Premier Foods Bakery, Fish Dam Lane, Carlton
Proposed Solar Farm to Serve Adjacent Bakery

Construction Environmental Management Plan

Premier Foods Plc
September 2023

tor &co

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Land Adjacent to Carlton Bakery – Proposed Solar Farm to Serve Adjacent Bakery

Construction Environmental Management Plan

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1 Introduction

Background

1.1 This construction environmental management plan (CEMP) is submitted in support of the full planning application for the proposed solar farm at Premier Foods Bakery, Fish Dam Lane, Carlton, Barnsley. It presents the methodology and principles relating to environmental protection and control that will be implemented by the contractor(s) during the construction of the proposed development.

1.2 The CEMP is an iterative document and will be further developed following selection of the contractor(s) and agreed with all relevant authorities prior to commencement of any on site works. During the construction activities, it may be necessary to revisit the CEMP to update any changes relating to final design, specific technical aspects and any changes in statutory requirements and legislation. The appointed contractor may take the opportunity to review and update this CEMP. Any material amendments required to the CEMP document during the construction period will be agreed in writing with Barnsley Metropolitan Borough Council.

1.3 Contractor(s) will be required to follow the 'Considerate Constructors Scheme[1]'. Contractor(s) will be required to comply with all relevant environmental legislation and to take account of published standards, accepted industry best practice, national guidelines and codes of practice as appropriate.

Purpose

1.4 The purpose of the CEMP is to provide a framework for a series of measures to:

- Deliver the relevant mitigation identified within the environmental studies undertaken in support of the planning application
- Comply with construction-related planning conditions
- Ensure that the construction works are carried out in a manner that will minimise, if not remove, any adverse effects on the environment

1.5 The CEMP is based on construction industry best practice and the mitigation measures set out in the technical reports. It may need to be modified as a result of planning conditions attached to any future consent and following the appointment of the main contractor(s). The CEMP will inform the overall construction management plan (CMP) that will be prepared by the construction management teams, which will cover all construction-related issues, including health and safety procedures, induction requirements, risk assessments, quality procedures and environmental procedures. The CMP will cross reference to the CEMP to ensure that all construction environmental obligations identified in the environmental studies and required by planning conditions are included.

[1] www.ccscheme.org.uk.

The site

1.6 The 2.87-ha site lies in Carlton, to the north east of Barnsley. It is located within the Premier Foods estate, immediately to the north east of the Carlton Bakery factory and south of Shaw Lane. Access to the site is gained via the adjacent bakery site by the existing access road from Fish Dam Lane to the west. The site comprises an area of grassland, with scrub and hedgerows at the edges. There are no public rights of way on site.

1.7 The disused Barnsley Canal and fields lie to the north of Shaw Lane, with the settlement of Royston beyond. There are dwellings to the west of the site and beyond the bakery, with Carlton Primary School and Carlton Industrial Estate further west. There is an area of open greenfield land to the east of the site, with six dwellings that are accessed from Shaw Lane. Further east are a railway line and Shaw Lane Works, which contains a number of industrial premises. To the south of the site is an area of grassland within the Premier Foods estate, beyond which are open fields and several large warehouses.

1.8 There are no environmental designations on the site. The Dearne Valley Wetlands Site of Special Scientific Interest and Carlton Marsh Local Nature Reserve lie approximately 340 m to the east of the site, on the opposite side of the railway line. Barnsley Canal Local Wildlife Site is around 200 m to the north. Carlton conservation area, which contains the grade II listed Church of St John, The Gables, and Manor House, is approximately 320 m to the west of the site.

The proposed development

1.9 It is proposed to develop the site with a solar farm of up to 2MW capacity, which will provide up to 50% of the bakery's power needs. Excess energy will be fed back into the local grid. The solar farm will comprise the following elements:

- Installation of up to 2MW solar photovoltaic (PV) arrays at 2.5 m in height, in rows 3.5 m apart
- Installation of a sub-station/transformer
- Ancillary underground cabling works
- Erection of 2.4 m high mesh weld perimeter fencing, moss green in colour, to secure the solar PV arrays
- Installation of a double leaf gate to provide secure access to / from the Premier Foods Bakery site in the south western corner of the site
- Installation of 6No CCTV posts up to a maximum height of 6m, one at each corner of the site with two in the centre for security
- A minimum 5 m wide ecological buffer with a 6m buffer around the ash tree and a 10m ecological buffer along the eastern boundary
- Landscape screening in the form of additional planting of native scrub, including hawthorn, blackthorn, hazel, wild cherry and hornbeam, around the site boundary and trees, including silver birch, hawthorn and wild cherry
- Sowing of species-rich wildflower grassland below the solar panels and tussocky grassland on the inner edge of the perimeter buffer zone to improve biodiversity

2 Details of construction works

2.1 The construction phase is expected to last for up to six months (24 weeks) and will be undertaken in four main phases, as follows:

- Site set-up, including perimeter fencing, site welfare facilities and construction compounds
- Solar panel frames, including setting out positions, installing piles and constructing frames
- Cabling and ducting, including installing AC cables, DC mains, earthing systems and ducts
- Modules and commissioning, including connecting low voltage DC and AC, installing modules and overall commissioning

2.2 Standard working hours for all construction activities will be from 08:00 to 18:00 Monday to Friday, with limited construction activities on Saturday mornings (08:00 to 13:00). No continuous 24-hour activities are envisaged at this stage and there will be no Sunday or Bank Holiday working without the prior consent of Barnsley Metropolitan Borough Council.

2.3 Two construction compounds will be provided within the wider Carlton Bakery site for the duration of the construction period. These will be managed by both Premier Foods and Photon Energy and will include provision for staff and welfare offices, storage, staff and van / minibus parking, wheel washing facilities and loading and unloading areas.

2.4 Construction materials to be delivered to the site will be controlled through a specific construction traffic management plan (CTMP), which is provided in appendix 1 and will be agreed with Barnsley Metropolitan Borough Council. It is estimated that approximately 96 HGV movements (48 each way) will be required in total over the 24-week construction period. The number of deliveries per week will vary but, on average, the construction phase is anticipated to generate between 2 and 6 deliveries per week (4 to 12 HGV movements). The most intensive period will occur during the initial site set-up.

2.5 Where possible, deliveries will be timed to avoid the network peak hours of 08:00 to 09:00 and 17:00 to 18:00, as well as the key school drop-off and collection periods (08:00 to 09:30 and 14:30 to 16:00). Any vehicles ready to depart the site during these periods will be held back within the construction compound area until the appropriate time has passed.

2.6 All access routes will be agreed in detail with Barnsley Metropolitan Borough Council prior to works commencing and appropriate signage will be put in place. Priority will be given to maintaining access for existing neighbours. Delivery vehicles are likely to attend the application site for approximately one hour per vehicle. There are sufficient spaces within the curtilage of the application site that no vehicles would need to wait on the surrounding highway network. No abnormal loads will need to access the site during construction.

2.7 The two construction compounds will provide waiting areas with sufficient capacity for three waiting HGVs. Where possible, sufficient time will be given between deliveries to allow for any delays as a result of the delivery vehicle becoming stuck in traffic or loading / unloading taking longer than expected, to

avoid vehicles needing to wait. There will also be sufficient space to accommodate a turning vehicle while at least one vehicle is parked, to allow vehicles to be held back during the restricted periods if required.

2.8 Worker vehicle parking will be provided within the existing employee car park on site, and use of this car park will be strictly enforced. Construction workers will be encouraged to use sustainable forms of transport (e.g. public transport and car sharing). All staff are anticipated to arrive at the site in the 30-minute period preceding the start of the working day (i.e. 07:30 to 08:00) and leave in the 30-minute period after the end of the working day (i.e. 18:00 to 18:30).

2.9 Details of construction logistics, including plans showing the on site and off site construction routeing and the locations of the construction compounds, are provided in the CTMP in appendix 1.

3 Legal requirements

3.1 A schedule of appropriate environmental legislation will be drawn up and will be reviewed / updated as necessary throughout the construction period. An initial (but not exhaustive) list of applicable legislation is set out below:

- Construction (Design and Management) Regulations 2015
- Control of Noise at Work Regulations 2005 (as amended)
- Control of Pollution Act 1974 (as amended)
- Control of Pollution (Oil Storage) (England) Regulations 2001 (as amended)
- Environmental Permitting (England and Wales) Regulations 2016 (as amended)
- Environmental Protection Act 1990 (as amended)
- Health and Safety at Work etc Act 1974 (as amended)
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- The Road Vehicles (Construction and Use) Regulations 1986 (as amended)
- The Wildlife and Countryside Act 1981 (as amended)
- Water Resources Act 1991 (as amended)

4 Project team roles and responsibilities

4.1 Table 4.1 summarises the key project team roles and responsibilities.

Role	Responsibility
Project manager	Will have overall responsibility for environmental performance and compliance throughout the construction period
Site manager	Will ensure delivery of the CEMP, including its review and development, prepare the CMP, be responsible for monitoring activities and performance to ensure compliance with the CEMP, maintaining an auditable environment record filing system and be the main point of contact between regulatory authorities and environmental specialists
Site management team	Will be responsible for implementing the appropriate personnel training, provide toolbox talks to contractors, and assist the site manager in monitoring performance
Principal contractor	Will assist the site manager in the preparation of the CMP and prepare site-specific construction method statements as required, taking into account environmental issues identified in the CEMP

Contractor / sub-contractor	Will ensure the workforce is fully aware of the environmental issues and that measures set out in the CEMP are implemented, and take appropriate action in the event of non-conformances with the CEMP
Environmental specialists	A team of specialists will support the project on a part time basis as necessary, for example to undertake ecological watching briefs during construction

Table 4.1: Key roles and responsibilities

5 Management of construction works

Reporting, communication and coordination

5.1 An environmental file kept on site should include all permits, licences and consents obtained, training records, statement and procedures relating to the project's environmental aspects, specialist reports, audit reports, inspection reports, complaints and contact details for the key environmental representatives working on the project.

5.2 Communication and coordination for the project will be achieved through regular meetings of the project team – attended by representatives from the construction team (including any key sub-contractors) and the environmental manager. Representatives from the relevant authorities will also be invited to attend these meetings as appropriate.

5.3 The scope of these meetings is likely to look at the results of inspections, environmental monitoring and any complaints, with an aim to consider how to manage, mitigate and prevent any future risks.

5.4 The site manager will be the public liaison contact for all environmental and construction issues. A contact name, telephone number and address for information or complaint purposes will be displayed for the public at the site entrance and prominent points around the site boundary. Any complaints relating to site operations will be recorded and investigated. The project manager will maintain a complaints register, which will be available for inspection by Barnsley Metropolitan Borough Council on request.

5.5 Prior to works taking place, the contractor will inform neighbours, such as Carlton Primary School and residents along Fish Dam Lane, which may be affected by noise, dust or vehicle movements, of the proposed hours of work and their expected duration. In addition, a notice will be placed at the main site entrance advising of the working hours.

Training and awareness

5.6 Site personnel, including sub-contractors, are to be made aware of their responsibilities with respect to the CEMP and its implementation. All site personnel will receive induction training that covers the site emergency and response procedures and the environmental protection requirements. Toolbox talks will also be undertaken when required to cover environmental issues.

Operational control

5.7 All construction works at the site will be checked against the requirements of the CEMP. Any mitigation measures proposed through the environmental studies will be put in place prior to the commencement of works to which they relate and staff will receive appropriate training.

5.8 Specific method statements will be prepared for various elements of works, and will be reviewed / approved by the project manager and, where necessary, the relevant environmental specialist.

