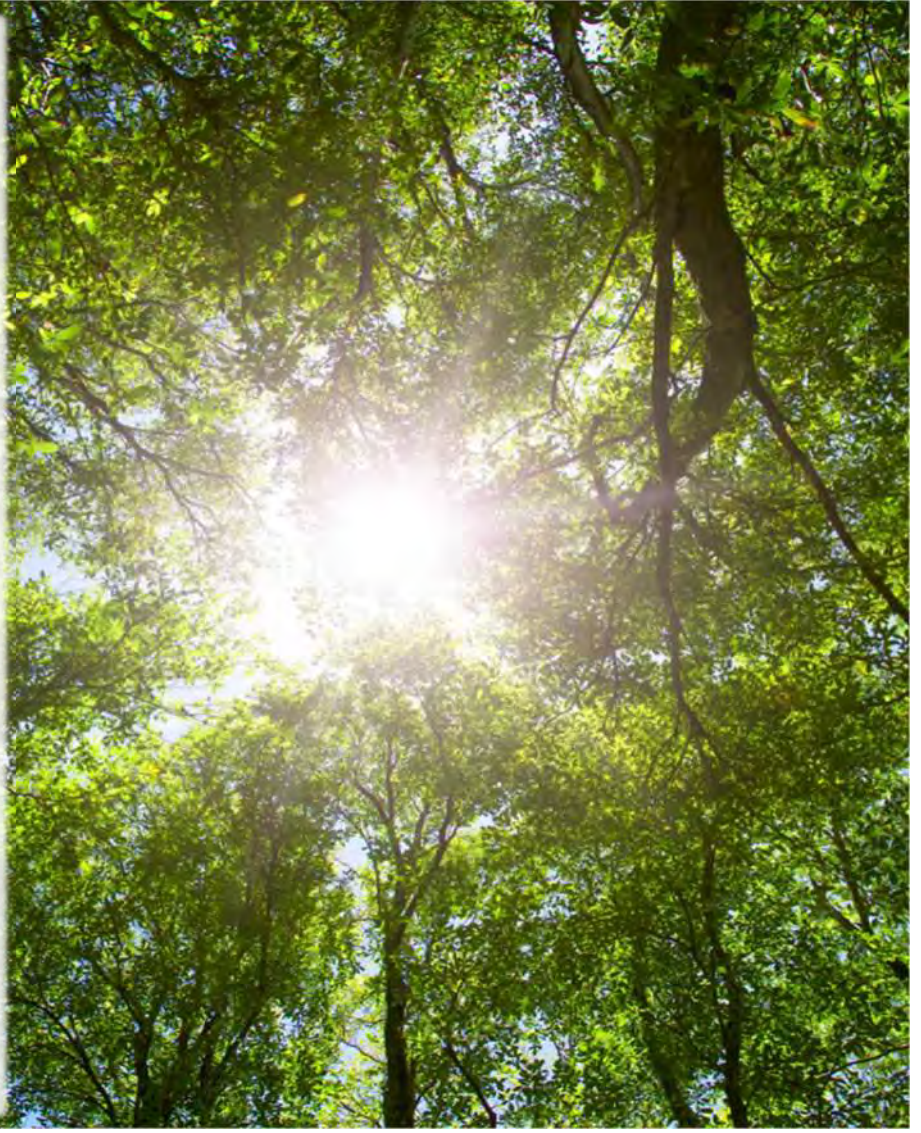


**707-725 Lordship Lane,
Wood Green, London**

Sustainability Statement

Ensphere Group Ltd on behalf of
Atri7 2 Limited & Fusion Global Management LLP



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707-725 Lordship Lane, Wood Green, London

Sustainability Statement

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Sustainability

Energy

Climate Change

Socio-Economic

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1. Executive Summary

- 1.1 This Sustainability Statement presents the sustainability credentials for a proposed development at 707-725 Lordship Lane, Wood Green, London.
- 1.2 Consideration has primarily been given to planning policy and other requirements prior to a review of sustainability in the context of the wider community, design and construction.
- 1.3 The proposed development will comprise a mixed-use scheme consisting of affordable homes, purpose-built student accommodation, and flexible ground floor commercial (Class E) floorspace within buildings ranging between 3 – 9 storeys, public realm and landscaping works, cycle parking, and associated works.
- 1.4 At a strategic level, this is considered sustainable on the basis that it will help alleviate the supply-side housing shortage and assist with the rebalancing of the socio-economic factors. The creation of new commercial space will also enhance employment for local people, improve the local economy, increase the wealth and lifestyle of employed individuals and contribute to local business rates. The development is therefore considered to be beneficial to the local community and aligned with socio-economic requirements.
- 1.5 A range of sustainable design features are proposed, and construction will be responsibly managed to ensure minimal impact on the environment and local community. A BREEAM “Excellent” rating will be targeted as a minimum for the student accommodation, as well as a HQM “3-Star” rating for the residential.
- 1.6 Overall, the proposals for the scheme are in line with the overarching principles of sustainable development as well as the policy requirements of the planning authority.

2. Introduction

- 2.1 Ensphere Group Ltd was commissioned by Atri7 2 Limited & Fusion Global Management LLP to produce a Sustainability Statement for a proposed development at 707-725 Lordship Lane, Wood Green, London.

Site and Surroundings

- 2.2 The Site is located within the Wood Green Town Centre, approximately 150m east of Wood Green Station.
- 2.3 The Site is approximately 0.86 hectares (ha) in size and is currently occupied by a single storey building, in use by Mecca Bingo as a bingo hall. The remainder of the Site is occupied by surface level car parking. The site is bound by:
- Lordship Lane (A109) to the north of the site;
 - Sultan Terrace and Vincent Square to the east of the site;
 - Residential properties along Moselle Avenue to the south of the site; and
 - Omnibus House and Redvers Road to the west of the site.
- 2.4 Within the surrounding context, Lordship Lane is characterised by a variety of two and three storey properties, to the east of the application site is bound by a housing estate with three storey blocks, the southern boundary is characterised by Wellesley Road with two and three storey town houses and the rear gardens of the properties along Moselle Avenue. The West of the application site is bound by Omnibus House, a seven to nine storey residential building.
- 2.5 The Site is not located within a Conservation Area, nor does it contain any listed buildings. The Noel Park Conservation Area is located immediately to the south of the site.

Proposed Development

- 2.6 Demolition of the existing building and redevelopment to provide affordable homes, purpose-built student accommodation, and flexible ground floor commercial (Class E) floorspace within buildings ranging between 3 – 9 storeys, public realm and landscaping works, cycle parking, and associated works.

Report Objective

- 2.7 The objective of the Sustainability Statement is to outline how sustainability and the principles of sustainable development have been incorporated into the development proposals.

3. Assessment Methodology

Sustainability & Sustainable Development

- 3.1 “Sustainability” is a broad concept generally used to describe the ability to perpetuate a particular state of being. It is widely used in the context of development and where there is potential for changing circumstances to cause an impediment to the perpetuation of a phenomenon.
- 3.2 The term is subjective and the understanding of the concept is influenced by perceptions and aspirations. “Sustainability” is therefore variably defined but normally encapsulates a wide range of issues, often characterised by their relationship with the economy, society and the environment (the “three pillars” of sustainability).
- 3.3 These issues are not necessarily mutually exclusive and whilst they are often presented as such, technically, the economy is a function of society; and society concerns the interrelationships and behaviours of one species within the wider environment. Nevertheless, the identification and characterisation of these issues enables a better understanding of the things that matter in decision making, which enable a balance to be struck when priorities compete.
- 3.4 The term “sustainable development” is often used interchangeably with “sustainability”, but it is narrower in scope and seeks to promote the perpetuation of human advancement. The “Brundtland Report” (officially titled “Our Common Future” and written by the United Nations World Commission on Environment and Development, Chaired by Gro Harlem Brundtland in 1987), presents perhaps the most widely cited and understood interpretation of this concept:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

- 3.5 The definition introduces the concept of “needs” and the generational timeframe for evaluating whether an action is sustainable or otherwise.

Analysis Methodology

- 3.6 Given the broad definitions associated with the terminology of “sustainability” and “sustainable development”, understanding how these concepts have been interpreted and incorporated into the local planning regime requires a review of the planning policy as well as the documents upon which the policy is based. The report therefore commences with an overview of the planning policy and other considerations.

- 3.7 An appraisal of the sustainability credentials of the scheme then follows. Structure is important when assessing sustainability due to the breadth of issues being considered; an approach has been created based upon the phases of the development cycle relevant to the planning decision making processes, with consideration given to the “three pillars” (discussed above) and requirements of policy.

Assessment Matrix

	Economic	Social	Environmental
Strategic	✓	✓	✓
Design	✓	✓	✓
Construction	✓	✓	✓

- 3.8 It is recognised that the scale and nature of the scheme will affect the relative importance of the matrix dimensions and entries. For example, a single residential unit is unlikely to be viewed as having a major societal impact on the basis of its scale relative to its context. However, the societal implications of an urban extension may be much more significant.
- 3.9 The emphasis is therefore case specific, and the assessment sections of this report seek to highlight the relevant factors in a suitably balanced manner.

4. Planning Context

4.1 Local planning policy relevant to sustainable development is considered below:

National Context

National Planning Policy Framework (2023)

4.2 The National Planning Policy Framework (NPPF) was updated in December 2023. Paragraphs 7, 8 and 10 of the revised NPPF include reference to the following:

7. *“The purpose of the planning system is to contribute to the achievement of sustainable development, including the provision of homes, commercial development, and supporting infrastructure in a sustainable manner. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. At a similarly high level, members of the United Nations – including the United Kingdom – have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. These address social progress, economic well-being and environmental protection”.*

8. *“Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):*

- *An economic objective - to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*
- *A social objective - to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and*
- *An environmental objective - to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”*



10. “So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development”.

Planning Practice Guidance (2016; updated 2023)

- Climate Change - Advises how planning can identify suitable mitigation and adaption measures in plan-making and the application process to address the potential for climate change.
- Design - Design affects how people interact with places and can affect a range of economic, social and environmental objectives. The guidance states that planning policies and decisions should seek to ensure that the physical environment supports these objectives.
- Natural Environment - Explains key issues in implementing policy to protect biodiversity, including local requirements.
- Renewable and Low Carbon Energy - The guidance is intended to assist local councils in developing policies for renewable energy in local plans and identifies the planning considerations for a range of renewable sources.

