

# North West Cambridge

**Future Phases of Eddington** 

September 2025

**Construction Environmental Management Plan** 



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# **Document Details**

Development name:	North West Cambridge Masterplan ("NWCM")/ ("Proposed Development")
Landowner:	The University of Cambridge "UoC" / "the Applicant"
Site address:	Land Between Huntingdon Road, Madingley Road and M11, Eddington, North West Cambridge, Cambridgeshire
Existing site use:	Various, refer to Section 1.2
Summary of works:	Demolition, enabling works and Mixed- Use development. Refer to Section 1.3

Construction Logistics N	Manager:	Not appointed	
Phone number:		TBC	
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Logistics Provider conta	ict name:	Not appointed	
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Outline CEMP Produce	ed by:		
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# 1. Introduction

# 1.1 Construction Environmental Management Plan ('CEMP') Objectives

The purpose of the CEMP is to assess the Proposed Development in terms of demolition and construction impacts. The CEMP sets out the construction phase mitigation measures for the comprehensive redevelopment of the Proposed Development to ensure compliance with environmental commitments, requirements, and best practice. The CEMP will be supplemented by Detailed CEMPs prepared by the Principal Contractors for approval prior to the commencement of any works.

The report details anticipated programme duration and proposed construction methodologies that will be further developed following the next stage of design development.

#### **1.2** Site Context

# **1.2.1** Description of Development ("the Proposed Development")

Outline planning application (all matters reserved except for means of access to the public highway) for a phased mixed use development, including demolition of existing buildings and structures, the development comprising:

- Living Uses, comprising residential floorspace (Class C3/C4, up to 3,800 dwellings), student accommodation (Sui Generis), Co-living (Sui Generis) and Senior Living (Class C2);
- Flexible Employment Floorspace (Class E(g) / Sui Generis research uses);
- Academic Floorspace (Class F1); and
- Floorspace for supporting retail, nursery, health and indoor sports and recreation uses (Class E (a) – E (f)).
- Public open space, public realm, sports facilities, amenity space, outdoor play, allotments and hard and soft landscaping works alongside supporting facilities;
- Car and cycle parking, formation of new pedestrian, cyclist and vehicular accesses and means of access and circulation routes within the site;

- Highway works;
- Site clearance including demolition, preparation and enabling works;
- Supporting infrastructure, plant, drainage, utility, earthworks and engineering works.

#### 1.2.2 Site Location

The North West Cambridge Masterplan site ("the Site") is located at Eddington on the north-western edge of the City of Cambridge, to the south and west of the village of Girton.

Cambridge City Centre is located approximately 2km to the south-east of the Site at its nearest point. The Site forms part of the emerging settlement of Eddington

#### 1.2.3 Existing Uses

The Site is roughly triangular in shape and currently predominantly comprises grassland fields, construction areas, and sections of Huntingdon Road (A1307) and Madingley Road (A1303).

The Barcroft Centre and associated buildings are located within the most northerly extent of the Site, along Huntingdon Road.

The Site contains areas of hard standing, including an area utilised for parking to the south of the Site.

There are a variety of amenity and green spaces on the Site including swales, ponds, grassland, areas of woodland, hedgerows and individual trees. A storm water recycling system pond, which has never been commissioned, is located along the western edge of the Site.

Traveller's Rest Pit Site of Special Scientific Interest ("SSSI") is located within the eastern extent of the Site. Washpit Brook passes across the Site, from the north-east to the south-west.

Much of the Site comprises topsoil and clay that emerged as a result of development undertaken pursuant to a previous Outline Planning Permission at North West Cambridge.

Introduction

#### **North West Cambridge Development**

### 1.3 Demolition and Construction Works

It is likely that the Proposed Development will be constructed across three main development phases, which are illustrated on Figure 1.4-2 below. Each phase is expected to comprise the following key activities:

- Demolition of buildings on site where required;
- Site preparation and construction of infrastructure;
- Construction of buildings and structures including (depending on the phase) residential, sports pitches, and mixed-use non-residential land use; and
- Fit out of properties and landscaping.

The Proposed Development forms part of a wider North West Cambridge Masterplan, Phase 1 of which has been constructed as part of separate planning application and assessment and is expected to be completed in 2029. Therefore, the phasing numbering for the NWC Future Phases commences from Phase 2. Phase 2 to 4 are split to reflect the required infrastructure (pumping statement catchment areas) with Phase 2 further subdivided to allow for a more manageable delivery strategy.

#### 1.3.1 Infrastructure Works

Prior to commencement of the Plot construction there will be a period of infrastructure works to provide serviced plots. This will include the following:

- Site wide cut and fill
- Installation of new roads/ haul roads, including S278 works
- Installation of below ground services in public realm
- Installation of pumping stations
- Revisit to complete public realm, hard and soft landscaping

# 1.4 Environmental Impact Assessment

A comprehensive Environmental Impact Assessment (EIA) has been carried out to determine the construction impacts of the projects. The EIA should be read in conjunction with this CEMP.



Figure 1.4-1 Demolition Parameter Plan

North West Cambridge Development



Figure 1.4-2 Indicative Development Phasing

# 2. Context, Considerations And Challenges

# **2.1** Policy Context

Poli	icy	Resource link (Accurate at date of report)
	The Traffic Management Plan (2004)	https://www.legislation.gov.uk/ukpga/2004/18/contents
/ eou	Considerate Constructors Scheme (CCS)	https://www.ccscheme.org.uk/
nd Guidance	Non-Road Mobile Machinery (NRMM)	https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/nrmm
Policy and	Freight Operator Recognition Scheme (FORS)	https://www.fors-online.org.uk/cms/
National Policy	CLOCS /TfL Construction Logistics Plan Guidance	https://www.clocs.org.uk/page/construction_logistics
Policy and	Greater Cambridge Sustainable Design and Construction Supplementary planning Document	greater-cambridge-sustainable-design-and- g construction-spd.pdf
Local P	CCC Construction sites Best Practice	https://www.cambridge.gov.uk/construction-sites

# **2.1.1** Other Relevant Legislation and Authority Guidance:

- Highways Act 1980,
- Road Traffic Act 1998,
- The New Roads and Street Works Act 1991,
- Town and Country Planning Act 1990,
- Fire Authority
- HSE Guidance
- Building Safety Act 2023
- Construction (Design and Management) (CDM) Regulations 2015
- Building Regulation 2010 (As amended)

# **2.2** Local Access Including Highway, Public Transport, Cycling, Walking And Waterways

#### 2.2.1 Highways, Carriageways And Footways

The Site is bound by:

- a small portion of the A14 to the north, and Girton College, residential properties and agricultural fields which front onto Huntingdon Road (A1307) to the north and north-east;
- residential properties located along Huntingdon Road, Ascension Parish Burial Ground, Trinity Hall (University of Cambridge student accommodation) and Trinity Hall sports grounds to the east of the site;
- Madingley Road Park and Ride, Madingley Road (A1303), and residential properties and buildings associated with the University of Cambridge to the south; and
- the M11 motorway to the west, beyond which lies agricultural fields.



Figure 2.2-1 Existing Walking Routes and Infrastructure

**Context, Considerations And Challenges** 

#### 2.2.2 Railway/Underground

There are no adjacent railways or underground train tunnels to the development.

The nearest railway station to the Site is Cambridge railway station, which is approximately 4.0km east (as the crow flies), and located to the east of Cambridge city centre. Cambridge railway station is located at the northern terminus of the West Anglian Mainline.

#### 2.2.3 Bus Routes

The existing Eddington development and the area surrounding the Site is well-served by a number of bus services, Tiger busses and routes, providing connectivity to a range of destinations.

A summary of the bus stops and interchanges in relative to the site is provided in Figure 2.2-2.

#### **2.2.4** Cycling

A summary of the existing cycle routes and infrastructure nearby to the Site is shown in Figure 2.2-3, complied from the CCC website. The full cycle route and infrastructure map from a city-wide and surrounding settlement perspective is contained within the Transport Assessment.

### 2.2.5 Waterways

Washpit Brook runs through the site and adjacent works will be undertaken. Measure to control runoff and prevent pollution will need to be in place.

# 2.2.1 Public Rights of Way

There is an existing Public Right of Way (PRoW) located in the north-west of the site, across Plot A (Phase 3), which will need to be temporary diverted during the enabling works and final landscaping works. Temporary controlled vehicle crossing will need to be formed to all the development of Plot A.

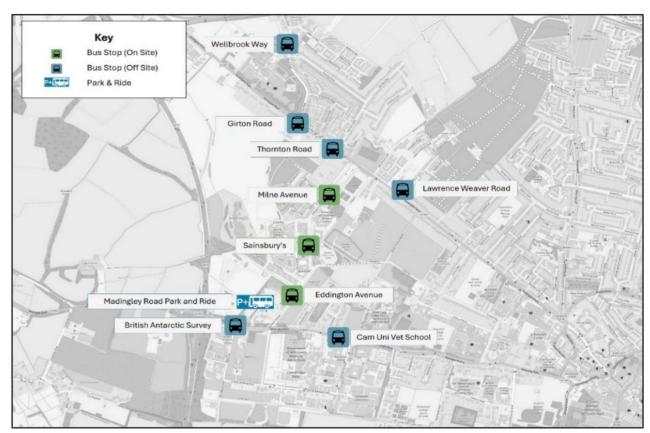


Figure 2.2-2 On-Site and Off-Site Bus Stops and Interchanges

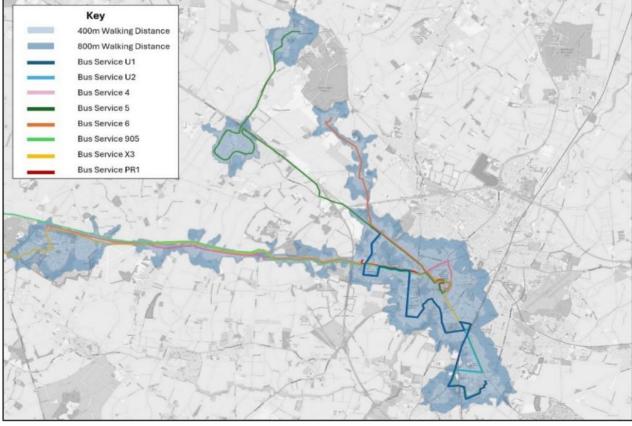


Figure 2.2-3 Existing Cycle Routes and Infrastructure

Context, Considerations And Challenges

North West Cambridge Development

Permission to temporarily divert existing Girton Public Footpath 5 (99/5), as shown in Figure 2.2-4, where required for construction activities will be the responsibility of the Principal Contractor(s) to secure and will be subject to approval from Cambridgeshire County Council (CCC). Request for temporary diversions and the duration of each diversion will be confirmed with CCC prior to construction activities commencing for each development phase. Once construction activities are completed access to the PRoW will be reinstated along its existing alignment.

### 2.2.2 Micromobility

There is current two micromobility stations (operated by VOI) within Eddington. These are located on Eddington Avenue, adjacent to the Storeys Field Community Centre, and on Turing Way respectively. There is also a number of micromobility stations on Madingley Road and Huntington Road, respectively, as well as two within West Cambridge.

Figure 2.2-5 presents a summary of the micromobility stations operated by VOI that are within the site or located nearby to the site.

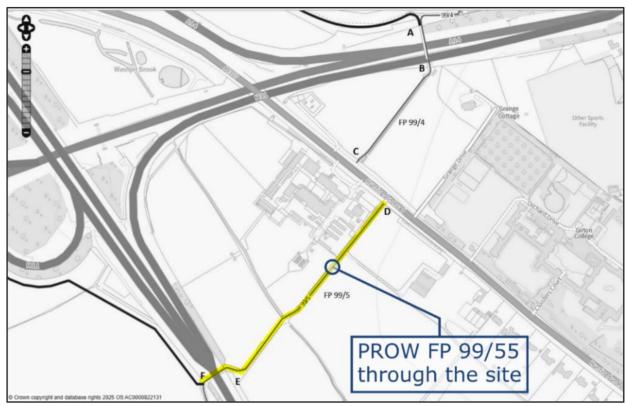


Figure 2.2-4 Public Rights of Way Plan showing Girton Public Footpath 5 (99/5) highlighted yellow



Figure 2.2-5 Micromobility Stations (VOI)

**Context, Considerations And Challenges** 

## 2.3 Community Considerations

Figure 2.3-1 and Figure 2.3-2 show the proposed development local environmental and ecological context.

#### 2.3.1 Stakeholder consultation

Consultation and community engagement events have been held as part of the application for the proposed development. Please refer to the Statement of Community Involvement ("SCI") for further details.

- The following Stakeholders have been identified and engaged:
- Eddington Residents' Association
- Nineteen Acre Field Residents' Association
- Windsor Road Residents' Association
- Huntingdon Road West Residents' Group
- Darwin Green Residents' Association
- Storey's Way Residents' Association
- Oxford Road Residents' Association
- Lansdowne Road
- Conduit Head Road

### 2.3.1.1 Consultation feedback and mitigations

There were limited comments relating to construction activities received during these periods, the most relevant are listed below:

Concerns over traffic at peak times: Some respondents commented on current traffic in Eddington, with specific references to issues at rush hour and peak times. Huntingdon Road was sometimes mentioned as an example of this traffic build-up, with responses hoping that the future phases would improve traffic flow. Comments that mentioned traffic issues sometimes note that Eddington was a route to the M11 that had become congested with those who are not residents, leading to traffic build-up, especially around school drop-off and pick-up.

Mitigation – The construction traffic will be using the routes outlined document to access the site, please refer Figure 4.2-1. Construction deliveries will be prebooked considering peak times. Traffic Marshals will be placed at intersections to avoid traffic jams. A detailed Construction Traffic Logistics Plan will be provided by the Principal Contractor upon appointment.

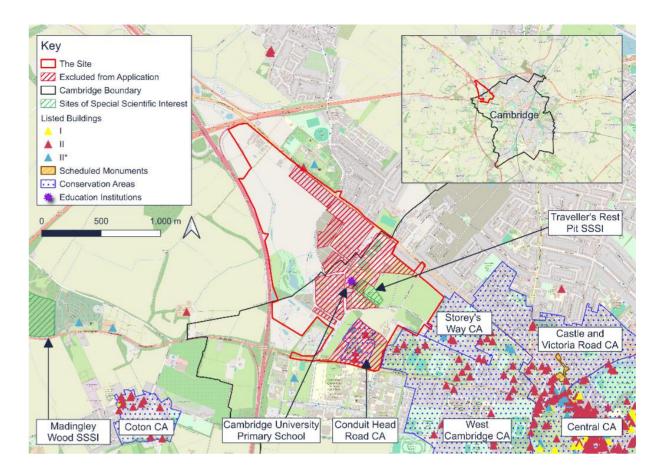


Figure 2.3-1 Environmental Context (refer to EIA for further details)

 Sustainability: Emphasis on sustainable construction methods and environmental considerations.

Mitigation – This document outlines measures to manage the possible air, noise, vibration and dust generation during the construction phases. Additionally, 'Sustainability Strategy' will be submitted in supporting to this document.

## **2.3.2** Transport Consultations

The transport aspects of the proposed development have been subject to comprehensive pre-application discussions with the Greater Cambridgeshire Shared Planning Service (GCSPS), as the local planning authority, Cambridgeshire County Council (CCC) as the local highway authority, and National Highways as the government agency body who maintain the Strategic Road Network (SRN).

#### 2.3.3 Phase 1

The Development is extension of wider Masterplan which is partially complete. The construction strategy will avoid constraint using completed Phase 1 roads.

