

North West Cambridge

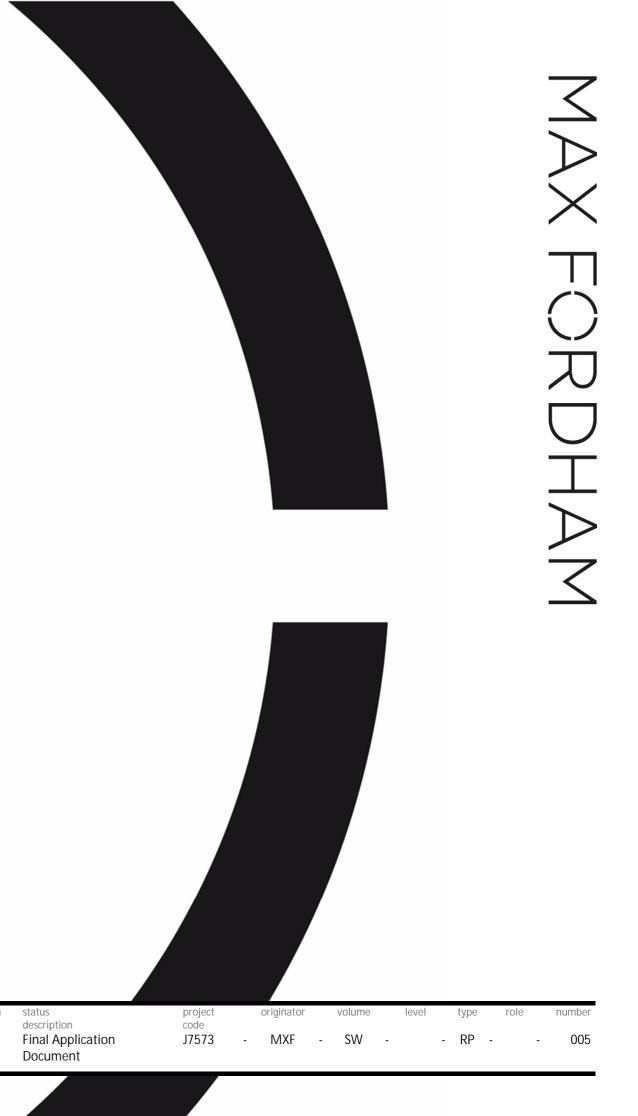
Future Phases of Eddington

September 2025

Sustainability Statement

North West Cambridge Masterplan Sustainability Statement for Outline Planning Application Final Application Document September 2025

NWX-MP2024-MFA-SW-RP-005



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1.0 EXECUTIVE SUMMARY

Max Fordham have been commissioned by The University of Cambridge ("the Applicant") to produce a Sustainability Statement to support the Outline Planning Application ("OPA") for the future phases of the North West Cambridge Masterplan ("NWCM").

The Sustainability Statement has been developed in accordance with national and local planning policy and outlines the sustainability and health and wellbeing aspirations of the future phases of the development, building upon the success of phase 1.

The Sustainability Statement is founded around 3 key place principles: Designed for Today and the Future, Fostering Healthy Living and Reducing Whole Place Carbon. These place principles are outlined in the project Sustainability Charter and cover the following key sustainability topics:

- Energy
- Waste
- Materials
- Water
- Accessibility
- Flood Risk
- Biodiversity & Ecology
- Food
- Governance
- Social Sustainability

These topics, and their interrelatedness, are represented by the Sustainability Vision outlined in Section 3.0: Sustainability Vision, Figure.1

Some of the key sustainability aspirations that the project is achieving are:

- Delivering homes aligned to Passivhaus Principles, including modelling using PHPP (Passivhaus Performance Package) and enhanced quality control on site
- 80 litres/person/day water consumption
- Use of Sustainable Urban Drainage Systems (SUDs) to mimic greenfield run off rates
- 100% of clay and stockpiles to be reused on site
- Mode share of ~80% non-car-based trips
- Daylighting targets following BRE guidance
- Food growing strategy to include dedicated allotments, doorstep growing space and integrated productive planting
- Achieve at least 10% Biodiversity Net Gain (BNG) over current baseline.

These sustainability aspirations have been integrated into the NWCM design as outlined in Section 4.0: Response to Sustainability Planning Policies. A completed Greater Cambridge Sustainable Design and Construction SPD checklist is included in Appendix III. This includes further detail on how the design of the NWCM has addressed specific planning policies and includes contributions from all relevant project team members.

Governanc

The Sustainability Charter will provide governance across the NWCM to achieve the sustainability aspirations set out within the Charter.

In addition, all non-domestic buildings across the NWCM will be assessed under BREEAM New Construction, targeting a rate of a minimum of 'Excellent'.

It is intended that BREEAM assessments are carried out on a plot-by-plot basis and are registered as early as possible to try and use the same BREEAM version for each development. This would enable site-wide evidence produced at a masterplan level remains compliant for individual plots.

At the time of writing this report BREEAM V7 is yet to be released, therefore a generic BREEAM V.6 pre-assessment has been undertaken to demonstrate how BREEAM 'Excellent' could be achieved.

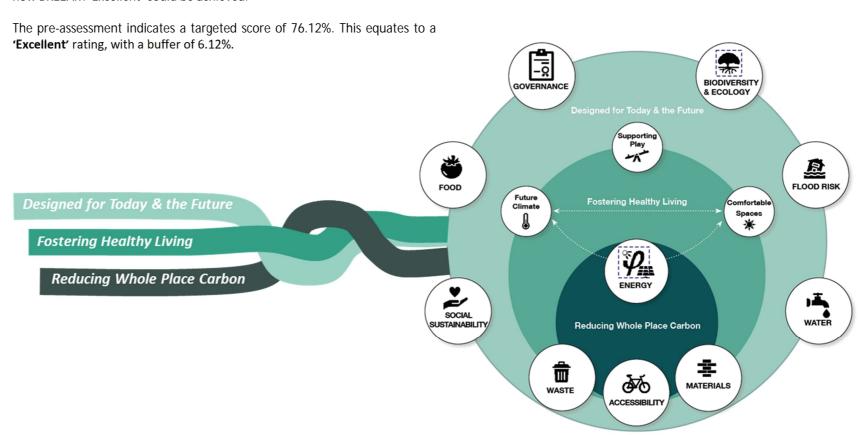


Figure 1: NWC Sustainability Vision

2.0 INTRODUCTION

Max Fordham have been commissioned by The University of Cambridge ("the Applicant") to produce a Sustainability Statement to support the Outline Planning Application ("OPA") for the future phases of the North West Cambridge Masterplan ("NWCM"). The Outline Planning Application ("OPA") seeks planning permission for a phased mixed-use development, including demolition of existing buildings and structures, such 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, preparation and enabling works; Supporting infrastructure, plant, drainage, utility, earthworks and engineering works.

The OPA includes three Control Documents which define the Specified Parameters for the Proposed Development. These Control Documents are – (1) the Development Specification; (2) the Parameter Plans; and (3) the Design Code.

The Parameter Plans indicate which Development Zones may be suitable for which use and therefore manage where the proposed uses could arrive on the OPA Site. The Parameter Plans also identify features such as maximum building heights; areas of green infrastructure; and access and circulation routes. The Parameter Plans are set up to provide a level of flexibility for the detailed design of the scheme at a later date which will need to be approved by the local planning authority through subsequent Reserved Matters Applications ("RMAs").

This document sets out the sustainability strategy for the future phases of the masterplan and explains how they relate to the relevant sustainability policies.



Figure 2: North West Cambridge Masterplan

Relevant Planning Policies include:

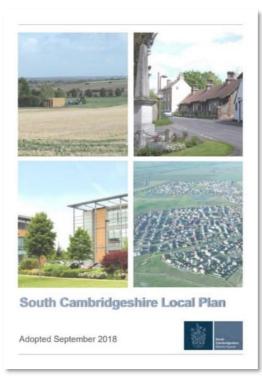
- Building Regulations Approved Document Part L and Part O
- Cambridge Local Plan 2018
- Greater Cambridge Sustainable Design and Construction Supplementary Planning Document
- South Cambridgeshire Local Plan (2018)
- North West Cambridge Area Action Plan (2009)

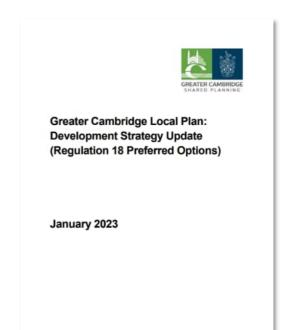
Section 4.0 of this report sets out how the project responds to the various planning policies.

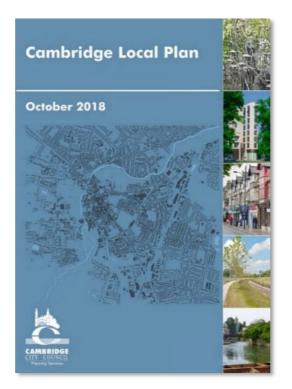
Building upon the success of Phase 1, the future phases of North West Cambridge (NWC) are informed by a comprehensive set of sustainability and wellbeing principles in line with the University of Cambridge's vision. This key sustainability criteria and the site-wide sustainability strategy for the development has been outlined under Section 3.0 Sustainability Vision.

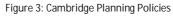
As a statement supporting an Outline Planning Application (OPA), where there is limited detailed design information, these areas will be developed further at RMA stage with the RMA design and development teams. This will help ensure that the development adopts the best options available at the time of construction, and that the most appropriate options are implemented.

This document should be read in conjunction with all additional supporting documentation submitted alongside the North West Cambridge planning application. Where specific documents have been referenced, please refer to these documents for further information.











3.0 SUSTAINABILITY VISION

3.1 Overarching Vision

The University of Cambridge aspirations for the future phases of the Masterplan is to evolve from the high sustainability standards established in Phase 1.

Public consultations have highlighted the importance of sustainability to local residents and how they would like to see the continuation of the exemplar standards achieved in Phase 1:

"As a local resident who walks or cycles across the site on a daily basis, I am most concerned about environmental quality, maintaining natural green space - in particular around walking and cycle routes - and keeping tight control on motor traffic."

"Aspects that are important to me are Green spaces, active travel routes and creating a social community."

The University have been committed to creating a place where University staff, students and Cambridge residents can live and work in a dynamic, diverse and future-proofed community. To achieve this ambition, the future phases of North West Cambridge has been designed to align with robust and comprehensive sustainability criteria, delivering social value and community health and wellbeing, whilst minimising environmental impact.

To realise this ambition, a sustainability strategy and the sustainability vision was created and underpinned by 3 key principles:

- Fostering healthy living
- Minimising whole place carbon
- Designed for today and the future

Within these 3 principles are 10 core objectives, as seen in Figure.4. These core objectives are underpinned by specific sustainability targets for the masterplan.

Key Targets

Key targets of the sustainability strategy include:

- Delivering homes aligned to Passivhaus Principles, including modelling using PHPP (Passivhaus Performance Package) and enhanced quality control on site
- 80 litres/person/day water consumption
- Use of Sustainable Urban Drainage Systems (SUDs) to mimic greenfield run off rates
- 100% of clay and stockpiles to be reused on site
- Mode share of ~80% non-car-based trips
- Daylighting targets following BRE guidance
- Food growing strategy to include dedicated allotments, doorstep growing space and integrated productive planting
- Achieve at least 10% Biodiversity Net Gain (BNG) over current baseline.

3.2 Sustainability Charter

The NWC development has developed a bespoke sustainability charter that will be used to facilitate delivery of the sustainability approach throughout project delivery and across multiple phases.

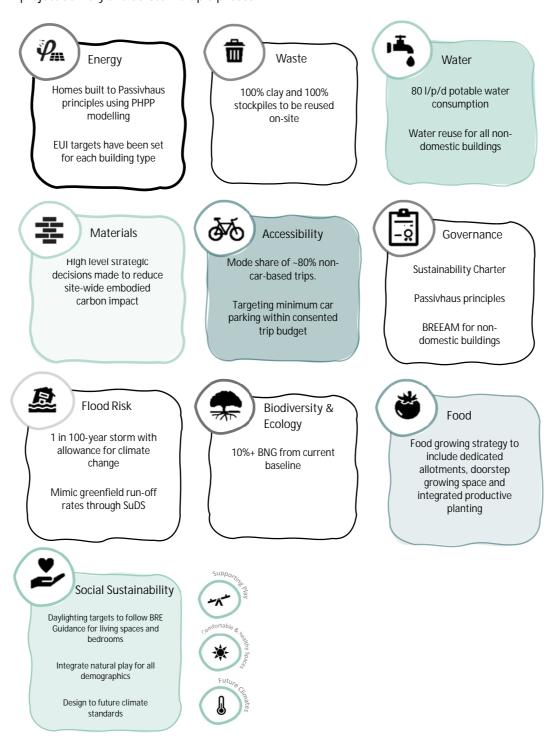


Figure 4: NWC Sustainability Core Objectives

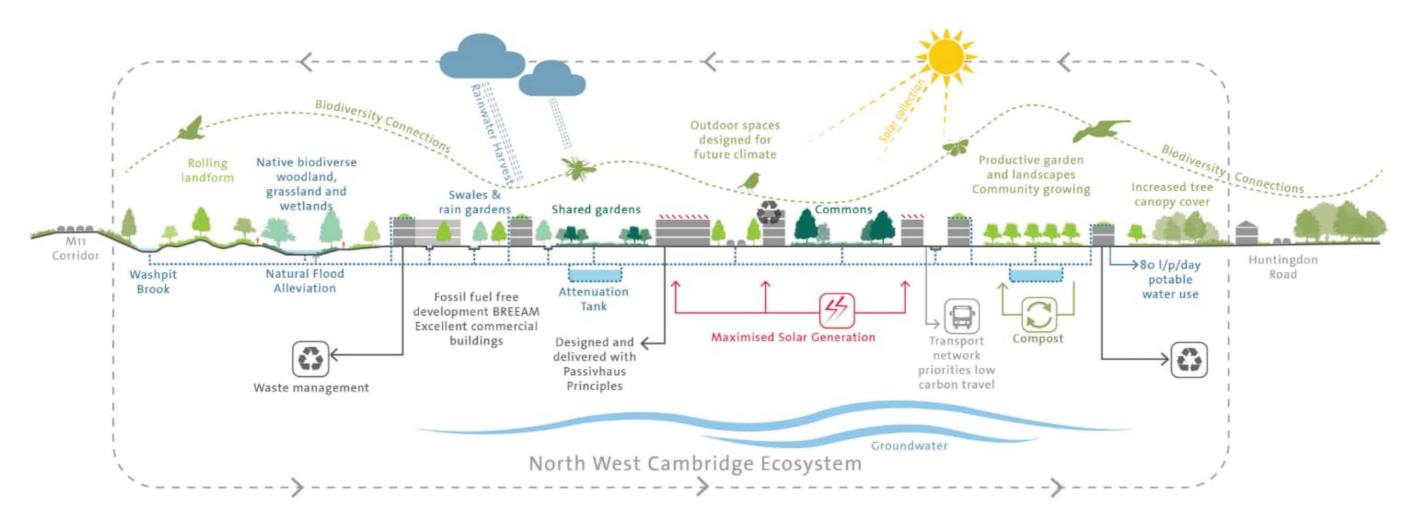


Figure 5: NWC Ecosystem, Grants Associates Image

4.0 RESPONSE TO SUSTAINABILITY PLANNING POLICIES

4.1 Energy

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020:

- 3.2 Energy & carbon reduction
- 4.5 Smart technologies

Cambridge Local Plan 2018:

- Policy 28: Carbon reduction, community energy networks, sustainable design and construction, and water use
- Policy 29: Renewable and low carbon energy generation,

South Cambridgeshire Local Plan (2018):

• Policy CC/3: Renewable and Low Carbon Energy in New Developments

North West Cambridge Area Action Plan (2009)

• NW24: Climate Change & Sustainable Design and Construction

Energy Strategy

Throughout the design of the NWC future phases, considerations of energy efficiency in the building and system design have been a high priority. In order to reduce energy consumption, the Energy Hierarchy (see 6) has been followed. This has resulted in the following Energy Strategy:

- Masterplan massing has sought to optimise form, and the orientation of buildings and roofs and overshadowing to optimise potential for heat loss and heat gain and maximise the potential for renewable energy generation.
- Heating and cooling will be all-electric and locally supplied at a plot level in order to reduce heat loss in distribution and provide buildings with the most efficient technologies available at the time. In the shortterm this is expected to be air source heat pumps (ASHP), with passive measures prioritised to prevent overheating.
- Renewable energy generation is maximised through PVs, working with the site's constraints and considering the material efficiency of energy generation equipment.

Passivhaus Principles

The future phases of Eddington are also committed to following a Passivhaus Principles approach. In this context, this means to design and model to Passivhaus requirements, using Passive House Planning Package (PHPP), but without strict requirements to pursue official certification.

Designs at RMA stage will need to take into account the following:

- Model the homes using PHPP
- Require input from a Passivhaus designer
- Work towards a Primary Energy Renewable (PER) of 60 kWh/m2 of Treated Floor Area (TFA)/year* (This is approximate to an energy use intensity target of 35kWh/m2/year)
 - *PER targets can be increased for bespoke conditions

- Work towards a Space Heating Demand of 15kWh/m2 of TFA/year OR a Space Heating Load of 10kWh/m2 of TFA/year
- Meet a high level of airtightness
- Have no gas connection and no use of fossil fuels

Response to the energy hierarchy

The design of the NWC development has followed the Energy Hierarchy, as shown in Figure.6.

This places the most effective means of reducing energy consumption at the bottom of the pyramid and thus prioritises them above all other measures. Measures implemented at this stage of the hierarchy are passive, and consequently low cost, yet, if carefully considered, they can have the biggest impact on the building's energy consumption.

A series of workshops have been held with the design team to optimise the passive measures, building form, massing and orientation across the masterplan design.

The subsequent step implements demand reduction measures via the building's active systems. As well as selecting and specifying efficient plant and equipment, such as pumps, fans and light fittings, the way in which they are configured and operated is also key at this stage – with system architecture and controls having a significant impact on the operational energy of the specified systems, this will be developed in detailed during RMA and will be required to use PHPP to meet specified targets.

Having reduced the building's energy demand through passive measures the hierarchy now switches focus to supplying the remaining energy needs efficiently using low or zero carbon generating technologies.

ARUP have undertaken a strategic study to understand whether to extend the existing energy centre or whether to supply plots in a decentralised way on a plot-by-plot basis. Following this a decentralised approach has been taken. This is because the existing phase 1 energy centre would not have capacity to supply the rest of the development using low carbon heat from heat pumps or other low carbon sources. The decentralised approach also reduces distribution heat losses and allows the most efficient technology to be used as each phase is built out.

Development plots will be required to include a high level of photovoltaic panel provision (PV). To date massing development has considered orientation and overshading to help maximise renewable energy generation potential.

For further details refer to the Energy Statement

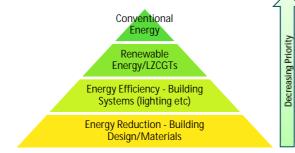


Figure.6: Energy Hierarchy

Climate Change Risk Adaptations In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020:

- 3.4 Climate change adaptation
- 2.2 Achieving more sustainable development forms

South Cambridgeshire Local Plan (2018):

• Policy CC/1: Mitigation and Adaptation to Climate Change

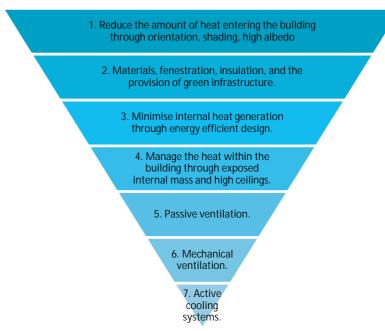


Figure 7: The Cooling Hierarchy

The potential overheating risk has been identified early in the design process, however the detailed response to summertime heat conditions is necessarily resolved at building concept design stage. Overheating requirements will comply with Building Regulations Part O. In addition dwellings will be expected to address future climate conditions through use of natural ventilation and façade treatments to manage solar gains. Windows should be sized appropriately to optimise daylight and limit solar gain. Due the acoustic requirements in Part O, it is anticipated that acoustically constrained dwellings will require a small amount of cooling to address summertime comfort without opening windows.

Early generic modelling has considered design options that might be needed to comply with future climate projections. RMA applications will undertake detailed modelling to address design requirements to meet both Part O and Future climate. For further details refer to the Energy Statement.



4.2 Health and Wellbeing

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

- 4.2 Health and wellbeing
- 4.3 Food growing as part of new developments

Cambridge Local Plan 2018

- Policy 34: Light pollution control
- Policy 35: Protection of human health and quality of life from noise and vibration
- Policy 36: Air quality, odour and dust

South Cambridgeshire Local Plan (2018)

• Policy SC/12: Air Quality

The university has developed a comprehensive approach to supporting residents and the developing community through the phase 1 social infrastructure, the community centre, and the primary school. The university have initiated a community growing group launched in April 2025 to encourage and support residents to take ownership of their growing spaces and to address the question of how best to meet the needs of a semi-transient community.

The impact of urban design on residents' health and wellbeing has been explored through the commissioned research with the University of Cambridge, Department of Architecture, Behaviour and Building Performance (BBP) research group. This has resulted in the report 'Designing for Flourishing'. The research backed designed principles have been able to influence the design priorities of the masterplan, and in particular, the shared gardens.

A central part of the design for the future phases is the shared gardens concept as a means of fostering community living and making the best use of land to address multiple needs. These shared gardens equipped with play spaces, lush planting and food growing spaces, connected via pedestrianised streets and opening up onto scenic running routes and a variety of sports provisions.

Vehicular routes and access to each neighbourhood has been carefully developed to minimise vehicle traffic movements and designed prioritise sustainable modes of transport (cycling, walking) to further reduce transport related emissions.









Figure 9: Designed for Flourishing Report extract from Hawkins Brown

Air Quality

An air quality assessment has been undertaken by AECOM to consider and predict the impact of construction dust, construction traffic emissions impacts, interim traffic emissions (incorporating peak construction traffic and partial operational traffic) and operational traffic emission impacts on Future Phases of NWC. Their study has focused on concentrations of nitrogen dioxide and particulate matter (PM2.5 and PM10) as pollutants associated with road traffic emissions.

The assessment of the operational phase of the Proposed Development has adopted the following limitations and assumptions; modelling has used traffic datasets provided by KMC Transport Consultants, background pollutant concentration data have been sourced from Defra's 2021-based background concentration maps; 2023 monitoring data have been used for verification; and selected worst case receptors have been assumed, which represent the location of maximum exposure to air pollutants within an area.

The air quality assessment assessed the potential effect during:

- Enabling, demolition and construction
- During phasing/interim year (peak construction and partial operation of the Proposed Development)
- During the completed development (Predicted effects on air quality as a result of operational traffic)

The results of the assessment predicted that the impact on air quality (change in pollutant levels from baseline) is to be negligible and not significant for all pollutants throughout enabling, demolition, construction, phasing, and completion.

Please see AECOM's Environmental Statement Chapter 8 Air Quality for further information.

Noise Impact

A Noise Impact Assessment has been undertaken by Trium to assess the impact of the following:

- Construction noise airborne noise from machinery and the works themselves;
- Construction traffic noise from construction vehicles;
- Completed Proposed Development road traffic noise;
- Completed Proposed Development sports pitch noise;
- Completed Proposed Development building services noise; and
- Site Suitability.

The assessment concluded that significant effects are expected during specific periods of the construction programme, namely when there are piling works close to receptors (within 20m) and during periods when works are being completed at multiple sites close to receptors. The significant effects are not expected to extend for prolonged periods and mitigation will be adopted by the Contractors that will reduce noise/vibration. Proposed mitigation measures for demolition and construction work noise and construction vibration are detailed in Section 9.1 of Environmental Statement Chapter 9 Noise and Vibration.