London Context

London Plan (2021)

4.3

The London Plan is the overall strategic plan for London, it sets out an integrated economic, environmental, transport and social framework for development of London over the next 20-25 years. The London Plan is part of the Development Plan and covers a range of planning issues. The presented policies provide a vision for how London should sustainably grow and develop in the future. Policies considered pertinent to this report are presented below:



- Policy D2 (*Infrastructure requirements for sustainable densities*) – development proposals should be considerate of future planned levels of infrastructure and proportionate to the site's connectivity.
- Policy D3 (*Optimising site capacity through the design-led approach*) - lists a series of requirements including a requirement for development to aim for high sustainability standards.
- Policy G1 (*Green Infrastructure*) - Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network.
- Policy G4 (*Open Space*) - Development proposals should not result in the loss of protected open space; and where possible create areas of publicly accessible open space.

- Policy G5 (*Urban Greening*) - Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design.
- Policy G6 (*Biodiversity and access to nature*) - Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain.
- Policy SI 1 (*Improving air quality*) – Development proposals should not lead to further deterioration of existing poor air quality.
- Policy SI 2 (*Minimising greenhouse gas emissions*) - Major development should be net zero-carbon and minimise emissions in accordance with the following energy hierarchy: be lean, be clean, be green, be seen. A minimum on site reduction of 35% beyond Building Regulations will be required for major development. Residential development should achieve 10 per cent, and non-residential development should achieve 15 per cent through energy efficiency measures. Any short fall with the zero carbon target should be addressed through a carbon offset payment. Development referable to the GLA should also calculate whole life-cycle carbon emissions.
- Policy SI 3 (*Energy infrastructure*) - Major development proposals within Heat Network Priority Areas should have a communal low-temperature heating system.
- Policy SI 4 (*Managing heat risk*) - Major development proposals should demonstrate through an energy strategy how they will reduce the potential for internal overheating and reliance on air conditioning systems.
- Policy SI 5 (*Water infrastructure*) – Development proposals should be achieving mains water consumption of 105 litres or less per head per day; and achieve at least the BREEAM excellent standard for the 'Wat 01' water category. Smart metering, water saving and recycling measures should also be incorporated.
- Policy SI 7 (*Reducing waste and supporting the circular economy*) - Referable applications should promote circular economy outcomes and aim to be net zero-waste.
- Policy SI 12 (*Flood risk management*) - Development proposals should ensure that flood risk is minimised and mitigated.
- Policy SI 13 (*Sustainable drainage*) - Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible.

Energy Assessment Guidance (2022)

- 4.4 This guidance document explains how to prepare an energy assessment to accompany strategic planning applications referred to the Mayor as set out in London Plan Policy SI 2. It

states that the purpose of an energy assessment is to demonstrate that the proposed climate change mitigation measures comply with London Plan energy policies, including the energy hierarchy.

- 4.5 Although primarily aimed at strategic planning applications, London boroughs are encouraged to apply the same structure for energy assessments related to non-referable applications and adapt it for relevant scales of development.

Local Context

Haringey's Local Plan Strategic Policies (2013; consolidated with alterations since 2017)

- 4.6 The Local Plan sets out the key planning policies for the future development of the borough up to 2026 and provide a consistent basis for deciding planning applications.

- 4.7 The following policies are seen as pertinent to this report:

- Policy SP0 (*Presumption in Favour of Sustainable Development*) – aligns with the NPPF presumption in favour of sustainable development.
- Policy SP2 (*Housing*) - For all new residences, excellence in design quality and sustainability will be required.
- Policy SP4 (*Working Towards a Low Carbon Haringey*) - requires all new residential non-residential development to be zero carbon from 2016 and 2019 respectively. All new developments are required to also achieve a reduction in predicted carbon dioxide emissions of 20% from onsite renewable energy regeneration. Non-residential to achieve BREEAM "Very Good" and aspire to "Excellent". Promotes low carbon technologies.
- Policy SP5 (*Water Management and Flooding*) – encourages the implementation of Sustainable Drainage Systems (SUDS) in developments.
- Policy SP6 (*Waste and Recycling*) – requires integrated, well-designed recycling facilities to be incorporated into all new developments.
- Policy SP7 (*Transport*) - Promoting public transport, walking and cycling (including minimum cycle parking standards).
- Policy SP11 (*Design*) – encourages all new developments to be sustainable and impacts on biodiversity, natural resources, climate change, and health are minimised.



Haringey's Development Management DPD – July (2017)

4.8 This Development Plan Document (DPD) provides support to help contribute to the delivery of sustainable development in accordance with the Haringey strategy. It sets out criteria based policies against which planning applications will be assessed.



4.9 The following policies are highlighted:

- Policy DM1 (*Delivering High Quality Design*) – encourages all new developments to achieve a high standard of design as well as contribute to the overall distinctive character of the surrounding area.
- Policy DM4 (*Provision and Design of Waste Management Facilities*) - All proposals should consider how to sustainably manage waste arising from the development during the design, construction and occupation phases.
- Policy DM21 (*Sustainable Design, Layout and Construction*) – Promotes new developments to consider and implement sustainable design, layout and construction techniques.
- Policy DM22 (*Decentralised Energy*) – encourages proposals that contribute to the provisions to contribute to decentralised energy networks.
- Policy DM23 (*Environmental Protection*) – requires new development proposals to consider air quality, noise and vibration, light pollution, contaminated land and hazardous substances.
- Policy DM24 (*Managing and Reducing Flood Risk*) - requires new development proposals to consider the risk of flooding to future occupants; and reduce the risk of flooding.
- Policy DM25 (*Sustainable Drainage Systems*) – promotes Sustainable Drainage Systems to be incorporated within the new development's design to manage surface water as close to its source as possible.
- Policy DM31 (*Sustainable Transport*) – encourages developments with high trip generating activities to be located in an area of high public transport accessibility.
- Policy DM32 (*Parking*) - Development proposals will be assessed against the car parking and cycle parking standards set out in the London Plan.

Sustainable Design and Construction SPD (2013)

4.10 The purpose of the Sustainable Design and Construction SPD is to provide advice on how development should be designed to ensure it is as sustainable as possible.

- 4.11 The topics that are discussed within this supporting document are to be incorporated within the Sustainability Statement including energy and carbon, changing climate, flood risk, water, pollution, waste, conservation, biodiversity and transport.
- 4.12 The guidance states that on-site renewable energy generation should be considered within all major developments to reduce carbon dioxide emissions by at least 20 per cent.

Emerging Policy

Haringey New Local Plan

- 4.13 The council is currently working on a new local plan, with a draft expected for further consultation in summer 2024 for further consultation. Once developed, this will replace the existing Local Plan documents adopted in July 2017.

5. Site Context

- 5.1 In line with the “three pillars” of sustainability discussed within the methodology section, the site context has been considered with regard to its economic, social and environmental context; acknowledging that interrelationships exist between many of these issues.

Socio Economic Context

ONS Household Projections

- 5.2 The Office for National Statistics presents data relevant to household projections for England, by region and local authority, mid-2018 to mid-2043 (formerly referred to as live tables on household projections).
- 5.3 The assumptions underlying national household and population projections are based on demographic trends. They are not forecasts as, for example, they do not attempt to predict the impact of future Government policies, changing economic circumstances or other factors that might influence household growth. The projections show the household numbers that would result if the assumptions based in previous demographic trends in the population and rates of household formation were to be realised in practice.
- 5.4 Nevertheless, data suggests that household numbers in Haringey will increase from circa 110,261 in 2023 to around 123,449 by 2043; a ~12% increase over the period.

Labour Market

- 5.5 Nomis is a service provided by the Office for National Statistics, providing local labour market profiles. It provides data on the percentage of economically active residents in an area in groups from January 2004 – December 2004 to April 2022 – March 2023.
- 5.6 The percentage of economically active residents in employment in Haringey has historically been lower than for London and Great Britain; however, more recently it has aligned and even exceeded the regional and national trends.

Figure 5.1 Economically Active – In Employment



Note: Percentage figures are for those of aged 16-64.

Output Area Classifications

- 5.7 Area classifications for Great Britain have been produced after every census since 1971, and as of the 2001 Census, they have been extended to cover the UK as a whole.
- 5.8 Using socioeconomic and demographic data from each census, the classifications seek to identify areas of the country with similar characteristics. Therefore, the presented information should not be interpreted as an assessment specific to the Application Site and the surrounding area; but rather it is a reflection of the characteristics of areas with a similar socioeconomic and demographic pattern.
- 5.9 Data from the 2021 Census identifies the site in OAC Code E00010204 which is classified as “Low-Skilled Migrant & Student Communities” (Supergroup Code 4), “Ethnically Diverse Families in Less Connected Locations” (Group Code 4a) and “City Service Workers” (Subgroup Code 4a2).
- 5.10 Pen portraits are provided by the Consumer Data Research Centre. Based on the classification above, the data indicates that young adults, many of whom are students, predominate in these high-density and overcrowded neighbourhoods of rented terrace houses or flats. Unemployment rates are above average in this Supergroup, however residents in the Subgroup 4a2 are on average educated to higher levels than other Subgroups.

Indices of Multiple Deprivation

- 5.11 The English Indices of Deprivation use 38 separate indicators, organised across seven distinct domains of deprivation. The Indices of Multiple Deprivation data are then constructed by combining the seven transformed domain scores, using the following weights; income (22.5%); employment (22.5%); health and disability (13.5%); education, skills and training (13.5%); barriers to housing and services (9.3%); crime (9.3%); and living environment (9.3%).
- 5.12 The IMD can be used to rank every Lower Layer Super Output Area in England according to their relative level of deprivation. The data is not a measure of affluence; therefore, the area ranked as the least deprived is not necessarily the most affluent.
- 5.13 The IMD data comprise a numeric value in a scale of 1 to 32,844 (1=most deprived) and are represented in a coloured scale of deciles (1=most deprived – dark red; 10=least deprived – dark blue) in the respective maps. Government data (illustrated below) indicates that the area ranks 5,426 out of 32,844; where 1 is the most deprived. The area is therefore considered to have a higher than average level of deprivation overall.
- 5.14 The table below provides the data for the individual domains:

Table 5.1 **IMD Domain Scores**

Domain	Score
Income Rank	6,336
Employment Rank	7,667
Education, Skills and Training Rank	17,740
Health Deprivation and Disability Rank	12,704
Crime Rank	594
Barriers to Housing and Services Rank	2,021
Living Environment Rank	7,872
Rank of IMD Score	5,426

Note: Scores out of 32,844, where 1 is the most deprived.

