CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Date: 3rd March 2025
FI REM Project: 'Kingmoor', Bryn Lane, Wrexham, LL13 9UT
Client: FI REM
Principal Contractor: FI Construction
Civils Contractor: FI Construction

Development Proposal: *The hybrid planning application for (a) outline permission (all matters reserved except for means of access) for erection of up to 3 warehouse & distribution units (Use Class B8), including ancillary office accommodation, comprising up to 93,019 sqm net floorspace, service yards, car parking, HGV parking, internal circulation, landscaping and ancillary works; and (b) detailed permission for demolition, means of access, earthworks, drainage, landscaping, ecology zone and relative ecological mitigation measures and ancillary works has been approved subject to conditions.*

Prepared by: SMc
Key FI REM Personnel: Mark Adams, Head of Development& Construction
Key FI Construction Personnel: John Lohan, Operations Manager
Sholto McDonald, Project Manager



1. Introduction

This Construction Environmental Management Plan (CEMP) has been prepared to satisfy Planning Condition 43 for the proposed industrial development at Bryn Lane, Wrexham Industrial Estate. It outlines environmental management measures to be implemented during the construction phase and integrates ecological compliance measures from the Ecological Compliance Plan (UES, November 2024) and arboricultural considerations from the Arboricultural Method Statement (MDLandscape, February 2025).



2. Site Description

The proposal site measures 62.8 acres (25.4 hectares) greenfield land within Wrexham Industrial Estate; one of the largest industrial estates in the UK. Approximately 55% of the site will be designated 'development platform' with the remaining 45% dedicated Ecology Zone. The site is currently unoccupied and overgrown. It borders farmland to the east, industrial units to the south and west and an industrial development site to the north. The site is accessed via an access road shared with Very Distribution off Bryn Lane.

3. CEMP Objectives

The primary objectives of this Construction Environmental Management Plan (CEMP) are to:

- **Identify and Mitigate Environmental Impacts**: Proactively recognise potential environmental impacts associated with construction activities and implement effective mitigation strategies to prevent or minimise adverse effects on natural habitats, water resources, air quality and the local community.

- **Ensure Regulatory Compliance**: Adhere to all applicable environmental laws, regulations and standards at local, national, and international levels. Promote accountability and transparency my the delivery team on site to ensure the following requirements of the LPA as part of Planning Condition 43 are met prior to commencement:

> *No development shall take place until a Construction Environment Management Plan (CEMP) to enable site set-up has been submitted to, and approved in writing by, the Local Planning Authority. The CEMP shall include the following details:*
> *i) the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate;*
> *ii) details of site compound facilities and layout;*
> *iii) wheel washing facilities;*
> *iv) measures to control and mitigate the emission of smoke, other airborne pollutants and dirt during construction;*
> *v) a scheme for recycling/disposing of waste resulting from construction works;*
> *vi) hours of construction;*
> *vii) construction phase site lighting;*
> *viii) odour management and mitigation;*
> *ix) diesel and oil tank storage areas and bunds;*
> *x) how the developer proposes to accord with the Considerate Constructors Scheme (www.considerateconstructorsscheme.org.uk) during the course of the construction of the development; and*
> *xi) a system for the management of complaints from local residents which will incorporate a reporting system.*
> *The construction of the development shall be undertaken in accordance with the approved CEMP.*

- **Promote Resource Efficiency and Waste Management**: Incorporate strategies for the efficient use of materials and energy, reduce waste generation and implement effective waste management, including recycling and reuse in order to minimise the environmental footprint of the development.

- **Safeguard Occupational Health and Safety**: Implement measures to protect the

health and safety of all personnel working on the construction site, ensuring a safe working environment and compliance with occupational health and safety regulations.

- **Monitor, Report,and Continuously Improve**: Develop and implement a structured monitoring and reporting system to evaluate environmental performance, ensure compliance with environmental requirements and facilitate continuous improvement through adaptive management practices.

The objectives of this CEMP align with the Local Planning Authority's requirements to ensure that construction works are managed in a safe, efficient and environmentally responsible manner.

