OXFORDSHIRE
STRATEGIC RAIL FREIGHT INTERCHANGE

DCO Submission

Environmental Statement

Chapter 2: Description of Development and Alternatives
Appendix 2.3: Construction Environmental Management Plan

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Rev A

On behalf of
Oxfordshire Railfreight Limited

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Construction Environmental Management Plan

ENVIRONMENTAL STATEMENT APPENDIX 2.3

Client Oxfordshire Railfreight Limited

Project Oxfordshire Strategic Rail Freight Interchange

Date October 2026

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1.0 Purpose of the Construction Environmental Management Plan (CEMP)

1.1 In this document "DCO" means The Oxfordshire Rail Freight Interchange and Highways Order 202[ ] as made by the Secretary of State.

1.2 This Construction Environmental Management Plan (CEMP) sets out the overarching systems and controls that will be adopted during the construction of the Oxfordshire Strategic Rail Freight Interchange scheme to minimise any adverse environmental impacts in accordance with the conclusions of the Environmental Statement and construction good practice. Separate Construction Environmental Management Plans will be provided for particular components of the development. This CEMP provides the framework with which all Phase and construction component specific Construction Environmental Management Plans (P-CEMPs) required for each component of development by DCO Schedule 2 Requirement 10, must accord.

1.3 This CEMP and in turn P-CEMPs, will cover matters which are also set out in the DCO Schedule 2 Requirements. The governing document for all construction activity is the DCO with its Requirements.

1.4 The exact number of P-CEMPs will depend on the precise split of components of construction work which has yet to be confirmed. However, P-CEMPs will be provided for:

- Main site infrastructure works (potentially split further into the earthworks, drainage, roads and landscaping)
- Rail terminal
- Rail connection and railway works
- Each component of the highway works defined as Work Nos. 10, 11, 12A, 12B, 13A, 13B, 14A, 14B, 15A, 15B, 16, 16A, 17, 18, 19, 20, 21, 22, 23, 24, 25A, 25B, 26, 27A, 27B, 28, 33, 36 and 39 in Schedule 1 of the DCO
- Each warehouse developed

Obligations, Compliance and Enforcement

1.5 The principles set out by the CEMP and the arrangements established through the P-CEMPs, will be incorporated within all construction contracts arising from the development of the scheme and all contractors, their subcontractors and supplier will be required to comply with the overarching principles and details contained in each P-CEMP.

1.6 Any non-conformance or infringement with either the CEMP or P-CEMP shall be reported to the Project Manager (see Section 3 below) with 24 hours and proposals for rectifying the non-conformance shall be submitted to the Project Manager within 7 days. The management

and reporting of non-conformances will be the responsibility of the Environmental Manager (see Section 3 below).

1.7 The contractor shall submit proposals to the Project Manager, before work commences, for the internal and external auditing of compliance with the CEMP and the P-CEMP. Copies of all audit reports are to be provided to the Project Manager within 7 days of the audit. Furthermore, the Project Manager will undertake audits as and when they see fit.

1.8 Failure to rectify a non-conformance within an agreed timescale may result in relevant works being suspended until the Project Manager is satisfied that the non-conformance has been corrected.

1.9 The CEMP will remain valid throughout the construction phase of the scheme.

2.0 Description of the Works

2.1 The development comprises a Strategic Rail Freight Interchange together with landscaping, access, highway works and other supporting infrastructure works. A detailed description of development is set out in Chapter 3 of the Environmental Statement. In summary it consists of:

- An intermodal rail freight terminal, including rail connections and improvements to the Chiltern Main Line including works to Ardley Tunnel, rail sidings, container storage, HGV parking and associated buildings;
- Up to 603,850 sqm (approx. 6.5 million square feet) of warehousing and ancillary buildings, plus up to 201,283 sqm of additional floorspace in the form of mezzanines.
- The retention, rejuvenation and re-use of Ashgrove Farm and associated buildings as part of a 'central hub' to provide estate management, training and communal facilities to serve the site;
- A secure, dedicated HGV Parking area including driver welfare facilities;
- New road infrastructure and works to the existing road network, including improvements to M40 J10 and junctions on the A43 provision of the principal site access and associated works on the B430, a bypass to the village of Ardley linking the site directly with M40 J10, a relief road around the north eastern side of the village of Middleton Stoney, a link road connecting the B430 to Camp Road, improvements to M40 J9 and other highway improvements at junctions on the local highway network and related traffic management measures;
- New and improved pedestrian and cycle infrastructure both on the Main Site and in the surrounding area connecting the Main Site to local communities;
- Demolition of existing structures and earthworks to create development areas, construct the rail freight terminal and connections to the Mainline and form landscape screen mounding;

- The retention of key landscape features together with new strategic landscaping, general planting and biodiversity enhancements.
- Works associated with utilities including for foul drainage connections.

3.0 General Site Management

Roles and Responsibilities

3.1 The site wide coordination and implantation of the principles established in this CEMP through the preparation and agreement of each component or phase specific Construction Environmental Management Plan (P-CEMP), will be the responsibility of the Developer's Project Manager with the support of the developer's Environmental Consultant.

3.2 As each contract comes forward an Environmental Manager will be appointed for that Contract, generally this will be a contractor appointment but in some circumstances the Project Manager may undertake this role or appoint others. The Environmental Manager shall ensure that the principles of the CEMP shall be fully integrated into all site procedures, processes and activities, through the preparation and agreement of P-CEMPs and ensure that appropriate environmental management systems, under BS 14000 or similar, are put in place through each P-CEMP.

3.3 The Developer's Project Manager will carry out appropriate audits of the contractors' arrangements to ensure full compliance with the P-CEMP. Any infringement of the P-CEMP or any environmental incident shall be immediately reported to the Project Manager. The contractor will be required to fully investigate the issue and take appropriate corrective action.

3.4 The key contacts are:

- Developer –Mountpark
- Project Manager – TBC (Developer Appointment)
- Ecological Consultant – FPCR
- Landscape Consultant – FPCR
- Engineering Consultant – BWB Consulting
- Principal Contractor – TBC (Developer Appointment)
- Principal Designer – TBC (Developer Appointment)
- Site Manager – TBC (Contractor Appointment)
- Environmental Manager – TBC (Contractor Appointment)
- Health and Safety Manager – TBC (Contactor Appointment)

3.5 The key firms and individuals may change as the scheme develops, and each P-CEMP should set out and update as appropriate the list of key contacts.

3.6 The name and contact details of the Environmental Manager and the General Contractor will be displayed on the site boundary.

Communications

3.7 The effective implementation of the CEMP through each P-CEMP is intrinsically linked to good communications between all the project stakeholders, particularly the local Authority, and the public.

3.8 To promote effective communications during any contract each P-CEMP shall require the following to be implemented at the commencement of each contract:

- The Project Manager will brief the contractor's senior management team on the philosophy and content of the CEMP and details of the relevant P-CEMP, which will generally include the Director responsible for the scheme;
- The Ecological Consultant shall brief the contractor's senior management team on all ecological aspects of the scheme;
- The contractor shall be responsible for developing a site-specific induction for all those working or visiting his site. The scope of the induction will be agreed in advance with the Project Manager.

3.9 The contractor's monthly progress report shall include reporting on compliance with the P-CEMP.

3.10 The contractor will provide a programme to achieve continuous improvement of environmental matters during the contract. The Developer wishes to see positive training on environmental matters on an on-going basis.

3.11 The contractor shall develop an appropriate strategy for communicating with the public both before commencement and during the contract. This must be in accordance with protocol for community liaison pursuant to Requirement 32 and, for any highway works on the strategic road network, the scheme for stakeholder liaison agreed pursuant to paragraph 11 of Part 2 of Schedule 14.

4.0 Components and Logic

4.1 This section of the Construction Environmental Management Plan outlines the different components of works to be carried out and outlines the possible restraints which may have an impact on the way the components are assembled. It sets out how these matters have informed the approach adopted in the preparation of the Indicative Master Programme (see Appendix One).

4.2 A P-CEMP must be prepared for each component of development. Where necessary, for example if several contractors are involved in the delivery of a particular component, it may be necessary for multiple P-CEMPs (each specific to individual contractors) to be prepared. Each P-CEMP must accord with the principles set out in this CEMP and must have regard to the details contained in other P-CEMPs for that component of development.

4.3 Each P-CEMP must place an obligation on the contractor to ensure that all relevant requirements set out in the Development Consent Order have been discharged / approved, prior to work commencing. Each P-CEMP must fully accord with all the details agreed pursuant to all the Requirements where relevant.

Key Activities

4.4 The following table provides a summary of the Key Activities:

Key activity	**Work No(s).**
Main Site Earthworks and Drainage	Within all of Works Nos. 1 to 9, 29 and 30
Main Site Roads	7A and 7B
Main Site Landscaping, ecological mitigation area and biodiversity and landscaping enhancement area	8, 29, 30
Railway works	1, 2, 5 and 38
Rail terminal	3 and 4
Main Site Buildings	4 and 6
Main site HGV parking	Within part of 6
Central Hub	9
Highway works	10 to 28, 33, 36 and 39
Landfill works	34
Foul drainage outfall	35
Ecological mitigation area and biodiversity and landscaping enhancement areas (outside of the Main Site)	31, 32 and 37

4.5 These activities are described more fully in Schedule 1 of the DCO and the relevant works areas are shown on the Work Plans (Document 2.2).

Highway works

4.6 The Highway works are to be undertaken in accordance with the timescales as set out in Schedule 2 Requirement 7 and 8 of the DCO. These timescales are determined as set out in the Transport Assessment and take account of the restraints on phasing of the highway works set out below.

Main Site Earthworks, Drainage, Roads and Landscaping

4.7 Works on the Main Site will generally proceed from north to south but will take place simultaneously across large parts of the Site. The likely approach to phasing of the works is shown in the Indicative Master Programme at Appendix One and on the Indicative Phasing drawings at Appendix Two. These give an overarching explanation of the works that are likely to be taking place during each year of the construction process and when works are likely to be completed.

Railway

4.8 The Railway and rail terminal works (Work Nos. 1 to 5 and 38) comprise:

- Connection to Network Rail and Signalling (Work No. 1);
- New rail terminal (Work Nos. 3 and 4);
- Main Site Railway outside of the development zones including reception sidings (Work No. 2);
- Main Site Railway within the development zones (Work No. 5); and
- Works to Ardley Tunnel (Work No. 38)

4.9 The Rail Terminal will be constructed in phases, with an initial phase likely to comprise one reception and two handling sidings together with appropriate areas for container handling and storage, HGV parking and other facilities. As the number of trains and number of containers handled grows, the final reception and handling sidings will be added and the areas for container storage and associated terminal facilities extended. The potential phasing of the Rail Terminal is shown on Illustrative Rail Terminal Plan attached at Appendix 3 of this Document.

Main Site Buildings, HGV parking and Central Hub

4.10 The Buildings are split into zones as indicated on the Parameters Plan (Document 2.5) and will be constructed once the relevant earthworks for that zone are completed and dependent on commercial decisions.

4.11 The Central Hub area will be developed so that it is operational shortly after the occupation of the first Main Site warehouse units.

Key Restraints Governing the Logical Phasing of Works

Highway works

4.12 The phasing of the Highway Works will be undertaken in accordance with Requirement 8. Other than complying with the relevant protective provisions that govern highway works in the DCO, and potential interaction with third party works, there are no restraints on commencement of any phases of the highway works.

4.13 Other practical restraints may include:

- Design resources;
- Construction resource;
- Availability of materials;
- The mitigation of delays and disruption to the existing highway network;
- Statutory Undertaker imposed restraints;
- Third Party highway schemes;
- Other third party-imposed restraints;
- Scale of the Scheme.

4.14 The importance of managing the phasing of the relevant Highway Works to mitigate delays and disruption on the existing highway network is perhaps the most significant practical restraint. Generally, this is best achieved by diverting traffic onto new alignments away from works under construction and controlling the level of interference on the networks at any time.

4.15 The indicative master programme at Appendix 1 shows how the various highway works are planned to be phased.

Main Site Earthworks, Drainage, Road and Landscaping

4.16 The phasing of all components of the works will be undertaken in accordance with details agreed pursuant to Requirement 4 for the Main Site.

4.17 The scale of the Main Site earthworks is such that it would be appropriate to adopt a phased approach so that subsequent activities can commence before all the previous tasks have been completed.

4.18 It is considered appropriate to commence the earthworks adjacent to the principal site access, within the rail terminal area and the northern part of the Main Site. Works will then progress simultaneously across large parts of the site although works on some parts of the central/southern area of the Main Site are constrained in the early part of the development

process by Thames Water infrastructure and the In-vessel Composting Facility. The likely approach to phasing of the works is shown in the Indicative Master Programme at Appendix One and on the Indicative Phasing drawings at Appendix Two.

4.19 Initial earthworks will open up the development plateaus for the rail terminal and Zones A3 and A5 (refer to the Parameters Plan, Document 2.5) and constructs the key sections of the perimeter screening mounding appropriate to screening these areas. The necessary permanent and temporary drainage and balancing ponds with suitable outfalls related to these areas will also be put in place at the same time. Works on the southern part of the site, along and south of the Heyford Park Link Road, will also take place together with works on the Central Hub area.

4.20 Works will then progress with the formation of the development plateau for Zones A2 and A4 and to construct the sections of the perimeter screening mounding adjacent to this area. The necessary permanent and temporary drainage and balancing ponds with suitable outfalls related to these areas will also be put in place at the same time. The Heyford Link Road is also constructed at this time.

4.21 The final works to take place will be the development plateau for Zone A1 and final elements of the landscaping. Permanent drainage and balancing ponds would also be completed.

4.22 Landscaping will be installed in accordance with the timings agreed pursuant to Requirement 11.

4.23 The order of the Main Site earthworks, drainage and landscaping shown on the Indicative Master Programme is illustrative and the actual order may change as market needs may dictate, and in accordance with details agreed pursuant to Requirement 4.

4.24 The Main Site Main Estate road (Work Nos. 7A and 7B) will be constructed early in the development process, and completed prior to the occupation of the first units. Work No. 7B will be used temporarily in conjunction with Work No. 12A to form the first phase of the Heyford Park Link Road.

