

Intermodal Logistics Park North Ltd

INTERMODAL LOGISTICS PARK NORTH (ILPN)

Intermodal Logistics Park North (ILPN) Strategic Rail Freight Interchange (SRFI)

Project reference TR510001

Carbon Management Plan

October 2025

Planning Act 2008

◆ Carbon Management Plan

INTRODUCTION

- 1 This Carbon Management Plan (CMP) sets out how the Applicant will minimise greenhouse gas (GHG) emissions throughout the construction and operation of ILPN RFI.
- 2 Construction of the Proposed Development will cause direct and indirect GHG emissions from the fuel and energy used by construction plant and in the ‘embodied carbon’ of materials used. The embodied carbon refers to the indirect emissions in the supply chain for those materials: extracting and transporting the raw materials, manufacturing them into products, and delivery of those products to the DCO Site.
- 3 During operation, the Proposed Development would cause direct and indirect GHG emissions due to the use of electricity and combustion of fuel from plant and from road and rail traffic generated by the Proposed Development.
- 4 Taking into account national policy, guidance and standards, the core objectives of this CMP are as follows:
 - to outline the steps that have been taken to reduce GHG emissions throughout the design of the Proposed Development to date;
 - to provide a strategy for reducing GHG emissions to a level that is as low as reasonably practicable across all delivery stages by applying the carbon reduction hierarchy;
 - to make an initial prediction of GHG ‘hotspots’ from construction materials to inform detailed design evolution; and
 - to outline measures to offset residual GHG emissions.

POLICY, GUIDANCE AND STANDARDS

- 5 The CMP follows the requirements of the National Policy Statement for National Networks (NPSNN) which states in paragraph 5.35:

‘Having regard to current knowledge, a carbon management plan should be produced as part of the Development Consent Order submission and include:

- *a Whole Life Carbon assessment for the project*
- *an explanation of the steps that have been taken to drive down the carbon impacts of the project*
- *how construction and operational emissions and, where applicable, emissions from*

maintenance activities, have been reduced as much as possible using the carbon reduction hierarchy (e.g., as set out in PAS2080) (recognising that in the case of road projects while the developer can estimate the likely emissions from road traffic, it is not solely responsible for controlling them)

- *whether and how any residual carbon emissions will be (voluntarily) offset or removed using a recognised framework (any offsetting of emissions should not be included in the Whole Life Carbon Assessment headline figures)*
- *where there are residual emissions, the level of emissions and the impact of those on any relevant statutory carbon budgets’.*

6 The following guidance and standards have also been used to inform the preparation of the CMP:

- the Institute of Sustainability and Environmental Professionals (ISEP, formerly IEMA) guide ‘Assessing Greenhouse Gas Emissions and Evaluating their Significance’¹;
- the principles of PAS 2080:2023 – Carbon Management in Buildings and Infrastructure (BSI, 2023²); and
- The RICS Guide to Whole Life Carbon Assessment for the Built Environment, 2nd edition³.

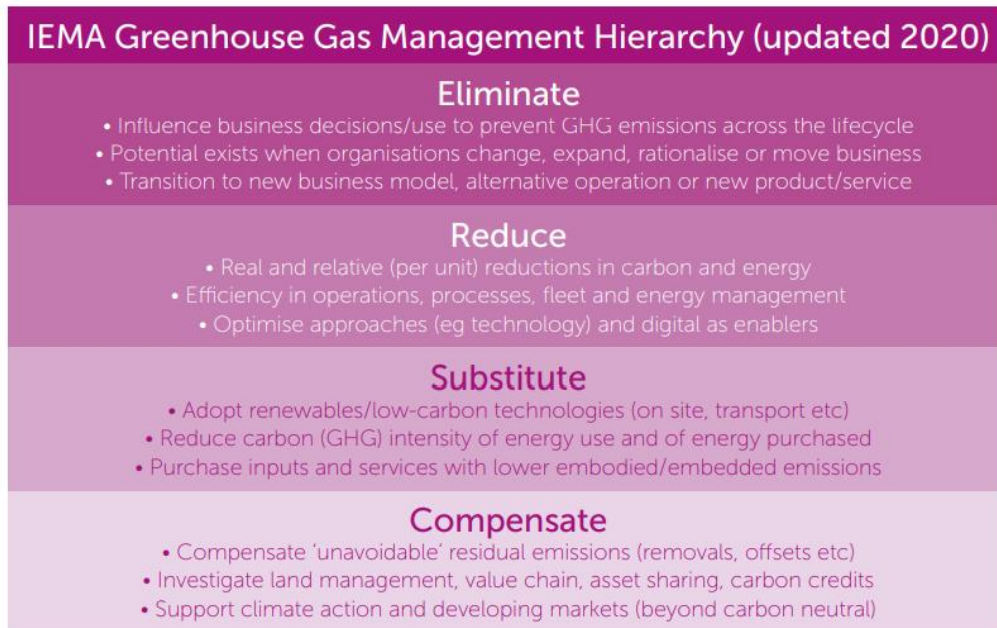
ISEP Guidance on Assessing Greenhouse Gas Emissions and Evaluating their Significance

- 7 As noted in the 2022 Guidance, “*mitigation should be considered from the outset and throughout the project’s lifetime*”. The ability to effect change to achieve GHG emissions reduction for a project reduces over time, meaning that it is important to consider emission reduction measures from the outset or earliest practical point.
- 8 To help with emission reductions, ISEP has published a GHG Management Hierarchy (Figure 1) that directs GHG mitigation action for a project.

