



Priory Farm Solar Array, Great Wymondley

Construction Environmental Management Plan (CEMP)

Appeal Reference: APP/X1925/V/23/3323321

Planning Application Reference: 21/03380/FP

Prepared for



August 2024
3004-01-CEMP V6



Document Control

Revision	Date	Prepared By	Reviewed / Approved By
V1	1/7/24	PR	PR
V2	25/7/24	PR	PR
V3	1/8/24	PR	PR
V4	11/12/24	PR	PR
V5	28/01/25	AR	AR
V6	03/02/25	AR	AR

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Well House Barns, Chester Road, Bretton, Chester, CH4 0DH

Camelia House, 76 Water Lane, Wilmslow, Cheshire, SK9 5BB

T: 0344 8700 007
enquiries@axis.co.uk
www.axis.co.uk

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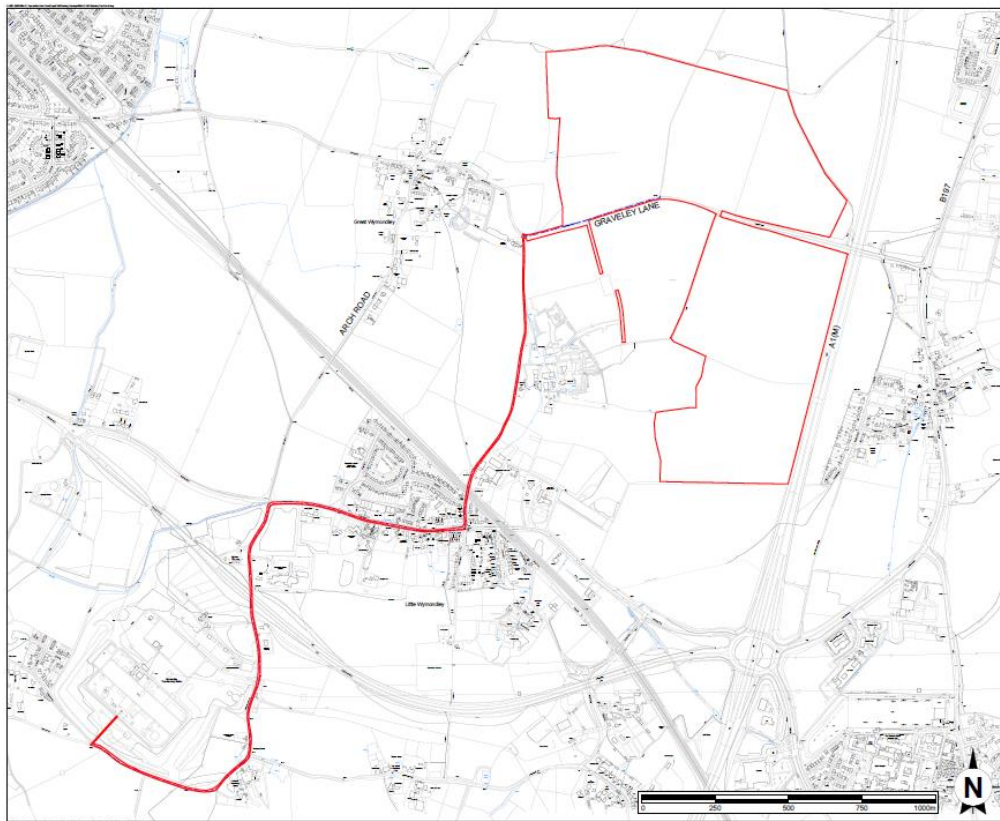


1.0 INTRODUCTION

1.1 Background

- 1.1.1 Planning permission for the construction of a solar array with associated battery storage containers and ancillary development including means of access and grid connection cable on land at Graveley Lane, to the east of Great Wymondley, Hertfordshire was granted on 11th March 2024, under planning appeal reference APP/X1925/V/23/3323321 in respect of planning application reference 21/03380/FP (hereafter referred to as the Development or Priory Solar Farm). The location of the Development is illustrated on Image 1.1 below.

Image 1.1 – Site Location



- 1.1.2 Planning permission was granted following a Call-in Inquiry, subject to twenty-eight (28) conditions. Condition 6 requires a Construction Environmental Management Plan (CEMP) to be submitted and approved prior to the commencement of development. Condition 6 states:

No development shall take place (including demolition, ground works and vegetation clearance) until a construction environmental management plan (CEMP) has been

submitted to, and approved in writing by, the local planning authority. The CEMP shall include details of the following:

- i) A timetable for the construction works.*
- ii) The control and management of noise and dust during the construction phase.*
- iii) On-site waste management.*
- iv) A risk assessment of potentially damaging construction activities.*
- v) Identification of biodiversity protection zones.*
- vi) Physical measures and sensitive working practices to avoid or reduce impacts during construction (which may be provided as a set of method statements).*
- vii) The location and timing of sensitive works to avoid harm to biodiversity features.*
- viii) The times during the construction period when specialist ecologists need to be present on site to oversee works.*
- ix) Responsible persons and lines of communication.*
- x) The role and responsibilities on site of an ecological clerk of works or similar competent person.*
- xi) The use of protective fences, exclusion barriers and warning signs.*
- xii) Soil management across the site.*
- xiii) A flood management plan, which shall include a requirement for the contractor to sign up to the Environment Agency flood warning service, and which shall set out the actions to be taken in the event that a flood alert and/or flood warning is received from the Environment Agency (including a requirement that no new trenches are excavated until the Environment Agency has issued an All Clear).*
- xiv) Construction and storage compounds, and post-construction reinstatement of these areas.*

The development shall be implemented in accordance with the approved CEMP throughout the construction period'.

1.1.3 This CEMP provides the information required to fully discharge Condition 6. The preparation of the CEMP has been cognisant of the following requirements of the consent:

- i) Condition 7 concerning the installation of underground cables.
- ii) Condition 8 Construction Traffic Management Plan (CTMP)
- iii) Condition 12 concerning the Landscaping Scheme.
- iv) Condition 14 concerning no-dig areas.
- v) Condition 15 concerning Site Hours
- vi) Condition 18 concerning interim and temporary drainage measures during the construction period.
- vii) Condition 21 Arboricultural Method Statement
- viii) Condition 22 Skylark Mitigation Strategy
- ix) Condition 25 concerning the detailed design of the site accesses.
- x) Condition 26 concerning the detailed design of the passing bay on Graveley Lane.
- xi) Condition 27 concerning the modifications to the site accesses post construction of the development.
- xii) Condition 28 concerning the removal of the passing bay on Graveley Lane post construction of the development.

1.1.4 Separate detailed submissions to the local planning authority will be made in relation to Conditions 8, 12, 18, 21, 22, 25, 26, 27 and 28.

1.2 Summary of Development

1.2.1 The Development would have the capacity to export up to 49.995MW of electricity to the National Grid during peak operation. Solar panels would extend in arrays across the arable fields which comprise the north and south parcels of the site. A geophysical survey identified three concentrations of anomalies of archaeological origin. These have been used to define archaeologically sensitive areas where the panels would be installed using a no-dig method. Elsewhere the panels would be mounted on posts driven into the ground.

1.2.2 A number of inverter/ transformer stations and battery storage containers would be located alongside access tracks within the two parcels, and a control building, a storage building, and a switchgear building would be positioned close to the access



to the northern parcel. Access to both parcels would be taken directly from Graveley Lane: to the southern parcel by an upgraded field access, whilst a new access would be formed to the northern parcel. Tree and hedgerow planting would be undertaken within and around the site, and a 12m buffer would be established around the perimeter of the fields to encourage an increase in biodiversity. Planting would also take place on the two strips of land to the west of the southern parcel. Deer fencing to a height of up to 2.1m would be erected around the arrays and close circuit television cameras (CCTV) would be mounted on 4m high posts.

1.2.3 The drainage scheme proposed for the site includes surface water attenuation basins and surface water detention basins to attenuate surface water flow. Detailed drainage proposals are the subject of a separate planning condition (Condition 18).

1.2.4 The Development includes:

- Photovoltaic Solar Panels and associated support frames;
- Inverter/Transformer Stations;
- Battery Storage Containers;
- Storage Containers;
- Switchgear Building;
- Control Room Building;
- Grid Connection Cable to National Grid's Wymondley Substation;
- New/resurfaced internal access tracks;
- Improved existing access points off Graveley Lane;
- Ditch culverts for track crossings;
- Deer/stock fencing;
- 4m High CCTV cameras;
- Woodland Planting, and
- Hedgerow planting (new and gapping up of existing)

1.3 Purpose of CEMP

1.3.1 This CEMP seeks to address the requirements of Condition 6.0 to ensure that the environmental effects of the project are minimised during the construction of the approved solar farm.



2.0 GENERAL MANAGEMENT AND RESPONSIBILITIES

2.1 Client, Principal Designer, Principal Contractor and Supply Chain

- 2.1.1 AGR Solar 4 Limited is the Client for this development and will appoint AGR Renewables Limited as the Principal Designer and Principal Contractor for the development in accordance with the Construction Design and Management Regulations 2015.
- 2.1.2 The Principal Contractor will be responsible for ensuring that the requirements and appropriate management measures set out in this document are delivered.
- 2.1.3 It will be the responsibility of the Principal Contractor to provide adequate Risk Assessments and Method Statements to all operatives in line with the commitments in this CEMP and other submissions required to discharge planning conditions in respect of the approved development.
- 2.1.4 The Principal Contractor will manage environmental, health safety and quality risks ensuring that adequate inductions and training to all site staff and visitors.