Environmental Context

- 5.15 The environmental context is assessed in greater detail in the accompanying environmental reports. The following provides an overview of the pertinent matters:

Land Use

- 5.16 The site constitutes brownfield land, meaning that its development will reduce the pressure to develop elsewhere and on greenfield.

Flooding

- 5.17 The site is identified as being in Flood Zone 1 meaning the area has a low probability of flooding. Further details can be found in the accompanying Flood Risk Assessment.

Ecology

- 5.18 The existing site is almost entirely covered by hardstanding and existing structures. The current ecological value is considered negligible. Further details can be found in the accompanying Ecological Appraisal.

Local Amenities & Public Transport

- 5.19 Many of the social and economic issues concern accessibility, which in its broadest sense is regarded as a combination of access to local shops, services, amenities, employment opportunities; as well as access to public and other transport facilities. Therefore, the accessibility of the proposed scheme to local amenities is a relevant consideration in determining whether the site represents a sustainable location.
- 5.20 The development is situated within a predominantly residential area, but with many services and commercial uses such as a pharmacy, cash machine, hairdresser, cafes and convenience stores along the A105, High Road (around a 2-minute walk from the Site).
- 5.21 The Site has a PTAL rating of 6a/6b, indicating a very high level of access to public transport. Several bus stops are located within 500 meters from the Site serving routes 144, 243, W3, 29, 67, 123, 141, 230, N29, N91 and W4. Wood Green Underground Station is also located within a 3-minute walk of the Site.
- 5.22 Further detail of the transport infrastructure can be found in the Transport Assessment produced in support of the planning application.

6. Sustainable Design Proposals

- 6.1 This section presents an overview of the proposed sustainable design features for the scheme. Consideration has been given to Haringey's Local Plan Strategic Policies, Haringey's Development Plan DPD and the Sustainable Design and Construction SPD.

Energy & Carbon

- 6.2 Priority will be given to efficiency first, on the basis that it is better to reduce energy demand (and associated carbon emissions and resource requirements) than to generate energy; even using low carbon or renewable technologies.

Passive Design

- 6.3 Passive design seeks to maximise the use of natural sources of heating, cooling and ventilation to maintain thermal comfort levels within the building.
- 6.4 Due to the constraints of the site shape, the development has multiple faces orientated in all directions.
- 6.5 Where compatible with aesthetic considerations, external features have been included to provide a degree of shading from the sun. It is intended that the building will have the potential to be naturally ventilated (via openable window / vent).

Fabric Efficiency

- 6.6 Fabric efficiency concerns the thermal properties associated with the building fabric and construction.
- 6.7 Heat Transfer Coefficients, otherwise referred to as U-Values, are a measure of the rate of heat transfer through a building element over a given area, under standardised conditions (i.e., the rate at which heat is lost or gained through a fabric).
- 6.8 It is intended that the performance of the building fabric will incorporate relatively low U-Values to reduce the rate at which the buildings lose heat, preserving the heat within the space and reducing the requirement for mechanical heating.
- 6.9 A high level of air tightness is proposed, meaning that air infiltration between the internal and the external environment will be largely controlled, and space heating demand further reduced.
- 6.10 Thermal bridging is the penetration of the insulation layer by a highly conductive non-insulating material allowing rapid heat transfer from an interior to exterior environment (and vice versa). In well insulated buildings, as much as 30% of heat loss can occur through thermal bridges.
- 6.11 The building fabric shall be constructed so that there are no reasonably avoidable thermal bridges in the insulation layers caused by gaps within the various elements.

Metering

- 6.12 The major energy uses shall be monitored via separate “smart” energy meters with time and temperature zone control.

Lighting

- 6.13 At this stage, detailed lighting design calculations have not yet been undertaken, but lighting design is intended to be highly efficient and in excess of Building Standards requirements.

Low Carbon / Renewable Technologies

- 6.14 It is proposed to apply ASHPs to the space and hot water heating across all of the blocks in the development, including the PBSA and commercial spaces in Block A and all residential units across Blocks B, C and D.
- 6.15 A significant extent of PV is proposed at roof level to ensure compliance with planning policy targets. In line with the London Plan and Council policies, an on-site carbon saving >35% against Part L 2021 baseline has been targeted for the development.
- 6.16 With all proposed systems being electric, coupled with the decarbonisation of the national grid, the development proposals will be capable of being zero carbon.
- 6.17 Further information can be found in the accompanying Energy Statement.

Climate Change

Thermal Comfort

- 6.18 The issue of overheating has been separately assessed; on the basis that, as buildings become progressively better sealed and insulated, the potential for overheating increases. However, given that the buildings will have openable windows, supported by mechanical ventilation, the risk is considered to be low.

Flood Risk

- 6.19 The existing site is almost entirely hardstanding impermeable ground and therefore the volume of water run-off over the development’s lifecycle will be no greater than it would have been prior to development.
- 6.20 The Site will incorporate SuDS throughout the development to minimise run-off and reduce the risk of flooding elsewhere. Soft landscaping is also included in the proposals to improve drainage across the site.
- 6.21 Further information can be found in the accompanying Drainage Strategy.

Water

- 6.22 The Development would ensure the efficient use of natural resources (including water), including making the most of natural systems both within and around buildings by:
- The provision of water efficient/low flow sanitaryware fittings and fixtures throughout the development to reduce potable water consumption and foul flow.
 - The installation of a pulsed output water meter on the mains incoming water supply with potential for an associated major leak detection system.
 - Predominantly relying on natural precipitation for vegetation to reduce demands on the potable water supply.
- 6.23 Water saving fittings and appliances shall be installed and the following outlines the proposed maximum flow / consumption rates for each of the proposed installation types:
- Dual flush toilets of 6/3 litres;
 - Bath capacity to overflow to be ~100 litres;
 - Shower flow rates to be ~7.75 litres / minute;
 - Taps to have a flow rate <5litres / minute;
 - Washing machine to be <9.5litres / kg;
 - Dishwasher to be <1.25 litres / place setting
- 6.24 Overall water consumption levels to be <105 litres / person / day.

Pollution

- 6.25 Heating systems at the site shall also be electrical, avoiding local emissions associated with combustion.
- 6.26 The developer will also endeavour to avoid the use of materials with a high VOC (volatile organic compound) content, therefore ensuring an improved air quality for the completed development.
- 6.27 Measures relating to building design, fabric design and landscaping shall be implemented as appropriate so that internal ambient noise levels are acceptable for the intended use and do not compromise the health and well-being of occupants.
- 6.28 The external lighting strategy shall be designed to minimise light spillage and night time light pollution in line with the ILP's Guidance notes for the reduction of obtrusive light; low illuminance levels, fittings and controls shall be employed accordingly.

- 6.29 Good internal air quality will be achieved through the creation of a building envelope with a low air permeability; meaning that the building fabric will reduce the infiltration of pollution from the external environment.

Waste

Waste & Recycling

- 6.30 Suitable waste and recycling facilities will be provided within the Development to collect and segregate wastes generated through the operation of the Site. These will be in convenient locations and for storage of general refuse, recyclables and food waste. Internal and external storage will be considerate of the relevant Building Regulations, British Standards and Council requirements.

Construction

Circular Economy

- 6.31 Consideration has been given to the most appropriate Circular Economy (“CE”) strategic approaches based on the nature and predicted lifespan of the development.
- 6.32 Attention has been given to the planning policy and other requirements and a number of specific goals are proposed for the development. Key commitments include:
- The use of materials that have high durability for longevity; to protect vulnerable parts of the building from damage and exposed parts of the building from material degradation to reduce maintenance and operation costs for the end users.
 - Diversion of demolition and construction waste from landfill by converting elements and materials for alternative use.
 - Efficient construction and operational waste management via accessible, dedicated areas for segregated waste volumes.

Sustainable Sourcing

- Selection of sustainably sourced materials with suppliers being used that are able to provide BES6001 certification and ISO14001, where possible.
- All timber and timber-based products should be sourced from accredited Forest Stewardship Council (FSC) or Programme for the Endorsement of forestry Certification (PEFC) source.

Whole Lifecycle Carbon Assessment

- 6.33 Whole life-cycle carbon (“WLC”) emissions are the carbon emissions resulting from materials, construction and use of a building over its entire life, including its demolition and disposal. A whole life carbon approach identifies the overall best combined opportunities for reducing

lifetime emissions and helps to avoid any unintended consequences of focusing on operational emissions alone.

- 6.34 Consideration will be given to the carbon emissions resulting from the construction and use of the building over its entire life as part of the selection process.

Biodiversity

- 6.35 A series of measures to enhance the biodiversity value of the Site will be incorporated into the Development in order to conserve and increase the ecological value of habitats at the Site in line with planning policy and are anticipated to include:
- The use of native species or species of benefit to wildlife within any proposed landscape scheme to provide foraging opportunities for birds, bats, invertebrates;
 - Installation of green roofs, subject to viability and available roof space in the context of other demands (e.g., area required for PV array and plant equipment);
 - Additional habitat could be created above ground level such as the provision of bird and bat boxes.

Transport

- 6.36 Secure cycle storage will be provided to encourage building users to cycle, so promoting exercise and helping reduce congestion and emissions. Electric Vehicle (EV) charging points are also anticipated.
- 6.37 The design team will work closely with the Council, local operators and community facilities to promote or enhance access to local public transport. This will be maximised via the site-specific travel plan.

Sustainable Building Standards

- 6.38 A BREEAM “Excellent” rating will be targeted as a minimum for the student accommodation. The BREEAM Pre-Assessment for the project has been appended to this report.
- 6.39 The HQM rating of “3-Star” is also targeted as a minimum for the residential aspects of the scheme.