Significant effects are not expected during the operation of the Proposed Development. However, it is recommended that further analysis of the road traffic noise is completed for the Phase 4 access road (Garrod Street) so that they are avoided. The analysis will need to take place to confirm whether low surface road surfaces are required.

The site suitability assessment demonstrated that some phases of the site will be exposed to high levels of ambient sound levels, principally due to the direction of wind relative to the M11, and that significantly different acoustic conditions can be experienced across the site. The difference between the highest/lowest sound levels is 11dB. The massing of the masterplan has considered and incorporated opportunities for reducing noise impact through self-shading where possible, however the level changes on the site limit the ability to apply significant mitigation through massing. Mitigation for dwellings in these high noise risk areas should implement high performance façade sound insulation, achieved through a combination of glazed and non-glazed elements.

Please refer to Trium's Environmental Statement Chapter 9 Noise and Vibration for further information.

4.3 Landscape and Play

In response to:

South Cambridgeshire Local Plan (2018)

- Policy NH/2: Protecting and Enhancing Landscape Character
- Policy NH/6: Green Infrastructure
- Policy SC/7: Outdoor Play Space, Informal Open Space and New Developments

North West Cambridge Area Action Plan (2009)

- NW23: Open Space and Recreation Provision
- NW29: Strategic Landscaping

Landscape Character

The landscape strategy for the future phases of NWC actively responds to the local landscape character of the surrounding area, as well as the landscape character of Phase 1.

The design has considered a landscape framework to emphasis:

- Wooded settled high ground
- Riparian low ground
- Productive Slopes

The landscape strategy has developed the following landscape principles to underpin the later detailed design to be carried out at RMA stage:

- Locally distinctive green setting for development
- Work with existing landforms and soils
- Urban-rural edge a wilder riparian landscape meets a cultured face
- Character and scale to aid orientation and legibility
- Drawing nature in creating new connections
- Knitting into Phase 1
- Define appropriate open space types

These principles have been realised in the landscape design through:

- Shared gardens that promote active travel and community through edible planting, areas for community growing, lush planting and integrated play spaces for all.
- Edible borders and hedgerows
- Allotment provisions alongside informal growing spaces catered for the transient community
- Fruit trees and orchards
- An extensive tree planting strategy throughout the development, providing nature provision as well as shade for space users and combating urban heat island effect
- Site wide trails connect green spaces via scenic routes and promote an active lifestyle

Play

Play is an integral community amenity, connecting adults, families and children across the development and neighbouring villages. The play strategy across the future phases of NWC integrates play areas throughout nature spaces, including on door steps and within the shared gardens, as well as providing larger dedicated play areas.

Play spaces will be designed to meet the diverse needs of all ages and will incorporate Design for Girls principles. There is a preference for play directly accessible without crossing road, and a preference for natural materials and play to be integrated into nature.

For more details refer to the Grants Landscape Strategy and the Landscape section of the Design and Access Statement.





Figure 10: Examples of Play, from Grants Associates

4.4 Biodiversity

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

• 3.5 Biodiversity

South Cambridgeshire Local Plan (2018)

Policy NH/4: Biodiversity

Biodiversity Net Gain (BNG)

The biodiversity assessment has shown that a 10% biodiversity net gain (BNG) is achievable on-site, against a 2024 baseline, as per the statutory biodiversity metric calculation tool (version dated 23/7/2024). However, the whole development, including the first phase will bring a much greater overall biodiversity uplift from pre-development levels.

Key elements integrated into the design to contribute towards a 10% BNG include:

- Washpit brook floodplains
- Grassland, reedbeds and the ornamental lake of Brook Leys
- Hedgerows and broadleaved woodland areas
- Native trees to be planted throughout the development

For further information, please refer to the BNG Assessment.



Figure 11: Eddington Phase 1, Cambridge

4.5 Flood Risk

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

• 3.7 Sustainable drainage systems (SuDS) and flood risk

Cambridge Local Plan 2018:

- Policy 31: Integrated water management and the water cycle
- Policy 32: Flood risk

South Cambridgeshire Local Plan (2018)

- Policy CC/7: Water Quality
- Policy CC/8: Sustainable Drainage Systems
- Policy CC/9: Managing Flood Risk

North West Cambridge Area Action Plan (2009)

- NW25: Surface Water Drainage
- NW26: Foul Drainage and Sewage Disposal
- NW27: Management and Maintenance of Surface water Drainage Systems

Flood Risk and Sustainable Drainage

The surface water drainage strategy utilises a mixed above and below ground Sustainable Urban Drainage System (SuDs), in line with the original consented scheme, and maintains the principle of discharging to the Washpit Brook at greenfield runoff rates.

The SUDs system is integrated throughout the development and interwoven into the community lanes where rain gardens and open swales provide additional landscape and biodiversity opportunities.

Surface water runoff from individual plots will be attenuated and restricted to greenfield runoff rates before discharging into the sitewide drainage network. Surface water attenuation will be provided on-plot and across the sitewide drainage network to limit the surface water run-off up to 1 in 100-year storm event plus 40% climate change allowance. Design parameters have been developed in consultation with the Lead Local Flood Authority (LLFA) and are based on FEH rainfall data. SuDS features or proprietary petrol interceptors will also provide pollution control through two stages of treatment.

The Site is predominantly within Flood Zone 1 with a small area in the northwest corner located in Flood Zone 2. All residential units will be located within Flood Zone 1. The Site is classified as 'More Vulnerable' and as such the Exception Test is not required. Climate change impacts have been accounted for using the latest Environment Agency allowances, including a 40% uplift in rainfall intensity and 9% in river flow.

Please refer to Aecom's Flood Risk Assessment and SUDs Strategy report for further information and additional detail.

4.6 Water Efficiency

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

• 3.3 Water efficiency

Cambridge Local Plan 2018

 Policy 28: Carbon reduction, community energy networks, sustainable design and construction, and water use

South Cambridgeshire Local Plan (2018)

Policy CC/4: Water Efficiency

Residential schemes across the development will meet the water consumption target of achieving mains water consumption of 80 litres or less per head per day. This will be achieved through water efficient fittings and water recycling; A potential set of specifications to meet this is outlined in Table 1. 100% of homes will be supplied with recycled water.

Non-domestic new buildings will be required to meet BREEAM 5/5 Wat01 credits through installing water efficient sanitaryware and water recycling. This equates to a 50% reduction over BREEAM standard baseline.

Table 1: BREEAM Wat01 5/5 Credits Water Efficiency Requirements

Water Fitting	Maximum Consumption
WC	3 litre effective flush
Shower	3.50 litre/min
Bath	100 litres
Basin taps	3 litres/min
Kitchen Sink taps	5 litres/min
Domestic Dishwasher	10 litres/cycle
Domestic Washing machine	30 litres/use



1.9mm/day 2040

Higher than average temperatures in UK

Lowest average rainfall in UK

Figure 12: Thriving East Report, Anglian Water

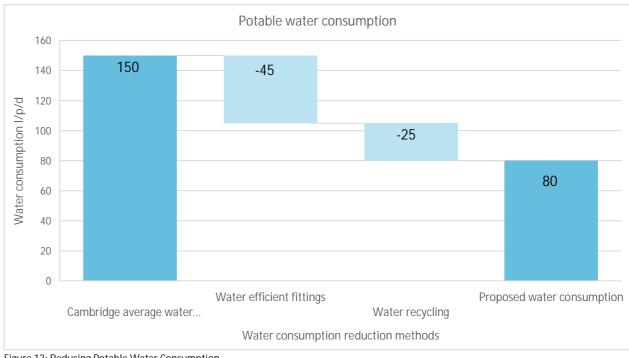


Figure 13: Reducing Potable Water Consumption

4.7 Embodied Carbon

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

• 4.6 Responsible sourcing of building materials and embodied carbon

Cambridge Local Plan 2018:

• Policy 28: Carbon reduction, community energy networks, sustainable design and construction, and water use

Whole Life Cycle Carbon

A key objective of the NWC Development is to reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Substructure and superstructure account for over 60% of embodied carbon in typical developments, which increases considerably in buildings with basements.

In order to reduce the embodied carbon of the development, key strategic decisions have been made at masterplanning level. These include:

- No basements to be built
- Reduced car parking provision to a ratio of 0.43 to reduce the need for car parking infrastructure. Car parking provision will be a mix of podium parking and on-street parking. This decision was made to reduce the embodied carbon impact associated with basement or podium parking, whilst maintaining the placemaking benefit of reduced on-street parking.

Efficient massing, building orientation and form factor have been designed in order to minimise the need for active cooling, therefore reducing the impact of embodied carbon associated with MEP equipment. Early massing studies demonstrated that Improving form factor from 2 to 1.8 can lead to a 6% reduction in embodied carbon and increasing heights from 3-6 storeys can lead to 4% reduction in embodied carbon.

The development will encourage the specification of low environmental impact and resilient materials to provide durable construction, the optimisation of passive design and the reduction of construction waste.

The management, disposal and recycling of waste generated during the construction phase will be managed by the Contractor who will put in place a Site Waste Management Plan and Resource Management Plan.

There will be a commitment to monitor embodied carbon across the development. Specific embodied carbon targets will be reviewed as the project progresses and will be outlined within RMA submissions.

Material Selection and procurement

There is an intention is to source materials responsibly and reduce embodied carbon impacts by specifying low carbon material options where possible. For non-domestic buildings this will be reported using the BREEAM assessment process. These details will be determined within the RMA submission

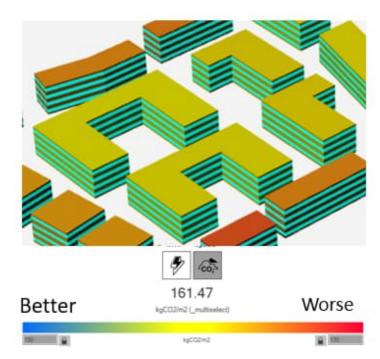


Figure 14: KgCO2/m2 for 4 Storeys

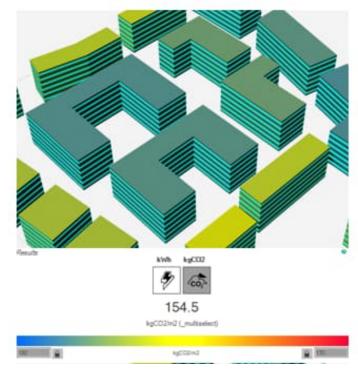


Figure 15 KqCO2/m2 for 6 Storeys

4.8 Circular Economy

Circular economy (CE) is an economic model that seeks to enable high value reuse of construction resources. It aims to keep materials within the construction loop, rather than downgrading materials into recycling before their full potential has been expended. In a Circular Economy model, materials are retained in use for as long as possible and then re-used or recycled, leaving a minimum residual waste, as illustrated in Figure.16.

As a result of following this model, the environmental impact and carbon emissions from sourcing raw materials and manufacturing of new products are minimised.

The circular economy model can be communicated by a number of principles:

- Material efficiency optimising the design to minimise the quantity of materials used in the building
- Waste minimisation reducing the waste that goes to landfill
- Longevity extending the life of the building through specification of durable/robust materials
- Adaptability and flexibility ensuring the building is flexible enough to allow change of use/ occupants and is designed for climate change
- Maintenance designing for ease of maintenance of components and services
- Disassembly ensuring that the building can be easily deconstructed, and elements and materials can be reused in their highest value form

A useful way to understand a building or development is in terms of 'layers', where each layer has its own life-cycle that may require a different approach (or different solutions) to be adopted. This concept is illustrated in Figure.17.

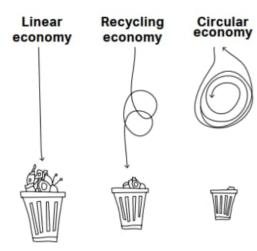


Figure 16: Circular Economy Principles

Circular economy will be addressed in 3 ways:

1. At a building level:

Buildings will be encouraged to consider circular materials and end-of-life resource strategies. The implementation of circular economy principles and commitments regarding material procurement will be considered and outlined within RMA submissions.

- 2. At a site level, the reuse of soil has been explored, with the following targets determined:
- 100% of stockpiles to be used
- 100% clay to be used
- Soil to only be moved once

The reuse of soil will have both a cost and carbon saving and further investigations into the remediation and reuse of additional virgin topsoil is currently on-going.

3. Supporting a sharing economy.

Across the Eddington community, private residents and the University of Cambridge have initiated an informal sharing economy, supported by social programmes held at Storey's Field Community Centre such as toy swaps and Lego Club. With the growth of the development, is it expected that this sharing economy and social groups will also grow and expand across the development, saving toys, furniture, books and other household items from going to landfill.

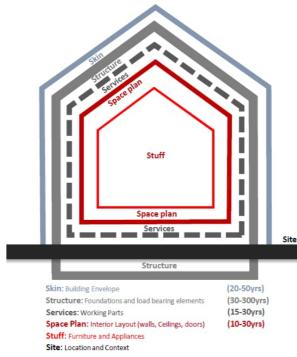


Figure 17: Building in Layers (From How Buildings Learn, Brand 1994)

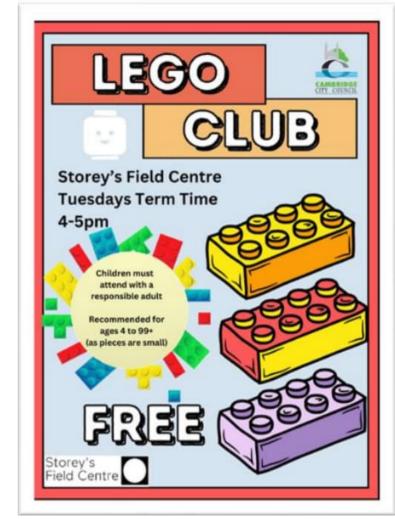


Figure 18: Eddington Lego Club Poster

4.9 Waste

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

• 3.11 Construction waste & recycling and waste facilities

South Cambridgeshire Local Plan (2018)

• Policy CC/6: Construction Methods

North West Cambridge Area Action Plan (2009)

NW28: Construction Process

A hierarchical waste management strategy of "Prevent, Reduce, Reuse, and Recycle" will be employed during the design, construction and operation of the development.

During the design phase, this means striving for material efficiency and eliminating excessive material usage, through massing optimisation and reduced car parking provision, and where possible re-using materials such as soil on-site and avoiding waste.



Figure 19: Waste Hierarchy

Construction Waste

The management, disposal and recycling of waste generated during the construction phase will be managed by the Contractor who will put in place a Site Waste Management Plan. All developers and contractors will be required to meet the following requirements:

- All main contractors will be required to set waste targets (diversion and absolute generation) and to report their waste.
- At least 99% of non-hazardous waste will be diverted from landfill

Residential waste

The residential underground bin strategy will continue into the later stages of the development, after its success in Phase 1. Waste streams will be segregated and will allow for recycling and general rubbish collection. The project team will continue to work with the local authority to coordinate with their food waste collection requirements.

The location of the underground bins and their emptying requirements has been carefully designed alongside tree pits, the sustainable urban drainage system, and underground rainwater harvesting tanks. Please see KMC's North West Cambridge Masterplan Operation Waste Management Strategy for further detail of the underground bin strategy and their location.



Figure 20: Cambridgeshire Live, Eddington Phase 1 Underground Bin Strategy

4.10 Sustainable Transport

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

• 2.3 Transport, movement and accessibility

South Cambridgeshire Local Plan (2018)

- Policy TI/2: Planning for Sustainable Travel
- Policy TI/3: Parking Provision

North West Cambridge Area Action Plan (2009)

- NW11: Sustainable Travel
- NW16: Public Transport Provision
- NW17: Cycling Provision
- NW18: Walking Provision
- NW19: Parking Standards

The intention for the streetscape is to promote a safe pedestrian friendly, noncar dominated environment, that prioritises sustainable and active modes of travel. To achieve this, the following design principles have been followed:

Cycle Provisions

High quality cycling facilities have been integrated throughout the development, including the provision of cycle lanes, bike parking and mobility hubs. All cycle parking will be provided in line Cambridge City Councils Area Action Plan (AAP) cycle parking standards.

Cycle parking for residents of houses will be provided in a secure, covered and lockable enclosure, preferably within the footprint of the building. Cycle parking for apartments/flats will be provided in a secure, covered and well-lit communal store, within 20m of the entrance to the building.

The University of Cambridge will also explore the provision of a cargo-bike hire scheme through partnerships with private operators to provide residents with on-demand access without the need for private ownership

Mobility Hubs

A network of three primary mobility hubs is included within the masterplan for the future phases at NWC to amalgamate transport modes in one, convenient location.

Primary mobility hubs could include the following components:

- Passenger waiting times for public transport provisions
- Real Time Passenger Information (RTPI) such as live updates on the status of public transport
- Micromobility Station which includes on-demand shared cycles, e-bike and scooters for us across NWC and Cambridge
- Cycle parking in the form of Sheffield stands, or similar
- Cycle Repair Hub
- Delivery Lockers
- Sui Generis such as pop-up retail and food vendors

A series of smaller neighbourhood Mobility Hubs will also be provided across the future phases of the NWC development.

Travel Routes

- Fully permeable routes for pedestrians and cyclists, including more direct routes into local centre
- Vehicle permeability restricted to certain routes, created pedestrian only zones throughout the development
- Cycling lanes are designed to be separated from roads by green buffers that will incorporate landscape planting and are in line with the proposed SUDs strategy
- The carriageway and footways will also be laid permeably in line with the development's drainage and SUDS strategy

Public/Shared Transport

- All homes will be within 400m of a bus stop
- Dedicated car club parking spaces will encourage the use of shared vehicles
- There will be an uplift in the current U1 and U2 all electric public bus provision to cater to the future phases of NWC

Digital Connectivity

Key digital connectivity measures will also be explored as the design of the future phases of NWC are developed:

- Real time passenger information / GCP smart interface with screen space for digital advertising
- Site-wide digital application (parking permits, bus times, and shared transport)
- Smart working hubs
- High quality broadband connectivity
- Real time sensor monitoring

Car Parking

Findings from the Eddington Travel Survey demonstrated that that car use was at a ratio of 0.37, this is significantly below the Area Action Plan (AAP) Standards (maximum of 1 space up to 2 bedrooms and 2 spaces for 3+ bedrooms) as well as the previously approved site-wide residential ratio of approximately 1:1.11. This has informed the future phases car parking ratio of 0.43.

Car clubs will also help alleviate vehicle traffic and parking needs across the development as 1 car club car is found to replaced 10 private vehicles.

Please refer to KMC's Transport's Assessment for further information.

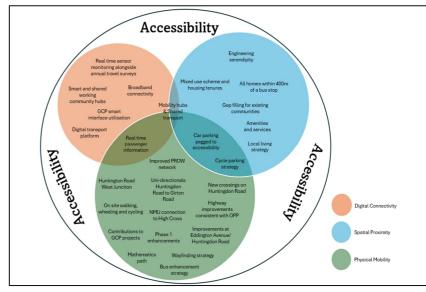


Figure 21: Transport Strategy Measures and Initiatives from KMC's North West Cambridge Masterplan Framework Site Wide Travel Plan

4.11 Construction Standards

In response to:

Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

- 4.3 Modern methods of construction
- 3.8 Construction standards (BREEAM)

South Cambridgeshire Local Plan (2018)

• Policy CC/5: Sustainable Show Homes

North West Cambridge Area Action Plan (2009)

• NW24: Climate Change & Sustainable Design and Construction

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.

BREEAM New Construction

All non-residential schemes will be required to achieve BREEAM 'Excellent'. We anticipate this will need to be in line with the new BREEAM New Construction Version.7 when it is released, due Summer 2025.

In the meantime, a BREEAM Version.6 generic pre-assessment has been conducted that provides an indication of how BREEAM Excellent might be achieved for all non-residential schemes. Please see below for the pre-assessment report.

4.12 Conclusion

The University of Cambridge aspirations for the future phases of the Masterplan is to evolve from the high sustainability standards established in Phase 1. To achieve this, the future phases of North West Cambridge have been designed to align with robust and comprehensive sustainability criteria, delivering social value and community health and wellbeing, whilst minimising environmental impact.

Outlined in Section 3.0 Sustainability Vision, this sustainability criteria is underpinned by 3 place principles (Fostering healthy living, Minimising whole place carbon, and Designed for today and the future) and is outlined by 10 key sustainability objectives:

- Energy
- Waste
- Materials
- Water
- Accessibility
- Flood Risk
- Biodiversity & Ecology

- Food
- Governance
- Social Sustainability

Section 4.0 Response to sustainability planning policies demonstrates how the sustainability vision has been integrated into the design of the future phases of NWC to address all relevant local and national planning policies. Key design initiatives include:

- Designing to Passivhaus Principles
- Continuing to provide high quality sustainable transport infrastructure
- Reducing potable water usage through rainwater harvesting and efficient sanitaryware, targeting 80 l/p/d
- Integrating food growing, play provisions and green infrastructure to enhance residential health and wellbeing
- Reducing embodied carbon impact and construction waste through high level strategic decisions, e.g. massing orientation and soil reuse

These sustainability objectives will be governed by the sustainability charter, which outlines key targets and guidance for development partners to help facilitate delivery of the sustainability approach throughout project delivery and across multiple phases.

5.0 BREEAM PRE-ASSESSMENT

5.1 Introduction

All non-domestic buildings will be assessed under BREEAM New Construction, targeting a rate of a minimum of 'Excellent'.

5.2 BREEAM Iteration

BREEAM is regularly updated to ensure it remains reflective of current best practice in building design and construction. For masterplan developments where plots are developed over the course of years there is the risk that individual plots would be assessed under different versions of BREEAM. We would propose that all relevant future projects can be assessed under BREEAM V7 for future individual plots to ensure assessment consistency.

It is intended that BREEAM assessments are carried out on a plot-by-plot basis. These assessments should therefore be registered as early as possible to try and use the same BREEAM version for each development and therefore site-wide evidence produced at a masterplan level remains compliant for individual plots. At the time of writing this report BREEAM V7 is yet to be released.

5.3 BREEAM V.6 Pre-assessment

A generic BREEAM V.6 pre-assessment has been undertaken to demonstrate how BREEAM 'Excellent' could be achieved. BREEAM New Construction V.6 has been used for the pre-assessment due to V.7 not yet being released. We would suggest that all future non-domestic developments are able to register under Version.7, for reasons addressed above.

The generic project has been assessed as a Shell and Core Office building type, with the following assumptions:

- No cold storage will be onsite
- There may be elevators installed but no escalators
- There is no scope for a pre-demolition audit

The pre-assessment indicates a targeted score of 76.12%. This equates to a 'Excellent' rating, with a buffer of 6.12%.

It is always advised that projects should maintain a contingency of 5% in the expected score, i.e. the score should never drop below 75%. All the minimum requirements are expected to be achieved.

To eliminate significant risk in not achieving 'Excellent', a selection of potential credits have been identified in the pre-assessment. These potential credits amount to 90.33%.

The pre-assessment scoring scenarios are presented in Figure.22 indicate the targeted and the potential scores.