5.9 Appropriate document control procedures will be implemented and copies of all audits, consents, licences etc will be maintained by the project manager and kept on site.

Checking and corrective action

5.10 Monitoring and reporting against the requirements of the CEMP will be undertaken by the project manager. If the requirements are not met, appropriate corrective action will be implemented.

Response to emergencies

5.11 A site incident response / emergency plan will define the procedures for dealing with events such as spillages of oil / chemicals and leaking containers. All staff and contractors working at the site will be made aware of the site incident response / emergency plan, and will know how to deal with an incident. Training exercises will be undertaken as necessary.

5.12 An up-to-date site drainage plan will be maintained and all contractors and sub-contractors will be made familiar with the drainage systems, any potential hazards (in particular, how to deal with fire-water runoff) and actions to take in an emergency. The plan and other necessary information will be displayed around the site.

5.13 A variety of products / materials will be kept on site for use in the event of a spillage / leakage (e.g. sand and / or earth bags, proprietary absorbents in the form of granules, sheets, pillows or a loose powder, leak-sealing devices such as a pad, clamp or putty, and drain seals). The materials will be well maintained, strategically placed at accessible locations and will be clearly marked with durable notices explaining their use. Any items used for the clear-up of a spillage will be disposed of appropriately. The Environment Agency would be notified in the event of a major spillage.

5.14 Any ground contaminated by a spillage / leakage of fuel oils / hydraulic oils during construction will be excavated and removed to an appropriately licensed waste disposal site.

5.15 Health and safety controls will be established in accordance with relevant health and safety procedures, including arrangements for the possibility that unforeseen contamination / pollution may be encountered during the construction phase. Personal protective equipment will be worn by all construction personnel including, where necessary, hard hats, high visibility clothing and protective footwear.

6 Environmental control measures

Traffic and transport

6.1 Construction traffic will be managed through the CTMP (see appendix 1), which will be agreed with Barnsley Metropolitan Borough Council. All traffic associated with the construction of the development will comply with the CTMP and use only the designated construction traffic access route identified on the plan in the CTMP in appendix 1 (unless otherwise agreed in writing with Barnsley Metropolitan Borough Council). Signage from the A628 to the site via West Green Way and Fish Dam Lane will be erected to ensure that all site users follow the designated route. All contractors will be made aware of the plan in advance of works commencing and will ensure that suppliers and sub-contractors comply with the plan.

6.2 Construction HGVs will be subject to a booking system, with fixed arrival times. A banksman will be used at the site access to assist HGVs in entering and leaving the site and will only instruct HGVs to depart the site when Fish Dam Lane is clear of traffic in the vicinity of the site access and it is safe to do so. Temporary signage will be located in the vicinity of the site access during the construction period to warn drivers of the access point. Additional signage will advise motorists of HGVs turning through the site access.

6.3 Worker vehicle parking will be provided within the existing employee car park on site, as set out in the CTMP in appendix 1, and will be agreed in advance with Barnsley Metropolitan Borough Council. No plant or vehicles will be parked on the public highway.

6.4 A wheel washing facility, comprising a hose down point adjacent to the construction compounds, will be provided for the duration of the construction period to minimise levels of mud and debris on roads near the site. All vehicle wheels will be cleaned whenever a vehicle leaves the site. The contractor will ensure that the area around the site, including the public highway, is regularly and adequately swept to prevent any accumulation of dust and dirt.

6.5 Any environmental incidents involving traffic movements (such as fuel spillages), and the subsequent action taken, will be recorded in the environmental incident logbook.

Ecology

6.6 A 5-10 m wide ecological buffer will be retained around the perimeter of the site. All retained habitats will be afforded suitable protection during construction activities. Working methods will adhere to standard best practice guidance set out in BS 5837:2012 *Trees in relation to design, demolition and construction. Recommendations.* Root protection zones for all retained trees and hedgerows will be demarcated with Heras-type fencing to safeguard them from accidental damage during construction.

6.7 Vegetation clearance where required will be undertaken outside the bird nesting season where possible, which runs from March to September inclusive. If clearance is undertaken during the bird nesting season, the vegetation to be cleared will be checked for nesting birds by a suitably qualified ecologist immediately prior to clearance. Should active nests be identified, an exclusion zone will be retained until the chicks have fledged.

6.8 To prevent harm to hedgehogs during construction, any mixed scrub that needs to be cleared will be checked for hedgehogs immediately prior to its removal.

6.9 Any lighting required during the construction phase will be kept to a minimum and directed away from the areas of retained scrub and hedgerow to avoid potential impacts to commuting and foraging bats using the site.

6.10 A herpetofauna method statement (appendix 2) will be implemented during the construction phase to protect great crested newts and common reptiles. An Ecological Clerk of Works (ECoW) will be appointed prior to the commencement of construction. A toolbox talk will be provided to all contractors by the ECoW prior to construction commencing to make them aware of the possible presence of great crested newts and common reptiles and the avoidance measures to be put in place.

6.11 The ECoW will conduct a site walkover to check all areas of scrub to be cleared immediately prior to commencement. Any brick pile, corrugated metal sheeting or other large items that could potentially provide refuge for great crested newts or reptiles are to be dismantled by hand and removed from the site under the supervision of the ECoW. All vegetation material will either be stored off the ground on pallets, taken away from the works area or chipped.

6.12 Should great crested newts or reptiles be found during site clearance or construction, works must cease immediately and the ECoW must be informed. Construction workers must not handle great crested newts or reptiles. Works will not recommence until written confirmation has been provided from the ECoW, including details of any further measures that must be implemented at the site.

Noise and vibration

6.13 During construction, the contractor will employ best practicable means to control noise from construction operations, based on the guidance set out in BS 5228:2009+A1:2014 *Code of practice for noise and vibration control on construction and open sites*. These will include the following measures:

- Standard working hours for all construction activities will be from 08:00 to 18:00 Monday to Friday and 08:00 to 13:00 on Saturdays. No continuous 24-hour activities are envisaged at this stage and there will be no Sunday or Bank Holiday working without the prior consent of Barnsley Metropolitan Borough Council
- Ensure the use of quiet working methods, the most suitable plant and reasonable hours of working for noisy operations, where reasonably practicable
- Maintain plant and equipment in good working order, including noise control measures
- Locate noisy plant and equipment as far away from dwellings as reasonably possible and, where practicable, carry out loading and unloading in these areas
- Machines and equipment in intermittent use will be shut down or throttled down to a minimum when not in use
- Screen plant to reduce noise when this cannot be done by increasing the distance between the source and the receiver

- Orientate plant that is known to emit noise strongly in one direction so that the noise is directed away from dwellings, where possible
- Close acoustic covers to engines when they are in use or idling
- Keep local residents informed of the proposed working schedule, where appropriate, including the times and duration of any unusually noisy activity that may cause concern

Dust

6.14 The following measures will be put in place to minimise dust generation during construction, in accordance with the Institute of Air Quality Management's (2016) *Guidance on the assessment of dust from demolition and construction version 1.1*:

- The name and contact details of the person(s) accountable for air quality and dust issues will be displayed on the site boundary, together with the head or regional office contact information
- All dust and air quality complaints will be recorded, the cause(s) will be identified and appropriate measures will be taken to reduce emissions in a timely manner and recorded. The complaints log will be made available to Barnsley Metropolitan Borough Council on request
- Any exceptional incidents that cause dust and / or air emissions will be recorded in the site log book, together with the action taken to resolve the issue
- Regular site inspections will be undertaken, the results will be recorded and the inspection log will be made available to Barnsley Metropolitan Borough Council on request. The frequency of inspections will be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions
- The site layout will be planned to locate machinery and dust-causing activities away from receptors, where possible
- Solid screens or barriers will be erected around dust-generating activities as required
- There will be no site runoff of water or mud
- All vehicle engines will be switched off when stationary and no vehicles will be left idling
- The use of diesel- or petrol-powered generators will be avoided where practicable and mains electricity or battery-powered equipment will be used instead
- Any cutting, grinding or sawing equipment will be fitted with suitable dust suppression techniques or used in conjunction with local extraction
- An adequate water supply will be maintained on the site for effective dust / particulate matter suppression, using non-potable water where possible and appropriate
- Covered skips will be used where necessary
- Drop heights from loading and handling equipment will be minimised and fine water sprays used where appropriate
- There will be no bonfires or burning of waste materials on site
- A wheel washing facility, comprising a hose down point adjacent to the construction compounds, will be provided for the duration of the construction period to minimise levels of mud and debris on roads near the site. All vehicle wheels will be cleaned whenever a vehicle leaves the site. The contractor will ensure that the area around the site,

including the public highway, is regularly and adequately swept to prevent any accumulation of dust and dirt

Ground conditions and the water environment

6.15 Appropriate working practices, including the use of personal protective equipment as necessary, will be put in place in accordance with the guidance set out in CIRIA publication C741 (2015) *Environmental good practice on site guide* (fourth edition). In the unlikely event that any evidence of contamination is identified during construction, works should be halted and contact made with a suitably qualified environmental consultant.

6.16 Construction vehicles and plant will be regularly maintained and supplied with spill kits and drip trays to reduce the risk of hydrocarbon contamination. Refuelling is not expected to be necessary on site, but if it is required it would take place in a designated area with drip trays installed. If necessary, an adequate bunded and secure area will be provided for the temporary storage of fuel, oils, solvents and chemicals. Spill clean-up kits will be available at all times. Any environmental incidents that lead to water pollution, and the remedial action taken, will be recorded in the environmental incident logbook.

6.17 Roads and hard surfaces will be kept clean to prevent a build-up of mud and sediment. Wheel cleaning equipment will be provided on site and all construction vehicles leaving the site will be required to pass through this to ensure no material from the site is deposited on the public highway.

Temporary lighting

6.18 Lighting of the site will take account of security and safety and will be chosen to prevent interference with road signals and road signing. Lighting will be located and directed or screened so that it does not cause undue intrusion to adjacent occupied residential properties or ecologically sensitive areas. Light sources will be used that minimise spillage and light pollution effects, and light only those areas that need lighting. As far as is reasonably practicable, the visual intrusion of the construction site on nearby residents and users of local facilities and amenities will be contained and limited.

Waste management

6.19 The nature of the proposed construction works means that only limited quantities of waste are expected to be generated. Where possible, packaging waste will be returned directly to the suppliers / manufacturers of the solar farm components. Other waste will be segregated, stored and sent for off-site recycling where possible, or disposal as a last resort.