For ease of contact the Construction Environmental Management Plan Manager's details are shown below:

- **FI Construction:** Sholto McDonald, Project Manager
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4. Regulatory Framework

This CEMP has been compiled with consideration given to the following environmental legislations.

Regulatory Framework	
Environmental Factor	**Status/Legal Protections**
Wildlife Sites, e.g., SSSI's	The Wildlife and Countryside Act 1981 (Amendment) (Wales) Regulations 2004
	Natural Environment and Rural Communities Act 2006 (Commencement) (Wales) Order 2006
	Countryside Rights of Way (CRoW) Act (2000)
European Protected Species: e.g., Bats & Dormice,	Conservation (Natural Habitats, &c.) Regulations 1994
	The Conservation of Habitats and Species Regulations 2017
Other Protected Species: e.g., Nesting Birds, Reptiles & Badgers	The Wildlife and Countryside Act 1981 (Amendment) (Wales) Regulations 2004
	Protection of Badgers Act 1992
Invasive Plant Species	Wildlife and Countryside Act 1981 (Schedule 9) *It is an offence to cause the spread of Japanese Knotweed or Giant Hogweed*
Fuel Storage and Handling	Oil Storage Regulations 2002 *Applicable to storage of fuels outside in containers with a capacity greater than 200 litres.*
Waste	Environmental Protection Act 1990
	Hazardous Waste (England and Wales) Regulations 2005
	The Waste (England and Wales) Regulations 2011 (as amended)
	Waste Management, The Duty of Care Code of Practice (2016 update)
Water	Water Resources Act 1991 *It is an offence to pollute any controlled waters*
Environmental Incidents	Water Resources Act 1991
	Environmental Protection Act 1990

5. Communications

5.1. Meetings

Monthly progress meetings will take place on site between FI REM (Client) and FI Construction (Principal Contractor), environmental concerns will be on the agenda for each of these meetings. Records of these meetings will be recorded and stored.

5.2. Sub-contractors and the Supply Chain

As the Principal Contractor, FI Construction will oversee site subcontractors and the supply chain, ensuring the project maintains the highest standards of environmental safety and compliance.

5.3 Training

Toolbox Talks will be delivered to all site operatives as required by the training provider, while the site supervisor will conduct daily briefings for the site team. Only operatives with the appropriate training and qualifications will be permitted to operate plant and machinery. Environmental awareness and working methods will be regularly reinforced to keep them at the forefront of operatives' minds.

5.4. Environmental Records

All environmental incidents will be recorded in the site file, with immediate notification to FI REM. FI Construction's Operations Manager will oversee follow-ups and record-keeping. Monitoring data, sample results, and records of material movements, including imports and waste exports will be maintained throughout the project.

6. Site Operations

6.1 Security Hoarding

- Erection of 2m (min.) high hoarding around the site perimeter for security and to prevent unauthorised access.
- Fencing systems will be recorded in Temporary Works Register for the site and rated appropriately
- Regular inspections and maintenance of hoarding to ensure integrity and effectiveness.

6.2 Site Compound Facilities and Layout

- Construction Traffic Management Plan document produced and implemented in accordance with Planning Condition 44
- Designated site compound including welfare facilities, storage areas, and offices.
- Separate areas for material storage, vehicle parking, and waste segregation.
- Clearly marked pedestrian and vehicle routes to ensure safety.

6.3 Cleanliness of the Public Highway

The construction works will involve the regular use of the local highways network by construction delivery vehicles entering and exiting the site with FI Construction putting in measures to minimise dust emissions and the deposition of mud and debris on the local road network through the following measures:

- Wheel wash facilities will be provided when required. These will be:

- Located near to the site access points to ensure that vehicles are appropriately cleaned prior to accessing public highways.
- However, they will not be located in close proximity to the brook, drainage ditches or surface water drains.
- The type of wheel wash will be appropriate to the types of vehicles being used on the site and the amount of mud and debris likely to be on the vehicles (e.g. rumble strip)

- Site haul roads will be regularly scraped to assist in the removal of debris and reduction of 'track-out'
- All vehicles leaving the site should be subject to a visual inspection before accessing the public highways to ensure that the level of dust/mud/debris on the vehicles has been minimised insofar as is practical.
- The client will undertake regular inspections of the adjoining highways and deploy road sweepers if mud, debris and dust is likely to be deposited on the main roads
- All road surfaces affected by site works shall be swept clean by mechanical sweeper as and when required.