2.2 Responsible Person and Lines of Communication

- 2.2.1 AGR Solar 4 Limited is the client. Mark Pollard the Head of Project Delivery is the Client lead for the delivery of this Project and acts as the Responsible Person for AGR Solar 4 Limited in relation to this project. Mark Pollard's contact details are as follows:

Email: mark.pollard@agr-group.co.uk
- 2.2.2 The Principal Contractor and Designer would be AGR Renewables Limited (AGR). Their Project Manager will be confirmed following appointment, and he will have overall responsibility for the detailed design and construction of the development, reporting to Mark Pollard directly. The Principal Contractor will also appoint a Site Manager, who will be the Single Point of Contact for site related matters throughout the construction, testing and commissioning phases of the development.
- 2.2.3 A Site Notice Board will be erected at both Site Accesses, on Graveley Lane, providing the name and contact details (telephone and email) of the Site Manager and Emergency Contact information so that members of the Public can report any



concerns or issues. The Site Manager will be responsible for ensuring any reports received are acted upon promptly and feedback provided to the complainant, LPA and AGR Solar 4 Limited, as required.

- 2.2.4 The Site Manager will be responsible for monitoring and reporting various health safety, environmental and quality (SHEQ) matters to AGR Solar 4's Responsible Person on a weekly basis. AGR Solar 4 Limited will also conduct its own SHEQ audits to ensure the Contractor and their Supply Chain of sub-contractors adhere to all contractual and regulatory requirements, as well as the commitments made in this CEMP and other submissions to discharge planning conditions.
- 2.2.5 In addition to the works on the development site, there are works 'off-site' to connect the development to the electricity grid at National Grid's Wymondley Sub-station. These 'off-site' grid connection works will be carried out and managed on behalf of AGR Solar 4 Limited by an Independent Connections Contractor (ICP).
- 2.2.6 The ICP contractor will liaise with the local highway authority in respect of laying of the grid connection cable in the public highway. These works are regulated under the provisions of the New Roads and Street Works Act 1991 and include provisions for consultation and advanced publicity of any Temporary Traffic Orders required.

2.3 Role and Responsibilities of On-Site Ecological Clerk of Works

- 2.3.1 The Site has a number of ecological features that will require protection during the construction period. Features that require protection during the construction phase and enhancement are considered in detail in the Landscape and Ecological Management Plan (LEMP) and this detail is not duplicated in this CEMP.
- 2.3.2 The Principal Contractor will employ an Ecological Clerk of Works (ECoW) to be based on site. They will report directly to the Site Manager and are responsible for ensuring that ecological matters are considered, and protection is put in place to avoid harm. The ECoW will also ensure the provisions of the LEMP and other submissions are complied with throughout the construction, testing and commissioning phases.
- 2.3.3 The ECoW will also oversee and manage the works within the Wymondley Transforming Station Local Wildlife Site (LWS) ensuring the provisions of the Soil Management Plan approved by the local planning authority is adhered to.



2.1 Role and Responsibilities of On-Site Archaeological Clerk of Works

- 2.1.1 The Site has a number of archaeological features that will require protection during the construction period. Features that require protection during the construction phase will be defined by the outcome of the pre-construction archaeological evaluations and areas mapped as no dig on the approved planning drawings following geophysical surveys.
- 2.1.2 The Principal Contractor will employ an Archaeological Clerk of Works (ArchCoW) to be based on site during period where excavations would be undertaken. They will report directly to the Site Manager and are responsible for ensuring that archaeological matters are considered, and protection is put in place to avoid harm to any archaeological feature within the site boundary. The ArchCoW will also ensure WSI and other submissions are complied with throughout the construction, testing and commissioning phases.
- 2.1.3 The ArchCoW will also oversee and manage the works requiring excavations or activity in no dig locations.

2.2 Public Engagement

- 2.2.1 The development has been the subject of significant Public Engagement and debate throughout both the determination of the planning application by North Herts Council (the local planning authority), and during the 'Call-In' Inquiry process undertaken by the Secretary of State for Levelling Up, Housing & Communities.
- 2.2.2 As set out earlier the Site Manager will be the Single Point of Contact for Site related matters throughout the construction testing and commissioning phases of the development. The Site Manager is responsible for ensuring any reports received from local people are acted upon promptly and feedback provided.
- 2.2.3 Prior to any construction works starting on Site. The Site Manager will carry out a letter drop of all local residents and businesses, including Wymondley Parish Council, using the scope of the neighbour consultees defined by the local planning authority during the planning process. The letter drop will include:
- i) Site Contact details (telephone and email).
 - ii) General Information about the development.
 - iii) Overall phasing of the construction works.



- iv) Details of the Construction Traffic Routes.
 - v) FAQs (to help answer the initial questions we know people are likely to have)
- 2.2.4 A site notice will be displayed at the site entrance so that it is readable from the public highway and will display material including contact details for the site manager for information reporting purposes.

3.0 CONSTRUCTION TIMESCALE AND PHASING

3.1 Construction Timescale

- 3.1.1 The construction period is anticipated to last approximately 36 weeks.

3.2 Phasing

- 3.2.1 The Development process splits into a 'Pre-Construction' phase, 'Construction' phases and then Operation and ultimately Decommissioning phase.

Phase One: Pre-Construction Surveys and Site Preparation Works

- 3.2.2 This phase includes topographical, archaeological, geotechnical and detailed surface water and ecological surveys to inform the detailed design work and submission of all regulatory information.
- 3.2.3 Subject to the timescales in securing detailed design approvals from the local planning authority mobilisation to site is likely to be March 2025.

Phase Two: Site Mobilisation and Enabling Works (75 days)

- 3.2.4 This phase would include the Contractor mobilising to site, erection of temporary Construction Traffic signage, forming the new site accesses and constructing the passing bay works. During this phase the site will be fenced, CCTV installed and the temporary welfare compounds and materials, plant and equipment laydown and storage areas formed.
- 3.2.5 During this phase and prior to any construction works taking place all the temporary fencing / protection measures for sensitive ecological, arboricultural and archaeological features will be put into place.



- 3.2.6 The timing of this phase is dependent upon the completion and approval of the detailed design (and discharge of all other Pre-Construction planning conditions).

Phase Three: Construction (150 days)

- 3.2.7 All materials plant and equipment delivered to site, and the internal access roads, Battery Energy Storage System (BESS) and Solar PV configurations will be set out and constructed.

- 3.2.8 In terms of the BESS the construction process will be:

- i) Grid & BESS civil works and curing.
- ii) Grid & BESS electrical works.
- iii) Battery Container Installation.
- iv) Installation of Power Conversion Systems.
- v) SCADA & Control System Installation.

- 3.2.9 In terms of the Solar PV, which will be undertaken in parallel with the BESS works, the construction process will be:

- vi) Cabling trenching, trunking and laying.
- vii) The installation of the PV Module Mounting Structure (MMS) piling/no-dig solutions.
- viii) Assembly of PV MMS.
- ix) Inverter Station foundations.
- x) Inverter Station installation.
- xi) SCADA and Control System installation.

Phase Seven: Off-site Grid Connection Cabling works (c.90 days)

- 3.2.10 These works are carried out by an ICP contractor and regulated by the local highway authority under Street Works legislation. They will be carried out concurrent with 'on-site' construction works.

- 3.2.11 In addition to grid connection cabling works National Grid will be undertaking works within their Wymondley Sub-Station to connect the new renewable energy generation to the electricity grid that serves this part of Hertfordshire.



- 3.2.12 The works are currently programmed for July to September 2025. The duration of the works will be less than the 3-month window currently allocated. The exact duration will be determined by the local Highway Authority and is influenced by a number of factors, including the sequencing of works relative to what else is happening on the local road network at that time, the number of cable laying gangs permitted to work on the route at any one time, and the working hours permitted both during weekday and at weekends.

Phase Four: Commissioning and Testing (105 days)

- 3.2.13 This phase includes both the 'cold' commissioning, 'G99' Testing and Site Energisation and Performance testing. This phase may overlap with the construction phase. The conclusion of this phase ends the construction works on BESS and Solar PV on site.
- 3.2.14 It is anticipated that export of electricity will take place in late 2025.

Phase Five: Principal Contractor Demobilise from Site (45 days)

- 3.2.15 During this phase the Principal Contractor would close down the construction site, remove and reinstate the temporary welfare and materials laydown areas. The temporary passing bay on Graveley Lane would be removed and the public highway returned to its pre-construction configuration. The final action for the contractor is to modify (reduce in scale) the two Site Accesses on Graveley Lane in accordance with the design approved by the local planning authority.

Phase Six: Landscape Archaeological and Ecological Works (duration to be agreed)

- 3.2.16 This phase is the delivery of the landscaping, archaeological and ecological works as set out in the Landscape and Ecological Management Plan (LEMP), WSI and Skylark Mitigation Strategy (SMS). The LEMP, WSI and SMS are subject to separate submission to discharge Conditions 9, 13 and 22 respectively. Implementation of the LEMP is to some degree governed by planting and other works taking place in the appropriate planting season following the commencement of the development. Implementation of the WSI would be prior to commencement of development and would be undertaken on a field-by-field basis and areas become free of crops. Implementation of the SMS would be undertaken in Year 0 or 1 depending on the bird breeding season closest to the start of construction.



Phase Seven: Operational Phase (40 years)

- 3.2.17 The development will be operational for 40 years from the date of the first export of electricity generated.

Phase Eight: Decommissioning and Restoration

- 3.2.18 The planning consent granted includes provisions for the decommissioning and restoration of the Site to its pre-construction condition. These works are the subject of separate local planning authority approvals through the discharge of other planning conditions. This phase will take place after the development ceases operation, which includes a trigger earlier than the 40-year period in the case that the export of electricity to the grid ceases for a continuous period of 12 months at any point after the date of first export (other than for operational reasons outside of the operator's control).