¹ IEMA (2022): Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance. 2nd Edition. [Online] Available at: <https://www.iema.net/resources/blog/2022/02/28/launch-of-the-updated-eia-guidance-on-assessing-ghg-emissions>, accessed 11/07/25.

² BSI (2023): Carbon Management in Infrastructure and Built Environment – PAS 2080. [Online] Available at: <https://www.bsigroup.com/en-GB/insights-and-media/insights/brochures/pas-2080-carbon-management-in-infrastructure-and-built-environment/>, accessed 25/09/25.

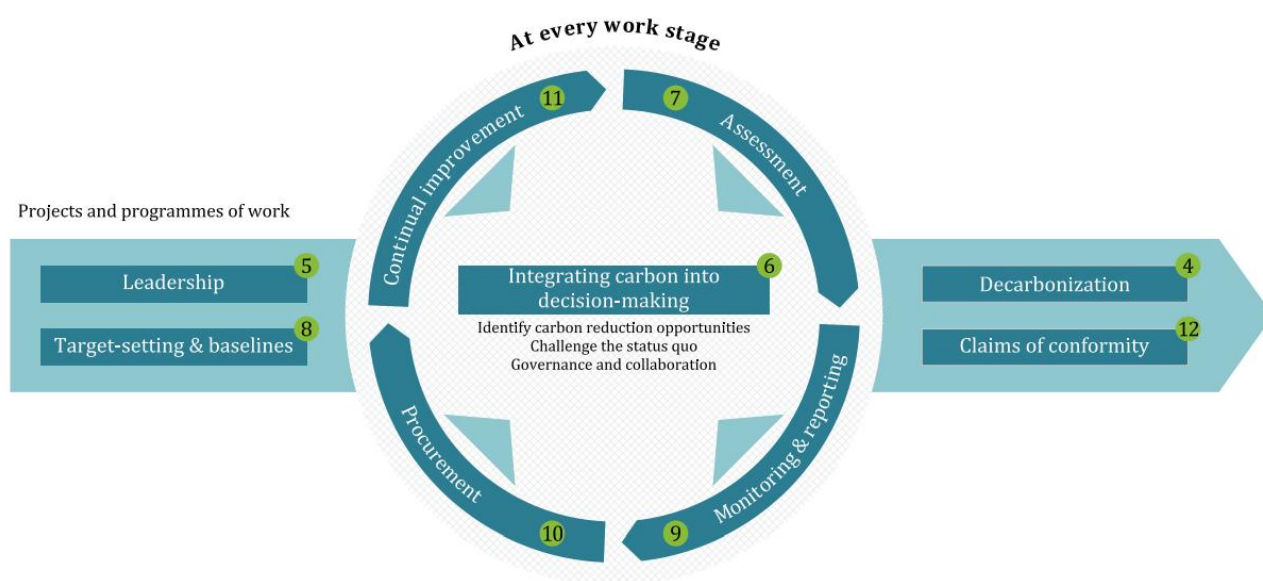
³ RICS (2023): Whole life carbon assessment for the built environment. 2nd edition: <https://www.rics.org/profession-standards/rics-standards-and-guidance/sector-standards/construction-standards/whole-life-carbon-assessment>, accessed 28/07/25

Figure 1 Greenhouse Gas Management Hierarchy**PAS 2080 Carbon Management in Buildings and Infrastructure**

- 9 PAS2080 includes a similar reduction hierarchy, where projects are required to:
1. Avoid: align the outcomes of the project and/or programme of work with the net zero transition at the system level and evaluate the basic need at the asset and/or network level;
 2. Switch: assess alternative solutions and then adopt one that reduces whole life emissions through alternative scope, design approach, materials, technologies for operational carbon reduction, among others, while satisfying the whole life performance requirements;
 3. Improve: identify and adopt solutions and techniques that improve the use of resources and design life of an asset/network, including applying circular economy principles to assess materials/products in terms of their potential for reuse or recycling after end of life.
- 10 Additionally, PAS 2080 requires the following:
- understand and prioritise the requirements of the carbon management process (reproduced in Figure 2) for delivering the project and/or programme of work;
 - identify whole life carbon reduction opportunities over which Applicants have control and/or influence, according to the carbon reduction hierarchy, and take early action to reduce carbon emissions where the opportunity is greatest;
 - prioritize the implementation of solutions that best support system-wide decarbonization;
 - challenge current practices to enable whole life carbon reduction, including scope, strategy and intended outcomes, standards and prescriptive specifications, design approach, programme or cost;

- collaborate with other stakeholders and value chain members to implement solutions that minimize whole life carbon;
- assess whole life carbon emissions and removals in their control and influence and record reductions with reference to the baseline(s) and target(s) set;
- identify low-carbon alternatives appropriate at each stage of the carbon reduction hierarchy, including nature-based solutions and circular economy opportunities in the project or programme, where appropriate; and
- where carbon removal activities are planned or undertaken, report them separately from carbon emissions and emissions reductions.