6.4 Measures to Control Airborne Pollutants

- No on-site burning of waste materials.
- Dust suppression via water spraying and covering of stockpiles.
- Comprehensive Dust Management Plan development and will be implemented in accordance with Planning Condition 42; identifying sources of pollutants and mitigation methods.
- Well- maintained, low-emission construction vehicles and plant will be used
- Vehicle idling to be minimised to reduce emissions.

7.0 Waste Management

A comprehensive project Waste Management strategy will be implemented for the development. The outlined measures aim to minimise environmental impact and promote resource efficiency:

- **Site Waste Management Plan (SWMP**): Developing an SWMP is essential for systematically managing construction waste. This plan focuses on reducing waste generation, reusing materials where possible, and recycling, thereby minimising the amount sent to landfills.
- **Waste Management Key Performance Indicators (KPIs):** Establishing KPIs allows for the monitoring and evaluation of waste management practices. These metrics help in assessing the effectiveness of waste reduction strategies and ensure continuous improvement throughout the project lifecycle.
- **BREEAM 'Excellent' Rating:** Targeting this certification sets stringent environmental performance standards. Achieving this rating demonstrates a commitment to sustainability and requires adherence to specific criteria, including effective waste management practices.
- **Segregation of Construction Waste:** Implementing on-site segregation involves sorting waste into designated bins or skips for materials like wood, metal and concrete. This

practice facilitates recycling processes and reduces contamination, enhancing the efficiency of waste diversion efforts.

- **Licensed Waste Carriers:** Engaging authorised waste carriers ensures that non-recyclable materials are disposed of responsibly and in compliance with legal requirements. This measure helps prevent environmental pollution and aligns with regulatory standards.

8. Construction Phase Site Lighting

Implementing effective temporary site lighting during the construction phase is essential for ensuring safety, minimising environmental impact and maintaining positive relationships with adjacent properties and businesses. The following measures should be considered:

8.1 Directional Lighting

To avoid disturbing neighbouring properties and sensitive habitats, temporary lighting should be carefully directed so that it illuminates only the intended areas. This can be achieved by using shielded fixtures and aiming lights downward, which minimises light trespass and glare. Proper positioning and angling of luminaires are crucial in eliminating the risk of light spill. Additionally, environmental factors like wind and vibrations can cause fixtures to shift, so regular maintenance is necessary to ensure they remain correctly oriented.

8.2 Compliance with Dark Sky Guidelines

Adhering to Dark Sky guidelines is crucial in reducing light pollution and preserving the natural night environment. Key principles include:

- **Useful Lighting:** Ensure all light has a clear purpose and is necessary for the task at hand.
- **Targeted Illumination:** Direct light so it falls only where needed, using shielding and careful aiming to prevent spill beyond intended areas.
- **Low-Level Brightness:** Utilize the lowest light level required for safety and functionality.
- **Controlled Usage:** Implement controls such as timers or motion detectors to ensure lights are used only when necessary.

By following these principles, construction sites can significantly reduce their environmental footprint and contribute to the preservation of dark skies.

8.3 Use of Energy-Efficient LED Lighting

Incorporating energy-efficient LED lighting offers several benefits:

- **Durability:** LED lights are designed to withstand rugged environments, making them suitable for construction sites.
- **Energy Savings:** LEDs consume less power compared to traditional lighting, leading to reduced energy costs.

- **Enhanced Safety:** Properly selected LED fixtures provide adequate illumination, improving visibility and safety on-site.

9. Odour Management and Mitigation

Effective odour management and mitigation are essential during the construction phase to ensure a safe and pleasant environment for workers and neighbouring communities. The following strategies should be implemented:

9.1 Prompt Removal of Waste Materials

Accumulation of waste materials on construction sites can lead to unpleasant odours, attracting pests and creating unsanitary conditions. To prevent these issues:

- Regular Waste Collection: Establish a schedule for frequent waste removal to prevent buildup.
- Proper Waste Segregation: Separate waste into categories (e.g., organic, recyclable, hazardous) to facilitate efficient disposal and minimise odour generation.
- Sealed Containers: Use covered, leak-proof containers for waste storage to contain odours and deter pests.

