attending the Site and a copy of the CEMP will be available in the main site office. No construction personnel including office staff will be permitted to work on the site until they have attended a site induction which includes a briefing on the CEMP and ways of minimising environmental effects, waste management and responding to emergencies. Activity specific toolbox talks will be undertaken with relevant site staff as required.

3.0 CONSTRUCTION MANAGEMENT

3.1 Introduction

This chapter provides an overview of proposed site management procedures.

Key legal and guidance references are provided for information purposes only. The lists are not exhaustive but are considered to be current at the time of writing.

3.2 Risk Assessments

3.2.1 The majority of construction activities undertaken on-site will be subject to an activity specific construction risk assessment which will:

- Identify potential environmental impacts that can be anticipated.
- Assess the risks from these impacts.
- Identify the control measures to be taken and re-calculate the risk; and
- Report where an unacceptable level of residual risk is identified so that action can be taken through design changes, re-scheduling of work or alternative methods of working in order to reduce the risk to an acceptable level.

3.2.2 The results of risk assessments, and their residual risks are only considered acceptable if:

- The severity of outcome is reduced to the lowest practical level.
- The number of risk exposures are minimised; and
- All reasonably practical mitigating measures have been taken, and the residual risk rating is reduced to a minimum.

3.2.3 The findings of the risk assessment, and in particular the necessary controls, would be explained to all contractors before the commencement of the relevant works using an agreed instruction format (e.g. Toolbox Talks). Attendance will be registered.

3.3 Method Statements

3.3.1 Method Statements will be completed by the Principal Contractor or sub-contractor, in consultation with on-site staff and, where necessary, environmental specialists. Their production should include a review of the environmental risks, risk assessment and commitments, so that appropriate control measures are developed and included within construction processes.

3.3.2 Where required, Method Statements would also be submitted to the enforcement agencies (Environment Agency, Environmental Health Officer etc.). Method Statements should generally contain the following information:

- Location of the activity and access/egress arrangements.
- Work to be undertaken and methods of construction.
- Plant and materials to be used.
- Labour and supervision requirements.
- Health, safety and environmental considerations; and
- Any permit or consent requirements beyond those already obtained.

3.4 Site Environmental Standards

3.4.1 Site Environmental Standards will be agreed with the Client and Principal Contractor and will detail the minimum measures that should be achieved for general operations falling outside the risk assessment/method statement procedure. The Site environmental standards will be designed to cover the majority of construction activities. These will cover issues such as storage of materials, management of waste, noise and vibration, and water pollution control. The standards may be used as a briefing tool on Site. These standards will also form the basis of 'toolbox talks' which will inform all contractors working on Site of the potential environmental risks arising from construction activities.

3.4.2 Best practice construction site management techniques will be implemented to avoid/minimise the generation of excessive waste, dust, noise, lighting, noise and vibration.

The agreed set of Site Environmental Rules will be displayed within the site office developed in addition to Site health and safety to set the minimum standard to be adopted by all contractors and sub-contractors. The existence and location of the site environmental rules will be made clear during site inductions.

3.5 Monitoring, Review and Complaints

3.5.1 The final version of the CEMP, to be produced by the Principal Contractor, will present a comprehensive method for monitoring, review, and complaints. This will include:

- A contact board with a complaints number advertised at the site entrances.
- A programme of monitoring and review to generate information by which the success of all aspects of the CEMP can be evaluated against its objectives; and
- Monitoring and review of construction activity.

3.5.2 This process will provide the opportunity for construction operations and procedures on the site to be reviewed and new management measures to be implemented to achieve the objectives. Monitoring will be documented and be available for inspection by the LPA. As part of the ongoing process for ensuring that impacts due to construction activities are minimised, ongoing engagement will be undertaken with neighbours and stakeholders.

3.6 Consents and Licenses

3.6.1 The Principal Contractor will be responsible for any consents, permissions or licences necessary for the construction works that are not already in place, e.g., land drainage consents and waste licenses.

A register of consents must be kept, to include all applied for and secured, details of expiry dates, conditions and commitments that must be adhered to and all related correspondence. The Principal Contractor should ensure that this is kept up to date.