7. Sustainable Construction Proposals

- 7.1 It is recognised that the construction industry has the potential to cause significant environmental impacts through resource use, waste generation and pollution. It is therefore proposed to manage the construction phase in a sustainable manner to ensure that these impacts are reduced.

Responsible Construction Practices

Impacts on Neighbours, Pedestrians, Road Users and Workforce

- 7.2 The scheme will be registered with the Considerate Constructors Scheme to ensure that the contractor carries out the construction operations in a safe and considerate manner, with due regard to local residents, road users, the workforce and the environment. A target of achieving a score of at least 35 and with a minimum score of 11 points in each of the three sections shall be set. This represents a high level of performance and a commitment to responsibly manage construction activities.

Environmental Management

- 7.3 It is expected that the principal contractor for the project shall also operate a third party certified Environmental Management System (EMS), demonstrating sound management and systematic control of environmental impacts.

Materials Optimisation and Waste

- 7.4 The Site Waste Management Plan (SWMP) will detail the design measures towards optimum use of materials, set specific targets for construction and demolition waste generation and appropriate mechanisms/protocols for segregating waste on-site and monitoring overall waste management.
- 7.5 The development will aim for more than 95% by tonnage of demolition and construction waste to be diverted from landfill as per minimum.

Pollution Prevention

Pollution Prevention Guidelines

- 7.6 The Environment Agency's (EA) Pollution Prevention Guidelines (PPG) shall be followed as appropriate to minimise pollution risks from construction activities; works will also be in line with the Environment Agency's Building a better environment, A guide for developers (2006) guidance.

Air Pollution

7.7 Best practice methods for minimising the formation of dust and emissions from construction activities shall be implemented, as appropriate to the specific site and proposed activities. Control measures may include:

- Appropriate site layout;
- Solid screens/barriers or other physical boundaries around dust/emission generating activities;
- Good site maintenance and regular inspections for liquid spillages; and
- Sealed storage for cement, sand and fine aggregates.

7.8 In addition to the above, the contractor shall comply with the BRE Code of Practice to control dust from construction and demolition activities.

Water Pollution

7.9 Appropriate measures shall be implemented to minimise risks of watercourse and underground water pollution, in line with EA's PPG 5 Works in, near or liable to affect watercourses and the Guide for developers Building a better environment, as stated above. Specific measures shall be outlined in the contractor's CEMP.

8. Summary

8.1 This Sustainability Statement provides an overview as to how the proposed scheme contributes to sustainable development in the context of the strategic, design and construction considerations.

8.2 Sustainability is a broad concept and covers a range of environmental, social and economic considerations. A review of Haringey Council's planning policies has identified a number of requirements relating to sustainable development including Local Plan Policy SP4 (*Working Towards a Low Carbon Haringey*). Consideration has also been given to the National and London planning policy framework.

Strategic Sustainability

8.3 Both nationally and regionally there is a shortfall in housing, which is leading to property prices rising significantly faster than earnings, with implications for affordability and ownership. Local data suggests that these demand pressures are set to continue with ONS data for populations in Haringey predicting continued growth over the forthcoming decades.

8.4 The lack of access to housing is often most acutely felt by for those people who are not yet on the housing ladder and who have not benefited in the increase in property asset values. Typically, these people will be the younger and those with lower incomes; the consequence being that the supply and demand imbalance is contributing towards intergenerational inequality by compromising the ability of current and future generations in meeting their own housing needs. This is inconsistent with the principles of "sustainable development" as defined by Brundtland; and if not addressed, will have longer term societal and economic implications.

8.5 At a local level, the Indices of Multiple Deprivation highlights a higher-than-average level of deprivation in relation to barriers to housing and services. Output Area Classification data also indicates a higher-than-average level of overcrowding.

8.6 A need is therefore considered to exist on the basis that the nature of the proposed development will help relieve anticipated future demand pressures on housing and assist with the rebalancing of the socio-economic factors.

8.7 At a strategic level, the development of commercial uses will help maintain employment for local people, improve the local economy, increase the wealth and lifestyle of employed individuals and contribute to local business rates. The development is considered to be beneficial to the local community and aligned with socio-economic requirements.

Sustainable Design and Construction

8.8 A range of sustainable design and construction features are proposed including:

- Air Source Heat Pumps will be provided for space and hot water heating.

- An extent of PV will be located at roof level.
- Highly thermally efficient building fabric.
- Highly efficient lighting.
- Water saving sanitary fittings and appliances to deliver a water efficient development.
- The use of materials with a low lifecycle environmental impact and embodied energy.
- Consideration of the principles of Secured by Design.
- Efficient construction and operational waste management.
- The installation of green roofs.
- A BREEAM “Excellent” rating will be targeted as a minimum for the student accommodation, as well as a HQM “3-Star” rating for the residential.

8.9 Overall, the proposals for the scheme are in line with the overarching principles of sustainable development as well as the policy requirements of the planning authority.

Appendices

A. Site Plans – Building A, B, C & D Ground Floors

B. Key Local Planning Policy Requirements

London Plan (2021)

Policy D2 Infrastructure requirements for sustainable densities

- A) The density of development proposals should:
- 1) consider, and be linked to, the provision of future planned levels of infrastructure rather than existing levels
 - 2) be proportionate to the site's connectivity and accessibility by walking, cycling, and public transport to jobs and services (including both PTAL and access to local services).
- B) Where there is currently insufficient capacity of existing infrastructure to support proposed densities (including the impact of cumulative development), boroughs should work with applicants and infrastructure providers to ensure that sufficient capacity will exist at the appropriate time. This may mean that if the development is contingent on the provision of new infrastructure, including public transport services, it will be appropriate that the development is phased accordingly.
- C) When a proposed development is acceptable in terms of use, scale, and massing, given the surrounding built form, uses and character, but it exceeds the capacity identified in a site allocation or the site is not allocated, and the borough considers the planned infrastructure capacity will be exceeded, additional infrastructure proportionate to the development should be delivered through the development. This will be identified through an infrastructure assessment during the planning application process, which will have regard to the local infrastructure delivery plan or programme, and the CIL contribution that the development will make. Where additional required infrastructure cannot be delivered, the scale of the development should be reconsidered to reflect the capacity of current or future planned supporting infrastructure.

Policy D3 Optimising site capacity through the design-led approach

The design-led approach

- A) All development must make the best use of land by following a design-led approach that optimises the capacity of sites, including site allocations. Optimising site capacity means ensuring that development is of the most appropriate form and land use for the site. The design-led approach requires consideration of design options to determine the most appropriate form of development that responds to a site's context and capacity for growth, and existing and planned supporting infrastructure capacity (as set out in Policy D2 Infrastructure requirements for sustainable densities), and that best delivers the requirements set out in Part D.
- B) Higher density developments should generally be promoted in locations that are well connected to jobs, services, infrastructure, and amenities by public transport, walking and cycling, in accordance with Policy D2 Infrastructure requirements for sustainable densities. Where these locations have existing areas of high-density buildings, expansion of the areas should be positively considered by Boroughs where appropriate. This could also include expanding Opportunity Area boundaries where appropriate.
- C) In other areas, incremental densification should be actively encouraged by Boroughs to achieve a change in densities in the most appropriate way. This should be interpreted in the context of Policy H2.
- D) Development proposals should:

Form and layout

- 1) enhance local context by delivering buildings and spaces that positively respond to local distinctiveness through their layout, orientation, scale, appearance, and shape, with due regard to existing and emerging street hierarchy, building types, forms and proportions
- 2) encourage and facilitate active travel with convenient and inclusive pedestrian and cycling routes, crossing points, cycle parking, and legible entrances to buildings, that are aligned with peoples' movement patterns and desire lines in the area
- 3) be street-based with clearly defined public and private environments
- 4) facilitate efficient servicing and maintenance of buildings and the public realm, as well as deliveries, that minimise negative impacts on the environment, public realm, and vulnerable road users

Experience

- 5) achieve safe, secure, and inclusive environments

- 6) provide active frontages and positive reciprocal relationships between what happens inside the buildings and outside in the public realm to generate liveliness and interest
- 7) deliver appropriate outlook, privacy, and amenity
- 8) provide conveniently located green and open spaces for social interaction, play, relaxation, and physical activity
- 9) help prevent or mitigate the impacts of noise and poor air quality
- 10) achieve indoor and outdoor environments that are comfortable and inviting for people to use

Quality and Character

- 11) respond to the existing character of a place by identifying the special and valued features and characteristics that are unique to the locality and respect, enhance and utilise the heritage assets and architectural features that contribute towards the local character
 - 12) be of high quality, with architecture that pays attention to detail, and gives thorough consideration to the practicality of use, flexibility, safety and building lifespan through appropriate construction methods and the use of attractive, robust materials which weather and mature well
 - 13) aim for high sustainability standards (with reference to the policies within London Plan Chapters 8 and 9) and take into account the principles of the circular economy
 - 14) provide spaces and buildings that maximise opportunities for urban greening to create attractive resilient places that can also help the management of surface water.
- E) Where development parameters for allocated sites have been set out in a Development Plan, development proposals that do not accord with the site capacity in a site allocation can be refused for this reason.

Policy S1 Developing London's social infrastructure

- A) When preparing Development Plans, boroughs should ensure the social infrastructure needs of London's diverse communities are met, informed by a needs assessment of social infrastructure. Assessments should consider the need for cross-borough collaboration where appropriate and involve relevant stakeholders, including the local community.
- B) In areas of major new development and regeneration, social infrastructure needs should be addressed via area-based planning such as Opportunity Area Planning Frameworks, Area Action Plans, Development Infrastructure Funding Studies, Neighbourhood Plans or master plans.
- C) Development proposals that provide high quality, inclusive social infrastructure that addresses a local or strategic need and supports service delivery strategies should be supported.
- D) Development proposals that seek to make best use of land, including the public-sector estate, should be encouraged and supported. This includes the co-location of different forms of social infrastructure and the rationalisation or sharing of facilities.
- E) New facilities should be easily accessible by public transport, cycling and walking and should be encouraged in high streets and town centres.
- F) Development proposals that would result in a loss of social infrastructure in an area of defined need as identified in the borough's social infrastructure needs assessment required under Part A should only be permitted where:
 - 1) there are realistic proposals for re-provision that continue to serve the needs of the neighbourhood and wider community, or;
 - 2) the loss is part of a wider public service transformation plan which requires investment in modern, fit for purpose infrastructure and facilities to meet future population needs or to sustain and improve services.
- G) Redundant social infrastructure should be considered for full or partial use as other forms of social infrastructure before alternative developments are considered, unless this loss is part of a wider public service transformation plan (see Part F2).