Railway

4.25 The key restraints to the Railway components are:

- The Rail Terminal and railway infrastructure cannot be completed until the earthworks have been completed for that phase;
- The connection to the Chiltern Main Line, including the signalling, are likely to be constructed by Network Rail and a 3-year period has been assumed following detailed programme discussions with Network Rail, for the lead in period, approvals and construction / commissioning of the connection.

Buildings

4.26 Construction of building units can only be commenced on plots that have a plateau. It is anticipated that buildings in the northern part of the site, zones A3 and A5, will be available first followed by central areas of the site, Zones A2 and A4. The final part of the site to be available will be Zone A1. The precise order of the development of buildings will be dictated by both the construction process but also occupier interest and market conditions.

Indicative Master Programme

4.27 The Indicate Master Programme contained in Appendix 1 shows how the works may be assembled.

4.28 Final assembly of the works will be undertaken following detailed design, selection of materials and the appointment of key contractors and in accordance with phasing agreed pursuant to Requirement 4 for the Main Site, and Requirements 8 for the Highway Works.

5.0 Site Rules

5.1 A set of site rules will be displayed within the site office to set the minimum standard to be adopted by all contractors and sub-contractors. These will be based on the following:

- All operatives and visitors must wear appropriate PPE (hard hat, high visibility jacket and protective footwear as a minimum), with further equipment to be determined through method statement/risk assessment;
- All operatives and visitors must receive site induction training, including the environmental induction;
- All power tools using temporary electrics are to be transformed down to 110 volts;
- No operative is to misuse or abuse any mechanical or other equipment;
- Only authorised vehicle routes shall be used;
- Segregated pedestrian routes shall be provided;
- Vehicles used in road deliveries of materials, equipment and waste arisings on- and off-site should be loaded to full capacity to minimise the number of journeys associated with the transport of these items.
- All machinery and plant should be procured to adhere with emissions standards prevailing at the time and should be maintained in good repair to remain fuel efficient.
- When not in use, vehicles and plant machinery involved in site operations should be switched off to further reduce fuel consumption.

- Equipment and machinery requiring electricity should only be switched on when required for use. Procedures should be implemented to ensure that staff adhere to good energy management practices, e.g. through turning off lights, computers and heating/air conditioning units when leaving buildings.

- Operatives must not report for work if under the influence of alcohol or drugs or consume alcohol or drugs at work or during breaks;

- All operatives and visitors must report any potential safety incidents identified and must not continue with an activity that has been identified as a risk, without an appropriate risk assessment being in place;

- The site will operate a permit to dig system, which will be granted following a review by the Principal Contractor of service drawings and cable locator scan of the area;

- Any accident or incident on site, which requires medical treatment or time off, should be reported immediately to the Site Manager;

- A Site Accident and Incident Log will be maintained by the site manager;

- Where practicable, the use of diesel or petrol generators will be avoided;

- All vehicles should switch off their engines when stationary.

- Review fuel procurement for onsite vehicles and plant, and preferentially use biodiesel/hydrotreated vegetable oil (HVO)/electricity fuelled construction plant to reduce construction emissions where feasible.

- Plant efficiency measures such as the use of telematics and/or real time operator feedback, automatic control for idling, acceleration and breaking, energy recovery systems for hybrid excavators, GPS precision control during earth movements to reduce idling time while marking out areas, should be implemented where available and feasible.

Parking of vehicles shall only be permitted in designated parking areas. Parking on the Public Highway or the Development Roads will not be permitted.

6.0 Contractor's Facilities

6.1 It is likely that more than one contractor will be working on the development at any time, each requiring different facilities located at different locations. It is assumed that only one contractor shall be working on any part of the development at any one time.

6.2 Contractors' Facilities on the Main Site, will be positioned close to the Main Estate Road and Main Site access.

6.3 Indicative locations of the Contractors' Facilities for the J10 Highway Improvements, Ardley Bypass and Middleton Stoney Relief Road are shown on the Highway Plans (Documents 2.7 and 2.8).

6.4 Additional facilities may be provided for each area of works.

6.5 Each P-CEMP shall include details of the Contractor's facilities including compound areas, temporary buildings and fencing, parking areas and storage of plant and materials.

6.6 Each P-CEMP will include a management plan to dispose of foul water from welfare facilities in an appropriate manner. Foul drainage from temporary welfare facilities during the Construction Phase will be discharged to temporary holding tank(s), the contents of which will periodically be tankered off site to a licensed facility.

6.7 When preparing details in accordance with this requirement consideration, as a minimum, shall be given to:

- Size and location;
- Separation from other facilities;
- Separating access routes from working areas;
- Separation of the public from access routes and working areas;
- Storage of Plant and Materials;
- Arrangements for removal following completion of construction;
- Publishing details of internal circulation routes within the site. The plans shall show how pedestrian routes will be segregated from plant and equipment routes.

7.0 Construction access

7.1 Construction access to the Main Site, landfill works and each area of significant highway works is shown on the Construction Access Strategy Plan found at Appendix 4. For highway works where a specific access is not shown then these works are to be undertaken from the public highway.

7.2 Details of each construction access shall be set out in the relevant P-CEMP and agreed with the project manager and National Highways and Oxfordshire County Council as appropriate.

7.3 Four construction access points to the Main Site are shown as follows:

- The existing Ashgrove Farm access into the Main Site north of Upper Heyford Road;
- The principal access to the Main Site (being Work No. 11) once constructed and available for use;

- A temporary access south of Upper Heyford Road; and
- Upper Heyford Road itself once the road has been stopped up following opening of the Heyford Park Link Road (Work Nos. 12A and 12B)

7.4 Three construction access points to the landfill works (including for construction of the western rail connection and the Ardley Bypass bridge over the Chiltern main Line railway) are shown as follows:

- Two temporary points of access north of the household waste recycling centre, the use of these will depend on the nature of the works taking place at any one time; and
- Use of the existing access into the landfill past the household waste recycling centre, only to be used if both of the above accesses are unavailable.

7.5 Various construction access points are required into areas of the highway works and other works as shown on the drawing.

8.0 Routeing of Construction Traffic

8.1 Details of the routeing of construction traffic shall be set out in the P-CEMP and agreed with the project manager and National Highways and Oxfordshire County Council as appropriate for the relevant component. Details should accord with the Construction Traffic Management Plan (Appendix 38 to the Transport Assessment (TA), see Document 6.3A.10).

8.2 A site wide strategy may be agreed with the appropriate authorities and incorporated into each P-CEMP. All contractors shall then comply with the requirements of that strategy.

8.3 Details of temporary directional signage shall be set out in each P-CEMP to mitigate any adverse impact to the local highway network as a result of vehicles visiting the development during construction. All advisory signage shall be erected before work commences.

8.4 The contractor shall provide details of the prohibited and preferred routes to all suppliers and contractors.

8.5 As a minimum the following routes are prohibited for use by heavy construction vehicles:

- All existing routes that have environmental weight restrictions (for example Ardley Road between Ardley and Bucknell);
- Somerton Road, Church Road and Ardley Road (west of the B430) within Ardley;
- The B430 south of the Main site, other than in connection with Work Numbers 23, 24, 27A, 27B, 31, 32, 33, 35 and 39 as defined on the Components of Development Plan; and
- Following the opening of the Ardley Bypass to traffic, routes that will be covered by environmental weight limit pursuant to Article 20 and Part 4 of Schedule 9 of the DCO

9.0 Prevention of Debris on Highways

9.1 Each P-CEMP shall include details of the contractor's proposed measure for cleaning vehicles before leaving site and other measures to ensure mud and other deleterious material is not deposited on the public highway. This shall include arrangements for the use of suction sweepers in accordance with 'Institute of Air Quality Management (IAQM) Guidance on Assessment of Dust from Demolition and Construction 2024'.

10.0 Traffic Management

10.1 Details of Traffic Management shall be set out in each P-CEMP. This should be in accordance with the Construction Traffic Management Plan (Appendix 38 to the Transport Assessment (TA), see Document 6.3A.10) and have regard to the routeing requirements set out in Section 8 and any works required to enable construction access to the site. Details shall also be set out of the provision for Operatives, Visitors and Delivery vehicles. The contractor's arrangements shall ensure that all vehicles are clearly directed to the contractor's site and suitable arrangements are in place on that site to receive and manage the delivery.

10.2 The development shall be carried out in such a manner so as to ensure that emergency vehicles visiting the development, or adjacent properties are unhindered at all times and provided with free flow passage as far as is practicable.

10.3 All works on the strategic road network maintained by National Highways shall be carried out in accordance with the traffic management arrangements agreed with National Highways pursuant to the protective provisions found at Part 2 of Schedule 14 of the DCO.

10.4 All works on the local road network maintained by Oxfordshire County Council shall be carried out in accordance with the traffic management arrangements agreed with Oxfordshire County Council pursuant to the protective provisions found at Part 3 of Schedule 14 of the DCO.

10.5 The P-CEMP shall set out details of the relevant temporary speed limits that shall be provided in accordance with Article 17 and Part 6 of Schedule 8 of the DCO.

11.0 Pollution and Contamination

11.1 Pollution and contamination may arise from pre-existing ground conditions or from construction activities. All works involving ground disturbance shall be planned and undertaken so as to prevent unacceptable risks to human health, groundwater, surface water, property, construction

materials and the wider environment.

11.2 The ground investigations and assessments undertaken to date have not identified contamination outside the permitted Ardley Landfill that requires remediation before the authorised development can proceed. Known contamination associated with the landfill forms part of the existing baseline condition and will continue to be managed through the Environmental Permit and any variation or other regulatory approval required for the landfill reprofiling works. Requirements 28 and 29 of the DCO provide the mechanism for the investigation, remediation and verification of previously unidentified contamination encountered during the authorised development.

11.3 The assessments have identified potential or confirmed contaminant sources and residual uncertainties requiring consideration during detailed design and construction. These include the permitted Ardley Landfill; former and current fuel and oil storage; the operational IVC Facility; the underground reservoir and associated infrastructure at Ashgrove Farm; potential off-site migration from the former RAF Upper Heyford airfield; and the presence of per- and polyfluoroalkyl substances (PFAS) in certain groundwater, surface-water and sediment samples.

11.4 Each relevant P-CEMP shall identify the known and potential contamination sources, sensitive receptors and credible contaminant pathways applicable to the relevant phase. It shall set out the investigation, monitoring, materials-management, pollution-prevention, health and safety and incident-response measures required to prevent the creation of new pollutant linkages or the material worsening of existing conditions.

11.5 Where works may encounter or disturb soil, sediment, groundwater or surface water containing PFAS, the relevant P-CEMP shall include a phase-specific PFAS risk assessment and management procedure. This shall identify the activities and materials concerned, potential exposure and migration pathways, requirements for sampling or monitoring, controls on excavation and water management, segregation and storage arrangements, waste classification and disposal requirements, and measures to prevent cross-contamination. Treatment, reuse, discharge or off-site disposal shall only be undertaken where demonstrated to be suitable and in accordance with the applicable regulatory requirements and approvals.

11.6 No provision of this CEMP removes the need to obtain and comply with any Environmental Permit, permit variation, abstraction licence, water discharge activity permit, trade effluent consent or other approval required for the relevant activity.

11.7 A UXO/UXB risk assessment will be undertaken before any intrusive works are undertaken.

11.8 If suspected or previously unidentified contamination is encountered, works that could disturb or spread the suspected contamination shall cease within an appropriately defined affected area. The area shall be made safe, physically demarcated where necessary, and protected against unauthorised access, disturbance, runoff, infiltration and the migration of contaminated material or water.

11.9 The extent of the affected area shall be determined by a suitably qualified geo-environmental specialist having regard to visual and olfactory evidence, the nature and location of the suspected contamination, local ground and groundwater conditions, the construction activities being undertaken and the potential contaminant pathways and receptors.

11.10 An investigation and risk assessment proportionate to the circumstances shall be undertaken in accordance with applicable legislation, Environment Agency Land Contamination Risk Management guidance, BS 10175 and other relevant good practice current at the time. The investigation shall determine the nature and extent of the contamination and the risks to human health, groundwater, surface water, property, construction materials and the wider environment.

11.11 Where unacceptable risks are identified, a remediation strategy shall be prepared by a suitably qualified specialist. Depending on the circumstances, the strategy may include further investigation, segregation and controlled stockpiling, treatment, recovery or reuse, removal to an appropriately permitted facility, pathway interruption, containment, or other remediation or mitigation measures. The strategy shall identify the applicable regulatory approvals and consultation requirements and shall be submitted for approval in accordance with the DCO Requirements and any applicable environmental permitting requirements.

11.12 Works within the affected area shall not recommence until the required measures have been completed and the relevant specialist has confirmed that it is safe and environmentally acceptable to do so. Where remediation is required, a verification report shall be prepared to demonstrate that the approved remediation objectives have been achieved.

11.13 The ground investigations completed to date provide the basis for the preliminary ground conditions assessment. Further targeted ground investigation and assessment shall be undertaken where required to support detailed design, including for individual development phases, highways, earthworks, foundations, structures, drainage infrastructure and areas not previously accessible for investigation.

11.14 Before intrusive investigation or construction commences within a relevant phase, the available ground investigation information and Conceptual Site Model shall be reviewed by a suitably qualified geo-environmental and/or geotechnical specialist. The review shall take account of the proposed works, the time elapsed since previous investigations, changes in site or

surrounding land use, newly available environmental information and any material changes to potential contaminant sources, pathways or receptors.

11.15 The relevant P-CEMP shall identify any additional investigation, monitoring, risk assessment or mitigation required as a result of that review. Where investigation identifies previously unidentified contamination, the unexpected-contamination procedure set out above shall apply.

11.16 The contractor shall plan and execute his work to prevent hazardous, polluting or sediment-laden substances from causing pollution of groundwater, aquifers, surface waters, soils, drainage systems or ecological receptors. Construction methods shall prevent the creation of new preferential contaminant pathways, mobilisation of existing contaminants and uncontrolled infiltration or discharge to ground.

11.17 At the commencement of any component of earthworks the necessary permanent drainage basins for that component will also be constructed and outfalls into the existing water courses will be provided, in accordance with the drainage strategy contained in the Environmental Statement, and the surface water drainage scheme agreed pursuant to Requirement 21 and any approvals required under DCO Article 11.