Appendix 1 – Construction Traffic Management Plan



PREMIER FOODS BAKERY SOLAR FARM

TRAFFIC MANAGEMENT PLAN

01 September 2023

PREMIER FOODS BAKERY SOLAR FARM

TRAFFIC MANAGEMENT PLAN

PROJECT DETAILS

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1. Introduction

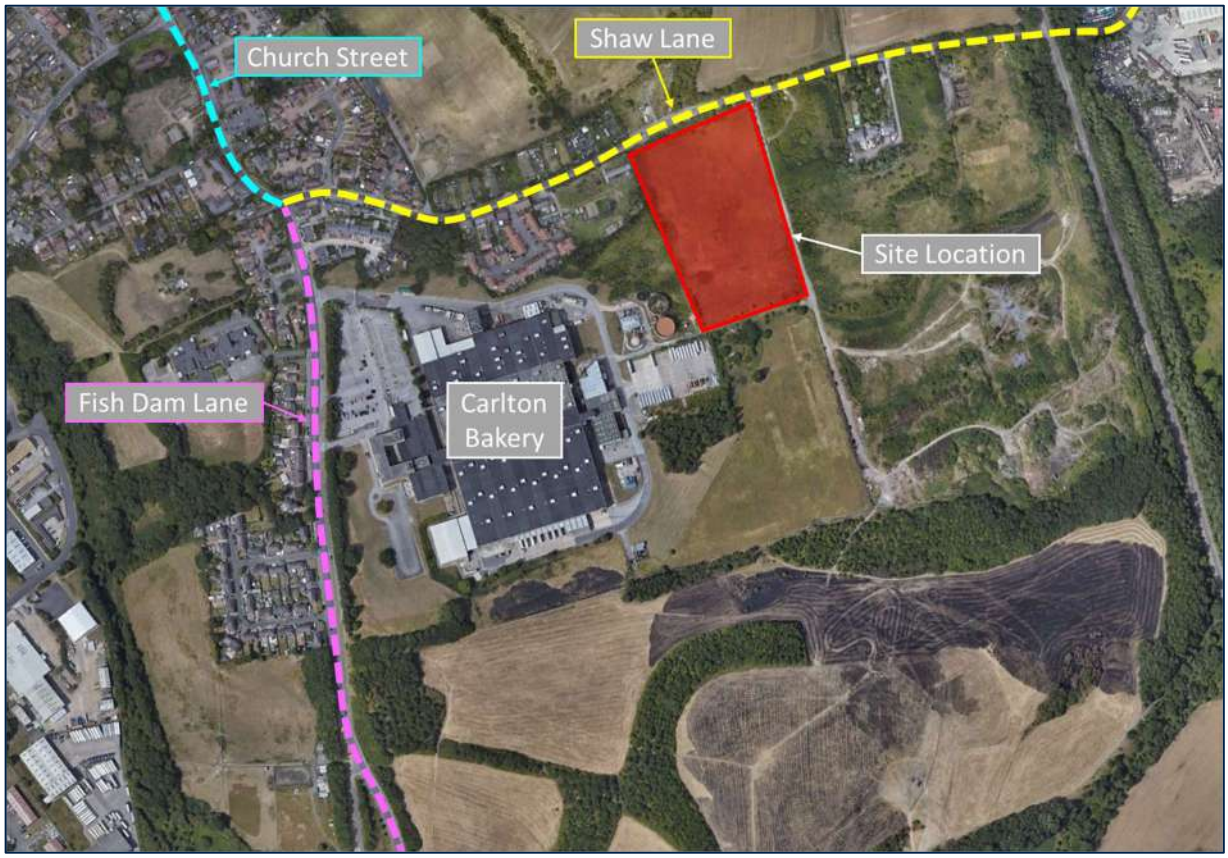
1.1. Context

1.1.1. This Traffic Management Plan (TMP) has been prepared by Evoke Transport Planning Consultants Ltd (Evoke) on behalf of Premier Foods Plc in support of a planning application for the installation and operation of a Solar Farm together with all associated works, equipment and necessary infrastructure, to deliver up to 2MW of electricity on land adjacent to Premier Foods Bakery.

1.2. Existing Site

1.2.1. The Application Site is located in Carlton to the north east of Barnsley and comprises an area of approximately 2.7 hectares to the east of the Premier Foods site (Carlton Bakery). To the north, the Site is bound by Shaw Lane, to the south and east by undeveloped land and to the west by the Carlton Bakery. At present, a secure access to the Application Site is provided via the internal Carlton Bakery highway network in the south western corner of the Site. The general location of the Application Site is shown at Figure 1.

Figure 1 – Site Location Plan



Source: Google Maps

1.3. Consultation

1.3.1. A pre-application submission was made by tor&co to BMBC outlining the proposed development of a solar farm to provide up to 50% of Premier Food's Carlton Bakery power needs. A response was received from BMBC in May 2023. In respect of transport, the main points within BMBC's response have been outlined below:

- The Pre-application Planning Statement produced by tor&co. highlights the fact that vehicle movements will be negligible once the solar farm is up and running. Highway Development Control (HDC) have no objections to the principle of development.
- It is proposed that a Transport Statement and a Construction Environmental Management incorporating Traffic Management Plan will be submitted to the planning application, for the Highways Authority's review and consideration. These documents will provide details of how the construction phase will be managed, to ensure that residential amenity and the local transport network is not unduly impacted.
- Highways DC welcome the intention to submit these details as part of a full application. The required Construction Management Plan should include but not be restricted to:

  i. Phasing of the works
  ii. Site working hours
  iii. Delivery hours which should avoid peak hours
  iv. Means of access for construction traffic including delivery routes
  v. Phasing of unloading of plant and materials
  vi. The parking of vehicles of site operatives and visitors
  vii. Storage of plant and materials used in constructing the development
  viii. Measures to prevent mud/debris being deposited on the public highway

1.3.2. The response has been taken into account in the production of this TMP and the separate Transport Statement which will be submitted with this application.

1.4. Proposed Development

1.4.1. The proposed development consists of the installation and operation of a Solar Farm together with all associated works, equipment and necessary infrastructure, to deliver up to 2MW of electricity on land adjacent to Premier Foods Bakery. The existing field entrance will be utilised to facilitate occasional operational traffic as well as construction traffic. This will also utilise the existing internal highway network within the Carlton Bakery site. No additional car and cycle parking will be provided as part of the proposed development; the existing facilities within the Carlton Bakery site will be utilised. A copy of the proposed plan has been attached at **Appendix A.**

1.5. Report Structure

1.5.1. The principle aim of this TMP is to ensure that the construction works, and operational period are organised and delivered in a manner that safeguards the highway impact, highway safety and amenity of the area surrounding the Application Site.

- **Section 2: Construction Process;** summarises the different phases of work and sets out the construction methodology and working hours.
- **Section 3: Traffic Generation;** outlines the anticipated composition and volume of traffic during the construction phase of the development along with the proposed routing of traffic.
- **Section 4: Proposed Access and Construction Route;** provides an appraisal of the highway geometry of the identified construction route, having regard to current design guidance in combination with the volume and type of traffic generated by the proposed development.
- **Section 5: Measures, Management, and Control Processes;** focuses on the proposals to ensure that a suitable management strategy and structure is in place to control activity on site and to ensure a suitable reporting procedure for local residents and stakeholders.
- **Section 6: Environmental Impact Measures;** identifies how the environmental impacts of the development in relation to transport will be managed and mitigated.
- **Section 7: Construction Travel Plan;** discusses the anticipated trip generation from the site, sustainable travel measures which can be put in to the place to reduce vehicle trips.
- **Section 8: Summary and Conclusion;** summarises the details and findings of the report.

2. Construction Process

2.1. Introduction

2.1.1. This section outlines the proposed indicative development schedule, construction methodology and the way in which deliveries will be controlled with regard to the local highway network.

2.2. Development Schedule

2.2.1. The proposed construction is scheduled to last for up to six months (24 weeks). The construction can broadly be split into the following phases;

- Site Setup – including site tracks, perimeter fencing, site welfare, construction compound;
- Solar Panel Frames – including setting out positions, installing piles, constructing frames;
- Cabling and Ducting – including installing AC cables, DC mains, earthing system and ducts; and
- Modules and Commissioning – including connecting LV DC and AC, installing modules and overall commissioning.

2.2.2. It should be noted however that the construction programme may be subject to change prior to work commencing on site. Likewise, the CTMP is a live document, should any changes be required these will be agreed with the Local Planning Authority in consultation with the Local Highway Authority.

2.3. Delivery of Plant and Materials

2.3.1. The existing field entrance will be utilised to facilitate occasional operational traffic as well as construction traffic. To accommodate construction vehicles minor widening of the field gate access may be utilised during the construction phase, however this is anticipated to comprise of small scale hedge removal which would be reinstated following completion of the construction phase.

2.3.2. With regards to the suitability of the existing internal highway network within the Carlton Bakery site, the roads measure approximately 8.0m in width which is sufficient to allow the simultaneous two-way flow of HGVs. As such, given that the route is safe and suitable to accommodate the HGV movements associated with the bakery, no widening or improvement works are proposed on the internal network for the construction period. The proposed routing strategy is shown below in Figure 2.

2.4. Working Hours

2.4.1. All works will be conducted between the hours of 08:00 to 18:00 hours Monday to Friday with limited construction activities on Saturday mornings (08:00-13:00) foreseen. No construction activities will take place on a Sunday's or Bank Holiday. Works undertaken outside of these timings will only occur should any electrical shutdowns be required.

Figure 2 – Proposed Routing Strategy



2.3.3. Further to this, two construction compounds will be located within the wider Carlton Bakery site for the construction period which would not disrupt the day to day operation of the bakery. It is of note that both options will be managed by both Premier Foods and Photon Energy. Swept path analysis demonstrating the suitability of these routes has been attached at **Appendix B.**

2.3.4. Vehicle access to the application site will be taken from a private track to the north of the HGV parking area, as shown below in Figure 3.

Figure 3 – Application Site Access Route



2.4. Working Hours

2.4.1. All works will be conducted between the hours of 08:00 to 18:00 hours Monday to Friday with limited construction activities on Saturday mornings (08:00-13:00) foreseen. No construction activities will take place on a Sunday's or Bank Holiday. Works undertaken outside of these timings will only occur should any electrical shutdowns be required.

3. Traffic Generation

3.1. Introduction

3.1.1. This section of the report sets out the estimated volume and type of vehicles that will be generated throughout the construction and operational phase of the development. This information has been used in subsequent sections that consider the safety of the adjoining highway networks, in order to inform the suite of management measures proposed.

3.1.2. It should be noted that the construction programme and corresponding construction traffic strategy may be subject to change prior to work commencing on site. Any substantial changes in the build program and / or number of vehicular movements will be agreed with the local planning and highway authority in advance of construction.

3.2. Construction Vehicles

3.2.1. The trip generation potential of the construction phase of the development has been informed through discussion with the applicant on the anticipated construction programme and is based on experience of delivering similar developments in the United Kingdom.

3.2.2. The construction period is estimated to last for up to six months (24 weeks), with deliveries fluctuating within this period. It is envisaged that the majority of movements would be Monday to Friday with only a limited number of movements on a Saturday. All deliveries will be instructed to avoid the network peak hours of 08:00-09:00 and 17:00-18:00 along with key school drop-off and collection periods (08:00-09:30 and 14:30-16:00).

3.2.3. A summary of the anticipated vehicle movements across the construction period has been outlined below in Table 1.

Table 1 – Construction Vehicle Movements

Type of Vehicle	Number of Vehicles
Articulated Truck	Approximately 8, mostly during the first 4-6 weeks
Curtain Sided Lorry	6 lorries over 4 weeks (in the middle of the project) for PV modules delivery
Waste Management	Collection of skip and container approximately 1 per week. Total 10.
Articulated Low Loader	Approximately 6 throughout construction period. (For the delivery of construction machinery.)
Rigid Lorries – for equipment deliveries	Approximately 15 over the first 4 months of the project
Hiab	2 deliveries due at the end of the project
JCB	1 near the middle of the project for a day

3.2.4. As noted above, the overall number of vehicle movements associated with the construction of the solar farm is anticipated to be approximately 48 which equates to 96 two-way movements over the construction phase (24 weeks), excluding trips undertaken by workers. Deliveries will vary in amount per week, however on average the construction phase is anticipated to generate between 2-6 deliveries per week (4-12 two-way HGV movements), however as noted within Table 1, once the majority of materials are on site there will be days throughout the construction period where there will be no HGV movements associated with the construction.