3.6.2 It is the Principal Contractor's responsibility to ensure that construction works are undertaken in compliance with all relevant and current legislation applicable at the time of the works, and that how compliance has been achieved is documented. It is expected that through site induction and toolbox meetings, staff will gain an awareness of the information contained within these documents and will be informed of any changes as and when necessary. Provision, communication, and updates to the list of environmental legislation during construction will be the responsibility of the Principal Contractor.

3.7 Site Logistics, Control and Site Planning

3.7.1 Construction Site Logistics

Schedules and plans to be prepared and managed by the Principal Contractor will show an overview of the coordination plan for construction. It will follow the general principles outlined below. Topics covered should include:

- Site working hours.
- Site layout (e.g., principal access/egress points, routing plans, site security).
- Site offices and welfare facilities.
- Site access routes (construction traffic management);
- Site demarcation and access control;
- Lighting arrangements;
- Delivery areas; and
- Storage and lay-down.

3.7.2 Welfare Facilities

In accordance with relevant legislation and Health and Safety Executive guidance, welfare facilities will be provided on site. These will include as appropriate, canteen, toilets and washrooms with hot water; drying/changing rooms; and a first aid post.

3.7.3 Lighting Control

The requirement for works after sunset will need to be considered, especially in the winter. Should there be a requirement for work after dark, the use of temporary artificial lighting will be required. Where artificial lighting is proposed this will be subject to any environmental restrictions noted in this CEMP.

Lighting will need to comply with the Environment Protection Act 1990 and the Clean Neighbourhoods and Environment Act 2005. Therefore, mitigation of impacts may be necessary and could include careful positioning, directing and anti-glare control. Details of controls required should be specified by the Principal Contractor.

3.7.4

Operating Hours

Construction working hours will be limited to the following time periods:

- Monday-Friday: 07.00 - 18.00;
- Saturdays: - 07.00-13.00; and
- No working on Sundays and Bank Holidays

Appropriate prior notice will be given to the necessary bodies and agreement procedures will be followed should work need to be undertaken outside of the agreed limits and hours.

3.7.5

General Types of Plant and Equipment

All key static plant and equipment (e.g., hoists, power distribution units, diesel storage tanks etc.) will be clearly identified on site logistics drawings and appended to this CEMP. The Principal Contractor will be required to complete a 'Register of Plant & Equipment and Statutory Certification' within their Health & Safety 'Method Statement' prior to works commencing on Site. This will be required to assess the potential environmental impacts of each item. The Register allows an inventory of on-site plant and equipment to be kept to, ensure they are maintained in accordance with statutory test/examination/inspection requirements, and that specific operator training requirements are addressed. This list also assists by providing a useful cross-reference for noise level predictions and assessments of plant and machinery in respect to ensuring that excessive noise levels are identified and suitable control measures.

3.8

Construction Waste Management

All contractors must adhere to sustainable waste management principles with the objective of ensuring materials are reduced, reused, and recycled either on or off-site as far as practicable. Construction waste management should align with objectives and policies set out in the Wokingham Sustainable Design and Construction SPD (May 2010) and be managed in line with the Waste Hierarchy. During the construction phase, materials recovered from any on-site works may be suitable for reuse on-site. This, combined with considerate design practice, will help to minimise construction waste in line with the waste hierarchy which seeks to: eliminate, reduce, reuse, and recycle. In order to control waste that is generated on Site during construction, the Principal Contractor(s) will undertake a skip segregation system to separate the main waste streams on Site, prior to them being taken to a waste facility for recycling. All waste to be removed from the Site will be undertaken by fully licensed waste carriers and taken to licensed waste facilities. Construction waste will be managed in line with a Site Waste Management Plan (SWMP). A SWMP is a live document which the Principal Contractor(s) is responsible for. The SWMP will provide details of waste streams and volumes, goals for waste reduction, and a schedule and site plan for on-site waste management.

4.0 ENVIRONMENTAL EMERGENCY PLANNING AND INCIDENT CONTROL PROCEDURES

4.1 Introduction

- 4.1.1 An environmental emergency incident control plan will be established prior to the commencement of works on site, by the Principal Contractor. This will clearly set out the steps that must be taken in the event of an incident and clearly identified roles and responsibilities.