11.18 Additional settlement and control ponds will be provided as necessary during a component to prevent pollution entering the existing water courses.

11.19 Where groundwater, perched water, leachate or potentially contaminated water is encountered during excavation or earthworks, dewatering shall be limited to the extent and duration necessary to undertake the works safely. Before dewatering commences, the Contractor shall assess the likely water quality, anticipated flow rate, potential effects on groundwater levels and receptors, and the relationship with existing drainage, leachate and groundwater-management systems.

11.20 Abstracted water shall be inspected and, where appropriate, sampled and tested to determine the appropriate management route. Depending on its quality and the applicable regulatory requirements, water shall be treated and discharged through an appropriately authorised route, discharged to sewer subject to the necessary consent, reused where demonstrated to be suitable, or removed to an appropriately permitted facility. Contaminated water shall not be discharged under provisions applicable only to uncontaminated excavation water.

11.21 Before any abstraction or discharge commences, the Contractor shall determine whether an abstraction licence, environmental permit, water discharge activity permit, trade effluent consent or other approval is required and shall obtain the necessary approval. The relevant P-CEMP shall identify the proposed dewatering method, treatment and containment measures, monitoring requirements, discharge or disposal route, applicable trigger levels, incident

procedures and regulatory approvals.

11.22 Dewatering shall not adversely affect the integrity or operation of the Ardley Landfill leachate-management system, landfill gas-management system, groundwater-monitoring network or other environmental control infrastructure. Dewatering within the permitted landfill area shall be undertaken in accordance with the Environmental Permit and any additional approvals determined necessary by the EA.

11.23 The scheme requires significant earthworks which will inevitably increase the risk of pollution to the underlying aquifers and surface water system. All contractors shall adopt water pollution prevention procedures in line with good practice. In preparing the procedures the contractor shall consider the following as a minimum:

- The Environment Agency's current pollution prevention guidance and groundwater protection guidance Control of water pollution from construction site and other documents published by CIRIA including the SuDS Manual (C753) and Control of Water Pollution from Construction Sites (C741);
- The site-specific requirements of the Environment Agency;
- Arrangements for monitoring water bodies to ensure and demonstrate water quality. P-CEMPs shall specify the monitoring locations, parameters, frequency, trigger levels, reporting requirements and actions to be implemented in response to any identified deterioration in water quality;
- Fuelling of plant and equipment;
- Maintenance of plant and equipment;
- Storage of hazardous materials fuels, and chemicals
- Provision of spill kits on site for the rapid treatment of any spillages, with staff trained in their use present at all times when work is underway;
- Control of concrete truck washout arrangements;
- Flood warnings.

11.24 Refuelling operations shall only be undertaken in designated areas provided with engineered impermeable hardstanding, such as concrete or asphalt surfacing, which prevents fuels, oils and other hazardous substances from infiltrating the underlying soils or groundwater. Refuelling areas shall be appropriately located, drained and managed, with spill-prevention and response equipment readily available and any accidental release immediately contained, recovered and appropriately disposed of. Mobile refuelling outside a designated area shall only take place where necessary and under a task-specific risk assessment and method statement providing an equivalent level of environmental protection.

- The landscape and ecological environment.

11.25 Where the detailed design includes piling, penetrative foundations or penetrative ground-improvement methods in an area where contamination, landfill material or a sensitive groundwater receptor may be present, a Foundation Works Risk Assessment shall be undertaken before those works commence. The assessment shall be prepared in accordance with current best-practice guidance, including CL:AIRE's Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention, and shall identify potential pollutant linkages, risks to groundwater and other controlled waters, and the design, construction, monitoring and verification measures required to prevent the creation of unacceptable contaminant pathways. The findings and required controls shall be incorporated into the relevant P-CEMP and construction method statement.

11.26 All contractors will be required to include water pollution prevention in all inductions and shall arrange update tool box talks at appropriate intervals during the contract.

11.27 The Site Manager will ensure daily inspections are undertaken of watercourse sections located in proximity to construction activities in order to identify any pollution risks, spillages/leaks or non-compliance with this CEMP. The inspection results will be recorded on each occasion, and any requirement for remediation or other action necessary reported immediately to the Project Manager. The inspection frequency, monitoring locations, monitoring parameters, trigger levels for action, reporting requirements and corrective measures shall be detailed within the relevant P-CEMPs and shall be proportionate to the risks posed by the works. Inspection findings shall be recorded and any pollution risks, spillages, leaks or non-compliances reported immediately to the Project Manager and Environmental Manager. Appropriate corrective and preventative actions shall be implemented without delay, proportionate to the nature and severity of the issue identified. Where necessary, works shall cease until the issue has been resolved. Follow-up inspections shall be undertaken to verify the effectiveness of the corrective actions and records maintained within the project environmental management system.

12.0 Works Within the Landfill Area

Waste and Soil Management

12.1 The proposed development requires significant re-engineering and relocation of existing landfill materials and soils. This will be carried out in strict accordance with a Construction Quality Assurance (CQA) Plan, which must be approved by the EA prior to the commencement of works. The management and reuse of these materials will also require specific approval from the EA, in compliance with the existing site permit. The CQA Plan will also address the following:

- Leachate Management: The design will incorporate measures to limit leachate infiltration and migration, ensuring it does not pose an unacceptable risk to groundwater quality.
- Landfill Gas Management: A dedicated Landfill Gas Management Plan (LGMP) will be implemented to monitor and control gas generation and migration, including the safe venting or collection of gases.
- Geotechnical Stability: The plan will include a detailed assessment and management of geotechnical risks to ensure the stability of all engineered slopes and structures during and after construction.
- Infrastructure Relocation: It will detail the safe and compliant relocation of existing landfill infrastructure, including leachate and gas management systems.

Environmental Monitoring

12.2 A comprehensive environmental monitoring programme will be established and maintained throughout the project duration. This will include:

- Groundwater Monitoring: Regular monitoring of groundwater quality both up-gradient and down-gradient of the landfill footprint to detect any potential impacts.
- Odour Control: An Odour Management Plan (OMP) will be prepared and implemented to control and mitigate odours from the exposed landfill waste. This plan will include both proactive measures, such as the application of odour suppressants and phased capping, and a reactive complaints response protocol.

Health and Safety

12.3 Mitigation of health risks to construction workers and service personnel will be achieved through strict adherence to site-specific health and safety protocols. This includes the mandatory use of appropriate Personal Protective Equipment (PPE) and the implementation of robust hygiene protocols, including the provision of dedicated handwashing stations and waste disposal units.

13.0 Measures for Controlling Noise and Vibration

Noise

13.1 Contractors will implement measures to manage the potential disturbance due to noise caused by construction activities, including construction traffic.

13.2 When planning any activities, contractors shall predict the expected noise impact at relevant noise-sensitive receptors following the principles of the methods described in BS 5228-1:2009+A1:2014 – *Code of Practice for Noise and Vibration Control on Construction and Open*

Sites – Part 1: Noise. The extent of the impact shall be assessed with reference to the thresholds set out in Table 5.13 of the Environmental Statement. Where necessary, measures to avoid any significant adverse effects on health and quality of life, and to mitigate and reduce to a minimum any adverse effects, will be identified based on the principles of best practicable means (BPM). This assessment will form part of the P-CEMP prepared for that phase of works.

13.3 If the assessment indicates that a construction activity might cause a significant adverse effect at any noise-sensitive receptor, consideration shall be given to the undertaking of noise measurements both before the works commence and during the relevant construction activity so that any significant adverse effects are avoided as far as practicable.

13.4 If noise monitoring is required, a construction noise monitoring protocol will be agreed with the Local Planning Authority monitoring at least 28 days prior to any relevant construction works commencing. It will establish the frequency, duration and location of any noise monitoring. Where appropriate, it will also identify the construction noise thresholds at the relevant receptor locations and the protocol that shall be followed if these thresholds are exceeded, or if any complaints are received.

13.5 The guidance given in BS 5228-1: 2009+A1:2014 "*Code of Practice for Noise and Vibration Control on Construction and Open Sites Part 1: Noise*" shall be used to identify mitigation measures that could be used to demonstrate that best practicable means (BPM) have been applied. These may include but not be limited to:

- Selection of appropriate equipment and construction methods;
- Plant to be located as far away as is reasonably practicable from noise-sensitive receptors;
- Static plant/equipment fitted with suitable enclosures or screening where practicable;
- Temporary hoardings/screens around the site boundary or specific activities as appropriate;
- Site personnel instructed on BPM to reduce noise as part of their induction training and as required prior to specific work activities;
- Appropriate management of working hours for noisier tasks;
- Liaison with residents in advance of works commencing to provide information regarding the programme; and
- Routing of construction related road traffic.

13.6 Details of the contractor's proposals for the use of best practical means (BPM) to manage construction noise control shall be included in each P-CEMP.

Vibration

13.7 Contractors will implement measures to manage the potential disturbance due to vibration caused by construction activities.

13.8 When planning any activities, contractors shall assess the potential for vibration impacts and review the likely effects following the principles of the methods described in "BS 5228-2:2009+A1:2014 - *Code of Practice for Noise and Vibration Control on Construction and Open Sites - Part 2: Vibration*". The thresholds set out in Table 5.14 of the Environmental Statement shall be used to determine the extent of the potential effects. This assessment will form part of the P-CEMP prepared for that phase of works.

13.9 If the assessment indicates that a construction activity might cause a significant adverse effect at any sensitive receptor, consideration shall be given to the undertaking of vibration measurements both before the works commence and during the relevant activities so that any significant adverse effects are avoided as far as practicable.

13.10 If vibration monitoring is required, a construction vibration monitoring protocol will be agreed with the Local Planning Authority monitoring at least 28 days prior to any relevant construction works commencing. It will establish the frequency, duration and location of any vibration monitoring. Where appropriate, it will also identify the construction vibration thresholds at the relevant receptor locations and the protocol that shall be followed if these thresholds are exceeded, or if any complaints are received.

13.11 The guidance given in BS 5228-2:2009+A2:2014 "*Code of Practice for Noise and Vibration Control on Construction and Open Sites Part 2: Vibration*" shall be used to identify mitigation measures that could be used to demonstrate that best practicable means (BPM) have been applied. These may include, but not be limited to;

- Selection of appropriate equipment and construction methods;
- Plant to be located as far away as is reasonably practicable from vibration-sensitive receptors;
- Site personnel instructed on BPM to reduce vibration as part of their induction training and as required prior to specific work activities;
- Appropriate management of working hours for tasks likely to cause higher levels of vibration;
- Liaison with residents in advance of works commencing to provide information regarding the programme; and
- Routing of construction related road traffic.

13.12 Details of the contractor's proposals for vibration management shall be included in each P-CEMP.

Working Hours

13.13 Construction work within the development site will be controlled by Requirement 25 and confined to the following:

- 07:00 -19:00 hours Monday to Friday;
- 07:00 -16:00 hours Saturday.

13.14 No works will be undertaken on Sundays or public holidays, unless in exceptional circumstances only and with prior notification to the Local Planning Authority.

13.15 Any changes to the above working hours will also be agreed with the Local Planning Authority.

13.16 Outside the above periods the following working is permitted:

- pre-planned construction works to highway or rail infrastructure requiring possessions where first notified to the relevant planning authority and local residents;
- emergency works; and
- works which do not give rise to noise that causes an adverse impact at the boundary of the relevant site.

13.17 All delivery vehicles and plant arriving and leaving the site will also comply with the same time restrictions, although site personnel will be permitted to access the site 30 minutes before these hours and exit the site 30 minutes after them. Adherence to the codes of practice for construction working given in British Standard BS 5228 will be required.

13.18 Construction work outside the development site will require some night working to comply with the requirements of National Highways and/or Oxfordshire County Council or for practical and safety reasons. The relevant planning authority would be notified of these works at least 28 days prior to commencement.

13.19 Any emergency works carried out must be notified to the relevant planning authority within 72 hours of their commencement.

Complaints Protocol

13.20 The contractor shall set up a protocol for handling any complaints received regarding the noise and vibration arising from the construction works. The following procedure will be implemented should a complaint be received regarding noise or vibration from the construction activities:

- The contractor shall identify a dedicated person to whom any complaints about noise or vibration should be made. Contact details for that person shall be publicised;
- If the complaint refers to an activity which occurs during the normally permitted working hours, the complainant will be visited and information gained about what features of the

construction noise or vibration are the cause of the complaint, e.g. loudness, acoustic character, the effect it was having on the complainant etc;

- Monitoring shall be carried out over a sufficient time period, but at least one hour, to determine the extent to which the construction activities which are the subject of the complaint are causing an adverse effect. Any acoustic features of the sound that are particularly disturbing or intrusive (e.g. a high-pitched tone) or other such features of the noise or vibration shall be identified;
- The contractor shall determine what mitigation measures, if any, can be put in place in order to reduce the impact of from the activities;
- If the complaint originated from a local authority, that authority will be informed of the outcome of the investigation;
- Appropriate records will be kept of the complaint received, the investigation carried out, including the measurements made, and the outcome.

Section 61 of the Control of Pollution Act, 1974

13.21 Contractors will liaise with the relevant authority to determine whether an agreement under Section 61 of the Control of Pollution Act 1974 should be sought. If the relevant authority wishes to enter into such an agreement, the contractor shall prepare and submit the necessary documentation in order to obtain the relevant consent.

14.0 Soil Management and Measures for Controlling Emission of Dust

14.1 To prevent and minimise the loss or damage of soil resources requires the adoption of Soil Management measures. Each relevant P-CEMP and in accordance with Requirement 13, should incorporate a Soil Management Plan (SMP) to be undertaken by a suitably qualified practitioner in accordance with the principles outlined in the Defra Construction Code of Practice for Sustainable Use of Soils on Construction Sites. Also, where relevant and where not already undertaken, the SMP should include an assessment of agricultural land and soil resource. Each P-CEMP will be required to include the following details:

- Depth and method of topsoil stripping and stockpiling, including separation of topsoil resources of different potential;
- Methods of stripping and stockpiling of higher quality re-useable subsoil (if appropriate);
- Identification of landscaping topsoil requirements and assessment of suitability and availability of on-site resources
- Means of protection of subsoil from compaction damage and remedial measures (ripping/subsoiling) to remove damage.