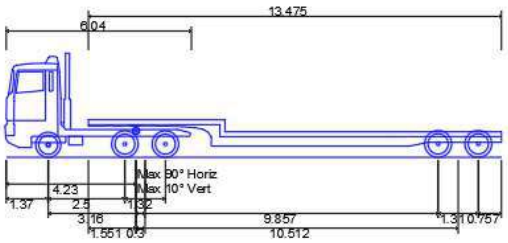
3.2.5. The most intensive period during construction will occur during the initial site set up.

3.3. Construction Vehicle Types

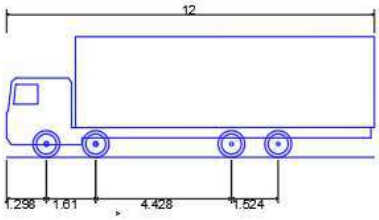
3.3.1. It is noted that a variety of vehicles will need to access the Application Site during construction. These will include low loaders and rigid HGVs delivering the requisite materials (including aggregate, mounting frames and the solar panels). The dimensions of the vehicle types are shown in Figure 4 below.

3.3.2. There will be no abnormal loads accessing the site for the entirety of the construction process.

Figure 4 – Construction Vehicle Types



Low Loader	
Overall Length	16.154m
Overall Width	2.520m
Overall Body Height	3.393m
Min Body Ground Clearance	0.318m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.990m



Rigid Truck	
Overall Length	12.000m
Overall Width	2.500m
Overall Body Height	3.928m
Min Body Ground Clearance	0.412m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.900m

3.4. Dwell Times

3.4.1. Delivery vehicles are likely to attend the Application Site for approximately one hour per vehicle. There are sufficient spaces within the curtilage of the Application Site to ensure that no vehicles would have to wait on the surrounding highway network.

3.4.2. Further measures that will be employed to control the number and frequency of vehicles arriving at the Application Site are detailed within Section 5 of this report.

3.5. Construction Staff

3.5.1. During construction, there is a balance to be made between the intensity of on-site activity and the duration of that activity. In terms of employment generated by the solar park, the construction phase will generate approximately 10-15 full time jobs. Car sharing will be employed to minimise traffic so far as is practically possible.

3.5.2. All staff are anticipated to arrive at the site in the 30-minute periods preceding the start of the operating day (i.e. 07:30 to 08:00hrs) and depart in the 30-minute period that follows the end of the operating day (i.e. 18:00 to 18:30hrs). Staff trips are likely to travel to / from different origins / destinations and hence spread their movement across the highway network.

3.5.3. Premier Foods will allow construction workers to park in the existing employee car park on site to avoid obstruction to the operation of the public highway, and use of this car park shall be strictly enforced. The material in Section 7 outlines full details on construction worker trips and the measures within the Construction Travel Plan that will seek to minimise construction workers travel.

3.6. Operational Period

3.6.1. Once operational, the proposed development will not require significant maintenance, with the exception of routine visits made by 4x4 vehicles or panel van vehicles which would equate to one x two-way vehicle trip per month.

3.6.2. The impact of maintenance vehicles is considered to be negligible given the low and sporadic nature of the maintenance visits.

4. Site Access and Construction Route

4.1. Introduction

4.1.1. This section of the report sets out an appraisal of the highway characteristics and geometries along the identified access route along with safety considerations to ensure that vehicles are able to travel safely and efficiently to the Application Site, having due regard to the traffic volumes and vehicle types identified previously.

4.2. Site Access and Visibility

4.2.1. Access to the Application Site will be taken from the existing Premier Foods access on to Fish Dam Lane. At the access location, Fish Dam Lane is a two-way single carriageway road subject to a 30mph speed limit. A ghost island right turn lane is provided at the main access allowing for through carriageway widths of 3.6-3.9m in width.

4.2.2. The construction access will be provided via an existing track connecting the Premier Foods internal highway network to the site via an existing gated field access. To accommodate construction vehicles minor widening of the field gate access may be utilised during the construction phase, however this is anticipated to comprise of small scale hedge removal which would be reinstated following completion of the construction phase.

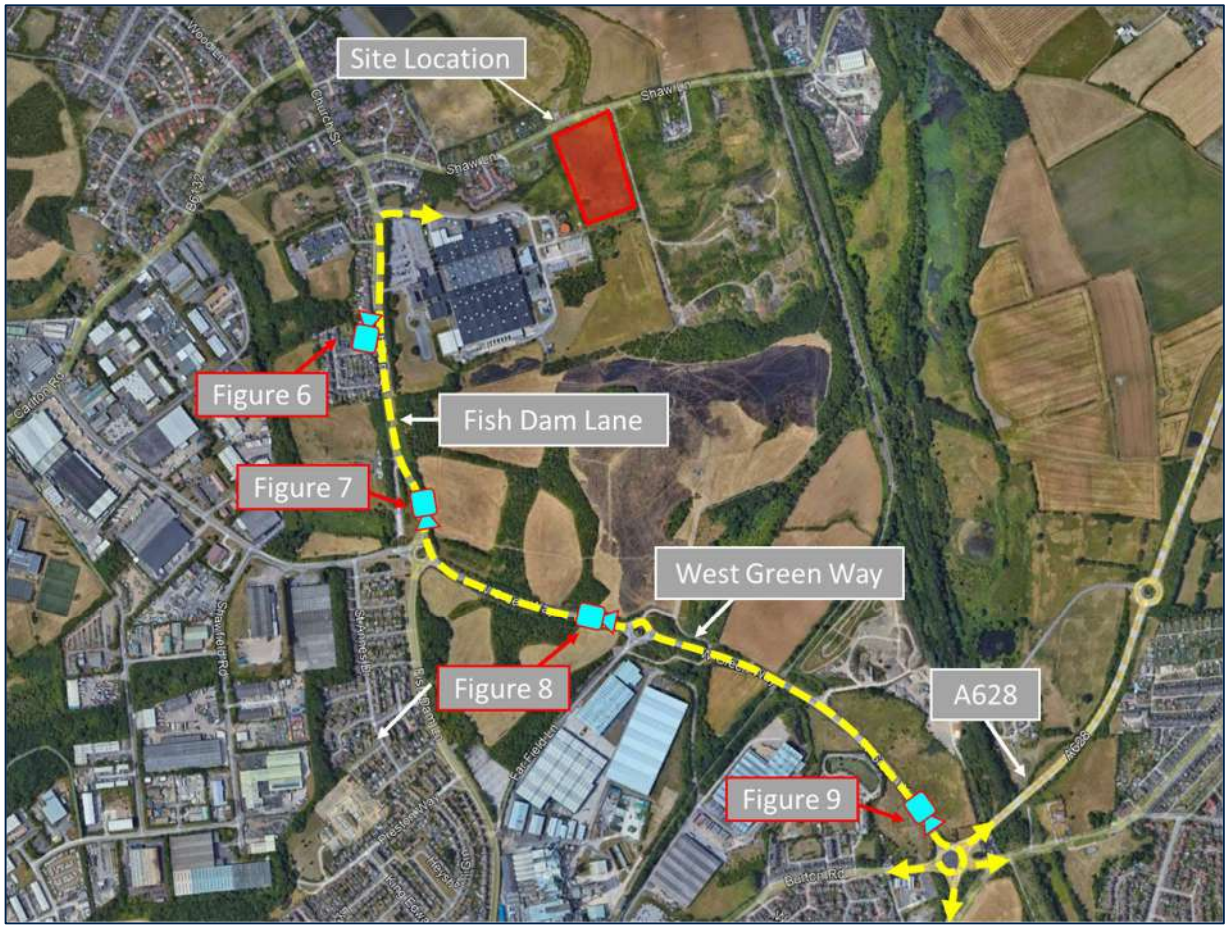
4.2.3. It is proposed that temporary signage is used to direct construction traffic to the site along the proposed construction traffic route utilising existing street furniture.

4.3. Proposed Construction Route

4.3.1. Due to the nature of the surrounding transport network, local road restrictions, and to minimise the impact on any one section of road, construction vehicles will be permitted to use a single route option. All traffic accessing the Application Site for construction purposes will be required to do so by travelling to the site from the Strategic Road Network (SRN) via West Green Way and Fish Dam Lane.

4.3.2. A summary of the proposed construction route is outlined in Figure 5, with the locations of images along the route marked on to the map.

Figure 5 – Route Overview



Source: Google Maps

4.3.3. The construction route connects the A628 and the proposed site via West Green Way and Fish Dam Lane. As demonstrated in Figure 5, the route passes by a number of employment and commercial uses, as such HGV use on the network is considered to be established.

Figure 6 – Fish Dam Lane Looking North



4.3.4. Fish Dam Lane continues south until it intersects Industry Road and West Green Way, where construction traffic will take the first exit on to West Green Way.

Figure 7 – Fish Dam Lane / West Green Way Roundabout



Source: Google Maps

4.3.5. West Green Way then proceeds to the east where it intersects the Far Field Lane / West Green Way roundabout, where construction traffic will route straight over to continue on West Green Way.

Figure 8 – West Green Way / Far Field Lane Roundabout



Source: Google Maps

4.3.6. West Green Way continues to the south-east before intersecting with the Strategic Road Network at the A628, where a five-armed roundabout connects West Green Way, the A628, Barnsley Road, and Burton Road.

Figure 9 – West Green Way / A628 Roundabout



Source: Google Maps

4.3.7. In summary, this route provides sufficient road width to accommodate the minor temporary increase in HGV movements associated with the construction traffic. During on site investigations, it was evident that the route to the wider strategic highway network is already trafficked by HGVs, and as such a minor uplift in vehicle movements is not anticipated to result in a severe impact to the existing highway network.

4.3.8. The route will provide the preferred route for construction traffic during the initial construction phase of the development as it is the most direct route to the wider highway network and the route already accommodates a greater number of HGV movements on a daily basis.

4.4. Access Management Measures

4.4.1. Management measures will be implemented to ensure that construction HGVs can access and exit the site safely.

4.4.2. Construction HGVs will be subject to a booking system with fixed arrival times. A banksman will be utilised and situated at the site access to assist HGVs in accessing and egressing the site and will only instruct HGVs to depart the site when Fish Dam Lane is clear of traffic in the vicinity of the site access, and it is safe to do so.

4.4.3. Temporary signage will be located in the vicinity of the site access during the construction period to warn drivers of the site access. Figure 10 and Figure 11 provide illustrative examples of the types of signage that will be installed.

Figure 10 – Temporary Signage at Site Access



4.4.4. Additional signage will advise motorists of HGVs turning through the site access as shown in Figure 11

Figure 11 – Temporary Signage along Fish Dam Lane



4.5. Road Condition Survey

4.5.1. Given the low level of HGVs forecast for the construction of the proposed Solar Farm coupled with the existing HGV use of Fish Dam Lane and West Green Way, it is not considered necessary to undertake a Road Condition Survey pre or post construction of the proposed Solar Farm.

4.6. Highway Safety

4.6.1. An investigation of Personal injury Accident data in the immediate vicinity of the site access has been undertaken using www.crashmap.co.uk. Personal Injury Accidents between 2017 and 2021 (the most recently available period) along Fish Dam Lane in the vicinity of the site access have been analysed.

4.6.2. Whilst an in-depth study of all incidents in the area has been undertaken in the accompanying TS, this review focuses on solely incidents which have involved HGVs.

4.6.3. To summarise the TS's more wide-ranging analysis, the data indicates that there were no clusters of injury accidents within the study area and no collisions at the site access junction. Based on the recorded injury accident data there is not considered to be an undue road safety problem within the vicinity of the Application Site.