**Context, Considerations And Challenges** 

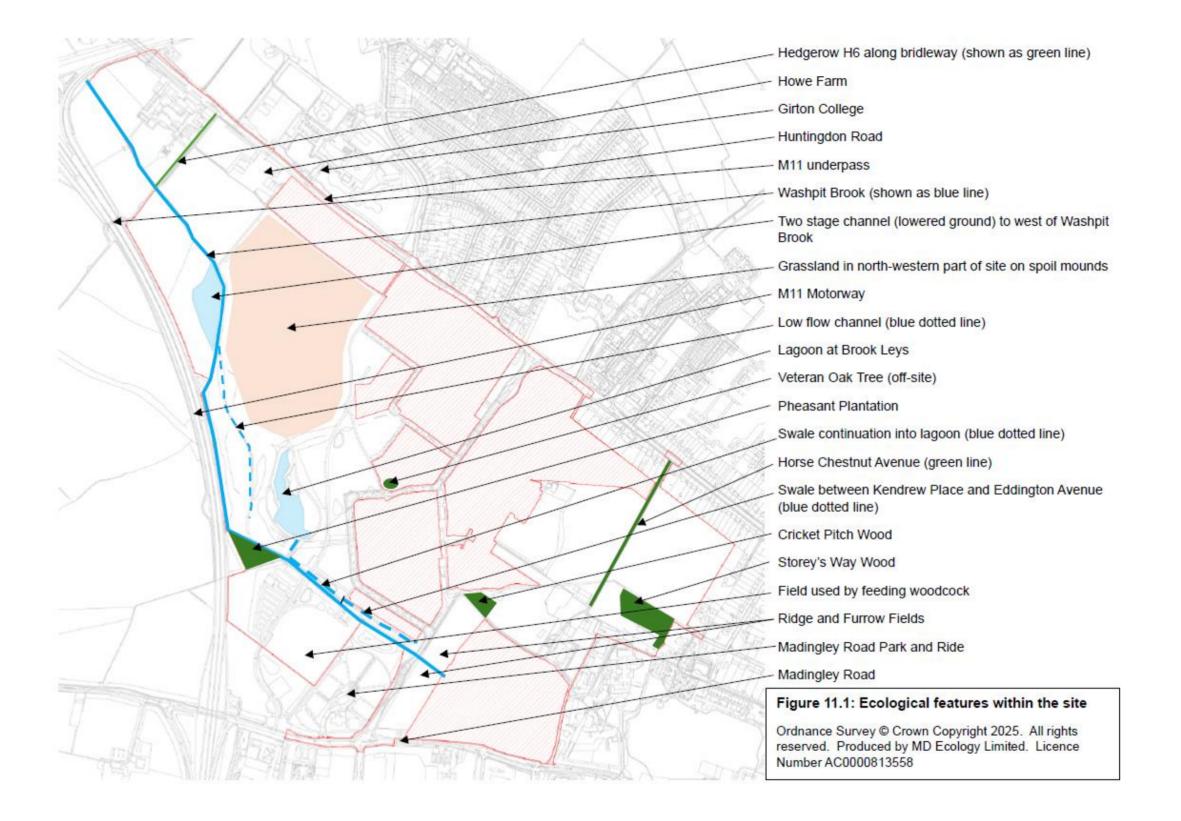


Figure 2.3-2 Ecological Features within the site (refer to EIA for further details)

# 3 Construction Programme and Methodology

Within Phase 1 there is a local primary school (University of Cambridge Primary School) which will need to be considered in delivery scheduling to avoid traffic congestion within the shared routes beyond Phase 1 roads.

In respect of the Outline Component, permission is sought for development zones. Assumptions regarding the phased delivery of these zones have been assessed based on the illustrative scheme plot layouts.

# 3.1 Construction Programme

A detailed development programme has not yet been finalised. However, to enable assessment of potential environmental impacts and their likely effects an indicative, but feasible, programme has been developed by the Applicant informed by an understanding of current and future projected market conditions, logistical arrangements, technical considerations, benchmarking of schemes of similar scale and complexity and professional experience, all of which are considered to be reliable.

Individual plots construction periods will be assessed as the Masterplan design develops and may be refined to suit final procurement and interface details.

The indicative development programme is based on the assumption that planning permission is secured in Q4 2026, refer to Figure 3.1-1.

To support the understanding of the programme a series of indicative time slices have been produced to demonstrate how the Development plots / parcels can be bought forward, refer to Section 3.2

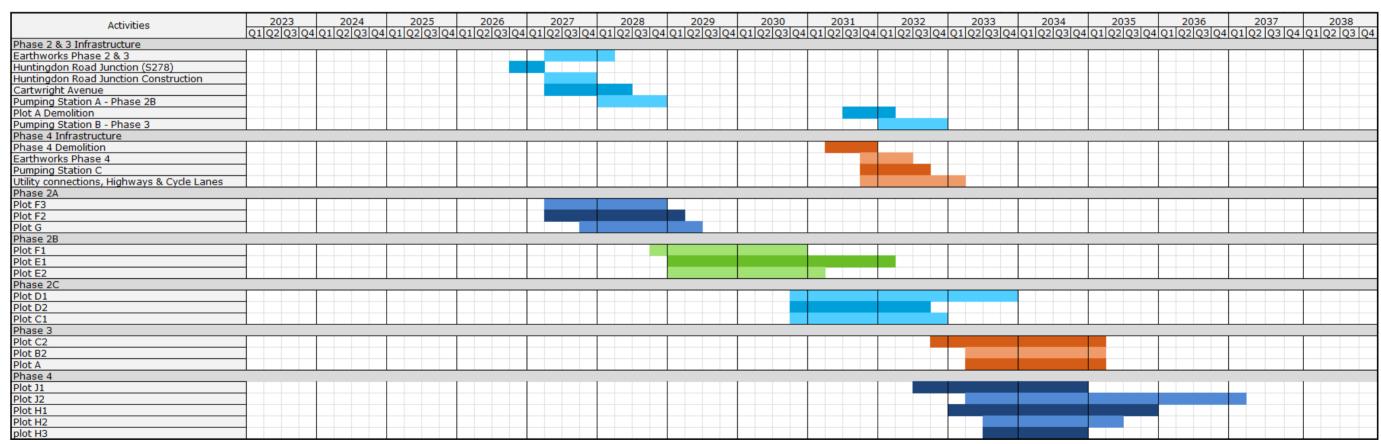
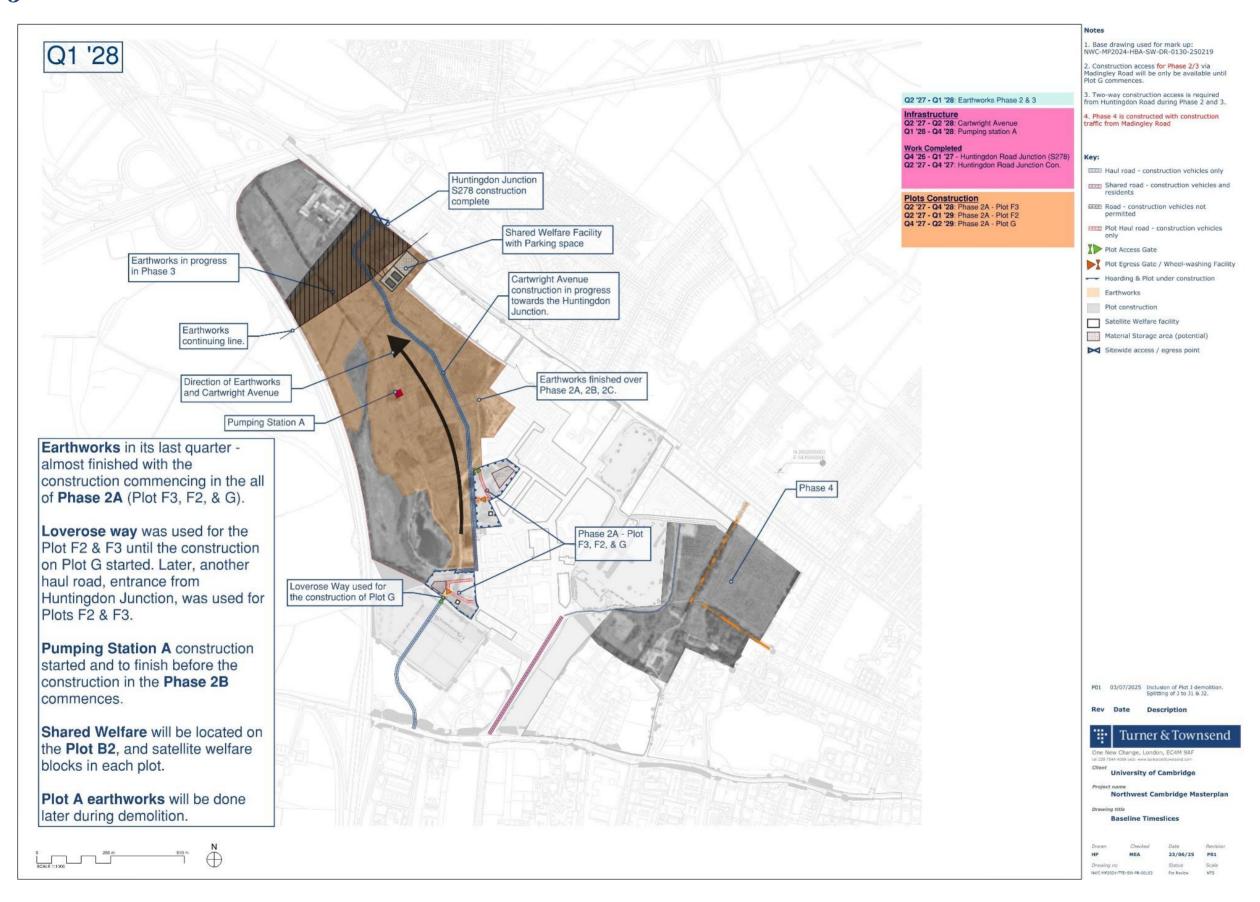
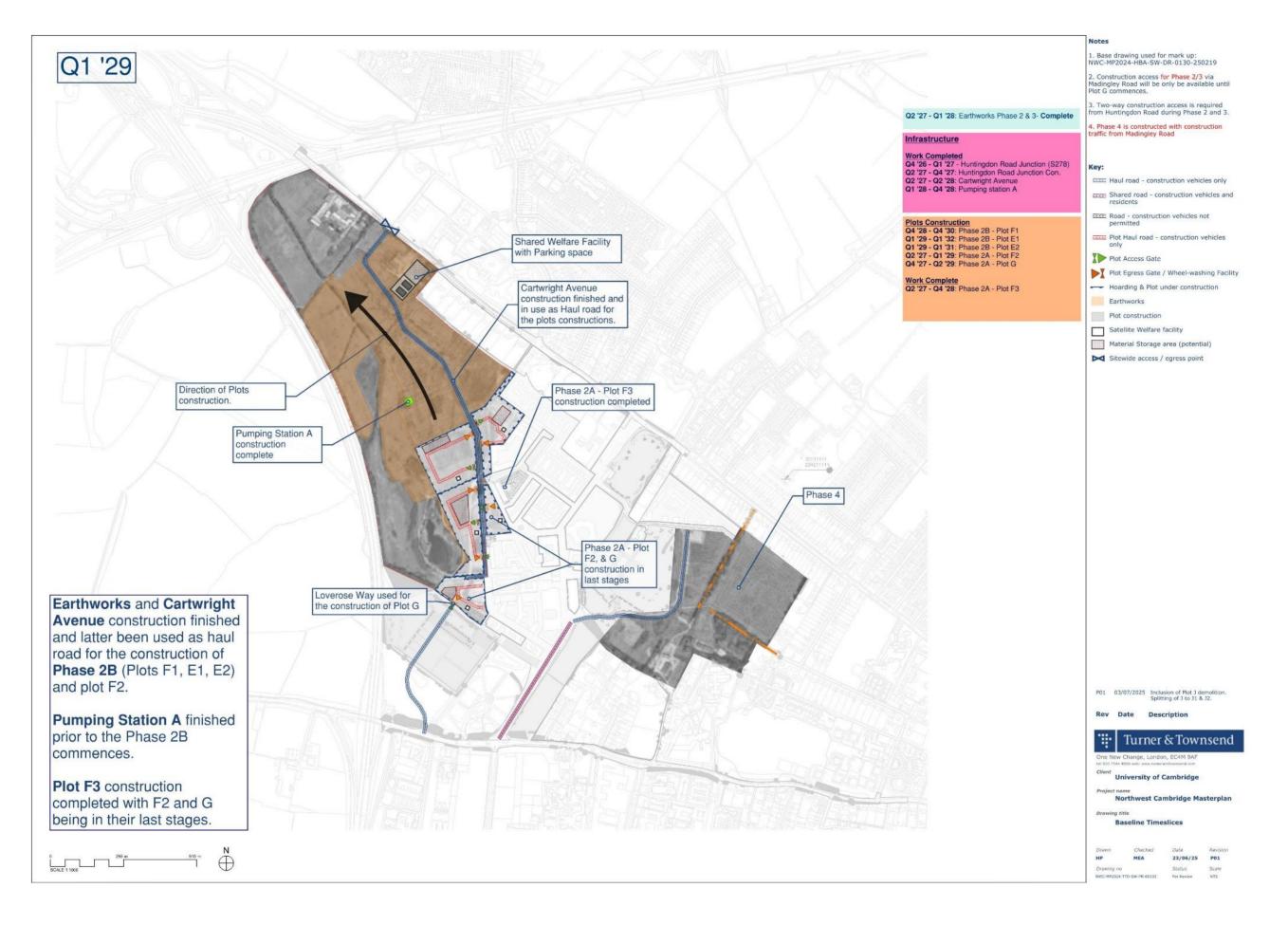
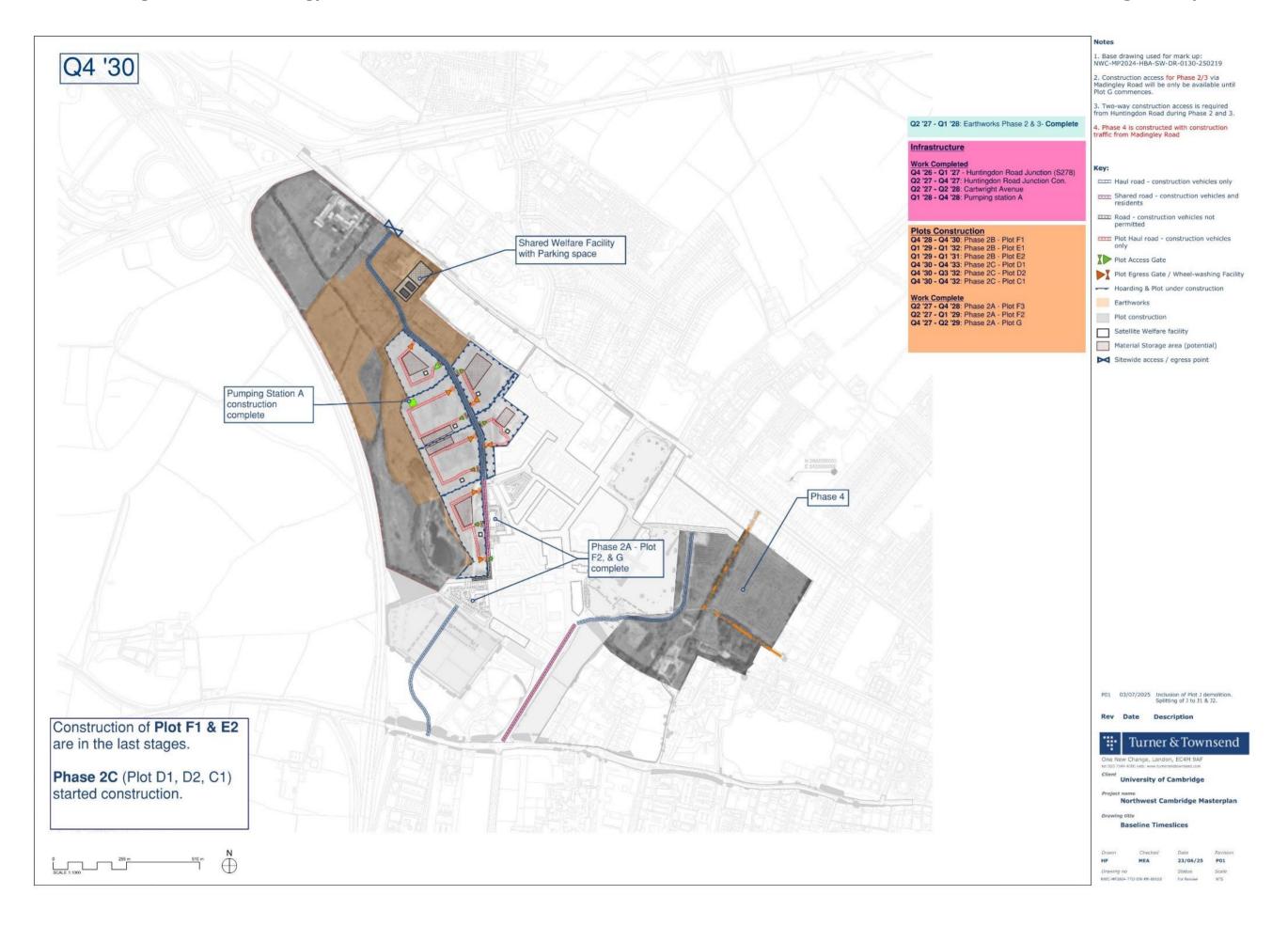