14.2 Many construction activities increase the risk of dust nuisance. Each P-CEMP will be required to set out the details of a dust management plan setting out the methods to be used to control

dust and other emissions to air. These should accord with the principles set out below.

14.3 Contractors will plan their activities to reduce the level of risk and mitigate any residual impacts in accordance with 'Institute of Air Quality Management (IAQM) Guidance on Assessment of Dust from Demolition and Construction 2024'.

14.4 Generally, the most effective method of dust control is damping using a fine spray. The contractor will fully investigate sources of water and where possible use recycled water. Potable water should be avoided.

14.5 When sensitive receptors are in close proximity to the site and sources of dust generation the contractor should consider dust monitoring before and during construction and record the inspection results. The contractors will be advised to discuss their arrangements with the Environmental Health Officer (EHO) and provide a log of the inspection results.

14.6 In planning activities, contractors should consider the following as a minimum:

- Damping down arrangements including using sprinklers;
- Sources of water for damping down;
- Location of haul roads and their surface types and exposed soil following earthworks;
- Stabilisation of temporary haul roads.
- Sweeping arrangements of hard surfaces;
- Site speed limits;
- Selection of plant and equipment;
- Maintenance of plant and equipment;
- Covering of payloads while in transit;
- Covering of skips, chutes and conveyors and minimise the drop heights from conveyors;
- Location and surface treatment of stockpiles;
- Burning will not be permitted on site;
- Consideration of prevailing wind direction;
- Programme and seasonal timing, including consideration of time of day and weather conditions with avoidance of work during extended periods of low rainfall and/or high winds;
- The siting of dust generating activities relative to sensitive receptors;
- Use of windbreaks;
- Duration of activities;
- Avoidance of site runoff of water or mud;
- Wheel and machinery washing.

15.0 Procurement

15.1 Each P-CEMP will include a requirement for construction materials to be sourced locally where practicable, to minimise the impact of transportation.

15.2 Contractors will be required, where practicable, to ensure that pre-fabricated elements will be delivered to site ready for assembly in order to reduce on site construction waste and reduce vehicle movements as part of the construction process.

16.0 Waste Management

16.1 Each P-CEMP shall include a site waste management plan setting out details of construction waste management. It is inevitable that some waste will be produced during the construction works. Throughout the construction process, all activities will seek to minimise the generation of waste, utilising the waste hierarchy where practicable, to manage waste. The waste hierarchy seeks to reduce waste through elimination, reduction, re-use, recycling through to disposal as the final option. Handling and disposal of waste must be carried out under the 'Duty of Care' Regulations and current legislation.

16.2 Waste management procedures shall be developed and will include the following topics:

- Identification of the types of waste that may be generated;
- Implementation of re-use and recycling strategies;
- Implementation of waste minimisation strategies;
- Set up of waste disposal facilities;
- Control and management of the disposal of different types of waste;
- Roles and responsibilities;
- Monitoring, reporting and auditing of waste produced on site.

16.3 Where practicable and feasible, local waste management facilities would be used to dispose of waste arisings, to reduce distance travelled and associated emissions.

16.4 Waste can also be controlled through the use of particular construction techniques and use of recycled materials. Each P-CEMP, where relevant, will include a requirement to work with the supply chain to identify and utilise suitable recycled aggregates where they are available within suitable travelling distance to minimise the import of clean aggregates. Each P-CEMP, where relevant, will also include a requirement to explore and utilise prefabricated construction techniques where practical to do so.

16.5 Where excavated soil, made ground or other material is proposed for reuse, a Materials

Management Plan may be prepared in accordance with the CL:AIRE Definition of Waste: Development Industry Code of Practice (DoW CoP), where that Code is applicable.

16.6 The Materials Management Plan shall be supported by an appropriate risk assessment, remediation strategy and/or Design Statement demonstrating that the proposed reuse will not cause unacceptable risk to human health or pollution of the environment. It shall define the materials concerned, their intended locations and uses, suitability criteria, excavation, segregation, tracking, storage and placement controls, and the verification and record-keeping requirements.

16.7 Where the DoW CoP route is used, the Materials Management Plan and supporting information shall be reviewed by a Qualified Person registered in accordance with the requirements of the DoW CoP. The Qualified Person shall be independent of the preparation of the Materials Management Plan and shall submit the required declaration to CL:AIRE before material reuse commences.

Earthworks/Spoil

16.8 The proposed development will seek to minimise the import and export of material, wherever possible. The re-use of materials around the site, including between the Main Site and both the highway works and landfill works, as suitable engineering material or infill material, will be carried out whenever possible, in accordance with details agreed pursuant to Requirement 13.

16.9 The Main Site earthworks cut and fill drawing attached at Appendix 5 demonstrates how an earthworks balance can be achieved across all of the OxSRFI works. This assessment reflects one potential way to construct the earthworks in accordance with the Parameters Plan but following the Illustrative Masterplan. There is built in flexibility to amend the site levels and earthworks whilst maintaining accordance with the Parameters Plan and delivering an earthworks balance.

Reduction

16.10 A number of potential options are available to complement construction waste reduction including maximising off-site fabrication, efficient design specification of standardised components/materials, implementing a just-in-time delivery system to minimise the volume of goods/materials stored on site and therefore exposed to inclement weather conditions and other site damage sources.

Re-Use

16.11 Certain materials may have a relatively high level of re-use (e.g. timber, aggregates, bituminous planings, brick and block-work) within the construction stage operations. Such wastes may

arise from spoiled materials, and natural waste from construction processes. Procedures will include:

- skips/receptacles will be provided to receive different types of specific waste which can be re-used on site;
- Licensed waste carriers will where possible identify possibilities of local community re-use of waste materials.

Recycling

16.12 Certain materials may have a feasible recycling value (e.g. timber, aggregates, plastics, glass, and metals). These may arise from similar construction processes as those identified above for re-use.

Procedures will include: -

- marked skips/receptacles will be provided for the depositing of particular types of waste suitable for efficient recycling; and
- Discussion with licensed waste carriers with respect to the feasibility/efficiency of specific materials recycling.

Disposal

16.13 It is inevitable that certain materials will have to be removed from site for disposal as they have no re-use/recovery value. Procedures to be considered in preparing Site Waste Management details will include:

- All wastes which require removal from site for final disposal will be subject to an effective management control regime ensuring statutory compliance. The key components of this regime are illustrated below:
  - Appointing competent and suitably registered waste carrier(s);
  - Establishing an effective site waste stream strategy (recycling, re-use, disposal);
  - Providing an effective waste skip strategy to suit the waste stream strategy and which differentiates between hazardous, non-hazardous and inert wastes;
  - Should asbestos be encountered all potentially asbestos containing materials will be disposed of by a suitably licensed contractor in accordance with relevant guidance and legislation;
  - Providing adequate information/training to site operatives in respect of the waste stream strategy; and
  - Implementing an effective audit procedure, to audit the waste disposal regime from source to licensed disposal facility(s). This will include reviewing all relevant Waste Management Licences and Waste Transfer Licences of all waste contractors on the project. In addition, a record will be kept of all Waste Transfer Notes to ensure

that all waste movements from the site are properly documented. Non-Conformance Reports would be issued to ensure any deficiencies are corrected.

17.0 Storage of Fuel, Oil and other Chemicals

17.1 Each P-CEMP will set out details for the arrangements for the storage of fuel, oils and chemicals having regard to the location of contractor compounds.

17.2 Fuels, oils and other chemicals will be stored within bunded impermeable containment areas on impermeable pads with a minimum capacity of 110% of the largest container or tank. Impermeable barriers, liners and other containment measures will be employed where necessary to prevent contaminated runoff entering groundwater or the wider water environment. Storage areas will be covered or otherwise protected from rainfall ingress, with arrangements in place for the removal and appropriate disposal of accumulated rainwater.

17.3 Areas at risk of spillage, such as fuel storage, refueling areas and hazardous substance stores (including oils and chemicals), will be carefully sited and managed to minimise the risk of hazardous substances entering drainage systems, groundwater or local watercourses.

17.4 Oil separators will be incorporated within drainage systems where required to reduce the risk of contaminated runoff entering the water environment.

17.5 All fuel, oil and chemicals shall be stored, handled and used in accordance with the Manufacturer's recommendations, applicable legislation and current pollution-prevention guidance, including the Environment Agency and Defra guidance Pollution prevention for businesses and, for oil storage, Oil storage regulations for businesses. Oil storage shall comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 where those Regulations apply.

18.0 Development affecting a Watercourse

18.1 Each P-CEMP shall set out details of any watercourse that may be affected by the works. All works affecting a watercourse shall be carried out in accordance with a method statement to be prepared and included in each P-CEMP.

18.2 No works within an ordinary watercourse or within the by-law protected strip either side shall commence until approval has been granted, by the lead local flood authority pursuant to Article xxx of the DCO.

18.3 No works within a Main River or within the by-law protected strip either side shall commence until an Environmental Permit has been issued by the Environment Agency.

18.4 Each P-CEMP shall set out details of any works that affect any floodplain and such works must not be commenced until approval for the works is obtained pursuant to Requirement 22.

19.0 Temporary Surface Water Management System

19.1 The arrangements for the temporary management of surface water shall be set out in each P-CEMP, including drainage plans where relevant.

19.2 Before any work is undertaken temporary measures to deal with surface water management shall be set out. Where such works affect watercourses the requirements of Section 11 above shall also be followed. The measures aim to prevent an increase in runoff to the receiving watercourse, sewer or drainage system, thereby preventing an increase to downstream flood risk. The construction phase surface water strategy will attenuate runoff to mimic the baseline conditions as far as practicable. The excess surface water runoff above the discharge rate will be stored on the construction site, until such time that it can drain into the downstream system. Sufficient storage for the 1 in 100-year storm event with an appropriate uplift for climate change applied will be provided (to align with the consenting authorities requirements).

19.3 The surface water management measures will also provide appropriate levels of treatment to runoff discharged from the construction site to protect the condition of downstream waterbodies. Measures shall be adopted in accordance with CIRIA Report C532 “Control of water pollution from construction sites”; or subsequent amendments or replacements thereof. Measures will include:

- Treatment facilities such basins, swales, and storm fencing, will be used capture and remove pollutants and suspended sediments prior to runoff leaving the construction sites. Where operational drainage basins and swales are also to be used to manage surface water in the construction phase, they will be rehabilitated at the end of the construction phase;
- A penstock will be provided on the outfall(s) so that the discharge into the receiving watercourse or drainage system can be stopped in the event of a pollution incident;
- Existing outfalls from the construction sites, including land drainage, that do not form part of the drainage strategy will be stopped up to prevent treatment measures from being bypassed;
- To avoid the pollution of watercourses from vehicles or accidental spillage, vehicles used on the site will undergo regular inspection and maintenance to reduce the risk of leakages. Vehicle washing areas will be located at least 10m from any surface water bodies in designated bunded impermeable areas. Wastewater generated from vehicle washing will be contained and appropriately treated prior to reuse, disposal

or discharge via an appropriately designated route. Untreated wastewater will not be discharged directly to surface waters; Any runoff from this area will be treated prior to discharge;

- Lorry washing facilities will be located within designated bunded impermeable areas at least 10m from any surface water body. Wastewater generated from lorry washing will be contained and appropriately treated prior to reuse, disposal or discharge via an appropriately authorised route. Untreated wastewater will not be discharged directly to surface waters;
- Concrete production, placement and washout activities will be undertaken within designated areas to minimise the risk of contamination of the water environment. Concrete washout water and associated wastewater will be contained within designated bunded impermeable areas located at least 10m from any surface water body to prevent runoff or infiltration. Where practicable, concrete works will be undertaken during suitable weather conditions and avoided during periods of heavy rainfall. Untreated concrete washout water will not be discharged directly to surface waters;
- Wheel washing facilities and regular sweeping will be undertaken to prevent the build-up of dust and silt on roads. Wheel washing facilities will be located in a designated bunded impermeable area a minimum of 10m from any surface water bodies. Any surplus water from these facilities will be disposed of via the foul water system or treated adequately prior to discharge from the site. Where appropriate, alternative measures such as dry brushing and rumble strips will be considered to minimise wastewater generation;
- Where a discharge of construction wastewater is proposed, the requirement for any Environmental Permit or Water Discharge Activity Permit will be assessed and any necessary permits obtained prior to discharge. Detailed wastewater management arrangements, including containment, treatment, reuse, disposal and discharge requirements, will be included within the relevant P-CEMP.

19.4 Monitoring points shall be established downstream of any temporary balancing lagoons to monitor water quantity and quality so that the effectiveness of the measures can be assessed and improved if necessary. Final testing parameters and locations shall be agreed with the Environment Agency, or the Lead Local Flood Authority, as appropriate. Details of monitoring techniques shall be set out in each P-CEMP.

19.5 Testing parameters shall be agreed with the Environment Agency or lead local flood authority as appropriate ahead of collection of baseline test data.

20.0 Temporary Lighting

20.1 Works within the Main Site will not generally be undertaken in periods of darkness and therefore it is unlikely that task lighting will be required. However, unplanned events can occur for which task lighting may be required for short periods; in this event each P-CEMP shall set out the maximum height of lighting lanterns and the average lux levels.

20.2 The P-CEMP for any component of the highway works shall provide details of requirements for night working and any associated proposals for lighting.

20.3 Temporary lighting will be provided in the contractor's compound for security and safety reasons. Details shall be set out in the P-CEMP including the average lux level.

20.4 Task lighting shall ensure that there is no upward light. This will be achieved by restricting luminaire tilt angles and by specifying luminaires with good optical control.

20.5 Lighting will be switched off when not required for safety or security.

20.6 Lighting will be avoided or otherwise minimised within areas of retained and created green infrastructure.

20.7 Construction lighting will be installed in accordance with British Standard BS EN 12464-2:2014: Outdoor Workplaces.

21.0 Protecting Biodiversity Interests

Landscape

21.1 The Landscape Designer will identify existing landscaping or newly planted landscaping that needs to be protected and details shall be set out in each P-CEMP. Protection shall be provided in accordance with BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations. Any tree surgery required will be carried out in accordance with BS 3998:2010 Tree Work Recommendations.