Policy G1 Green Infrastructure [extract]

[...]

- D) Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network.

Policy G4 Open Space [...]

[...]

- B) Development proposals should:
- 1) not result in the loss of protected open space
 - 2) where possible create areas of publicly accessible open space, particularly in areas of deficiency.

Policy G5 Urban Greening

- A) Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.
- B) Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development (excluding B2 and B8 uses).
- C) Existing green cover retained on site should count towards developments meeting the interim target scores set out in (B) based on the factors set out in Table 8.2.

Policy G6 Biodiversity and access to nature [extract]

[...]

- D) Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.
- E) Proposals which reduce deficiencies in access to nature should be considered positively.

Policy SI1 Improving air quality [extract]

[...]

- B) To tackle poor air quality, protect health and meet legal obligations the following criteria should be addressed:
- 1) Development proposals should not:
 - a) lead to further deterioration of existing poor air quality [...]

Policy SI 2 Minimising greenhouse gas emissions

- A) Major development should be net zero-carbon. This means reducing greenhouse gas emissions in operation and minimising both annual and peak energy demand in accordance with the following energy hierarchy:
- 1) be lean: use less energy and manage demand during operation
 - 2) be clean: exploit local energy resources (such as secondary heat) and supply energy efficiently and cleanly
 - 3) be green: maximise opportunities for renewable energy by producing, storing and using renewable energy on-site
 - 4) be seen: monitor, verify and report on energy performance.

- B) Major development proposals should include a detailed energy strategy to demonstrate how the zero-carbon target will be met within the framework of the energy hierarchy.
- C) A minimum on-site reduction of at least 35 per cent beyond Building Regulations is required for major development. Residential development should achieve 10 per cent, and non-residential development should achieve 15 per cent through energy efficiency measures. Where it is clearly demonstrated that the zero-carbon target cannot be fully achieved on-site, any shortfall should be provided, in agreement with the borough, either:
 - 1) through a cash in lieu contribution to the borough's carbon offset fund, or
 - 2) off-site provided that an alternative proposal is identified and delivery is certain.
- D) Boroughs must establish and administer a carbon offset fund. Offset fund payments must be ring-fenced to implement projects that deliver carbon reductions. The operation of offset funds should be monitored and reported on annually.
- E) Major development proposals should calculate and minimise carbon emissions from any other part of the development, including plant or equipment, that are not covered by Building Regulations, i.e. unregulated emissions.
- F) Development proposals referable to the Mayor should calculate whole life-cycle carbon emissions through a nationally recognised Whole Life-Cycle Carbon Assessment and demonstrate actions taken to reduce life-cycle carbon emissions.

Policy SI3 Energy infrastructure

- A) Boroughs and developers should engage at an early stage with relevant energy companies and bodies to establish the future energy and infrastructure requirements arising from large-scale development proposals such as Opportunity Areas, Town Centres, other growth areas or clusters of significant new development.
- B) Energy masterplans should be developed for large-scale development locations (such as those outlined in Part A and other opportunities) which establish the most effective energy supply options. Energy masterplans should identify:
 - 1) major heat loads (including anchor heat loads, with particular reference to sites such as universities, hospitals and social housing)
 - 2) heat loads from existing buildings that can be connected to future phases of a heat network
 - 3) major heat supply plant including opportunities to utilise heat from energy from waste plants
 - 4) secondary heat sources, including both environmental and waste heat
 - 5) opportunities for low and ambient temperature heat networks
 - 6) possible land for energy centres and/or energy storage
 - 7) possible heating and cooling network routes
 - 8) opportunities for futureproofing utility infrastructure networks to minimise the impact from road works
 - 9) infrastructure and land requirements for electricity and gas supplies
 - 10) implementation options for delivering feasible projects, considering issues of procurement, funding and risk, and the role of the public sector
 - 11) opportunities to maximise renewable electricity generation and incorporate demand-side response measures.
- C) Development Plans should:
 - 1) identify the need for, and suitable sites for, any necessary energy infrastructure requirements including energy centres, energy storage and upgrades to existing infrastructure
 - 2) identify existing heating and cooling networks, identify proposed locations for future heating and cooling networks and identify opportunities for expanding and inter-connecting existing networks as well as establishing new networks.
- D) Major development proposals within Heat Network Priority Areas should have a communal low-temperature heating system:
 - 1) the heat source for the communal heating system should be selected in accordance with the following heating hierarchy:

- a) connect to local existing or planned heat networks
- b) use zero-emission or local secondary heat sources (in conjunction with heat pump, if required)
- c) use low-emission combined heat and power (CHP) (only where there is a case for CHP to enable the delivery of an area-wide heat network, meet the development's electricity demand and provide demand response to the local electricity network)
- d) use ultra-low NOx gas boilers
- 2) CHP and ultra-low NOx gas boiler communal or district heating systems should be designed to ensure that they meet the requirements in Part B of Policy SI 1 Improving air quality
- 3) where a heat network is planned but not yet in existence the development should be designed to allow for the cost-effective connection at a later date.
- E) Heat networks should achieve good practice design and specification standards for primary, secondary and tertiary systems comparable to those set out in the CIBSE/ADE Code of Practice CP1 or equivalent.

Policy SI 4 Managing heat risk

- A) Development proposals should minimise adverse impacts on the urban heat island through design, layout, orientation, materials and the incorporation of green infrastructure.
- B) Major development proposals should demonstrate through an energy strategy how they will reduce the potential for internal overheating and reliance on air conditioning systems in accordance with the following cooling hierarchy:
 - 1) reduce the amount of heat entering a building through orientation, shading, high albedo materials, fenestration, insulation and the provision of green infrastructure
 - 2) minimise internal heat generation through energy efficient design
 - 3) manage the heat within the building through exposed internal thermal mass and high ceilings
 - 4) provide passive ventilation
 - 5) provide mechanical ventilation
 - 6) provide active cooling systems.

Policy SI 5 Water infrastructure [extract]

[...]

- C) Development proposals should:
 - 1) through the use of Planning Conditions minimise the use of mains water in line with the Optional Requirement of the Building Regulations (residential development), achieving mains water consumption of 105 litres or less per head per day (excluding allowance of up to five litres for external water consumption)
 - 2) achieve at least the BREEAM excellent standard for the 'Wat 01' water category or equivalent (commercial development)
 - 3) incorporate measures such as smart metering, water saving and recycling measures, including retrofitting, to help to achieve lower water consumption rates and to maximise future-proofing.

Policy SI 7 Reducing waste and supporting the circular economy

- A) Resource conservation, waste reduction, increases in material reuse and recycling, and reductions in waste going for disposal will be achieved by the Mayor, waste planning authorities and industry working in collaboration to:
 - 1) promote a more circular economy that improves resource efficiency and innovation to keep products and materials at their highest use for as long as possible

- 2) encourage waste minimisation and waste prevention through the reuse of materials and using fewer resources in the production and distribution of products
 - 3) ensure that there is zero biodegradable or recyclable waste to landfill by 2026
 - 4) meet or exceed the municipal waste recycling target of 65 per cent by 2030
 - 5) meet or exceed the targets for each of the following waste and material streams:
 - a) construction and demolition – 95 per cent reuse/recycling/recovery
 - b) excavation – 95 per cent beneficial use
 - 6) design developments with adequate, flexible, and easily accessible storage space and collection systems that support, as a minimum, the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.
- B) Referable applications should promote circular economy outcomes and aim to be net zero-waste. A Circular Economy Statement should be submitted, to demonstrate:
- 1) how all materials arising from demolition and remediation works will be re-used and/or recycled
 - 2) how the proposal's design and construction will reduce material demands and enable building materials, components and products to be disassembled and re-used at the end of their useful life
 - 3) opportunities for managing as much waste as possible on site
 - 4) adequate and easily accessible storage space and collection systems to support recycling and re-use
 - 5) how much waste the proposal is expected to generate, and how and where the waste will be managed in accordance with the waste hierarchy
 - 6) how performance will be monitored and reported.
- C) Development Plans that apply circular economy principles and set local lower thresholds for the application of Circular Economy Statements for development proposals are supported.

Policy SI 12 Flood risk management [extract]

[...]

- C) Development proposals should ensure that flood risk is minimised and mitigated, and that residual risk is addressed. This should include, where possible, making space for water and aiming for development to be set back from the banks of watercourses. [...]

Policy SI 13 Sustainable drainage [extract]

[...]

- B) Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible. There should also be a preference for green over grey features, in line with the following drainage hierarchy:
- 1) rainwater use as a resource (for example rainwater harvesting, blue roofs for irrigation)
 - 2) rainwater infiltration to ground at or close to source
 - 3) rainwater attenuation in green infrastructure features for gradual release (for example green roofs, rain gardens)
 - 4) rainwater discharge direct to a watercourse (unless not appropriate)
 - 5) controlled rainwater discharge to a surface water sewer or drain
 - 6) controlled rainwater discharge to a combined sewer.

Haringey's Local Plan Strategic Policies (2013; consolidated with alterations since 2017)

Policy SP0: Presumption in Favour of Sustainable Development

When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (NPPF). The Council will always work proactively with applicants to find solutions, which mean that proposals can be approved wherever possible and to secure development that improves the economic social and environmental conditions in Haringey. Planning applications that accord with the policies in Haringey's Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise.

Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision, then the Council will grant permission unless material considerations indicate otherwise taking into account whether:

- Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies of the NPPF taken as a whole; or
- Specific policies in the NPPF indicate that development should be restricted.

Policy SP2: Housing

The Council will aim to provide homes to meet Haringey's housing needs and to make the full use of Haringey's capacity for housing by maximising the supply of additional housing to meet and exceed the minimum target of 19,802 homes from 2011-2026 (820 units per annum from 2011-2014 and 1,502 units per annum).