Implementing these practices helps maintain site hygiene and reduces the risk of odour-related complaints.

9.2 Control Measures for Volatile Organic Compounds (VOCs) from Paints and Solvents

VOCs emitted from paints, solvents, and other construction materials can negatively impact indoor air quality and pose health risks. To mitigate VOC emissions:

- Select Low-VOC Products: Choose paints, adhesives, and sealants labelled as low-VOC or VOC-free to reduce emissions.
- Enhance Ventilation: Increase fresh air circulation in areas where VOC-emitting products are used. This can be achieved by opening windows, using fans, or employing mechanical ventilation systems.
- Proper Storage: Keep containers of VOC-containing materials tightly sealed when not in use to prevent evaporation and accidental spills.
- Safe Handling Practices: Ensure workers are trained in the correct use and disposal of VOC-emitting substances, including the use of personal protective equipment (PPE) as necessary.

These measures contribute to a healthier work environment and minimize the impact of VOCs on surrounding areas.

9.3 Site Inspections

Consistent monitoring is crucial to maintaining effective odour management, the following g:

- Scheduled Inspections: Conduct routine assessments of waste storage areas, material handling practices, and overall site cleanliness to identify potential odour sources.
- Documentation: Maintain site diary of inspections, identified issues and corrective actions taken to ensure accountability and continuous improvement.
- Community Engagement: Establish communication channels with local residents and businesses to receive feedback and address concerns related to odour promptly.

10. Fuel and Oil Storage and Bunding

Proper management of diesel and oil storage is crucial on site to prevent environmental contamination, ensure safety and comply with regulatory standards. The following measures should be implemented:

10.1 Secondary Containment Bunds

All fuel and oil storage containers must be equipped with secondary containment systems, commonly known as bunds, to capture any leaks or spills. Key requirements include:

- **Capacity:** The bund should hold at least 110% of the capacity of the largest container within it. This ensures that, in the event of a spill, the bund can contain the entire volume, preventing environmental contamination.
- **Construction Standards:** Bunds must be impermeable to both oil and water, ensuring no leakage into the surrounding environment. Additionally, they should be designed for a lifespan of at least 20 years with proper maintenance.
- **Design Considerations:** The bund must encompass every part of the oil storage container and associated equipment, such as valves and filters, to ensure comprehensive containment.

10.2. Storage Areas

Maintaining organised and secure storage areas is vital for safety and environmental protection:

- **Security Measures:** Fuel and oil storage areas will be secured against unauthorised access. This will involve fencing, locks and surveillance to prevent vandalism or accidental interference.
- **Clear Labelling:** All storage containers will be clearly labelled with their contents and associated hazards. This ensures that personnel are aware of the materials they are handling and can take appropriate precautions.
- **Spill Kits:** Spill kits, equipped with absorbent materials like pads, pillows and socks, will be readily available at each fuel tank location. These kits enable immediate response to spills, minimising environmental impact.

10.3 Regular Inspections for Leaks or Damage

Routine inspections are essential to identify and address potential issues before they escalate:

- **Inspection Frequency:** Conduct regular inspections of all fuel and oil storage equipment, including tanks, pipes, and bunds, to detect signs of wear, corrosion, or damage.
- **Documentation:** Maintain detailed records of all inspections, noting any identified issues and the corrective actions taken. This documentation is crucial for compliance and continuous improvement.
- **Prompt Repairs:** Address any identified leaks or damages immediately to prevent environmental contamination and ensure the safety of site personnel.

11. Considerate Constructors Scheme Compliance

The works on site will adhere to the standards set by the Considerate Constructors Scheme (CCS) to demonstrates a commitment to best practices during the works with the following measures incorporated:

11.1 Registration with the Considerate Constructors Scheme (CCS)

Registering the project with the CCS is a proactive step toward enhancing the construction industry's image and ensuring adherence to high standards. The CCS is a national initiative designed to encourage best practices beyond statutory requirements. By registering, the project commits to upholding the CCS Code of Considerate Practice, which focuses on areas such as community respect, environmental protection and workforce value.