4.0 CONSTRUCTION AND STORAGE COMPOUNDS

4.1 Storage of Plant, Equipment and Construction Materials

- 4.1.1 Temporary Laydown compounds for plant, equipment and construction materials will be provided on both sides of Graveley Lane. These compounds will be accessed directly from the new/improved site accesses and will minimise the need for plant, equipment or construction materials to cross Graveley Lane.
- 4.1.2 The location of the construction compounds are illustrated on the plans provided at Appendix E.
- 4.1.3 Topsoil and subsoil would be stripped and stored separately adjacent to the two compounds for use in restoration of the compounds following completion of construction. Following completion of construction any compaction of the compound areas would be relieved through ripping prior to the subsoil and topsoil being replaced in the correct sequence prior to seeding with the grazing grass seed mix specified in the LEMP.
- 4.1.4 During the winter months when the hours of daylight are reduced, and the Construction Site is open temporary lighting will be provided within the Laydown compounds. This lighting is required to ensure the safety of operatives and delivery drivers. There is a risk that the lighting could cause 'light pollution' or be a distraction



to users of Graveley Road, or neighbouring residential properties. To mitigate this risk only temporary lightning that can be angled and baffled will be used. The Site Manager will conduct an audit of all temporary lightning immediately after its first installation to ensure it is fit for purpose and avoids the creation of light pollution.

4.1.5 All materials on Site will be stored in accordance with the Control of Substances Hazardous to Health (COSHH) regulations and supporting COSHH assessments and data sheets.

4.1.6 Cultivation of the site ready for seeding would be undertaken in early Autumn 2025 and Spring 2026.

4.2 Temporary Welfare Facilities

4.2.1 Temporary welfare facilities, offices, canteens, places to store / dry work clothes, and toilets will be provided in secure compounds to the north and south of Graveley Lane. The compounds would provide staff and visitor parking, as well as welfare facilities on both sides of Graveley Lane. This will minimise the need for site operatives to cross Graveley Lane to access facilities.

4.2.2 The temporary welfare facility will be self-sufficient in terms of clean drinking water. All wastewater, from hand basins, sinks and toilets will be collected in effluent tanks and disposed by via Licensed Waste Carrier so as to mitigate the risk of pollution on site.

4.3 Deliveries

4.3.1 All delivery vehicles will be unloaded or loaded within the site clear from the public highway in designated materials, plant and equipment 'laydown' areas. The laydown areas will be located within the fields directly adjacent to the site accesses leading off Graveley Lane and will be fenced off with heras fencing, gated and secured during non-operational hours. The size of the compounds has yet to be finalised but will be in the order of 20,000sqm in total split evenly north and south of Graveley Lane. All delivery vehicles and HGVs will enter and leave the site in forward gear so as to protect the safety of the users of the public highway.

4.3.2 The laydown areas and internal access tracks, including those constructed for permanent use during the operational phase of the development will be constructed



from granular aggregate, be unsurfaced (i.e. not asphalted) and be free draining so as to minimise surface water flooding risks.

- 4.3.3 During the construction phase of the development the laydown compounds and internal access tracks close to the site accesses will be inspected on a daily basis to ensure they are free of mud or other debris at risk of being tracked out onto the public highway.

4.4 Prevention, Containment and Cleaning Up Spillages

- 4.4.1 All oils and fuels will be stored in compliance with the Control of Pollution (Oil Storage) Regulations 2001.

- Fuel shall be stored in dedicated bunded, impervious storage areas, away from drains and watercourses.
- Drums over 200 litres shall be stored on drip trays capable of holding 25% of the drum's maximum capacity.
- Fuel tanks shall be stored within a bund capable of holding 110% of their capacity. All pipes and gauges shall be within the wall of the bund.
- Bowsers shall be double skinned and shall be stored in a bund capable of holding 110% of the volume of the bower.
- Small mobile plant shall be placed on drip trays.
- Spill kits will be available at various points around the site and located next to bowsers and drums.

- 4.4.2 Consideration will be given to any required surface coatings which contain bitumen or related materials as being delivered in a hot and ready to lay format. This will avoid the bituminous materials being heated on site.

- 4.4.3 Spill kits will be available at various points around the site and located next to bowsers and drums. Should a spill occur the following will be implemented:

- Work will be stopped immediately
- All possible ignitions will be extinguished if the spilt material is flammable
- The spill will be contained using spill kits on land and booms on the stream
- The source will be identified and sealed as practical
- Granules / pads will be used to mop up as much spill as possible
- The project lead will be informed of the spill

- If the spill enters the stream the environment & sustainability manager must be contacted immediately who will contact the Environment Agency and British Waterways
- A Specialist Emergency Spill Contractor will be appointed and will be contacted if the need arises
- The granular material and pads and any containment items will be treated as hazardous waste and disposed of accordingly

4.4.4 An incident report form will be produced and sent to the HS&E department within 24 hours of the incident occurring. If the incident is significant a full investigation will be carried out by the HS&E Consultant

5.0 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PRACTICES

5.1 Site Rules

5.1.1 A copy of the preliminary Site Rules is attached at Appendix A and a Risk Assessment for potentially damaging construction activities is provided at Appendix B.

5.2 Control and Management of Noise, Vibration and Dust

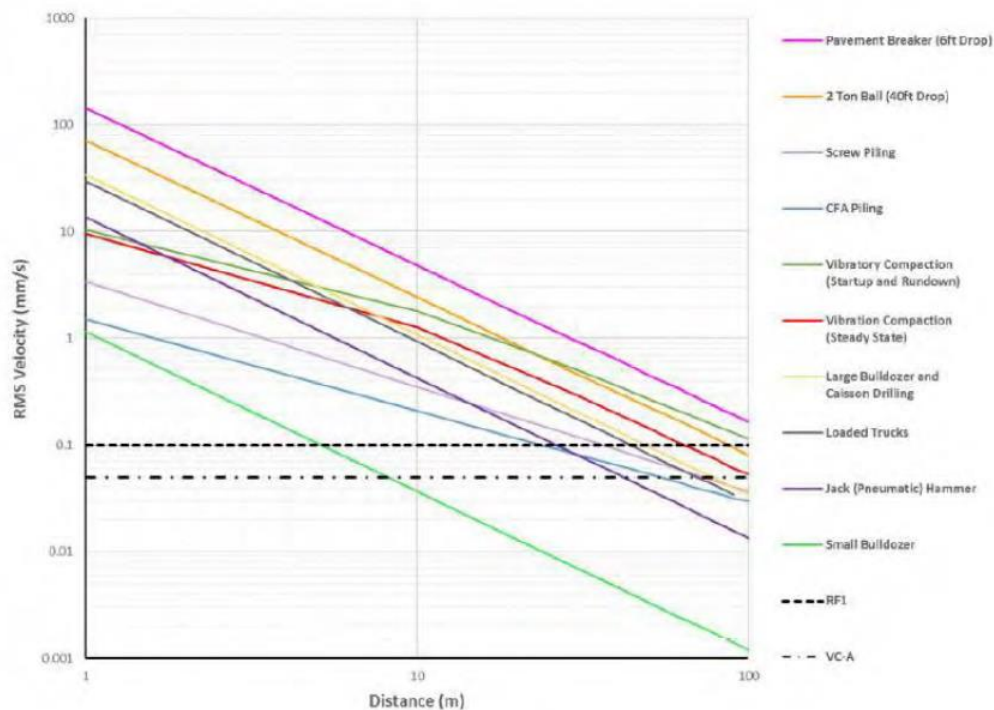
5.2.1 Noise, vibration and dust can be both hazardous to health and cause an environmental nuisance. The protection of operatives and the public in terms of the health and safety measures to prevent noise, vibration or dust being harmful are addressed below.

Noise & Vibration

5.2.2 Noise Vibration from site activities will diminish with distance and the chart below illustrates the linear nature of this reduction for vibrations for a range of construction activities. It can be seen that the vibration levels reduce to around or below 0.3mm/sec within 100m.



Chart 1: Construction Vibration Levels and Distance



- 5.2.3 Vehicles accessing the site would do so from the main highway network and would not pass in close proximity to existing properties. As such there would be limited risk of vibration nuisance associated with traffic. The separation distance between the main site boundary and sensitive receptors is greater than 100m and the levels of vibration from mini-piling rigs or compaction works would be <0.3mm/sec at this distance. This is below the level of perceptibility and therefore no significant vibration impacts would occur.
- 5.2.4 The noise of activities during the construction of the site would vary throughout the day and would depend on the particular work being undertaken. The highest noise levels are likely to be created during site preparation, infrastructure activities and the PV frame installation. The main source of potential noise and vibration would be associated with the piling of the vertical posts for the support frame.
- 5.2.5 Applying best practicable means in accordance with BS5228-1:2009+A1:2014 will assist in minimising impact from construction noise. Best practical means would be employed to control the noise generation (e.g. using equipment that is regularly maintained, where practicable use equipment fitted with silencers or acoustic hoods).
- 5.2.6 In consideration of the likely highest levels of construction noise, the following mitigation is proposed:

- i) Restriction of construction hours to non-sensitive times of day would normally form part of the planning consent conditions.
 - ii) Sensible routing of the construction plant to minimise the effect on nearest residential properties (where practicable).
 - iii) Careful choice of piling rigs to minimise noise and vibration
 - iv) Avoid un-necessary plant operation and revving of plant or vehicles.
 - v) Locate plant away from nearest sensitive receptors or in locations which provide good screening in the direction of sensitive receptors.
 - vi) Use of broadband noise reverse alarms (where practicable) on mobile plant to manage tonal noise from construction plant.
 - vii) Tonal noise from construction plant would be managed by ensure modern well maintained construction plant is used and that all plant is switched off when not in use.
- 5.2.7 Notwithstanding the above general construction activities would only be undertaken between 0800-1800 Monday to Friday and 0800-1300 hours on Saturdays, with piling activities and other noise and vibration generating activities only being undertaken between 09:00 - 17:00 each day Monday – Friday, as required by Planning Condition 8.
- 5.2.8 The Control of Noise at Work Regulations 2005, place a duty on the employer not to expose their employees or other persons employed within their works to excessive noise levels. These would be complied with by the contractors throughout the construction period.
- 5.2.9 Should complaints be made through the complaints process set in Section 2 the Site Manager will investigate the cause of any noise or vibration nuisance and put in place appropriate mitigation in consultation with the complainant, LPA and noise and vibration specialist, as required.
- 5.2.10 The Site Manager will ensure all contractors:
- i) Ensure that where various options are practicable in terms of the selection of plant and equipment always choose the quietest plant or equipment. All plant and equipment fitted with acoustic covers, baffles, mufflers, silencers etc. must be in good working order and all such acoustic control measures are used whenever the piece of plant or equipment is in use.