Figure 2 The PAS 2080 carbon management process



Key



PAS 2080 clause number

SCOPE OF CARBON MANAGEMENT PLAN

- 11 This CMP sets out both the embedded carbon reduction mitigation measures adopted for the Proposed Development, as well as further opportunities to reduce carbon emissions through the next stages of design.
- 12 The GHGs considered in this assessment are those in the 'Kyoto basket' of global warming gases expressed as their CO₂-equivalent (CO₂e) global warming potential (GWP). GWPs used are typically the 100-year factors in the Intergovernmental Panel on Climate Change Sixth Assessment Report or as otherwise defined in emissions factors and for national reporting under the UNFCCC.
- 13 GHG emissions caused by an activity are often categorised into 'scope 1', 'scope 2' or 'scope 3' emissions, following the guidance of the WRI and the WBCSD Greenhouse Gas Protocol

suite of guidance documents:

- Scope 1 emissions: released directly by the entity being assessed, e.g. from combustion of fuel;
- Scope 2 emissions: caused indirectly by consumption of imported energy, e.g. from generating electricity supplied through the national grid; and
- Scope 3 emissions: caused indirectly in the wider supply chain, e.g. the embodied carbon in materials, transportation, or the disposal of waste products.

- 14 The CMP has sought to include emissions from all three scopes, where this is material and reasonably possible from the information and emissions factors available. However, the GHG emissions are not explicitly separated out by the defined scopes. Whilst it is recognised that a large majority of GHG emissions will occur outside the physical site boundary, the Roles and Responsibilities section sets out ways in which the Applicant and future contractors could reduce emissions as far as possible.