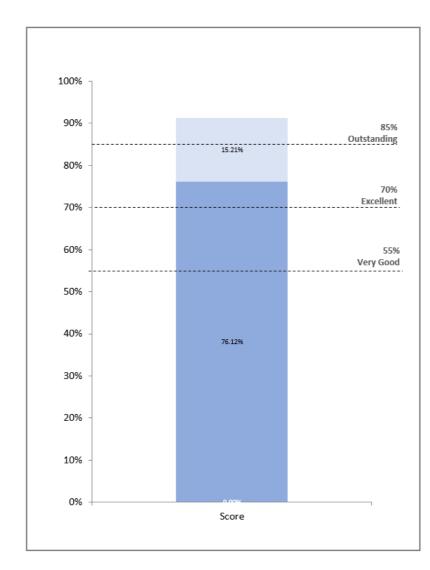


Figure 22: BREEAM V6 Pre-assessment Score

The scoresheet within the Appendix I is a matrix that lists ALL Credits within the assessment and identifies whether they are currently expected or possible / additional cost credits. A brief commentary is provided which explains the status each credit, and who the responsibility lays with in terms of addressing requirements within the design and providing documentation.

Note that these requirements are to be read in conjunction with the full BREEAM V6 manual.

See Appendix I for the BREEAM V.6 pre-assessment scorecard



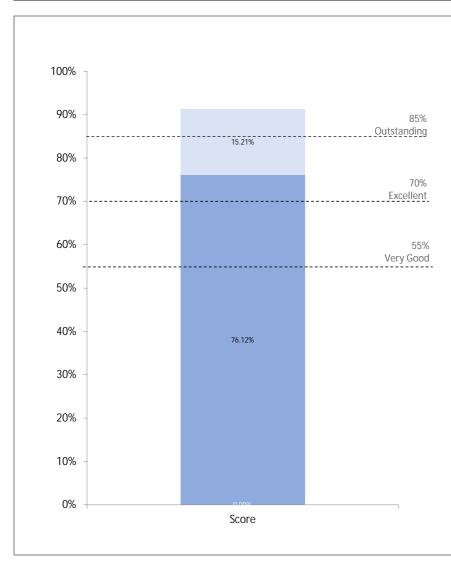
6.0 APPENDIX I – BREEAM V.6 PRE-ASSESSMENT

BREEAM V6.1 Dashboard

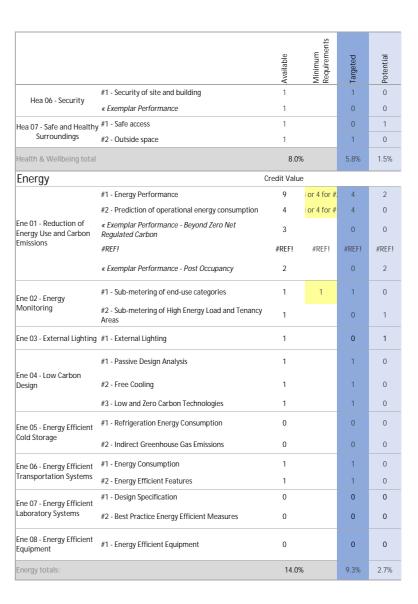
Project: North West Cambridge Masterplan

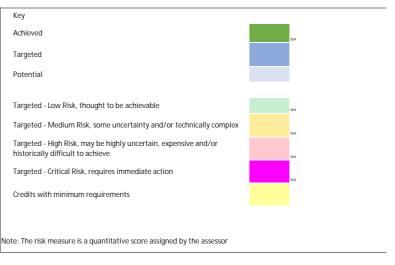
Assessor: TBC
BREEAM Scheme: New Construction V6 UK

Targeted	76.12%	Exellent
Potential	90.33%	Oustanding



		<u>ə</u>	Minimum Requirements	p	a
		Available	Minimum Requirem	Fargeted	otential
Management			redit Value		6%
	#1 - Project delivery planning	1		1	0
Man 01 - Project Brief and	#2 - Stakeholder consultation (interested parties)	1		1	0
Design	#3 - BREEAM AP (Concept Design)	1		1	0
	#4 - BREEAM AP (Developed Design)	1		1	1
	#1 - Elemental Life Cycle Cost (LCC)	2		2	0
Man 02 - Life Cycle Cost and Service Life Planning	#2 - Component Level LCC Plan	1		1	0
3	#3 - Capital Cost Reporting	1		1	0
	Pre-requisite - Timber Procurement	-		-	0
	#1 - Environmental Management	1		1	0
	#2 - BREEAM AP (site)	1		1	0
#1 - Project delivery plannin #2 - Stakeholder consultatio #3 - BREEAM AP (Concept D #4 - BREEAM AP (Concept D #4 - BREEAM AP (Concept D #4 - BREEAM AP (Concept D #3 - Capital Cost Reporting Pre-requisite - Timber Procu #1 - Environmental Manager #2 - BREEAM AP (site) #3 - Responsible Construction #4 - Monitoring of construction #5 - Transport of Construction #6 - Commissioning #6 - Commissioning #7 - President - Timber Procu #6 - Construction Management #6 - Transport of Construction #7 - Commissioning: Testing #7 - Commissioning: Design #7 - Aftercare #7 - Aftercare Support #7 - Aftercare Support #7 - Aftercare Support #7 - Post Occupancy Evalua #7 - Glare Control #7 - Fost Occupancy Evalua #7 - Fost Occupancy Evalu					
Man 03 - Responsible Construction Practices		2	1	2	0
	« Exemplar Performance - Responsible Construction Management	1		1	0
	#4 - Monitoring of construction-site impacts	1		1	0
	#5 - Transport of Construction Materials and Waste	1		1	0
	#1 - Commissioning: Testing Schedule and Responsibilities	1	1	1	0
Man 04 - Commissioning	#2 - Commissioning: Design and Preparation	1		1	0
and Handover	#3 - Testing and Inspecting Building Fabric	1		1	0
	#4 - Handover	1		1	0
	#1 - Aftercare Support	0		0	0
Man 05 - Aftercare	#2 - Commissioning: Implementation	0		0	0
	#3 - Post Occupancy Evaluation	0		0	0
Management total:		11.0%	5	11.0%	0.0%
Health & Wellbein	g	Cr	redit Value	0.	7%
	#1 - Glare Control	0		0	0
	#2 - Daylighting	2		0	1
	« Exemplar Performance - Daylighting	1		0	0
Hea 01 - Visual Comfort	#3 - View Out	1		1	0
	#4 - Internal and External Lighting Levels, Zoning	1		1	0
	« Exemplar Performance - Internal and External	0		0	0
	Pre-requisite - Indoor Air Quality (IAQ) Plan	-		-	0
	#2 - Ventilation	1		1	0
	#3 - Emissions from construction products	0		0	0
Hea 02 - Indoor Air Quality	#4 - Post-Construction Indoor Air Quality Measurement	0		0	0
	« Exemplar Performance	0		0	0
	#1 - Thermal Modelling	1		1	0
Hea 04 - Thermal Comfort	#2 - Design for Future Thermal Comfort	1		1	0
	#3 - Thermal Zoning and Controls	0		0	0
	"5 Thermal Zorling and Controls				
	#1 - Sound insulation	0		0	0
Hea 05 - Acoustic Performance		0		0	0







		Available	Minimum Requirements	Targeted	Potential
Transport		Cr	edit Value	1.	0%
Tra 01 - Transport Assessment and Travel Plan	#1 - Travel plan	2		2	0
Tra 02 - Sustainable transport measures	#1 - Transport options implementation	10		6	0
Transport total:		11.5%		7.7%	0.0%
Water		Credit Value	:		
vator	#1 - Water Consumption	5	1	4	0
Wat 01 - Water	#1 - Water consumption	3		4	U
Consumption	« Exemplar Performance	1		0	0
Wat 02 - Water Monitoring	#1 - Water Monitoring	1		1	0
Wat 03 - Water Leak Detection	#1 - Leak Detection System	1		0	1
	#2 - Flow Control Devices	1		1	0
Wat 04 - Water Efficient Equipment	#1 - Water Efficient Equipment	1		1	0
Water total:		7.0%		5.4%	0.8%
Materials		Credit Value	:		
	#1 - Superstructure	6		4	0
Mat 01 - Environmental	#2 - Substructure and Hard Landscaping	1		1	0
impacts from construction products: Building life cycle	« Exemplar Performance - Core Building Services	1		0	1
assessment	« Exemplar Performance - LCA and LCC alignment	1		1	0
	« Exemplar Performance - Third party verification	1		0	1
Mat 02 - Environmental Impacts from Construction Products	#1 - Specification of Products with a Recognised EP	D 1		0	1
	Pre-requisite - Legally Sourced Timber	-	#1	-	0
Mat 03 - Responsible	#1 - Enabling Sustainable Procurement	1		1	0
Sourcing of Construction Products	#2 - Measuring Responsible Sourcing	3		1	0
	« Exemplar Performance	1		0	0
Mat 05 - Designing for Durability and Resilience	#1 - Protecting Vulnerable Parts of the Building from Damage and Degradation	1		1	0
Mat 06 - Material Efficiency	#1 - Material Efficiency	1		1	0
Materials total:		17.5%		11.3%	1.3%
Waste		Credit Value			
	#1 - Pre-demolition audit	1		0	0
Wst 01 - Construction Waste Management	#2 - Construction Resource Efficiency	3	0	2	1
	#3 - Diversion of Resources from Landfill	1		1	0
	« Exemplar Performance	1		0	0
Wst 02 - Use of Recycled and Sustainably Sourced	#1 - Project Sustainable Aggregate Points	1		0	0
Aggregates	« Exemplar Performance	1		0	0
Wst 03 - Operational Waste	#1 - Operational Waste	1	1	1	0
Wst 04 - Speculative finishes (Offices only)	#1 - Speculative Floor and Ceiling Finishes	1		0	1

		qvailable	Vinimum Requirements	Fargeted	Potential
Wst 05 - Adaptation to	#1 - Structural, Fabric & Building Services Resilience			1	0
Climate Change	« Exemplar Performance	1		0	0
	#1 - Recommendations	1		1	0
Wst 06 - Design for Disassembly and Adaptability	#2 - Implementation	1		0	1
Waste total:		7.0%		3.8%	1.9%
Land Use & Ecolo	gy	Credit Value			
LE 01 - Site Selection	#1 - Previously Occupied Land	1		0	0
Site Selection	#2 - Contaminated Land	1		0	1
LE 02 - Identifying the Risks and Opportunities	*Exemplar Performance 1 #1 - Recommendations 1 #2 - Implementation 1 *2 - Implementation 1 #1 - Previously Occupied Land 1 #2 - Contaminated Land 1 #1 - Survey, Evaluation & Determining the ecological outcomes * *Exemplar Performance 1 Pre-requisite - Identifying Risks - #1 - Planning, liaison, implementation and data 1 #2 - Managing negative impacts 2 #1 - Ecological Enhancement 1 1 #2 - Change and enhancement of ecology 3 * *Exemplar Performance 1 1 Pre-requisite - Roles & Responsibilities - #1 - Planning, Monitoring, Management & 1 1 #2 - Landscape and ecology management plan 1 1 **Survey Evaluation * **Total: 15.0%** Credit Value * #1 - Impact of Refrigerants 3 3 ality #1 - Local Air Quality 2 2 #1 - Flood Resilience 2 2 #2 - Surface Water Run-Off - Volume 1 1 #4 - Minimising Watercourse Pollution 1 1 #1 - Reduction of Night Time Light Pollution 1 1 #1 - Reduction of Noise Pollution 1 1 #1 - Reduction of Noise Pollution 1 1	2		2	0
nisks and opportunities			0	0	
LE 03 - Managing		-		-	0
Negative Impacts on Ecology					
	#2 - Managing negative impacts			- 1	0
LE 04 - Change and	#1 - Ecological Enhancement	1		1	0
Enhancement of Ecological Value				3	0 0 1 3.8% 1.9% 0 0 0 1 2 0 0 0 1 0 1 0 0 1 0 0 1 0 1 0
		1		0	
		-		•	0
LE 05 - Long term Ecology Management and Maintenance	#1- Hanning, Monitoring, Management & Maintenance	1		1	0
	#2 - Landscape and ecology management plan	1		1	0
Land use & Ecology total:		15.0%		11.5%	1.2%
Pollution Pol 01 - Impact of		Credit Value			
Refrigerants	#1 - Impact of Refrigerants	3		2	0
Pol 02 - Local Air Quality	#1 - Local Air Quality	2		2	0
	#1 - Flood Resilience	2		2	0
Pol 03 - Flood and Surface Water	#2 - Surface Water Run-Off - Rate	1		1	0
Management	#3 - Surface Water Run-Off - Volume	1		1	0
	#4 - Minimising Watercourse Pollution	1	1	0	
Pol 04 - Reduction of Night Time Light Pollution	#1 - Reduction of Night Time Light Pollution	1		1	0
Pol 05 - Reduction of Noise Pollution	#1 - Reduction of Noise Pollution	1		1	0
Pollution total:		9.0%		8.3%	0.0%
Innovation		Credit Value			
Approved Innovation		1		0	0
Innovation/Exemplar Perl	formance total:	10.0%		2.0%	5.0%



BREEAM New Construction V6

Max Fordham LLP

Assessment Type	Shell & Core	
Project Stage	Stage XXX	
Desired Rating	Excellent	
Dosirod Scoro	75.00%	·

Project Name	N	lorth West Cambridge Masterplan						
Building Type		Office/Mid-Tech						
Target Score	76.12%	Exellent						
Potential Score	90.33%	Oustanding						

					Minimum	Avai	lable		Targeted		Pot	ential			Design Stage Design Stag
Category	BREEAM Issue	Credit Number	General Requirements	Stage Requirements	Requirements	Credits	Percent	Credit	Percent	Minimum Req's	Credit	Percent	Design Stage Evidence Requirements	Notes	Design Stage Design Stag Credit Owner Contrib
		#1 - Project delivery planning	Prior to completion of the Concept Design, all team members involved in decision making process for the project must meet to define their roles, responsibilities and contribution for each key phase of the project covering a minimum list of points detailed in the manual and the project team must demonstrate how the contributions and outcomes of this consultation process has influenced the brief, project execution plan, communication strategy and concept design.	Must occur no later than RIBA Stage 2		1	0.61%	1	0.61%				Responsibility Matrix or equivalent (e.g. minutes, project execution plan) - Minutes of the key initial meeting to demonstrate responsibilities allocated - Evidence of how the project delivery stakeholders' contributions and the consultation process outcomes influenced: 3.a Initial Project Brief 3.b Project Execution Plan 3.c Communication Strategy 3.d Concept Design.	- Note must occur no later than Stage 2 Masterplan public consultation to contribute to credit evidence	Project Manager All
	01 - Project Brief and Design	#2 - Stakeholder consultation (interested parties)	Prior to completion of the Concept Design, all interested parties are identified and consulted with by the design team - evidence must be gathered that these consultations influenced the project brief and concept design. Consultation plan must be prepared that includes timescale and method of consultation.			1	0.61%	1	0.61%				- Consultation plan - Evidence of consultation e.g. minutes, photos which covers the minimum consultation content (as per methodology) - Evidence showing how the stakeholder contributions and consultation exercise outcomes influenced the Initial Project Brief and Concept Design Documentation demonstrating feedback and subsequent actions	Note must occur no later than Stage 2 Masterplan public consultation to contribute to credit evidence	Architect Client/I
	Man 01 -	#3 - BREEAM AP (Concept Design)	No later than early RIBA Stage 1, BREEAM AP is appointed and the project team including the client formally agree the performance targets. The BREEAM AP works with the project team to help them maximise the BREEAM score, monitor progress against the targets, identify risks and opportunities related to the achievement of credits, provide feaback to the team on evidence provided and monitor and coordinate generation of evidence.	Must occur no later than Stage 2		1	0.61%	1	0.61%				- BREEAM AP appointment letter and verification of their status - Section / clauses from building specification / contract (or equivalent) to confirm BREEAM performance target - Project programme	- Note must occur no later than Stage 2	BREEAM AP Clier
		#4 - BREEAM AP (Developed Design)	Credit #3 has been achieved. BREEAM AP is appointed to assist the project team in maximising the project's overall performance against BREEAM, monitor progress against the targets, proactively identify risks and opportunities related to the achievement of the BREEAM targets, provide feedback to the project team to support them in taking corrective actions and achieving their agreed BREEAM targets and monitor the generation of BREEAM evidence by the project team throughout Developed Design.			1	0.61%	1	0.61%				Meeting notes/minutes, communication records, formal notes of conversations and other statements reporting on discussions related to performance targets and maximising performance showing BREEAM AP's involvement BREEAM AP progress reports (for each work stage)	BREEAM AP to be appointed	BREEAM AP Archit
	and Service Life Planning		A competent person carries out an outline, entire asset LCC plan at RIBA Stage 2 together with any design options appraisals in line with PD 156865: 2008. The LCC analysis shows an outline plan based on the building's basic structure and envelope, appraising a range of options and based on multiple cash flow scenario's e.g 20, 30, 50, 60 years and the fabric and servicing strategy for the project outlining services component and fit-out options (if-applicable) over a 15-year period, in the form of an 'elemental LCC Plan'. Demonstrate how the elemental LCC plan has been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.	Must occur no later than RIBA Stage 2		2	1.22%	2	1.22%				- Elemental life cycle cost plan - CV showing "competent person" - Supporting evidence demonstrating how the elemental cycle cost plan has influenced the design / specification	- Note must occur no later than Stage 2 OS will need to be appointed to carry out LCC	Quantity M&E/ Arc Project Mi Structural I
	Man 02 - Life Cycle Cost and	#2 - Component Level LCC Plan	A component level LCC plan has been developed by the end of RIBA Stage 4 and includes the following component types in line with PD 156865:2008 (where present): envelope, services, finishes, external spaces. Demonstrate how the component level LCC plan has been used to influence building and systems design/specification to minimise life cycle costs and maximise critical value	Must occur no later		1	0.61%	1	0.61%				- Component level life cycle cost plan - CV showing "competent person" - Supporting evidence demonstrating how the component cycle cost plan has been utilised in design	Shell and Core: Component level LCC plan must include all component types installed by the developer	Quantity Surveyor M&E/ Are Project M: Structural I
		#3 - Capital Cost Reporting	Report the capital cost for the building in pounds per square metre of gross internal floor area (£k/ m²) as part of the submission to BRE.			1	0.61%	1	0.61%				- Predicted capital costs via BREEAM Projects.		Quantity Surveyor
			All timber and timber-based products used during the construction process of the project are "legally harvested and traded timber" (see Definitions)			-	-	-	-				- Relevant section / clauses of the building specification / contract OR a signed and dated letter of commitment to meet the relevant criteria		Project Manager
		#1 - Environmental Management	All parties who at any stage manage the construction site (e.g. principle contractor, demolition contractor) operate a compliant Environmental Management System covering their main operations and implement best practice pollution prevention policies and procedures on site in accordance with PPG6, Pollution Prevention Guidelines.			1	0.61%	1	0.61%				Relevant section / clauses of the building specification / contract OR a signed and dated letter of commitment to meet the relevant criteria A copy of the principal contractor's EMS/EMAS certificate, where contractor appointed.	Note #3 is a pre-requisite for NHS buildings	Project Manager
		#2 - BREEAM AP (site)	The client and the contractor formally agree BREEAM targets. A BREEAM AP is appointed to assist the project team in maximising the project's overall performance against BREEAM, monitor construction progress against the targets, proactively identify risks and opportunities related to the achievement of the BREEAM targets, provide feedback to the contractors and project team to support them in taking corrective actions and achieving their agreed BREEAM targets and monitor the generation of BREEAM evidence by the project team throughout the Construction, Handover and Close Out stages.			1	0.61%	1	0.61%				- Section / clauses from building specification / contract (or equivalent) to confirm BREEAM performance target 'Appointment letter or specification showing BREEAM AP will be appointed		Project Manager BREEAN
	n Practices	#3 - Responsible Construction Management	The principal contractor achieves items in table 4.1: - 1 credit: All "required" items - 2 credits: All "required" items PLUS 6 additional items		1	2	1.22%	2	1.22%	Yes			- Relevant section / clauses of the building specification / contract OR a claused and dated latter of commitment to most the relevant reflects	- Note if you target a CCS score of >39 you meet most of the requirements. However you still need: > To get 2 credits: point g: Ensure clear and safe access in and around the buildings at the point of handover. > To act 2 credits alse the openment credit:	Project Manager

Category	BREEAM Issue	Credit Number General Requirements	Stage Requirements	Minimum Requirements	Availa	able Percent	Credit	Targeted Percent	Minimum Req's	Pote	ential Percent	Design Stage Evidence Requirements	Notes	Design Stage Credit Owner	Design Stage Credit Contributor
Management	esponsible Construction	★ Exemplar Performance - Responsible Construction Management Exemplary Credit: Achieve all items in Table 4.1			1	1.00%	1	1.00%				Signed and dated letter of commitment to meet the relevant citiena - NOTE: It must be clear which responsible construction management items within Table 4.1 are being targeted.	- point p: Fleet operators undertake driver training & awareness to promote safety within the footprint and off site point q: Fleet operators capture & investigate road accidents, incidents & near misses and reports them back to the principal contractor. The principal contractor analyses these items.	Project Manager	
Man	Man 03 - R	#4 - Monitoring of construction-site impacts Responsibility has been assigned to an individual(s) for monitoring, recording and reporting energy use and water consumption resulting from all on-site construction processes (and dedicated off-site monitoring) throughout the build programme.			1	0.61%	1	0.61%				- Confirmation of the targets that have been set for the project - Relevant section / clauses of the building specification / contract OR a signed and dated letter of commitment to meet the relevant criteria	Requirements part of wider masterplan sustainability charter These are often achieved by default through waste monitoring systems such as BRE SmartWaste already used by the contractor.	Project Manager	
		#5 - Transport of Construction Materials and Waste Responsibility has been assigned to an individual for monitoring, recording, and reporting data on transport movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site.			1	0.61%	1	0.61%				- Confirmation of the targets that have been set for the project - Relevant section / clauses of the building specification / contract OR a signed and dated letter of commitment to meet the relevant criteria	These are often achieved by default through waste monitoring systems such as BRE SmartWaste already used by the contractor.	Project Manager	
		#1 - Commissioning: Testing Schedule and Responsibilities Prepare a commissioning schedule detailing all appropriate commissioning standards. Project team member appointed to monitor and programme pre-commissioning, commissioning, and where necessary, re-commissioning. Main contractor accounts for commissioning programme, responsibilities, and criteria within main programme of works.	s.	1	1	0.61%	1	0.61%	Yes			- Relevant section / clauses of the building specification / contract OR a signed and dated letter of commitment to meet the relevant criteria - Commissioning schedule - Copy of the principal contractor's programme and project budget showing commissioning allowances OR where contractor not yet appointed: Relevant section or clauses of the building specification or contract OR a letter of commitment from the client or developer.	Not assessed under shell only assessments Assessed under shell and core assessment with regards to the scope of services being specified/installed	M&E / Project Manager	
	imissioning and Handover	Credit #1 is achieved During the design stage, the client or the principal contractor appoints an appropriate project team member (provided they are not involved in the general installation works) to a Undertake design reviews and give advice on ease of commissioning. b Provide commissioning management input to construction programming and during installation stages. c Manage commissioning, performance testing and handover or post-handover stages. For buildings with complex building services, this role needs to be carried out by a Special Commissioning Manager (see Definitions on page 58).	Must occur no later than RIBA Stage 4		1	0.61%	1	0.61%				- Appointment letter for commissioning manager(s) - Evidence of design reviews - Where applicable, evidence that the specialist commissioning manager meets the definition of this role	Note credit #1 must be achieved Not assessed under shell only assessments Assessed under shell and core assessment with regards to the scope of services being specified/installed	Project Manger	M&E
	Man 04 - Con	#3 - Testing and Inspecting Building Fabric The integrity of the building fabric is quality assured through completion of post construct testing and inspection. Through the completion of a thermographic survey as well as airtightness test and inspection by a qualified professional. Any defects must be rectified prior to building handover/close out.			1	0.61%	1	0.61%				- Relevant section / clauses of the building specification / contract OR a signed and dated letter of commitment to meet the relevant criteria	Note credit #1 must be achieved Criteria #7, Commissioning and Testing Schedule and Responsibilities, not applicable to shell only	Project Manager	
		Prior to handover, two building user guides are developed: a A non-technical user guide for distribution to the building occupiers. b A technical user guide for the premises facilities managers. Drafts are developed and discussed with users first. Prepare two training schedules: a A non-technical training schedule for the building occupiers. b A technical training schedule for the premises facilities managers.		#11 - Building User Guide	1	0.61%	1	0.61%	No			- Relevant section / clauses of the building specification / contract OR a signed and dated letter of commitment to meet the relevant criteria OR draft building user guide and training schedule	Not applicable for shell only For shell and core: Guides and training schedules for shell and core assessment to include all relevant sections regarding the services and fabric installed.	All	
			'	Totals - Base Total - Innovation		11.0% 1.0%	18 1	11.00% 1.00%		0	0.00% 0.00%				