- ii) Ensure that plant or equipment are turned off (with the keys removed) when they are not in use.
- iii) Ensure that delivery vehicles don't wait on-site with their engines idling.
- iv) Ensure that in developing RAMS preference is given in so far as is reasonably practicable to the development of Methods of Working that do not include noisy activities. The same rigor is be applied to the loading and unloading of materials delivered to Site.

Air Quality and Dust

5.2.11 Pollution to air will be managed in order to reduce impacts to a minimum, and to eliminate where practicable. Management will be achieved through:

- No fires permitted on site
- All fuels, oils and other Volatile Organic Compounds (VOC's) will be stored in secure, sealed, labelled containers
- Consideration will be made to using prefabricated materials where possible so that localised air pollution is minimised
- Vehicles and plant will be switched off when not in use
- Ensure vehicles and plant are not overloaded to prevent labouring
- Modern, well-maintained plant and equipment is used
- Mains electricity supply will be used in preference to generators where practicable

5.2.12 All work will be carried out in accordance with relevant Legislation and statutorily issued guidance.

5.2.13 There is the potential for fugitive dust emissions to arise during the construction phase of the development. Construction dust may be generated as a consequence of ground excavation works in preparation for the foundations for the proposed development. Dust may also be generated by the movement of vehicles on the site during dry conditions.

5.2.14 The potential for unacceptable impacts resulting from the deposition of construction dust is primarily dependent on the duration of exposure (i.e. construction duration) and separation distance from the source to receptor. It is common practice (in mineral planning for example) to use a distance of between 100 to 200m from major



sources as the radius within which there is the potential for significant air quality impacts from deposition of dust.

- 5.2.15 Due to separation distances in excess of these figures, should significant quantities of dust be generated, then deposition rates at the receptors are likely to be low, and unlikely to constitute a cause for nuisance complaints.
- 5.2.16 Irrespective of this, the developer and its civils contractors will apply the principles of industry best practice to ensure that the potential for fugitive dust emissions is minimised and is not a cause for nuisance complaints from neighbouring properties.
- 5.2.17 To prevent unacceptable impact from dust re-suspended by construction vehicles, mitigation measures would be employed if necessary (on the road network, for example). These would be selected with regard to best practice guidance, and may include as appropriate: damping down dusty surfaces; controlling the speed of mobile plant crossing un-surfaced areas; mechanical road sweepers on public road; covering HGVs carrying dusty materials. The residual impact at the nearest residential properties is expected to be negligible due to separation distance to receptors and above mitigation measures.
- 5.2.18 Should any activity associated with the construction phase of the project cause or appear likely to cause visible dust to be carried towards any sensitive boundary, particularly in the direction of nearby residential properties, the activity giving rise to the emissions will be modified or suspended until the conditions giving rise to the emissions have been resolved. Similar procedures would apply to windblown litter that may arise on site.
- 5.2.19 The following specific mitigation measures may be appropriate for the control of fugitive dust emissions during the construction works:
- In order to prevent dust nuisance to adjoining premises during dry weather, there would be adequate damping down during all works, clearance works and other site preparations;
 - Haulage routes to and from the development site would be watered as necessary to minimise dust nuisance, and should be stabilised/compacted to reduce off-site transfer of soil and other materials;
 - Paved roads near to exits would be kept clean and vehicles transporting dusty materials onto and off site would be covered;

- All vehicles leaving the site would be inspected and cleaned as necessary, and suitable wheel wash equipment will be provided at the main site entrance where it meets the public highway;
- Storage locations for potentially dusty materials must be located away from the site boundary;
- As far as possible, site vehicles would have vertically mounted exhausts to avoid re-entrainment of surface dust;
- All site traffic should keep to designated haul routes to reduce the break down and subsequent entrainment of fine material into the atmosphere.

5.2.20 Accordingly, fugitive dust emissions during the construction phase are expected to be minimal.

5.2.21 Every effort will be taken as far as is reasonably practicable to minimise Dust generation in accordance with Industry Best Practice Guidance. The Institute of Air Quality Management's Guidance on the assessment of dust from demolition and construction' (January 2024 Version 2.2) is a good reference source for both understanding potential impacts and measures that can be taken to minimise adverse impacts on both people and the environment. This guidance will be used as one of the reference sources in the development of Risk Assessments and Method Statements (RAMS) for works that may potentially generate dust.

5.2.22 The Site Manager will conduct visual inspections of the Site to ensure adequate measures are being implemented to control / manage dust. The frequency of such inspections will depend upon what is happening on Site and the prevailing weather conditions. Should complaints be made through the complaints process set in Section 2 the Site Manager will investigate the cause of any noise or vibration nuisance and put in place appropriate mitigation in consultation with the complainant, LPA and air quality specialist, as required.

5.3 On-Site Waste Management

5.3.1 The site manager will ensure that all waste is disposed of responsibly from the site. The potential waste generated during the construction process will primarily be related to packaging, and will include:



- i) The pallets that the solar panels are packaged in. These will be either wood crates, or cardboard boxes. These will be removed from the site on a regular basis. If they arrive on wooden pallets, these will be returned to the manufacturers. If they arrive packaged in cardboard boxes, then these will be removed from site on a regular basis, either through a hired skip, or through trips to the local recycling station.
 - ii) Packing materials for various components, such as screws, cabling, and mounting frames. Any non-recyclable waste will be stored in a skip for regular removal to an appropriate landfill.
 - iii) Food waste from workers. Personal rubbish will be collected along with non-recyclable packaging materials, for disposal at an appropriate facility.
 - iv) The site involves some ground works for access tracks, cable trenching, container platforms. Excavated soil will be used for backfilling activities or will be stored adjacent to excavations for use in restoration of the site. As such, soils will not be removed from site as a waste material.
- 5.3.2 All waste will be handled and disposed of in line with current “Duty of Care” Regulations. It is the responsibility of all persons on Site to dispose of waste in the correct receptacles and to report any waste being stored incorrectly or escaping from the site area.
- 5.3.3 The Site Manager will ensure contractors identify:
- i) Their waste and the opportunities for reuse and / or recycling.
 - ii) Proposed methods of storage, segregation, handling and transportation of waste removed from Site in a safe and legal manner. Waste leaving the Site must be in enclosed vehicles (or in the case of open trucks the load must be ‘sheeted’) to prevent debris from being blown out of the truck during transit.
 - iii) Means of disposal including licensing requirements of carriers and destination sites.
 - iv) Recording of all waste movements from the Site, including Waste Transfer Notes to be redeemed and stored on site.

5.4 Ecology

- 5.4.1 The Landscape and Ecological Management Plan and Skylark Mitigation Strategy are subject to separate submissions to the local planning authority. Following are the steps the Site Manager will take in managing the construction works and protecting ecological matters in accordance with the LEMP and SMS. Detailed measures are set out in the LEMP and SMS. This CEMP sets out how these commitments will be managed and communicated to construction staff.

Fencing and Protection of Biodiversity Protection Zones

- 5.4.2 The layout of the development has been designed to maintain a 12m stand-off buffer to boundary features such as hedgerows, ditches and woodland. As set out in Section 3.0, perimeter deer fencing will be erected first before the main construction starts within the fenced areas. This fencing will define biodiversity protection zones and prevent encroachment of construction works into ecologically sensitive areas. Construction staff would not be allowed to work outside of the fenced area (with the exception of grid connections) without a permit to work from the Ecological Clerk of Works.
- 5.4.3 The only activities that would be undertaken within the 12m buffer, without a permit to work, would be associated with the establishment and maintenance of species rich grassland areas.
- 5.4.4 The biodiversity protection zones are illustrated in red hatching on the Construction Site Management Plans provided in Appendix E.
- 5.4.5 A suitably qualified and experienced Ecological Clerk of Works (ECoW) will be appointed to provide on-site ecological and environmental advice during construction. This will include tool box talks and development of method statements as required.

Pre-Construction Survey

- 5.4.6 Due to the mobility of species, Pre-Construction Ecological Surveys will be undertaken immediately prior to construction in specific areas of the site (i.e. within the preceding seven days) by the ECoW. The Pre-Construction survey will include a general walkover of the construction zone.



5.4.7 The required Pre-Construction Ecological Surveys and the circumstances in which they are required are outlined below:

Pre-Construction Survey	Works Required	Timings
Habitats and Flora	Vegetation clearance works	Any time of year
Nesting Birds	Vegetation clearance works	Only required for works in breeding bird season (March to August inclusive)
Bats – Preliminary Roost Assessment	Tree removal or limb removal	Any time of year
Water Vole	Works within 5m of ditch/drain	Any time of year
Amphibians and Reptiles	Works within 5m of ditch/drain or pond	Any time of year
Otter	Works within 5m of ditch/drain	Any time of year
Badger	Site clearance works / excavations within 30m of a sett	Any time of year

5.4.8 It is not proposed to remove any existing trees or hedgerows as part of the construction activities and as such nesting bird constraints would be limited to ground nesting species. Works proposed during the breeding season would be preceded by a ground nesting bird check by the Environmental Clerk of Works. If ground nesting birds are present an exclusion area would be established in discussion with the project ecologist until the young have fledged.