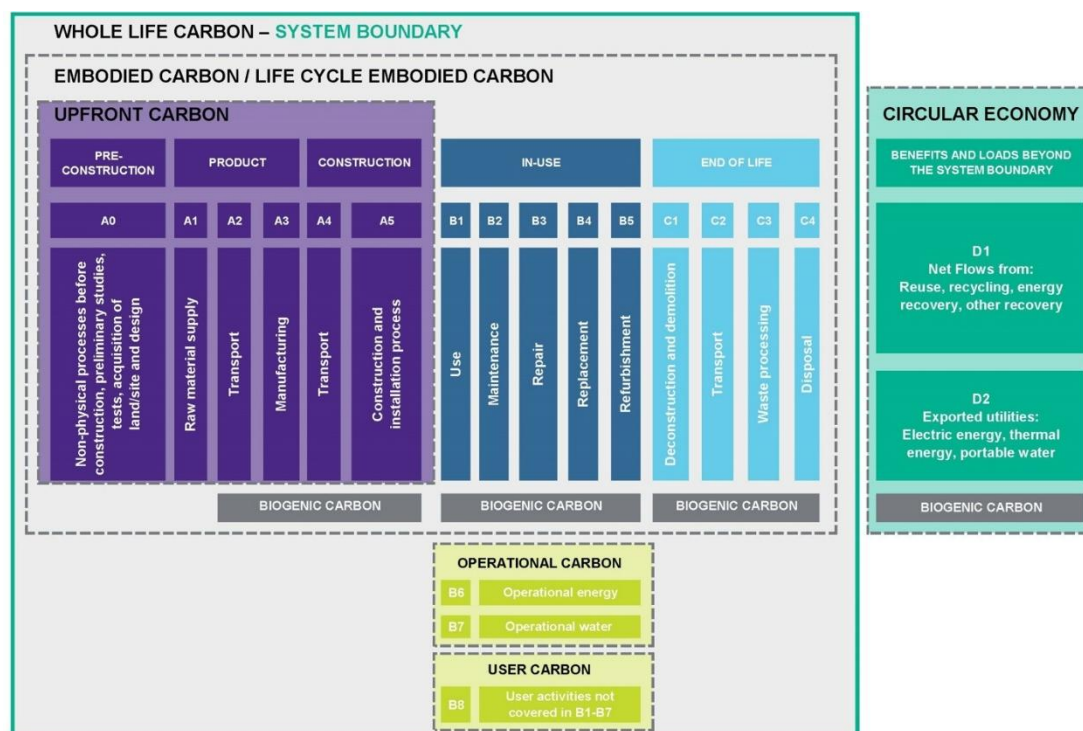
Whole Life Carbon Assessment

- 15 The National Networks National Policy Statement (NNNPS) requires in paragraphs 5.31 *et seq* that a whole-life carbon assessment (WLCA) is carried out by the applicant at relevant project stages, one of which being submission of the DCO application. The WLCA should be carried out in accordance with the DfT's Transport Assessment Guidance module A3⁴ which, in turn, at paragraph 4.2.10, suggests that where feasible and proportionate, WLCAs should be carried out in line with the principles of PAS2080:2023 and the RICS Guide to Whole Life Carbon Assessment for the Built Environment, 2nd edition.
- 16 The DfT's guidance specifies that the whole life carbon impacts of a scheme should "*include capital carbon (emissions associated with scheme construction), operational carbon (emissions associated with scheme operation and maintenance), and user carbon (emissions associated with scheme users, such as changes in emissions due to mode shift)*" (paragraph 4.2.11).
- 17 Figure 3, reproduced from the RICS guidance, illustrates the recommended WLCA system boundary and emission 'modules' for different stages of a project. All of the modules in the WLC System Boundary are relevant to this CMP and have been considered in the carbon management measures set out below. However, some aspects such as maintenance and refurbishment can only be predicted, and management measures outlined, in general terms at this stage of the development. The CMP will need to be maintained as a living document, which should include updating it with more detail of managing in-use GHG impacts and eventually end-of-life GHG impacts at the appropriate times.
- 18 The RICS guidance also refers to circular economy measures outside the WLC system boundary, such as providing waste management services or utilities to the wider economy

⁴ DfT (2025): TAG Unit A3. Environmental Impact Appraisal:
<https://assets.publishing.service.gov.uk/media/681b6bd143d6699b3c1d29ba/tag-unit-a3-environmental-impact-appraisal.pdf>, accessed 28/07/25

(outside serving the development itself). These have limited relevance but considered where applicable, for example in the potential for renewable electricity to be exported from the site at certain times.

Figure 3 RICS WLCA modules and system boundary



- 19 As noted above, the NNNPS requires WLCA at relevant project stages including at submission of the DCO application. At DCO application stage, design is outline and parameters-based and so a detailed design WLCA (fully conforming to the RICS guidance, for example) is not possible. Instead the relevant GHG impacts have been reported through several DCO application documents which collectively cover the WLCA requirements, to a proportionate level for the DCO application stage. Table 1 maps WLCA modules/scope against where this information is presented in the application documents.

Table 1 Sources of GHG emissions for the construction and operational phases

Module or scope	Where provided in the PEIR documents
DfT TAG A3 overarching requirements	
Capital carbon (emissions associated with scheme construction)	Appendix 17.4: Embodied Carbon
Operational carbon (emissions associated with scheme operation and maintenance)	Energy: Appendix 17.5: Energy Strategy On-site fuel use for tugs: Appendix 17.1: GHG

		Emissions and Carbon Budgets
User carbon (emissions associated with scheme users, such as changes in emissions due to mode shift)		Off-site transport: Appendix 17.1: GHG Emissions and Carbon Budgets (for rail and HGV freight) Off-site transport: Appendix 17.1: GHG Emissions and Carbon Budgets when updated at ES stage (for worker commuting)
WLCA modules based on definitions in RICS guidance		
A0 – pre-construction (surveys, design, etc)	Upfront carbon	De minimis and not proportionate to include in assessment at this stage
A1 – raw material supply		Appendix 17.4: Embodied Carbon* Biogenic carbon stock loss from landuse change is reported in Appendix 17.1: GHG Emissions and Carbon Budgets.
A2 – material transport		
A3 – manufacturing		
A4 – delivery		
A5 – on-site works		
B1 – direct use	In use	In the RICS definition this is use-stage emissions arising directly from physical products and plant that were installed at the construction stage, not other emissions from user/occupier activities Refrigerant gas leakage from MEP (e.g. conditioned warehouses) to be assessed at subsequent WLCA stages Biogenic carbon sequestration from landscape planting is reported in Appendix 17.1: GHG Emissions and Carbon Budgets.

B2 – maintenance		Estimated uplift to the up-front carbon is reported in Appendix 17.1: GHG Emissions and Carbon Budgets for B2 and B3. No project-specific assumptions about replacement or refurbishment are available.
B3 – repair		
B4 – replacement		
B5 – refurbishment		
B6 – energy use		Appendix 17.5: Energy Strategy
B7 – water use		De minimis and not proportionate to include in assessment at this stage
B8 – other use not covered		Fuel use by tugs assessed in Appendix 17.1: GHG Emissions and Carbon Budgets Operational energy use captured in B6 Other significant direct emissions from occupiers not expected based on likely types of tenants.
C1 – deconstruction	End of life	Scoped out of EIA. To be assessed at subsequent WLCA stages.
C2 – waste transport		
C3 – waste processing		
C4 – waste disposal		
D1 – net flows from recycling and recovery	Outside system boundary	No other significant emission sources identified at this stage
D2 – exported utilities		Implicitly included in the PV calculations (all PV power assumed to be used and displace grid power, whether on-site use or by export)