4.2 Environmental Incident Recognition

- 4.2.1 The site induction will include environmental incident recognition to highlight the key environmental pollution issues relevant to all project personnel. Briefing topics will include:
- Uncontrolled discharge/spillage of polluting substances such as chemicals, oil, concrete etc. into the ground;
 - Uncontrolled discharge/spillage of polluting substances such as chemicals, oil, concrete etc. into sewers;
 - Uncontrolled discharge of contaminated surface water run-off with pollutants such as oil, chemicals, suspended solids into controlled watercourses;
 - Release of particulates into the atmosphere (e.g. smoke, dust) or to water (e.g. silt);
 - General ecological, archaeological and environmental awareness;
 - Storage of substances and maintenance of plant and machinery;
 - Discovery of protected species / unidentified plant or animal species;
 - Incident reporting and immediate actions;
 - Location of environmental emergency response equipment, e.g. spill kits, and who is responsible for their use; and
 - Legislation and responsibilities.

4.3 Environmental Emergency Planning

- 4.3.1 Systems, procedures and equipment will be put in place for environmental emergency planning, including:
- Provision of adequate spillage containment materials to stop and contain pollution, including spill kits, earth for bunding, sand for soaking up oils etc;
 - Contact numbers for the Environment Agency (EA), Warwickshire County Council, and essential local environmental emergency services will be displayed in the Site office in case an emergency pollution control plan and an emergency environmental communications strategy need to be implemented;
 - Appointment of a Site emergency pollution control response team to respond to pollution incidents;
 - All site staff will be trained in the use of environmental emergency response equipment; and
 - Provision of a site drainage plan identifying the location of existing and proposed surface water drainage will be prepared prior to construction. This will assist in:
 - The siting of storage and containment areas and in particular the strategic bunding of
 - vulnerable controlled watercourses; and
 - Emergency bunding in the event of a pollution incident.

4.4 Incident Control and Reporting

- 4.4.1 Detailed environmental incident control procedures will be developed by the Principal Contractor. In outline the following steps will be taken in the event of an environmental incident:
- Take action to stop the environmental incident;
 - Mitigate and control any obvious effects – e.g. mop up pollution spills, stop works within the immediate vicinity of protected species or an archaeological find, control dust, noise emission etc;
 - Report environmental incident immediately to Site management team and Environmental Manager;
 - Raise the alarm to the 'emergency pollution control response team';
 - Summon emergency services or other relevant authority where appropriate;
 - Ensure safe disposal of pollution waste; and
 - Notify the local Environment Agency Regional Office via the incident hotline.

5.0 FLOOD RISK, HYDROLOGY AND DRAINAGE

5.1 Introduction

5.1.1 This section identifies the mitigation measures required to alleviate the potential impacts of flood risk and surface water runoff during construction.

5.2.1 The following sources of information have been used to inform this chapter:

- TRC Intrusive Geoenvironmental and Geotechnical Site Assessment 26/07/2024

5.2 Potential Impacts and Sensitive Receptors

- The Tier 2 GI suggests perched water will likely be encountered during excavations
- Existing watercourse to the south and ponds to the east
- Potential surface water flows off site into woodland to the south and on to B3270
- Production of sediment during the earthworks phase which then enters existing drainage or conveyed off site

5.3 Mitigation Measures

- Phasing of construction works so drainage system is constructed early on and ensure water is adequately treated prior to leaving site.
- If not possible, temporary drainage measures will be required during construction
- Perched water encountered during excavations to be pumped out and may require treatment prior to discharge
- Hardstanding areas to be kept as much as possible to reduce risk of silt entering drainage system.
- Silt traps and silt prevention measures to be utilised to prevent entering drainage system.
- Stockpiles to be placed in bunds or within geotextile fencing to reduce possible transfer of sediment into the drainage system.
- Specific drainage measures will be required for storage areas containing

6.0 AIR QUALITY AND DUST

6.1 Introduction

6.1.1 This section identifies the mitigation measures required to alleviate the potential risks on air quality arising during construction. It is informed by the Construction Dust Risk Assessment carried out in the Air Quality Assessment and is based on Institute of Air Quality Management (IAQM) Construction Dust Guidance (IAQM, 2024).

6.1.2 The appointed contractor will produce a detailed construction plan which will deal with the management of dust, mud and debris caused by construction traffic. Dust control measures linked to site activities are addressed below. The construction works will be carried out in such a way that emissions of airborne pollutants including dust are minimised and managed by best practicable means. This will ensure that there will be no nuisance, loss of amenity or health effects to nearby residents and the local community, and that relevant air quality objectives are not exceeded.