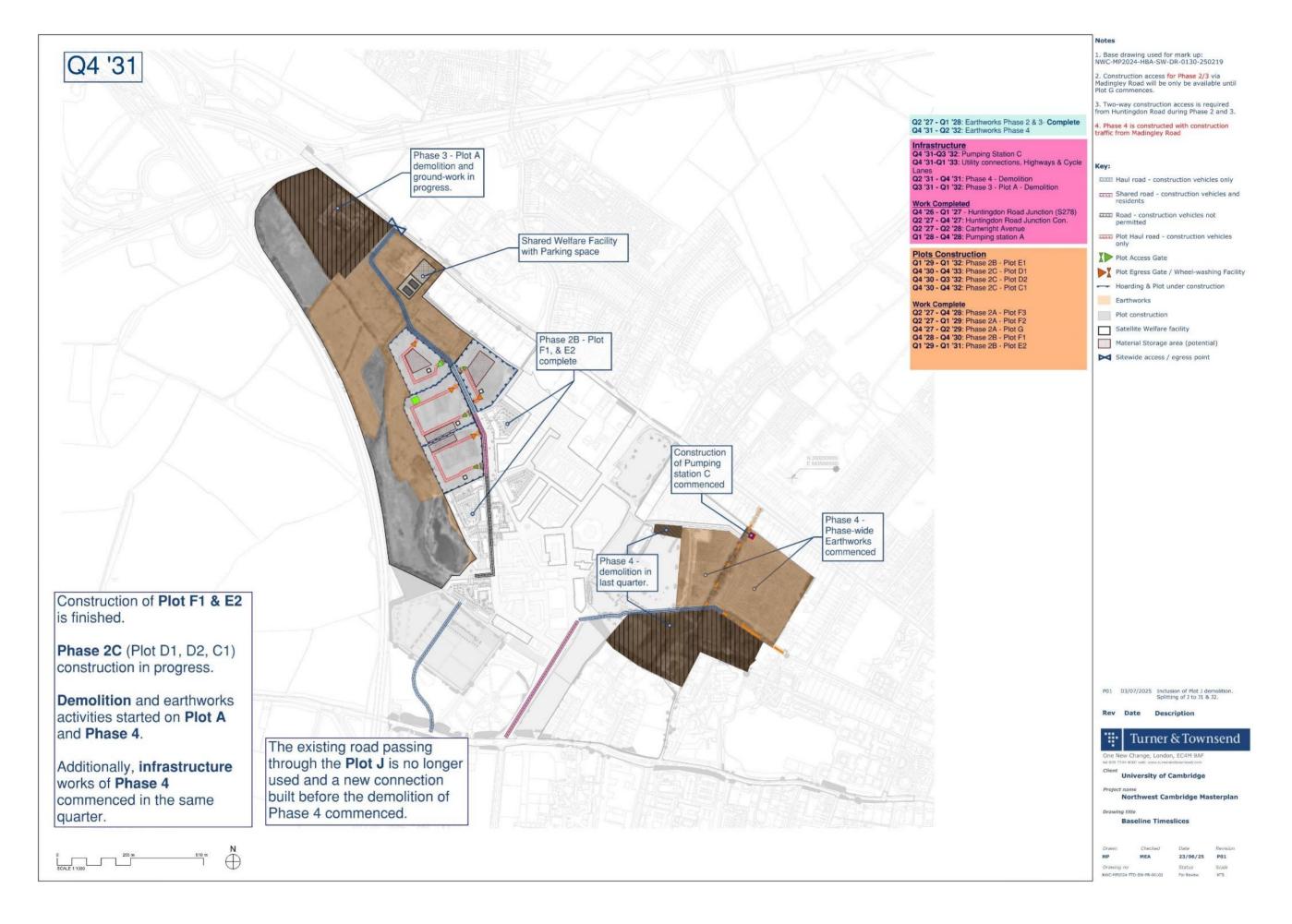
Figure 3.1-1 Indicative Demolition, Infrastructure, and Construction Programme

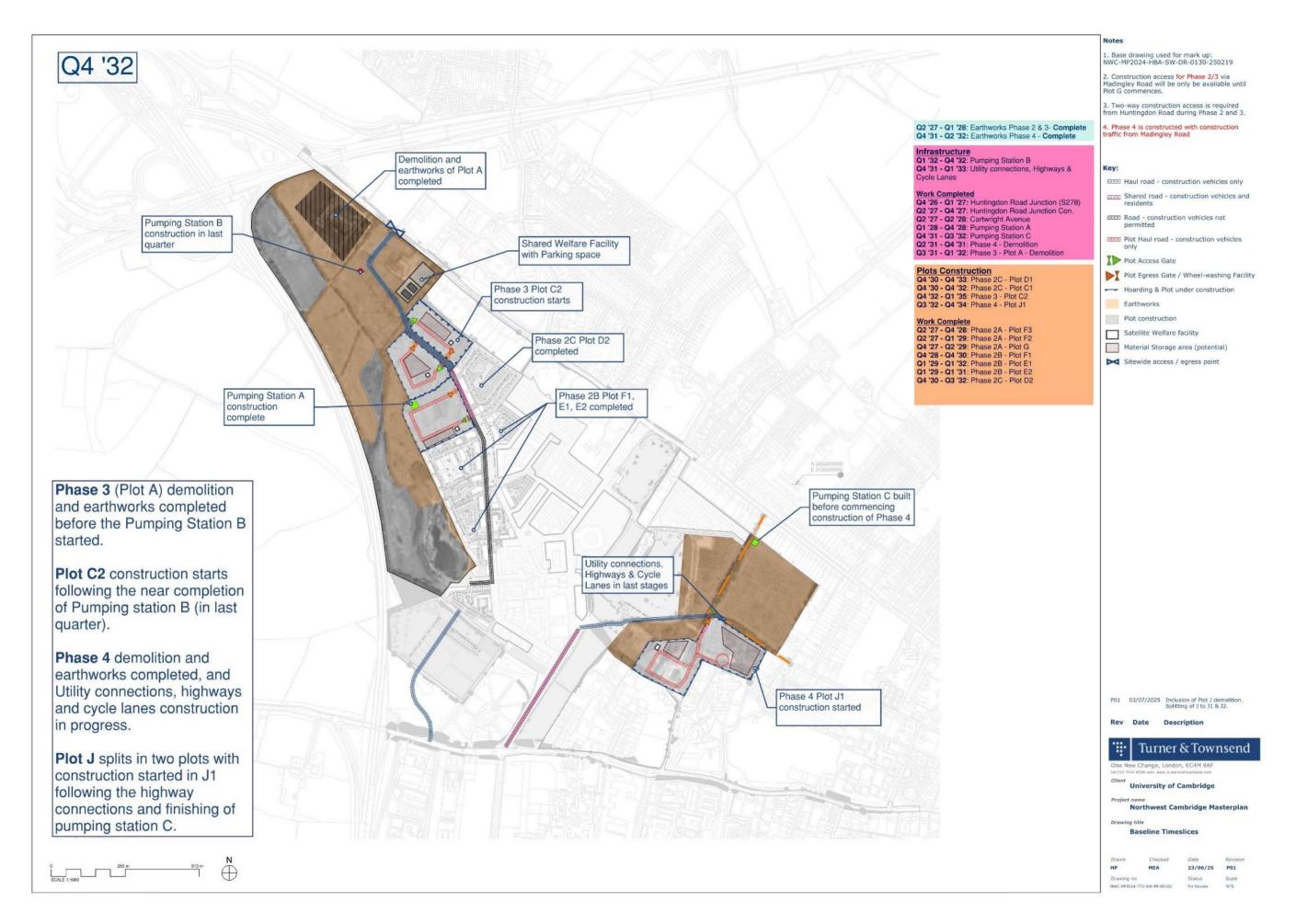
# 3.2 Indicative construction Timeslices

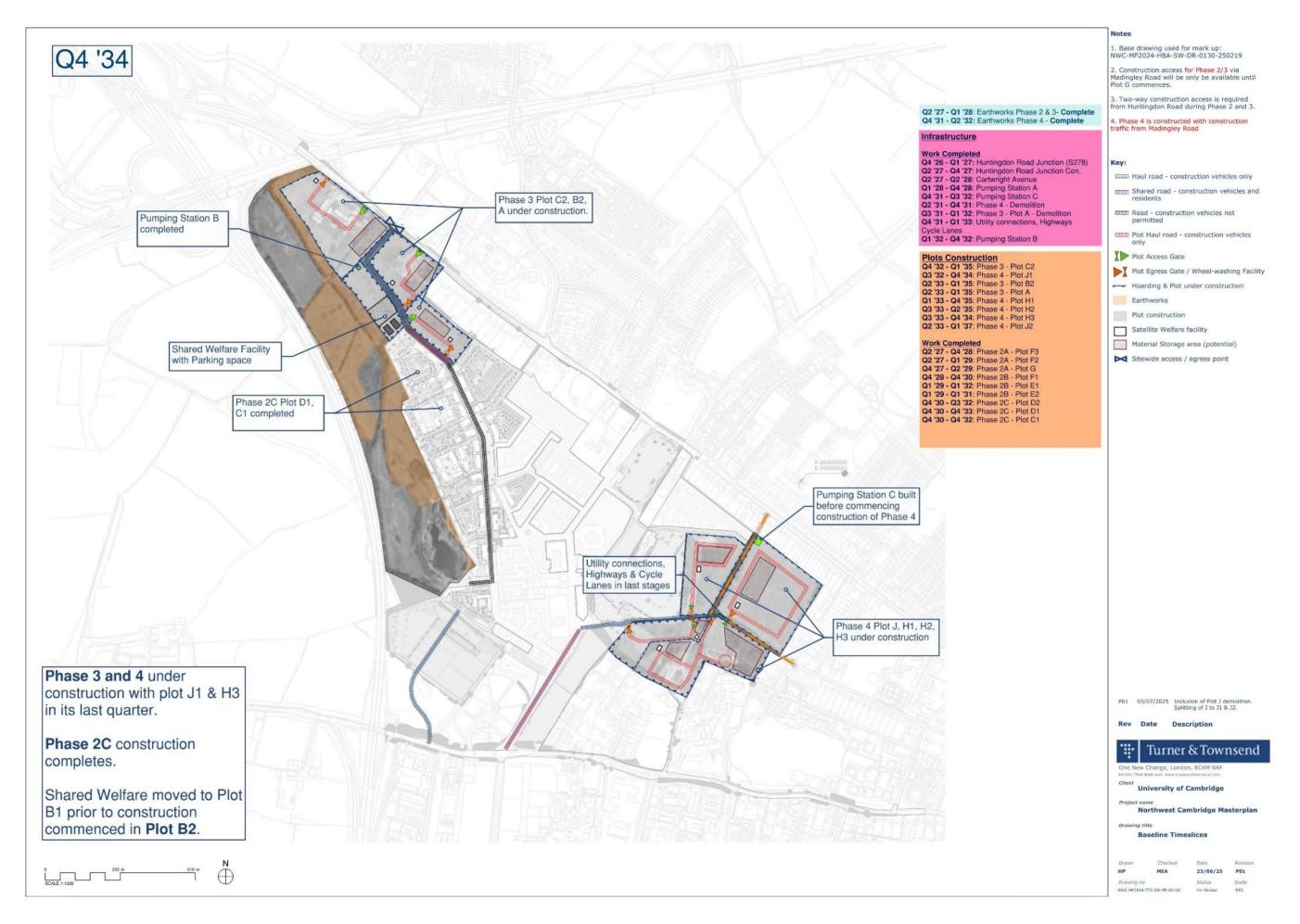












### 3.3 Demolition Methodology

There is limited demolition required to allow the Plot construction to progress. Existing structure that require demolition are allocated within the proposed Phase 3 and Phase 4.

A demolition audit will be undertaken prior to demolition works commencing to establish opportunities for material re-use within the existing development.

Prior to any demolition taking place, a pre-refurbishment/demolition asbestos survey will be undertaken. If asbestos is found, it will be removed and disposed of in accordance with UK best practice.

Additionally following measures will be implemented during the stage,

# 3.4 Infrastructure Phase Methodology

#### 3.4.1 Cut and Fill

The exact method proposed for site excavation will be determined by the Principal Contractor, once appointed, ahead of any works being undertaken on site. It is anticipated that the excavation will be carried out using different types and sizes of excavators, bulldozers, and graders. The works will be closely monitored by a surveyor to ensure that the required formation level is reached and no over excavation occurs. It is anticipated that excavated materials shall be hauled and stored at a dedicated stockpile area.

# **3.4.2** Huntingdon Road Junction

Work will be carried out to form a new vehicle entrance onto Huntingdon Road. This will include updates to the cycling infrastructure and kerbs. The works will be undertaken under a Section 278 agreement with Highway Authority. A works license for any works on the public highway will be entered into for works on the existing highway in accordance with the Highways Act 1980 and Road Traffic Act 1998.

# **3.4.3** Cartwright Avenue

Installation of new road with associated kerbs, landscaping and below ground infrastructure. Work will be undertaken progressively connecting onto the exiting Phase 1 roads and working towards Huntingdon Road Junction.

#### 3.4.4 Pumping Stations

There are three further pumping station required to service the master plan. These have been aligned with the Phasing with each phase requiring a new pumping station constructed. The pumping station will require excavation to a depth of circa 12m as well as the trenching to connect on to the existing main.

#### 3.4.5 Public realm / Amenities

The public realm construction outside of plot boundaries including pavements, cycle paths, play areas, sports pitches, and other amenities will be aligned to the completion of each Phase.

#### 3.5 Plot Construction Phases

There are three types of building assumed for the Proposed Development subject to the detailed design development:

- Homes 2 to 3 storey dwellings assumed to be constructed traditionally with brick facades and pitched roofs. The construction methodology for these residential buildings is shown in Table 3.5-1;
- Apartments / Flats 3 plus storeys residential buildings assumed to be reinforced concrete frames, Metsec façade with brickwork and flat roofs. The construction methodology for these residential buildings is shown in Table 3.5-2; and
- Commercial Buildings assumed to be reinforced concrete frame construction. The construction methodology for commercial buildings is shown in Table 3.5-3.