** in the RICS definition this would be 'upfront carbon', with 'embodied carbon' also including the B- and C-modules relating to materials impacts*

- 20 As reported above, decommissioning emissions (lifecycle stages C1-C4) have been excluded from the WLCA and therefore the scope of this CMP on the basis that the draft DCO does not seek powers to decommission the Proposed Development and any carbon management measures would therefore be entirely speculative. It is anticipated that should the Proposed Development be decommissioned in future, this would be subject to consents required at the time and where appropriate the CMP could be updated to cover that work.
- 21 However, replacement intervals for solar PV and battery storage systems have been considered within the embodied carbon assessment of operational effects.

TRITAX COMMITMENTS AND POLICIES

- 22 Tritax Big Box has identified four priority Environmental Social and Governance (ESG) topics and objectives, which align with the UN Sustainable Development Goals. The two of relevance to carbon emissions are:
1. Sustainable Buildings: To deliver sustainable buildings through acquisition, development and asset management. The targets are to produce and implement a low-carbon baseline development specification on all new projects, with 100% of new development projects completed with EPC A rating, 100% of projects expected to achieve BREEAM Excellent upon completion, and an upfront embodied carbon target of 400 kgCO₂e/m². This is referred to as the Base Spec for buildings in the CMP.
 2. Climate and carbon: To achieve net zero carbon and manage physical climate risks. The targets are to increase solar PV capacity, complete an updated net zero carbon roadmap for every asset, reduce emissions against the net zero carbon emission targets of Scope 1 and 2 net zero by 2050, Scope 3 (construction) net zero by 2030, and integrate physical climate risk mitigation across asset lifecycle.
- 23 Tritax Big Box is also committed to transparent disclosure of ESG targets and performance, including:
- Engaging with and reporting to investors on how ESG risks and opportunities are managed, and how the Products' underlying assets are performing.
 - Collecting, monitoring and disclosing consumption data (including data on energy, GHG emissions, physical climate risk, water, waste, health and safety, and social impacts) for assets under management, including where possible occupier consumption data.
 - Disclosing the GHG emissions related to our operations of Head Office.
 - Reporting on the Products' ESG performance through relevant ESG industry frameworks, indices and benchmarks (e.g., GRESB, EPRA, CDP).
- 24 With regard to the supply chain, Tritax Big Box expect the following, which is typically

managed through the contractual relationship with suppliers:

- Suppliers to comply with all relevant environmental legislation and international standards.
- Suppliers to put in place systems to manage their environmental and social impacts, including:
 - Appropriate environmental management systems
 - Collecting and maintaining all necessary environmental permits and registrations
 - Sourcing materials responsibly, avoiding knowingly purchasing conflict materials and committing to sourcing certified timber
 - Minimising and controlling all hazardous air pollutants and emissions, including seeking to be energy and carbon efficient
 - Promoting recycling and avoiding sending waste to landfill

ROLES AND RESPONSIBILITIES

- 25 PAS2080 and associated guidance from the ICE⁵ and the CLC⁶ provide a helpful structure for roles and responsibilities at each project stage. In brief, the suggested structure of roles and responsibilities means that at the current early design stage, the Applicant's responsibility as the project owner and initial designer is to:
- take account of whole-life carbon in decision-making and procurement;
 - apply the carbon reduction hierarchy (avoid/switch/improve);
 - set a clear carbon vision, leadership and initial carbon reduction target for the works; and
 - not over-constrain the design specification too early, which may limit carbon reduction and innovation opportunities.
- 26 When appointing a Principal Contractor and also when managing the internal delivery team, carbon management policies could be considered a factor within the decision making process of appointment, in line with Tritax Big Box policies. This could be on the basis of a contractor's performance record, alignment with documented corporate strategy and targets for moving towards net zero, and/or using specific carbon management and innovation questions at tendering stage.

⁵ ICE, 2023: Guidance Document for PAS2080. Available at https://www.ice.org.uk/media/vm0nwehp/2023-03-29-pas_2080_guidance_document_april_2023.pdf, accessed 06/01/25

⁶ CLC, undated: Guidance Document for PAS2080. Available at https://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2019/06/Guidance-Document-for-PAS2080_vFinal.pdf, accessed 06/01/25

27 The Applicant will be responsible for:

- Maintaining and updating this CMP as a living document for the detailed design, construction and operation of the Proposed Development;
- Setting the GHG targets for construction and operation as absolute or intensity-based measures specified in this CMP or any updates to it made pre-construction;
- Providing necessary documentation such as the CMP, Energy Strategy, Base Build specification and relevant sustainability policies;
- Putting in place contractual requirements for the Principal Contractor to comply with the CMP and applicable associated documentation and to carry out detailed design and construction of the Proposed Development such as to achieve the GHG targets;
- Reviewing the as-built development WLCA evidence (see below) to confirm achievement of the construction-stage GHG targets and where necessary implementing feasible further measures to address or offset any performance gap;