6.2 Potential Impacts and Sensitive Receptors

6.2.1 During demolition and construction, dust from on-site activities and off-site trackout by construction vehicles has the potential to impact on sensitive human receptors within the study area. The main potential impacts are a loss of amenity (as a result of dust soiling), deterioration of human health (as a result of increased concentrations of particulate matter, PM10) and harm to sensitive ecological receptors.

6.2.2 An assessment of the risk of potential construction dust impacts has been undertaken in line with the IAQM construction dust guidance (IAQM, 2024) and is presented below:

6.2.2.1 Screening Assessment

- There are a number of existing sensitive human receptors (including residential properties) located within 250 m of the Site boundary and within 50 m of the routes that will be used by demolition and construction vehicles. As such, further assessment of the risk of dust soiling and PM10 emissions is required.
- There are sensitive ecological receptors located within 20 m of the Site boundary and within 20 m of the routes used by demolition and construction vehicles on the public highway. The closest designated ecological site to the Site is located adjacent to the Site boundary. The Site is bound to the north by Nores Hill Ancient Woodland and Shinfield Park Local Wildlife Site, and to the south and west by Shinfield Park Local Wildlife Site. As such, further assessment of the risk to ecological sites is required.

6.2.2.2 Further Assessment

- Dust Emission Magnitude - The dust emissions magnitude of demolition, earthworks and construction activities and as a result of trackout have been determined in Table 1 below.

Activity	Magnitude	Justification
Demolition	Large	The Site currently includes an existing Headquarter Office Building and its associated car park which are both to be demolished. Demolition activities are likely to occur more than 12 m above ground and the total building volume is likely to exceed 75,000 m ³ of material. Therefore, the dust emission magnitude of demolition activities is judged to be 'large'.
Earthworks	Medium	Proposed earthworks activities comprise clearance of vegetation, soil preparation and landscaping across an area between than 18,000 m ² and 110,000 m ² . The soil at the Site is largely classified as slowly draining loamy and clayey soils (Cranfield University, 2025) which are considered to be moderately dusty, particularly during periods of dry weather. Based on this, the dust emission magnitude of earthworks activities is judged to be 'medium'.
Construction	Large	The total building volume to be constructed is expected to be over 75,000 m ³ . Construction materials will comprise a mixture of masonry material including those with a high potential for dust release, such as concrete, as well as those with a lower dust potential such as metals and timber. Based on this, the dust emission magnitude of construction activities is judged to be 'large'.

Activity	Magnitude	Justification
Trackout	Large	The number of Heavy Duty Vehicles (HDVs) that will exit the Site will vary depending upon the processes occurring at any one time. There are unlikely to be more than 50 outward HDV movements in any one day. Due to the nature of the Site, there could be an unpaved road length greater than 100 m in length comprising moderately dusty surface material. Based on this, the dust emission magnitude of trackout is judged to be 'large' as a precautionary measure.

- **Area Sensitivity**
 - The area sensitivity to dust soiling and human health impacts has been determined based on the criteria shown in the IAQM Guidance (IAQM, 2024). The IAQM demolition and construction band criteria used to determine the sensitivity of the local area can be found in the guidance.
 - Residential properties are classed as being 'high sensitivity' receptors to dust soiling, based on the IAQM guidance. There are between 1 and 10 residential properties located within 20 m of the Site boundary, and fewer than 100 residential properties within 50 m. As such, the sensitivity of the area surrounding the Site to dust soiling is judged to be 'medium'.
 - The IAQM guidance indicates that potential impacts of trackout should be considered for sensitive receptors within 50 m of the route used by construction vehicles within a distance of up to 250 m from the site entrance. As the demolition and construction traffic routing is currently unknown, the worst-case assumption has been made that all main roads may potentially be used by HDVs leaving the Site entrance(s). There are no residential properties within 50 m of roads extending up to 250 m of the Site; as such, the sensitivity to dust soiling of the area surrounding roads along which material may be tracked is judged to be 'low'.
 - The IAQM also defines residential properties as being 'high sensitivity' receptors to human health impacts. PM10 concentrations at existing residential properties within the study area are anticipated to be similar to the maximum of the predicted 2023 PM10 concentrations at the Site (14.9 µg/m³) (DEFRA, 2024). Based on the predicted existing PM10 concentrations and the number of sensitive receptors within 20 m of the Site boundary and roads along which material may be tracked, the sensitivity to human health impacts of the areas surrounding the Site and the area surrounding roads along which material may be tracked are judged to be 'low'.
 - Ancient woodlands with dust sensitive features are classed as being 'medium sensitivity' and Local Wildlife Sites with dust sensitive features are classed as being 'low sensitivity' receptors to dust deposition, based on the IAQM guidance. There is one Ancient Woodland located adjacent to the Site boundary and a Local Wildlife Site (Shinfield Park, Nores Hill) located adjacent to both the Site boundary and roads along which material could be tracked. As such, the sensitivity of the area surrounding the Site to dust deposition is judged to be 'medium' and the sensitivity of the areas surrounding roads along which material may be tracked is judged to be 'low'.
- **Risk of Impacts** - The risk of construction dust impacts, without mitigation, have been defined based on the criteria shown in the IAQM guidance (IAQM, 2024).