Density and design standards to deliver quality homes

Excellence in design quality and sustainability will be required for all new homes. High quality new residential development in Haringey will be provided by ensuring that new development:

1. Meets the density levels set out in the Density Matrix of the London Plan;
2. Is designed having regard to the housing design standards and space standards set out in the Mayor of London's Housing SPG (March 2016) and the London Plan and the play space standards set out in the Mayor's Play and Informal Recreation SPG 2012;
3. Aims to maximise housing for people whose circumstances makes them vulnerable and/or people with specific needs; and
4. 90% of new housing meets Building Regulation requirement M4(2) 'accessible and adaptable dwellings' and 10% meeting Building Regulations requirement M4(3) 'wheelchair user dwelling', ensuring they are designed to be wheelchair accessible or easily adaptable for wheelchair users. Units should range in size to accommodate various living needs including growing families and live-in carers.

Secure high quality affordable housing

Affordable housing shall be achieved by:

5. Subject to viability, sites capable of delivering 10 units of more will be required to meet a Borough wide affordable housing target of 40%, based on habitable rooms¹;
6. Delivering an affordable housing tenure split of 60% affordable rent (including social rent) and 40% intermediate housing;
7. The Council will aim to provide homes to meet Haringey's housing needs and to make the full use of Haringey's capacity for housing by maximising the supply of additional housing to meet and exceed the minimum target of 19,802 homes from 2011-2026 (820 units per annum from 2011-2014 and 1,502 units per annum from 2015-2026);
8. The preferred affordable housing mix, in terms of unit size and type of dwellings on individual schemes will be determined through negotiation, scheme viability assessments and driven by up to date assessments of local housing need, as set out in the Haringey Housing Strategy;
9. Ensuring no net loss of existing affordable housing floorspace in development; and

10. Ensuring affordable housing units are designed to a high quality and are fully integrated within schemes.

Housing estates renewal and improvement

11. The Council will bring forward a programme to undertake strategic improvements to, or renewal of, Haringey's housing estates, with priority being accorded to those located within wider regeneration proposals and/or identified as being most in need. An initial list is set out below:
12. Plan-Monitor-Manage Haringey's Local Plan is based on research and evidence available when the document was prepared. However, the Council recognises that circumstances can change, and that the Plan needs to remain flexible and responsive over the plan period. In accordance with the plan-monitor-manage process, in the event that monitoring reveals a risk to either housing delivery or the realisation of the spatial strategy, the Council will assess the reasons for any variance and will consider appropriate interventions, which may include the release of further land for alternative uses, policy revisions or a re-assessment of the planning requirements applicable to specific forms of development.

Such interventions/contingencies will be considered and brought forward by the Council on a strategic planning basis and should not be determined by individual sites/proposals.

Alongside the monitoring of housing delivery, the Council will keep its Infrastructure Delivery Plan, which is intended to be a 'live' document, updated to ensure infrastructure delivery matches growth.

Policy SP4: Working Towards a Low Carbon Haringey

Over the life time of the Local Plan, reducing energy use in buildings and working towards a low carbon borough will be one of the key challenges facing Haringey. The Council will promote the measures outlined below to reduce carbon emissions from new and existing buildings.

1. In line with London Plan policy, the Council will promote and require all new developments to take measures to reduce energy use and carbon emissions during design, construction and occupation, by incorporating the following measures:
 - a. From 2011 onwards, all new residential development will achieve a minimum 25% reduction in total (regulated) CO₂ emissions in line with Code for Sustainable Homes Level 4 energy standards, and should aim to achieve Level 6. All new residential development shall be zero carbon from 2016 onwards; and
 - b. From 2011 onwards all new non-residential development shall be built to at least BREEAM "very good" standard and should aim to achieve BREEAM "excellent" or the current nationally agreed standard. All new non-residential development shall be zero carbon from 2019.
2. The Council will promote low- and zero-carbon energy generation through the following measures:
 - a. Requiring all developments to assess, identify and implement, where viable, site-wide and area-wide decentralised energy facilities including the potential to link into a wider network;
 - b. Establishing local networks of decentralized heat and energy facilities by requiring developers to prioritise connection to existing or planned networks where feasible;
 - c. Working with neighbouring boroughs and other partners to explore ways of implementing sub-regional decentralised energy networks including the potential in the Upper Lee Valley Opportunity Area; and
 - d. All new developments are required, where viable, to achieve a reduction in predicted carbon dioxide emissions of 20% from on site renewable energy regeneration, which can include connections to local sources of decentralised renewable energy.

Policy SP6: Waste and Recycling

The Council supports the objectives of sustainable waste management set out by the Government in PPS10 Planning for Sustainable Waste Management and the Mayor's London Plan. To achieve these, the Council shall:

- Safeguard existing waste sites unless compensatory provision is made;
- Maximise self-sufficiency in waste management capacity;
- Seek to minimise waste creation, increase recycling rates in relation to commercial, industrial and municipal waste in order to achieve the Mayor's recycling targets;
- Address waste as a resource and look to disposal as the last option, in line with the Mayor's waste hierarchy;

- Require integrated, well-designed recycling facilities to be incorporated into all new developments;
- Monitor changes in the stock of waste management facilities, waste arisings, and the amount of waste recycled, recovered and going for disposal; and
- Continue working with its partners in the North London Waste Authority to adopt the North London Waste Plan (NLWP) which has identified locations suitable for waste management facilities to meet the London Plan apportionment of 1.9 2.1m tonnes and the Haringey apportionment of 237,000 182,000 tonnes.

Haringey will require Site Waste Management Plans for all major applications to identify volume and types of demolition and construction waste and to demonstrate how waste will be minimised and managed during construction and occupation. New waste management facilities will be required to take into account and minimise pollution and nuisance issues. This is addressed in more detail in the Development Management Policies document.

Policy SP7: Transport

Delivering Regeneration and Access

In line with London Plan policies, the Local Implementation Plan (LIP) and the Mayor's Transport Strategy, the Council will work with its partners to promote the following key infrastructure proposals to support Haringey's regeneration and local/strategic access to London, employment areas and local services;

- The Council, in cooperation with neighbouring boroughs, will seek to reduce the impact of larger lorries in local residential areas and town centres and investigate the feasibility of a freight distribution hub;
- Improvements to the Piccadilly, Victoria and Northern Lines including new trains, new signalling and new control centres;
- Improvements to overground routes along West Anglia, East Coast (Great Northern) and Barking - Gospel Oak line that service the centre and east of the borough;
- Access and interchange improvements to overground stations at Alexandra Palace, Finsbury Park, Harringay, Hornsey White Hart Lane, Northumberland Park, South Tottenham, and Bruce Grove;
- Improvements to interchanges at Tottenham Hale and Seven Sisters;
- Improvements to the Tottenham Gyratory; and
- Improvements to east - west bus routes as well as promoting new east - west routes.

Policy SP11: Design

All new development should enhance and enrich Haringey's built environment and create places and buildings that are high quality, attractive, sustainable, safe and easy to use. To achieve this all development shall:

Be of the highest standard of design that respects its local context and character and historic significance, to contribute to the creation and enhancement of Haringey's sense of place and identity;

- Ensure impacts on health, climate change, natural resources and biodiversity are minimised by adopting and improving sustainable design and construction techniques;
- Incorporate solutions to reduce crime and the fear of crime, such as promoting social inclusion; creating well-connected and high quality public realm that is easy and safe to use; and by applying the principles set out in 'Secured by Design' and Safer Places;
- Promote high quality landscaping on and off site, including improvements to existing streets and public spaces;
- Seek the highest standards of access in all buildings and places; and
- Ensure buildings are designed to be flexible and adaptable – and able to integrate services and functions.

Applications for tall buildings will be assessed against the following criteria:

- an adopted Area Action Plan or existing adopted masterplan framework for the site and surrounding area;

- assessment supporting tall buildings in a Characterisation Study which should be prepared as supporting evidence for all AAP areas;
- compliance with the Development Management Policies criteria for Tall and Large Buildings siting and design; and
- compliance with all the relevant recommendations as set out in CABE / English Heritage "Guidance on Tall Buildings", 2007.

Haringey's Development Management DPD – (July 2017)

Policy DM1: Delivering High Quality Design

Haringey Development Charter

- A) All new development and changes of use must achieve a high standard of design and contribute to the distinctive character and amenity of the local area. The Council will support design-led development proposals which meet the following criteria:
- Relate positively to neighbouring structures, new or old, to create a harmonious whole;
 - Make a positive contribution to a place, improving the character and quality of an area;
 - Confidently address feedback from local consultation;
 - Demonstrate how the quality of the development will be secured when it is built; and
 - Are inclusive and incorporate sustainable design and construction principles.

Design Standards

Character of development

- B) Development proposals should relate positively to their locality, having regard to:
- Building heights;
 - Form, scale & massing prevailing around the site;
 - Urban grain, and the framework of routes and spaces connecting locally and more widely;
 - Maintaining a sense of enclosure and, where appropriate, following existing building lines;
 - Rhythm of any neighbouring or local regular plot and building widths;
 - Active, lively frontages to the public realm; and
 - Distinctive local architectural styles, detailing and materials.

Policy DM4: Provision and Design of Waste Management Facilities

- A) All proposals should consider how to sustainably manage waste arising from the development during the design, construction and occupation phases of new developments.
- B) All proposals will be required to make on-site provision for general waste, the separation of recyclable materials and organic material for composting. The on-site provision must:
- Ensure adequate dedicated internal and external storage space to manage the volume of waste arising from the site;
 - Provide accessible and safe access to onsite storage facilities, both for occupiers and collection operatives, including vehicles, having regard to the Council's Refuse Collection Strategy;

- c. Be located and screened to avoid nuisance and adverse impact on visual and other amenity to occupiers and neighbouring uses, and are within the maximum permitted carrying and reversing distances; and
 - d. For mixed-use development, suitably separate household and commercial waste.
- C) In addition, proposals for new multi-storey flatted residential development will be required to make provision for:
- a. Adequate temporary storage space within each flat, allowing for separate storage of recyclable materials;
 - b. Adequate communal storage for waste, including separate storage for recyclables, pending its collection; and
 - c. Storage and collection systems at each floor (such as dedicated rooms, storage areas and chutes or underground waste collection systems) which are sensitively integrated into the development, with the Council giving preference to basement servicing over the use of forecourts or ground floor internal storage.