28 The Applicant will also be responsible for:

- The equivalent measures to those set out above when procuring and managing any major refurbishment or reconstruction works during the operational lifetime (i.e. setting updated GHG targets under this CMP and requiring their achievement);
- Implementing the Construction Traffic Management Plan, Framework Travel Plan and Delivery, Servicing and HGV Management Strategy to minimise GHG emissions from transport; and
- Developing the rail terminal and associated infrastructure in line with the phasing and warehouse floorspace thresholds triggering requirement for rail terminal expansion and completion as set out in the PEIR Project Description, to ensure the benefits of a modal shift to rail freight are realised.
- Undertaking a pre-construction WLCA at the detailed design stage to show how the GHG targets will be achieved;
- Undertaking an as-built WLCA to provide evidence of achieving the GHG targets.

29 The Principal Contractor for construction will be responsible for:

- Training staff and subcontractors on the sustainability policies and GHG targets, and engaging throughout the supply chain to champion their achievement and encourage innovation opportunities;
- Applying performance requirements to subcontractors as necessary to support meeting the responsibilities set out here;
- Designing and constructing the development in compliance with the CMP and

applicable associated documentation to achieve the GHG targets

- 30 These are general responsibilities. PAS2080:2023 and the associated guidance, or if employing a standard such as NZCBS, would define more granular details of responsibilities and the evidence of compliance needed to certify conformance with the standard.
- 31 These responsibilities should be read as applying to each phase of the development.

EMISSIONS REDUCTION OPPORTUNITIES

Construction Reduction Opportunities

- 32 As reported in PEIR Chapter 17: Energy and Climate Change, the majority of construction-related emissions will arise from the embodied carbon of materials used to construct the warehouse units and ancillary buildings, with lower emissions arising from the embodied carbon of site and rail infrastructure. Embedded mitigation measures are presented in Table 2 overleaf.

Table 2 Embedded mitigation measures for construction

Emission Source	Design Measure
Construction plant emissions	All machinery and plant should be procured to adhere with emissions standards prevailing at the time and should be maintained in good repair to remain fuel efficient.
	When not in use, vehicles and plant machinery involved in site operations should be switched off to further reduce fuel consumption.
	Where possible, welfare cabins, site lighting and similar equipment which incorporates on-site renewable energy supply should be procured; typically units with PV panels and where applicable battery storage are commercially available.
	Where possible, hiring/purchasing alternative fuel/electric construction plant; at the time of writing, fully electric, hybrid or hydrogen-adapted (fuel cell or hydrogen reciprocating engine power packs) plant is starting to become available as demonstrators or (for smaller plant items) available on the market from the major manufacturers and such plant may become more widely available at the time of construction work from 2030 onwards.
Construction transport emissions	A Construction Traffic Management Plan (CTMP) forms part of the embedded mitigation measures and will help manage and mitigate construction highway impacts and consequently reduce the HGV transport-related GHG emissions. The CTMP will also contain measures to encourage active, public or shared travel modes for construction workers, which will reduce GHG emissions from private car transport.
	Vehicles used in road deliveries of materials, equipment and waste arisings on- and off-site should be loaded to full capacity to minimise the number of journeys associated with the transport of these items.

	Construction materials should be sourced locally where possible, to minimise the impact of transportation.
Construction waste	A Site Waste and Materials Management Plan (SWMMP) forms part of the DCO submission and sets targets for waste diversion from landfill, recycling, and for efficient handling of materials.
	Where possible, local waste management facilities should be used to dispose of all waste arisings, to reduce distance travelled and associated emissions.
	The volume of waste generated should be minimised, and resource efficiency maximised, by applying the principles of the waste hierarchy throughout the construction period including use of segregated waste storage to maximise recycling potential for materials.
	Where possible, pre-fabricated elements should be delivered to the DCO Site ready for assembly, which will reduce on-site construction waste and reduce vehicle movements as part of the construction process.

33 Further emission reduction measures for the construction phase are presented in Table 3 below.

Table 3 Further emission reduction measures for construction

Emission Source	Design Measure
Warehouse Units and Ancillary Buildings Embodied Carbon	The Proposed Development should meet performance targets that are consistent with an evidence-based reduction in carbon intensity per m² GIA to support the UK's trajectory towards net zero. At this stage, this is recommended to be as follows. <i>The lower of:</i> • <i>The Tritax Base Build upfront embodied carbon target</i> • <i>the applicable upfront carbon performance targets in the UK Net Zero Carbon Buildings Standard, Pilot Version, apportioned by floor space for different building types as set out in the Standard.</i> This may need to be reviewed and updated if the UK Net Zero Carbon Buildings Standard is revised in future. These performance targets should be applied to each phase or plot of development based on start year for those works, rather than the overall site commencement date, so that the appropriate targets in future years are used.
Site and rail infrastructure embodied carbon	The Proposed Development should meet performance targets that are consistent with an evidence-based reduction in carbon intensity to support the UK's trajectory towards net zero. PAS2080:2023 Section 8 recommends that infrastructure carbon targets are set at a system level but no specific logistics and rail infrastructure target is available. Target setting should therefore be informed by the detailed WLCA to determine an appropriate net zero-compatible percentage reduction in carbon compared to a base design. As per clause 8.2.2(d) in the PAS, this should be against an updated baseline specific to each phase of works. However, as a minimum, the target should be no less stringent than that which would be calculated by applying