4.6.4. The study area for this document is shown below in Figure 12, with HGV-involved incidents marked.

Figure 12 – PIA Study Area



Source: Crashmap

4.6.5. As can be seen from the figure, no HGV accidents have occurred on the route between the site access and the roundabout connecting West Green Way to the A628. One fatality has occurred in the vicinity of the route, on the eastbound Fish Dam Lane / West Green Lane / Industry Lane roundabout. As this incident is isolated and did not occur on the roundabout itself or on the route that HGVs will be taking, it is considered that it does not represent a trend which could be exacerbated by the site construction traffic.

4.6.6. Two incidents have occurred on the roundabout connecting the A628 and West Green Way, one of which resulted in an injury classified as 'serious' and another which resulted in an injury classified as 'slight'.

4.6.7. As a result of this analysis, it can be concluded that the existing highway network is suitable to accommodate the minor increase in HGV traffic that would be generated by the construction of the solar farm. As noted above, the number of vehicle movements is anticipated to be marginal and is likely to fall within day to day variations currently experienced on the local highway network. A range of traffic management measures will also be employed to further manage and promote safe routing by construction vehicles.

5. Measures, Management and Control Processes

5.1. Introduction

5.1.1. This section of the report sets out the measures, management structure and control processes that will be put in place to implement, monitor and manage the TMP. The Site Manager will be responsible for the works which will ensure that the control processes are efficiently communicated and implemented.

5.2. Transport Co-ordination

5.2.1. The Applicant will appoint a Site Manager for the project and the details will be provided to the Local Planning Authority once confirmed. The Site Manager for the project will undertake the transport co-ordination role for the site. In this respect, their main responsibilities will include:

- Managing the implementation of the TMP;
- Vehicle Scheduling;
- Checking for scheduled road works on the https://one.network/uk/barnsley website;
- Checking for scheduled refuse collections with Local Planning Authority;
- Handling any complaints; and
- Acting as a point of contact for employees, contractors and the general public.

5.2.2. The Site Manager will ensure that there is adequate liaison between the following key stakeholders throughout the construction period:

- The contractor;
- The applicant;
- Site neighbours;
- Other local stakeholders such as emergency services or local transport providers; and
- Local Planning and Highway Authorities.

5.2.3. Regular review meetings and telecommunications will be held between the Site Manager and BMBC if requested. It is envisaged that update meetings / telecommunications will be held on an ad-hoc basis as required. Furthermore, the Site Manager will provide any monitoring data, delivery schedules, complaints or breaches of agreements to BMBC if requested.

5.3. Booking System

5.3.1. On a weekly basis the Site Manager will evaluate details of the daily profile of deliveries proposed for the upcoming week. Through discussions with hauliers the Site Manager will, as far as practical, ensure that the deliveries are spread out across the week and across the day to minimise any potential disruption.

5.3.2. The proposed deliveries will be checked against the weekly delivery schedule. This will be overseen by the Site Manager to ensure that construction deliveries are managed in an efficient manor with minimal disruption and delays.

5.3.3. The provision of two construction compounds will provide waiting areas with sufficient capacity for three waiting HGVs. Hauliers will be required to contact the Site Manager to give an indicative delivery time to ensure that the delivery space and banksmen (if required) are ready for their arrival on site.

5.3.4. Where possible sufficient time will be given between deliveries to allow for any delays as a result of the delivery vehicle getting stuck in traffic or loading / unloading taking longer than expected to avoid any vehicles waiting.

5.3.5. The Applicant will provide banksmen to assist with the manoeuvring of delivery vehicles in to and out of the construction compound, as well as any internal movements throughout the application site.

5.3.6. Where possible, all deliveries by goods vehicles (>3.5 tonnes) will be undertaken outside of the highway peaks of 08:00-09:00 and 17:00-18:00 along with key school drop-off and collection periods (08:00-09:30 and 14:30-16:00). All vehicles ready to depart the application site during these periods shall be held back within the compound area until the appropriate time has passed.

5.4. Route Compliance

5.4.1. Use of the agreed vehicle route shall be included as a contractual requirement of the Contractor and will be communicated to all driver accessing the site. This will include information of the times of operation, delivery routes and the vehicle booking system.

5.5. Vehicle Compound

5.5.1. The provision of two vehicle compounds enables sufficient space to accommodate a turning vehicle whilst at least one vehicle is parked, to allow for vehicles to be held back during the restricted periods, if required. It should be noted that both options will be managed by both Premier Foods and Photon Energy and will include provision for Staff and Welfare offices, storage, staff and van / minibus parking, wheel washing facilities and loading and unloading areas.

5.6. Site Fencing

5.6.1. A 2.4m tall palisade security fence will be constructed around the application site prior to any construction works taking place. The security fence will be constructed on the inside of hedgerows, so that it will be partially screened by the hedgerows in views of the surrounding area, further mitigating any visual impact.

5.6.2. The fencing of the site will protect members of the public from the ongoing construction works as well as preventing unauthorised personnel accessing the site. Six poles for security cameras will also be erected around the border of the site.

5.6.3. Mandatory safety signage will be displayed for construction staff entering the site along with contact details for the Site Manager. The fencing will be kept clean and tidy at all times.

5.7. Communication Strategy

5.7.1. As identified above, the Site Manager will be responsible for ensuring that there is adequate liaison between all stakeholders and the Local Planning Authority and Highway Authorities throughout the construction period.

5.7.2. Prior to any works taking place, the contractor shall inform neighbours such as Carlton Primary School and residents along Fish Damn Lane which may be affected by noise, dust or vehicle movements arising from the construction work or nature of the works, proposed hours of work and their expected duration. In addition to this a notice will be placed at the main site entrance informing the neighbours of the hours of work.

5.8. Complaints Procedure

5.8.1. Whilst the Site Manager will use reasonable endeavours to ensure that site neighbours are informed of the construction programme and potential impacts it is possible that complaints may be raised by the site's neighbours. The Site Manager will therefore be available to meet and explore issues with concerned neighbours directly via appointment.

5.8.2. Complaints shall be taken seriously and addressed immediately by the construction team. All complaints that are received will be reviewed in weekly site meetings to ensure that any required actions are communicated to all employees.

5.8.3. The Site Managers contact details will be provided to the Local Planning and Highway Authority prior to work commencing on site. Contact details for the Site Manager will also be displayed at the site entrance.

6. Environmental Impact Measures

6.1. Context

6.1.1. It is important that construction impacts in relation to issues that may arise along the local highway network, as well as increases in vehicle emissions and waste attributable to the proposed scheme are addressed. Suitable mitigation measures aimed at reducing these impacts with specific regard to transport are identified below.

6.2. Air Pollution, Dust and Dirt Control

6.2.1. During works the main air pollution emissions are the dust and the fumes from machinery. The contractors will use high pressure hoses to saturate all materials with water during the process and whilst loading the waste materials for disposal. Machinery exhaust emissions will be kept as low as is practical by using well maintained vehicles and machinery at all times.

6.2.2. The three main potential sources of air pollution emissions during construction works are the use of compressors, generators and portable petrol cut off saws. Any compressors and generators used will of the latest design available with low emission ratings. All machinery will be switched off when not in use to minimise emissions as well as noise. Any portable petrol cut off saws will be operated with an automatic water applicator. The water application is designed to dampen any arising debris and dust as well as reduce the wear to the blade. Use of cut off saws without water attachments will not be tolerated under any circumstances.

6.2.3. Burning of materials on site will not be permitted in order to prevent smoke emissions.

6.2.4. Mud and debris on the road are regarded as one of the main environmental nuisances and safety problems arising from construction sites. A wheel washing facility will be provided for the duration of the construction works to ensure levels of mud and debris on roadways near the application site is minimised. The wheel washing facilities will be in the form of a hose down point located adjacent to the construction compound. All vehicle wheels will be cleaned whenever a vehicle leaves the site.

6.2.5. The contractor will ensure that the area around the application site including the public highway is regularly and adequately swept to prevent any accumulation of dust and dirt.

6.3. Noise Control

6.3.1. Noise generated by the construction process will be considered and its impact on neighbouring properties mitigated. Suitable mitigation measures to be used include:

- Standard construction hours;
- The use of quieter alternative methods or mechanical plant, where reasonably practical;
- Locating plant, equipment, site offices, storage areas and worksites away from neighbouring properties where practical;
- Machines and equipment in intermitted use will be shut down or throttled down to a minimum when not in use; and
- Maintaining and operating all vehicles, plant and equipment in an appropriate manner, to ensure that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum.

6.4. Fuel Consumption

6.4.1. The appointed Construction Contractor will strive to procure local contractors for the project where possible thereby minimising transport costs and impact on the local environment. The use of the

booking system for deliveries will also help to ensure that the construction site is serviced in an efficient manner which help to minimise the number of vehicle movements that would be generated.

6.4.2. A further measure that will be employed is encouraging all delivery vehicles to switch off engines as they are waiting at the site, thereby preventing unnecessarily idling vehicles.

6.5. Waste Management

6.5.1. In order to seek to reduce the number of HGV trips that are generated, any limited aggregates generated on site during any works will be re-used wherever practical.

6.5.2. All waste materials will be collected and stored in suitable receptacles before they are taken off site. Waste materials will not be allowed to accumulate because of fire/vermin risk. The waste will be separated into recycling types and general waste in designated general waste and refuse and recycling stores.

6.5.3. Whenever deliveries are undertaken, banksmen will be used to ensure that materials are transferred into the site as soon as possible to ensure that no dirt or rubbish is left on the public highway.

6.5.4. It will be requested that the manufacturer supplying the solar panels for the site use packaging that is 100% recyclable. The packaging material collected during the construction by the installation team can then be re-used by the solar panel manufacturer upon completion.

7. Construction Travel Plan

7.1. Introduction

7.1.1. A Travel Plan (TP) is a package of measures aimed at promoting greener, cleaner travel choices and reducing the reliance on the private car. It enables employers to reduce the impact of travel on the environment, whilst also bringing a number of other benefits to the organisation as an employer and to staff.

7.1.2. This TP seeks to address activities related to the construction of the application site which includes commuter journeys for construction workers, material supplies and deliveries. By successfully addressing these different types of travel by promoting travel via sustainable modes and sourcing labour and goods locally, the TP objectives can be achieved.

7.2. Trip Generation

7.2.1. The Applicant estimates that the application site will require up to 10 staff on site per day. Table 2 below shows the 'Method of Travel to Work' for the workplace population of Barnsley 002 Middle Super Output Area (MSOA) in which the application site is located. This has been used to estimate the method by which those 100 construction workers could travel to the application site.

Table 2 – 2011 Census JTW Data (Day Time Population)

Mode	Barnsley 002 MSOA	Number of Workers
Train	0.3%	0
Bus	5.0%	1
Taxi	0.6%	0
Motorcycle	1.2%	0
Car Driver	71.3%	7
Car Passenger	10.2%	1
Bicycle	2.4%	0
On foot	8.7%	1
Other	0.3%	0
Total	**100.0%**	**10**

7.2.2. As Table 2 shows, if existing journey to work mode shares of the local area were to be assumed in this instance, it could be anticipated that seven trips to the application site would be undertaken by car with a one trip undertaken via bus, one on foot and one via as a car passenger.

7.2.3. Such mode shares could be considered reasonable without measures to further encourage travel by sustainable modes. However, experience of similar sites has shown that if sustainable measures are adopted and a TMP put into place, many of the anticipated staff trips will be made via car sharing with fellow construction workers. As such, the number of individual car trips as shown in Table 2 is likely to be reduced and the number of car shares is likely to increase.