Policy DM21: Sustainable Design, layout and Construction

- A) All new development, including building and landscape works, will be expected to consider and implement sustainable design, layout and construction techniques. Proposals should:
- a. Apply the energy hierarchy to minimize energy use in order to meet, and if possible exceed, minimum carbon dioxide reduction requirements;
 - b. Apply the cooling hierarchy to reduce the potential for overheating and limit reliance on mechanical air conditioning systems;
 - c. Maximise opportunities to enhance biodiversity on-site, including through appropriate landscaping, Sustainable Drainage Systems, living roofs and green walls
 - d. Wherever possible, use building materials with high environmental performance ratings; and
 - e. Seek opportunities for locally sourced labour.
- B) The Council will support appropriate measures to sustainably retrofit existing homes and nonresidential buildings.
- C) Proposals that fail to demonstrate adequate consideration for sustainable design, layout and construction techniques will be resisted.
- D) Consideration will be given to the use of carbon offset payments, to be secured by planning obligations, where it can be demonstrated that proposals are unable to meet carbon dioxide emission reduction targets on-site.

Policy DM22: Decentralised Energy

- A) Subject to other policy requirements, proposals that contribute to the provision and use of Decentralised Energy network infrastructure will be supported.

Communal energy systems

- B) All development that incorporates site-wide communal energy systems should examine opportunities for extending such systems, irrespective of whether it is connected to a DE network.
- C) All development that incorporates site-wide communal energy systems should optimize opportunities for extending such systems beyond the site boundary to supply energy to neighbouring existing and planned future developments.

Existing and planned future DE networks

- D) All development proposals should prioritise connection to existing or planned future DE networks.
- E) All major development located within 500 metres of an existing DE Network, and minor new-build development located within 25 metres, will be expected to secure connection to that network subject to demonstration of technical feasibility and financial viability.
- F) All major development located within 500 metres of a planned future DE Network, which is considered by the Council likely to be operational within 3 years of a grant of planning permission, will be expected to secure connection to that network subject to demonstration of technical feasibility and financial viability.

DE network 'connection zones'

- G) All major development located within 500 metres of a DE network 'connection zone' should be designed for connection to a DE network.
- H) All minor new-build development located within 25 metres of a DE network 'connection zone' should be designed for connection to a DE network.

Customer charters

- I) Where site-wide communal and district heating systems are operational, the Council will strongly encourage heat and energy service providers to enter into customer charters with domestic and micro-business customers.

Policy DM23: Environmental Protection

Air Quality

- A) All development proposals should consider air quality and be designed to:
- B) Improve or mitigate the impact on air quality in the Borough; and
- C) Improve or mitigate the impact on air quality for the occupiers of the building or users of the development.
- D) Air quality assessments will be required for all major development and other development proposals, where appropriate.
- E) Where necessary, adequate mitigation must be provided.

Noise and Vibration

- F) The Council will seek to ensure that new noise sensitive development is located away from existing or planned sources of noise pollution. Proposals for potentially noisy development must suitably demonstrate that measures will be implemented to mitigate its impact.
- G) A noise assessment will be required to be submitted if the proposed development is a noise sensitive development, or an activity with the potential to generate noise.

Light Pollution

- H) Development proposals that include external lighting must mitigate potential adverse impacts from such lighting. Where appropriate, proposals will be required to submit details demonstrating that external lighting is:
- I) Appropriate for its purpose in its setting;
- J) Designed to minimise and provide protection from glare and light spillage, particularly to sensitive receptors such as residential properties and natural habitats, including watercourses; and
- K) Energy efficient.

Contaminated Land

- L) Proposals for new development will only be permitted where it is demonstrated that any risks associated with land contamination, including to human health and the environment, can be adequately addressed in order to make the development safe.
- M) All proposals for new development on land which is known to be contaminated, or potentially contaminated, will be required to submit a preliminary assessment to identify the level and risk of contamination and, where appropriate, a risk management and remediation strategy.

Hazardous Substances

- N) Proposals for development of new hazardous installations, or development of sites located within the vicinity of existing installations, will only be permitted where it is demonstrated that necessary safeguards are incorporated to ensure the development is safe.

Policy DM24: Managing and Reducing Flood Risk

- A) The Council will ensure that all proposals for new development avoid and reduce the risk of flooding to future occupants and do not increase the risk of flooding.
- B) All proposals for new development within Flood Zone 2 and 3a will be required to provide sufficient evidence for the Council to assess whether the requirements of the Sequential Test and Exception Test, where required, have been satisfied. Proposals must be informed by a site specific Flood Risk Assessment (FRA) taking account of all potential sources of flooding and should:
 - a. Demonstrate the application of a sequential approach for the development of individual sites to ensure that the most vulnerable land uses are located in areas of the site that are at lowest risk of flooding;
 - b. Preserve overland flood and flow routes and ensure there is no net loss of flood storage. Adequate flood storage and compensation should be provided on site, or if this is not possible, provided off site where circumstances allow;
 - c. Where appropriate, set out the mitigation measures that will be incorporated on site to manage residual flood risk including:
 - i. Finished floor levels set no lower than 300mm above the 1 in 100 chance in any given year, including an allowance for climate change, flood level; and
 - ii. Ensure safe access and egress for future users of the development or an appropriate emergency evacuation plan.
 - d. Contribute to naturalising watercourses where opportunities arise.
- C) All proposals for new development will be required to:
 - a. Manage and reduce surface water run-off; and
 - b. Manage water and waste water discharges.
- D) With the exception of water compatible uses and essential infrastructure, development in areas designated in Haringey's Strategic Flood Risk Assessment as being within Flood Zone 3b will not be permitted.

Policy DM25: Sustainable Drainage Systems

- A) All proposals for new development must seek to manage surface water as close to its source as possible in line with the London Plan drainage hierarchy.
- B) The Council will require Sustainable Drainage Systems (SuDS) to be sensitively incorporated into new development by way of site layout and design, having regard to the following requirements:
 - a. All major development proposals will be required to reduce surface water flows to
 - b. greenfield run-off rate for a 1 in 100 year critical storm event;
 - c. All minor development proposals should aim to achieve a greenfield run-off rate and, at a minimum, achieve a 50 per cent reduction on existing site run-off rates;
 - d. All other development should seek to achieve
 - e. greenfield run-off rate and include at least one 'at source' SuDS measure resulting in a net improvement in water quantity or quality discharging to a sewer; and
 - f. For all development where a greenfield runoff rate cannot be achieved justification must be provided to demonstrate that the run-off rate has been reduced as much as possible.
- C) Where Sustainable Drainage Systems are implemented they will be expected to:
 - a. Meet the requirements set out in the Council's relevant local standards and guidance, or national standards where agreed;
 - b. Incorporate measures identified in the Surface Water Management Plan;

- c. Be designed to maximise biodiversity and local amenity benefits, and where appropriate, ensure that SuDS techniques provide for clean and safe water at the surface;
 - d. Improve water quality; and
 - e. Function effectively over the lifespan of the development.
- D) Where SuDS cannot be implemented due to site constraints (such as land contamination or space limitations) robust justification must be provided along with proposed alternative sustainable approaches to surface water management.

Policy DM31: Sustainable Transport

- A) The Council will require that developments with high trip generating characteristics locate where public transport accessibility is high and car parking is minimised to mitigate generated car travel.
- B) The Council will support the protection, improvement and creation of pedestrian and cycle routes in the Borough to encourage walking and cycling both as a means of transport and as a recreational activity. The Council will also encourage improved links between pedestrian and cycle routes and public transport facilities, particularly at transport hubs.
- C) The Council will require the submission of a Travel Plan and a Transport Assessment/ Statement in support of development proposals in accordance with the Transport for London thresholds.

Policy DM32: Parking

- A) Development proposals will be assessed against the car parking and cycle parking standards set out in the London Plan.
- B) The Council will strongly encourage contributions to car club schemes or the provision of car club bays as an alternative to on-site car parking.
- C) The Council will support proposals for new development with limited or no on-site parking where:
 - a. There are alternative and accessible means of transport available;
 - b. Public transport accessibility is at least 4 as defined in the Public Transport Accessibility Index;
 - c. A Controlled Parking Zone (CPZ) exists or will be provided prior to the occupation of the development;
 - d. Parking is provided for disabled people; and
 - e. Parking is designated for occupiers of developments specified as car capped.