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	High Risk	Medium Risk	Medium Risk	Low Risk
Human Health	Medium Risk	Low Risk	Low Risk	Low Risk
Ecology	High Risk	Medium Risk	Medium Risk	Low Risk

6.3 Mitigation Measures

6.3.1 The following standard mitigation measures from the IAQM guidance (IAQM, 2024) are recommended, taking into account the outcomes of the construction dust risk assessment (presented in the Impact / Risk Table).

Category	Mitigation Measure
Communications	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
	Display the head or regional office contact information.
Management	Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The DMP may include monitoring of dust deposition, dust flux, real time PM ₁₀ continuous monitoring and/or visual inspections.
	Record all dust and air quality complaints, identify cause(s) and take measures to reduce emissions in a timely manner, and record the measures taken.
	Make the complaints log available to the local authority when asked.
	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 co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.
Monitoring	Undertake daily on-site and off-site inspections, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of the site boundary, with cleaning to be provided if necessary.
	Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
	Agree dust deposition, dust flux, or real-time PM ₁₀ continuous monitoring locations with the local authority. Where possible, commence baseline monitoring at least three months before work on a phase commences.
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 boundary that are at least as high as any stockpiles on site.
	Fully enclose site or specific operations where there is a high potential for dust productions and the site is active for an extensive period.

Category	Mitigation Measure
	Avoid site runoff of water of 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 on site. If they are being re-used on-site, cover as described below.
	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 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
	Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
	Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking and car sharing).
Operations	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
	Use enclosed chutes and conveyors and covered skips.
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
Waste management	Avoid bonfires and burning of waste materials.
Demolition	Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
	Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
	Avoid explosive blasting, using appropriate manual or mechanical alternatives.
	Bag and remove any biological debris or damp down such material before demolition.
Earthworks	Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.

Category	Mitigation Measure
	Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
	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, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
	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(s) on the site access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
	Avoid dry sweeping of large areas.
	Ensure vehicles entering and leaving the site are covered to prevent escape of materials during transport.
	Record all inspections of haul routes and any subsequent action in a site log book.
	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

6.3.2 Furthermore, in accordance with Part 4 of the IAQM Guidance, all Non-Road Mobile Machinery (NRMM) used in the construction phase will need to adhere to the NRMM emissions standards for nitrogen dioxide (NO₂) and PM₁₀ outlined in the Road Vehicles and (Type-Approval) (Amendment and Transitional Provisions) (EU Exit) Regulations 2022 (Statutory Instrument, 2022).

7.0 ECOLOGY

7.1 Introduction

7.1.1 This section identifies the sensitive ecological receptors within and adjacent the site, potential impacts arising from construction and proportionate mitigation measures that will be implemented to protect and limit impacts on ecological and natural habitats arising from construction activities and ensure sensitive working methods near key habitat features.

7.1.2 The sources of information used to inform this chapter include:

- Ecology Due Diligence Technical Note produced by Aspect Ecology (July 2023);
- Woodland Technical Note produced by Aspect Ecology (September 2024); and
- Preliminary Arboricultural Impact Assessment produced by Aspect Arboriculture (September 2024)

7.2 Potential Impacts and Sensitive Receptors

7.2.1 No statutory ecological designations are located within or adjacent the site, and no such designations are likely to be impacted by the construction works. The non-statutory designation Shinfield Park, Nore's Hill Local Wildlife Site (LWS) is located adjacent to the south, west and north-western site boundaries, which is designated on account of its mixture of woodland and semi-natural ancient woodland. The Grove LWS is also located approximately 15m east of the site, which is designated on the basis of its mosaic of scrub and tall grassland sward dominated by forbs. Areas of woodland and trees within the site itself that are to be retained are also potentially sensitive ecological receptors.