Table 3.5-1 Homes Construction Sequence

<b>Construction Stage</b>	Description	Deliveries
Site setup	<ul> <li>Following vacant possession, establishment of security measures and hoarding.</li> <li>Establishing site access routes and temporary facilities such as site offices, storage areas, and welfare units.</li> <li>Conducting initial surveys, setting out the building footprint, and implementing environmental controls like wheel washing, dust suppression and drainage management.</li> </ul>	<ul> <li>Temporary fencing and hoarding</li> <li>Site cabins and welfare units</li> <li>Hardcore and aggregates</li> <li>Signage and safety barriers</li> <li>Excavators</li> <li>Dumpers or telehandlers</li> <li>Lighting towers</li> <li>Water bowsers</li> </ul>
Foundations and Substructure	<ul> <li>Piled foundation installation and associated concrete works, assumed to be CFA or rotary piles at this stage.</li> <li>Construction of pile caps, ground beams, and ground floor slab</li> <li>Installation of damp-proof membranes, insulation, and blockwork up to the damp-proof course (DPC) level</li> <li>Installation of below-ground drainage and service ducts.</li> </ul>	<ul> <li>Reinforcement steel</li> <li>Concrete (for piles, pile caps, ground beams)</li> <li>Timber/ plywood for formwork</li> <li>Damp-proof membranes (DPM)</li> <li>Drainage pipes and ducts</li> <li>Piling rig</li> <li>Concrete pumps and mixers</li> <li>Excavators</li> <li>Compactors</li> <li>Telehandlers</li> </ul>
Superstructure	<ul> <li>Erection of load-bearing walls using brickwork or blockwork, mortar silos may be required on site.</li> <li>Installation of intermediate floor structures, typically timber joists or precast concrete slabs.</li> <li>Construction of the first-floor walls</li> <li>Integration of structural openings for windows and doors. Installation of lintels (steel/ precast) for openings.</li> </ul>	<ul> <li>Bricks and blocks</li> <li>Cavity insulation, DPC</li> <li>Lintels (above window and door openings)</li> <li>Floor joists or precast slabs</li> <li>Mortar silo or mixers</li> <li>Scaffolding</li> <li>Forklifts or telehandlers</li> <li>Brick elevators or hoists</li> </ul> Mortar and fixings
Cladding and roofing	Construction of roof structure, including trusses or rafters.	<ul> <li>Cladding (brick, render, timber, etc.)</li> <li>Roof tiles or slates</li> <li>Breathable membranes and battens</li> <li>Rainwater goods (gutters, downpipes)</li> <li>External windows and doors</li> <li>Sealants, cavity closers, flashings</li> <li>Tile hoists</li> <li>Mobile scaffold towers or cherry pickers</li> <li>Glass handling equipment</li> <li>Mortar silo or mixers</li> <li>Cutting tools</li> </ul>
MEP and Fit out	<ul> <li>First fix: routing of electrical wiring, plumbing pipes, and HVAC ductwork.</li> <li>Second fix: installation of sockets, switches, sanitaryware, boilers, and ventilation units.</li> <li>Interior fit-out: plastering, painting, flooring, kitchen and bathroom fittings, doors, and skirting boards.</li> <li>Final testing and commissioning of all systems.</li> </ul>	<ul> <li>Electrical wiring, sockets, switches</li> <li>Plumbing pipes, boilers, radiators</li> <li>Plasterboard, insulation</li> <li>Internal doors and ironmongery</li> <li>Kitchens, bathrooms, flooring, paint</li> <li>Power tools (drills, saws, fixers)</li> <li>Plaster mixers</li> <li>Access platforms or ladders</li> <li>Testing and commissioning equipment</li> </ul>
Landscaping	<ul> <li>Final hard and soft landscaping following completion of all utilities connection to tie into public realm, including paving, planting and final road surfacing.</li> <li>Typically, this will include all works to the kerb edge when interfacing with site wide shared roads.</li> <li>Provision of external lighting and street furniture where not provided by sitewide infrastructure works</li> </ul>	<ul> <li>Topsoil, turf, plants</li> <li>Paving slabs, gravel</li> <li>Fencing panels and gates</li> <li>External lighting</li> <li>Mini excavators</li> <li>Compactors and rollers</li> <li>Cement mixers</li> <li>Hand tools and wheelbarrows</li> </ul>

Table 3.5-2 Apartment Construction Sequence

Construction Stage	Description	Deliveries
Site setup	<ul> <li>Following vacant possession, establishment of security measures and hoarding.</li> <li>Establishing site access routes and temporary facilities such as site offices, storage areas, and welfare units.</li> <li>Conducting initial surveys, setting out the building footprint, and implementing environmental controls like wheel washing, dust suppression and drainage management.</li> </ul>	<ul> <li>Temporary fencing and hoarding</li> <li>Site cabins and welfare units</li> <li>Hardcore and aggregates</li> <li>Signage and safety barriers</li> <li>Excavators</li> <li>Dumpers or telehandlers</li> <li>Lighting towers</li> <li>Water bowsers</li> </ul>
Foundations and Substructure	<ul> <li>Piled foundation installation and associated concrete works, assumed to be CFA or rotary piles at this stage.</li> <li>Construction of pile caps, ground beams, and ground floor slab</li> <li>Installation of damp-proof membranes, insulation, and blockwork up to the damp-proof course (DPC) level</li> <li>Installation of below-ground drainage and service ducts.</li> <li>Concrete column and beams with reinforced concrete slab. Steelwork balconies installed.</li> </ul>	<ul> <li>Reinforcement steel</li> <li>Concrete</li> <li>Timber/ plywood for formwork</li> <li>Damp-proof membranes (DPM)</li> <li>Drainage pipes and ducts</li> <li>Service conduits</li> <li>Reinforcement steel</li> <li>Ready-mix concrete</li> <li>Piling rig</li> <li>Concrete pumps</li> <li>Excavators</li> <li>Compactors</li> <li>Telehandlers</li> <li>Tower crane</li> <li>Mobile / Towe cranes</li> <li>Concrete pumps</li> </ul>
Superstructure	<ul> <li>Erection of vertical elements such as columns, shear walls, and lift/stair cores.</li> <li>Installation of horizontal slabs using formwork systems (table forms, jump forms, or slip forms).</li> <li>Integration of cast-in services and openings for MEP.</li> <li>Progressive floor-by-floor construction using tower cranes and hoists.</li> <li>Installation of residential modules (subject to design).</li> </ul>	<ul> <li>Formwork and falsework systems</li> <li>Concrete additives and curing agents</li> <li>Cast-in sleeves and conduits</li> <li>Temporary propping and safety netting</li> <li>Scaffolding</li> <li>Mortar Silo</li> </ul>
Cladding and roofing	This can deliver a state of the	<ul> <li>Cladding panels (metal, brick slip, render)</li> <li>Curtain walling or window systems</li> <li>Roofing membranes, insulation, ballast</li> <li>Flashings, sealants, cavity barriers</li> <li>External doors and fixings</li> <li>Mast climbers or scaffolding</li> <li>Glass handling equipment</li> <li>MEWPs</li> <li>Sealant applicators</li> <li>Mortar Silo</li> </ul>
MEP and Fit out	<ul> <li>First fix: routing of electrical, plumbing, and HVAC systems through floors and walls.</li> <li>Second fix: installation of sockets, switches, radiators, sanitaryware, and ventilation units.</li> <li>Internal fit-out: drylining, plastering, painting, flooring, kitchens, bathrooms, and internal doors.</li> <li>Final testing, commissioning, and certification of all systems.</li> </ul>	<ul> <li>Electrical cabling, sockets, switches, consumer units</li> <li>Plumbing pipes, boilers, radiators, sanitaryware</li> <li>Ventilation ductwork and fans</li> <li>Plaster mixers and trowels</li> <li>Access platforms or ladders</li> <li>Testing and commissioning tools</li> <li>Tile cutters and flooring tools</li> <li>Tile cutters and flooring tools</li> </ul>
Landscaping	<ul> <li>Construction of footpaths, driveways, and communal areas.</li> <li>Installation of fencing, gates, and boundary treatments.</li> <li>Planting of trees, shrubs, and turfing of green spaces.</li> <li>Installation of external lighting, bollards, and street furniture.</li> </ul>	<ul> <li>Topsoil, turf, plants</li> <li>Paving slabs, gravel</li> <li>Fencing panels and gates</li> <li>External lighting</li> <li>Mini excavators</li> <li>Compactors and rollers</li> <li>Cement mixers</li> <li>Hand tools and wheelbarrows</li> </ul>

Table 3.5-3 Commercial Buildings Construction Sequence

<b>Construction Stage</b>	Description	Deliveries
Site setup	<ul> <li>Following vacant possession, establishment of security measures and hoarding.</li> <li>Establishing site access routes and temporary facilities such as site offices, storage areas, and welfare units.</li> <li>Conducting initial surveys, setting out the building footprint, and implementing environmental controls like wheel washing, dust suppression and drainage management.</li> </ul>	<ul> <li>Site cabins and welfare units</li> <li>Hardcore and aggregates</li> <li>Dumpers or telehandlers</li> <li>Lighting towers</li> </ul>
Superstructure Foundations and Substructure	<ul> <li>Piled foundation installation and associated concrete works, assumed to be CFA or rotary piles at this stage.</li> <li>Construction of pile caps, ground beams, and ground floor slab</li> <li>Installation of damp-proof membranes, insulation, and blockwork up to the damp-proof course (DPC) level</li> <li>Installation of below-ground drainage and service ducts.</li> <li>Concrete column and beams with reinforced concrete slab.</li> <li>Installation of lightweight mezzanine floors using steel decking and secondary beams.</li> <li>Application of fire protection coatings to structural steel.</li> </ul>	<ul> <li>Reinforcement steel</li> <li>Concrete</li> <li>Timber/ plywood for formwork</li> <li>Damp-proof membranes (DPM)</li> <li>Drainage pipes and ducts</li> <li>Service conduit</li> <li>Reinforcement steel</li> <li>Concrete (for piles, pile caps, ground beams)</li> <li>Timber/ plywood for formwork</li> <li>Structural steel</li> <li>Bolts, plates, fixings</li> <li>Mezzanine floor decking (metal / composite)</li> <li>Fire protection coatings</li> <li>Temporary propping and safety netting</li> <li>Piling rig</li> <li>Concrete pumps</li> <li>Excavators</li> <li>Mobile /tower cranes</li> <li>MeWPs (cherry pickers, scissor lifts)</li> <li>Steel erection tools</li> <li>Welding and bolting equipment</li> <li>Safety harnesses and edge protection</li> </ul>
Cladding and roofing	<ul> <li>Installation of rainscreen cladding, brick slips, or render systems.</li> <li>Fitting of curtain walling, aluminium or uPVC windows, and external doors.</li> <li>Roofing works including insulation, membranes, ballast, and drainage.</li> <li>Installation of cavity barriers, fire stops, and weatherproofing details.</li> </ul>	<ul> <li>Insulated metal wall and roof panels</li> <li>Rooflights and translucent sheeting</li> <li>Flashings, sealants, cavity barriers</li> <li>External doors (steel or aluminium)</li> <li>Glazing units and curtain walling</li> <li>Rainwater goods (gutters, downpipes)</li> <li>MEWPs</li> <li>Cladding lifters and suction lifters</li> <li>Cutting and fixing tools</li> <li>Sealant applicators</li> <li>Access scaffolding or edge protection</li> </ul>
MEP and Fit out	<ul> <li>First fix: routing of electrical, data, plumbing, and HVAC systems.</li> <li>Second fix: installation of lighting, sockets, switches, radiators, and sanitaryware.</li> <li>Internal fit-out: partitions, suspended ceilings, floor finishes, internal doors, and decorations.</li> <li>Final testing, commissioning, and certification of all system</li> </ul>	<ul> <li>Electrical and data cabling, sockets, switches</li> <li>HVAC ductwork, units, and controls</li> <li>Plumbing pipes, sanitaryware, radiators</li> <li>Suspended ceiling grids and tiles</li> <li>Partition systems (metal stud, plasterboard)</li> <li>Paints, flooring, internal doors, ironmongery</li> </ul> Power tools <ul> <li>Access platforms or ladders</li> <li>Testing and commissioning tools</li> <li>HVAC installation tools</li> </ul>
Landscapi ng	<ul> <li>Final hard and soft landscaping following completion of all utilities connection to tie into public realm, including paving, planting and final road surfacing.</li> <li>Typically, this will include all works to the kerb edge when interfacing with site wide shared roads.</li> </ul>	<ul> <li>Fill material</li> <li>Stones / paving</li> <li>Plants and trees</li> <li>Insulation</li> </ul>

# 4 Vehicle Routing And Site Access

### 4.1 Construction Access Approach Routes

Inbound and outbound construction routes are shown in Figure 4.1-1 and Figure 4.1-2 respectively.

A future connection onto Huntingdon Junction is proposed as part of the completed development layout. It is intended to bring forward the formation of this connection to provide construction access, allowing better segregation from the completed residential phases.

#### **4.1.1** Inbound approaches:

- Inbound traffic from the A14 East to the Huntingdon Road West junction is required to U-turn at Bar Hill. Traffic accessing the site at the Madingley Road access point is required to U-turn at Junction 12 of the M11 and then use the M11 off slip at Junction 13.
- Inbound traffic from the A14 West to Huntingdon Road West will use the A1307 off slip. To access the Madingley Road access requires the use of the M11 and J12 to u turn and then M11 J13 off slip.
- Inbound traffic from the A428 West to the Huntingdon Road West junction is required to U-turn at the Histon interchange, then proceed westbound along the A14 and then U-turn at Bar Hill before then using the A1307 off slip. Madingley Road access will be via the 'Madingley Mulch' roundabout.
- Inbound traffic from the M11 South to the Huntingdon Road West junction is required to continue north before U-turning at Bar Hill before then using the A1307 off slip. To access Madingley Road requires the use of Junction 13 off slip.

# **4.1.2** Outbound Approaches

- Outbound traffic to the A14 East from the Huntingdon Road West is required to U-turn at Bar Hill before heading south and then east. From the Madingley Road access, it is required to U-turn at Junction 12 of M11 and then use the M11 to head north and then slip onto the A14 eastbound at the Girton Interchange.
- Outbound traffic to the A14 West from Huntingdon Road West will use the A1307 on slip. From the Madingley Road access it is required to use of the M11 south and Junction 12 to U-turn and then use M11 north before joining the A14 westbound.

- Outbound traffic to the A428 west from Huntingdon Road west junction is required to U-turn at Bar Hill and then further U-turn at the Histon interchange, before heading west along the A14 and then A428. From the Madingley Road access would be via 'Madingley Mulch' roundabout.
- Outbound traffic to the M11 south from the Huntingdon Road west junction is required to continue north before U-turning at Bar Hill before heading south. From the Madingley Road access it is required to use the Junction13 on slip.