	the top-down method suggested in Example 2a of the ICE guidance on implementing PAS2080:2023, which uses project capex as a guide to normalising the project carbon intensity per £ to the national carbon intensity per £ of GDP in each national carbon budget period.
DCO Site embodied carbon	To secure the specific means of making the targeted embodied carbon reductions, a whole-life carbon assessment (updating the information submitted with the DCO application) should be undertaken at each detailed design phase and for the as-built development, to guide and then confirm achievement of the carbon performance standards, in line with PAS2080 and the UK Net Zero Carbon Buildings Standard. The assessments should follow the RICS guidance 'Whole Life Carbon Assessment (WLCA) 2 nd Edition' ⁷ and where appropriate, e.g. for site infrastructure works, should follow BS EN 17472:2022 (or any update prevailing at the time for either).
	The detailed WLCA will highlight embodied carbon 'hotspots', which are high-emission materials or processes. On identification of such hotspots, further mitigation measures will be made, for example using low carbon concrete in building structures, or the use of recycled steel in the building structures.

Operational Reduction Opportunities

- 34 As reported in PEIR Chapter 17: Energy and Climate Change, the majority of operational emissions are projected to arise from the energy use of buildings and from transport. Table 4 presents the embedded mitigation measures for the operational stage.

Table 4 Embedded mitigation measures for operation

Emission Source	Design Measure
Operational transport	A Heavy Goods Vehicle (HGV) Routing Strategy will form part of the DCO submission and will set out the preferred routes for HGVs travelling to and from the DCO Site, promoting operational efficiency

⁷ RICS (2023): Whole life carbon assessment for the built environment, 2nd edition,
[https://www.rics.org/content/dam/ricsglobal/documents/standards/Whole life carbon assessment PS Sept23.pdf](https://www.rics.org/content/dam/ricsglobal/documents/standards/Whole%20life%20carbon%20assessment%20PS%20Sept23.pdf)

emissions	by ensuring HGVs have clear, efficient access to the strategic road network.
	A Sustainable Access and Movement Strategy (SAMS) that outlines how people can travel to, from, and within the DCO Site in a way that supports environmental, social, and economic sustainability. It will focus on promoting walking, cycling, public transport, and reducing car dependency.
	A Mobility Hub within the Proposed Development, which are multi-modal travel points with bus stops, EV charging and more to encourage sustainable commuting.
	A Travel Plan to include a welcome pack, subsidised tickets, cycle vouchers, car sharing, and active travel events to promote sustainable travel habits.
	A bus service aligned with shift times, reducing reliance on private cars.
Passive design measures for operational energy use	An efficient building envelope with enhanced U-values beyond the Part L2 (2021 England incorporating 2024 amendments) limiting values.
	Glazed façades to provide natural daylighting and reduce reliance on artificial lighting, but combined with solar control glazing to manage heat gain in summer. Balanced g-value for translucent elements to ensure optimised internal conditions in both the winter and summer months. Solar shading to be incorporated wherever possible.
	Reduced air permeability to reduce heating demand in the winter months, and reduce heat losses through infiltration further.

Active design measures for operational energy use	LED lighting systems and smart controls to reduce energy consumption. Low-flow fixtures to reduce water consumption in restrooms or wash stations.
	Rooftop solar PV systems, and on-site microgrid potentially combined with backup generation and storage, for energy resilience.
	Energy recovery ventilation (ERV/HRV) to recover energy from exhaust air, and building energy management systems (BEMS/BMS) with sub-metering to monitor and optimise energy use in real-time.
	Variable speed drives on all mechanical plant and equipment.
Low/zero carbon energy supply	The details of this are set out in the Energy Strategy, which will continue to form a supporting document to this CMP. The Energy Strategy's principle is to aim to meet the equivalent of the Proposed Development's demand on site through PV (which has been shown to be feasible within the available roof space for demand as predicted at this stage) and to develop battery storage and/or grid connection capacity as is needed over time as the profiles of PV generation and tenant electricity use become established.

35 Table 5 presents further emission reduction mitigation measures for the operational phase of the Proposed Development.