5.4.9 If active badger setts, water voles burrows or other holts are identified within 30m of the proposed works, activities in these areas would be suspended whilst RAMS are undertaken (as set out in Appendix C) or necessary licences are applied for to allow the works to proceed.

5.4.10 A precautionary approach will be adopted for works within the Site, due to the potential presence of other small mammals such as brown hare and hedgehog not listed above.

5.4.11 Ecological Reasonable Avoidance Measures Method Statements (EcRAMS) will be adopted to guide works. The preliminary EcRAMS are set out in Appendix C and further details are provided in the LEMP.

Skylark Mitigation

Skylark plots will be provided on farmland to the west of the site. Details for these works are set out in the SMS which forms a separate submission to discharge Condition 22.



5.5 Soil Management

- 5.5.1 The soils within the majority of the site would not be disturbed by the proposed works. All heavy construction plant and delivery vehicles would be restricted to the internal site access tracks, site compounds and areas of excavation associated with switchgear rooms, control rooms, inverter/transformer stations and battery storage containers immediately adjacent to the access tracks. This will avoid soil disturbance across the general site area.
- 5.5.2 Small piling rigs and low ground pressure plant would be used across the site for solar panel/frame installation and cable trenching to minimise any compaction of soils.
- 5.5.3 During construction soils would only be handled or trafficked during suitable weather conditions when soils are in a reasonably dry and friable state. This is when soils will be least susceptible to lasting damage by compaction and smearing. Excavations would be undertaken using hydraulic excavators, articulated tipper trucks and low ground pressure bulldozers to form access tracks and infrastructure formation levels. During construction the soil layers would be stripped sequentially and be stored separately adjacent to the areas of the excavations for future restoration at the point of decommissioning. Storage mounds would be no more than 1m high to avoid soil compaction.
- 5.5.4 The soil storage the mounds would be seeded with an appropriate grass mix to reduce erosion during the operational phase of the development. Some subsoil and topsoil would be transported to the location of the surface water detention basins to form the required berms to regulate surface water flows from the site.
- 5.5.5 Following the decommissioning works topsoil and subsoil would be taken from the adjacent storage mounds in suitable weather conditions and would be used to restore the decommissioned areas of the development.
- 5.5.6 Soils would be returned to the footprint of the previous development in the following sequence as appropriate:
- i. Lower Subsoil;
 - ii. Upper Subsoil, and
 - iii. Topsoil

5.5.7 Following the replacement of soils, in the correct sequence, the entire development footprint would be ripped using an agricultural winged subsoiler to relieve compaction and improve drainage. Subsoilers are used to fracture compact layers (pans) which may develop in the soil layers and to induce fissures in poorly structured subsurface layers. The fractures / fissures allow water to move more rapidly downwards from the surface layers and through the subsurface layers to the drains. The wings of the subsoiler blade operate just below the pan or within the poorly structured layer, lift the soil mass and drop it back down again. Fissures are generated during the lifting process and also as the soil is 'bent' / dropped as it leaves the wings.

5.5.8 Figure 1 below illustrates the typical subsoiling activities.

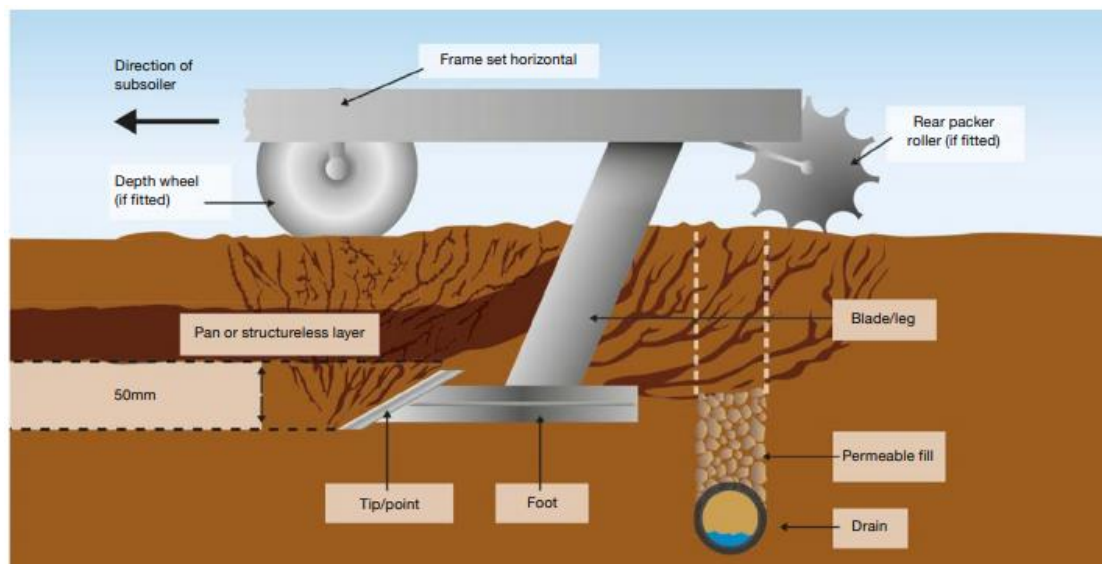


Figure 1: Typical Subsoiling and Land Drainage Activity

5.5.9 Final cultivation of the reinstated topsoil would be undertaken following soil testing to inform the need for the incorporation of any necessary soil improvers, to achieve optimum growing conditions. Following soil improvement and cultivation the area would return to normal crop rotation.

5.5.10 All soil handling during decommissioning would be undertaken in suitable weather conditions when soils are in a reasonably dry and friable state to avoid compaction and smearing.

5.5.11 Soil handling and management within the Wymondley Transforming Substation Local Wildlife Site would be controlled by the submission to discharge Condition 20.

5.6 Flood and Surface Water Management

- 5.6.1 The Environment Agency operates a flood forecasting and warning service in areas at risk of flooding from rivers or the sea. The warning service has three types of warnings - Flood Alert, Flood Warning and Severe Flood Warning and operates 24 hours a day, 365 days a year.
- 5.6.2 The contractor will 'sign-up' up to the Environment Agency's Flood Warning Service.
- 5.6.3 When a Severe Flood warning is given, it should be acknowledged that flooding is imminent and urgent action is required. If such a warning is given the Site Manager will safely stop all construction works and evacuate the Site.
- 5.6.4 It is the Site Manager's, or their designated deputy's, responsibility for disseminating a warning to everyone working on-site, including visitors, conducting the evacuation procedures and arranging any necessary exercises to test the system, liaising with the Emergency Services prior to and during an evacuation event.
- 5.6.5 No Construction Work shall recommence until the Environment Agency has issued an 'All Clear'.
- 5.6.6 Interim and temporary drainage measures form the subject of a separate submission to the local planning authority in respect of the discharge of Condition 18.0. The contractor will ensure that the requirement of this submission is followed during the construction phase to prevent increase or contaminated run-off during the construction period.

5.7 Archaeology

- 5.7.1 Pre-development geophysical surveys were undertaken as part of the planning submissions and identified areas of archaeological potential as illustrated by the plans in Appendix E. Further site evaluation work will be undertaken prior to the commencement of development in accordance with the Written Scheme of Investigation (WSI) submitted to discharge Conditions 13 & 14. The outcome of the geophysical surveys and pre-commencement archaeological surveys will identify no dig preservation-situ areas within the site and these areas will be protected from general development activities in accordance with Appendix D.
- 5.7.2 The archaeologically sensitive preservation-situ areas (PISA) are currently indicative, with the full extents to be determined by the Local Authority Planning



archaeologist(s). The indicative PISA are shown as 'no-dig' zones on the construction management plan drawings included at Appendix E at the end of this report. The protection of archaeologically sensitive areas will be in line with a Written Scheme of Investigation for Archaeological Mitigation (WSI), which will contain an appended Archaeological Mitigation and Management Plan (AMP) showing the agreed final extent of the PISA.

Fencing and Protection of Archaeological Areas

- 5.7.3 Archaeological no-dig areas will be clearly demarcated on site by high visibility tape/fencing to ensure that no un-authorised activities are undertaken.
- 5.7.4 The currently identified no-dig zones are illustrated on the Construction Site Management Plans provided in Appendix E and these will be updated following preconstruction trenching of the remainder of the site.
- 5.7.5 A suitably qualified and experienced Archaeological Clerk of Works (ArchCoW) will be appointed to provide on-site archaeological advice during construction. This will include tool box talks and development of method statements as required as set out in Appendix D.

Appendix A – Environmental Site Rules



Appendix A – Environmental Site Rules

Working Hours

- Normal Working Hours Monday to Friday 08:00 until 18:00 (excluding Bank Holidays). Saturday 08:00 until 13:00.
- Piling shall only be undertaken between 09:00 and 17:00 Monday to Friday.
- HGV delivery hours – During Normal Working Hours but Monday to Friday not before 09:00hrs or after 15:00hrs (so as to avoid 'commuting peak hours').

Site Inductions

All personnel will complete a Site Induction.

All operatives must be competent and suitably trained to complete their works. Everyone during the Site Induction process will be asked to provide proof of professional competence, for example CSCS / IPAF. Failing to comply to prove proof will result in being refused entry to Site.

On Completion of the Site Induction when reporting to Site for the first time the Site Manager, or their designated deputy, will escort operatives around the welfare compound and their work area to identify any site hazards and to allow the operative to familiarise themselves with the environment of the construction site.