11.2. Adherence to CCS Core Principles

The CCS Code of Considerate Practice outlines key principles that registered sites and companies are expected to follow:

- **Care about Appearance:** Ensuring that the construction site appears professional and well-managed to positively reflect on the industry.
- **Respect the Community:** Giving consideration to the impact on neighbours and the public, maintaining respectful communication and minimising disruption.
- **Protect the Environment:** Identifying, managing, and minimising environmental impacts to protect and enhance the environment.
- **Secure Everyone's Safety:** Achieving the highest levels of safety performance to protect the public, visitors and the workforce.
- **Value their Workforce:** Providing a supportive and caring working environment for the workforce.

11.3 Audits and Compliance

Regular monitoring and auditing are crucial for maintaining compliance with the CCS and promoting continuous improvement:

- **Monitoring Visits:** The CCS conducts monitoring visits to assess conformance to the Code of Considerate Practice and help identify opportunities for improvement.
- **Detailed Reporting:** After each monitoring visit, the site receives a detailed report highlighting both good practices and areas for improvement, along with a Certificate of Performance.
- **Continuous Improvement:** The insights gained from these audits should be used to implement corrective actions and promote initiatives that benefit the environment and the local community.

12. Ecological Compliance and Biodiversity Mitigation

- Compliance with Ecological Compliance Plan (UES, November 2024).
- Vegetation clearance outside of the bird nesting season (March to August) or under ecological supervision.
- Protection of existing badger setts and adherence to NRW badger licensing requirements
- Installation of amphibian fencing and pitfall traps under ecological supervision.
- Enhancement of existing habitats, including pond and wetland management, grassland establishment and hedgerow planting.
- Implementation of pollution prevention measures to protect local watercourses and habitats.

13. Arboricultural Protection and Tree Management

- Compliance with Arboricultural Method Statement (MDLandscape, February 2025).
- Establishment of Construction Exclusion Zones (CEZs) around retained trees with protective fencing and signage.
- Avoidance of tree root damage by implementing no-dig construction techniques where required.
- Tree works to be conducted outside the bird nesting season or under ecological supervision.
- Soft felling techniques to be used for trees identified as having potential bat roost features.
- Retained trees to be monitored throughout the construction phase with inspections by a qualified arboricultural consultant.

14. Complaints Management

- Implementation of FI Construction Complaints Procedure.
- Dedicated site contact number and email for public concerns.
- Complaints logged and responded to within 48 hours.
- Regular updates provided to the local authority on complaints and resolutions.

15. CEMP Implementation and Compliance

- The appointed Principal Contractor will ensure adherence to this CEMP.
- Regular site inspections and audits to monitor compliance.

- Adjustments made as necessary in consultation with the Local Planning Authority (LPA) and in accordance with the Ecological Compliance Plan (UES, November 2024) and Arboricultural Method Statement (MDLandscape, February 2025).

16. Times of Working/Operation and Delivery Restrictions

- **Working Hours:** Monday to Friday, 07:30 – 18:00; Saturday, 08:00 – 13:00.
- **Restricted Hours:** No works on Sundays or Bank Holidays.
- **Delivery Restrictions:** Avoid deliveries during peak traffic hours (08:00 – 09:00 and 16:30 – 18:00) to minimise impact on local road users and businesses.

17. Vehicle Parking

- **On-site Parking:** Designated parking areas within the site for contractors and construction personnel.
- **Off-site Parking:** NA
- **No Parking Zones:** Parking on nearby roads, verges or access routes will be strictly prohibited and enforced through monitoring and penalties.

18. Conclusion

This Construction Environmental Management Plan (CEMP) establishes a comprehensive framework for ensuring environmentally responsible construction practices at the Bryn Lane, Wrexham Industrial Estate development. By integrating ecological compliance, waste management, pollution prevention and regulatory adherence. The CEMP mitigates environmental impacts while promoting sustainability and safety. The plan aligns with Planning Condition 43 requirements and supports best practices in construction site management. Regular monitoring, stakeholder engagement and adaptive strategies will ensure continuous improvement and compliance throughout the project.

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Project Reference: *Kingmoor*