Ecology

21.2 All P-CEMPs will be prepared in accordance with the Habitat Management and Monitoring Plan (HMMP).

21.3 P-CEMPs will be informed by updated ecological surveys that are relevant to any particular phase of development and will apply the most recent ecological baseline to inform mitigation, the appropriate location and timing of works, the responsibilities of the Ecological Clerk of Works (ECoW) and of construction staff, and the use of barriers or signage.

Habitats – General

21.4 The following principles should be incorporated into each P-CEMP where appropriate.

21.5 As a result of the relatively long duration of works, each P-CEMP will be informed by an update walkover survey that will ensure that an up-to-date baseline informs the specific construction site management measures during each phase.

21.6 Key measures are outlined below and would be expected to be required for each P-CEMP.

21.7 Prior to the commencement of construction activity, including that required to bring about the change in levels and establish the development platform, a sturdy fence, as detailed in each P-CEMP will be established on the perimeter of development areas at an appropriate distance to take account of tree root protection zones in line with British Standard BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations. This would where necessary be informed by an up-to-date Arboricultural survey of the phase in question.

21.8 Weekly checks of the fencing demarcating the buffer zones and root protection areas will be made by the Principal Contractor to ensure the integrity and correct positioning of protective fencing and that repairs are made to the fencing as necessary.

21.9 All site personnel will be made aware of the importance of retained vegetation through a briefing prior to commencing work.

21.10 No temporary storage of materials, construction of haul routes, or site machinery would be sited within retained habitats as identified in each P-CEMP and unnecessary or informal access by construction site personnel will be prevented.

21.11 An ECoW will ensure that measures will be implemented to prevent inadvertent damage to retained or created habitats throughout the construction phase particularly where vegetation is to be removed or during works close to retained habitat.

21.12 Movement of earth to facilitate the necessary changes in levels will be undertaken in such a way as not to impact on retained habitats, either through soil compaction or subsidence.

21.13 Environment Agency Guidance for Pollution Prevention (GPPs) will be adhered to at all times in order to reduce the chance of chemical spills and other pollution events. Relevant spill kits will be kept on site for the rapid treatment of any spillages, with staff trained in their use present at all times when work is underway. Exclusion fencing will be established along the routes of watercourses and particular care taken in terms of movement of machinery and storage of materials in proximity to these features.

21.14 Best practice measures for the industry will be employed according to agreed standards in order to minimise adverse effects on the surrounding area through dust deposition as outlined in Section 13. This will include wheel washes of construction vehicles and dust suppression techniques during periods of dry weather and / or high winds.

Habitats - specific

21.15 Translocation of calcareous grassland from the Ardley Cutting and Quarry SSSI has been identified as a component of the Ardley Bypass and Rail terminal connection works. The relevant P-CEMP will identify how the receptor area for translocated turves will be prepared in advance of the translocation to eliminate the need for temporary storage of turves. This programme will also include translocation of the rare annual plant basil thyme *Clinopodium acinos* from the SSSI, via topsoil containing the seedbank, if it cannot be retained in situ. Consideration will be given to minimise the duration of storage of the translocated topsoil from the affected section and preparation of the receptor area.

21.16 Each P-CEMP will detail the timing, sequencing and soil-transfer methods for grassland translocation. Initial and aftercare management of the translocation material and establishing grassland is detailed in the HMMP.

21.17 Heras fencing will be used to protect a buffer zone around the population of meadow clary *Salvia pratensis* located within the Ardley Road Verge Nature Reserve DWS. Prior to construction of the Phase 2 Main Site earthworks, update surveys will monitor the population and should any plants be located within the works zone, details of their translocation will be detailed within the relevant P-CEMP. Translocation will be undertaken during later winter or early spring (mid-February to mid-March), but avoiding frosty conditions, to a receptor site located within the areas of translocated calcareous grassland. As meadow clary is a Schedule 8 species under the WCA 1981 a licence from Natural England will be sought to facilitate the translocation if required.

21.18 Compounds, haul routes and material stores will be located at least 50m away from retained trees, and lighting of these features should be avoided or designed to avoid light spill as detailed at Section 19.

Watercourses

21.19 Heras fencing will be used throughout the works to protect a buffer zone of a minimum width of 10m (measured from the bank tops) where the proposed working areas bound the Padbury Brook tributary, Padbury Brook, Ashgrove Brook and Gagle Brook. Fencing will be appropriate to restrict access to such areas by construction workers / equipment, to ensure no physical damage occurs and to minimise the risk of accidental pollution events.

21.20 No works or storage of materials will take place within the above protection zones during the

pre-commencement and construction stages. Furthermore, no soil stripping, excavations or any vegetation clearance is to take place; no site workers or vehicles are permitted, and no machinery or materials are to be stored, other than where there is specific works to cross these water courses.

21.21 The following best practice methodology will be adhered to during construction to protect local waterbodies:

- Cover piles of building materials such as cement, sand, and other powders; regularly inspect for spillages, and locate them so they will not be washed into waterways or drainage areas;
- There should be no uncontrolled run-off of water or mud from the site;
- Once roads are constructed, silt run-off preventative measures in the form of metal plates secured to gulley frames with terram are to be utilised throughout construction works;
- Suitable provision will be made for the washing out of concrete mixing plant or ready-mix concrete lorries so that washings do not flow into any drain or watercourse or seep underground;
- Any environmentally hazardous material will be kept in dedicated stores, located a safe distance from watercourses (>50m), and storage tanks will have appropriate bunding to prevent run-off to the retained habitats and into the brook or ponds. Fuel will be stored in double bunded fuel tanks;
- Works machinery will not be refuelled within 30m of the watercourses to prevent spillage;
- All vehicle maintenance, fuelling and washing will be undertaken on an appropriate impermeable surface located away from all watercourses.
- All machinery will be regularly checked for oil leaks or similar, which, if found, must be prevented from entering the waterbody either through immediate repair of the machinery or through use of a drip tray / spill kit or similar;
- Collect any wastewater generated from site activities in settlement tanks, screen, discharge the clean water, and dispose of remaining sludge according to environmental regulations;
- In the event of a spillage on site, the material should be contained (using an absorbent material such as sand or soil or commercially available booms). Sorbents will be used to soak up a spill and stop it spreading on hard surfaces. Using sorbents generates waste and this method will only be used on small spills, or where a spill has been contained to stop any further spread. All used sorbents will be disposed of at an accredited site for disposal;
- All spillages will be reported to the Site Manager who will inform the Environment Agency in the event of a significant occurrence; and
- No unauthorised burning of any material will be carried out anywhere on site.

21.22 Each watercourse section within or adjacent to proposed construction works areas (within 10m of the bank top) will be subject to detailed inspection by the Ecologist prior to the commencement of such works. To avoid the main fish spawning period, between October and May inclusive works will not be undertaken within 10m of a watercourse if the channel holds water at this time (beyond shallow pools or ditches with no/low flow).

21.23 Outside of the main fish spawning period, where works are required in the presence of water (discounting shallow pools and ditches with no/low flow as above), appropriate mitigation will be implemented in line with established guidance and/or in consultation with the EA. Such works will where practical utilise temporary diversion channels. Otherwise suitably qualified operatives will undertake fish rescue and relocation. Where appropriate, screened pumps/siphons and gravity/flume pipes will be utilised to maintain habitat connectivity during construction. Location-specific mitigation will be specified for each channel section, with appropriate hierarchy of available options identified and detailed within the relevant P-CEMP.

Veteran Trees

21.24 Veteran trees are subject to a specific Veteran Tree Strategy to compensate for losses and protect retained specimens. This is provided in Appendix 4 of the Framework Habitat Management and Monitoring Plan (HMMP) (ES Appendix ES6.11).

21.25 Each P-CEMP will set out detailed measures with respect to tree felling works, including identifying those which qualify as veterans. The following measures will be adopted:

- Larger arisings (>10cm diameter) generated from the removal of trees, will be used to supplement the dead wood resource available for habitat creation.
- Suitable arisings will be stockpiled (indicative location provided within the Veteran Tree Strategy). Veteran material will be kept separate from general arisings. The stockpiles areas should be demarcated with Heras fencing.
- Retained veteran trees will be registered on the Woodland Trust's ancient tree inventory (https://ati.woodlandtrust.org.uk/), which provides a publicly accessible record of ancient, veteran and notable trees.
- Retained veteran trees will be protected from works in line with measures set out in the Arboricultural Assessment ((ES Appendix ES6.8). This will include:
    - Barriers should be erected prior to commencement of any construction work and once installed, the area protected by fencing or other barriers will be regarded as a construction exclusion zone.
    - Tree protection fencing should be fit for the purpose of excluding any type of construction activity and suitable for the degree and proximity of works to retained trees. Barriers must be maintained to ensure that they remain rigid

and complete for the duration of construction activities on site.

- Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree stem. No concrete should be mixed within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.

Fauna

21.26 Throughout construction all workers should work with due care and attention with respect to the potential presence of fauna and protected species on site. Any observations of protected species must be reported immediately to the Principal Contractor, who will contact the ECoW for further advice.

21.27 The following best practice measures will be adopted to avoid any potential for harm to faunal species, including protected species:

- Where possible material will be stored centrally within the site rather than at the edge;
- Materials should be raised from the ground by storing on pallets;
- All excavations left unattended overnight will be left with one sloping end to allow any animals that may fall in to escape;
- Any pits or trenches will be covered overnight, or left with a suitable means of escape, e.g. a wooden plank;
- All excavations, pits or trenches left open overnight or longer should be checked for animals prior to the continuation of works or infilling; and
- During construction any pipes greater than 250mm in diameter will be capped if they are left open overnight, thereby preventing fauna from becoming trapped.

Badgers

21.28 The Protection of Badgers Act 1992 aims to protect the species from persecution and makes the intentional or reckless destruction, damage or obstruction of a badger sett an offence. A sett is defined by Natural England as *"any structure or place which displays signs indicating current use by a badger"*.

21.29 'Interim guidance' issued by Natural England in September 2007 specifically states *"it is not illegal, and therefore a licence is not required, to carry out disturbing activities in the vicinity of a sett if no badger is disturbed and the sett is not damaged or obstructed."*

21.30 Across the whole site a total of 41 badger sett locations were recorded, 28 of which were recorded across the Main Site. Given the current baseline a Natural England licence will be required prior to the commencement of Phases 1 and 2 of the Main Site earthworks. The overall strategy and licence has been agreed in principle by Natural England through the Pre-submission Screening Service and will be applied for following planning permission. No construction works will be undertaken within 30m of any active badger sett until this has been

granted.

21.31 An update badger survey will be carried out in advance of the Phase 1 Main Site earthworks to determine the status of badger setts within and adjacent the Phase 1 area. All setts that remain active and will require permanent closure, will be completed under a Natural England licence between 1st July and 30th November.

21.32 The relevant P-CEMP will detail any specific measures required under that licence including details of exclusion zones around existing, retained and proposed artificial setts and any measures proposed to ensure access to retained habitats is maintained. This will include fencing to incorporate a 20m buffer from each entrance of retained setts suitable to exclude construction activity from within the buffer area, and which will be retained for the duration of the relevant phase of construction works. Any necessary works in the vicinity of an active sett will be undertaken under the supervision of an ECoW.

21.33 No vehicle or machinery use, digging or storage (including spoil) will be permitted within 20m of any active sett entrances without prior agreement from Natural England.

21.34 Consideration will be given by the Project and Environmental Managers, under advice from the Ecologist where necessary, to the normal requirement to conduct licensable activities, such as sett closure, to outside of the period from December to June (inclusive).

21.35 In the event that any setts are excavated within the Application Site during the construction period an ecologist will be contacted for advice. Any trenches or holes excavated will be suitably covered prior to dusk or left with a means of escape for badgers (such as a plank of wood) so that they do not become trapped overnight. Excavations will be inspected daily by the Site Manager to ensure coverings and ramps remain in place.

21.36 Careful consideration will be given to the storage of mounds of soil, that can readily become used by badgers for the creation of new setts. In particular, the establishment of the landscaped earth bunds will require close attention to ensure that badgers are not harmed during its construction. Areas of the bund to be worked on will be inspected every morning. In the event any evidence of use by badgers is noted work in the area will cease while consideration is given to the best way to proceed.

21.37 An updated badger survey is to be completed of all impacted habitats within two months prior to any development phase to ensure that the status of badgers within the site has not altered during the interim. Should any new setts be identified, appropriate mitigation would be agreed

in writing with the Planning Authority, and where necessary licensed by Natural England.

Bats

21.38 All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"). These include provisions making it an offence:

- Deliberately to kill, injure or take (capture) bats;
- Deliberately to disturb bats in such a way as to :-
    - be likely to impair their ability to survive, to breed or rear or nurture their young; or to hibernate or migrate; or
    - to affect significantly the local distribution or abundance of the species to which they belong;

- To damage or destroy any breeding or resting place used by bats;
  Intentionally or recklessly to obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).

21.39 Survey work has identified the presence of small (non-maternity) common pipistrelle and brown long-eared bat roosts within the main farmhouse (building B1) and associated barn (building B5) at Ashgrove Farm complex and a small occasional (non-maternity) common pipistrelle roost within Ashgrove Cottage (building B10).

21.40 Buildings B1, B5 and B10 are to be retained and renovated within the scheme. Renovation works will not commence until a Natural England Licence has been obtained detailing an appropriate mitigation strategy. The licencing process will entail the submission of a method statement and mitigation details to Natural England for agreement and would include the following:

- Pre-works check of suitable roosting features using endoscopes, torches and inspection mirrors, as appropriate;
- Toolbox talk, setting out legislation, the potential presence of roosting bats, the agreed method statement and what to do if a roosting bat is found;
- Works supervised by a licenced or accredited bat worker;
- Suitable features to be removed by hand / using hand tools; and
- Provision of appropriate long-term roost replacements including bat boxes.

21.41 All works in the vicinity of known bat roosts will be undertaken under the supervision of a SARS 2 virus vaccinated licenced bat worker.

21.42 19 trees were assessed to have suitability to support roosting bats and are to be impacted by the proposals. No evidence of roosting bats was recorded during detailed surveys of these trees. Their removal will be undertaken in accordance with a precautionary method statement. In brief, this will include precautionary nocturnal surveys and / or aerial tree climbing inspections prior to works to ensure the sensitive removal of the trees only when these are confirmed to be unoccupied by bats. Providing that no bats are observed, the tree will be felled in sections by experienced arborists under the supervision of an appropriately licensed bat worker.