7.3. Sustainable Transport

7.3.1. The contractor, where feasible, will seek to recruit construction workers from the local area. This will help maximise the potential for construction workers to travel to the site sustainably. The provision of a 2.5m wide footway is provided along Fish Dam Lane to help facilitate this.

7.3.2. Bus stops are provided to the west of the site access along Fish Dam Lane within 100m of the worker site entrance. These stops are served by Services 57 and 59, which provide services approximately every 15 minutes into Barnsley Interchange and to Royston, and services to Wakefield every hour.

7.3.3. Barnsley Interchange Railway Station is located 4.9km to the west of site (an approximately 22-minute cycle, or a 16-minute bus journey) and provides services to various surrounding cities including Sheffield, Leeds, Lincoln, and Huddersfield. Given the distance to the rail station it is unlikely that rail would provide a suitable mode of transport to the site unless combined with cycling, bus, or car sharing.

7.3.4. There is great potential for construction workers to car share to work, especially given the fact that some sub-contractors are likely to be travelling from the same origin (their workplace) to the same destination (the application site).

7.3.5. Car sharing represents a relatively convenient form of travel offering a significant potential to reduce overall private mileage of construction workers and visitors. It is this mode of transport which often forms one of the most convenient methods of sustainable travel for construction workers.

7.3.6. The Site Manager will determine construction staff willingness to car share. Furthermore, looking at workers home postal addresses it would become evident whether there are any area groupings of people that would make the principle of car sharing a reasonable prospect of being successful. The Site Manager will then investigate setting up a database of construction workers willing the share journeys, including information such as their home addresses and working hours and could try and match suitable car sharers.

7.3.7. The Site Manager would promote car-sharing scheme throughout the construction program. The Site Manager would also make construction workers aware of existing car sharing schemes such as https://liftshare.com/uk.

7.3.8. The construction site will provide facilities in accordance with requirements set out in HSE guidelines. As such the application site will provide a drying room, storage facilities, toilets and offices. This will further encourage people to travel to the application site by sustainable modes whilst having the added benefit of reducing the number of trips made off site during lunch breaks.

7.4. Measures

7.4.1. As indicated above there is some potential for construction workers to travel to the application site by sustainable modes such as walking, cycling and public transport. There is also great potential for construction workers to car share to the application site. It is therefore deemed appropriate to promote the local services available as well as following the measures to promote sustainable travel by construction staff.

- Include local public transport timetables and route maps within the on-site compound for construction staff to review;
- Providing changing and storage facilities for construction staff;
- Assist in matching car sharers; and
- Minimise where possible the number of contractors on site at any one time to reduce trips generated and promote car sharing.

7.4.2. Further to this the following measures are to be promoted to minimise the environmental impacts of HGV trips generated by the development.

- Initiate a weekly booking system for the delivery of plan and materials to the site;
- All delivery vehicles will be required to switch off their engines as they are waiting at the site, thereby preventing unnecessarily idling vehicles;
- Use of the agreed vehicle routes shall be included as a contractual requirement of the Contractor and will be communicated to all individuals associated with the works;
- Provision of wheel washing facilities at the application site entrance / egress.

7.4.3. The Department for Transport (DfT) have published guidance relating to the efficient use of freight on the network. “Review of Low Carbon Technologies for Heavy Goods Vehicles” (2009) setting out a number of HGV technologies with the potential for reducing carbon emissions. Within this DfT report it assesses a number of vehicle technologies and driver behavioural styles for reducing the environmental impact of HGVs. It is likely that these measures have been incorporated into the vehicle fleet in order to reduce the environmental impact of generated traffic. Such measures include;

- Aerodynamic improvements to trailers – reduce the aerodynamic drag of the vehicle;
- Spray reduction mud flaps – reduces spray and provides aerodynamic benefits;
- Low rolling resistance tyres – can reduce CO^2 emissions by up to 5%;
- Automatic tyre pressure adjustment – automatically monitors and adjusts tyre pressures which could provide CO^2 reductions of around 7-8%;
- Predictive cruise control – improves fuel efficiency of vehicles; and
- SAFED Driver Training Scheme – Aims at improving accident prevention and reduction and improved fuel consumption.

7.5. Residual Impacts

7.5.1. A booking system will be initiated to ensure that construction deliveries are managed efficiently with minimal disruption and delay. Local residents will be informed of the commencement of the construction process. The initiation of the Travel Plan measures alongside the targets will therefore minimise the impacts upon the operation of the local highway network as well as reduce environmental impact.

8. Summary and Conclusion

8.1.1. This Traffic Management Plan (TMP) has been prepared by Evoke Transport Planning Consultants Ltd (Evoke) on behalf of Premier Foods Plc in support of a planning application for the installation and operation of a Solar Farm together with all associated works, equipment and necessary infrastructure, to deliver up to 2MW of electricity on land adjacent to Premier Foods Bakery.

8.1.2. The existing field entrance will be utilised to facilitate occasional operational traffic as well as construction traffic. To accommodate construction vehicles minor widening of the field gate access may be utilised during the construction phase, however this is anticipated to comprise of small scale hedge removal which would be reinstated following completion of the construction phase.

8.1.3. With regards to the suitability of the existing internal highway network within the Carlton Bakery site, the roads measure approximately 8.0m in width which is sufficient to allow the simultaneous two-way flow of HGVs. As such, given that the route is safe and suitable to accommodate the HGV movements associated with the bakery, no widening or improvement works are proposed on the internal network for the construction period. Swept path analysis has been undertaken of the site access and route through the site, together with the vehicle holding / loading areas.

8.1.4. The construction period is estimated to last for up to six months (24 weeks), with deliveries fluctuating within this period. It is envisaged that the majority of movements would be Monday to Friday with only a limited number of movements on a Saturday. All deliveries will be instructed to avoid the network peak hours of 08:00-09:00 and 17:00-18:00 along with key school drop-off and collection periods (08:00-09:30 and 14:30-16:00).

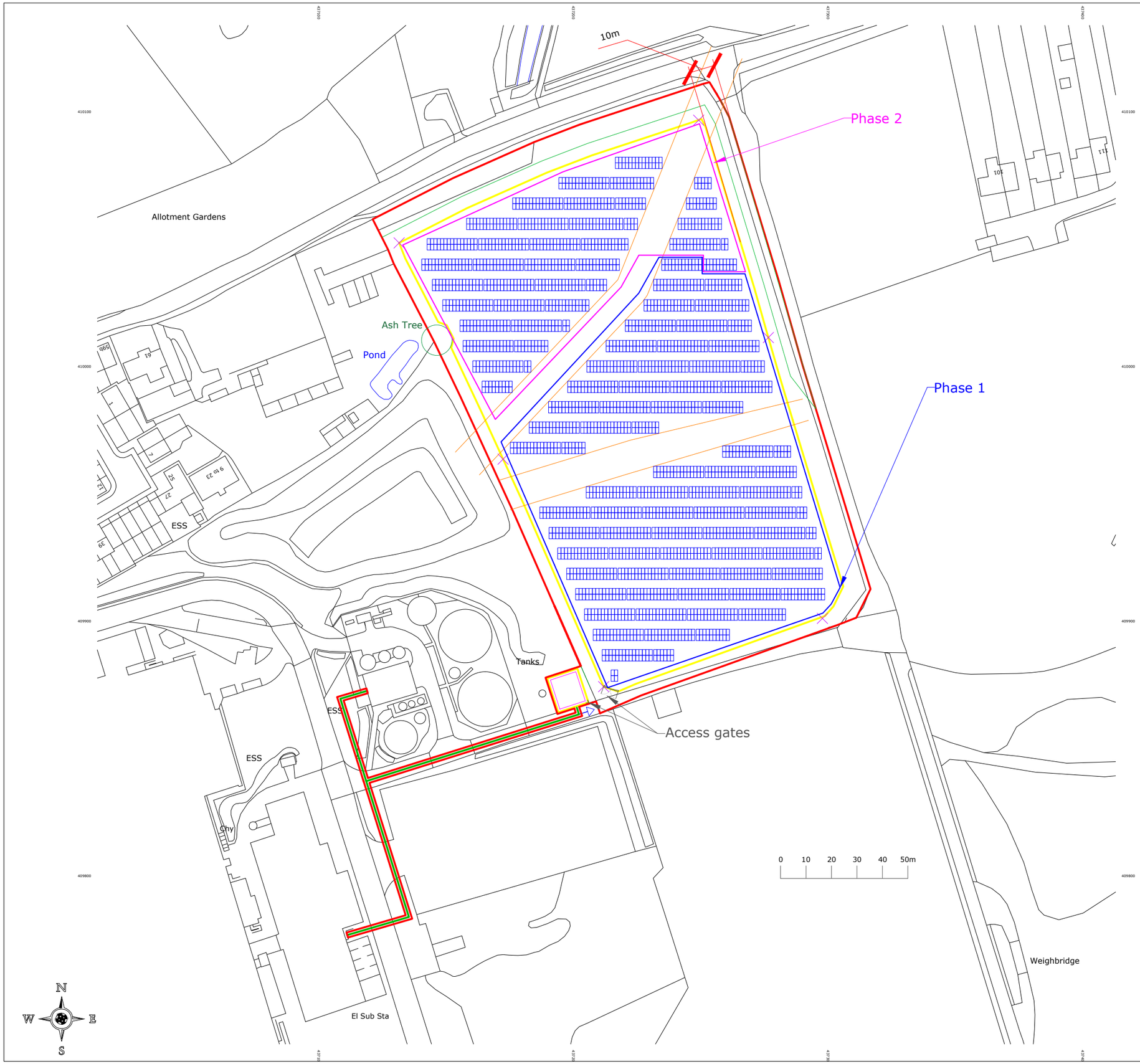
8.1.5. The overall number of construction vehicle movements associated with the construction of the solar farm is anticipated to be approximately 48 which equates to 96 two-way movements over the construction phase (24 weeks), excluding trips undertaken by workers. Deliveries will vary in amount per week, however on average the construction phase is anticipated to generate between 2-6 deliveries per week (4-12 two-way HGV movements), however, once the majority of materials are on site there will be days throughout the construction period where there will be no HGV movements associated with the construction. The most intensive period during construction will occur during the initial site set up and aggregate deliveries for track construction.

8.1.6. The Site Manager will evaluate details of the daily profile of deliveries proposed for the upcoming week. Through discussions with hauliers the Site Manager will ensure that the deliveries are spread out across the week and across the day to minimise any potential disruption. All deliveries will then be met by a member of staff who will assist vehicles entering, exiting and manoeuvring around the site.

8.1.7. To further control the environmental impacts of the proposed development, measures to be employed include covering any materials being brought on or off the site, wheel washing facilities, mitigation measures for noise, employing local contractors and the implementation of a waste management strategy.

8.1.8. Overall, it is considered that the measures and control processes outlined in this TMP are appropriate to overcome the identified constraints associated with the application site.