7.2.2 Both the LWS contain ponds and are therefore sensitive to impacts from run-off, spillages / pollution, and airborne dust. The areas of on-site and off-site woodland are also sensitive to impacts from groundwater pollution / run-off and airborne dust, as well as physical damage by construction plant, lighting, and compaction of root zones. Accordingly, appropriate safeguards will need to be implemented as set out below.

7.3 Mitigation Measures

7.3.1 Ecological mitigation measures required during construction are to be detailed within the final CEMP'. In summary, this will include the following key mitigation measures:

- Implementation of standard pollution prevention measures in relation to watercourses and waterbodies in proximity to the site;
- Implementation of a sensitive construction lighting strategy that avoids lighting of ecological receptors, including the off-site LWS and on-site areas of retained woodland and trees;
- Installation of protective (Heras) fencing and warning signs where construction works are required in proximity to the LWS, woodland and trees (see below for more on tree protection);
- Prior to commencement of construction works, it is recommended that a pre-construction badger survey is undertaken;
- To prevent entrapment of mammals, any excavations shall be covered overnight or have a ramp installed;
- Clearance of vegetation suitable for nesting birds shall be undertaken outside of the breeding season (i.e. outside of March to August). Should any works be required in this period, further checks will need to be undertaken by an ecologist immediately prior to works.

The final CEMP will also need to have regard to the Arboricultural Impact Assessment (AIA) which will provide details including:

- Tree protection fencing must be installed to protect all retained trees on site. Full specifications for the fencing to be provided in the AIA;
- Inside the protective fencing there will be no excavations; no storage of machinery, building materials, fuels, chemicals, or spoil; no fires; no vehicular or pedestrian access; and no alteration to existing ground levels;
- To clearly identify the purpose of protective fencing on site, all-weather notices will be attached to the barriers;
- Tree protection fencing will be installed before any materials or machinery are brought onto site and before site works commence. It will be removed only once all site works are complete;
- In accordance with BS5837:2012, there shall be arboricultural supervision whenever construction or development activity is to take place within Root Protection Areas (RPA) of retained trees. Following each site visit a site monitoring report will be issued to the project manager. Copies of these reports will be kept and made available to the local authority on request;
- Materials will be stored outside the RPA of retained trees, on existing hard surfacing;
- To reduce the risk of soil contamination and subsequent damage to tree roots, fuel and other harmful or toxic materials should be stored either off-site, in bunded units, or on drip trays;
- No level changes will take place within the RPA of retained trees unless otherwise agreed with the supervising arboriculturalist; and Construction vehicles will not be driven onto unsurfaced areas of ground within the RPA of any retained trees.

8.0 NOISE AND VIBRATION

8.1 Introduction

8.1.1 This section identifies the mitigation measures required to alleviate the potential noise impacts arising from construction.

8.1.2 This chapter is informed by the *Noise Impact Assessment* produced by Stantec (dated February 2025).

8.2 Potential Impacts and Sensitive Receptors

8.2.1 The construction phase has the potential to affect noise and vibration levels at nearby noise sensitive receptors due to activities including site enabling works, infrastructure development, construction of buildings and landscaping works.

8.2.3 As identified in the Noise Impact Assessment, noise sensitive receptors include residential properties adjacent to the site to the north, on Cirrus Drive, Pascal Crescent and Greenwich Road. Residential receptors are also located to the west of the site on Woodside Way, Railton Close and Shirley Avenue, and to the southwest on Babbington Road, Pattinson Road and Coningham Road.

8.3 Mitigation Measures

8.3.1 In order to minimise the impacts at residential properties arising from noise from site works, best practicable means (BPM) should be employed throughout construction. BS 5228-1:2009+A1:2014 provides guidance on mitigation measures that should be considered to reduce noise levels from plant and machinery at noise sensitive receptors.