Table 5 Further emission reduction mitigation measures for operation

Emission Source	Design Measure
Transport emissions	As reported in PEIR Chapter 17: Energy and Climate Change, electrification and/or hydrogen fuel are likely to play a role in decarbonising the tugs for container movements, cars and buses for the workforce's commuting, the HGVs for onward freight transport, and the locomotives for rail freight.

	Therefore, the Proposed Development design should anticipate and future-proof for these developments through the following main measures: • providing for additional future high-capacity electric vehicle (EV) charging capacity in car parking areas (for example laying conduit and cabling, even if not all initially energised), notwithstanding exemptions under the current Building Regulations Part S; • reserving space in the detailed design to facilitate possible future adaptation for tug and HGV charging or hydrogen refuelling infrastructure (subject to any consent required at the time); and • considering the site's grid connection request and also the internal site distribution network capacity in the Energy Centre design with a view to future vehicle charging or hydrogen production need. Whilst it is not possible to definitively quantify at this stage, the Proposed Development's grid connection capacity and on-site distribution network should be sized insofar as possible with future EV charging needs in mind, as per the above measure. These are estimated in the Energy Strategy and would be subject to update as that strategy is finalised. Consideration should also be given to capacity for electrolytic hydrogen production for vehicle / plant fuelling. For example, at the time of writing, modular electrolysis systems are available which can produce 500 Nm³/hr from a 40' containerised unit.
Energy use in buildings	Energy use intensity (EUI) targets for warehouses and associated buildings should be set that are aligned with the UK's net zero trajectory. At this stage, this is recommended to be the applicable EUI targets in the UK Net Zero Carbon Buildings Standard, Pilot Version, apportioned by floor space for different building types as set out in the Standard. This may need to be reviewed and updated if the UK Net Zero Carbon Buildings Standard is revised in future. These should be applied to each phase or plot of development based on start year for those works,

	rather than the overall site commencement date, so that the appropriate targets in future years are used.
	The feasibility and potential benefit of a low-temperature heating/cooling loop from centralised air- or ground-source heat pumps (A/GSHPs) and adsorption chillers should also be explored, as this may be a more efficient solution than individual ASHP or chiller systems on buildings, especially given the likely mix of chilled/non-chilled warehouse spaces and need for resilience future temperature extremes in the UK.
Maintenance, repair and refurbishment	The Proposed Development should meet performance targets that are consistent with an evidence-based reduction in carbon intensity per m ² GIA to support the UK's trajectory towards net zero for future maintenance, repair and refurbishment works. These would need to be determined at the time of such works. Future editions of the UK Net Zero Carbon Buildings Standard are expected to incorporate performance targets for whole-life embodied carbon (i.e. including these in-use stages) which could be adopted in future, whereas at present the pilot version only covers upfront embodied carbon.
Carbon sequestration	When developing the detailed planting schedule, consideration should be given to fast-growing tree species that maximise carbon sequestration in the planting mix. However, this needs to be balanced against climate resilience and biodiversity goals which may require a more diverse species mix.

CARBON REMOVALS AND OFFSETTING

- 36 The design of the Proposed Development includes substantial landscape planting, including areas of woodland. Depending on the composition, woodland, other vegetation and soils can be important stocks of carbon and able to sequester carbon from the atmosphere, acting as a carbon sink. At this stage, the landscape plan includes approximately 20.5 ha of woodland planting, compared to approximately 9 ha of woodland that is intended to be removed.
- 37 Climate resilience such as tolerance to dry conditions will be considered when developing the detailed planting specification for the Proposed Development.
- 38 The Forestry Commission's Woodland Carbon Code (WCC) carbon calculation tool⁸ will be used to guide the planting specification and measure the potential long-term benefits of carbon sequestration. However, where there is conflict between the preferred species mix or other specifications of planting for carbon benefits compared to what is needed to achieve the BNG target and habitat diversity goals of the Proposed Development, the latter will take precedence.
- 39 Based on the GHG targets and management measures set out in the CMP at this stage, carbon offsetting from woodland planting or from purchase of certified offset credits is not intended to be relied upon to meet the performance goals for the Proposed Development. However, offsetting may optionally be an aspect of conformance with the UKNZCBS and if so, would be applied in line with that standard.

MONITORING AND NEXT STEPS

- 40 To ensure that the measures outlined within this CMP are implemented, the following monitoring actions will be undertaken throughout the detailed design, construction and operation phases:
- Updates to this CMP such that it remains a living document that guides each stage of design, construction and occupation, i.e. updates (as necessary) at each of RIBA stages 4–7;
 - A WLCA (updating the information submitted with the DCO application) at the detailed design stage (RIBA stage 4) for each phase of the development and for each phase of the as-built development (RIBA stage 6); and
 - Post-occupancy evaluation to monitor energy use and travel patterns and aid in closing any performance gaps.

⁸ Forestry Commission, Woodland Carbon Code (2025): Carbon calculation spreadsheet version 3.0 August 2025: <https://www.woodlandcarboncode.org.uk/template-documents-and-tools> or as may be updated