Category	BREEAM Issue	Credit Number	General Requirements	Stage Requirements	Minimum Requirements	Avai Credits	lable Percent	Credit	Targeted Percent	Minimum	Pote	ential Percent	Design Stage Evidence Requirements	Notes	Design Stage Credit Owner	Design Stage Credit Contributor
		#2 - Daylighting	The building achieves good practice daylighting relevant to the building function to ensure appropriate levels of natural light for the building occupants The relevant building areas meet good practice daylight factor(s) and other criterion OR The relevant building areas meet good practice average and minimum point daylight lilluminance criteria		requirements	2	1.45%	credit	recent	Req's	1	0.73%	Design drawings and daylighting calculations OR relevant section / clauses of the building specification / contract confirming national best	Should be achievable for some buildings but unlikely to be guaranteed for all	M&E	Architect
	lComfort	★ Exemplar Performance - Daylighting	The building achieves exemplar performance daylight factors relevant to the building function to ensure appropriate levels of natural light for the building occupants			1	1.00%						practice daylighting guidelines / BREEAM requirements		M&E	
	Hea 01 - Visua	#3 - View Out	95% of the floor area in 95% of spaces for each relevant building area is within 8m of an external wall which has a window or permanent opening that provides an adequate view out. The window/opening must be ≥ 20% of the surrounding wall area where the room depth is greater than 8m.			1	0.73%	1	0.73%				- Design drawings - Window schedule - Calcs	Requirements to be disucssed early in design	Architect	
		#4 - Internal and External Lighting Levels, Zoning and Control	Internal and External lighting provides luminance levels in accordance with the SLL Code for Lighting 2012. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 3.3.4.6.4, 7.4.8 and 4.9. External lighting provided is specified in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas. Internal lighting is zoned in accordance with all BREEAM criteria.			1	0.73%	1	0.73%				Design drawings / room data sheets / schedules OR Relevant section / clauses of the building specification / contract OR letter of formal confirmation of compliance of the Relevant DT member	Internal Lighting and zone control not applicable to shell only and shell & core assessments. All external lighting criteria applicable to fully fit-out, shell only and shell & core assessments Refer to BDP's lighting strategy for the development - ecologically sensitive area	M&E	
		Pre-requisite - Indoor Air Quality (IAQ) Plan		Must occur during design stage		-	-	-	-				- Compliant Indoor Air Quality Plan	Note Indoor air quality Plan (IAO) must be produced during design stage Credit not applicable to shell only assessment.	M&E & Architect	
Well-being	Hea 02 - Indoor Air Quality	#2 - Ventilation	Building has been designed to minimise the concentration and recirculation of pollutants in the building through: - complying with the relevant standard for ventilation - designing ventilation pathways to minimise pollutants inside the building - incorporating suitable filtration as defined in BS EN 13779:2007 - areas subject to large and unpredictable or variable occupancy patterns have carbon dioxide (CO ₂) or air quality sensors specified - mechanically ventilated spaces: sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation - naturally ventilated spaces: sensors either have the ability to alarm when CO ₂ levels exceed set point, or are linked to controls to adjust the quantity of fresh air & thermal comfort and ventilation rates in accordance with CIBSE AM10.			1	0.73%	1	0.73%				- Design drawings - Specifications / contract clauses	Credit not applicable to shell only assessment. Note only criteria 2.a applicable for shell and core buildings	M&E	
and Well	al Comfort	#1 - Thermal Modelling	Thermal modelling has been carried out using software in accordance with CIBSE AM11 and ensures design achieves criteria as set out in CIBSE Guide A Environmental Design.			1	0.73%	1	0.73%				Compliant thermal modelling report, measurements and evaluation results with confirmation that these are within the required limits.	Not applicable under shell only assessments Assume will be required due to nergy stragey/overheating requirements outlined in masterplan sustainability charter	M&E	
Health ar	Hea 04 - Therm	#2 - Design for Future Thermal Comfort	Credit #1 has been achieved and the modelling has been undertaken against a projected climate change scenario. Project team are to demonstrate how the building has been adapted, or designed to be easily adapted in the future using utilise passive solutions			1	0.73%	1	0.73%				- Confirmation that the modelling software is BREEAM compliant Where applicable, PMV/PPD data from the design team Req. 7: provide evidence such as drawings / specifications to demonstrate how the building has been adapted or designed to be easily adapted using passive design solutions in order to comply.	Note credit #1 must be achieved Not applicable under shell only assessments Assume will be required due to nergy stragey/overheating requirements outlined in masterplan sustainability charter	M&E	
	Hea 05 - Acoustic Performanc e	#2 - Internal indoor ambient noise levels	Internal indoor ambient noise levels			1	0.73%	1	0.73%				Relevant section/clauses of the building specification or contract and/or formal letter from the project team regarding commitments Professional report/study and calculations from the acoustician. CV of suitably quality acoustician.	Credits available building type dependent Only internal indoor ambient noise levels applicable for shell and shell only	Acoustician	
	Hea 06 - Security	#1 - Security of site and building	Suitably Qualified Security Specialist (SWSS) prepares evidence based Security Needs Assessment no later than RIBA Stage 2. Final design must incorporate recommendation from SQSS.	Assessment during or prior to RIBA Stage 2		1	0.73%	1	0.73%				- Correspondence from or a copy of the report/feedback from the ALO/CPDA/Security Consultant confirming: > Scope of their advice/involvement > Details of security needs assessment > The stage of design in which their advice was sought > Summary of their recommendations > Evidence that SOSS is suitably qualified - Evidence that the recommendations have been included in the design	- Note must occur no later than Stage 2 Shell & Core & Shell only: The SQSS must confirm that they have addressed all parts of the project where it is feasible to do so, based on the information available to them at the time of assessment. In relation to the influence of the occupiers on security, the SQSS shall clearly document their assumptions in the SNA. Only site-based security risks can be considered, would also need to consider risks depending on building type Requires consultation with Suitably Qualified Security Consultant as defined by BREEAM - potential additional appointment	Architect	SOSS
		* Exemplar Performance	A compliant risk based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification.			1	1.00%						Evidence that an independent assessor has been appointed and a compliant risk based security ratings cheme is being undertaken SABRE design stage certificate	Currently SABRE is the only compliant risk based scheme available - do not recommend targeting this credit		
	urroundings	#1 - Safe access	Proper cycle lanes, footpaths, pedestrian lighting are incorporated into the design. Delivery areas are not directly accessed through general parking areas and have their own vehicle manoeuvring areas.			1	0.73%				1	0.73%	Design drawings or specifications - highlights safe pedestrian and cycle routes Where required, relevant sections of the building specs	Dedicate pedestrian and dedicated cyclist routes may be challenging due to shared road space. Delivery areas will need to not cross or share cyclist and pedestrian paths	Architect	
	Hea 07 - Safe and Healthy S	#2 - Outside space	Outside space provided and must: be an outdoor landscaped area, for example a garden, balcony or terrace; the majority of the space should be open to the sky have appropriate seating areas and be non-smoking, be located to ensure it is accessible to all building users and avoids areas that will have disturbances from sources of noise (e.g. building services, car parks, busy roads, delivery areas etc.).			1	0.73%	1	0.73%				Design drawings showing provision of an adequate external space. Where required, relevant sections of the building specs / letter of commitment confirming the outside space will be in line with the definition of Outside space.	Credit anticipated to be earsily achieved due to surrounding landscape amenities	Architect	
			<u> </u>		Totals - Base Total - Innovation	11 2	8.00% 2.00%	8	5.82% 0.00%		2 0	1.45%				

Category	BREEAM Issue	Credit Number General Requirements Sta	age Requirements	Minimum Requirements	Avail: Credits	able Percent	Credit	Targeted Percent	Minimum	Pote	ntial Percent	Design Stage Evidence Requirements	Notes	Design Stage Credit Owner	Design Stage Credit Contributor
	40	#1 - Energy Performance Design achieves a minimum Energy Performance Ratio on a scale of 0.1 to 0.9 (1 - 9 credits available).		4 or 4 for #2	9	6.00%	4	2.67%	Req's	2	1.33%	A copy of the Building Regulations Output Document from the approved software. The output must be based on the design stage of analysis A copy of the building regulations output document from the design stage SAP calculations (where relevant for multi-residential buildings). Additional calculations where the EPR has been calculated based on averaging. Confirmation modeller is suitably qualified	Shell only: Calculate an Energy Performance Ratio just for the building's heating and cooling energy demand (EPR ED). Compare the EPR ED achieved with the Energy Performance Ratio for New Construction (EPRNC) benchmark scale and award the corresponding number of BREEAM credits. Shell & Core: If the building services efficiencies and performance specifications are not known, minimum energy efficiency standards or levels required by the national building should be used. Or performance specifications confirmed within a green fit-out agreement that is contractually required from the tenants in their fit-out works can be used. 4 credits must be achieved to achieve Excellent, 6 for outstanding	M&E	
	ction of Energy Use and Carbon Emissions	#2 - Prediction of operational energy performance. Undertake energy modelling and produce reports during the design and post-operational energy consumption consumption of highlight any design, technical, and process risks to be monitored and managed throughout construction and commissioning.	Must occur during design stage	4 or 4 for ≇1	4	2.67%	4	2.67%	No			Energy modelling report detailing required criteria Confirmation of suitably qualified energy modeller's qualifications and experience.	Aligns with TM54 methodology and would be carried out by the project team	M&E	All
	Ene 01 - Redu	★ Exemplar Performance - Beyond Zero Net Regulated Carbon The building achieves an EPRnc ≥ 0.9 and zero regulated CO2 emissions. Number of credits awarded based on perfentage of carbon emissions from unregulated energy use that iws offset by LZC sources			3	3.00%						As above, plus: '- Total LZC energy generation (kWh/yr) - Source of LZC energy - Calculated estimate of energy consumption from unregulated systems / process (kWh/yr) - Calculated estimate of energy surplus	Not assessed under shell only assessments	M&E	
		The client commits funds to pay for a Post Occupancy Evaluation. Actual enegry consumption to be compared to target set under Ene 01#2. The Energy model for Ene 1#2 is re-run for post occupancy. * Exemplar Performance - Post Occupancy The following credits must also be achieved to award this credit: 1. Ene 01 - 4 credits for Prediction of operational energy consumption 2. Ene 02 Energy monitoring - 1 credit 3. Wat 02 Water monitoring - 1 credit			2	2.00%				2	2.00%	- Ene 02 credit awarded - The client's commitment to proceed to the post occupancy stage and report the energy consumption.	- Achieve 2 credits for Ene 2, 1 credit Wat 2 and 4 credits for Ene 1#2 Not assessed under shell only assessments	Client	
	ergy Monitoring	#1 - Sub-metering of end-use categories of energy consumption of each fuel to be assigned at various end-use categories of energy consuming systems. The energy consuming systems in buildings with a total useful floor area greater than 1,000m2 are metered using an appropriate energy monitoring and management system		1	1	0.67%	1	0.67%	Yes			Req. 1 & 5: - The metering schedule or metering strategy - Floor plans showing functional or tenanted areas, where applicable. Req. 2 & 4:	Not assessed under shell only assessments	M&E	
Energy	Ene 02 - En	#2 - Sub-metering of High Energy Load and Tenancy Areas An accessible energy monitoring and management system or separate accessible energy sub- meters with pulsed or other open protocol communication outputs to enable future connection to an energy monitoring and management system are provided, covering a significant majority of the energy supply to tenanted areas or in the case of single occupancy buildings, relevant function areas or departments within the building/unit			1	0.67%				1	0.67%	- Specification for the energy monitoring system and/or meters. Req. 3: - Metering schedule / metering strategy	Not assessed under shell only assessments Shell & Core: Meters must be installed on the energy supply to each separate tenanted unit or floor plate within the assessed development.	M&E	
Ene	Ene 03 - External Lighting	#1 - External Lighting Either no external lighting OR Energy efficient external light fittings(with average efficacy of at least 70luminaire lumens per circuit watt) are specified for external areas of the development and are only on when required.			1	0.67%				1	0.67%	Written confirmation from appropriate member of the DT or drawings to confirm that there is no external lighting. Relevant section/clauses of the building specification or contract OR design drawings	Look at BPD lighting strategy for northern plots - may be constrained due to ecologial reasons	M&E	
	u fi		lust occur no later han RIBA Stage 2		1	0.67%	1	0.67%				- Evidence from Hea 04 #1 Thermal Modelling - Passive Design Analysis Report - Drawings/specification showing passive design measures specified - Results from a dynamic simulation model demonstrating the reduced energy demand and CO ₂ -eq emissions from the specified passive design measures	- Note must occur no later than Stage 2 The first Hea 04 Thermal Comfort credit must be achieved For shell only assessments compliance with criteria 1, 2 and 3.b.ii in Hea 04 Thermal comfort must be demonstrated.	M&E	
	.ow Carbon Desi	#2 - Free Cooling Credit #1 has been achieved and the passive design analysis also includes an analysis of free cooling and identifies opportunities for the implementation of free cooling solutions with any of the compliant free cooling strategies specified			1	0.67%	1	0.67%				Free cooling analysis report Results from a dynamic simulation model demonstrating the feasibility of the free cooling strategy Specification or drawings showing strategy implemented	Credit #1 must be achieved For shell only free cooling options 1 to 3 as listed in Ene 04 are applicable	M&E	
	Ene 04 - L		lust occur no later han RIBA Stage 2		1	0.67%	1	0.67%				- LZCT Feasibility report - Evidence that an energy specialist completed the report - Specifications drawings showing LZCT specified - Results from a dynamic simulation model with and without LZCTs demonstrating reductions in CO ₂ -eq emissions from the specified low and zero carbon technology.	- Note must occur no later than Stage 2 For shell only all criteria are relevant subject to the following: Criterion 9: The LZC feasibility study must be completed as part of the Shell only design, based on the expected building use and loads specified in the design brief, or where these are not specified, for likely scenarios. Criterion 12: The built form should allow for the future installation of the most cost-effective LZC options.	M&E	
	cient Cold Storage	#1 - Refrigeration The refrigeration system, its controls and components have been designed, installed and commissioned in accordance with compliance guidance documents			0	0.00%						- Relevant section / clauses of the building specs or contract or other documentary evidence, such as a letter form the design team - also confirmation compliant commissioning will be carried out - A letter from the manufacturer/supplier or copies of their technical literature AND/OR a print out of the ETPL listing the specific products - Evidence as outlined under BREEAM issue Man 04	Not assessed under shell only assessments Credits available building type dependent - dependent on building type and requirements of mid-tech spaces - Client to advise if cold storage will be included in buildings	Catering	

Category	BREEAM Issue	Credit Number	General Requirements	Stage Requirements	Minimum Requirements	Avai	lable Percent	Credit	Targeted Percent	Minimum Req's	Pote	Percent	Design Stage Evidence Requirements	Notes	Design Stage Credit Owner	Design Stage Cred Contributor
	Ene 05 - Energy Effl	#2 - Indirect Greenhouse Gas Emissions	The system can demonstrate a saving in indirect greenhouse gas emissions compared to baseline building conditions.			0	0.00%						- Documentary evidence confirming the type of technology specified and estimated savings in indirect greenhouse emissions, including a description of how this saving is achieved Calculations should be carried out by an appropriately qualified professional (e.g. a building services engineer) including justifications for assumptions and methodologies for savings in indirect greenhouse emissions.	Credit #1 achieved Not assessed under shell only assessments Credits available building type dependent - dependent on building type and requirements of mid-tech spaces - Client to advise if cold storage will be included in buildings	Catering	
	ent Transportation ms	#1 - Energy Consumption	Analysis for transportation demand and energy consumption for lifts, escalators, and/or moving walkways takes place. Strategy with lowest energy consumption is to be specified.			1	0.67%	1	0.67%				Professional report/study of transportation analysis and calcs - specification showing compliant lift specified	Not assessed under shell only assessments Credits available building type dependent	M&E	
	Ene 06 - Energy Effici Syste	#2 - Energy Efficient Features	Credit #1 has been achieved and compliant energy efficient features are specified (1 credit available for lifts & 1 credit for escalators)			1	0.67%	1	0.67%				- Relevant section / clauses of the building specification or contract AN EITHER - Manufacturers product details OR - Formal letter of commitment from the system(s) manufacturer / supplier	Credit #1 must be achieved Not assessed under shell only assessments Credits available building type dependent - note 1 credit available for lifts and 1 credit for escalators - If no escalators change credits available to 1 - assumed no escalators will be present	M&E	
				1	Totals - Base Total - Innovation	21	14.00% 5.00%	14 0	9.33% 0.00%		4 2	2.67% 2.00%				
Transport	Tra 01 - Transport Assessment and Travel Plan	#1 - Travel plan	During the feasibility and design stages, develop a travel plan based on a site-specific travel assessment or statement including all the points as listed in the BREEAM manual, including calculator of the public transport accessibility index, current facilities available for cyclists, disabled access etc. The travel plan includes recommendations and these must be implemented.	Must occur no later than Stage 2		2	1.92%	2	1.92%				- A completed copy of the Tra 01 calculator - Documentary evidence supporting the data used to complete the calculator tool - Travel Plan and Transport Assessment (showing completed by stage 2 Documentation confirming the building occupier's involvement (if known) - If not known, documentation confirming that the TP will be hander to the building owner - Letter from the client confirming that the travel plan will be implemented post construction, be supported by the building's management in operation and recommendations implemented.	- Note site-specific transport assessment (or statement) and draft travel plan must occur no later than Stage 2 See Mastrplan Transport Assessment - would need to consider impacts for all of the buildings expected to be delivered on the masterplan site to be used as evidence Masterplan travel plan to be updated or expanded on per development, however an outline plan could detail planned public transport provision, cycle infrastructure and site wide EV charging or car sharing schemes that can be used as the basis for individual plot projects	Architect	Client
	Tra 02 - Sustainable transport measures		Credit #1 must be awarded. Is identify and implement sustainable transport measures within Table 7.4 Award credits according to the Accessible Index (AI) and the total number of points achieved for the options implemented, see Table 7.3.			10	9.58%	6	5.75%				- Transport Assessment / Statement - Travel Plan - Drawings/specifications/reports/consultation evidence etc. dependin on criteria targeted - See Tra 02 evidence table for individual options for each specific criteria	Cycle parking to be provided on-site. For additional credits, provide facilities such as lockers, showers, changing facilities and local transport information - redirect people to mobility hubs for further travel information	Architect	Client
					Totals - Base	12	11.50%	8.00	7.67%		0	0.00%				
	it 01 - Water Consumption	#1 - Water Consumption	Credits awarded on a sliding scale based on the percentage improvement in water usage over a baseline notional building. Must use the Wat 01 calculator to determine final number of credits awarded. Minimum for one credit is 12.5% improvement, 5 credits awarded for 55% improvement or better. The following domestic scale water consuming components are included: WCs, urinals, taps, showers, baths, dishwashers, washing machines. Grey water and rainwater collection systems are taken into account in the calculator tool.		1	5	3.89%	4	3.11%	Yes			The relevant sections / clauses of the building specs, design drawings schedules confirming the number, specs and water consumption of all water consuming components. A completed copy of the BREEAM Wat 01 calculator tool. Where specific products are specified, manufacturer's literature, EU Energy Label or European Unified Water Label information must be provided to support the water consumption values used. Technical details for blackwater, greywater, or rainwater collection systems, where specified.		Architect	M&E
	W	★ Exemplar Performance	The development demonstrates a 65% improvement over baseline building water consumption			1	1.00%						- Calculations e.g., relating the flow rate for push and automatic shut off taps or for blackwater, greywater, or rainwater collection systems.	Not assessed under shell only assessments	Architect	M&E
	02 - Water Monitoring	#1 - Water Monitorin	Where a water meter with a pulsed output will be installed on the mains supply to each building/unit. Water-consuming plant or building areas that consume 10% or more of the building's total water demand must be fitted with sub meters or have water monitoring equipment with pulsed output enabling it to connect to a BMS system. If the site has an existing BMS belonging to the same owner as the new development, the meters must be connected to this system.		Criterion 1 only	1	0.78%	1	0.78%	No			- Relevant section/clauses of the building specification or contract - Design drawings or metering schematics - Calcs and justifications relating to selection of significant water demands	Criterion #2 (relating to water consuming plant systems) is not applicable to shell only assessments For shell & core assessments criterion #2 must be demonstrated for water-consuming plant/building areas identifiable by the developer. Water-consuming plant/building areas to be added/installed by the tenant do not need to be assessed for this issue. Sustainability charter committed to achieving 50% reduction from baseline for non-domestic buildings - would expect sub-metering to be included in spec to	M&E	
Water	Wat													demonstrate this target will be met		
Water	er Leak	#1 - Leak Detection System	Leak detection system capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter.			1	0.78%				1	0.78%	- Relevant section/clauses of the building specification or contract		M&E	
Water	Leak		Leak detection system capable of detecting a major water leak on the mains water supply			1	0.78%	1	0.78%		1	0.78%	Relevant section/clauses of the building specification or contract Design drawings Where available, manufacturer's product details		M&E M&E	
Water	Water Leak	#2 - Flow Control Devices	Leak detection system capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter. Install flow control devices that regulate the water supply to each WC area or sanitary facility according to demand, in order to minimise undetected wastage and leaks from sanitary		Totals - Base	1 1 1		1 1	0.78%		1	0.78%	- Design drawings	demonstrate this target will be met Not assessed under shell only assessments See water consumption targets outlined above and in sustainability charter. Flow	M&E	Landscape Archite