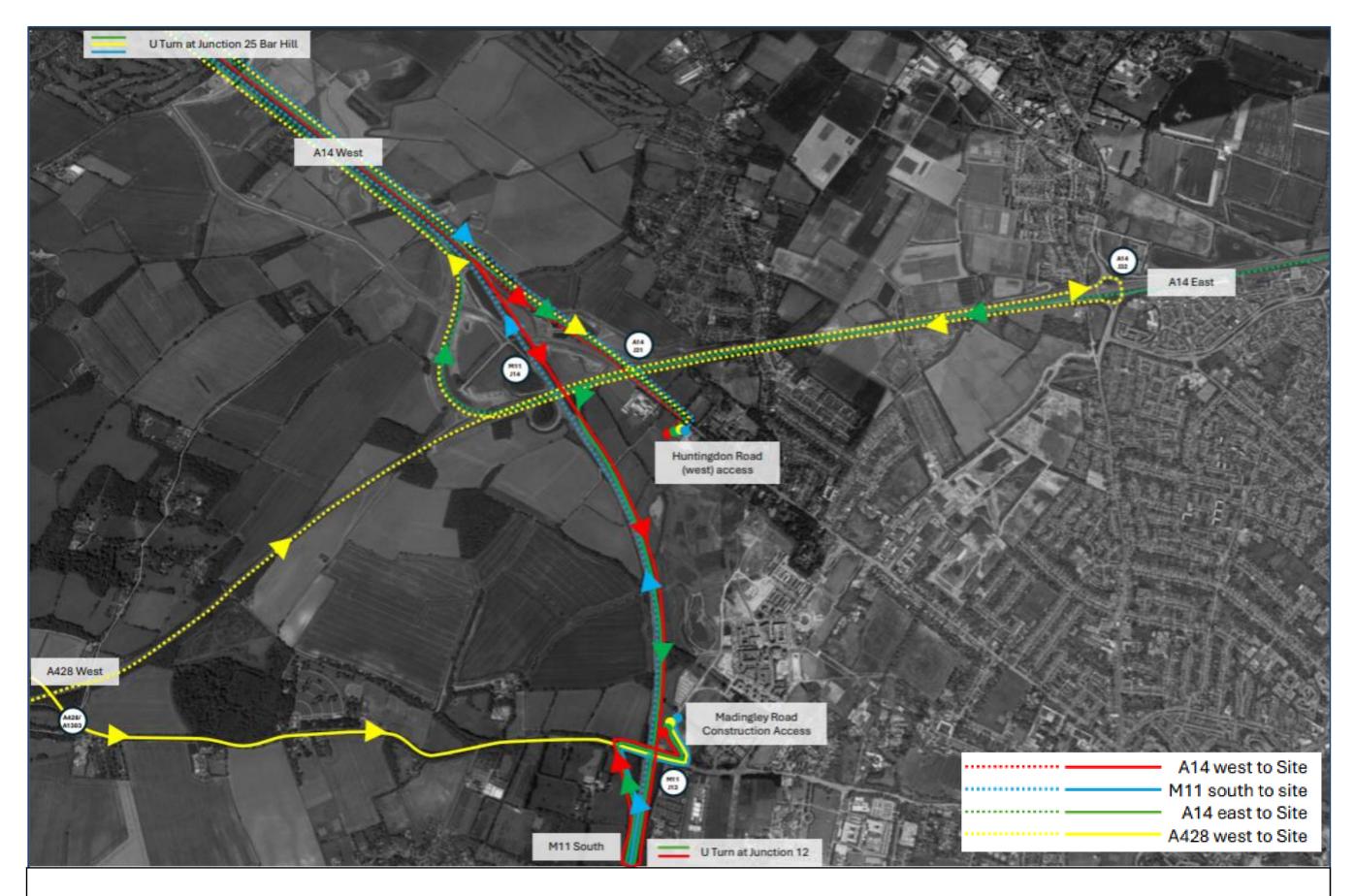


Figure 4.1-1 Inbound Construction Routes from Strategic Road Network

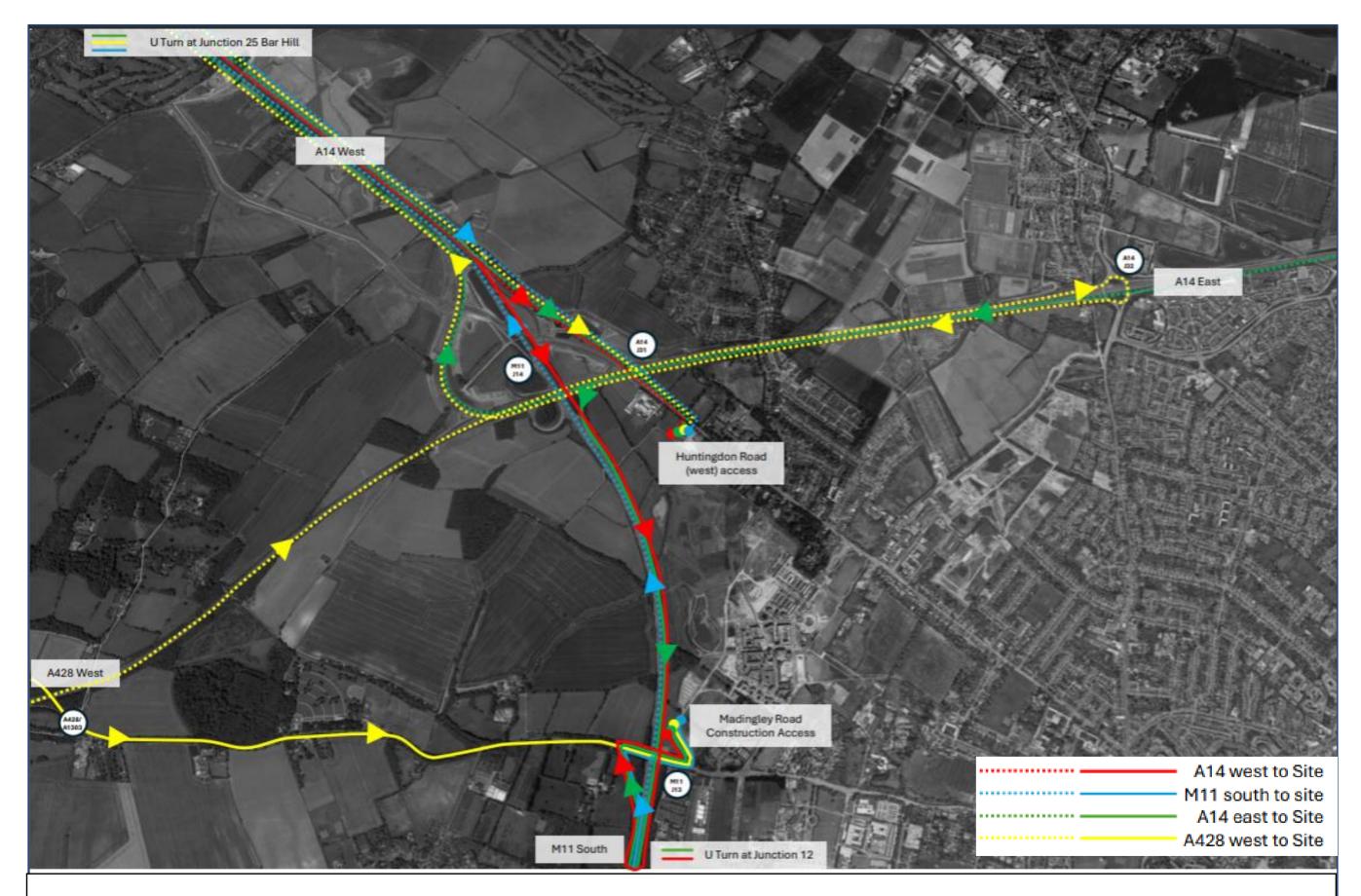


Figure 4.1-2 Inbound Construction Routes from Strategic Road Network

#### 4.2 Construction Site Access Points

There are three primary access points to the site, shown in Figure 4.2-1:

- Loverose Way (Existing Phase 1 Haul Road) Accessed from Madingley Road;
- Cartwright Avenue (New Haul Road) Accessed via Huntingdon Road Junction; and
- Garrod Street -- Accessed from Madingley Road.

Construction vehicles will primarily access site from the Huntingdon Road Junction. Loverose Way will be used for Plots F2 and F3 until the construction of Plot G commences. Garrod Street will be used for the construction of Phase 4.

Final details of the routing of construction vehicles and visitors to the site to be proposed by the Principal Contractor will be agreed with the Highway Authority, Cambridgeshire County Council and the Highways Agency. It is assumed that all Heavy Vehicles and other large construction vehicles will be routed between the M11 and Madingley Road construction access. No HGV movements associated with the Development will use residential streets.

#### 4.2.1 Construction Site Access Control Measures

Access onto Development Plots/Parcels will be paved with a bound material (for at least 15m for larger sites) into the site from the boundary of the adopted public highway.

Any temporary gates used for site security must be set back at least 15m from the boundary of the adopted public highway to enable a delivery/muck away vehicle to wait wholly off the adopted public highway while the gates are opened and closed, or they must remain open throughout the entire working day.

When practical, access gates should be a minimum of 6.5m wide to facilitate construction traffic.

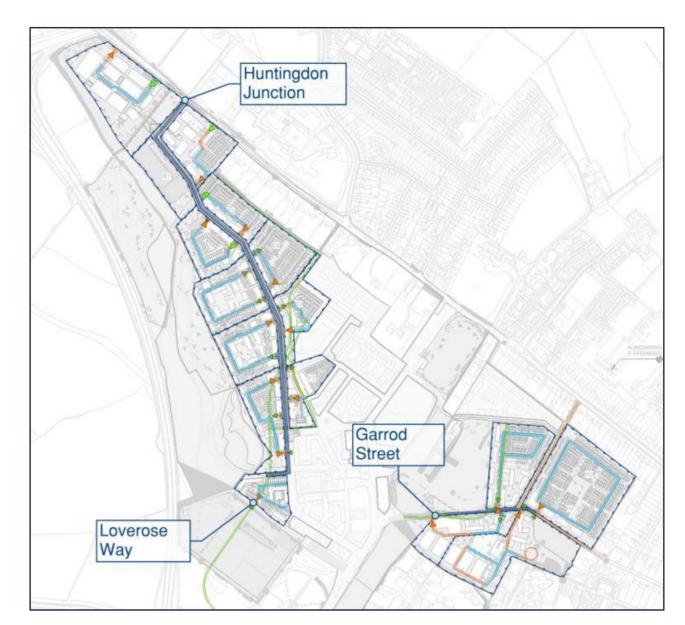


Figure 4.2-1 Construction Site Access Points

# **4.3** Strategies To Reduce Construction Traffic Impacts

Table 4.3-1 below summaries the planned site measures to reduce the impact of the Proposed Development on the surrounding areas.

	Table 4.3-1 Higher Impact Site Planned  Measures Checklist	Committed	Proposed	Considered
	Safety And Environmental Standards And Programmes		Х	
ion	Adherence To Designated Routes	Χ		
struct	Delivery Scheduling		Х	
g Con: ies	Re-Timing For Out Of Peak Deliveries		Х	
Measures Influencing Construction Vehicles And Deliveries	Re-Timing For Out Of Hours Deliveries		Х	
s Influ And D	Use Of Holding Areas And Vehicle Call Off Areas		Х	
Measures Vehicles A	Use Of Logistics And Consolidation Centres			Х
Меа Veh	Vehicle Choice			Х
iei :	Freight By Water*			Х
Sustain able	Freight By Rail*			Х
ment	Dfma And Offsite Manufacture			Х
	Re-Use Of Material On Site	Χ		
Material Procure	Smart Procurement			Х
sr sur	Collaboration With Other Sites In The Area		Х	
Other Measur	Implement A Staff Travel Plan		Х	

<sup>\*</sup> If Site, Consolidation Centre Or Holding Areas Are Within 100m Of Foreshore Of Navigable Waterway Or Rail Freight Siding.

# **4.3.1** Measures Influencing Construction Vehicles And Deliveries

Vehicle routes indicated in this report will be discussed and agreed with the relevant authorities. Where possible site traffic will be directed to utilise pre-approved routes.

All deliveries would likely be pre-booked with the logistics management teams through a delivery management system. Deliveries would likely be discussed at regular coordination meetings to manage peaks and reduce waiting times offsite.

The appointed Principal Contractors will be expected to comply with schemes listed below and all local policy requirements:

### 4.3.1.1 Safety And Environmental Standards And Programmes

The following Safety And Environmental Standards And Programmes will be consulted during the construction phases:

Scheme	Resource link
Construction Logistics and Community Safety (CLOCS)	https://www.clocs.org.uk/
Fleet Operator Recognition Scheme (FORS)	https://www.fors-online.org.uk/cms/
Considerate Contractor Scheme (CCS)	https://www.ccscheme.org.uk/

All goods vehicles over 3.5 ton will be Fleet Operators Recognition Scheme (FORS) Silver compliant.

## **4.3.1.2** Adherence To Designated Routes

All construction traffic entering and leaving the site will be strictly controlled. Vehicles delivering to or removing materials from the site will travel via designated routes, pre-agreed with CCC/SCDC and the Highways Agency.

#### 4.3.2 Delivery Scheduling

#### 4.3.2.1 Re-Timing For Out Of Peak Deliveries

Construction processes will be programmed to avoid deliveries during peak traffic periods. This reduces delays and ensures that drivers can make efficient use of their drivable hours.

#### 4.3.2.2 Re-Timing For Out Of Hours Deliveries

Deliveries after 15:00 will be rare due to limited on-site processing capacity. Operatives are generally unable to handle materials beyond this time, making out-of-hours deliveries impractical.

#### 4.3.2.3 Use Of Holding Areas And Vehicle Call Off Areas

Due to the size of the Site holding areas will be established on site allowing deliveries to be concentrated outside of peak local traffic times. As the Site is developed opportunities for holding areas will reduce but it is anticipated that this will be after the peak traffic periods (following completion of Phase 2). If required suitable holding areas outside site will be agreed with the relevant authorities.

#### **4.3.2.4** Use Of Logistics And Consolidation Centres

Due to the size of available site, it is not anticipated that a consolidation centre will be required initially. However, as each phase progresses the need for a consolidation facility may be required.

### **4.3.3** Measures to Encourage Sustainable Freight

There are no navigable waterways suitable for the development.

Opportunities to use rail freight will be explored further. There are no direct freight connections to the site. The nearest Freight terminal is Ely North Junction which currently has two freight services per day, a timeline for upgrade works has not been confirmed. Principle Contractors will be encouraged to utilise rail freight where benefits can be demonstrated.

# **4.3.3.1** Material Procurement Measures

Sustainability requirements for show home and modern methods of construction, where it will result in a reduced environmental impact, will be discussed with developers and included within RMA submissions. This will enable developers to adopt the best options available at the time of construction, rather than at time of outline planning.

#### 4.3.4 Other Measures

#### 4.3.4.1 HGV Management

Measures to ensure effective management of HGV traffic will comprise the following:

- Suppliers will be informed of specified approach and departure routes to prevent use of unsuitable roads.
- HGV deliveries will be scheduled to avoid peak periods.
- Approach and departure routes will be clearly signposted and clear controls for access to the Site will be provided.
- Parking Management and Staff Travel

#### 4.3.4.2 Collaboration with other sites in the area

Principal Contractors will be encouraged to explore options for collaboration within the Proposed Development and with other local sites in the area to minimise where possible the import and export of fill material.

The progress of Phase 1 will be monitored as the completion of its plots are expected to overlap with start of Phase 2 works. Opportunities will be explored for collaborating on holding areas and shared services when works programmes are developed in more detail, where possible.

#### 4.3.4.3 Construction Staff Travel Plan

A construction Staff Travel Plan will be produced by the Principal Contractor for each development parcel or plot.

The Staff Travel Plan will set out measures to encourage all operatives to use sustainable means of transport (i.e., public transport).

Key transport nodes for operatives arriving by public transport and foot are as follows:

- Train Stations Cambridge, and Cambridge North Train Station
- Bus Stops Girton Road and Madingley Road Park and Ride.

Figure 2.2-2 includes bus stops in detail with different bus services (including Tiger bus service) within and around site.

The use of bicycles as a form of transport will be encouraged, with bicycle storage and shower facilities made available on-site. Generally, this will be

adjacent to the site welfare compounds. Additionally, please refer Figure 2.2-5 for Micromobility stations within and around site.

Any parking for operatives or contractors will be provided within the Site boundary and coordinated with the works by the Principal Contractor. Visitor parking will also be provided within the Site boundary.

Contractor/staff parking individual bays will be at least 2.5m x 5m, with a 6m reversing space. A list of number of operatives, staff and trades that will be on site at any one time should be provided to ascertain if the number of spaces being proposed will be acceptable.

#### **4.3.4.4** Cut and Fill

The Cut and Fill for the Site has been considered at a masterplan level to maximise the re-use of site won materials and reduce the need to export and import material away from and to the wider development site. This is subject to materials testing for hazardous content and available storage areas to facilitate future phases.

# 5 Estimated Vehicle Movements

Due to the stage of the project the vehicle numbers have been calculated using the CLOCS Build Cost Method, based on the CLOCS Construction Logistics Plans guidance v1.2 (April 2021) for Outline Construction Logistics Plans. These give average monthly delivery per construction stage. The figures have been used to work out the total average number of vehicle deliveries for all plots based on the anticipated phasing programme set out in Section 3. Figures will be revalidated as the design progress and further details are available.

Construction traffic includes Heavy Goods Vehicles (HGVs), Light Goods Vehicles (LGVs) and cars which will travel to and access the site during the enabling, demolition and construction period. The maximum number of daily vehicles trips expected to be travelling to and from the site is 2,001 (one way) during month August, September, and October 2033 of the construction period. Of these vehicles it is estimated that 65 per day (71%) are expected to be HGVs and the remaining 26 per day (29%) will be Light Goods Vehicles (LGVs) and general construction traffic. Table 5.11 shows the anticipated daily vehicles peaks during each year of the demolition and construction period, for all construction traffic.