Risk Assessments and Method Statements

No works shall be permitted to take place unless appropriate Risk Assessments and Method Statements (RAMS) have been submitted to and agreed by the Site Manager. RAMS should be submitted a minimum of 1 week in advance of the planned works. The Site Manager will respond to submitted RAMS using the Contractor RAMS Review form.

Ecology

The requirements of the approved LEMP will form part of the site induction for all staff and visitors. As instructed by the Ecological Clerk of Works an Ecological Reasonable Avoidance Measures (EcRAMs) Method Statement may be required in addition to RAMS. All measures identified in the EcRAMs must be incorporated in the RAMS to manage not only health and safety matters but potential ecological risks.



All operatives must read, agree and sign on to their RAM's.

All works will be carried out according to the agreed RAMS. No deviations from the RAMS without prior approval. It is the duty of individual operatives to know the content of the method statement for their works. Everyone is responsible for knowing the contents of the COSHH assessment for any material they are working with and adhering to the control measure(s) detailed within.

Where works are required to deviate from agreed RAMS, or in the case of unplanned 'urgent' works then a Point of Work Risk Assessment must be completed and agreed by the Site Manager, and in situations that may give rise to ecological risks the Ecological Clerk of Works too.

Archaeology

The requirements of the approved WSI and any subsequent report on the findings of the investigations will form part of the site induction for all staff and visitors based on the requirements set out in Appendix D.

No works shall be permitted to take place with no-dig areas unless appropriate Risk Assessments and Method Statements ("RAMS") have been submitted to and agreed by the Site Manager and ArchCoW.

No work will proceed until Permits have been authorised and issued. The permit authorisation will stipulate any control measured required in connection with Archaeological matters.

Site operatives will strictly adhere to designated work areas (Zones) and access routes. This will be enforced by the ArchCoW.

Where works are required to deviate from agreed RAMS, or in the case of unplanned 'urgent' works then a Point of Work Risk Assessment must be completed and agreed by the Site Manager, and in situations that may give rise to archaeological risks the ArchCoW.

Signing In and Out

Every contractor and visitor MUST sign in and out of Site. Signing in/out forms will be held in contractors Site Offices.



Safe Working

Every individual has a duty to take care of the health and safety of themselves and those who may be affected by their works.

Permits are required, these will be requested prior to work commencing. The range of Permits include:

Issued by Site Manager

- General Permit to Work
- Permit to Work at Height
- Permit to Excavate
- Permit for Hot Works

Permit to work in an Enclosed Space

Issued by Commissioning Senior Authorised Person:

- Limitation to Access Permit
- LV Sanction to Test Permit
- HV Sanction to Test Permit
- LV Permit to Work
- HV Permit to Work

No work will proceed until Permits have been authorised and issued.

All personnel must ensure that they are wearing and using the appropriate PPE and that it is in good condition with no defects. Any defects will be reported your site supervisor and will not be used. PPE must be worn in accordance with the method statement and Site minimum ('three-point') requirements of safety helmet, hi-vis and safety footwear.

Before starting work, the work area will be inspected by the operative to make sure the area is safe to start work. If the area is deemed unsafe this will be reported to the Site Manager, and until the area has been deemed safe to work, no work will proceed.

All tools and equipment will be inspected prior to use to ensure they are in good condition and suitable for the task required. Any defects will be reported to your site supervisor and will not be used.



Site operatives will strictly adhere to designated work areas (Zones) and access routes. These areas are to be kept in good order throughout the works.

All plant and equipment will be maintained in good condition. Inspection of tools and equipment will be carried out at regular intervals and records kept on site for inspection as and when requested.

No person shall be within 5m of moving plant. Exceptions to this rule shall only be permitted where adequate physical barriers exist separating the moving plant from people, or if the movement of plant is undertaken under the control of a competent banks person to ensure the safety of anybody potentially affected by the moving plant.

All reverse manoeuvres must always have a competent banks person in place.

General

Welfare facilities will be kept clean and tidy. Good housekeeping will be maintained always, and before the end of the working day Sub-contractors will offer up work areas for inspection, to the Site Manager, making sure that the areas are clean, tidy and safe.

Smoking only in designated areas only.

Use of mobile phones: Stop work move to a suitable safe location.

(DO NOT WALK AND TALK and DO NOT DRIVE AND TALK).

Waste management is the responsibility of all sub-contractors. The Site Manager will agree a location where skips can be placed. Skips to be exchanged/removed when full. Skips must be enclosed / sheeted to prevent waste from being blown out onto the site.

No food or drink with working areas, with the exception of bottled water.

No Horseplay. Bullying and discrimination of any kind is not tolerated on Site.



A zero-tolerance drug and alcohol policy exist throughout the Site. Testing may be carried out.

All personnel must adhere to site signage and measures to safeguard archaeological or ecological features.

Incident Reporting

Any accident, incident, near misses or uncontrolled hazards will be reported as soon as practicable to the Site Manager in addition to following and own company procedures.

Traffic Management

Access to the sites will be as indicated in the Site's Construction CDM Zones and Construction Traffic Management Plan.

CDM Zones and Construction Traffic Access Routes may change during different phases of the development. When changes occur, all personnel will be briefed and the latest copy of Construction CDM Zones and Construction Traffic Management Plan will be displayed on Health and Safety Noticeboard throughout the site.

Drivers shall:

- Stick to designated routes.
- Not use mobile phones or two-way radios when driving on site these can distract attention.
- Observe on site 10mph speed limit. Reduce speed on rough ground or in adverse conditions (e.g. ice, mist and fog).
- Be aware of pedestrians.
- Ensure the vehicle is not overloaded; loads are evenly distributed and secured.
- Not reverse without a Banksman, observe all signals. Ensure the reversing beacon is operational.



- Ensure that visibility aids (mirrors, cameras, etc.) are fitted to vehicles to remove blind spots, that they are serviceable and properly adjusted.
- Be aware of any services, bollard, over ground pipe and structure support.
- Be aware of overhead services (e.g. power lines, telephone cables, etc.).
- Report large potholes, ruts, debris and other obstructions on traffic routes.
- Regularly check vehicles for leaks (e.g. engine oil, fuel, hydraulic oil) especially during periods of extreme frost and repair before commencing work.
- Regularly check vehicle tyres, brakes, lights, steering, note & repair faults before driving.
- Before leaving site, check the vehicle for build-up of mud, stone or other debris. If necessary, clean vehicle / wheels to avoid the tracking out of mud or debris onto the Public Highway. Ensure all loads are enclosed / sheeted to ensure no dust or debris is blown from the vehicle when driving on the Public Highway.
- Use high level beacons when driving on site.
- Use hazard warning lights where beacons are not available.
- When leaving the vehicle wear PPE (minimum safety boots and hi visibility vest). Beware of rough ground when stepping off the vehicle.
- Park the vehicle where it is safe to gain access and egress, i.e. not on slopes.
- Be competent to drive the vehicle under their control. Where the driver is also expected to operate vehicle mounted plant and equipment (e.g. lifting equipment) additional competency requirements will apply

Transport used on site should be assessed and selected for suitability so as to be safe and right for the job to deal with site conditions, e.g. rough terrain, enforced speed limits. Subject to proper maintenance, repair and inspection. Only driven or operated by suitably trained persons. Certain plant and equipment may need a Banksman and/ or Supervisor as set out in the task specific Risk Assessment and Method Statement (RAMS).



All plant and materials must be correctly stored to prevent traffic routes being blocked.

Any item of plant not in use or awaiting repair must have a sign "This item of plant is out of use" placed on it.

ALL vehicles, plant and machinery not in use must have the keys removed and remain locked at all times. When vehicles and materials are being stored on site permission must be sought from the Site Manager prior to the works being undertaken. This will ensure traffic routes and work areas remain clear.

All plant operators are required to hold on their person a suitable CSCS/CPCS training certificate or equivalent to operate that particular type of plant.

All vans must be kept in a tidy manner to ensure that loose material does not interfere with pedal control.

Seat belts should be worn at all times whilst driving a company or personal vehicle, it will be considered a breach of Site Rules should any person be seen operating plant / machinery or driving their vehicle on site without one. Seat belts must only be removed when the vehicle is parked in reverse position at the workplace.

Operators of plant / machinery must ensure they carry out a daily pre use check of their machine prior to starting work each morning and in particular during spells of cold weather to ensure that hydraulic systems are working effectively.

Weekly checks will be made, and any defects will be noted on the weekly vehicle defects sheet.

The use of mobile phones / radios is not permitted under any circumstances whilst operating plant / machinery or whilst driving any vehicle on site.

Flashing beacons / reversing beacons / hazard lights must always be used whilst operating plant on site.



Re-fuelling is only permitted in authorised and designated areas. These areas are clearly signed and are within the designated materials Laydown areas. No re-fuelling of vehicles within the areas where construction work is taking place (unless prior permission is obtained from the Site Manager).