						Avai	ilable		Targeted		Pote	ential			B 1 0	
Category	BREEAM Issue	Credit Number	General Requirements	Stage Requirements	Minimum Requirements	Credits	Percent	Credit	Percent	Minimum Req's	Credit	Percent	Design Stage Evidence Requirements	Notes	Credit Owner	Design Stage Credit Contributor
	uiding life cycle assessment	#1 - Superstructure	Z credits available: technical design analysis Note technical design credits can still be achieved even if concept design credits have not been awarded.	Must occur at RIBA Stage 2 & 4		6	7.50%	4	5.00%				- The Mat 01/02 Results Submission Tool - Options appraisal summary document - Evidence that the LCA options appraisal summary document has been received by the design team and client (meeting minutes, letter of acknowledgement) - Evidence of how the LCA design options have informed the design decision-making process (e.g. meeting minutes, documented design development showing how the LCA options have affected the design) Updated evidence for technical design	LCA analysis to be appointed	Architect	
	lucts: Bu	#2 Substructure and	LCA analysis must be submitted to BRE at concept and technical design stages. Criteria 3 and 4 are achieved.	Must occur no later												
	struction prod	#2 - Substructure and Hard Landscaping * Exemplar		than RIBA Stage 2		1	1.25%	1	1.25%				The LCA options appraisal summary document includes substructure and hard landscaping according to the criteria.	Criteria 3 and 4 are achieved. Criteria 3 to 4 are achieved.	Architect	Structural Engineer
	from con	Performance - Core Building Services options appraisal	During Concept Design carry out building LCA options appraisal of at least 3 significantly different core building services design options using a building LCA tool that is recognised by BREEAM.	Must occur no later than RIBA Stage 2		1	1.00%				1	1.00%	The LCA options appraisal summary document includes core building services according to the criteria.	Not assessed under shell only assessment	Architect	M&E
	wironmental impacts	★ Exemplar Performance - LCA and LCC alignment	Achieve criteria 3 to 5. Achieve Man 02 #1 Design options that were included in the LCA analysis to be included in the LCC analysis as			1	1.00%	1	1.00%				- The 'elemental LCC plan' and 'Component level LCC option appraisal; in issue Man 02 Life cycle cost and service life planning'.	Achieve criteria 3 to 5. Achieve Man 02 #1	Architect	
	Mat 01 - En	★ Exemplar Performance - Third party verification	Criteria 1 to 7 (as applicable to the building type) are achieved. A suitably qualified third party carries out the building LCAs			1	1.00%				1	1.00%	The third party's report: Verifying that building LCAs accurately represent the designs under consideration. Itemising the findings of their verification checks. Vevidence that the requirements of a Suitably qualified third party are fulfilled.	Criteria 1 to 7 (as applicable to the building type) are achieved.	Architect	
	Mat 02 - Environmental Impacts from Construction Products	#1 - Specification of Products with a Recognised EPD	Specify construction products with EPD that achieve a total EPD points score of at least 20, as shown in the Mat 01/02 Results Submission Tool.			1	1.25%				1	1.25%	- Relevant section of the building specification or schedule confirming materials or products which will have EPDs Where products are specified at design stage, copies of EPD certificates to be provided The Mat 01/02 Results Submission Tool Specifications/drawings	Challenging to ensure EPDs are available for the required number of products	Architect	
rials	ø	Pre-requisite - Legally Sourced Timber	All timber and timber based products used on the project is 'Legally harvested and traded timber'.		#1 - Timber Procurement	-	-	-	-	No			- Relevant section/clauses of the building specification or contract		Architect	Structural Engineer/ PM
Materials	ble Sourcing of Construction Product	#1 - Enabling Sustainable Procurement	The design team must use a sustainable procurement plan to guide specification. The plan must: a Be in place before Concept Design. b Include sustainability aims, objectives and strategic targets c Require the potential to procure construction products locally to be assessed. d Include details of procedures to verify the implementation of the plan. In addition, if the plan is applied to several sites or adopted at an organisational level it must: e Identify the risks and opportunities of procurement against a broad range of social, environmental and economic issues as per BS ISO 20400:2017	Must occur prior to RIBA Stage 2		1	1.25%	1	1.25%				- Sustainable Procurement Plan - Evidence to show the plan forms part of the construction contract Relevant section of the building specs, contract clauses or letter of commitment to confirm how the plan will be disseminated to all relevant internal and external personnel.	Have suggested could be produced as a standalone document for buildings across the site	Architect	Structural Engineer/ PM
	Mat 03 - Responsi		Up to 3 credits can be awarded where the applicable building materials are responsibly sourced in accordance with the BREEAM methodology. - 1 credit: Superstructure: ≥ 10% of available points achieved - 2 credits: As above plus: Internal finishes & Substructure & Hard Landscaping ≥ 20% of available points achieved - 3 credits: As above plus: Internal finishes & Substructure & Hard Landscaping ≥ 30% of available points achieved			3	3.75%	1	1.25%				- Section from building specs or summary or schedule confirming all materials within the project, those to be responsibly sourced and to what level. - Where products are specified at design stage, copies of responsible sourcing certificates to be provided. - Completed copy of the Mat 03 calculator tool, including evidence to show how the tool has been completed.		Architect	Structural Engineer/ PM
	Pu	★ Exemplar Performance	As above, plus core building services ≥50% of available points achieved			1	1.00%						As above		Architect	Structural Engineer/ PM
	/at 05 - Designing for Durability a Resilence	#1 - Protecting Vulnerable Parts of the Building from Damage and Degradation	damage to materials in public and common areas.			1	1.25%	1	1.25%				Design drawings illustrating vulnerable areas / parts of the building specification or contract confirming the durability measures specified Degradation assessment and supporting drawings and specifications - Roof and facade access trategy Design drawings and specification showing measures to prevent water damage, ingress and ponding.	Consider material selection, roof access strategy, drainage strategy, protection from vehicles	Architect	
	Mat 06 - Material Efficiency N	≢1 - Material Efficiency	Design/Construction team must identify, investigate, implement and report on measures to optimise material use at all stages of the project.	Must be undertaken at RIBA Stages 1, 2, 3, 4 and 5		1	1.25%	1	1.25%				- Stage 1: Report setting out aims, objectives, targets, performance indicators, opportunities, constraints and responsibilities to guide material efficiency activities Stage 2: Minutes of the workshops held. Documentation demonstrating how feedback from workshops has been incorporated in the design - Stage 3/4: Drawings or specifications demonstrating materials efficiency measures undertaken Relevant section of the building specification or contract clauses or letter of commitment to report material efficiencies at post-construction.	Architect to be aware of credit requirements early on - evidence from stage 1 must be produced to meet credit requirements	Architect	Structural Engineer
		-		+	Totals - Base Total - Innovation		17.50% 4.00%	9	11.25% 1.00%		1 2	1.25% 2.00%				
		#1 - Pre-demolition audit	At Concept design, a competent person completes a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and maximise the recovery of demolition material. The audit must cover the content of Pre-demolition audit scope in the manual. Contractors must be engaged in the process and actual waste must be monitored against the targets and reported in the RMP.	Must occur no later than RIBA Stage 2		1	0.64%						- Compliant pre-demolition audit report - Evidence of competent person - Contractors prelims/specifications	- Note must occur no later than Stage 2 Note different criteria for Simple Buildings 'New Construction on green field site, no predemolition audit to be conducted	Contractor	Project Manager

					Minimum	Avai	lable		Targeted	I	Pote	ential I			Design Stage	Design Stage Credit
Category	BREEAM Issue	Credit Number	General Requirements	Stage Requirements	Requirements	Credits	Percent	Credit	Percent	Minimum Req's	Credit	Percent	Design Stage Evidence Requirements	Notes	Credit Owner	Contributor
	Waste Management	#2 - Construction Resource Efficiency	There is a compliant Resource Management Plan. Non-hazardous construction waste (excluding demolition and excavation waste) generated as follows: $- \text{One credit} - \leq 13.3 \text{m3}/100 \text{m2} \text{ of G.I.F.A} (\leq 11.1 \text{ tonnes}/100 \text{m2} \text{ of G.I.F.A}) \\ - \text{Two credit} - \leq 7.5 \text{m3}/100 \text{m2} \text{ of G.I.F.A} (\leq 6.5 \text{ tonnes}/100 \text{m2} \text{ of G.I.F.A}) \\ - \text{Three credit} - \leq 3.4 \text{m3}/100 \text{m2} \text{ of G.I.F.A} (\leq 3.2 \text{ tonnes}/100 \text{m2} \text{ of G.I.F.A})$		0	3	1.91%	2	1.27%		1	0.64%	Compliant resoure management plan (RMP) - including appropriate targets for construction waste produced If contractor not yet appointed, contractor's prelims document or letter of commitment	Note different criteria for Simple Buildings Suggest Contrcator uses online waste managament tools such as SustainIQ or BRE waste tool	Project Manager	
	Wst 01 - Construction	Resources from	The following percentages, at a minimum, of non-demolition and demolition waste (where applicable) generated by the project have been diverted from landfill: Non-demolition - 70% by volume or 80% by weight. Demolition - 80% by volume or 90% by weight.			1	0.64%	1	0.64%				- Relevant section / clauses of the building specs / contract OR - A letter of commitment from the client / developer. OR - Copy of RMP which includes relevant commitments / targets and procedures to divert waste from landfill Confirmation of procedures in place for sorting construction waste into key waste groups.	Note different criteria for Simple Buildings Site wide waste targets have been difined in masterplan sustainability charter: - 95% of non hazardous waste to be diverted from landfill	Project Manager	
		* Exemplar Performance	The development achieves exemplar levels of waste generation and diversion from landfill. Also all key waste groups are included in the RMP and Waste data obtained from external waste contractors is reliable and verifiable.			1	1.00%						As above Copy of RMP which includes confirmation all key waste groups which will be diverted from landfill.	Note different criteria for Simple Buildings	Project Manager	
Waste	Wst 02 - Use of Recycled and Sustainably Sourced Aggregates	Sustainable Aggregate	Wst 1 #1 pre-demolition audit must be achieved All aggregate uses and types to be input into the Wst 2 calculator to determine if the credit can be achieved. Region, quantity, distance travelled etc. are all required for the calculator.			1	0.64%						- Pre-demolition audit which identifies aggregates available within existing buildings, structures or hard landscaping. - Where contractor not yet appointed, relevant section / clauses of the building specification or contract, or letter of commitment to achieve > OR, where available, schedule summarising amounts, source and types of aggregates used on the project Req. 2 - Confirmation of all aggregates used - For aggregates recycled on site: Evidence from engineer to confirm that the waste will be suitable for re-use. Req. 3: - Calculations to confirm the amount of each aggregate likely to be used For aggregates recycled on-site this should include estimated amounts of material available. Req. 4: - Confirmation of likely source of the aggregates Where supplied or manufactured by another party, this company should confirm the source of their aggregate. Req. 5 - Evidence to support the distance and routes likely travelled. Req. 6: - Completed copy of the Wst 02 calculator tool.	Wst 1 #1 pre-demolition audit must be achieved	Structural Engineer	Project Manager
		★ Exemplar Performance	The Project Sustainable Aggregate Points score from the Wst 2 calculator meets or exceeds the exemplary level performance benchmark.			1	1.00%						- As above		Structural Engineer	Project Manager
	Wst 03 - Operational Waste	#1 - Operational	Where dedicated, clearly labelled, accessible, and properly sized storage space is provided for recycling. Where consistent generation in large volumes of waste or compostable materials are generated, compactors, balers, and/or composting vessels or facilities with water outlet must be provided.		1	1	0.64%	1	0.64%	Yes			Design drawings and / or relevant section / clauses of the building specification or contract confirming provision and scope of dedicated facilities Confirmation from end user / DT of predicted waste streams and indicative volumes OR where not known, calculations used to confirm the minimum space required Additional evidence requirement for residential institutions	Requirements of external waste/bin area to be consider in early stage design This should consider the quantity of waste storage required, and whether this can e be provided centrally at plot level or per building.	Architect	Client
	Wst 04 - Speculative finishes (Offices only)	and centry rinsnes	Office building types only 1. For tenanted areas (where the future occupant is not known), prior to full fit-out works, carpets, other floor finishes and ceiling finishes have been installed in a show area only. 2. In a building developed for a specific occupant, that occupant has selected (or agreed to) the specified floor and ceiling finishes OR where only ceiling finishes are installed, the building owner confirms that the first tenants will not be permitted to make substantial alterations to the ceiling finishes.			1	0.64%				1	0.64%	Design drawings and / or relevant section / clauses of the building specification or contract confirming provision and scope of dedicated facilities Letter of commitment from the client / project team Where occupant is not known and ceillings are installed, contract clauses or letter from the client or developer to confirm that the tenant will not be able to make substantial alterations to the ceiling.	Not assessed under shell only assessments Credits available building type dependent	Architect	Client
	5 - Adaptation to Climate Change	& Building Services	Conduct a climate change adaptation strategy appraisal for structural, fabric & building services resilience by the end of Concept Design by carrying out a systematic risk assessment to identify and evaluate the impact on the building over its projected life cycle from expected extreme weather conditions arising from climate change. Recommendations are to be implemented in the design.	Must occur no later than RIBA Stage 2		1	0.64%	1	0.64%				Climate Change Adaption risk assessment and recommendations report (Stage 2) Update showing how recommendations have been implemented (Stage 4) Spec clauses and / or design drawings to show that all identified mitigation measures have been adopted within the final design. Omissions must be justified in writing.	Note must occur no later than Stage 2 Climate change risk assessment workshop should be carried out	Structural Engineer	Architect/ M&E
	Wst 0!	★ Exemplar Performance	Meet the criteria or achieve credits of the assessment issues given in Table 10.11 for Hea 04, Ene 01, Ene 04, Wat 01, Mat 05, Pol 03.			1	1.00%						- Evidence for Hea 04, Ene 01, Ene 04, Wat 01, Mat 05, Pol 03.	Not assessed under shell only assessments	See relevant credits	See relevant credits
	ın for taptabili ty	#1 - Recommendations	Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design. Develop recommendations or solutions to enable and facilitate disassembly and functional adaptation.	Must occur no later than RIBA Stage 2		1	0.64%	1	0.64%				- Ease of disassembly and functional adaptability strategy and implementation plan report	- Note must occur no later than Stage 2	Architect	M&E
	Wst 06 - Desig Disassembly and Ad	#2 - Implementation	Provide an update, during Technical Design, on how the recommendations or solutions proposed by Concept Design have been implemented and any changes to the recommendations and solutions. Produce a building adaptability and disassembly guide for prospective tenants.			1	0.64%				1	0.64%	- Ease of disassembly and functional adaptability strategy and implementation plan report updated at Technical Design - recommendations from the plan have been implemented and if not reasons why. - Building adaptability and disassembly guide (or commitment to produce one)		Architect	M&E
					Totals - Base Total - Innovation	11 3	7.00% 3.00%	6	3.82% 0.00%		3	1.91% 0.00%				

Category	BREEAM Issue	Credit Number	General Requirements	Stage Requirements	Minimum Requirements	Avai	lable Percent	Credit	Targeted Percent	Minimum Req's	Pote	Percent	Design Stage Evidence Requirements	Notes	Design Stage Credit Owner	Design Stage Credit Contributor
		#1 - Previously Occupied Land	At least 75% of the proposed footprint is on ab area of land which has previously been occupied by industrial, commercial or domestic buildings or fixed surface infrastructure.			1	1.15%						- Design drawings (including existing site plan), report or site photographs confirming: 1. Type and duration of previous land use 2. Area (m2) of previous land use 3. Proposed site plan showing location and footprint (m2) of proposed development and temporary works	Land is a green-field site, no previous occupied land	Architect	
	LE 01 - Site Selection	#2 - Contaminated Land	Site is deemed to be significantly contaminated as confirmed by a contaminated land specialist's site investigation, risk assessment, and appraisal. Client must confirm that remediation has occurred in accordance with the remediation strategy set out by the contaminated land specialist.			1	1.15%				1	1.15%	- Site investigation, risk assessment and appraisal - confirms the degree and type of contamination - A copy of the remediation strategy and implementation plan - Author meets definition of contaminated land professional - Existing site plan showing contaminated areas to be remediated for proposed development - A letter from the principal contractor / remediation contractor confirming: - The remediation strategy for the site - Summary details of the implementation plan If a contractor has not yet been appointed, a letter from the client / their representative confirming that the appointed contractor will undertake necessary remediation works to mittigate the risks identified in the	Soil testing and remediation to be determined - check if this is within the red line of the site	Structural Engineer	
	LE 02 - Identifying the Risks and Opportunities	#1 - Survey, Evaluation & Determining the ecological outcomes	The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. Prior to the completion of the preparation and brief, an appropriate level of survey and evaluation is conducted. An assessment route determined using BREEAM Guidance Note GN34 BREEAM Ecological Risk Evaluation Checklist: Project team member route (Route 1) - 1 credit available Ecologist route (Route 2) - 2 credits available During Concept Design, the project team liaise and collaborate with stakeholders to determine the ecological outcome in line with BREEAM hierarchy.	Must occur no later than RIBA Stage 1		2	2.31%	2	2.31%				- Confirmation that the client / contractor will ensure all relevant UK and EU or international legislation relating to the ecology will be covered on the site - Confirmation ecologist appointed at Stage 1 - Foundation Route: Where a Suitably Qualified Ecologist is not employed: BREEAM checklist for defining land of low ecological value evidence such as reports, surveys, drawings, maps or photo evidence Comprehensive route: - Ecologist meets the definition of SQE - Ecology Report - Evidence of Consultation with stakeholders and Project Team regarding ecology during stage 2 - Evidence consultation feedback incorporated into the design - Recommendations and outcomes of survey and evaluation have been shared with the project team - Landscaping drawings showing ecology in line with ecologist's recommendations	- Note appointment of ecologist and ecological survey must occur no later than Stage 1 Ecologist appointed during outline planning to determine BNG baseline for masterplan site. Ecologist should be appointed for individual building to ensure national planning requirement of 10% BNG is met	Ecologist	Landscape Architec
		★ Exemplar Performance	The wider site sustainability-related activities and the potential for ecosystem service related benefits are determined. Also credits under Hea 7, Pol 3 and Pol 5 are achieved.			1	1.00%						Evidence showing that the wider site sustainability-related activities and the potential for ecosystem service related benefits have been considered - e.g. Report/drawings etc. Evidence for credits under Hea 7, Pol 3 and Pol 5		Ecologist	Landscape Architec
		Pre-requisite - Identifying Risks	LE 02 has been achieved and the client or contractor has confirmed that compliance is monitored against all relevant UK, and EU or International legislation relating to the ecology of the site.			-	-	-	-				Evidence for LE 02	LE 02 must be achieved.	Ecologist	Landscape Architec
d Use and Ecology	naging Negative Impacts on Ecology	#1 - Planning, liaison, implementation and data	- [2] Roles and responsibilities for managing negative impacts on the ecology have been clearly defined, allocated and implemented at an early enough stage to influence the concept design or design brief. - [3] The potential impact of site preparation and construction works on ecology are identified at an early project stage to onlinise benefits and outputs. Site preparation and	3		1	1.15%	1	1.15%				- Confirmation ecologist appointed at Stage 1 - Ecology roles & responsibilities set in Stage 1 - schedule / summary doc - Ecology Report & LE03/04 calculator - Evidence of handover of measures to achieve optimal ecological outcome e.g., tender docs incorporating ecological requirements - Evidence to demonstrate mitigation measures and that they were identified prior to any site works - Evidence of Consultation with stakeholders & Project Team regarding ecology during stage 2 - Landscaping drawings showing ecology in line with ecologist's recommendations - Foundation route:	Note roles and responsibilities must be defined no later than Stage 1 Ecologist to be appointed for site. Mitigating negative impacts of construction to be included in report	Ecologist	Landscape Architec
Land	LE 03 - Ma	#2 - Managing negative impacts	Route 1: 1 credit: Negative impacts from site preparation and construction works have been managed according to the hierarchy and no net impact has resulted. Route 2: a. No overall loss of ecological value has occurred (2 credits) b The loss of ecological value has been limited as far as possible (1 credit)			2	2.31%	1	1.15%				Confirmation how: - Confirmation how the mitigation hierarchy has been followed. Comprehensive route: - Evidence from ecologist to confirm that the mitigation hierarchy has been followed. - Statement from the ecologist to confirm there will be no net loss of ecological value onsite as a result of the project.			
		Pre-requisite - Statutory obligations planning and site implementation	. The Client or Contractor has confirmed that compliance is monitored against all relevant UK, and EU or International legislation relating to the ecology of the site.			-	-	-					- Commitment to comply with the requirements (from client or contractor) Evidence for LE 03			
	ge and Enhancement of Ecological Value	#1 - Ecological Enhancement	Implement recommendations into design proposals, either from a local ecological expert or through consultation with an SOE			1	1.15%	1	1.15%				Foundation route: - GN34 checklist - Locally relevant ecological measures identified - Locally relevant ecological measures are based on the recommendations of local ecological expertise, specialist input and guidance. Comprehensive route: - Ecology report - confirmation of the ecological enhancement measures identified for the site - Confirmation ecologists meets SQE definition - Evidence of Consultation with stakeholders & Project Team regarding ecology during stage 2 - Evidence consultation feedback incorporated into the design - Evidence that data collated has been provided to the local environmental records centres nearest to, or relevant for, the site - Completed BREEAM	Ecologist to be appointed for site. Report to provide recommendations	Ecologist	Landscape Architec