21.43 In the event that bats are confirmed to be present then works will be halted until an appropriate Natural England licence is secured and appropriate details recorded in relevant P-CEMP for those affected trees. The licence would detail the appropriate timing and safe working practices necessary to ensure that the risk to bats is minimised and that suitable alternative roosting sites are provided.

21.44 Lighting during construction will be avoided, or if unavoidable, carefully designed adjacent to existing bat foraging areas, namely retained hedgerows, woodland edge habitats and watercourse corridors. Where artificial lighting cannot be avoided this will be mitigated by the sensitive design of lighting to avoid disturbance to commuting or foraging bats. The lighting scheme will include reference to the Bat Conservation Trust and Institute of Lighting Professionals guidance[1] to minimise light spill onto foraging routes and minimise potential disturbance caused through the lighting of corridors and potential roost sites.

Great Crested Newts (GCN)

21.45 GCN are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations").

21.46 Under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 *(*as amended*)* it is a criminal offence to:

- Deliberately capture, injure or kill a GCN;
- Deliberately disturb wild animals of the GCN species;
- Damage or destroy a breeding site or resting place of a GCN; or
- Possess or control or transport a GCN.

21.47 Under section 9(4) of the Wildlife and Countryside Act 1981 (as amended) it is a criminal offence to:

- Recklessly or intentionally obstruct access to any structure or place which any GCN uses for shelter or protection; or
- Recklessly or intentionally disturb any GCN while it is occupying a structure or place which it uses for shelter or protection.

21.48 Although few GCN have been located within the Application Site itself, GCN have been confirmed present within pond P51 outwith but surrounded by the Jct10 Highway Improvement Works area and which form part of a medium sized metapopulation. Three additional metapopulations, two large and one medium, are located to the east and west of the site. Waterbodies from each metapopulation occur within 250m of the Phase 1 and Phase 2 earthworks and the Jct 10 Highway Improvement works and therefore site preparation works and construction works will be covered under a Natural England licence to legitimise impacts to on-site terrestrial habitats considered likely to be used by GCN.

21.49 A programme of GCN translocation prior to the commencement of the Phase 1 Main Site Earthworks has been agreed in principle with Natural England to ensure the favourable conservation status of the species is maintained.

21.50 Detailed measures will be dependent on the detailed proposals programme and any conditions attached to the Natural England licence, however in summary the programme would entail the installation of amphibian-proof fencing and the trapping and relocation of GCN from parts of the site that lie within 250m of known breeding ponds to pre-prepared receptor sites located a safe distance from construction works. Receptor sites will be located within the range of the relevant metapopulation and directly linked to suitable terrestrial and aquatic habitats.

21.51 Prior to the commencement of any works, all employees or contractors working on site will attend a tool box talk, to be provided by an ECoW. The tool box talk will explain to all those present the details of any precautionary method of working.

21.52 The removal of suitable terrestrial habitat within 250m of known GCN metapopulations will be overseen by an ECoW and will be timed when nocturnal ambient air temperatures exceed 5ºC and avoiding the GCN hibernation period (late November to mid-March).

21.53 The semi-permanent amphibian-proof fencing will where necessary be maintained in situ until completion of development works within the relevant phase of construction in order to prevent GCN from accessing working areas during construction.

[1] Bat Conservation Trust and Institution of Lighting Professionals 2023.*Bats and Artificial Lighting at Night*. Guidance Note 08/23.

Reptiles

21.54 Common native reptile species are partially protected under Schedule 5 of the WCA 1981 (as amended) which protects these animals from: killing and injury, from selling, offering for sale, possessing or transporting for the purpose of the sale or publishing advertisements to buy or sell a protected species.

21.55 The presence of common lizard, grass snake and slow worm is confirmed within the site among suitable habitats including tussocky grassland, scrub and field margins. Construction works that may have an effect include the Phase 1 and Phase 2 earthworks of the Main Site. The P-CEMP for each phase will detail the measures to prevent harm to these species. Implementing the precautionary works outlined above for GCN (removal of potential hibernacula under ecological supervision and trapping out of the works area) will additionally protect reptiles from accidental killing and injury.

21.56 The broad principles of removal of reptiles from working areas will utilise a range of precautionary working methods based on the suitability of the habitat to be affected and season:

- Clearance of vegetation over winter, where no suitable over-wintering/hibernacula habitat occurs;
- Clearance of suitable habitats will be preceded by directional strimming towards retained/offsite habitats to avoid accidental killing or injury of reptiles;
- The vegetation will be given two cuts in the direction of retained or off-site habitats. The first cut will be to c.200mm and the second 1-2 hours later to c.50mm. All strimming will be carried out from the centre of the working areas towards the retained / off-site areas of suitable reptile habitat;
- All arisings will be removed from the working area to prevent potential areas of refugia from being used by reptiles moving across the area;
- A fingertip search of the working area will be made immediately prior to any ground works to ensure that all common reptiles are absent from the area of work. Further operations will only continue once common reptile species have been confirmed to be absent from the working area;
- The above works should be undertaken during suitable weather conditions (when the daytime temperature is above 10˚C) between mid-March and October, inclusive; and
- Upon completion of the above the on-site habitats should be maintained as unsuitable (i.e., with a short sward no more than 100mm or without vegetation cover) until clearance (topsoil stripping) is completed to discourage reptiles from colonising previously cleared areas.

21.57 Each P-CEMP will set out detailed measures to avoid harm to reptiles which will be based on an up-to-date assessment of suitable habitat location, which can vary year on year depending on land/agricultural use.

Birds

21.58 Section 1 of the Wildlife & Countryside Act 1981 (as amended) is concerned with the protection of wild birds. With certain exceptions all wild birds and their eggs are protected from intentional killing, injuring, and taking; and their nests, whilst being built or in use, cannot be taken, damaged or destroyed.

21.59 Schedule 1 of the Wildlife & Countryside Act 1981 is a list of the nationally rarer and uncommon breeding birds for which all offences carry special (i.e., greater) penalties. These species also enjoy additional protection whilst breeding, as it is also an offence to disturb adults or their dependent young when at the nest.

21.60 Wherever possible, ground clearance works, vegetation removal (including grassland and arable land) and building demolition will be undertaken outside of the bird nesting season (typically taken as March to September inclusive). Where this is not possible a check for nesting birds will be undertaken by an ecologist; in the event that any are identified, an exclusion zone will be established around the nest until the young have fledged. This will be marked clearly will hazard tape and/or Heras fencing. The size of any exclusion area will be determined by the project ecologist, taking into account the species concerned and the activities proposed in proximity to the nest.

21.61 There is potential for ground nesting bird species to subsequently establish nests on cleared areas, therefore periodic checks will be undertaken during the breeding season (fortnightly, March to September inclusive) by a suitably experienced ecologist / ECoW, with any active nest site protected as above.

21.62 Where relevant P-CEMPs will set out measures to prevent disturbance of barn owls if suitable nesting habitat is or has been identified during pre-commencement survey. The installation of barn owl boxes, within the DCO limits, would also be detailed for suitable locations as instructed by the project ecologist; with consideration given to potential future disturbance during subsequent works/phases.

Riverine Fauna

21.63 Survey work has been undertaken for other protected species including water vole and otter as

part of the ecological impact assessment process. This work has not recorded evidence suggesting regular use or presence of these species. In the event that these or other protected species are identified during pre-commencement surveys appropriate measures, including the obtaining of any licenses, would be set out in the P-CEMP for that component.

21.64 However, standard measures including those referred to in this CEMP relating to mitigation for risk of harm to badgers will also provide additional benefit of reducing the risk of harm to otter during the construction process.

21.65 Where culverts are to be installed along watercourses these will be set such that the invert level lies below the existing bed level, to avoid impeding water flow or the movement of aquatic fauna and allow natural bed material to accumulate. The slope of culverts will follow existing gradients, and where possible, gravel or other natural substrates will be provided. The use of trash screens will be avoided where possible. If necessary to install trash screens these will have gaps between the bars of >100mm to enable aquatic fauna to pass through.

Hazel Dormice

21.66 Hazel dormouse is not considered to be present within the site, however as a precautionary measure, site preparation and habitat removal works within the Gagle Brook corridor and adjoining habitats will proceed in strict accordance with the following non-licenced method statement. These details will be reiterated within the P-CEMPs for works within relevant parts of the Application Site.

21.67 An ecologist holding a Natural England license for dormice (or an accredited agent) will brief all relevant site personnel prior to site preparation or habitat removal works commencing within areas supporting potential dormouse habitat. The briefing will describe the legislative protection status of the species, its characteristic features and field signs, and the appropriate precautionary working to be employed.

21.68 The licenced/accredited ecologist will undertake a detailed hand search of suitable vegetation immediately prior to site habitat removal works commencing.

21.69 If no evidence of hazel dormouse is recorded then the clearance of suitable habitat will be undertaken as a two-stage process as summarised below. Appropriate timings are identified to avoid the main dormouse hibernation and breeding seasons and also the peak nesting bird season.

- Above-ground vegetation will initially be cut to a minimum of 300mm using hand tools in winter (November to February inclusive), with arisings removed from the

working area. The ground level vegetation (i.e. that below 300mm) will retained *in situ* throughout winter to protect any hibernating dormice present.

- The removal of the remaining vegetation including the removal of stumps and roots will be undertaken outside of the hibernation season (i.e. during May to October inclusive) when dormice (if present) will have moved into more arboreal habitats.

21.70 In the event dormice are identified during the pre-works habitat survey or at any point during site works all works within the immediate vicinity will cease immediately and the licenced/accredited ecologist notified (if not present on site). The ecologist will then contact Natural England and make an application for an EPSL in order to enable works to continue.

21.71 Dormice will not be handled by non-licenced personnel.

Invasive Non-Native Species (INNS)

21.72 The ECoW will be the designated point of responsibility for dealing with all issues relating to Invasive Non-Native Species.

21.73 Accidental or deliberate spread of INNS is an offence under Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended).

21.74 Signal crayfish *Pacifastacus leniusculus* is an INNS and is present within the Gagle Brook and potentially more widely within the local watercourse network. The species outcompetes the native white-clawed crayfish *Austropotamobius pallipes* and additionally spreads crayfish plague, which is fatal to the native species.

21.75 Signal crayfish spreads via watercourses, by walking overland between neighbouring waterbodies, and by releasing large numbers of larvae which can spread via watercourses or can attach to equipment including vehicles and footwear.

21.76 No other INNS have been recorded present on site.

21.77 P-CEMPs will include the following Signal Crayfish Biosecurity Protocol, to be implemented during any construction works within 10m of a watercourse bank top. For clarity, only channels with running water will be considered watercourses for this purpose, therefore where diversion works result in a dry channel section this would cease to be classified as a watercourse, whereas the newly created diversion channel would be recognised as such. Stormwater and surface water drainage systems also do not meet the definition of a watercourse for crayfish monitoring purposes.

Signal Crayfish Biosecurity Protocol

21.78 To minimise the risk of construction activities spreading signal crayfish into areas beyond the current distribution the following precautionary steps will be taken:

- Prior to commencement of site works within 10m of a watercourse the ECoW will provide relevant site staff with a signal crayfish toolbox talk, to include how to identify signal crayfish and training regarding good biosecurity practices appropriate to their role.
- An information poster will be prominently displayed within the Site Office and signage will be erected in the vicinity of on-site watercourses to advise staff of the potential for signal crayfish to be present.
- Works within and adjacent to watercourses to be minimised as far as possible;
- Designated washdown stations to be set up at exit points from waterbodies to include a jet wash (or steam cleaner) for vehicles and large equipment, and brushes, hand sprayers, flexi tubs/buckets and a boot wash for footwear and smaller equipment.
- All vehicles and other equipment including PPE/clothing/footwear that has been in contact with water or otherwise used in the movement of materials originating within a watercourse corridor must be thoroughly cleaned and dried following works prior to relocating within site or moving off-site;
- Any high-risk items, such as large and/or complex shaped equipment with many nooks and crannies must be inspected by an ECoW to ensure all organic material has been removed;
- Cleaning will be undertaken using fresh water not sourced from on-site waterbodies;
- Any organic material including soil and tree/shrub root balls taken from watercourse banks will be buried on-site to remove any risk of transporting eggs/crayfish to another site or thoroughly cleaned prior to removal from point of origin, or will be considered contaminated waste and disposed of accordingly;
- Appropriate signage is to be installed at the washdown stations to remind personnel of biosecurity requirements.
- Periodic quality assurance audits should be carried out to confirm compliance, with records of such audits retained by the Site Manager.

Crayfish Disposal

21.79 Because it is an offence under the WCA 1981 to return removed non-native crayfish to the wild, appropriate biosecurity control procedures will be followed should signal crayfish or other non-native crayfish species be encountered.

21.80 Any signal crayfish or other non-native crayfish identified must be killed immediately and humanely at the place of capture, with no crayfish material to be removed off-site. Crayfish

have a decentralized nervous system and cannot be stunned by piercing the brain. Non-native crayfish will therefore be humanely killed on-site either by a single lethal blow with a heavy or hard object or via a single cut with a sharp knife along the longitudinal midline from the head to the tail to divide the animal into two halves and simultaneously sever the nerve ganglia that form the central nervous system.

21.81 Crayfish carcasses will be removed from the immediate works area and either shallow buried or made available to local wildlife such as otters and foxes by placing on the ground in an appropriate neighbouring location on-site. Non-native crayfish remains will be appropriately disposed of within 20m of the point of capture to avoid the removal of material from the local vicinity.

21.82 Any signal crayfish or other non-native crayfish species found will be recorded within a biosecurity log. Any positive records made by site staff must be immediately highlighted to the ECoW and Site Manager.

22.0 Chiltern Railway SSSI

22.1 Construction of the rail terminal, rail corridor and associated infrastructure will result in the loss of habitats within the Ardley Quarry and Cutting SSSI and indirect impacts to retained habitats. All works close to or within the SSSI shall be carried out in accordance with a method statement to be prepared and included in the relevant P-CEMP which has been agreed with Natural England, and that agreement confirmed by Natural England via a written consent to undertake the specified works.