Table 4.3-2 Construction Traffic: One Way Trips Peaks for each development year

Year	Peak Per Month Peak Per Day		Day			
	Total	HGV	LGV	Total	HGV	LGV
2027	846	413	433	38	19	20
2028	846	450	433	38	20	20
2029	900	611	289	41	28	13
2030	1251	876	375	57	40	17
2031	1707	988	718	78	45	33
2032	1807	1021	785	82	46	36
2033	2001	1434	567	91	65	26
2034	1695	1225	470	77	56	21
2035	1369	987	382	62	45	17
2036	263	170	93	12	8	4
2037	263	170	93	12	8	4

Estimated Vehicle Movements

North West Cambridge Development

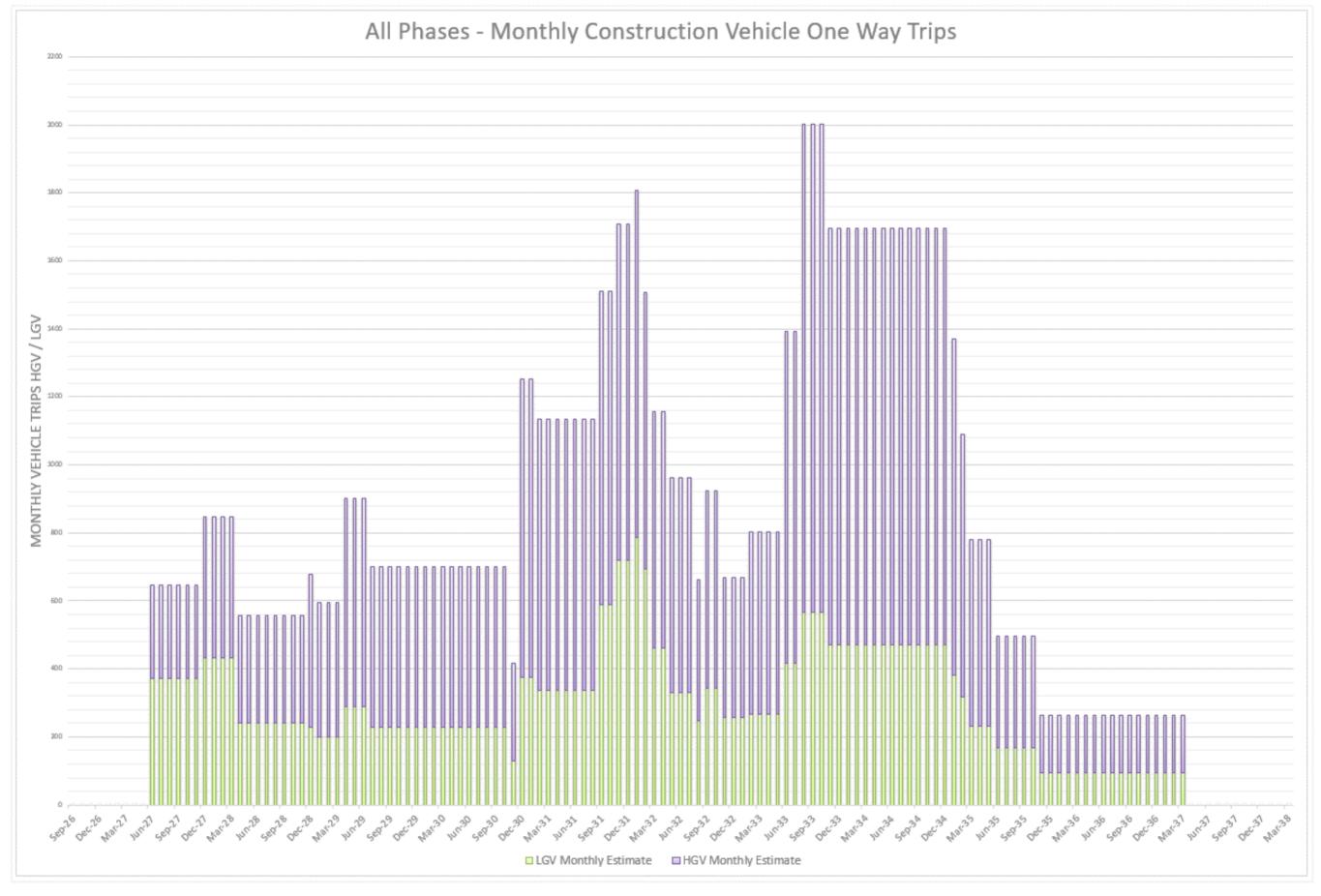


Figure 4.3-1 Monthly Construction Vehicle Trips

# 6 Site Management

## **6.1** Proposed Site Management Controls

This CEMP has been prepared to be incorporated by the principal contractors when developing the Detailed CEMP prior to the commencement of on-site works.

A contractor or contractors will be appointed to undertake the works, in lieu of their appointment this document sets out the principles and requirements that a contractor will have to adhere to and forms the basis for the development of a Detailed Construction Management Plan. This includes:

- A commitment to environmental protection (all consultants and trade contractors will be invited to declare their support for this at tender stage).
- Documentation of measures to comply with environmental aspects of any planning conditions.
- Detailed control measures and activities to be undertaken to minimise likely environmental impacts, as well as associated roles and responsibilities.
- Target criteria for environmental issues, where practical, such as water and energy consumption.
- Any requirements for monitoring and record keeping.
- Proposed noise, vibration, and dust monitoring levels in alignment with CCC.
- A dedicated point of contact during normal working hours and in emergencies with responsibility to deal with environmental issues if they arise.
- A review and monitoring regime of on-site performance against the Detailed CMP provisions by the project team and regular environmental audits of its implementation.
- The necessary level of management and control of demolition and construction practices. This includes advance notice of operations and duration of work that may cause noise, disruption to access, or other effects.

This Framework CMP will form part of tender documentation and contractors will be required to demonstrate how they will work within

these provisions, identify communication channels for exchange of information and set out programmes for monitoring and auditing of environmental control systems.

Where departures from the Framework CMP / Detailed CMP are unavoidable, prior identification is required, such that other mitigation measures can be considered.

#### **6.1.1** Consents and Licences

All statutory, LPA consents and licences required to commence any on-site activity will also be obtained ahead of the works commencing and give the appropriate notice period. Applications will include but not necessarily be limited to:

- A works license for any works on the public highway will be entered into for works on the existing highway in accordance with the Highways Act 1980 and Road Traffic Act 1998.
- Hoarding and scaffold licenses for works on the perimeter boundary.
- Public Right of Way (PRoW) temporary diversions, which will be locally diverted at various stages of the enabling and construction programme to facilitate construction and to maintain public health safety.
- Submission and approval from the Lead Local Flood Authority (LLFA) for the surface water drainage design for the site.
- Ordinary water consents and environmental permitting to be obtained for any works associated with the watercourses (i.e. drainage outfalls etc.).

### **6.1.2** Survey and Investigations

Additional ground investigation (GI) will be undertaken as recommended in the AECOM 92024) Land Contamination Preliminary Risk Assessment (PRA). The GI will be completed prior to development commencing including areas not previous investigated. If risks from potential contamination is determined by the assessments carried following the GI, then a Remediation Strategy will be developed for the site, in consultation with GCSPS and the Environment Agency (EA), and appropriate remediation measures implemented as required. On completion of any remediation, the results will be reported within a Verification Report, to ensure that the remedial criteria set out in the remediation scheme have

been achieved. The contamination assessment will be conducted in accordance with CIRIA C552.

An adequate risk assessment following an intrusive ground investigation can be undertaken to identify significant adverse effects to human health. If the assessment identifies unacceptable risks, appropriate remedial measures and / or gas protection measures will be implemented during the enabling and construction phase of the Proposed Development in accordance with the Remediation Strategy developed for the site.

Additional site investigation, including groundwater monitoring and assessment, will be completed prior to development commencing including areas not previous investigated and appropriate remediation implemented as required, which can be secured by planning condition.

Further ground gas monitoring will be undertaken to develop a comprehensive Ground Gas Risk Assessment (GGRA) to appropriate classify the site. Following the GGRA, the appropriate ground gas protection measures will be implemented into building design in accordance with BS8485:2015+A1:2019 'Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings', in line with of protective measures for methane and carbon dioxide ground gases for new buildings.

A piling risk assessment will be carried out to reduce as far as reasonably practicable the risk of development of preferential pathways (e.g. groundwater flow) between the Made Ground present and the underlying Principal Aquifer. The assessment will be in accordance with the Environment Agency's guidance documents including, piling into contaminated sites and will determine the risk to receptors through potential pollution scenarios considering any remediation measures proposed by the Applicant. A Piling Risk Assessment will be required to assess the risks associated with piling or other ground stability techniques to ensure no unacceptable risks to groundwater.

### **6.1.3** Condition Surveys

Each Principal Contractor will undertake any required condition surveys between the site and the nearest public highway deemed suitable to cater for construction traffic likely to be generated. Further, each access point to any public highway (including NMU facilities or public right of way) by any access road or track used by construction vehicles will be subject to condition surveys; the extent of the necessary condition surveys shall be agreed with the Highway Authority in advance of commencement.

Inspections shall take place before construction commences, during the construction programme (in accordance with timeframe to be agreed) and

following the completion of construction, to ensure that the public highway remains in good repair and highway safety is maintained throughout the period of construction. Regular inspections will also enable any repairs to be made in a timely manner throughout the construction period.

At the end of the construction period, the areas subject to survey shall be inspected and a programme of works to restore them to the condition they were in before the construction period began will be agreed with the Highway Authority. The remediation works will be implemented by the Principal Contractor.

The nature of the surveys i.e. video/ photographic, and means of recording, shall be agreed with the Highway Authority.

The Principal Contractor will be responsible for repairing damage the adopted public highway (including areas of soft landscaping) caused by construction traffic in a timely manner to the satisfaction of, and at no expense to, the Highway Authority.

# **6.2** Principal Contractor and Sub-Contractor Management

It is assumed that the works for the Proposed Development will be delivered as "Development Parcels / Plots" under the control of Principal Contractors. A Development Plot may include infrastructure works, a single plot, multiple plots or public realm works, with multiple Development Plots being delivered concurrently to suit the phasing strategy.

The Principal Contractors and sub-contractors will have responsibility for monitoring environmental and safety performance. Acting as a point of contact for consultation and feedback and for developing mechanisms to solve on-site issues as and when required.

All Contractors will be required to register the relevant Development Plot under the Considerate Constructors Scheme), Fleet Operator Recognition Scheme (FORS) and Construction Logistics and Community Safety (CLOCS).

# 6.3 Hours of Work

Working hours will be agreed with the CCC, but are expected to be:

Monday to Friday - 7am to 7pm;

Saturdays - 7am to 1pm; and

Site Management North West Cambridge Development

At no time: Sundays, Bank and Public Holidays.

Start-up and close-down periods of up to an hour before and after core working hours (8am to 6pm) will be used for activities such as arrival of workforce and staff on site; deliveries and unloading; maintenance and checking of plant and machinery; general refuelling; site inspections, and safety checks prior to commencing work; site meetings; and general site clean-up and departure.

Some activities may need to be conducted outside the agreed working hours such as the following:

- Seasonal and/or weather dependent/ daylight hours dependent.
- Construction plant repair and maintenance work.
- Major concrete operations and other continuous operations.
- Setting-up of traffic management schemes.
- Short-term construction activities requiring road and railway closures/possessions.
- Delivery of abnormal loads in accordance with the requirements of the Highways Authority and Police, for example during mobilisation and demobilisation.

For these works the Principal Contractor will apply for dispensation in accordance with the Cambridge City Council and South Cambridgeshire District Council noise nuisance guidance.

# 6.4 Health and Safety

All works on-site will be undertaken in accordance with the provisions of the Construction (Design and Management) (CDM) Regulations 2015

All method statements will incorporate regulatory safety matters and a Health and Safety File will be maintained on-site for inspection by the HSE, CCC, and others as appropriate.

A permit to work system will operate on the Proposed Development and before a permit is authorised by the responsible manager, they must inspect the location of the works to ensure all necessary safety measure have been put in place before the relevant works proceed.

# 6.5 Housekeeping and General Site Management

Hoardings will be erected around Plots and in locations where the perimeter interfaces with the public and third to provide a clear and secure demarcation between operational activities and other areas. The

hoarding should provide information regarding the Proposed Development and its progress. Particular attention will be paid to locations supporting high volumes of pedestrian movement (for example at the completed phase boundaries), demolition and construction routes, access gates and security arrangements.

A 'clean site' policy will be maintained, and Principal Contractors and their sub-contractors will be expected to maintain tidiness at the Site. A water assisted road sweeper will be employed if required during the demolition, piling and excavation periods of the construction programme to make sure that the streets around the site are kept clean during the works. Dry sweeping will be avoided over large areas. Vehicles entering and leaving sites will be covered to prevent escape of materials during transport.

Hoardings will be lit from half an hour after sunset to half an hour before sunrise. Prior to the erection of any external floodlighting details will be agreed with the CCC

## **6.6** Emergencies and Environmental Incidences

Protocols to be implemented on-site in instances of emergencies and environmental incidences will be set out within the Detailed CEMP for approval by CCC.

# 7 Environmental Controls

#### 7.1 Overview

A review of the potential environmental impacts associated with the demolition, infra structure and construction works is being undertaken to proactively inform the embedded mitigation measures of the Proposed Development.

Impacts can arise from day-to-day works or from individual instances of accidents, poor operation, or management. The potential for these impacts to occur can be avoided or minimised through attention to management and control (e.g., watering to control dust, use of noise attenuated plant, use of a well-trained workforce and properly maintained plant), under the responsibility of the Principal Contractors, by tender requirements and measures detailed in this Framework CMP.

#### 7.2 Commitments

The Applicant is determined to achieve sustainable outcomes at the Proposed Development. Please refer to the "Sustainability Strategy." Submitted as part of this Applications for further details.

# 7.3 Sensitive Receptors and Potential Environmental Impacts

The EIA details all sensitive receptors and proposed mitigation measure for Environmental Impacts. The Principal Contractors will develop a Detailed CEMP that incorporates all the requirements for the EIA. The below is an overview framework for the development of Detailed Construction Environmental Management Plan.

### **7.3.1** Noise and Vibration Receptors

Noise and vibration receptors in the vicinity of the site include a range of residential receptors including Huntington Road properties (Howe Farm House, Girton Gate, College Holt, Hadleigh House, West Acre, New Hayes, Huntingfield, Roston, Farmfield, Middlefield, Girton Corner, 1-7 Bunkers Hill, Grange House, Thorpe, Thorndyke, Westchester, Arcady and Trinity Farm)

A full list of receptors is summarised in Table 7.3-1 Summary of Existing Receptors below:

Property	Туре	Receptor Sensitivity
Huntington Road properties, Arcady and Trinity Farm)	Residential	High
Girton College	Residential College	High
Lots S1 and S2	Residential	High
Holly Nurseries	Residential	High
Arcady	Residential	High
Lot M1	Residential	High
Lot M2	Residential	High
Lot 5	Residential	High
University Of Cambridge Primary School	School	High
Lots 2 and 3	Residential	High
Lot S3	Residential	High
Premier Inn Cambridge North and Travelers Rest	Hotel and Residential	High
Mill House	Residential	High
UN Environment World Conservation Centre	Research Centre	Medium
147-217 Huntingdon Road	Residential	High
4-8 All Souls Lane	Residential	High
32a, 32b and 34 Storey's Way and All Souls Chapel	Residential and Workshop	High
2 to 30 Storey's Way	Residential	High
Madingley Rise Site	College	Medium
Institute of Energy and Environmental Flow	Research Centre	Medium
Conduit Head Road and 1-8 Bradrushe Fields	Residential	High
1-12 Landsdowne Road	Residential	High
Lot M3	Residential	Hlgh

## Table 7.3-1 Summary of Existing Receptors

### 7.4 General Environmental Controls

The following mitigation and environmental controls will collectively limit potential visual, noise, vibration, traffic, and dust impacts associated with the Proposed Development's construction works at the Site:

- Maintaining aesthetically appropriate site hoardings.
- Undertaking regular water-assisted dust sweeping on roads.
- Arranging and locating potentially high impact site activities and plant away from neighbouring residential receptors, where practical.
- Selecting quiet plant and regularly maintaining plant.
- Implementing good housekeeping measures at the Site.
- Directing site lighting away from sensitive receptors.
- Turning site lighting off outside of normal working hours.
- Screening scaffolding and active construction activities above hoarding levels, where practical.
- Implementing construction traffic management measures.
- Implementing and monitoring dust management measures.
- Implementing and monitoring noise and vibration measures.
- Using temporary acoustic barriers around potentially noisy activities.
- A 10m buffer zone of the Traveller's Rest Pit Site of Special Scientific Interest (SSSI) will be established prior to the commencement of construction works.
- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary.
- Display the head or regional office contact information.
- Ensuring that hard surfaced haul roads are installed and maintained for its integrity; and are regularly damped down with fixed or mobile sprinkler system.