Appendix B – Risk Assessment of Potentially Damaging Construction Activities



Appendix B – Risk Assessment of Potentially Damaging Construction Activities

Risk Assessment: Document No: WYM-RA-001 Risk Assessment of Potentially Damaging Construction Activities			Wymondley Solar PV and BESS Project Company: AGR Solar 4 Limited																																						
Next Review Date: Prior to Principal Contractor Mobilising to Site		Revision No. V0	RA Carried out by Tim Edmunds	Signature Tim Edmunds	Date: 16/04/2024																																				
Site Location: Land at Graveley Lane and to the East of Great Wymondley, Hertfordshire																																									
Exposure:	Employees	Another Worker	Site Visitors	Environment	Local Community																																				
Severity <table><tr><td>5</td><td>5</td><td>10</td><td>15</td><td>20</td><td>25</td></tr><tr><td>4</td><td>4</td><td>8</td><td>12</td><td>16</td><td>20</td></tr><tr><td>3</td><td>3</td><td>6</td><td>9</td><td>12</td><td>15</td></tr><tr><td>2</td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr><tr><td>1</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table> Likelihood Risk = Likelihood x Severity Low Risk (acceptable) Medium Risk (further review) High Risk (unacceptable) Likelihood Rating 1 = Very unlikely Rating 2 = Unlikely Rating 3 = Likely Rating 4 = Very likely Rating 5 = Almost certain Severity Rating 1 = No injury, environmental damage or nuisance Rating 2 = Minor injury or illness, environmental damage or nuisance Rating 3 = “3 day” injury or illness or moderate environmental damage or nuisance Rating 4 = Major injury or illness or environmental damage or nuisance Rating 5 = Fatality, disabling injury, etc or substantive environmental damage or nuisance						5	5	10	15	20	25	4	4	8	12	16	20	3	3	6	9	12	15	2	2	4	6	8	10	1	1	2	3	4	5		1	2	3	4	5
5	5	10	15	20	25																																				
4	4	8	12	16	20																																				
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HAZARD	1	2	3	4	5	6	7	8	9
	Factors of Harm		Risk Multiple of columns 1 × 2	CONTROL MEASURES	Factors of Harm		Residual risk Multiple of columns 5 × 6	Control measures implemented by (name)	Control Frequency Check Rate
	Likelihood	Severity			Likelihood	Severity			
Excavating: Striking / damaging existing public utility apparatus Damaging sensitive ecology or archaeology Damaging protected trees or hedgerows Tracking of mud or debris onto the Public Highway	3	5	15	Pre-Construction All Pre-Construction surveys completed, and the Pre-Construction Information (PCI) provided to the Site Manager. Site fenced, "No Construction Zones" and 'No Dig Areas' to be cleared demarked and protection measures put into place prior to any construction works commencing. During Excavation Tasks Site Manager to ensure all works accord with approved design and the PIC provided, and that all Operatives work to agreed RAMS. ECoW to supervises all construction works near to sensitive ecological areas, using EcRAMS as required. Adherence to 'wheel washing' protocols ensuring no mud or debris is tracked out onto the Public Highway. Daily checking condition and cleanliness of the Construction Traffic Route.	1	1	1	Site Manager ECoW Operatives	Prior to Construction Works commencing and then maintain compliance throughout all excavation works.



HAZARD	1	2	3	4	5	6	7	8	9
	Factors of Harm		Risk Multiple of columns 1 × 2	CONTROL MEASURES	Factors of Harm		Residual risk Multiple of columns 5 × 6	Control measures implemented by (name)	Control Frequency Check Rate
	Likelihood	Severity			Likelihood	Severity			
Hazardous Substances: Fire Explosion Personnel health Environment	4	4	16	Site Manager to ensure the use of all COSHH materials accord with agreed RAMS that contain adequate COSHH Risk Assessments for each substance. Operatives work only to agreed RAMS, and Use materials only for their intended use. Store all materials correctly in designated areas (away from any sources of ignition, or routes to water sources or sensitive ecological areas). Dispose of Hazardous materials in the correct manner and in compliance with legislation. Site Manager to ensure barriers and fencing used to secure materials and equipment if required. Site Manager to ensure Bunded Storage and Spill trays are available and used where required.	1	2	2	Site Manager Operative	Daily – each use.
Discovery of Asbestos: Asbestosis Mesothelioma Other lung related issues Air contamination Contamination of third parties	3	5	15	Obtain where available information regarding the presence of asbestos in the works area. Arrange for an asbestos survey to be carried out in works area if required. All operatives trained in the awareness of asbestos. Care to be taken whilst working adjacent to asbestos to ensure it's not disturbed. If operatives are unsure of materials in the working area STOP WORK and contact your supervisor to arrange a licensed contractor to check the area before work proceeds.	1	5	5	Site Manager Supervisor Operative	No asbestos considered present on site, but control measures exist throughout all construction works.



HAZARD	1	2	3	4	5	6	7	8	9
	Factors of Harm		Risk Multiple of columns 1 × 2	CONTROL MEASURES	Factors of Harm		Residual risk Multiple of columns 5 × 6	Control measures implemented by (name)	Control Frequency Check Rate
	Likelihood	Severity			Likelihood	Severity			
Materials Storage Fire Security Theft Slip, trip and falls. Environment	3	4	12	Materials Laydown area setup as part of the Principal Contractor's Enabling Works. Potentially hazardous materials to be stored in Bunded Storage and Spill trays to be readily available close by. Site Fenced and secured prior to any Construction Works taking place. Material Laydown area separately fenced/secured within the wider Site to minimise unauthorised access and theft. All potential hazardous materials stored in accordance with the material supplier's COSSH Data Sheets. Good housekeeping to be maintained at all times. Keep all working areas and walkways clear from Obstructions.	1	4	4	Supervisor Operative	Daily – each use.



Construction Traffic Movements within the Site Vehicle Damage to plant and property. Damage to sensitive ecology or archaeology. Injury to people on Site Injury to members of the public walking close to the Site Potential dust mud and other debris generation	3	4	12	Pre-Construction Site fenced, 'No Construction Zones' and 'No Dig Areas' to be clearly demarked and protection measures put into place prior to any construction works commencing. During Construction Works Site Manager to ensure that all Operatives work to agreed RAMS and adhere to Site Rules. In particular: Banks man to walk vehicles onto site. Use of banks man when reversing vehicles. Parking only in designated areas. Clear signage and barrier off working area. Abide site speed limit. Used flashing beacons when requested. Always Drive with main headlight on. Materials Laydown compounds and Internal Access Tracks constructed prior to Solar PV and BESS construction works commencing. Access and egress from the Site only via approved Accesses. All Construction Traffic to move around the Site only on agreed Construction Traffic routes (e.g. the Internal Access Tracks). Site Manager to monitor the condition of the Internal Access Tracks and Materials Laydown areas for the potential to generate dust, in particular during period of hot / dry weather. Dust suppression to be applied if required. All drivers to adhere to 'wheel washing' protocols ensuring no mud or debris is tracked out onto the Public Highway. Site Manager to check on a daily basis the condition and cleanliness of the Site Accesses and Construction Traffic Route. If required arrange for the road to be swept to the satisfaction of the Local Highway Authority.	1	4	4	Site Manager Supervisor Operative	Prior to Construction Works commencing and then maintain compliance throughout all construction works.
Deliveries of Plant, Equipment or other	3	5	15	Drivers Use only the designated Construction Traffic Route, and obey instructions given by Traffic Marshalls.	1	5	5	Site Manager Traffic Marshalls Supervisor	Daily Weekly Monthly



HAZARD	1	2	3	4	5	6	7	8	9
	Factors of Harm		Risk Multiple of columns 1 × 2	CONTROL MEASURES	Factors of Harm		Residual risk Multiple of columns 5 × 6	Control measures implemented by (name)	Control Frequency Check Rate
	Likelihood	Severity			Likelihood	Severity			
construction supplies Serious injury to driver, passenger and 3rd Party. Damage to vehicles or Highway infrastructure. Dust generated				Adherence to 'wheel washing' protocols ensuring no mud or debris is tracked out onto the Public Highway. Vehicle checks to be carried out. Don't drive when tired. Keep within Public Highway speed limits. Adjust speed to traffic, road and weather conditions. Don't overload vehicle. Stack and tie down materials & equipment. Take regular brakes from driving. Site Manager Ensure Temporary Traffic Signs scheme is in place prior to construction works starting. Ensure Traffic Marshalls are briefed on agreed Construction Traffic Management arrangements and adequately resourced and competent to ensure compliance. Check on a daily basis the condition and cleanliness of the Site Accesses and Construction Traffic Route. If required arrange for the road to be swept to the satisfaction of the Local Highway Authority. Any damage to Public Highway to be reported to the Local Highway Authority and agreed remedial measures implemented in accordance with the Local Highway Authority's requirements.				Operative Delivery Driver	Yearly



HAZARD	1	2	3	4	5	6	7	8	9
	Factors of Harm		Risk Multiple of columns 1 × 2	CONTROL MEASURES	Factors of Harm		Residual risk Multiple of columns 5 × 6	Control measures implemented by (name)	Control Frequency Check Rate
	Likelihood	Severity			Likelihood	Severity			
Refuelling Risk of Fire and/or Explosion Risk of Environmental pollution (ground/water) Risk of personal Major/Minor injury (or Death)	2	5	10	Observe COSHH risk assessment for fuel used. Store fuels in a cool dry and well-ventilated area away from any sources of ignition. Refuel away from sources of ignition using the correct funnel, drip tray to be used whilst carrying out this procedure and ensure area is well ventilated. Team to have fire extinguishers nearby whilst refuelling. Spill kit to be available in case of spillage. Ensure no refuelling is carried out near any drains or watercourses. Task specific PPE to be worn.	1	5	5	Supervisor Operative	Daily – each use.
Piling of Solar PV Mounting Structures Striking / damaging existing public utility apparatus Damaging sensitive ecology or archaeology Damaging protected trees or hedgerows Environmental (noise) nuisance	3	4	12	Pre-Construction Site fenced, 'No Construction Zones' and 'No Dig Areas' to be clearly demarked and protection measures put into place prior to any piling works commencing. During Piling Works Site Manager to ensure that all Operatives work to agreed RAMS and adhere to Site Rules. Site Manager to plan and control piling work only in the permitted time periods (09:00 – 17:00hrs Monday to Friday inclusive).	1	3	3	Site Manager Supervisor Operative	Prior to Construction Works commencing and then maintain compliance throughout all piling works.