Category	BREEAM Issue	Credit Number	General Requirements	Stage Requirements	Minimum Requirements	Avai	ilable Percent	Credit	Targeted Percent	Minimum Reg's	Pote	ential Percent	Design Stage Evidence Requirements	Notes	Design Stage Credit Owner	Design Stage Credit Contributor
	LE 04 - Ch		The proposals have a net positive impact on the ecological value of the site based on the calculation method outlined within GN36 without a detrimental impact on existing site ecology			3	3.46%	3	3.46%				Ecology Report & LE03/04 calculator Landscaping drawings showing ecology in line with ecologist's recommendations	LE 03 must be achieved. BNG target in line with masterplan sustainability vision/charter	Ecologist	Landscape Architect
		★ Exemplar Performance	The proposals have a large postive impact on the ecological value of the site based on the calculation method outlined witin GN36 without a detrimental impact on existing site ecology			1	1.00%				1	1.00%	Ecology Report & LE03/04 calculator Landscaping drawings showing ecology in line with ecologist's recommendations	LE 03 must be achieved.	Ecologist	Landscape Architect
	gement	Pre-requisite - Roles & Responsibilities	LE 04 has been achieved.			-	-	-	-				Evidence for LE 04 Commitment to comply with the requirements (from client or contractor).	LE 04 must be achieved.	Ecologist	Landscape Architect
	ng term Ecology Mana and Maintenance	#1 - Planning, Monitoring, Management & Maintenance	- Monitor and review implementation and the effectiveness of measures - Develop and review management and maintenance solutions, actions or measures. - Include information on Ecology and Biodiversity for the owner or occupant to inform of local ecological features, value and biodiversity on or near the site.			1	1.15%	1	1.15%				Confirmation of measures to manage and maintain ecology throughout project and commitment to implement them Monitoring and reviewing records / reports / minutes Letter of commitment or contractor's prelims	Client to advise on how they will monitor effectiveness of of ecological measures and to provide building occupiers with information on the local ecological features of the site	Ecologist	Landscape Architect/ Project Manager
	LE 05 - Lor	#2 - Landscape and ecology management plan	Landscape and ecology management plan, or similar, is developed in accordance with BS 42020:2013 covering as a minimum the first five years after project completion		Totals - Base	1 13	1.15%	1 10	1.15%		1	1.15%	- Landscape and ecology management plan OR commitment for production of one	Landscape management plan to be provided for site by landscape architect - must consider the management of shared external areas, and should be updated every 5 years	Ecologist	Landscape Architect/ Project Manager
					Total - Innovation		2.00%	0	0.00%		1	1.00%				
	Pol 01 - Impact of Refrigerants	#1 - Impact of Refrigerants	3 Credits - No Refrigerant Use, OR Up to 2 Credits - All systems (with electric compressors) must comply with the requirements of BS EN 378:2016 and have a Direct Effect Life Cycle CO2 of ≤ 100kgCO2e/kW (2 credits) or ≤ 1000kgCO2e/kW cooling capacity (1 credit), AND 1 Credit - All systems are hermetically sealed OR only use environmentally benign refrigerants OR Permanent automated refrigerant leak detection system OR an in-built automated diagnostic procedure for detecting leakage has been installed.			3	2.25%	2	1.50%				- Completed copy of the Pol 01 Calculator tool M&E engineer/system manufacturer confirming absence of refrigeration plant OR - Specs section / clause AND - Manufacturer's datasheets confirming refrigerant type and system information - Documentary evidence supporting the data used to complete the calculator tool Drawings and specifications for leak detection credit (if targeted)	Not assessed under shell only assessments If the building is designed in such a way that it avoids the need for refrigerant containing building services, and therefore no 'refrigerant-using' building services or systems will be specified for the fit-out, then the available credits can be awarded by default. Credits available building type dependent	M&E	
	Pol 02 - Local Air Quality	#1 - Local Air Quality	Two credits available if heating and hot water supplied by non-combustion systems, e.g. only powered by electricity. OR, two credits available for all combustion plant that provides space heating and domestic hot water that meets tables 12.4 and 12.5 of the BREEAM technical manual. These tables set NOx emission, particulate matter, and VOC levels.			2	1.50%	2	1.50%				Design drawings Relevant section/clauses of the building specification or contract Manufacturer's product details Calculations from the project team For low population areas, evidence to support population density.	Not assessed under shell only assessments Credits available building type dependent	M&E	
		Pre-requisite - Identifying Risks	An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria.			-	-	-	-				- Evidence that consultant is suitably qualified		Structural Engineer	
		#1 - Flood Resilience	Site is Low Flood Risk which is confirmed by a site-specific Flood Risk Assessment (2 credits), or if site is medium or high flood risk and not in a Functional Floodplain, either the ground level of building and access to building and site are at least 600mm above the design flood level or the final design reflects the recommendations of an appropriate consultant- must be confirmed by Flood Risk Assessment.			2	1.50%	2	1.50%				- Flood risk assessment - Evidence to confirm site is not a functional flood plain, where applicable - Design drawings to show ground level of the building and access to the site and buildings and to be at least 600mm above this. OR - Report / correspondence from a qualified professional which include recommendations for the design of the building and site. Evidence to confirm these are to be implemented such as design drawings, section of the building specification, contract clauses or commitment letter.	Flood risk assessment and drainage strategy for masterplan, including site, s provided by Aecom - FRA must be updated every 5 years for BREEAM compliance	Structural Engineer	
	Management		Surface water run-off design solutions must be bespoke, with justification given by the appropriate consultant where water is allowed to leave the site. Pre-requisite achieved. Appropriate consultant appointed to carry out the following analysis: Peak run-off from site to watercourses shows a 30% improvement for the developed site compared with predeveloped site - calcs should include allowance for climate change. Also maintenance agreements set out for all SuDS.			1	0.75%	1	0.75%				- Consultant's report confirming the site specific surface water-run off design solutions, in line with the priority levels. - Evidence confirming appropriate Consultant status - Calculation results for the pre-and post-development peak rate of ru off - Specifications and drawings OR letter commitment - If applicable, drawings showing the impermeable areas pre- and post development, including areas.	Note different requirements for simple buildings n- Refer to flood risk assessment and drainage strategy report for masterplan provided by Aecom	Structural Engineer	
Pollution	Pol 03 - Flood and Surface Water		Appropriate consultant appointed to carry out the following analysis: Flooding will not occur in event of local drainage system failure and either: post development run-off volume, over development lifetime, is no greater than it would have been prior to development - any additional predicted volume for the 100yr 6hr event must be prevented from leaving the site OR, justification from the consultant that the first option is not achievable and post-development run-off rate is reduced to a limiting discharge. Calcs should include allowance for climate change.			1	0.75%	1	0.75%				- Consultant's report containing all information necessary to demonstrate compliance including 1. Type and storage volume (I) of the drainage measures 2. Total area of hard surfaces (m2) 3. Peak Volume flow rates (I/s) pre and post development events 4. Additional allowance for climate change designed in to the system 5. Impact on the building of flooding from local drainage system failur - Specifications and drawings OR letter commitment - If applicable, drawings showing the impermeable areas pre- and pos development, including areas. - Information showing the proposed drainage solution, system failure flood flow routes, potential flood ponding levels and ground floor levels.	recent to flood risk assessment and drainage strategy report for master plant provided by Aecom	Structural Engineer	

						Avail	lable		Targeted		Pote	ential			
Category	BREEAM Issue	Credit Number	General Requirements	Stage Requirements	Minimum Requirements	Credits	Percent	Credit	Percent	Minimum Reg's	Credit	Percent	Design Stage Evidence Requirements	Notes	Design Stage Cre Credit Owner Contributor
			Appropriate consultant appointed to carry out the following analysis: no discharge from developed site for rainfall up to 5mm. All delivery areas designed in compliance with current best practice planning guidance. If project does not include any areas that are sources of pollution, credit achieved by default.			1	0.75%	1	0.75%				- Consultant's report detailing the design specification, calculations and drawings to support the 5mm rainfall discharge criteria - Design drawings and/or relevant section/clauses of the building specification or contract indicating: 1. High and low risk areas of the site 2. Specification of SUDS, sources control system, oil/petrol separators and shut-off values as appropriate - Section of building spec OR a letter or other formal correspondence from the project team: 1. Confirming water pollution prevention systems are designed in accordance with PPG3 and the SUDS manual (where appropriate) 2. Confirming a copy of the drainage plan will be produced and handed over to the building occupier 3. Confirming design of all external storage and delivery areas is in compliance with relevant Pollution Prevention Guidance		Structural Engineer
	Pol 04 - Reduction of Night Time Light Pollution	#1 - Reduction of Night Time Light Pollution	Where the external lighting design is compliant with ILE guidance for the reduction of night time pollution and is automatically switched off between 2300 and 0700.			1	0.75%	1	0.75%				- Written confirmation / design drawings to confirm that there is no external lighting Relevant section/clauses of the building specification or contract or letter of commitment or external lighting data / drawings / calculations	Refer to BPD's lighting strategy for nighttime lighting and light pollution	M&E
	Pol 05 - Reduction of Noise Pollution	#1 - Reduction of Noise Pollution	Noise sources from development do not exceed ambient noise levels. Noise impact assessment to be BS 4142 compliant. Credit achieved by default where there are no noise sensitive areas or buildings within 800m radius of development.			1	0.75%	1	0.75%				Design drawings highlighting: All existing and proposed noise-sensitive building local to, and within the site boundary Proposed sources of noise from the new development Distance (m) from these buildings to the assessed development The acoustician's noise impact assessment report and commitment to complete post-construction testing. Evidence to verify the acoustician's qualifications and professional status. Relevant section of the building specification, contract clauses or letter of commitment requiring a compliant noise assessment to be carried out by a suitably qualified acoustician. Acoustician's report with recommendations for noise attenuation measures. AND EITHER A marked-up design plan highlighting the specification of the acoustician's attenuation measures. OR A formal letter from the client / design team confirming where relevant, that attenuation measures recommended by an appointed suitably qualified acoustician will be installed.	Not assessed under shell only assessments	Acoustician Architect/M&E
				l	Totals - Base	12	9.00%	11	8.25%		0	0.00%			
Innovation	Innovation	* Approved Innovation	One innovation credit can be awarded for each innovation application approved by BRE Global, where the building complies with the criteria defined within an Approved Innovation Application Form			1	1.00%						A copy of the Approved Innovation Application Form AND A copy of the Innovation Application Report stating the application outcome as 'approved' AND Relevant documentary evidence demonstrating specification of the approved innovation	Credits available building type dependent	Assessor All

7.0 APPENDIX II - PLANNING POLICY

There are a number of documents that the development must address in its approach to energy use and sustainability:

- Building Regulations Approved Document Part L2
- Cambridge Local Plan 2018
- Greater Cambridge Sustainable Design and Construction Supplementary Planning Document
- South Cambridgeshire Local Plan (2018)

The following sections comprise a full review of the key sustainability related policies for the development.

7.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF) (2024) sets out the overarching planning policies on the delivery of sustainable development through the planning system.. It sets out the Government's planning policies for England and how these are expected to be applied. Moreover, it compels planning authorities to facilitate and promote good quality and sustainable development.

The NPPF outlines the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so. It provides a framework within which local people and their councils can produce their own local and neighbourhood plans, which reflect the needs and priorities of their communities. All local councils are required to produce an up-to-date Local Plan for their area, to guide the spatial development of the borough over the next 15 years.

7.2 Part L Building Regulations

The 2021 Building Regulations Part L set out minimum legal requirements for energy efficiency in new buildings. These regulations set minimum performance benchmarks for elements of design such as facades. The development will be subject to Part L 2021 of the Building Regulations.

7.3 Local Policy: Cambridge Local Plan 2018

Key local policies in terms of sustainability and energy are highlighted below.

Policy 28: Carbon reduction, community energy networks, sustainable design and construction, and water use

All development should take the available opportunities to integrate the principles of sustainable design and construction into the design of proposals.

Key requirements for non-residential developments include:

- Achieve minimum requirements for ENE 01 BREEAM Excellent
- Achieve all credits against Wat 01 from BREEAM

Achieve BREEAM Excellent

However, the Cambridge Local Plan also states:

Proposals that lead to levels of environmental performance equivalent to or higher than BREEAM will be supported.

 Ω r

The Council will be supportive of innovative approaches to meeting and exceeding the standards set out in the policy. The development of bespoke standards for new housing and non-residential development would also be supported.

The Sustainability Statement should outline the project's approach to the following issues:

• Adaptation to Climate Change:

All developments should be designed to be adaptable to changing climate, both in terms of building design and their wider landscape setting.

Carbon Reduction:

A hierarchical approach should be taken to reducing carbon emissions that is set out as follows:

- 1. minimises the energy demand of new buildings from the outset through the use of passive measures;
- 2. utilises energy efficient supply through low carbon technologies; and
- 3. supplies energy from new, renewable energy sources.
- Water Management:

To introduce high levels of water efficiency in new developments in order to respond to the water stress facing Cambridge.

• Site Waste Management:

Developments should be designed in a way that reduces the amount of construction waste, and maximises the reuse and recycling of materials at all stages of a development's lifecycle.

- Use of Materials:
 - o Responsible sourcing
 - o Secondary materials reuse demolition materials
 - Embodied impact maximise the specification of major building elements to achieve an area-weighted rating of A or B
 - o Healthy materials low VOC finishes

Policy 29: Renewable and low carbon energy generation Proposals for development involving the provision of renewable and/or low carbon energy generation, including community energy projects, will be supported, subject to the acceptability of their wider impacts.

Policy 31: Integrated water management and the water cycle

- Surface water is managed close to its source and on the surface;
- Priority is given to the use of nature services;
- Water is seen as a resource and is re-used where practicable, offsetting potable water demand;
- Surface water management features are multi-functional;

- Green or brown roofs should be widely used in large-scale new communities:
- No discharge from the developed site for rainfall depths up to 5 mm of any rainfall event;
- Run-off from all hard surfaces shall receive an appropriate level of treatment in accordance with Sustainable Drainage Systems guidelines;
- All hard surfaces are permeable surfaces where reasonably practicable, and having regard to groundwater protection,

Policy 32: Flood risk

- Peak rate of run-off over the lifetime of the development, allowing for climate change, is no greater for the developed site than it was for the undeveloped site;
- Post-development volume of run-off, allowing for climate change over the development lifetime, is no greater than it would have been for the undeveloped site;
- Development is designed so that the flooding of property in and adjacent to the development would not occur for a 1 in 100 year event, plus an allowance for climate change and in the event of local drainage system failure;
- Discharge locations have the capacity to receive all foul and surface water flows from the development, including discharge by infiltration, into water bodies and into sewers;
- Development is designed so that the flooding of property in and adjacent to the development would not occur for a 1 in 100 year event, plus an allowance for climate change;
- Management and maintenance plan for the lifetime of the development is put in place.

Policy 34: Light pollution control

Upwards or intrusive light spillage is minimised; minimises impact to local residential amenity; and minimises impact to wildlife and landscape character, particularly at sites on the edge of Cambridge.

Policy 35: Protection of human health and quality of life from noise and vibration

Adverse noise effects/impacts can be minimised by appropriate reduction and/or mitigation measures i.e. through high quality acoustic design.

Policy 36: Air quality, odour and dust

The development should demonstrate that it does not lead to significant adverse effects on health, the environment or amenity from polluting or malodorous emissions, or dust or smoke emissions to air.

7.4 Local Policy: Greater Cambridge Sustainable Design and Construction Supplementary Planning Document 2020

Key sections within the SPD are listed below.

Section 2 – The importance of urban design

- 2.2 Achieving more sustainable development forms
- 2.3 Transport, movement and accessibility

Section 3 – Policy implementation

- 3.2 Energy & carbon reduction
- 3.3 Water efficiency
- 3.4 Climate change adaptation
- 3.5 Biodiversity
- 3.5 Pollution
- 3.7 Sustainable drainage systems (SuDS) and flood risk
- 3.8 Construction standards (BREEAM)
- 3.11 Construction waste & recycling and waste facilities

Section 4 – Further approaches to sustainable design and construction

- 4.2 Health and wellbeing
- 4.3 Modern methods of construction
- 4.4 Food growing as part of new developments
- 4.5 Smart technologies
- 4.6 Responsible sourcing of building materials and embodied carbon

7.5 Local Policy: South Cambridgeshire Local Plan (2018)

The currently adopted Local Plan (2018) contains the following key local policies in terms of sustainability and energy, highlights below.

Policy CC/1: Mitigation and Adaptation to Climate Change Embed principles of climate change mitigation and adaptation into the development.

Policy CC/3: Renewable and Low Carbon Energy in New Developments New dwellings and new non-residential buildings of 1,000m2 or more ... to reduce carbon emissions by a minimum of 10% ... through the use of on-site renewable energy and low carbon technologies.

For growth areas and new settlements, site wide renewable and low carbon energy solutions that maximise on-site generation from these sources will be sought, such as renewable and low carbon district heating systems.

Policy CC/4: Water Efficiency

All new residential developments must achieve as a minimum water efficiency equivalent to 110 litres per person per day.

Policy CC/5: Sustainable Show Homes

On developments where a show home is being provided, a sustainable show home must be provided (either separately or instead of the show home) demonstrating environmentally sustainable alternatives beyond those provided to achieve the standard agreed for the development.

Policy CC/6: Construction Methods Development must

- a. Carefully manage materials ... (including soils), to reduce waste produced and maximise the reuse or recycling of materials. Any construction spoil reused within the development should take account of the landscape character...
- b. Ensure that constructors are considerate to neighbouring occupiers...
- Where practicable, construction traffic will be required to be routed to avoid roads passing through villages.
- Include a Construction Environmental Management Plan (CEMP) ... and may include registration with the Considerate Constructors Scheme

Policy CC/7: Water Quality

All development proposals must demonstrate that

- There are adequate water supply, sewerage and land drainage systems (including water sources, water and waste water infrastructure)..
- Quality of water [systems] won't be harmed
- Consideration to sources of pollution and Sustainable Drainage Systems (SuDS)

Policy CC/8: Sustainable Drainage Systems

Development proposals must incorporate appropriate sustainable surface water drainage systems (SuDS) appropriate to the nature of the site.

- ... Maximum use has been made of low land take drainage measures, such as rain water recycling, green roofs, permeable surfaces and water butts;
- ... Arrangements have been established for the whole life management and maintenance of surface water drainage systems.

Policy CC/9: Managing Flood Risk

Policy NH/2: Protecting and Enhancing Landscape Character Respect and retain, or enhance the local character and distinctiveness of the local landscape and of the individual National Character Area in which is it located

Policy NH/4: Biodiversity

New development must aim to maintain, enhance, restore or add to biodiversity.

Policy NH/6: Green Infrastructure

All new developments will be required to contribute towards the enhancement of the green infrastructure network within the district

Policy SC/7: Outdoor Play Space, Informal Open Space and New Developments

All housing developments will contribute towards Outdoor Playing Space (including children's play space and formal outdoor sports facilities), and Informal Open Space to meet the need generated by the development

Policy SC/9: Lighting Proposals

Includes: Demonstrate that.. The proposed lighting scheme and levels are the minimum required ... Light spillage and glare are minimised.

Policy SC/12: Air Quality

Measures required including to measure, reduce and report the impact on local air quality

Policy TI/2: Planning for Sustainable Travel

Policy TI/3: Parking Provision

Car parking provision will consider... site location, type and mix of uses, car ownership levels, availability of local services, facilities and public transport... as well as ensuring appropriate parking for people with impaired mobility. At least 1 cycle space per bedroom

7.6 Local Policy: North West Cambridge Area Action Plan (NWCAAP) (2009)

Adopted in October 2009, some NWCAAP policies have now been superseded by more current local planning policy. Key policies relating to sustainability that are still relevant to the North West Cambridge Masterplan include:

NW7: Balanced and Sustainable Communities

A suitable mix of house types, sizes and tenure (including affordable housing) will be provided, attractive to and meeting the needs of all ages and sectors of society including those with disabilities

NW11: Sustainable Travel

Maximise the use of sustainable transport modes to encourage people to move about by foot, cycle and bus, to achieve a modal share of no more than 40% of trips to work by car

NW16: Public Transport Provision

High quality public transport provision will be provided to support development

NW17: Cycling Provision

New and improved cycle links will be provided as part of the development, giving priority to cyclists within the development and linking the development with the surrounding active transport network

NW18: Walking Provision

Development will be required to provide attractive, direct and safe walking routes as part of the development

NW19: Parking Standards

NW20: Provision of Community Services and Facilities, Arts and Culture The development will provide an appropriate level and type of high quality services and facilities in suitable locations to serve all phases of development and to serve the needs of the community, including those who will come to live, work and study within its area.

NW21: A Local Centre

All services and facilities will be provided in a single centre at the heart of the development and adjacent to the strategic gap, well served by public

transport and a cycle path network, and within reasonable walking distance of all parts of the development

NW22: Public Art

The value of public art sought within the development will be at a cost equal to 1% of the construction cost of the project

NW23: Open Space and Recreation Provision

The development will provide public open space and sports facilities and will provide improved linkages to the adjacent open countryside

NW24: Climate Change & Sustainable Design and Construction Development will be required to demonstrate that it has been designed to adapt to the predicted effects of climate change

Non-residential development and student housing will be required to demonstrate that:

- d) It will achieve a high degree of sustainable design and construction in line with BREEAM "excellent " standards or the equivalent if this is replaced
- e) It will reduce its predicted carbon emissions by at least 20% through the use of on-site renewable energy technologies only where a renewably fuelled decentralised system is shown not to be viable;
- f) It will incorporate water conservation measures including water saving devices, greywater and/or rainwater recycling in all buildings to significantly reduce potable water consumption;
- and g) There is no adverse impact on the water environment and biodiversity as a result of the implementation and management of water conservation measures

NW25: Surface Water Drainage

Surface water drainage for the site should be designed as far as possible as a sustainable drainage system (SuDS) to reduce overall run-off volumes leaving the site, control the rate of flow and improve water quality before it joins any water course or other receiving body

NW26: Foul Drainage and Sewage Disposal Development of any single phase will not result in harm in the form of untreated wastewater or increased flood risk from treated wastewater

NW27: Management and Maintenance of Surface water Drainage Systems

NW28: Construction Process Where practicable the development will:

- a. Recycle construction waste;
- b. Accommodate construction spoil within the development, taking account of the local urban and landscape character and avoiding creation of features alien to the topography;
- c. Maximise the reuse and recycling of any suitable raw materials currently available on-site during construction, such as redundant

buildings or infrastructure; d. Avoid disruption to adjacent parts of the City and Girton

NW29: Strategic Landscaping

Minimise impacts of strategic landscaping of the development. Ensure that each part of the development area is landscaped, managed and protected where practical before much of the development is started

8.0 SUSTAINABILITY APPENDIX III – SPD CHECKLIST

CODE	CHECKLIST	SUMMARY OF APPROACH
TRANSPOR	RT – SPD SECTION 2	
T.1	Have you demonstrated that the development is in the most suitable location for access by public transport, walking and cycling, reducing the need to travel by private car?	
		An accessibility analysis by sustainable modes (walking, cycling and public transport) has also been undertaking showing that there is a wide range of amenities and services within 15-minute walking and cycling distances of the development.
		Further to this, the development is also located in an area that can help further unlock sustainable transport corridors and support growth, including orbital connections through the site, benefitting both local communities and Cambridge.
T.2	Have you demonstrated how the development proposals give priority for walking and cycling over cars, linking the development with the surrounding walking and cycling network including planned projects?	Chapter 13 of the TA details the development proposals with a focus from a transport perspective, and details how priority will be given throughout for walking and cycling as well as public transport over the private car. Chapter 17 of the TA also details how the development links into the surrounding active travel network. An accessibility analysis is also presented illustrating how local settlements will see improved accessibility and connectivity through the site and to local amenities and services as a result of the proposed developments active travel network.
		Chapter 13-17 inclusive also details the off-site sustainable transport strategy for the proposed development, and how the development will contribute to the improvement of off-site active travel infrastructure.
		The development proposals have also been designed in accordance with the user hierarchy, putting pedestrians and cyclists at the top and single occupancy cars at the bottom.
Т.3	Will the proposed walking and cycling provision be in place by first occupation of the development so that sustainable travel patterns can be established at an early stage?	Phase 1 has already been completed and includes the town centre and many of the outdoor amenities, including walking and cycling routes. During future phases, the development will be delivered on a plot-by-plot basis, meaning the cycle and walking routes within each plot will be delivered at the same time as the dwellings. The main infrastructure throughout future phases, containing centralised cycling and walking routes, will be established at an early stage of the development to enable access across the development.
T.4	Where car parking is provided, has provision been made for electric vehicle charging?	Yes, parking will be provided for on an approximate ratio of 0.43-0.3 per dwelling for residential units. 1:1 for Private dwellings and car club for KWHs.
		Car parking will also provided at the proposed commercial areas at a ratio of 1:178sqm.
		With regards to electric vehicle parking, this will be provided in accordance with the standards outlined in the Greater Cambridge Sustainable Design and Construction SPD.
		For residential land uses, the requirements which will be adhered to are as follows:
		 One slow EV charge point for each dwelling with allocated car parking. At least one slow EV charge point for every two dwellings with communal parking (at least half of all non-allocated parking spaces to have EV slow charge points).
		For non-residential land uses, the requirements are as follows (as per Table 3.13 of the SPD):
		 At least one slow EV charge point for every two parking spaces in non-residential developments. At least one rapid EV charge point for every 1,000sqm non-residential floor space or one fast EV charge point for every 1000sqm non-residential floor space (if the installation of rapid charge point is technically impossible due to grid supply constraints evidence must be provided)
		Overall parking will provide to meet policy at the time of each Reserved Matters.
T.5	Have any 'softer' measures been included, to encourage uptake of more sustainable modes of transport?	The addition of 3 main 'mobility hubs' has been integrated across the design, these will provide priority access for pedestrians and cyclists, bike and scooter parking and charging services, including a repair station, amenities such as community space and cafes and trip making services such as real time public transport information, car share, wayfinding, ticker services and a bus stop.
		Further to this the existing exemplar Phase 1 Travel Plan (TP) will be updated to incorporate Future Phases. Specific measures for the Future Phases are detailed in Section 4 of the Future Phase TP.
T.6	Does the development inhibit the expansion of high quality public transport/cycling and walking routes?	No, the development builds on the existing public transport routes and will provide greater connectivity across Cambridge via active travel routes.