Appendix A – Proposed Site Layout



DRAWING LEGEND

1. System Details
   - 1.1. Installed Power: 1992.58 kWp
   - 1.2. Installed Modules: 2974
   - 1.3. Module Power: 670Wp each
   - 1.4. Module Inclination: 20°
   - 1.5. Mounting System: Hi-tech

PV Modules: STP670S-D66/Wmh
Power: 670Wp
Dimensions: 2384x1303x35mm

Landscape screening / biodiversity enhancement zone

H2A - Hedgerow (priority habitat)

Application Site Boundary

2.4m Mesh weld fencing in colour: moss green

Substation area (transformer enclosed within 2.4m green mesh weld fencing with single access gate)

Existing secure access retained

Double leaf gate - 2 x 3m wide green mesh gates with green frame

6m high CCTV poles

Easement zone due to pipes

Cable Routes

Rev	Description	Dwn	Chck	Date
G	Revised gate position	SA	JP	06/09/2023
F	Orange MH omitted	CR	FB	29/08/2023
E	Phase 2 boundary amended	FB	CR	24/08/2023
D	Changed type of fence	SA	CR	22/08/2023
C	Hatched green area redone	SA	CR	16/08/2023
B	Revised layout with easement zones	SA	CR	14/08/2023
A	Revised Biodiversity boundary	SA	CR	20/06/2023

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Project Number: I2010

Project Name: Premier Foods

Drawing By: Sara Abdel Ahad

Scale: 1:1500 @ A3

Checked By: Cathy Ross

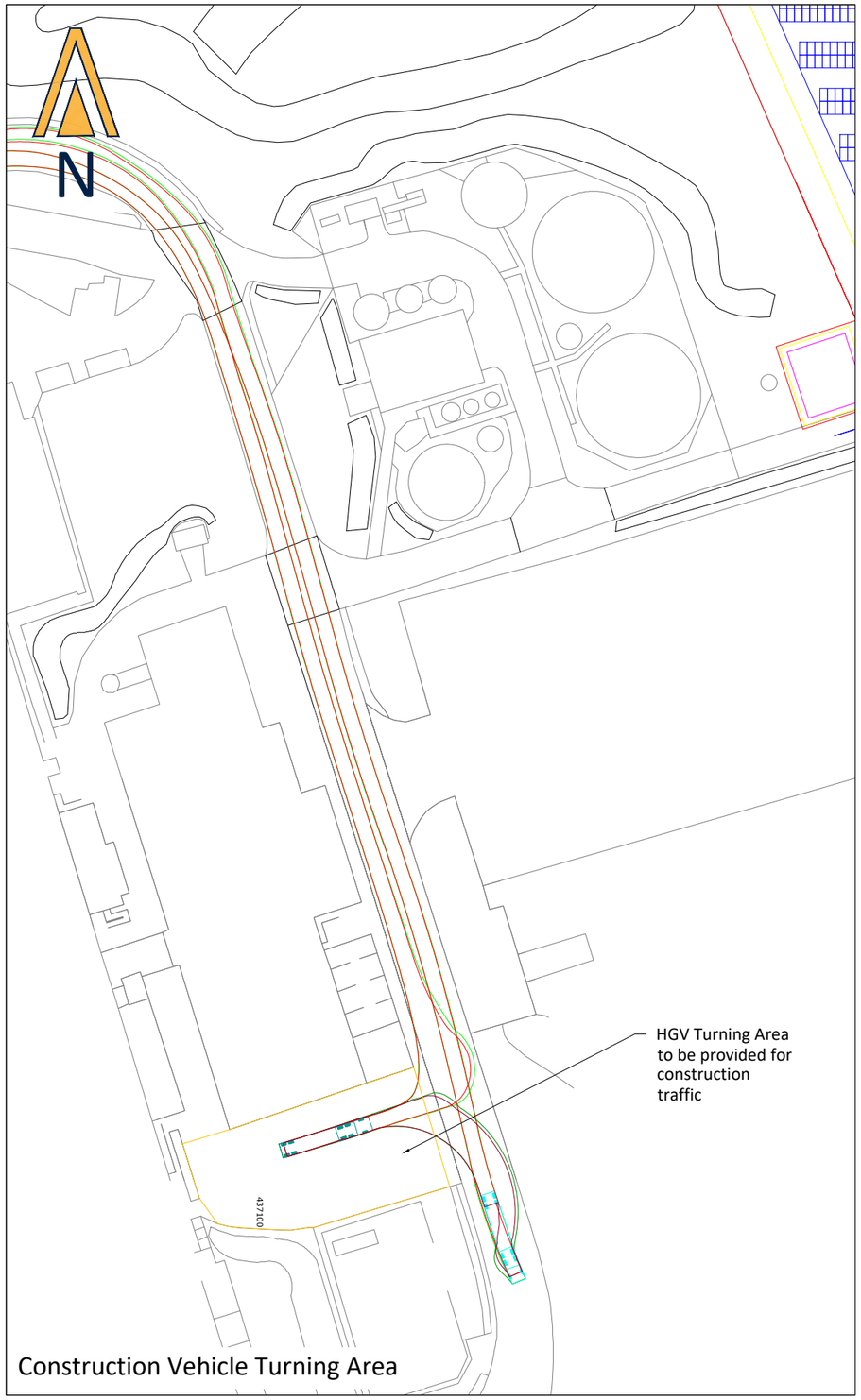
Date: 15/06/2023

Drawing Name: Planning PV layout

Drawing No: I2010-000-01

Rev: G

Appendix B – Swept Path Analysis



Construction Vehicle Turning Area

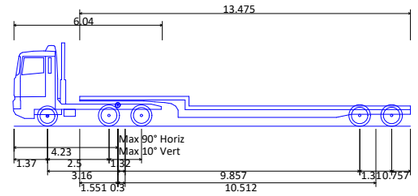


Construction Vehicle Turning Area - Prior To Solar Array Installation

NOTES

1. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
2. EVOKE TRANSPORT PLANNING CONSULTANTS LIMITED ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF THIRD PARTY INFORMATION - THIS MUST BE TREATED AS INDICATIVE ONLY.

VEHICLE PROFILE



Low Loader	
Overall Length	16.154m
Overall Width	2.520m
Overall Body Height	3.393m
Min Body Ground Clearance	0.318m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.990m

Rev	Amendment	Drn	App	Date

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Project Name: PREMIER FOODS BAKERY SOLAR FARM

Drawing Title: SWEPT PATH ANALYSIS - LOW LOADER

Client: PREMIER FOODS PLC

Drawn by	Approved by	Date
RH	JW	01.09.2023

Scale	Job No
1:1000 @ A3	B-23-0022

Drawing No	Rev
B-23-0022-SPA-001	-

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Appendix 2 – Herpetofauna Method Statement

WHARTON
Natural
Infrastructure
Consultants

Herpetofauna Method Statement

SITE LOCATION
Premier Foods Bakery, Carlton, South Yorkshire

ISSUE DATE
03 August 2023

OUR REFERENCE
230801 1532 EMS V1 FINAL ISSUE

PREPARED FOR
Premier Foods Plc

PRINCIPAL AUTHOR
Byron Humphries



Quality Assurance

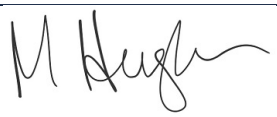
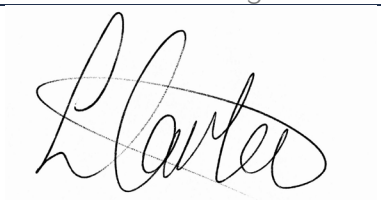
Issue/revision	Issue
Remarks	Version 1
Date	03 August 2023
Prepared by	Ester Konecna Seasonal Ecologist
Principal Author	Byron Humphries Ecological Consultant
Qualifications	BSc (*Hons*) *ACIEEM*
Signature	
Review by	Morgan Hughes Principal Ecologist
Qualifications	PhD, CEcol
Signature	
Authorised by	Laura Carter Senior Ecologist
Signature	
Project number	1532

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1. Introduction/Background

1.1 Author

1.1.1 The Principal Author of this report is Byron Humphries BSc (*Hons*) *ACIEEM* (Ecologist). The Principal Author has over five years of experience in ecological consultancy and has worked on projects ranging from large scale national infrastructure developments to residential sites across the country. The Principal Author holds a Class 2 survey licence from Natural England for great crested newt (*Triturus cristatus*) (GCN). He is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM), he is therefore subject to CIEEM's Code of Professional Conduct.

1.1.2 The Reviewer of this report is Morgan Hughes PhD CEcol (Principal Ecologist). The Reviewer has over 20 years of professional experience in the ecological sector, and seven years in ecological consultancy, having worked on projects ranging in scale from small commercial and residential sites to large scale (road and rail) infrastructure. The Reviewer holds a Class 1 survey licence for GCN, has been a full member of CIEEM since 2008 and a Chartered Ecologist since 2017 and is therefore subject to CIEEM's Code of Professional Conduct

1.1.3 The detail provided within this report is a true and accurate reflection of both the Site conditions at the time each survey was completed, as well as the professional opinion of the Principal Author.

1.2 Purpose and Brief

1.2.1 Premier Foods Plc (the Client) commissioned Wharton Natural Infrastructure Consultants Ltd (Wharton) to produce a Herpetofauna Method Statement for the proposed removal of bramble (Rubus fruticosus) scrub at an area of land known as Premier Foods Bakery, Carlton, South Yorkshire (see Site Location Plan provided at Appendix 1), known herein as 'the Site').

1.2.2 An extended Phase 1 Habitat Survey by Wharton (WNIC, 2022) assessed that the mixed scrub, bramble scrub, and areas of the neutral grassland provides suitable habitat for common reptiles. Given the historical management strategy of mowing the grassland annually, it is not expected that the grassland habitat on Site is suitable to support a significant population of reptiles.

1.2.3 The extended Phase 1 Habitat Survey by Wharton (WNIC, 2022) also found a pond (P1) located 10m west of the Site within a residential garden area. The Habitat Suitability Index (HSI) for P1 returned a score of 0.58 with below average suitability to support GCN. The Site supports suitable habitat for GCN and other amphibians via the hedgerow and scrub. Although it is considered sub-optimal to support GCN, given the proximity of P1 to the Site, there is potential for GCN and other amphibian species to be utilising these habitats on Site (if present within P1).

1.2.4 Further surveys to determine the presence/absence of GCN within P1 could not be undertaken due to access being denied by the landowner.

1.2.5 The habitats with suitability to support common reptiles and GCN are to be retained and enhanced under the Proposed Development with the exception of the small area of bramble scrub within the grassland. It is not expected that any significant effects to common reptile or GCN populations will occur as a result of the Proposed Development. However, the construction phase of the Proposed Development has the potential to adversely effect low numbers of individual common reptile or GCN utilising the Site.

1.2.6 The purpose of this herpetofauna method statement (HMS) is to detail a method of working in relation to the Proposed Works (as described in Section 1.4 below) to ensure that the Proposed Works do not result in a breach of the relevant legislation (see Section 2) in relation to herpetofauna.

1.3 Description of Site and Local Area

1.3.1 The Site is located to the east of Fish Dam Lane in Carlton. It is centred approximately at National Grid reference SE 37227 09987.

1.3.2 The habitats within the Site comprise an area of grassland with areas of scrub and hedgerow on the borders. The Site is bordered to the north by a main road with agricultural land beyond, and to the west by residential buildings and allotments, a small area of scrub and the Premier Foods industrial bakery building. To the south, the Site is bordered by grassland and agricultural land, and to the east by a small road with an area of scrubland beyond which appears to have previously been the site of a quarry.

1.3.3 The Site is relatively well connected from an ecological perspective due to grassland and scrub to the south and east of the Site. However, the railway c.0.44km east of the Site could act as a dispersal barrier for wildlife beyond this point.

1.4 The Proposed Works

1.4.1 It is understood that the proposed works will comprise the clearance of small areas of bramble scrub within the grassland towards the south-west of the Site and as shown in Appendix 3.

1.4.2 This area of bramble scrub is considered to be of low ecological importance due to its lack of flora diversity and relatively small size. However, it may provide some suitability for individual herpetofauna including GCN and common species of reptile.

1.4.3 A subsequent planning application will be submitted for the installation of a solar farm of up to 2.5MW of generating capacity within land adjacent to Premier Foods' bakery, to provide 50% of their energy needs. This HMS does not relate to that planning application and is solely in relation to the Proposed Works as detailed above.