HAZARD	1	2	3	4	5	6	7	8	9
	Factors of Harm		Risk Multiple of columns 1 × 2	CONTROL MEASURES	Factors of Harm		Residual risk Multiple of columns 5 × 6	Control measures implemented by (name)	Control Frequency Check Rate
	Likelihood	Severity			Likelihood	Severity			
Other contractors Injury to 3 rd party Verbal abuse Vesical behavior Collision of plant	3	4	12	Coordinate & liaise works. Attend Daily task briefing. Attend Toolbox talks. Barrier work areas Report any near miss, accident & incident. Walk away from other contactors, if being abused.	1	4	4	Site Manager Supervisor Operative Other contractors Site Visitors	Daily



Appendix C –

Ecological Reasonable Avoidance Measures (EcRAMs)



Appendix C – Ecological Reasonable Avoidance Measures (EcRAMs)

The following Method Statement outlines suitable measures to be implemented during construction works associated with the proposed solar development to avoid the disturbance, injury or killing of individual animals including hedgehog, brown hare, amphibians and common reptile species.

No evidence of badger was found during the habitat survey, however, habitat on Site and adjacent to Site is suitable and a pre-construction survey has been recommended.

In relation to nesting birds it is not proposed to remove any existing trees or hedgerows as part of the construction activities and as such nesting bird constraints would be limited to ground nesting species. Works proposed during the breeding season would be preceded by a ground nesting bird check by the Environmental Clerk of Works. If ground nesting birds are present an exclusion area would be established in discussion with the project ecologist until the young have fledged.

Measures to ensure the favourable conservation status of the species during the proposed development must reflect legislation and guidance application at the time and the construction phase will be undertaken following RAMS under the supervision of an Ecological Clerk of Works (ECoW) as required to provide advice.

These RAMs relate to small scale removal of habitats such as grassland and hedgerow. These should not be employed for larger scale or extensive habitat removal. Minor or short term destructive or disturbance works (e.g. cable laying, ground mountings, construction of substations) will also follow this Method Statement to ensure legal compliance and to ensure the objectives are achieved.

Method Statement

The following measures will be adopted throughout the construction period of the proposed development:

- Site operatives will be informed by 'tool box' talk of the potential for protected species to occur on-site, what to look out for and what to do in the event that animal is found.
- Vegetation clearance works (e.g. short sections of hedgerow and other dense vegetation or tall grassland) should only commence after a careful visual inspection by an ECoW has determined that no animals are present. Vegetation should be reduced (by hand trimmer) to a height of c.150mm prior to ground works commencing to aid visual searches and encourage individuals to temporarily move away from the working areas.
- The proposed timing of the removal of any hedgerow bases or other feature potentially offering shelter or refuge should avoid the hibernation period (November to February inclusive) in order to prevent disturbance to hibernating animals.
- Trenches and excavations should include an escape route for animals that might enter the trench, especially if left open overnight. Ramps should be no greater than 45 degrees in angle and can include wooden planks or ramped earth. Ideally, any excavations open for a prolonged period should be covered.
- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling.
- Any excavated material stored overnight should be searched prior to being used as infill.



- Site specific management practices will be set out within the LEMP or a Construction Environment Management Plan (CEMP) and must be adhered to during construction to ensure the protection of habitats and species within the Site.

Should a hedgehog, brown hare, amphibian, reptile or other notable species (or signs of) be found at any point during construction, works within suitable habitat and/or potentially disturbing works in close proximity to the animal must cease immediately and the ECoW will advise on the appropriate actions, including applying for a licence, if required.



Appendix D –

Archaeological Reasonable Avoidance Measures (ArchRAMs)



The requirements of the approved WSI and any subsequent report on the findings of the archaeological the investigations will form part of the site induction for all staff and visitors. The following will be adhered too:

- An Archaeological Clerk of Works (“ArchCoW”) will form part of the Site Management Team.
- All no-dig areas will be clearly demarcated on site prior to commencement of development using hi visibility tape/fencing.
- All personnel will complete a Site Induction.
- No works shall be permitted to take place in no dig areas unless appropriate Risk Assessments and Method Statements (“RAMS”) have been submitted to and agreed by the Site Manager.
- The Site Manager will respond to submitted RAMS using the Contractor RAMS Review form, and as instructed by the ArchCoW ensure any required Archaeological Reasonable Avoidance Measures (“ArchRAMS”) Method Statements form part of approved RAMS. All measures identified in ArchRAMS must complied with to not only manage health and safety matters but potential archaeological risks.
- All operatives must read, agree and sign on to their RAMS.
- All works will be carried out according to the agreed RAMS. No deviations from the RAMS without prior approval. It is the duty of individual operatives to know the content of the method statement for their works. Everyone is responsible for knowing the contents of the COSHH assessment for any material they are working with and adhering to the control measure(s) detailed within.
- Where works are required to deviate from agreed RAMS, or in the case of unplanned ‘urgent’ works then a Point of Work Risk Assessment must be completed and agreed by the Site Manager, and in situations that may give rise to archaeological risks the ArchCoW too.
- Permits are required to work these will be requested prior to work commencing. The range of Permits include:
 - Issued by Site Manager
 - General Permit to Work
 - Permit to Work at Height
 - Permit to Excavate
 - Permit for Hot Works
 - Permit to work in an Enclosed Space



- No work will proceed until Permits have been authorised and issued. The permit authorisation will stipulate any control measures required in connection with Archaeological matters.
- Site operatives will strictly adhere to designated work areas (Zones) and access routes. These areas are to be kept in good order throughout the works.
- The Site Manager, or their representative, will provide a Daily Briefing to contractors working on site. This briefing is to ensure there is effective coordination of works and to highlight any specific hazards that contractors may need to be aware of. The Daily Briefing will include matters relating to the protection of Archaeology.
- The Site Manager, or their representative, gives Toolbox talks on topics related to the project. Toolbox talks on the protection of Archaeology will be included in the suite of Toolbox talks given at appropriate stages in during the construction of the project.

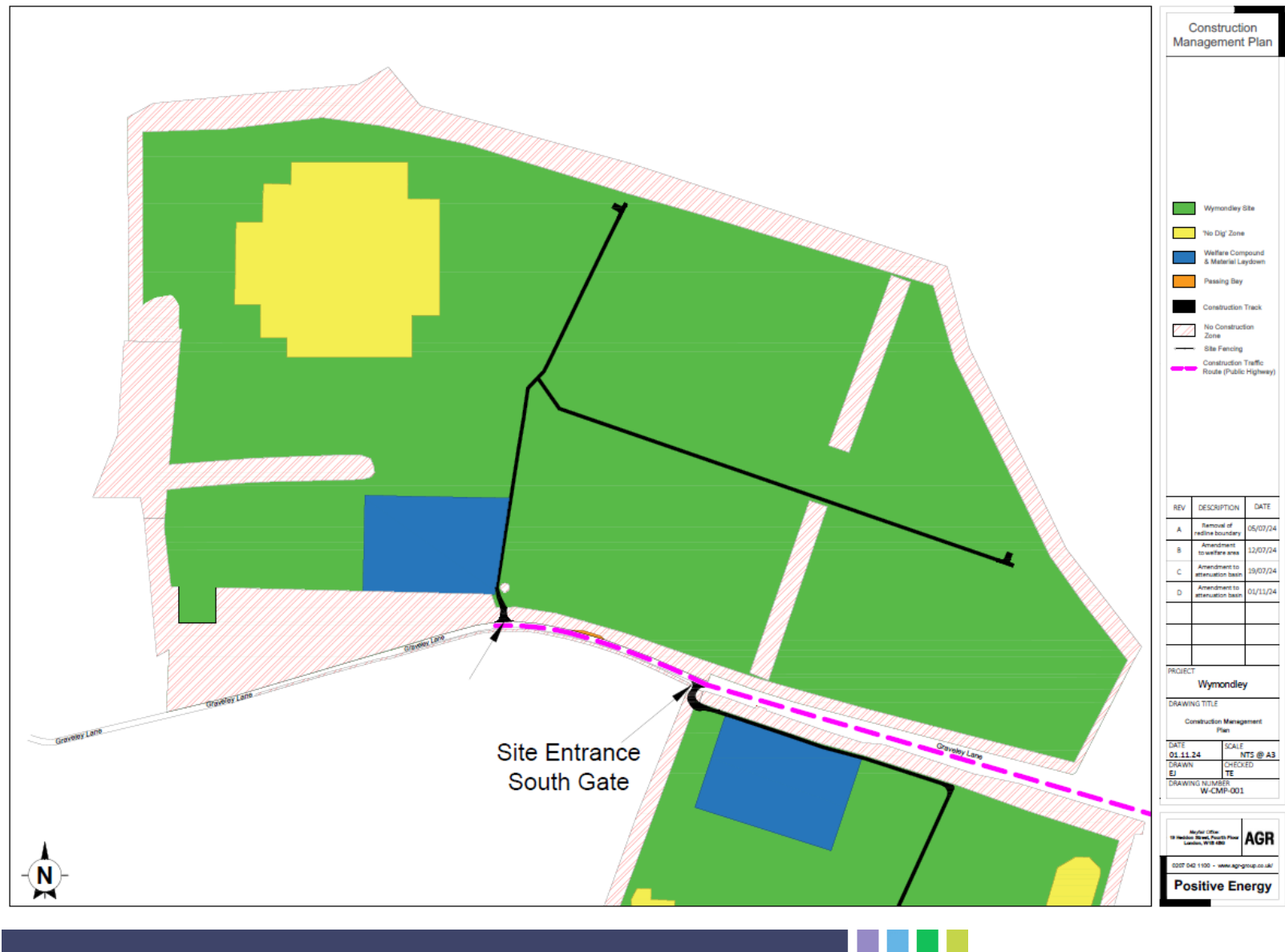


Appendix E –

Construction Site Management Plans



Construction Site Management Plan (North)



Construction Site Management Plan (South)