23.0 Advisory Signage

23.1 Each P-CEMP shall set out details of advisory signage to be provided at each public access point advising of possible hazards including the potential for sudden noise. Signage may be required at the following locations:

- Planned accesses to the works
- Where public rights of way (PRoW) pass adjacent to or within the site;
- Along substituted and temporary PRoW;
- At any other location where public access is being achieved, authorised or not, and
- Open bodies of water.

23.2 Advisory signage may include:

- Warnings that you are entering a construction site;

- Warning of deep water adjacent to open bodies of water;
- Advisory signs that a PRoW has been closed along with a plan of the substituted temporary or permanent route;
- Directional signs along substituted PRoW;
- Details on how to register a complaint, and
- Emergency telephone numbers.

24.0 Public Rights of Way (PRoW)

24.1 The existing and proposed Rights of Way are shown on the Access and Rights of Way Plans (Document 2.3).

24.2 Details of the strategy for the management of Public Rights of Way shall be set out in each P-CEMP, the details shall include temporary routes and the timing of the provision of access to permanent routes. All permanent routes will be constructed and implemented as soon as reasonably practical.

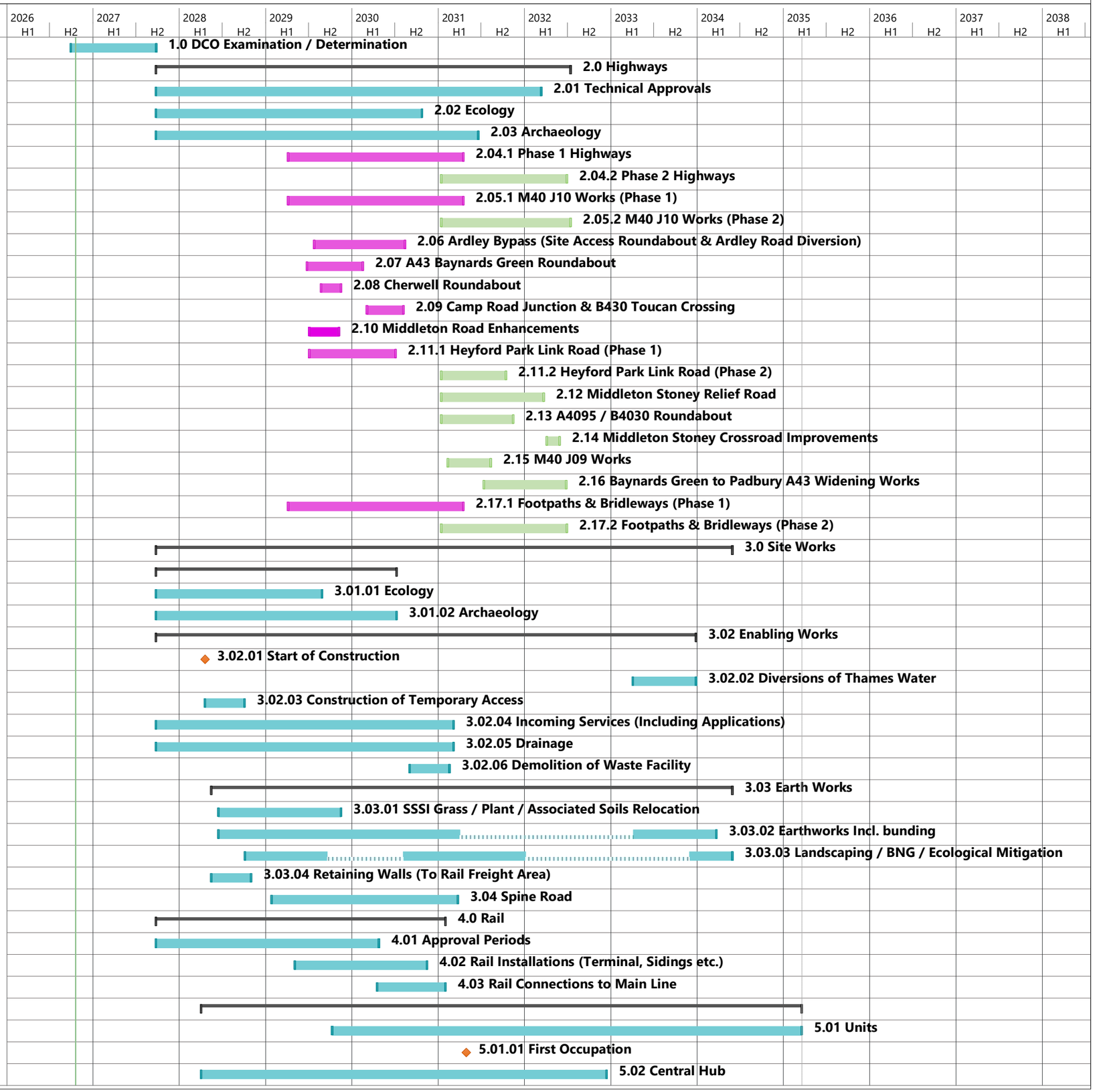
24.3 A combination of appropriate temporary diversions, closures and substitute routes will be implemented before the commencement of any component of works and details shall be set out in P-CEMPs where an existing PRoW is affected by the phase of works covered within the P-CEMP.

24.4 Any permanent and temporary stopping up of rights of way must be undertaken in accordance with Articles 11 and 12 of the DCO and any necessary approvals obtained accordingly.

Appendix One
Indicative Master Programme

Summary Programme - Oxfordshire Strategic Freight Interchange 20.10.2026

ID	Task Name
1	**1.0 DCO Examination / Determination**
2	**2.0 Highways**
3	2.01 Technical Approvals
4	2.02 Ecology
5	2.03 Archaeology
6	**2.04.1 Phase 1 Highways**
7	**2.04.2 Phase 2 Highways**
8	2.05.1 M40 J10 Works (Phase 1)
9	2.05.2 M40 J10 Works (Phase 2)
10	2.06 Ardley Bypass (Site Access Roundabout & Ardley Road Diversion)
11	2.07 A43 Baynards Green Roundabout
12	2.08 Cherwell Roundabout
13	2.09 Camp Road Junction & B430 Toucan Crossing
14	2.10 Middleton Road Enhancements
15	2.11.1 Heyford Park Link Road (Phase 1)
16	2.11.2 Heyford Park Link Road (Phase 2)
17	2.12 Middleton Stoney Relief Road
18	2.13 A4095 / B4030 Roundabout
19	2.14 Middleton Stoney Crossroad Improvements
20	2.15 M40 J09 Works
21	2.16 Baynards Green to Padbury A43 Widening Works
22	2.17.1 Footpaths & Bridleways (Phase 1)
23	2.17.2 Footpaths & Bridleways (Phase 2)
24	**3.0 Site Works**
25	**3.01 Site Preparation**
26	3.01.01 Ecology
27	3.01.02 Archaeology
28	**3.02 Enabling Works**
29	3.02.01 Start of Construction
30	3.02.02 Diversions of Thames Water
31	3.02.03 Construction of Temporary Access
32	3.02.04 Incoming Services (Including Applications)
33	3.02.05 Drainage
34	3.02.06 Demolition of Waste Facility
35	**3.03 Earth Works**
36	3.03.01 SSSI Grass / Plant / Associated Soils Relocation
37	3.03.02 Earthworks Incl. bunding
38	3.03.03 Landscaping / BNG / Ecological Mitigation
39	3.03.04 Retaining Walls (To Rail Freight Area)
40	**3.04 Spine Road**
41	**4.0 Rail**
42	4.01 Approval Periods
43	4.02 Rail Installations (Terminal, Sidings etc.)
44	4.03 Rail Connections to Main Line
45	**5.0 Vertical Build**
46	5.01 Units
47	5.01.01 First Occupation
48	5.02 Central Hub



Appendix Two
Main Site Indicative Phasing

YEAR 1 - 2028

- Enabling / Earthworks / Landscaping
- Strategic Mounds
- Spine Road
- Site Access
- Ecological Mitigation
- On Plot Works & Rail
- Off site planting
- Existing roads kept open (no works)
- No Works

Ardley Road
Somerton Road
ARDLEY WOOD
UPPER HEYFORD AIRFIELD (DISUSED)
Chilgrove Drive
Camp Road
VIRIDOR ARDLEY ENERGY RECOVERY FACILITY
BIRCH SPINNEY
B430

YEAR 2 - 2029

- Enabling / Earthworks / Landscaping
- Strategic Mounds
- Spine Road
- Site Access
- On Plot Works & Rail
- Completed
- Existing roads kept open (no works)
- Heyford Park Link Road Part 1
- Ardley Bypass
- No Works

Ardley Road
Somerton Road
ARDLEY WOOD
UPPER HEYFORD AIRFIELD (DISUSED)
Chilgrove Drive
Camp Road
VIRIDOR ARDLEY ENERGY RECOVERY FACILITY
BIRCH SPINNEY
B430

YEAR 3 - 2030

- Enabling / Earthworks / Landscaping
- Strategic Mounds
- Spine Road
- On Plot Works & Rail
- Completed
- Existing roads kept open (no works)
- Heyford Park Link Road Part 1 (complete)
- Heyford Park Link Road Part 2
- Ardley bypass complete
- No Works

Ardley Road
Somerton Road
ARDLEY WOOD
UPPER HEYFORD AIRFIELD (DISUSED)
Chilgrove Drive
Camp Road
VIRIDOR ARDLEY ENERGY RECOVERY FACILITY
BIRCH SPINNEY
B430

YEAR 4 - 2031

On Plot Works & Rail

No Works

Completed

Existing roads kept open (no works)

Heyford Park Link Road Part 1 (complete)

Heyford Park Link Road Part 2

ARDLEY

Somerton Road

ARDLEY WOOD

UPPER HEYFORD AIRFIELD (DISUSED)

Chilgrove Drive

Camp Road

VIRIDOR ARDLEY ENERGY RECOVERY FACILITY

BIRCH SPINNEY

B430

YEAR 5 - 2032

- On Plot Works & Rail
- Existing roads kept open
- Heyford Park link road complete
- No Works
- Completed

Ardley Road
Somerton Road
Fewcott
ARDLEY
Ardley
ARDLEY WOOD
UPPER HEYFORD AIRFIELD (DISUSED)
Chilgrove Drive
Camp Road
VIRIDOR ARDLEY ENERGY RECOVERY FACILITY
BIRCH SPINNEY
B430

YEAR 6 - 2033

- Enabling / Earthworks / Landscaping
- On Plot Works & Rail
- Existing roads kept open
- Completed

Ardley Road
Somerton Road
Fewcott
ARDLEY
Ardley
ARDLEY WOOD
UPPER HEYFORD AIRFIELD (DISUSED)
Chilgrove Drive
Camp Road
VIRIDOR ARDLEY ENERGY RECOVERY FACILITY
BIRCH SPINNEY
B430

YEAR 7 - 2034

On Plot Works & Rail

Existing roads kept open

Completed

Ardley Road

Somerton Road

Fewcott

ARDLEY

Ardley

ARDLEY WOOD

UPPER HEYFORD AIRFIELD (DISUSED)

Chilgrove Drive

Camp Road

VIRIDOR ARDLEY ENERGY RECOVERY FACILITY

BIRCH SPINNEY

B430

YEAR 8 - 2035

Completed

ARDLEY

Fewcott

Ardley

Somerton Road

ARDLEY WOOD

UPPER HEYFORD AIRFIELD (DISUSED)

Chilgrove Drive

Camp Road

VIRIDOR ARDLEY ENERGY RECOVERY FACILITY

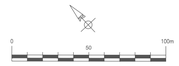
BIRCH SPINNEY

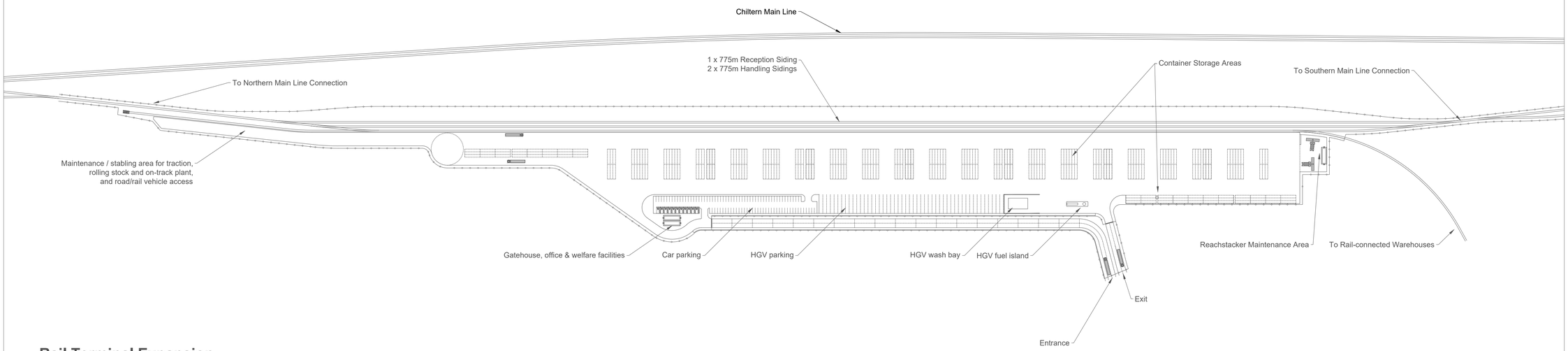
B430

Appendix Three
Illustrative Rail Terminal Plan

Rail Terminal Phase 1

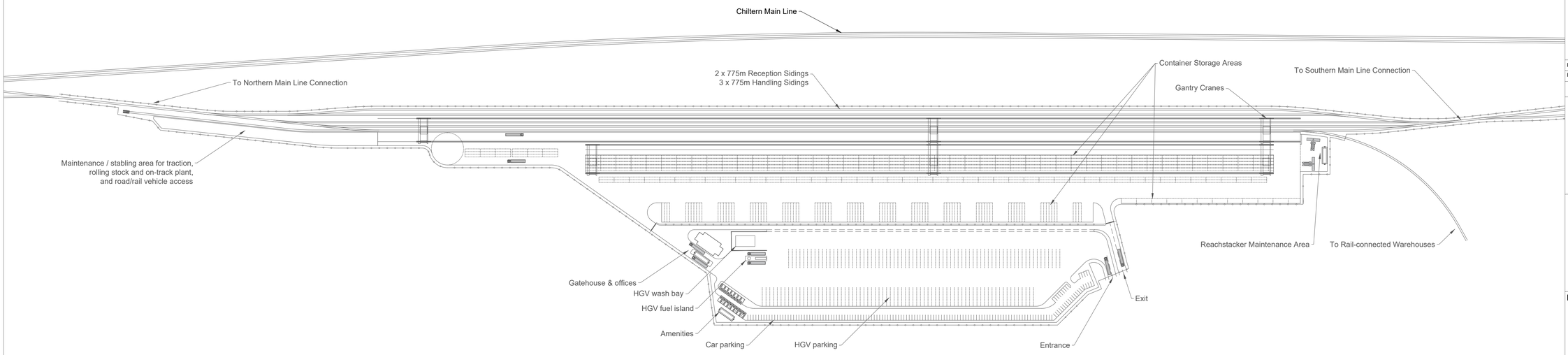
Capacity for at least 4 trains per day with 3 sidings, extensive container storage areas, maintenance areas, HGV parking, welfare and other facilities, gatehouse office and staff parking





Rail Terminal Expansion

Capacity for 12 trains per day with 5 sidings, expanded storage areas and ability to introduce gantry cranes



Notes

1. All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise.
2. All structure positions and sizes shown are indicative.
3. The proposed works including their specific alignment will be subject to detailed design within the limits of deviation identified on the Works Plans
4. Horizontal and vertical deviation of the rail alignments are permitted in accordance with Article 4 of tlie Development Consent Order.