1.4.4 The proposals detailed above will be referred to throughout this report as the 'Proposed Works'.

2. Relevant Legislation

2.1 Relevant Legislation

2.1.1 National and international legislation relevant to the Planning Approved Development is summarised below in Table 1.

Table 1. Legislation Relevant to the Planning Approved Development

Legislation*	Relevance to this assessment
The Conservation of Habitats and Species Regulations 2017 (HMSO, 2017) ***Amended by***[1] **The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (HMSO, 2019)**	Protects GCN against: • Deliberate capture • Deliberate disturbance (in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young or to hibernate • Deliberately takes or destroys the eggs • Damages or destroys a breeding site or resting place
The Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981)	Affords protection to species listed under Schedule 5 of the Act including GCN and reptiles.
The Natural Environment and Rural Communities (NERC) Act 2006 (HMSO, 2006)	GCN and all of the UK's native reptile species are Species of Principal Importance (SPI) and have been adopted in England under Section 41 of the NERC Act 2006

*Full legislative text should be referred to as table text is a summary only

[1] - The Conservation of Habitats and Species Regulations 2017 provides safeguards for European Protected Sites and Species (as listed in the Habitats Directive). This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 which continue the same provision for European protected species, licensing requirements, and protected areas after Brexit.

3. Site Suitability for Herpetofauna

3.1 Biological Records

3.1.1 Records were provided by Sheffield Biological Records Centre (SBRC, 2022) within a 1 km radius of the Site.

3.1.2 There are no records for GCN within 1km of the Site.

3.1.3 There are five records for reptiles within 1km of the Site. Species include grass snake (*Natrix helvetica*) and slow worm (*Anguis fragilis*). The closest record was for grass snake c.0.7km northwest of the Site in 2011.

3.2 Aquatic Habitat

3.2.1 Reference to Ordnance Survey mapped data and aerial imagery confirms the presence of two ponds within a 250m radius of the Site:

- Pond 1 (P1) is located 10m west of the Site within a residential garden area.
- Pond 2 (P2) is located c.245m north of site within an agricultural field (see Appendix 2).

3.2.2 A GCN Habitat Suitability Index (HSI) Assessment was conducted of one pond located within a 250m radius of the Site. Pond 1, which is located c. 10m west of the Site, returned a score of 0.58 with below average suitability to support GCN. The results of the HSI Assessments are provided below in Table 2. Access to the Pond 2, which is located c.245m north of the Site, was not permitted during the survey. The pond is located on the edge of the 250m radius from the Site and is poorly connected to the Site with a busy road between, so it is not considered the Proposed Development will have any significant impact on this waterbody and any populations of GCN associated with it. This pond has therefore not been brought forward for further assessment.

Table 2. Pond 1 – Results of the Habitat Suitability Index for GCN

Factor	Result	HSI Score
Location	A	1.00
Area	100m2	0.20
Permanence	Dries Annually	0.10
Water Quality	Moderate	0.67
Shade	20%	1.00
Waterfowl	Absent	1.00
Fish	Absent	1.00
Pond Count	16	1.00
Terrestrial Habitat	Moderate	0.67
Macrophytes	20%	0.50

4. Assessment of Impacts and Effects

4.1.1 Table 4 below provides detail on the types of impacts that may occur as a result of the Proposed Works, the likelihood of the impact occurring, and the phase(s) of the Proposed Works when the impact may occur.

Table 3. Impacts of the Proposed Works on Herpetofauna

Impact	Likelihood of Occurrence	Phase*
Disturbance of individuals migrating to/from breeding ponds	Negligible – if clearance is conducted within the hibernation period. Low – if works progress within the active season	SC & C
Injury/killing of individuals via movement and/or action of plant machinery	Negligible – if clearance is conducted within the hibernation period. Low – if works progress within the active season	SC & C
Capture of individuals in excavations (ultimately leading to injury/death)	Negligible – excavations are not included within the proposed works	N/A
Creation of suitable hibernacula through inappropriate material storage	Negligible – if equipment is stored on wooden pallets to prevent the creation of suitable hibernacula	SC & C
Loss of potential foraging habitat of low suitability	Negligible – Although an area of scrub is to be removed, this is considered to have a negligible effect on potential foraging habitat given its size of 0.03ha and the retention/creation of suitable foraging habitat around the perimeter of the Site	SC
Indirect impacts upon adjacent habitats of high suitability	Negligible – no impacts on adjacent habitats	N/A

**Site Clearance (SC), Construction (C), Operational/Occupation (O)*

3.2.3 Further surveys to determine presence/absence of GCN within P1 could not be undertaken due to access being denied by the landowner.

3.3 Terrestrial Habitat

Reptiles

3.3.1 The mixed scrub, bramble scrub and areas of the neutral grassland where the sward height is relatively tall and somewhat tussocky, provides suitable habitat for common reptiles. The majority of the site consist of the neutral grassland, with areas of scrub restricted to the borders. Given the historical management strategy of mowing the grassland annually, preventing a more complex and varied habitat to form, and effectively returning its suitability for reptiles to negligible, it is not expected that the habitat on Site is suitable to support a significant population of reptiles.

3.3.2 With the exception of the small areas of bramble scrub situated within the grassland, the habitats with suitability to support common reptiles are to be retained and enhanced under the Proposed Development It is not expected that any significant effects to common reptile populations will occur as a result of the Proposed Development.

3.3.3 While it is unlikely to have a significant effect on reptile populations, the construction phase of the Proposed Development may have an adverse effect on individuals utilising the Site.

GCN and Common Amphibians

3.3.4 The Site supports suitable habitat for GCN and other amphibians via the hedgerow and scrub. Although it is considered sub-optimal to support GCN, given the close proximity of P1 to the Site there is potential for GCN and other amphibian species to be utilising these habitats on Site (if present within P1).

3.3.5 With the exception of the small areas of bramble scrub situated within the grassland, the habitats with suitability to support GCN are to be retained and enhanced under the Proposed Development. It is not expected that any significant effects to GCN populations will occur as a result of the Proposed Development.

3.3.6 While it is unlikely to have a significant effect on GCN populations, the construction phase of the Proposed Development may have an adverse effect on individuals utilising the Site.

3.3.7 There is a risk of breach of section 9 of The Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981) in relation to the killing or injury and/or destroying, obstructing access to or disturbing an animal while in, a structure used for shelter or protection. There is also risk of breach under section 3 of The Conservation of Habitats and Species Regulations 2019 (HMSO, 2019) in relation to killing, injury, disturbance and/or damaging or destroying a breeding or resting site of a protected species.

5. Reasonable Avoidance Measures

5.1 Appointment of an Ecological Clerk of Works

5.1.1 An Ecological Clerk of Works (ECoW) must be appointed prior to commencement of any works in relation to the Planning Approved Development.

5.1.2 The ECoW must:

- Hold a GCN survey licence from Natural England;
- Have previous experience of observation of construction-related works in relation to GCN and reptiles;
- Have an in-depth understanding of the relevant legislation; and,
- Be capable of making decisions on-site in relation to GCN and reptiles, fully understand this method statement and be able to relate the method statement to works occurring on the ground as well as advise Site staff on protocols for any situations that may arise on Site.

5.1.3 All works below will be overseen by the appointed ECoW.

5.2 Procedure for Immediate Cessation of Works

5.2.1 **Should GCN or reptiles be found at any time during Site clearance or construction works, work must cease immediately and the ECoW must be informed**. Natural England must be contacted for advice on how to proceed should GCN be found during works.

5.2.2 If the ECoW is not present at the Site at the time GCNs or reptiles are found (or if the contractors are uncertain if an amphibian is a GCN, for example), then photographs of the amphibian or reptile must be sent to the ECoW immediately for verification, or the ECoW must attend the Site to confirm identification.

5.2.3 All on-site personnel must not handle GCN or reptiles.

5.2.4 Any common amphibians found during the course of the works must be captured and relocated to an area unaffected by works by hand.

5.2.5 If GCN or reptiles are confirmed to be present on Site during the proposed works, the ECoW will advise the Site Manager to cease works immediately due to the potential risk of legislative breach.

5.2.6 The ECoW will then contact Natural England and agree on measures as to how to progress with the remainder of the works. This may include a licence application to Natural England.

5.2.7 Works may not continue to progress until written confirmation from the ECoW has been provided which explicitly states that works may continue, this written confirmation must include details of any further measures that must be implemented at the Site (additional to this method statement) following correspondence with Natural England.

5.3 Method Statement

Preparatory Works and Toolbox Talk

5.3.1 Prior to any works commencing on Site, a toolbox talk will be given to all contractors at the Site by the ECoW to make them aware of the possible presence of GCN or reptiles and the avoidance measures to be implemented. The relevant wildlife legislation and implications for breaches of this will be discussed with contractors.

5.3.2 Identification sheets for UK amphibian and reptile species and this method statement will be provided and kept on-Site for the duration of the project.

5.3.3 All contractors will sign an attendance sheet to confirm that they have understood the toolbox talk and will abide by the requirements of this method statement.

Clearance of Vegetative Habitats

5.3.4 The bramble scrub will be cleared prior to commencement of formal construction works on Site (which would be subject to an application for planning permission).

5.3.5 The areas of scrub and hedgerow around the perimeter of the Site will be retained with a buffer of at least 5m.

5.3.6 A walkover of the Site must be conducted immediately prior to commencement by the ECoW, followed by phased scrub removal as detailed below.

5.3.7 The ECoW will undertake a visual check of the clearance of all areas of scrub for herpetofauna immediately prior to removal.

5.3.8 Any brick piles, corrugated metal sheeting or other large material items that could potentially provide refuge for herpetofauna are to be dismantled by hand and removed from the Site under the supervision of the ECoW.

5.3.9 It is not anticipated that any excavations will be required for the proposed works at the Site.

5.3.10 All vegetation material will either be stored off-ground on pallets, taken away from the works area (such as being placed within the retained areas around the perimeter of the Site) or chipped.

6. Conclusion

6.1.1 Providing that all measures detailed within this report are implemented in full, no impacts resulting in significant effects to GCN, other amphibians or reptiles are anticipated. The measures are also considered to be sufficient to reduce the risk of a breach of legislation in respect of GCN and reptiles to a negligible level.

References

HMSO. (1981). The Wildlife and Countryside Act 1981 (as amended). London, UK: Her Majesty's Stationary Office.

HMSO. (2006). The Natural Environment and Rural Communities Act. London, UK: Her Majesty's Stationary Office.

HMSO. (2017). The Conservation of Habitats and Species Regulations 2017 (as amended). London, UK: Her Majesty's Stationary Office.

WBRC. (2021). *Protected/Notable Species and Designated Sites Information.* Worcester: Worcestershire Biological Records Centre.

Appendix 1 – Site Location Plan



Appendix 2 – Ponds within 250m Radius of the Site



Scale: 1:3000 @ A3

N

Site Boundary

250m Buffer

Ponds

Date: 07/10/22

Client: Terence O'Rourke

Project: Premier Foods Bakery, Carlton

Title: Ponds within 250m of the Site

Map file reference	Plan No.
221007 1532 POND V1	E001

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T. +44 (0)1789 459458
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Appendix 3 – Method Statement Plan



Scale: 1:1000 @ A3

N

Site Boundary

Herpetofauna Checks Required

Date: 28/07/2023

Client: Terence O'Rouke

Project: Premier Foods Bakery, Carlton

Title: UK Habitat Classifcation Plan

Map file reference	Plan No.
211006 1532 MS V1	E001

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