## 7.5 Noise, Vibration and Dust

Effective co-ordination and time management of demolition and construction activities will be used to avoid noise and vibration nuisance to surrounding uses. Early and helpful communications with the

surrounding and on-site receptors will assist in managing any complaints arising during the demolition and construction works of the Proposed Development.

Contractors will be required to ensure that works are carried out in accordance with best practicable means as defined in Section 72 of the Control of Pollution Act 1974 (COPA).

An Environmental Risk Assessment (ERA) will be carried out for all work packages on the Project. The package specific ERA will assess, amongst other things, the environmental aspects and the associated risks of the works being carried out that may adversely affect the any receptors as a result.

The ERA will be utilised in conjunction with the method statement for the works being carried out and appropriate mitigation measures or alternative methods of work will be identified and instigated.

As a basis the risk assessment will consider the following:

- The works and activities being undertaken.
- The duration of these works and activities.
- The number and types of vehicles and plant used.
- The location of the works and the size of the site.
- The prevailing meteorological conditions (wind speed, direction, and rainfall).
- The proximity of sensitive receptors to the activity and their potential sensitivity to noise, dust, and vibration.
- The existing levels of background noise, dust, and vibration e.g., from adjacent traffic and construction works.
- The adequacy of the mitigation measures applied to reduce or eliminate noise, dust, and vibration.
- The structure of building and foundations and any potential structure borne vibration transmission routes.
- Details of any fuels being stored on-site.

summarises an initial assessment of the impacts of noise, dust, and vibration during each stage of demolition and construction.

Table 7.5-1 Noise, dust, and vibration impact assessment per build phase

Stage	Environmental Impact (Low/Medium/High)			Environmental monitoring (Y/N)		
	Noise	Dust	Vibratio n	Nois e	Dust	Vibratio n
1.Site Set up	L	L	L	Y	Y	Y
1a. Demolition	Н	Н	Н	Υ	Y	Y
2.EW / Piling /Sub-struc	Н	Н	Н	Y	Y	Y
3.Super-struct	М	М	L	Y	N	N
4.Env. / Roof	L	L	L	Y	N	N
5.Fitout / MEP	L	L	L	N	N	N
6.Landscaping	М	М	L	N	Y	N

#### 7.5.1.1 Noise and Vibration Best Practicable Means

The following provisions are examples of BPM and will be adhered to where practicable throughout the enabling, demolition and construction programme:

- The production of a construction noise and vibration report that evaluates the construction activities and provides specific BPM to reduce noise and vibration.
- Installing a solid and continuous barrier around the site.
- Limiting high impact activities (e.g., breaking and piling) to specific times during the day, e.g., 1 hour on – 1 hour off, or 09:00-12:00 and 14:00-17:00.
- Plant is to be properly maintained and operated in accordance with manufacturer's recommendations. Electrically powered plant is preferred, where practicable, to mechanically powered alternatives.
- Where feasible, all stationary plant would be located so that the noise effect at all occupied homes and commercial buildings is minimised

and, if practicable, every item of static plant when in operation is to be sound attenuated using methods based on the guidance and advice given in BS 5228; and

• The timing of building operations will be critical in avoiding noise and vibration nuisance to surrounding areas and premises. The contractor would identify particularly sensitive periods in the works so that the potential problems can be minimised and that early and good public relations with the adjacent occupants of buildings are maintained.

During the detailed working up of the construction programme and preparation of any future CEMP(s), the BPM measures to mitigate potential noise and vibration impacts on nearby noise sensitive premises will be defined and agreed with the CCC, with the primary method for the control of noise and vibration being a Section 61 agreement under the Control of Pollution Act 1974 ('COPA') with the CCC being established.

It is expected that a Section 61 agreement under the (COPA) will contain appropriate noise and vibration limits at the nearby properties. These limits shall be monitored and reported, with the reports highlighting when it is likely that the construction limits will be exceeded, so that construction activities can be effectively altered to mitigate.

In addition, a Section 61 agreement also sets out a dispensation and variation procedure under which consent can be applied for to carry out works which would potentially exceed the agreed noise and vibration limits, or must occur at times when such work is otherwise not approved. Such dispensation/variations would be applied for where there are good engineering, safety or practical reasons for undertaking the works at these times. The selected contractor should adopt measures, including site supervision arrangements, to reduce noise and vibration to a minimum in accordance with BPM, as defined in Section 72 of the COPA.

## 7.5.2 Noise Management

To effectively control nuisance noise levels caused by the construction activity taking place, the risk of nuisance noise being produced and the potential to have a detrimental effect on surrounding properties, amenities and personal wellbeing will be evaluated by the appointed Contractor/ Contractors. This will be carried out using the guidance in 'BS 5228-1:2009 'Code of practice for noise and vibration control on construction and open site - Noise".

Consents under Section 61 of the Control of Pollution Act 1974 will be obtained for the construction works. The works will be carried out in accordance with the conditions of the consent.

Environmental Controls

The Principal Contractor may agree with the local authority that for certain activities not anticipated to be noise sensitive such as site investigation and site set up, a Section 61 will not be necessary.

In any event Best Practicable Means (BPM) as defined under Section 72 of the Control of Pollution Act (CoPA) 1974 will be applied to all activities.

Noise from the site when measured 3 metres from the façade (free field) of any noise sensitive property, such as residential, shall not exceed the following levels, subject to background reading measures prior to commencement:

- LA<sub>eq</sub> (1 hour) 67 dB between 0700 and 1900 (including in the normal working hours);
- LA<sub>eq</sub> (1 hour) 57 dB between 1900 and 2200; and
- LA<sub>eq</sub> (5 minutes) 37 dB between 2200 and 0700.

If noise at a sensitive receptor, such as residential, is likely to exceed the levels stated above, the sensitive receptor and CCC/SCDC must be prenotified, in writing, at least 5 full working days prior to work commencing, with the following information:

- Site location;
- Duration of site operation, including schedule of operations likely to cause noise and their hours of work;
- Noise Characteristics; and
- Details of community liaison

## 7.5.3 Vibration Management

To effectively control nuisance vibration levels caused by the construction activity taking place, the risk of vibration being produced and the potential to have a detrimental effect on surrounding properties, amenities and personal wellbeing will be evaluated by the appointed Contractor/ Contractors.

All available techniques will be used to minimise, as far as is appropriate, the level of vibration to which operators and others in the neighbourhood of site operations will be exposed. The priority will be to avoid the generation of vibration, and where vibration is unavoidable, to control vibration at source. Measures which should be taken include the following.

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- All activities with the potential to cause vibration levels greater than or equal to 1.0 mm s<sup>-1</sup> PPV, eg piling, will be identified in the CMS prior to works commencing;
- Compaction will be via vibrating rollers wherever possible;
- A mitigation plan will be set out, including justification for siting of plant, types of plant selected, periods of use, working hours, access points, schedule of works likely to cause complaints (if not prenotified).
- A Piling Method Statement (PMS) will be prepared and agreed upon prior to the commencement of works. Vibration limits will be set in accordance with BS5228-2 to minimise the risk of complaints or building damage. These limits will be controlled through implementation of the CEMP and vibration monitoring. The PMS will also include vibration and noise monitoring and action levels.

Construction activities will be carried out using the guidance in 'BS 6472-1: 2008 'Guide to evaluation of human exposure to vibration in buildings, Vibration sources other than blasting" and 'BS 7385-2: 1993, 'Guide to damage levels from ground borne vibration" and 'BS 5228-2:2009 'Code of practice for noise and vibration control on construction and open site, Vibration".

In accordance with BS6472-1:2008, vibration levels should not exceed 0.4 m.s<sup>-1.75</sup> in neighbouring properties. If vibration at a sensitive receptor, such as residential, is likely to exceed 0.4 m.s<sup>-1.75</sup>, the sensitive receptor and CCC must be pre-notified, in writing, at least 5 full working days prior to work commencing, with the following information:

- Site location the location of a site in relation to the sensitive receptor;
- Duration of site operations, including schedule of operations likely to cause vibration and their hours of work;
- Vibration characteristics e.g. whether it is continuous, intermittent or impulsive;
- Effect on buildings;
- Details of community liaison.
- Vibration levels which have the potential to cause building damage will not be tolerated.

#### 7.5.4 Dust Management

To effectively control the dust particles being airborne, on-site monitoring system will be implemented with real-time baseline monitoring done prior to start of works through monitors with automatic site trigger alert levels.

The following implemented measures:

- All dust and air quality pollutant emission incidents and complaints will be recorded and responded and will be made available for local authority when requested. Equipment like Disc cutters, table saws, sanders, etc., will have dust suppression or a dust collection facility fitted. Stockpiles of earth and other aggregates will be stored in bunded areas and not allowed to dry out, unless they are required for a particular process, in which case it will be ensured that appropriate additional control measures are in place. Additionally, stockpile of bulk cement and other fine powder materials will be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
- A wheel washing system will be implemented for all construction vehicles and wherever possible, adequate hard surfaced area will be ensured till the site exit. Commercial road vehicles attending the site will meet European Emission Standards pursuant to the EC Directive 98/69/EC of Euro 4 for petrol vehicles and Euro 6 for diesel vehicles and Euro VI for all lorries and heavy goods vehicles. Access gates will be located at least 10 m from receptors where possible.
- The adopted public highway within the vicinity of the site will be swept within an agreed time frame as and when reasonably requested by any officer of the Highway Authority.

A detailed Dust Management Plan (DMP) will be submitted as part of this application. It will record the following mitigations:

- A dust risk assessment to determine the level of dust risk the site poses and the applicable mitigation measures.
- The identification of dust sensitive premises to be used as the location for dust monitoring, including any arrangements proposed for amending the selected locations if new dust sensitive premises are introduced.
- The frequency and other arrangements for dust monitoring; and
- The arrangements for reporting the results of dust monitoring and the implementation of mitigation measures to the Local Planning Authority.

The construction shall thereafter be carried out in accordance with the DMP/CEMP for dust monitoring, assessment and mitigation for all

demolition and construction activities unless otherwise approved in writing by the Local Planning Authority.

### 7.5.4.1 Dust Management Plan

All Principal Contractors and sub-contractors will be adopting following measures according the DMP,

- Record all dust and air quality pollutant emissions complaints.
- Make the complaints log available to the local authority when asked.
- Record any exception incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book.
- Hold regular liaison meetings with other high risk construction sites within 250m of the site boundary, to ensure plans are coordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.
- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills in close proximity to the site boundary, with cleaning to be provided if necessary;
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as possible.

- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Soft strip inside buildings before demolition
- Avoid explosive blasting, using appropriate manual or mechanical alternatives.
- Bag and remove any biological debris or damp down such material before demolition
- Re-vegetate earthworks and exposed areas/soil stockpiles to minimised surfaces as soon as practicable.
- Use Hessian, mulches or tackifiers where it is not possible to revegetate or cover with topsoil, as soon as practicable.
- Only remove the cover in small areas during work and not all at once
- Avoid scabbling (roughening of concrete surfaces)

## **7.5.4.2** Air Quality

SCDC has no designated Air Quality Management Areas (AQMAs), and CCC has revoked previously applicable AQMA in January 2025.

The Proposed Development is located approximately 1.5km north-west of the boundary of previously applicable AQMA.

## 7.6 Non-Road Mobile Machinery (NRMM)

Suitable best practice mitigation measures for the Site plant will be adhered to as follows to reduce the likelihood of significant adverse air quality effects from NRMM throughout the demolition and construction works:

- All NRMM will comply with Stage IIIB of EU Directive 97/87/EC.
- No vehicles or plant will be left idling unnecessarily.
- An on-site speed limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas will be enforced.
- NRMM will be modern and well maintained. Should any emissions of dark smoke occur (except during start-up) then the relevant machinery

will be stopped immediately, and any problem rectified before being used again.

- Engines and exhaust systems will be regularly serviced according to manufacturer's recommendations and maintained to meet statutory limits/opacity tests.
- Plant will be located away from the boundaries close to residential areas.
- Use of diesel or petrol powered generators will be avoided by using mains electricity or battery powered equipment where feasible and if safety concerns can be overcome.

## 7.7 Site Waste Management

An Outline Site Waste Management Plan (SWMP) has been prepared to support the planning application, and considers the need to lessen the overall impact of waste generation through recycling of materials from the construction phase of the Proposed Development. The Principal Contractors and sub-contractors will prepare a Detailed SWMP prior to commencing works on-site.

A waste storage area will be set out with clearly marked out areas for the segregation of each waste stream to support reuse and recycling.

Sufficient waste skips will be provided to maintain the Site in a neat and tidy state. When full they will be removed and replaced with empty skips.

Wherever possible, materials will be recycled and re-used either on-site or off-site. The Proposed Development will target the avoidance of waste to landfill and has a target of 95% of the waste generated on-site to be re-used or recycled.

The Detailed SWMP will focus on minimising waste being generated through the following measures:

- Material ordering will be carefully managed to minimise waste arising from over-ordering.
- Minimal packaging will be requested from suppliers. A take-back service will be required for all suppliers, especially for pallets etc.
- Materials will be ordered cut to required sizes (rather than standard sizes).
- Pre-fabrication of construction components off-site will be used were possible.

- Appropriate storage areas will be pre-prepared on-site to protect materials for weather damage prior to use.
- Active management of handling and storage areas (especially where close to local sensitive receptors), including water spraying and/or sheeting of stockpiles and surfaces in dry and windy conditions.
- Segregation of waste materials to ensure maximum value is derived from the materials generated.
- Compaction to reduce the overall volume of waste and reduce delivery collections.
- Minimising the prolonged storage of debris on-site.
- Inclusion of a specific waste performance clause in procurement documentation to drive performance of the project.
- Burning of waste materials will be avoided.

#### 7.7.1 Material Management Plan (MMP)

The Principal Contractors will produce Material Management Plan (MMP) following guidance in Definition of Waste: Code of Practice (DoWCoP).

The re-use of site-won materials will be under a MMP where the DoWCoP requirements have been met and approval from the appropriate regulator (the Environment Agency) has been granted; a Qualified Person under the DoWCoP will be engaged to approve the MMP and a verification report will be produced to demonstrate that the MMP has been properly enacted. Where material requires alteration, remediation or improvement prior to reuse, an environmental permit or an exemption will be sought prior to the reuse of material, where required.

Where soil materials are deemed to be surplus to the requirements of the Proposed Development, such materials, will be classified as waste under the Waste Framework Directive (WFD) (2009/98/EC) as either hazardous (17-05-03) or non-hazardous (17-05-04) soils. Classification will be undertaken using a proprietary assessment tool such as "HazWasteOnlineTM". Waste deemed to be hazardous, will require testing using the Waste Acceptance Criteria (WAC) prior to disposal to landfill. The 'Waste Duty of Care Code of Practice' (Department for Environment, Food and Rural Affairs, 2018) notes that there is a duty of care for the safe management of waste, particularly for the protection of the environment and human health. The duty of care is applicable if waste is imported, produced, carried, kept, treated, disposed of or have control (as a dealer or broker) of waste.

#### 7.7.2 Soil Resources Management Plan (SRMP)

The primary measures to mitigate the impacts on soil resources will be set out in a Soil Resources Management Plan (SRMP) produced by the Principal Contractors.

The SRMP will consider the measures set out in the Defra Construction Code of Practice for the Sustainable Use of Soils which includes confirmation of the different soil types and depths (based on the soil surveys already undertaken); the most appropriate re-use for the different types of soils within the detailed design; and the proposed methods for handling, storing and replacing soils on site. The adoption of the SRMP will ensure that the soil resources on site will be able to continue to fulfil their various ecosystem services and functions. The aim of the SRMP will be to re-use displaced soil resources on-site in the detailed design of open spaces and green infrastructure. The quality of soils retained on-site would be maintained by following good practice quidance on soils handling and storage, particularly to minimise soil handling and avoid compaction and biodegradation of soils. The reinstated soil resources shall be monitored for up to five years following the completion of the Proposed Development, for signs of such issues as poor drainage and anaerobism which shall be ameliorated as necessary.