Rev	Date	Details of issue / revision	Drw	Ch'd	Apv
P01	22.11.25	Preliminary Issue	NG	DP	NG

Issues & Revisions

OxSRFI
OXFORDSHIRE
STRATEGIC RAIL FREIGHT INTERCHANGE

THE OXFORDSHIRE STRATEGIC RAIL FREIGHT INTERCHANGE AND HIGHWAYS ORDER 202X

Drawing Title

ILLUSTRATIVE RAIL TERMINAL PLAN

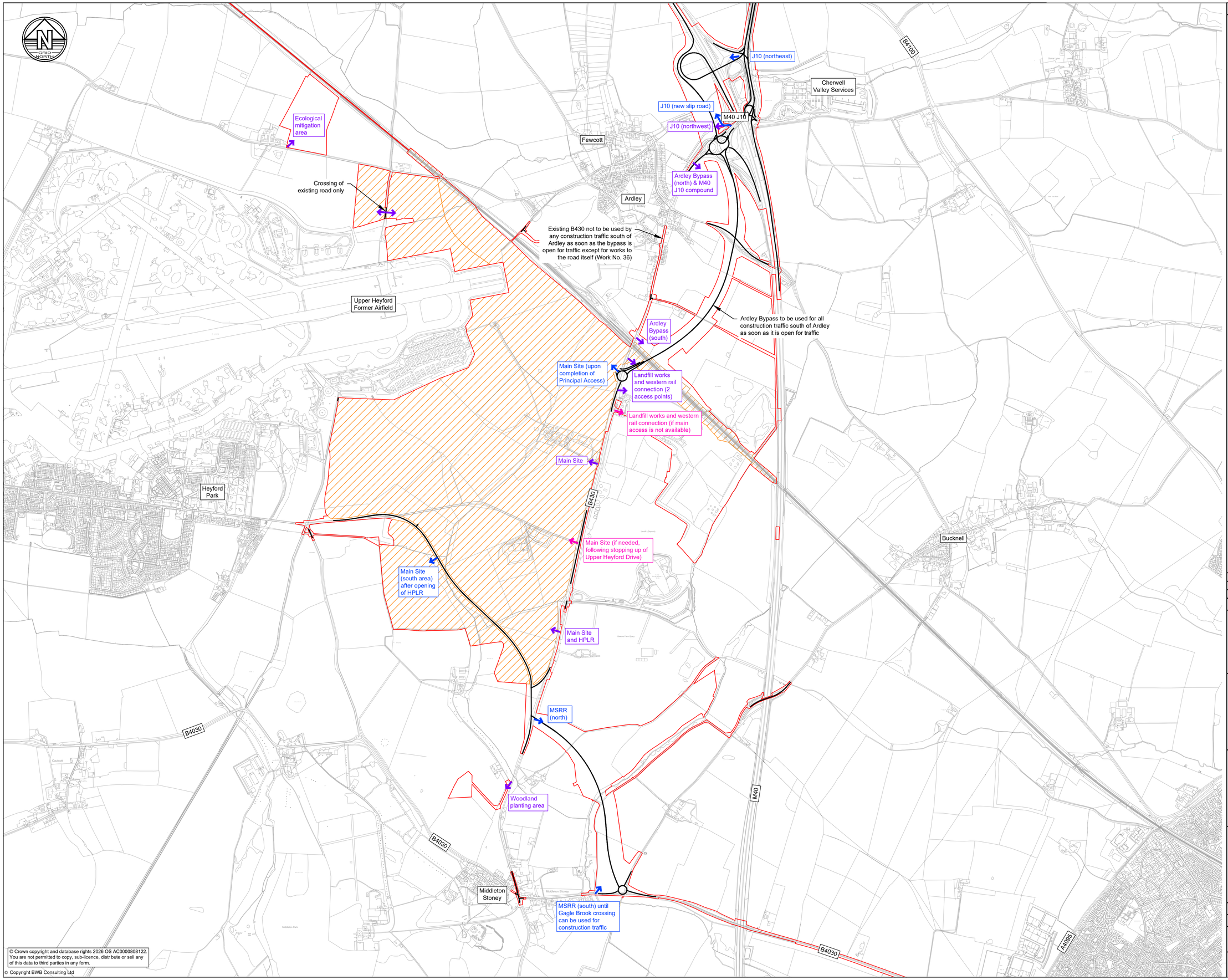
Regulation:	N(N) (A)	Document:	N.NNA
Drawn:	NG	Checked:	AT
Approved:	DP	Date:	22.11.25
		Scale @ A1:	1:2,000

Project Originator Functional Breakdown Spatial Breakdown Form Discipline Number

OxSRFI-IMT-RFT-01-DR-TR-00001

Drawing Status	Rev
S3 - FOR COMMENT	P1

Appendix Four
Construction Access Strategy



Legend

- Order limits
- Highway works (indicative)
- Main Site
- Construction access for Phase 1 works (retained for Phase 2 works as necessary)
- Construction access for Phase 2 works
- Alternative construction access as described

For works where a specific access is not shown then these works are to be undertaken from the public highway

Rev	Date	Details of issue / revision	Drw	Rev
P02	19.02.26	Notes added	[redacted]	
P01	18.02.26	Preliminary Issue		

Issues & Revisions

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☐ Leeds | [redacted]
☐ London | [redacted]
☐ Manchester | [redacted]
■ Nottingham | [redacted]

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Client

OXFORDSHIRE RAILFREIGHT LTD.

Project Title

OxSRFI
OXFORDSHIRE
STRATEGIC RAIL FREIGHT INTERCHANGE

Drawing Title

CONSTRUCTION ACCESS STRATEGY

Drawn:	[redacted]		Reviewed:	[redacted]	
BWB Ref:	NTH2479	Date:	18.02.26	Scale@A1:	1:10,000

Drawing Status

FOR INFORMATION

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
OxSRFI-BWB-GEN-ZZ-SK-CH-SK132	S2	P02

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Appendix Five
Main Site Isopachyte Cut and Fill Contours

Unit 11:
Plateau: 117.065m AOD
FFL: 117.565m AOD

Unit 12:
Plateau: 117.065m AOD
FFL: 117.565m AOD

Unit 10:
Plateau: 117.065m AOD
FFL: 117.565m AOD

Unit 13:
Plateau: 117.065m AOD
FFL: 117.565m AOD

Unit 9:
Plateau: 117.065m AOD
FFL: 117.565m AOD

Unit 7:
Plateau: 117.065m AOD
FFL: 117.565m AOD

Unit 8:
Plateau:
117.065m AOD
FFL:
117.565m AOD

Unit 4:
Plateau: 117.065m AOD
FFL: 117.565m AOD

Unit 6:
Plateau: 114.075m AOD
FFL: 114.575m AOD

Unit 5:
Plateau: 114.075m AOD
FFL: 114.575m AOD

Rail Terminal Parking:
Plateau: 114.075m AOD
FFL: 114.575m AOD

Unit 3:
Plateau: 114.575m AOD
FFL: 115.075m AOD

Unit 2:
Plateau: 113.365m AOD
FFL: 113.865m AOD

Unit 1:
Plateau: 110.715m AOD
FFL: 111.215m AOD

Landfill Works:
For detailed landfill design refer to WSP drawings. Allowance is made within this strategy for 40,000m³ of clean capping material to be taken from the main site for use within the landfill.

Volume Summary including the Heyford Park Link Road and landfill 0.5m construction depth assumed, no topsoil strip (Formation Levels to top of Existing Ground Levels)

Item	Cut (m^3)	Fill (m^3)	Net (m^3)
Bulk Cut and Fill	3,815,600 (Main Earthworks)	4,014,400 (Main Earthworks)	198,800 (Deficit)
Arisings (Based on 1250m^3/ha)	172,000	-	172,000 (Surplus)
Stockpile of Topsoil for Plot Landscaping	-	93,000	93,000 (Reduction)
M40 J10, A43 and Ardley Bypass	-	-	102,000 (Export from Main Site to J10)
Middleton Stoney Relief Road	-	-	11,000 (Import to Main Site from MSRR)
Landfill Capping	-	-	40,000 (Export from Main Site to Landfill)
Limestone Stockpile	-	130,000	130,000 (Reduction)
Total Net	-	-	380,300 (Deficit)

Summary

Assessment does not account for soil bulking factors. The cut and fill is expected to balance when bulking factors are accounted for.

This assessment reflects one potential way to construct the earthworks following the Illustrative Masterplan. There is built in flexibility to amend the site levels and earthworks whilst maintaining accordance with the Parameters Plan and still delivering an earthworks balance.

Topsoil Assessment

Topsoil is treated as a bulk earthworks material in this assessment. The approximate volume of topsoil within the site is 717,000m³ based on an average thickness of 0.3m. The volume of material within the perimeter bunds exceeds 2,000,000m³ which is sufficient to accommodate excess topsoil.

An allowance of 93,000m³ has been made for stockpiling of topsoil to be used within plot landscaping. Taken as 450mm depth over 15% of plateau area.

Within areas of fill, the existing topsoil will require stripping and replacing with engineered material. This is not allowed for within the overall volume assessment above. The area of built development within areas of fill is 601,000m² and based on 0.3m topsoil thickness a volume of 180,000m³ of additional earthworks is to be allowed for.

Volume Summary (Plateau Works Areas)

Zone	2D Area (m^2)	Total Cut (m^3)	Limestone Cut (m3/)	Fill (m^3)	Net (m^3)
A1	175,800.00	120,100.00	9,900.00	71,200	48,900 (Surplus)
A2	178,600.00	130,500.00	36,800.00	123,100.00	7,400.00 (Surplus)
A3	134,600.00	179,100.00	35,700.00	60,100.00	119,000.00 (Surplus)
A4a	378,300.00	117,300.00	32,800.00	1,118,900.00	1,001,600.00 (Import)
A4b	44,200.00	40,100.00	14,600.00	13,700.00	26,400.00 (Surplus)
A4c	110,800.00	285,800.00	150,200.00	600.00	285,200.00 (Surplus)
A5	234,500.00	858,100.00	392,900.00	26,200.00	831,900.00 (Surplus)
B	19,400.00	129,600.00	83,100.00	0.00	129,600 (Surplus)
C	98,600.00	854,100.00	685,700.00	0.00	854,100.00 (Surplus)

Landfill Material Assessment
(Refer to OxSRFI-BWB-GEN-XX-SK-CH-SK062_Landfill Excavation for overview)
Detailed Assessment undertaken by WSP

Zone	2D Area (m^2)	Cut (m^3)	Fill (m^3)	Net (m^3)
Landfill	135,100.00	275,000.00	275,000.00	0 (Balanced)

Notes

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.

Legend

- Cut Major Contour 5m Interval
- Cut Minor Contour 1m Interval
- Zero Contour 1m Interval
- Fill Major Contour 5m Interval
- Fill Minor Contour 1m Interval

Isopachyte contours show cut/fill between existing ground level and proposed formation ground level.

Rev	Date	Details of issue / revision	Drw	Rev
P12	23.03.26	Landfill assessment updated to align with WSP	RP	SRH
P11	16.03.26	Zone naming updated with Parameters Plan	RP	SRH
P10	27.02.26	Volumes updated with revised Earthworks strategy	RP	SRH
P09	06.02.26	Volumes updated with revised Earthworks strategy	RP	SRH
P08	02.10.25	Volumes updated with revised Earthworks strategy	RP	SRH
P07	07.08.25	Limestone stockpile added	RP	SRH
P06	29.07.25	Limestone cut added and volumes updated	RP	SRH
P05	13.06.25	Volumes updated with revised Earthworks strategy	RP	SRH
P04	14.04.25	Archaeological mitigation areas added	RP	SRH
P03	25.03.25	Landfill and plateau areas Cut and Fill added	RP	SRH
P02	01.12.22	Updated the format of the Cut and Fill	MN	SRH
P01	19.10.22	Issue for Information	MN	SRH

Issues & Revisions

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Birmingham | [redacted]
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London | [redacted]
Manchester | [redacted]
Nottingham | [redacted]
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Client
OXFORDSHIRE RAILFREIGHT LTD.

Project Title
OxSRFI OXFORDSHIRE STRATEGIC RAIL FREIGHT INTERCHANGE

Drawing Title
MAIN SITE ISOPACHYTE CUT AND FILL CONTOURS

[redacted]

BWB Ref:	NTH 2479	Date:	19.10.22	Scale@A1:	1:5000

Drawing Status
FOR INFORMATION

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
OxSRFI-BWB-HGT-XX-DR-CH-0610	S2	P12

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Y:\NTH\NTH2479_Oxfordshire RFI\02. Project Delivery\01. WIP\Drawings\OxSRFI-BWB-HGT-XX-DR-CH-0610_Main Site Isopachyte Cut and Fill Contours.dwg