CODE	CHECKLIST	SUMMARY OF APPROACH		
ENERG	ENERGY AND CARBON REDUCTION – SPD SECTION 3.2			
En.1	For residential schemes have you followed the energy hierarchy in order to achieve the 19% reduction on Part L 2013 requirement set out in policy	Yes, see AECOM Energy strategy for detailed information. The energy hierarchy has been followed, and initial modelling demonstrates that there will be a 76% reduction on Part L 2021 if ASHP and renewable technology, such as PVs, are implemented on residential schemes.		
	28?	The detail of residential energy strategies for each development will be submitted at RMA stage		
En.2	For non-residential development, have you carried out a BREEAM pre- assessment and met the mandatory energy requirements for BREEAM 'excellent' within Ene 01?	BREEAM V.6 pre-assessment has been conducted. Please see Appendix I of NWC Sustainability Statement for pre-assessment scorecard		
En.3	How will you ensure that where renewable/low carbon technologies have been included in the approach to meeting the above carbon reduction requirements, these will be successfully integrated into the design of the development?	This will be included in RMA submissions.		
WATER	WATER EFFICIENCY – SPD SECTION 3.3			
Wat.1	For residential development have you prepared a Sustainability Statement setting out how your proposal will meet the requirement for potable water use of no more than 110 litres/person/day?	Yes, please see sustainability statement that demonstrates the high level strategy for meeting a target of 80 l/p/d using water recycling and water efficient sanitaryware.		
Wat.2	For non-residential development have you included information to demonstrate that your proposal will be able to meet the requirement for achievement of 5 credits from Wat01 of the BREEAM assessment?	Yes, all non-residential developments will be required to achieve a 50% improvement over baseline for water consumption.		
Wat.3	Have you given consideration to water re-use as part of the sustainable drainage strategy for the site as part of an integrated approach to water management?	Yes, all homes will be supplied with recycled water. Across the development a sustainable urban drainage system as been integrated, prioritising above ground drainage systems such as swales and rain gardens.		
CODE	CHECKLIST	SUMMARY OF APPROACH		
CLIMA	TE CHANGE ADAPTATION – SPD SECTION 3.4			
Ca.1	Have you integrated measures to design out the risk of overheating, giving priority to architectural approaches in line with the cooling hierarchy?	All residential schemes will be required to meet Part O. Dwellings will be expected to address future climate conditions through use of natural ventilation and façade treatments to manage solar gains. Windows should be sized appropriately to optimise daylight and limit solar gain. It is expected that acoustically constrained dwellings will require a small amount of cooling to address summertime comfort without opening windows.		
Ca.2	Have you undertaken overheating analysis following the CIBSE methodology and utilising future climate scenarios?	Early generic modelling has considered design options that might be needed to comply with future climate projections. RMA applications will undertake detailed modelling to address design requirements to meet both Part O and Future climate.		
Ca.3	Have you considered the role of green infrastructure and cool materials in enhancing the adaptive capacity of your proposal?	Yes, as part of the landscape strategy, green infrastructure in the form of trees, shared gardens and open amenity space has been prioritized and integrated throughout the development. This is to increase biodiversity, health and wellbeing, provide community space and to combat the urban heat island effect and combat future weather conditions.		
Ca.4	Where your proposal has flat roofs, have these been designed as green or brown roofs in line with the requirements of policy 31?	These will form part of the RMA submission		
Ca.5	Where there are existing trees on your site, including ancient and veteran trees, how has the retention of these trees informed the layout of your development?	Existing trees and hedgerows within the future phase masterplan are typically proposed for retention, unless recommended for removal for Arboricultural reasons, by the Tree Survey. Exceptions include breaks in vegetation required for key infrastructure, or improved green travel connections, or small groups/individuals of lower value (Cat C), proposed for removal, for example, to facilitate development plots.		

		Existing mature vegetation is integral to the masterplan green infrastructure, used for instance, to define green corridors and form visual orientation points in the masterplan layout.
CODE	CHECKLIST	SUMMARY OF APPROACH
Ca.6	How have you integrated the planting of new trees into your proposals, giving consideration to the right tree in the right place principle?	A comprehensive site wide tree strategy is proposed providing a hierarchy of tree scales, diversity of species and planting forms. Proposed trees form an integral part of the masterplan green framework and character of open spaces and the public realm. The selection of species has considered 'right tree in the right place' principles, for example, considering the typical mature size appropriate for the scale of spaces and species appropriate to the local conditions with diversity for climate resilience.
Ca.7	Where you are proposing to utilise thermal mass to help regulate internal temperatures, has this thermal mass been designed to be exposed and what is the strategy to enable night purge ventilation?	This will be included in RMA submission
BIODIV	/ERSITY AND GEODIVERSITY – SPD SECTION 3.5	
Bio.1	Has a Preliminary Ecological Assessment and Protected Species Scoping Survey ¹ been conducted, with sufficient detail given the nature and size of the site and the proposed development?	Yes, this information will be included within the Ecology Chapter of the EIA along with the results of follow up ecology surveys. The scope of surveys has been agreed with the City Council's Biodiversity Officer through EIA scoping and consultation meetings.
Bio.2	If a protected or priority species and/or habitats have been identified, has a specialist been engaged to conduct a detailed survey? https://events.cieem.net/ProfessionalDirectory/ProfessionalDirectory.aspx ieem.net/ProfessionalDirectory/Professional-Directory.aspx Directory.aspx	Yes, this information is included within the Ecology Chapter of the EIA along with the results of follow up ecology surveys. The scope of surveys has been agreed with the City Council's Biodiversity Officer through EIA scoping and consultation meetings.
Bio.3	Has/will all the relevant information from these surveys been provided?	Yes, this information is included within the Ecology Chapter of the EIA along with the results of follow up ecology surveys. Detailed survey results are provided as annexes to the Ecology Appendix.
Bio.4	Has the Mitigation hierarchy been followed, demonstrating how existing habitats and species have been protected in the proposed ecological and landscape strategy? http://www.csbi.org.uk/our-work/mitigation-hierarchy-guide/	Yes, an Ecological Constraints Plan was produced and used to inform the masterplan, ensuring that ecological impacts that could give rise to significant effects were avoided where possible, or minimised, and finally mitigated. Compensation is proposed for any significant residual effects that could not be mitigated, as set out in the Ecology Chapter of the EIA.
CODE	CHECKLIST	SUMMARY OF APPROACH
Bio.5	Has the mitigation hierarchy been followed, demonstrating how any potentially adverse effects have been mitigated?	Yes, an Ecological Constraints Plan was produced and used to inform the masterplan, ensuring that ecological impacts that could give rise to significant effects were avoided where possible, or minimised, and finally mitigated. Compensation is proposed for any significant residual effects that could not be mitigated, as set out in the Ecology Chapter of the EIA.
Bio.6	Has the mitigation hierarchy been followed, demonstrating that adequate compensation measures have been proposed on or offsite, where it is agreed that damage is unavoidable?	Yes, an Ecological Constraints Plan was produced and used to inform the masterplan, ensuring that ecological impacts that could give rise to significant effects were avoided where possible, or minimised, and finally mitigated. Compensation is proposed for any significant residual effects that could not be mitigated, as set out in the Ecology Chapter of the EIA.
Bio.7	Has it been demonstrated that the proposals will deliver biodiversity net gain, with use of the DEFRA Biodiversity Offsetting metric?	Yes, the statutory BNG metric has been used to calculate the BNG of the illustrative scheme. The results are summarised in the BNG report which is provided as part of the Outline Planning Application, along with the completed statutory metric spreadsheet.
Bio.8	For major development, has the Natural Cambridgeshire Local Nature Partnership (LNP) Developing with Nature Toolkit been adopted?	The design process has followed the 10 'Things to do for nature' detailed in the toolkit.
Bio.9	Has a suitable biodiversity management and monitoring strategy for the site been proposed?	The principles for biodiversity management and monitoring are set out in the BNG report and Ecological Enhancement Report. Further details will be provided under planning conditions.

¹_Surveys should be carried out in accordance with CIEEM guidance: https://cieem.net/resource/guidance-on-preliminary-ecological-appraisal-gpea/

	For development likely to affect a European site, what information have you provided to enable the local planning authority, as Competent Authority under the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended) to record its decision with regard to likely significant effect, including undertaking Appropriate Assessment where necessary? ON – SPD SECTION 3.6	It has been agreed, in consultation with the City Council's Biodiversity Officer that the proposed development would not be likely to affect a European Site, with particular attention given to Eversden and Wimpole Woods SAC.
Pol.1	For all development with artificial lighting has a statement of the need for lighting been submitted and have the principles of an external lighting strategy that meets the requirements of the local plan policy/SPD been set out?	Yes, all lighting is attributed to the appropriate level according to BS:5489 inclusive of all references to lowest glare, greatest efficiency and warmest colour temperatures. Curfew status change is a major recommendation.
Pol.2	Will the final detailed external lighting design / scheme be in accordance with the guidance and principles set out in the light pollution section of the SPD?	Yes, reference has been made to ILP Guidance note 1: Reduction of Obtrusive Light throughout the Lighting Strategy
Pol.3	Has the development taken measures to reduce light pollution impacts on character, residential amenity and biodiversity?	Yes, in addition to the above, detailed references to bats have also been applied with a local ecologist.
Pol.4	For substantive large-scale lighting installations such as the floodlighting of external recreational and sporting facilities/pitches or transport interchanges has a detailed lighting assessment been undertaken by a qualified Lighting Engineer or lighting company in accordance with Section 3.6.24 of the SPD?	Yes, a lighting assessment is being submitted separately under Phase 1 reserved matters.
Pol.5	For Environmental Impact Assessment (EIA) development has a lighting impact assessment been undertaken having regard to and in accordance with the Institute of Lighting Professionals 'PLG04 - Guidance on Undertaking Environmental Lighting Impact assessment'?	Yes, a lighting assessment has been completed and included within the EIA
Pol.6	For any proposal for the display of illuminated advertisements has the relevant information been provided?	Not Applicable.
CONTAM	IINATED LAND	
Pol.7	Is the development site's land use history known? Is the site potentially affected by land contamination (including ground water contamination) that could result in unacceptable risks e.g. a previous potentially contaminative industrial or similar use on site or ground gases?	The site's historic land use is well known and documented, having been open farmland formally in the green belt. Significant geotechnical and geoenvironmental investigations have been undertaken in the past on the site which do not suggest any levels of contamination which could lead to potentially unacceptable risks
	If yes, as a minimum, has a land contamination desk top study with risk assessment and site walk-over been undertaken and included with the application?	
CODE	CHECKLIST	SUMMARY OF APPROACH
NOISE		

Pol.8	For major Noise Sensitive Development (NSD) located in a noisy	The scheme is considered to be in a noisy environment. We have consulted with EPO from the Local Authority to describe our process of evaluating the
	environment or near to a specific existing noise generating source	sound on the site and the methods we will be using to reduce the potential impacts.
	e.g. near to a busy road, railway line, noisy commercial/industrial premises including building services plant/equipment has an appropriate acoustic assessment /report been undertaken in accordance with the noise assessment process and submission requirements set out in the noise section of the SPD?	The ES Chapter produced for the EIA will include the details of the assessments
Pol.9	For Noise Generating Development (NGD) such as industrial commercial/trade or business premises and uses including plant and equipment has an appropriate acoustic assessment/report been undertaken in accordance with the noise assessment process and submission requirements set out in the noise section of the SPD?	The scheme will introduce some limited noise emissions, associated with building services plant. The ES Chapter will include the provisional limits that these items of plant will need to meet (based on the local authority requirements). The control of noise emissions will be confirmed as part of the Reserved Matters Applications
Pol.10	Has an 'Acoustic Design Statement' been included demonstrating that the principles of good acoustic design and noise mitigation will be followed for both NSD and NGD?	A full acoustic design statement cannot be produced, as the scheme is in outline only. The subsequent RMAs for each plot will need to provide an Acoustic Design Statement (or similar) to support their application.
Pol.11	Has the development taken measures to reduce existing noise and enhance the existing soundscape of the site?	The illustrative masterplan has been developed with consulting on the noise throughout. We have worked so that noise into the site is reduced as much as feasible and that new sources of noise are reduced as much as practicable.
Pol.12	For all development has the impact of demolition construction noise/vibration been assessed and mitigation proposed?	This is to be appraised as part the Environmental Statement reporting. The evaluations will indicate whether significant adverse impacts are likely during the construction phases.
Pol.13	For substantial development or infrastructure projects has a Noise	See Pol 12
	and Vibration Demolition and Construction Environmental Management Plan been provided?	
CODE	CHECKLIST	SUMMARY OF APPROACH
Pol.14	If the proposals are likely to generate a significant amount of traffic	The ES Chapter will include an evaluation of the noise from road traffic.
	(defined as road traffic movements greater than 5% of Annual Average Daily Traffic) has a noise impact assessment of any increase in local traffic noise been undertaken?	
AIR POLLU	$ ilde{IION}$ - If the answer to any of the questions below is yes, then an Air Quality A	ssessment is likely to be required and further guidance should be sought from the Environmental Quality and Growth team
Pol.15	Will the development require an Environmental Impact Assessment?	Yes, an EIA will be conducted and included in the outline planning application
Pol.16	Will the proposals interfere with the Air Quality actions stated in the Local Transport Plan ² or Local Air Quality Action Plan? ³	The proposals do not interfere with Air Quality actions set out within the Local Transport Plan or the Local Air Quality Action Plan as the air quality assessment has shown that the development will not lead to significant air quality impacts.
Pol.17	Is the development part of a large scale major redevelopment that might result in long-term construction generating HGV flows more than 100 movements per day and/or demolition and construction dust?	Yes for certain phases of the development until predicted full occupation in 2028.

²Currently in preparation

 $^{{\}color{red}^{3}\,\text{https://www.cambridge.gov.uk/air-quality-action-plan}}$

Pol.18	Will the development significantly alter the road or rail network?	No, there will be no alteration of the rail network and the addition of cartwright avenue and associated roads and junctions will not significantly alter the
Pol.18	For example,	current road network.
	 realign roads, i.e. changing the proximity of receptors to traffic lanes 	A new site access junction will be added onto the existing road network at the northern end of Huntingdon Road and this will be a signalised arrangement.
	Introduce a new road	
	Introduce a new junction	
	Remove an existing junction near to relevant receptors.	
	Change/introduce a junction that causes traffic to significantly accelerate or decelerate, e.g. traffic lights, or roundabouts.	
	Introduce or change a bus station	
CODE	CHECKLIST	SUMMARY OF APPROACH
Pol.19	Will the development significantly alter flows or speeds on busy roads greater than 10,000 vehicles per day or any road within an AQMA? Where 'significantly' is defined as including any of the following:	HDVs - No. During the peak construction period total HGV flows generated will be greater than 100 AADT, but will accessed via three points and separate between Huntingdon Road and Madingley Road. HGV flows are therefore not expected to be more than 100 AADT on any one link road.
	 Change in average vehicle speed of 5kph or a significant increase in congestion 	LDVs – Yes flows are expected to be grater than 500 AADT on the immediate highway network.
	 A change in the modal split to a greater percentage of Heavy Duty Vehicles (HDVs) 	
	 A change of PSV and/or HDV flows of more than 25 AADT within or adjacent to an AQMA, more than 100 AADT elsewhere. 	
	 Cause a significant change in Light Duty Vehicle (LDV) traffic flows on local roads with relevant receptors. (LDV = cars and small vans <3.5t gross vehicle weight). A change of LDV flows of more than 100 AADT within or adjacent to an AQMA, more than 500 AADT elsewhere. 	
Pol.20	Does the development provide more than 50 new parking spaces or more than 25 if it is within an existing AQMA?	Yes. The site-wide residential ratio for car parking is designed to be 0.43-0.3 per dwelling, therefore there will be more than 50 car parking spaces.
Pol.21	Does the development have an underground car park with extraction system where the ventilation extract for the car park will be within 20 m of a relevant receptor and coupled with the car park having more than 100 movements per day.	No.
Pol.22	Is the development within an AQMA and a sensitive development (Residential, school, healthcare, childcare etc.)?	The development includes some sensitive use. It is close to an area where an AQMA has recently been revoked.
Pol.23	For commercial development, does the development include a prescribed industrial process under the PPC regulations ⁴ , including MCPD ⁶⁵ ?	The specific use for the commercial elements of the development have yet to be determined as the development is outline, however, it is unlikely that it will include industrial plant. Furthermore, the energy strategy is electric and therefore it is unlikely that it will incorporate any plant that will come under the medium combustion plant directive.
CODE	CODE	CODE
Pol.24	Is the development a sensitive development close to an existing prescribed process or other source of air pollution, such as a busy road?	Yes, the development is located near the M11

⁴ https://www.gov.uk/government/publications/local-authority-pollution-control-general-guidance-manual 65 https://www.gov.uk/government/consultations/improving-air-quality-reducing-emissions-from-medium-combustion-plants-and-generators

Pol.25	May the development create a street canyon or reduce dispersion of pollutants?	Whilst development plans are currently outline only, it is expected that buildings will not be tall and that they will be set back from roads such that dispersion conditions will not be affected to an extent that could be quantified. The development is therefore not expected to introduce a street canyon or significantly reduce dispersion.
Pol.26	Does the energy strategy for your proposal introduce Combined Heat and Power (CHP) plant, other centralised boilers, or generators? Do these conform with the emissions standards set out in Appendix 3 of this SPD?	No, the energy statement does not contain those listed
ODOUR AN	ND OTHER FUGITIVE EMISSIONS TO AIR	
Pol.27	For all industrial, commercial or business uses that generate odours or if substantial ventilation or extraction equipment is proposed has an overarching outline ventilation statement/strategy been provided?	The detail of the commercial areas will be included in the RMA submission
Pol.28	For low to medium odour risk generating developments such as hot food premises/commercial kitchens has an appropriate odour risk assessment been undertaken including the provision of the information requested in paragraphs 3.6.193 – 3.6.196 of the SPD?	This will be included in the RMA submission
Pol.29	For higher risk odour generating uses, such as a new sewage treatment works or when odour sensitive uses are proposed near such uses, has a detailed odour assessment been undertaken in accordance with the Institute of Air Quality Management document 'Guidance on the assessment of odour for planning (IAQM, Version 1.1 - July 2018)'?	No higher risk our generating uses will be included in the development

CODE	CHECKLIST	SUMMARY OF APPROACH	
SUSTAINABL	SUSTAINABLE DRAINAGE SYSTEMS – SPD SECTION 3.7		
SuDS.1	Have you completed the pre-application Checklist (Appendix E) and Surface Water Drainage Pro-forma (Appendix F) of the Cambridgeshire Flood and Water SPD	Yes, this information has been completed	
CONSTRUCT	CONSTRUCTION STANDARDS (BREEAM) – SPD SECTION 3.8		
Cs.1	If your proposal involves the re-use/re-development of existing buildings, have you developed a bespoke approach to sustainable construction standards and what form does this bespoke approach take?	The site is a green field site, there will be no reuse of existing buildings	
Cs.2	Where BREEAM has been used, has a BREEAM pre-assessment been prepared for submission with your planning application?	Yes, a BREEAM v6 pre-assessment has been conducted and included in the outline planning application	
HERITAGE A	HERITAGE ASSETS AND CLIMATE CHANGE – SPD SECTION 3.10		

Ha.1	Where works to a heritage asset to address climate change are proposed, have you undertaken studies to ensure that your proposals are based on a thorough understanding of the building's historic evolution and construction (where these matters relate to the heritage significance of the asset), architectural and historic significance?	No works to a heritage asset will be undertaken
Ha.2	Have you undertaken an assessment of the building's existing environmental performance, and how have your proposals been informed by this work?	No works to a heritage asset will be undertaken
Ha.3	Have you developed a building monitoring and management strategy in order to assess the ongoing impact of the implemented measures on the asset's historic fabric?	No works to a heritage asset will be undertaken
CODE	CHECKLIST	SUMMARY OF APPROACH
Ha.4	How have you factored in the potential for remediation works should ongoing monitoring identify that measures are leading to harm to the heritage asset?	No works to a heritage asset will be undertaken
RECYCLING A	AND WASTE FACILITIES CONSTRUCTION WASTE – SPD SECTION 3.11	
Wr.1	Has the size and location of recycling and waste facilities, both for storage and collection, been factored into the design of the proposals using the requirements set out in the RECAP Waste Management Design Guide SPD and associated Toolkit?	Yes, the design of the underground bins have been carefully designed, see details in design and access statement. Yes, the RECAP guide and the Greater Cambridge Shared Waste Service Planning Guidance documents have been used.
Wr.2	Have you completed Cambridge City Council's Waste and recycling checklist for developers?	This will be included in the RMA submission
Wr.3	Have measures been put in place to:	Developers will be required to monitor and report on construction waste.
	 Reduce the amount of construction waste generated by the proposals, including the use of single-use plastics where alternative options exist; and 	They will also be required to achieve 95% non-hazardous waste diverted from landfill
	Re-use and recycle remaining construction waste	
	(Non-residential schemes should refer to the BREEAM assessment)	
OTHER SUST	AINABILITY CONSIDERATIONS – SPD SECTION 4	
Osc.1	Has a target been set for improving the environmental impact of materials used in constructing the development, with consideration given to the embodied carbon of materials?	Developers will be encouraged to minimise their environmental impact and to monitor and meet specific embodied carbon targets. Further details will be included in RMA submissions.
	Non-residential schemes should refer to the BREEAM assessment. Residential schemes should give consideration to use of the Green Guide to Specification, certification schemes for specific materials with further information available at: http://www.greenbooklive.com/	
CODE	CHECKLIST	SUMMARY OF APPROACH

Osc.2	Has consideration been given to providing food growing opportunities as part of the development, in the form of a private amenity space of the appropriate size and aspect? Have long term management and maintenance arrangements been considered in the design of these spaces?	Yes, food growing opportunities have been provided throughout the development in the form of formal allotments, fruit trees and orchards, edible hedgerows and informal community growing spaces. The long-term management of these spaces, include the specification of native and drought resistant planting, has been outlined in the Landscape Strategy
Osc.3	Have measures been integrated into the design to create healthy indoor environments, given consideration to issues such as daylight, ventilation and humidity control and the use of materials with low toxicity?	This will be included in the RMA submission
Osc.4	For non-residential development, has consideration been given to creating a healthy indoor working environment, giving consideration to elements such as biophilic design?	This will be included in the RMA submission
Osc.5	Has consideration been given to the role of smart technologies in the design of your proposals, giving consideration to the role that such technologies could play in both the construction and operational phases of the development?	This will be included in the RMA submission
Osc.6	Have you considered measures to enable residents/building owners to more easily retrofit their property in the future e.g. low temperature heating systems or 'stage 1 fit' pipework for rainwater harvesting?	This will be included in the RMA submission

CODE	CHECKLIST	SUMMARY OF APPROACH
TRANSPOR	T – SPD SECTION 2	
T.1	Have you demonstrated that the development is in the most suitable location for access by public transport, walking and cycling, reducing the need to travel by private car?	Chapter 3-6, inclusive, of the Transport Assessment provides an assessment of the existing transport conditions surrounding the development. It is detailed that the development is located nearby to a range of sustainable transport infrastructure and services that will reduce the need to travel by car. Annual travel surveys at Eddington also illustrate excellent sustainable travel mode shares for both commuting and leisure journeys. The 2024 survey detailed that for journeys to work, just 17.4% of residents drove a car, and for leisure journeys just 20.5%.
		An accessibility analysis by sustainable modes (walking, cycling and public transport) has also been undertaking showing that there is a wide range of amenities and services within 15-minute walking and cycling distances of the development.
		Further to this, the development is also located in an area that can help further unlock sustainable transport corridors and support growth, including orbital connections through the site, benefitting both local communities and Cambridge.
T.2	Have you demonstrated how the development proposals give priority for walking and cycling over cars, linking the development with the surrounding walking and cycling network including planned projects?	Chapter 13 of the TA details the development proposals with a focus from a transport perspective, and details how priority will be given throughout for walking and cycling as well as public transport over the private car. Chapter 17 of the TA also details how the development links into the surrounding active travel network. An accessibility analysis is also presented illustrating how local settlements will see improved accessibility and connectivity through the site and to local amenities and services as a result of the proposed developments active travel network.
Т.3	Will the proposed walking and cycling provision be in place by first occupation of the development so that sustainable travel patterns can be established at an early stage?	Phase 1 has already been completed and includes the town centre and many of the outdoor amenities, including walking and cycling routes. During the Future Phases, the development will be delivered on a plot-by-plot basis, meaning the cycle and walking routes within each plot will be delivered at the same time as the dwellings with the key strategic links already in place. The main infrastructure throughout the Future Phases, containing centralised cycling and walking routes, will be established at an early stage of the development to enable access across the development.
T.4	Where car parking is provided, has provision been made for electric vehicle charging?	Yes, parking will be provided for on an approximate ratio of 0.43-0.3 per dwelling for residential units. 1:1 for Private dwellings and car club for KWHs. Car parking will also provided at the proposed commercial areas at a ratio of 1:178sqm. With regards to electric vehicle parking, this will be provided in accordance with the standards outlined in the Greater Cambridge Sustainable Design and Construction SPD. For residential land uses, the requirements which will be adhered to are as follows:
		 One slow EV charge point for each dwelling with allocated car parking. At least one slow EV charge point for every two dwellings with communal parking (at least half of all non-allocated parking spaces to have EV slow charge points). For non-residential land uses, the requirements are as follows (as per Table 3.13 of the SPD):
		 At least one slow EV charge point for every two parking spaces in non-residential developments. At least one rapid EV charge point for every 1,000sqm non-residential floor space or one fast EV charge point for every 1000sqm non-residential floor space (if the installation of rapid charge point is technically impossible due to grid supply constraints evidence must be provided).
		Overall parking will provide to meet policy at the time of each Reserved Matters.
T.5	Have any 'softer' measures been included, to encourage uptake of more sustainable modes of transport?	The addition of 3 'mobility hubs' has been integrated across the design, these will provide priority access for pedestrians and cyclists, bike and scooter parking and charging services, including a repair station, amenities such as community space and cafes and trip making services such as real time public transport information, car share, wayfinding, ticker services and a bus stop.
		Further to this the existing exemplar Phase 1 Travel Plan (TP) will be updated to incorporate Future Phases. Specific measures for the Future Phases are detailed in Section 4 of the Future Phase TP
T.6	Does the development inhibit the expansion of high quality public transport/cycling and walking routes?	No, the development builds on the existing exemplar public transport services routes provided for Phase 1 and the local area, and will provide greater connectivity across Cambridge via active travel routes.