## 7.8 Water Resource Management

The Principal Contractors and sub-contractors would set measures to protect surface and groundwater during the enabling, demolition and construction phase. This will include the following:

- Storage of any hazardous substances (including solids and liquids) within well-contained and secured bunded areas to remove the risk of migration to exposed groundwater or surface water runoff.
- Dewatering of any exposed groundwater is expected to be disposed appropriately in accordance with the EA requirements.
- Wheel wash facilities are expected to be provided for vehicles moving to and from the site to prevent unacceptable levels of silts and debris entering the surface water network; and
- Construction plant/materials are anticipated to be stored on hardstanding surfaces where possible to minimise silts and debris within surface water runoff.
- Foul and surface water discharge during enabling, demolition and construction will be managed through standard construction practice.

- The risk to groundwater contamination as a result of excavation and substructure works will be managed through standard construction practice, including measures such as:
- Storage of any hazardous materials within impermeable bunded areas to remove the risk of migration to exposed ground water; and
- Dewatering of exposed groundwater.
- Any pumped groundwater will be treated appropriately and disposed appropriately in accordance with discharge consent requirements.
- Potable water demand during enabling, demolition and construction will be managed through standard construction practice

The CEMP will also include requirements to ensure appropriate consents/permits are obtained for any construction-phase discharges of wastewater and permits obtained as necessary under the Environmental Permitting Regulations 2010 (as amended) and will also outline requirements to ensure adequate water supply for the site during the enabling, demolition and construction phase.

### **7.8.1** Surface Water Management

To effectively control the wastage of water generated from the construction and welfare activity,

Grey water recycling measures will be undertaken. This water would be used for the landscaping purposes.

Low-flow taps, and dual-flush toilet fixtures would be sitewide adopted.

Other measures included within the BS 8582:2013 will be considered.

Additional details will be included within the Detailed SWMP produced by Principal Contractors and sub-contractors.

## 7.9 Ecology and Biodiversity

A summary of existing habitats and potential for protected species are discussed in the Environmental Impact Assessment Chapter 11. Prior to any site clearance or demolition works commencing, a pre-works check will be undertaken by an ecologist for protected or priority species in the work area. This will include:

- Check for nesting birds, if works are programmed during the period (1 March to 31 August inclusive).
- Check for badger setts.

- Check for water voles in areas with wetland habitat.
- Check for hedgehogs, brown hares, toads and reptiles, and relocation of such animals to suitable areas of retained habitat; and
- Check of any buildings or trees for evidence of use by roosting bats.

The need for further monitoring and/or ecological oversight by the ecologist will be dependent on the findings and will be determined on a case-by-case basis. The ecologist will undertake regular (at least quarterly) visits during construction until effective completion, or earlier if all possible risks to wildlife can be discounted.

#### 7.9.1 Biodiversity

Additionally, following mitigations will be adopted based on the natural habitats and species listed below:

#### 7.9.1.1 Washpit Brook

No works will take place within 10m of the Washpit Brook unless previously agreed with an ecologist. The temporary crossing of Washpit Brook required in the northern part of the site to allow access across it during the sitewide cut and fill operation will be sited to minimise impacts on the brook and its vegetation. It will be installed on the same alignment as the flow control structure to ensure no additional trees need to be removed. It will be a clear span structure to avoid in-channel impacts. These details will be included within the CEMP, and their implementation will be secured through an appropriately worded planning condition.

## 7.9.1.2 Invertebrates

A proportion of the felled oak trees in the log pile in Plot J will be moved to a suitable area of retained habitat within the plot, to ensure that the Nationally Scarce species of timber worm beetle using the log pile is retained on site.

## 7.9.1.3 Great Crested Newt

Permanent newt fencing was installed alongside Eddington Avenue, either side of the Washpit Brook when the road was constructed as part of Phase 1 of the 2013 OPP, under the project's Natural England Great Crested Newt (GCN) Mitigation Licence. The temporary newt fence will be retained and maintained in good in this location until June 2031 under the current Natural England licence.

Site clearance and construction works within Amenity Cluster C will be overseen by an ecologist, and any newts found would need to be relocated to suitable retained habitat. This will be agreed with Natural England through a modification of the current licence.

Monitoring of the numbers of GCNs within Pond 6 is a condition of the current Natural England licence, with surveys programmed for 2028 and 2031. The results of the monitoring will be reviewed as part of the Reserved Matters Application for Plot J, along with an up-to-date assessment of the suitability of the terrestrial habitat within Plot J, to determine whether any specific mitigation measures are required. Any such works, if necessary, will take place under a new Natural England mitigation licence or a modified version of the existing licence.

#### **7.9.1.4** Common Toad

Site clearance and construction works within Amenity Cluster C, and Plots E1, F1, G and J will need to be overseen by an ecologist, with searches made of terrestrial habitat for toads prior to works commencing. Any toads found would need to be relocated to suitable retained habitat.

#### **7.9.1.5** Grass Snake

Site clearance and construction works within all parts of the site will need to be overseen by an ecologist, with searches made for grass snakes prior to works commencing. Any grass snakes found would need to be relocated to suitable retained habitat.

#### 7.9.1.6 Barn Owl

Demolition of the building containing the nest and construction works in the vicinity of it, will be undertaken outside of the nesting period. There is significant variation in the nesting season of barn owls, which can commence as early in the year as January and continue into October or November. Demolition in the December prior to works commencing is recommended to ensure compliance with the legal protection afforded to barn owls.

## **7.9.1.7** Skylark

Topsoil stripping in the western part of the site will be undertaken in a manner that minimises the risk of damaging a skylark nest, which will include the following;

 Works will commence in late summer/autumn (outside 1 March to 31 August), after the nesting period, wherever feasible; and  Where topsoil stripping needs to commence in spring or summer, the areas to be stripped will be surveyed in advance to confirm the absence of nests, and any nests present will be cordoned off and protected until the nest is no longer in use.

#### 7.9.1.8 Whitethroat and Linnet

Tree felling, hedgerow and scrub clearance will be undertaken in a manner that minimise the risk of damaging any bird's nests, which will include the following:

- Works should be undertaken between 1 September and 28 February inclusive, wherever feasible, to avoid the nesting season; and
- Where works need to be undertaken during the nesting season (1 March to 31 August inclusive), vegetation will be surveyed in advance to confirm the absence of any nests; with any nests present to be cordoned off and protected until the nest is no longer in use.

#### 7.9.1.9 Brown Long-Eared Bats

A Natural England licence will be required for the demolition of the farmhouse at Gravel Hill Farm. Works will take place when bats are absent, if possible, and under the supervision of a licensed ecologist.

#### 7.9.1.10 Water Vole

Water voles will be relocated from the four temporary construction site ponds prior to them being in-filled. They will be relocated from the footprint of the works to construct a drainage discharge into the lagoon at Brook Leys. This will most likely be achieved by displacement, which involves manipulation of the habitat by vegetation strimming and dewatering (in relation to the ponds) to encourage animals to relocate to alternative nearby habitats.

Works will take place under a Natural England licence, and there are seasonal restrictions on when such an operation can take place (currently 15 February to 15 April or 15 September to 31 October).

## 7.9.1.11 Badger

The four identified badger setts to be lost will need to be closed in advance of works commencing in relevant parts of the site.

Closure will take place under a Natural England Badger Mitigation licence, following approved methods, as well as being undertaken within the appropriate seasonal window (1 July to 30 November inclusive).

#### 7.9.1.12 Brown Hare

Site clearance and topsoil stripping within the western part of the site will be overseen by an ecologist, with searches made for brown hares prior to works commencing. Any animals found will be encouraged to move into retained habitat.

#### 7.9.1.13 Hedgehog

Site clearance activities across the site will be overseen by an ecologist, with searches made for hedgehogs prior to works commencing. Any animals found will be relocated into retained habitat.

#### 7.9.2 Tree Management

Tree protection fencing would be adopted as a measure to effectively manage the sitewide trees. Cabling and bracing would be used wherever necessary.

Bird and wildlife nesting season will be considered during the cut & fill activities and vegetation clearance would be avoided during that period.

## 7.10 Land Contamination Management

As per the Northwest Cambridge Area Action Plan (2009), the Traveller's Rest Pit Site of Special Scientific Interest (SSSI) site will be safeguarded and protected as part of the Proposed Development to ensure that there is no adverse impact during the construction and operation of the Proposed Development. The measures that will be implemented to safeguard the site will be detailed in the Detailed CEMP.

All earthworks' operations will be undertaken in accordance with the following guidance:

- BS1997:2004 Eurocode 7.
- BS16907-1 to 7:2018 Earthworks (BSI, 2018).
- BS6031:2009 Code of Practice for Earthworks (BSI, 2009); and
- National Highways (NH) guidelines including Design Manual for Roads and Bridges (DMRB) Series 600 'Earthworks' (Highways England, 2016).

In relation to ground conditions and land contamination, the detailed CEMP will include following measures,

 Best practice will be adopted during construction to prevent or reduce as far as reasonably practicable spillage risk and spillage effects by adhering to the CEMP, where such measures are to be set out. The CEMP will address the management of concrete batching, concrete usage and accidental spillage relating to foundation and building construction.

- Land disturbance will be reduced as far as is reasonably practicable and disturbed areas outside the development footprint will be revegetated as soon as possible after construction. Soil excavation will be undertaken with consideration given to the prevailing ground and weather conditions when programming the execution of the works to reduce the potential for mobilisation of exposed soil and / or sediment. Although not anticipated to be widely present across the majority of the site, if encountered, topsoil and subsoil will be kept separately during excavation.
- Temporary construction compound areas will be located away from all significant surface water bodies where possible.
- Washing out of vehicles or equipment will only take place in controlled areas.
- Suitable areas for specific construction activities will be identified within the CEMP and consultation with the EA will take place before construction commences
- Chemicals, fuels and oils will be stored in secure and designated storage areas in accordance with the appropriate regulatory requirements, including the Control of Pollution (Oil Storage) (England) Regulations 2001 and Control of Substance Hazardous to Health (COSHH) Regulations 2002. Storage areas will need to be located on hardstanding areas to prevent the possible infiltration of contaminants into soils.
- Re-fuelling of plant will take place in appropriate areas to be agreed in the CEMP i.e. in locations with an impervious base and are bunded or provided with interceptor drains. Spill kits will be kept with all vehicles on-site and all bowsers are to be double skinned or have a bund. Vehicles and equipment will not be left unattended during re-fuelling. To prevent materials leaking from static plant, such as pumps and generators, static plant will be placed on drip trays wherever practicable.
- All pumps, generators and similarly fuelled equipment will be placed on drip trays or in a bunded area, and no vehicles or equipment will be allowed to enter any watercourses at any stage. Refuelling areas will be positioned a minimum of 50m away from any watercourse or drain. All vehicles, generators and similarly fuelled equipment will be

maintained to a high standard to reduce as far as is reasonably practicable potential pollution incidents.

- All valves, hoses and associated re-fuelling equipment will be regularly inspected to ensure that they are still in a suitable condition. This equipment will be protected from vandalism and unauthorised interference and will be turned off and securely locked when not in use.
- All storage of drums containing hazardous material will be located within the main site temporary construction compound. Any spillages or leaks will be dealt with promptly and all waste disposed of in an appropriate manner. All tanks, drums and other containers will be clearly marked as to their contents. Before any tank is removed or perforated, all contents and residues will be emptied by a competent operator for safe disposal.
- All bunds will have a capacity of at least 110% of the storage volume and will be covered where practical to prevent the collection of rainwater; and
- Any staff involved in fuel handling will be given appropriate training, and site-specific procedures will be developed for all staff. Workers will be made aware of their statutory responsibility under section 85 of the Water Resources Act 1991 not to "cause or knowingly permit" water pollution. In addition, they will be made aware of their statutory responsibility under Regulations 38(1) and 12(1) of the Environmental Permitting Regulations 2019 not to "cause or knowingly permit" a water discharge activity or groundwater activity without an environmental permit.

Rainfall runoff from areas where there is a risk of contamination will be managed using temporary drainage systems and or tanked offsite for treatment (including settlement of suspended solids and or oil interceptors) prior to discharge to local watercourses with the approval of the Environment Agency pursuant to a discharge licence. The drainage systems will incorporate pollution control systems designed in line with the CIRIA C532<sup>5</sup> or as agreed with the relevant authorities. Surface watercourses and waterbodies near worksites will be regularly inspected for signs of siltation or other forms of pollution in line with CIRIA Environmental Good Practice on Site Guide C811<sup>6</sup>, whilst pumped groundwater, process effluents and construction site runoff will be tested to ensure compliance with discharge consent requirements – these measures are to be detailed in the CEMP.

Best practice will be adopted during construction to prevent or minimise spillage risk and spillage impacts by adhering to the CEMP. The CEMP will

address the management of concrete batching, concrete usage and accidental spillage relating to foundation and building construction.

## 8 Community and Stakeholder Engagement

## 8.1 Managing Stakeholders

Due to the size and scale of the Proposed Development, parts of the Site will be handed over for occupation in line with the phased demolition and construction programme whilst the balance of the development continues.

A stakeholder management plan will be prepared by all Principal Contractors prior to commencing works on site.

The contractors will be expected to nominate a manager who will act as the Project Environmental Manager (PEM), who will be named at all entrances to the Site, with a contact telephone number. The contact's name and details will be provided to all the relevant stakeholders by the Principal Contractor prior to the start of the demolition and construction works.

The PEM will have primary responsibility for dealing with the CCC, EA and other stakeholders on environmental matters, and all key stakeholders will be notified whenever a change of responsibility occurs for the PEM role. The PEM will keep neighbours, and other relevant parties informed of the nature of the on-going works, their duration and programme to establish and maintain good relationships with them.

# 9 Implementing, Monitoring And Updating

A Detailed CEMP would be produced by each appointed Principal Contractor, prior to works commencing on a Development Plot. The document would be submitted for review and likely to be regularly reviewed and updated to reflect the changes in site conditions, mitigations, or methodologies.

The Detailed CEMP would define responsibilities and procedures for the management of the potential impacts on the environment arising during demolition, enabling and construction. A monitoring programme of the environmental effects of demolition and construction would likely be implemented to agreed CCC requirements. This programme may:

- Evaluate the effectiveness of environmental mitigation and identify environmental problems and appropriate responses at an early stage.
- Ensure that the works are carried out in accordance with the provisions of the Detailed CMP.
- Identify and implement any environmental improvements that will contribute to the overall environmental performance of the Proposed Development.

The Applicant would wish to reassure itself that the CEMP is being adhered to by all contractors. To this end, site inspections and more formal audits would be undertaken and a checklist pro-forma, which will cover the environmental issues addressed in the Detailed CEMPs, likely be used.

Where a problem is identified, corrective action would be identified and implemented in conjunction with the Applicant, site managers and subcontractors.

# Glossary

## Best Practicable Means (BPM)

As defined by the Environmental Protection Act 1990 Section 79. "practicable" means reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to the financial implications.

#### **Detailed CEMP**

An updated construction management plan produced by the Principal Contractor for specific Development Plot or works prior to works commencing on site. The Detailed CMP will contain additional details following the development of the design.

## Development Plot

A Development Plot identifies areas within Development Zones where buildings, communal areas and public realm will come forward. Also referred to as a 'Plot.'

## Environmental Impact Assessment (EIA)

The EIA is a process consisting of the preparation of an environmental statement to assess the potential environmental effects of the Development.

## Environmental Risk Assessment (ERA)

An assessment of environmental impacts (noise, dust, and vibration) for specific works / activities usually produced by contractors and subcontractors.

## **Principal Contractor**

CDM 2015 - A Principal Contractor is the organisation (or individual) in control of the construction phase. They have the duty to plan, manage and monitor the construction phase of a project involving more than one contractor. In particular, they coordinate matters relating to health and safety during the build and break down of structures.

The Building Regulations (as amended) - A Principal Contractor must plan, manage, and monitor the building work, cooperate, coordinate, and communicate to ensure the building work complies with building regulations.