- 8.3.2 Noise mitigation measures that should be considered to control the emission of noise at source are as follows:
- Avoiding unnecessary revving of engines and switching off equipment when not required.
 - Use of rubber linings in, for example, dumpers, to reduce the impact of noise.
 - Lowering materials as opposed to dropping, where practicable. Where the dropping of materials is necessary, drop heights should be minimised and a resilient material surface should be used.
 - Locating significant noise generating equipment away from noise sensitive areas, to increasing the distance between these as much as practically possible.
 - Selection of suitably quiet plant and construction activities.
 - Undertaking loading and unloading activities away from noise sensitive areas.
 - Starting up plant and vehicle engines sequentially, rather than simultaneously.
 - Machines in intermittent use should be shut down or throttled to a minimum between work periods or when not in use.
 - Plant that emits directional noise should be orientated away from noise sensitive areas.
 - Avoiding, or keeping to a minimum, direct metal-to-metal contact.
 - Ensuring plant is regularly maintained to reduce noise from worn parts.
 - Ensuring machinery with rotating parts are properly balanced. Cutting tools should be kept sharp. Friction generating machinery (e.g. conveyor rollers, trolleys) should be properly lubricated.
 - Enclosing sources of significant noise (e.g. generators, compressors). If using a partial enclosure, avoid reflecting surfaces opposite the open end and openings in complete enclosures (e.g. for ventilation purposes) should be effectively sound reduced.
 - Closing engine covers when in use and when idling.
 - Moving plant onto and around site during normal site operating hours and in a location that is as far away from the noise sensitive receptor as possible, where reasonably practicable.
 - Replacing or modifying problematic plant with less noisy alternatives.

9.0 ACCESS, TRANSPORT AND TRAFFIC

10.1 Introduction

- 10.1.1 This chapter identifies the mitigation measures required to alleviate the potential impacts on transport and traffic movements arising from construction.

10.2 Potential Impacts and Sensitive Receptors

- The construction phase will result in a temporary increase in the number of Heavy Goods Vehicles and Light Goods Vehicles bringing construction materials and equipment to the site as well as construction workers' cars and vans.
- The existing site access arrangement will be used during construction, with vehicles arriving from the west on the B3270 being able to turn left into the site via a dedicated left slip lane. All other movements will be via the B3270/Whitley Wood Lane signalised junction.
- It is anticipated that all construction vehicle trips will be made via M4 J11, while workers will be spread across the whole network depending where they are coming from.
- Sensitive receptors include nearby residents, users of the Public Right of Way running through and alongside the site and users of the Shinfield Players Theatre, as well as pedestrians and cyclists travelling along the B3270 and Whitley Wood Lane.

10.3 Mitigation Measures

- Appropriate management of construction traffic will be undertaken during construction, including informing all contractors and suppliers of the appropriate routes to access the site via M4 J11, management of working hours and delivery times, provision of vehicle wheel cleaning facilities within the site to prevent discharge onto the surrounding highway.
- A Construction Traffic Management Plan (CTMP) will also be prepared prior to commencing any construction work on the site, which will outline all necessary measures to ensure that the impact of construction is minimised. All contractors working on the site will be provided with a copy of this and be expected to adhere to it at all times. The CTMP is a live document and should be updated as and when any changes occur from what has been included in the approved document.
- Neighbouring residents, businesses and organisations will also be notified should any changes occur or any activity outside of the agreed hours be required and contact details will be displayed at the site should anyone need to contact the main contractor to highlight any issues.

11.0 SUMMARY

- 11.1.1 This document provides a framework for the CEMP to be implemented at the Shinfield Park site. It details the procedures for achieving the objectives set out in relevant environmental policy, codes of best practice and identified environmental performance targets for the project.
- 11.1.2 Mitigation measures have been outlined to limit potential impacts on flood risk, air quality, ecology, noise and vibration, and transport. Mitigation measures outlined herein will help in ensuring that the lowest level of risk possible is placed on the environment.
- 11.1.3 This CEMP has also outlined a series of general best practice principles which should be adhered to, including the production of risk assessments and Method Statements, the adherence to Site Environmental Standards, the monitoring and measurement of construction activities and the roles and responsibilities of key site staff.
- 11.1.4 Once appointed, the Principal Contractor will take ownership of this CEMP, develop the details, and take responsibility for its maintenance and implementation.