CODE	CHECKLIST	SUMMARY OF APPROACH	
ENERGY AN	NERGY AND CARBON REDUCTION – SPD SECTION 3.2		
En.1	Has the 10% CO $_2$ reduction required been established using SAP/SBEM calculations or other appropriate benchmarks?	Yes, see AECOM'S Energy strategy for detailed information. The energy hierarchy has been followed and initial modelling demonstrates that there will be a 76% reduction on Part L if ASHP and renewable technology, such as PVs, are implemented on residential schemes. The detail of residential energy strategies for each development will be submitted at RMA stage.	
En.2	Has the Energy Statement form been completed (see Appendix 5)?	Yes, an energy statement has been completed for outline planning. Please refer to AECOM'S Energy Report for further information.	
En.3	Has initial feasibility work into renewable options for the development been provided?	Options for Air Source Heat Pumps (ASHP) and Photovoltaics (PVs) have been included in the Energy strategy. Please see AECOM'S Energy Report for further information.	
En.4	Has the contribution that passive solar design will make to the energy requirements of the development been provided (optional)?	This will be included in RMA submissions.	
En.5	Has it been clearly indicated which technology(s) has been chosen and demonstrated how this/these meet the 10% CO ₂ reduction requirement?	This will be included in RMA submissions.	
En.6	Has visual information been provided to show the technology(s) has/have been successfully integrated into the development?	This will be included in RMA submissions.	
En.7	Have you demonstrated how any adverse impacts on residential amenity (e.g. air quality impacts or noise) can be mitigated in accordance with Section 3.5 of this SPD? Where gas CHP is proposed, evidence will need to be provided to demonstrate that it meets the emissions standards set out in Appendix 3 of this SPD.	No gas CHP is proposed. All energy generation is from non-emission sources. See Chapters 8 and 9 of the Environmental statement for air quality and noise impact assessments.	

CODE	CHECKLIST	SUMMARY OF APPROACH	
En.8	For large scale development likely to take place over a number of years, have you taken into consideration Government proposals to stop new housing from having gas boilers from 2025?	Yes, new housing will not be implementing new gas boilers.	
En.9	For growth areas and new settlements, has consideration been given to site-wide approaches to renewable and low carbon energy provision?	Yes. The principles for renewables and energy for the development are included in the AECOM Energy Report. The strategy is for the development to use low carbon energy sources deployed on a plot basis to minimise losses, using Air Source Heat Pumps and building-mounted solar photovoltaic panels	
WATER EFFI	WATER EFFICIENCY – SPD SECTION 3.3		
Wat.1	For residential development have you prepared a Sustainability Statement setting out how your proposal will meet the requirement for potable water use of no more than 110 litres/person/day?	Yes, please see sustainability statement that demonstrates the high level strategy for meeting a target of 80 l/p/d using water recycling and water efficient sanitaryware.	
Wat.2	For non-residential development have you included information to demonstrate that your proposal will be able to meet the requirement for achievement of 2 credits from Wat01 of the BREEAM assessment?	Yes, all non-residential developments will be required to achieve a 50% improvement over baseline for water consumption.	

Wat.3	Have you given consideration to water re-use as part of the sustainable drainage strategy for the site as part of an integrated approach to water management?	Yes, all homes will be supplied with recycled water. Across the development a sustainable urban drainage system as been integrated, prioritising above ground drainage systems such as swales and rain gardens.
CLIMATE CHANGE ADAPTATION – SPD SECTION 3.4		
Ca.1	Have you integrated measures to design out the risk of overheating, giving priority to architectural approaches in line with the cooling hierarchy?	All residential schemes will be required to meet Part O. Dwellings will be expected to address future climate conditions through use of natural ventilation and façade treatments to manage solar gains. Windows should be sized appropriately to optimise daylight and limit solar gain. It is expected that acoustically constrained dwellings will require a small amount of cooling to address summertime comfort without opening windows.
Ca.2	Have you undertaken overheating analysis following the CIBSE methodology and utilising future climate scenarios?	Early generic modelling has considered design options that might be needed to comply with future climate projections. RMA applications will undertake detailed modelling to address design requirements to meet both Part O and Future climate.

CODE	CHECKLIST	SUMMARY OF APPROACH	
Ca.3	Have you considered the role of green infrastructure and cool materials in enhancing the adaptive capacity of your proposal?		en infrastructure in the form of trees, shared gardens and open amenity space has been prioritized and his is to increase biodiversity, health and wellbeing, provide community space and to combat the urban heat onditions.
Ca.4	Where there are existing trees on your site, including ancient and veteran trees, how has the retention of these trees informed the layout of your development?	reasons, by the Tree Survey. Exceptions inc	uture phase masterplan are typically proposed for retention, unless recommended for removal for Arboricultural clude breaks in vegetation required for key infrastructure, or improved green travel connections, or small proposed for removal, for example, to facilitate development plots.
		Existing mature vegetation is integral to the in the masterplan layout.	e masterplan green infrastructure, used for instance, to define green corridors and form visual orientation points
Ca.5	How have you integrated the planting of new trees into your proposals, giving consideration to the right tree in the right place principle?	integral part of the masterplan green fram	s proposed providing a hierarchy of tree scales, diversity of species and planting forms. Proposed trees form an ework and character of open spaces and the public realm. The selection of species has considered 'right tree in a sidering the typical mature size appropriate for the scale of spaces and species appropriate to the local nice.
Ca.6	What other measures have been incorporated into the development to enable it to cope with predicted climate change impacts, without increasing the use energy consuming ventilation and cooling?	and façade treatments to manage solar ga Community spaces and shared gardens wil	meet Part O. Dwellings will be expected to address future climate conditions through use of natural ventilation ins. Windows should be sized appropriately to optimise daylight and limit solar gain. I be include a variety of planting and shaded areas to help mitigate the urban heat island effect and provide all spaces throughout changing weather conditions.
Ca.7	Where you are proposing to utilise thermal mass to help regulate internal temperatures, has this thermal mass been designed to be exposed and have you developed a strategy to enable night purge ventilation?	This will be included in RMA submissions.	
BIODIVE	BIODIVERSITY AND GEODIVERSITY – SPD SECTION 3.5		
Bio.1	Has a Preliminary Ecological Assessment and Protected Species Scoping Survey ⁵ been conducted, with sufficient detail given the nature and size of the site and the proposed development?		Yes, this information will be included within the Ecology Chapter of the EIA along with the results of follow up ecology surveys. The scope of surveys has been agreed with the City Council's Biodiversity Officer through EIA scoping and consultation meetings

 $[\]underline{\ \ }^{\underline{\ \ }} Surveys \ should \ be \ carried \ out \ in \ accordance \ with \ CIEEM \ guidance: \ \underline{\ \ } \underline{\ \ \ } \underline{\ \ } \underline{\ \ \ } \underline{\ \ \ \ } \underline{\ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ } \underline{\ \ \ \ \ \ } \underline{\ \ \ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ \ \ } \underline{\ \ \ \ \ \ } \underline{\ \ \ \ \ \ } \underline{\ \ \ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ } \underline{\ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ \ \ } \underline{\ \ \ \ } \underline{\ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ \ } \underline{\ \ \ \ } \underline{\ \ \ \ \ \ } \underline$

Bio.2	If a protected or priority species and/or habitats have been identified, has a specialist been engaged to conduct a detailed survey? <a "="" href="https://events.cieem.net/ProfessionalDirectory/ProfessionalDirectory/ProfessionalDirectory/ProfessionalDirectory.aspx_</th><th>Yes, this information is included within the Ecology Chapter of the EIA along with the results of follow up ecology surveys. The scope of surveys has been agreed with the City Council's Biodiversity Officer through EIA scoping and consultation meetings</th></tr><tr><td>Bio.3</td><td>Has/will all the relevant information from these surveys been provided?</td><td>Yes, this information is included within the Ecology Chapter of the EIA along with the results of follow up ecology surveys. Detailed survey results are provided as annexes to the Ecology Appendix.</td></tr><tr><td>Bio.4</td><td>Has the mitigation hierarchy been followed, demonstrating how existing habitats and species have been protected in the proposed ecological and landscape strategy? http://www.csbi.org.uk/our-work/mitigation-hierarchy-guide/ <td>Yes, an Ecological Constraints Plan was produced and used to inform the masterplan, ensuring that ecological impacts that could give rise to significant effects were avoided where possible, or minimised, and finally mitigated. Compensation is proposed for any significant residual effects that could not be mitigated, as set out in the Ecology Chapter of the EIA.</td>	Yes, an Ecological Constraints Plan was produced and used to inform the masterplan, ensuring that ecological impacts that could give rise to significant effects were avoided where possible, or minimised, and finally mitigated. Compensation is proposed for any significant residual effects that could not be mitigated, as set out in the Ecology Chapter of the EIA.		
Bio.5	Has the mitigation hierarchy been followed, demonstrating how any potentially adverse effects have been mitigated?	Yes, an Ecological Constraints Plan was produced and used to inform the masterplan, ensuring that ecological impacts that could give rise to significant effects were avoided where possible, or minimised, and finally mitigated. Compensation is proposed for any significant residual effects that could not be mitigated, as set out in the Ecology Chapter of the EIA.		
Bio.6	Has the mitigation hierarchy been followed, demonstrating that adequate compensation measures have been proposed on or offsite, where it is agreed that damage is unavoidable?	Yes, an Ecological Constraints Plan was produced and used to inform the masterplan, ensuring that ecological impacts that could give rise to significant effects were avoided where possible, or minimised, and finally mitigated. Compensation is proposed for any significant residual effects that could not be mitigated, as set out in the Ecology Chapter of the EIA		
Bio.7	Has it been demonstrated that the proposals will deliver biodiversity net gain, with use of the DEFRA Biodiversity Offsetting metric?	Yes, the statutory BNG metric has been used to calculate the BNG of the illustrative scheme. The results are summarised in the BNG report which is provided, along with the completed statutory metric spreadsheet.		
Bio.8	For major development, has the Natural Cambridgeshire Local Nature Partnership (LNP) Developing with Nature Toolkit been adopted?	The design process has followed the 10 'Things to do for nature' detailed in the toolkit		
CODE	CHECKLIST	SUMMARY OF APPROACH		
Bio.9	Has a suitable biodiversity management and monitoring strategy for the site been proposed?	The principles for biodiversity management and monitoring are set out in the BNG report and Ecological Enhancement Report. Further details will be provided under planning conditions.		
Bio.10	For development likely to affect a European site, what information have you provided to enable the local planning authority, as Competent Authority under the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended) to record its	It has been agreed, in consultation with the City Council's Biodiversity Officer that the proposed development would not be likely to affect a European Site, with particular attention given to Eversden and Wimpole Woods SAC		
	decision with regard to likely significant effect, including undertaking Appropriate Assessment where necessary?			
POLLUTIO	DN – SPD SECTION 3.6			
LIGHT PO	LIGHT POLLUTION			
Pol.1	For all development with artificial lighting has a statement of the need for lighting been submitted and have the principles of an external lighting strategy that meets the requirements of the local plan policy/SPD been set out?	Yes, all lighting is attributed to the appropriate level according to BS:5489 inclusive of all references to lowest glare, greatest efficiency and warmest colour temperatures. Curfew status change is a major recommendation.		
Pol.2	Will the final detailed external lighting design / scheme be in accordance with the guidance and principles set out in the light pollution section of the SPD?	Yes, reference has been made to ILP Guidance note 1: Reduction of Obtrusive Light throughout the Lighting Strategy		
Pol.3	Has the development taken measures to reduce light pollution impacts on character, residential amenity and biodiversity?	Yes, in addition to the above, detailed references to bats have also been applied with a local ecologist.		
Pol.4	For substantive large-scale lighting installations such as the floodlighting of external recreational and sporting facilities/pitches or transport interchanges has a detailed lighting assessment been undertaken by a qualified Lighting Engineer or lighting company in accordance with Section 3.6.24 of the SPD?	Yes, a lighting assessment is being submitted separately under Phase 1 reserved matters.		

Pol.5	For Environmental Impact Assessment (EIA) development has a lighting impact assessment been undertaken having regard to and in accordance with the Institute of Lighting Professionals 'PLG04 - Guidance on Undertaking Environmental Lighting Impact Assessments'?		Yes, a lighting assessment has been completed and included within the EIA
Pol.6	For any proposal for the display of illuminated advertisements has the relevant information been provided?		Not Applicable.
CONTAM	INATED LAND		
Pol.7	Is the development site's land use history known? Is the site potentially af ground water contamination) that could result in unacceptable risks e.g. a industrial or similar use on site or ground gases?		The site's historic land use is well known and documented, having been open farmland formally in the green belt. Significant geotechnical and geoenvironmental investigations have been undertaken in the past on the site which do not suggest any levels of contamination which could lead to potentially unacceptable risks
CODE	CHECKLIST		SUMMARY OF APPROACH
NOISE PC	DLLUTION		
Pol.8	For major Noise Sensitive Development (NSD) located in a noisy environment or near to a specific existing noise generating source e.g. near to a busy road, railway line, noisy commercial/industrial premises including building services plant/equipment has an appropriate acoustic assessment /report been undertaken in accordance with the noise assessment process and submission requirements set out in the noise section of the SPD?		The scheme is considered to be in a noisy environment. We have consulted with EPO from the Local Authority to describe our process of evaluating the sound on the site and the methods we will be using to reduce the potential impacts. The ES Chapter produced for the EIA will include the details of the assessments
Pol.9	For Noise Generating Development (NGD) such as industrial commercial/trade or business premises and uses including plant and equipment has an appropriate acoustic assessment/report been undertaken in accordance with the noise assessment process and submission requirements set out in the noise section of the SPD?		The scheme will introduce some limited noise emissions, associated with building services plant. The ES Chapter will include the provisional limits that these items of plant will need to meet (based on the local authority requirements). The control of noise emissions will be confirmed as part of the Reserved Matters Applications
Pol.10	Has an 'Acoustic Design Statement' been included demonstrating that the principles of good acoustic design and noise mitigation will be followed for both NSD and NGD?		A full acoustic design statement cannot be produced, as the scheme is in outline only. The subsequent RMAs for each plot will need to provide an Acoustic Design Statement (or similar) to support their application.
Pol.11	Has the development taken measures to reduce existing noise and enhance the existing soundscape of the site?		The illustrative masterplan has been developed with consulting on the noise throughout. We have worked so that noise into the site is reduced as much as feasible and that new sources of noise are reduced as much as practicable.
CODE	CHECKLIST	SUMMARY OF APPROACH	
Pol.12	For all development has the impact of demolition construction noise/vibration been assessed and mitigation proposed?		nmental Statement reporting. The evaluations will indicate whether significant adverse impacts are likely during
Pol.13	For substantial development or infrastructure projects has a Noise and Vibration Demolition and Construction Environmental Management Plan been provided? See Pol 12		

AID OHA	ALD CLIALITY		
AIR QUA	AIR QUALITY		
Pol.14	If the proposals are likely to generate a significant amount of traffic (defined as road traffic movements greater than 5% of Annual Average Daily Traffic) has a noise impact assessment of any increase in local traffic noise been undertaken?	The ES Chapter will include an evaluation of the noise from road traffic.	
Pol.15	Air Quality: How have you incorporated practical measures to mitigate the transport impacts of development on local air quality into the development (i.e. Low Emission Strategy for major developments)?	Within the Travel Plan, development of the Masterplan and sustainable infrastructure for Future Phases to continue exemplar low SOV mode share evidenced in Phase 1. See Section 4 (Measures) in the Travel Plan and Sections 16 & 17 of the TA for the proposed Transport Strategy.	
Pol.16	Have you undertaken an air quality impact assessment if the development is in particularly congested location or where there are particular travel problems, if generating large number of trips, if near or within the Air Quality Management Area?	An air quality assessment has been conducted, including modelling of potential impacts associated with traffic generation during construction and operational phases as well as during an interim scenario to take phasing into account. The methodology and outcome of this assessment is set out in detail within the air quality chapter; however, the conclusion is that the development will not have a significant impact on air quality.	
ODOUR A	AND OTHER FUGITIVE EMISSIONS		
Pol.17	For all industrial, commercial or business uses that generate odours or if substantial ventilation or extraction equipment is proposed has an overarching outline ventilation statement/strategy been provided?	This will be included in RMA submissions	
Pol.18	For low to medium odour risk generating developments such as hot food premises/commercial kitchens has an appropriate odour risk assessment been undertaken including the provision of the information requested in paragraphs 3.6.193 – 3.6.196 of the SPD?	This will be included in RMA submissions	
Pol.19	For higher risk odour generating uses, such as a new sewage treatment works or when odour sensitive uses are proposed near such uses, has a detailed odour assessment been undertaken in accordance with the Institute of Air Quality Management document 'Guidance on the assessment of odour for planning (IAQM, Version 1.1 - July 2018)'?	N/A	
SUSTAIN	- Able drainage systems – refer to the cambridgeshire flood and \	NATER SPD	
SuDS.1	Have you completed the pre-application Checklist (Appendix E) and Surface Water Drainage Pro-forma (Appendix F) of the <u>Cambridgeshire Flood and Water SPD</u>	Yes, this information has been completed	
SUSTAIN	ABLE SHOW HOMES – SPD SECTION 3.9		
SuSh.1	For residential developments that will include a show home, have you given consideration to the range of measures that will be incorporated into the Show Home to enable home buyers to purchase additional options to enhance the environmental performance of their new home?	This will be included in RMA submissions	
HERITAG	HERITAGE ASSETS AND CLIMATE CHANGE – SPD SECTION 3.10		
На.1	Where works to a heritage asset to address climate change are proposed, have you undertaken studies to ensure that your proposals are based on a thorough understanding of the building's historic evolution and construction (where these matters relate to the heritage significance of the asset), architectural and historic significance?	N/A	

CODE	CHECKLIST	SUMMARY OF APPROACH	
Ha.2	Have you undertaken an assessment of the building's existing environmental performance, and how have your proposals been informed by this work?	N/A	
На.3	Have you developed a building monitoring and management strategy in order to assess the ongoing impact of the implemented measures on the asset's historic fabric?	N/A	
Ha.4	How have you factored in the potential for remediation works should ongoing monitoring identify that measures are leading to harm to the heritage asset?	N/A	
RECYCLIN	IG AND WASTE FACILITIES – SPD SECTION 3.11		
Wr.1	Has the size and location of recycling and waste facilities, both for storage and collection, been factored into the design of the proposals using the requirements set out in the RECAP Waste Management Design Guide SPD and associated Toolkit?	Yes, the RECAP guide and the Greater Cambridge Shared Waste Service Planning Guidance documents have been used.	
Wr.2	Has it been shown that the average and maximum distances for building users to move their waste to the storage/collection points is within the guidelines set out in the relevant guidance? If these targets are exceeded, have justification and mitigation measures been proposed?	No, as the designs are at outline stage and entrances to blocks are not yet known. This will be subject to reserved matters applications	
Wr.3	 Have measures been put in place to: Reduce the amount of construction waste generated by the proposals, including the use of single-use plastics where alternative options exist; and Re-use and recycle remaining construction waste 	Yes, developers will be required to monitor and report their construction waste. They will also be required to divert 95% of non-hazardous waste from landfill	
OTHER SI	OTHER SUSTAINABILITY CONSIDERATIONS – SPD SECTION 4		
Osc.1	Has a target been set for improving the environmental impact of materials used in constructing the development, with consideration given to the embodied carbon of materials?	Developers will be required to monitor the embodied carbon impact. Further details surrounding embodied carbon impact will be included in RMA submissions	
	Non-residential schemes should refer to the BREEAM assessment.		
	Residential schemes should give consideration to use of the Green Guide to Specification, certification schemes for specific materials with further information available at:		
	http://www.greenbooklive.com/		
Osc.2	Has consideration been given to providing food growing opportunities as part of the development, in the form of a private amenity space of the appropriate size and aspect? Have long term management and maintenance arrangements been considered in the design of these spaces?	Yes, food growing opportunities have been provided throughout the development in the form of formal allotments, fruit trees and orchards, edible hedgerows and informal community growing spaces. The long-term management of these spaces, include the specification of native and drought resistant planting, has been outlined in the Landscape Strategy	

Osc.3	Have measures been integrated into the design to create healthy indoor environments, given consideration to issues such as daylight, ventilation and humidity control and the use of materials with low toxicity?	This will be included in RMA submission
Osc.4	For non-residential development, has consideration been given to creating a healthy indoor working environment, giving consideration to elements such as biophilic design?	This will be included in RMA submission
Osc.5	Has consideration been given to the role of smart technologies in the design of your proposals, giving consideration to the role that such technologies could play in both the construction and operational phases of the development?	This will be included in RMA submission in order to adopt the best options available at the time of construction.
Osc.6	For new settlements covered by policies within Chapter 3 of the Local Plan, how do you plan to meet policy requirements to exceed baseline sustainable design and construction requirements established by the Local Plan? This could include the use of the BREEAM Communities certification scheme in light of the supporting text to policy CC/1	At outline planning stage the development is committed to Passivhaus Principles. Further details on how the development will exceed requirements established by the Local Plan will be included in RMA submissions.
Osc.7	Have you considered measures to enable residents/building owners to more easily retrofit their property in the future e.g. low temperature heating systems or 'stage 1 fit' pipework for rainwater harvesting?	This will be included in RMA submission