C. BREEAM Pre-Assessment - PBSA

Issue ID	Issue ID/ Description/Aim	Credit Requirements	Available Credits	Predicted Credits	Contingency Credits	Available Score	Predicted Score	Contingency Credits	RIBA Stage - Critical	Responsibilities/Comments
Man01	Project brief and design Encouraging an integrated design process and considering BREEAM performance targets early to influence decision-making and optimise building performance, while avoiding unnecessary costs.	Project Delivery Planning (1 Credit) 1. Responsibilities Matrix template 2. Project team consultation template 3. RIBA stage timeframe template 4. Meeting minutes Stakeholder Consultation (interested parties) (1 Credit) 1. Stakeholder engagement report covering minimum content 2. Draw ings/specifications confirming how the design was updated in line with consultation BREEAM AP (concept design) (1 Credit) 1. Appointment template 2. Formal target template 3. Meeting minutes 4. Progress reports BREEAM AP (developed design) (1 Credit) As above	4	4	0	2.10%	2.10%	0.00%	Early Action RIBA Stage 2	Responsibilities Project Manager Ensphere Comments
Man02	Life cycle cost and service life planning Promoting the business case for sustainable buildings through the enhanced understanding of capital cost. Improving design, specification, maintenance and operation, by encouraging the use of life cycle costing.	Elemental Life Cycle Cost (LCC) (2 Credits) 1. BREEAM compliant Elemental Life Cycle Cost Report from RIBA 2 2. Draw ings/specification show ing changes to the design as a result of the report outcomes Component Level LLC Option Appraisal (1 Credit) 1. BREEAM compliant component Life Cycle Cost Report from RIBA 4 2. Draw ings/specification show ing changes to the design as a result of the report outcomes Capital Cost Reporting (1 Credit) 1. Estimated Capital Cost template	4	4	0	2.10%	2.10%	0.00%	Early Action RIBA Stage 2	Responsibilities Project Manager Contractor Costing Consultant/QS Comments
Man03	Responsible Construction Practices Encouraging construction sites to be managed in an environmentally and socially considerate and responsible manner. Monitoring to encourage continuous improvements and utility consumption reduction.	Pre-requisite 1. Letter template confirming that all timber will be legally harvested. Environmental Management (1 Credit) 1. Completed PPG6 2. Letter template confirming operation of compliant EMS 3. EMS certificate BREEAM AP (Site) (1 Credit) 1. Letter template 2. Progress reports 3. Meeting minutes Responsible Construction Management (Up to 2 credits - Potential expemply available) 1. Copy of CCS certificate/report 2. Letter template Monitoring of Construction Site Impacts (1 Credit) 1. Completed letter template Monitoring of Construction Site Impacts - Transport of construction materials & waste (1 Credit) 1 As above	6	6	0	3.14%	3.14%	0.00%		Responsibilities Contractor Comments

Man04	Commissioning and handover Encouraging a well-managed handover and commissioning process, which will ensure building services and fabric defects are identified and rectified. Ensuring that the building responds to the needs of the occupants.	Commissioning - Testing Schedule and Responsibilities (1 Credit) 1. Appointment letter for commissioning manager. 2. Completed commissioning template Commissioning - Design and Preparation (1 Credit) 1. Appointment template 2. Meeting minutes from commissioning manager showing input during design stage. 3. Evidence the commissioning manager has the relevant qualifications Testing and Inspecting Building Fabric (1 Credit) 1. Completed letter template Handover (1 Credit) Completed letter template	4	3	1	2.10%	1.57%	0.52%	Responsibilities Commissioning Manager/appointed individual Contractor Project Manager Comments Testing building fabric is a potential - credit can be very costly if the development fails testing.
Man05	Aftercare Encouraging aftercare support during the first year of the building operation, to ensure the building operates in accordance with the design intent and in response to the building occupants' needs.	Aftercare Support (1 Credit) 1. Letter template Commissioning - Implementation (1 Credit) 1. Letter template Post-Occupancy Evaluation (1 Credit) 1. Letter template	3	3	0	1.57%	1.57%	0.00%	Responsibilities Project Manager Comments
Hea01	Visual comfort Providing occupants with the conditions that facilitate good visual comfort by designing out the potential for glare, achieving good practice daylight factors and having an adequate view out. Designing internal and external lighting systems to provide appropriate illuminance (lux) levels, thereby giving a more comfortable environment for occupants. Internal lighting is zoned to allow for occupant control.	Glare Control (1 Credit) 1. Drawings showing glare control measures 2. Datasheets for above measures (i.e. black out blinds) Daylighting (building type dependent) (Up to 2 Credits) 1. BREEAM compliant daylighting report View Out (1 Credit) 1. View out drawings showing % of external walls in relevant building areas occupied by a window; must confirm room depths Internal Lighting, External Lighting and Zoning and Occupant Control (1 Credit) 1. Lighting schedule showing internal and external lights alongside controls 2. Datasheets for internal and external lights alongside controls 3. Drawings showing the lights on site alongside the controls 4. Letter template	5	3	0	3.89%	2.33%	0.00%	Responsibilities Daylight Consultant Architect M&E Comments
Hea02	Indoor air quality Facilitating good indoor air quality by considering indoor air pollution early in the design process so that a mitigation strategy can be put in place. Managing harmful emissions from construction products by specifying finishes and products that have been tested in accordance with the appropriate standards. Specifying an appropriate ventilation strategy that maintains good indoor air quality.	Pre-requisite - Indoor Air Quality (IAQ) plan 1. BREEAM compliant Indoor Air Quality Plan from RIBA 2 Ventilation (1 Credit) 1. Letter template 2. Further evidence confirming what is outlined in the letter Emissions from construction products (Up to 2 Credits) 1. Datasheets for materials 2. Completed materials schedule template Post-Occupancy indoor air quality measurement (1 Credit) 1. Letter template	4	2	1	3.11%	1.56%	0.78%	Responsibilities Air Quality Consultant M&E Contractor Comments Early Action RIBA Stage 2
Hea03	Safe containment in laboratories This is no longer assessed as a separate issue within BREEAM UK New Construction 2018.	No Longer Assessed	0	0	0	0.00%	0.00%	0.00%	No Longer Assessed

Hea04	Thermal comfort Thermal modelling informs the building design to provide a comfortable thermal environment that considers current climatic conditions, and projected climate change scenario conditions. Giving occupants control over their environment through appropriate temperature control strategies and thermal zoning.	Thermal Modelling (1 Credit) 1. BREEAM compliant TM52/59 (building type dependent) Design for Future Thermal Comfort (1 Credit) 1. BREEAM compliant TM52/59 (building type dependent) Thermal Zoning and Controls (1 Credit) 1. Letter template 2. Drawings showing the thermal zones 3. Datasheets for the controls	3	3	0	2.33%	2.33%	0.00%		Responsibilities M&E Energy Modeller Comments
Hea05	Acoustic performance Enabling occupants to experience best practice acoustic performance levels appropriate to the functional activities in occupied spaces.	Acoustic Performance (Up to 4 Credits) 1. BREEAM compliant acoustic report	3	0	1	2.33%	0.00%	0.78%		Responsibilities Acoustician Comments
Hea06	Security Designing the building to consider and take into account security needs to ensure occupants safety and wellbeing.	Security of Site and Building (1 Credit) 1. Security Needs Assessment by SQSS produced during RIBA 2 2. Drawings showing that the recommendations have been incorporated 3. Completed template if consultant appointed later than RIBA 2	1	1	0	0.78%	0.78%	0.00%	Early Action RIBA Stage 2	Responsibilities Security Specialist Architect M&E Comments
Hea07	Safe and healthy surroundings Providing external site areas that are safe for occupant use. Enhancing the wellbeing of building users by giving access to an outdoor space.	Safe Access (1 Credit) 1. Letter template 2. Drawing showing all items outlined in the letter Outside Space (1 Credit) 1. Letter template 2. Drawing showing all items outlined in the letter	2	2	0	1.56%	1.56%	0.00%		Responsibilities Architect Comments
Ene 01	Reduction of energy use and carbon emissions Encouraging the design of energy efficient buildings with energy performance above national building regulations. Encouraging the accurate modelling of operational energy consumption.	Energy Performance (Up to 9 Credits) 1. As Designed BRUKL 2. INP file Prediction of Operational Energy (4 Credits) 1. Produce compliant Passive Design study as per Ene 04 2. Compliant TM54 report including scenarios agreed on by the client and prospective occupant 3. Meeting minutes confirming the discussions which influenced the above report 4. Completed letter template confirming PC update	13	4	0	9.04%	2.78%	0.00%	Early Action RIBA Stage 2	Responsibilities Energy Specialist Comments
Ene02	Energy monitoring Helping to identify and reduce high energy demands where possible by accurate measurement of the energy consumption of the building by end use.	Sub-metering of End Use Categories (1 Credit) 1. Letter template 2. Drawings showing the location of the meter and monitoring system 3. Datasheets confirming meters with pulsed output Sub-metering of High Energy Load and Tenancy Areas (1 Credit) 1. As above	2	2	0	1.39%	1.39%	0.00%		Responsibilities M&E Contractor Comments

Ene03	External lighting Reducing the building's energy consumption through the specification of energy efficient external lighting.	External Lighting (1 Credit) 1. Letter template 2. Schematic showing all external lights and their controls 3. Datasheets confirming luminous efficacy 4. Datasheets for the controls (i.e. PIR, photocells, etc) 5. External lighting schedule	1	1	0	0.70%	0.70%	0.00%		Responsibilities M&E Comments
Ene04	Low carbon design Reducing the building's energy consumption through the adoption of passive design solutions, free cooling and low or zero carbon (LZC) energy sources.	Passive Design Analysis (PDA) (1 Credit) 1. BREEAM compliant Passive design analysis report from RIBA 2 2. Close out Hea 04 3. CV confirming qualifications of energy modeller 4. Drawings showing passive design measures Free Cooling (1 Credit) 1. Close out PDA above. 2. CV confirming qualifications of energy modeller 3. Dynamic simulation model demonstrating that the cooling demand can be met by free cooling 4. Drawing confirming incorporation of recommended measures Low and Zero Carbon Technologies (1 Credit) 1. BREEAM compliant LZC analysis report from RIBA 2 2. CV confirming qualifications of energy modeller 4. Datasheet(s) for recommended technology 5. Drawings showing the recommended technology on site	3	2	1	2.09%	1.39%	0.70%	Early Action RIBA Stage 2	Responsibilities M&E Comments
Ene05	Energy efficient cold storage Reducing the building's operational greenhouse gas emissions (CO ₂ -eq) through the design, installation and commissioning of energy efficient refrigeration systems.	Not applicable	0	0	0	0.00%	0.00%	0.00%		Responsibilities M&E
Ene06	Energy efficient transportation systems Reducing the building's energy consumption by specifying the optimum number and size of energy efficient transportation systems.	Energy Consumption (1 Credit) 1. BREEAM compliant lift traffic analysis Energy Efficient Features (1 Credit) 1. Datasheets confirming standby condition, luminaire lumens per circuit watt of lighting in cabin and use of drive controller capable of variable speed, variable-voltage, and variable-frequency 2. Drawing confirming lift to be installed as per analysis	2	2	0	1.39%	1.39%	0.00%		Responsibilities Lift Manufacturer M&E Comments
Ene07	Energy efficient laboratory systems Reducing the building's operational greenhouse gas emissions (CO ₂ -eq) by specifying best practice energy efficient laboratory equipment.	Not applicable	0	0	0	0.00%	0.00%	0.00%		Responsibilities M&E
Ene08	Energy efficient equipment Demonstrating a meaningful reduction in the total unregulated energy demand of the building by using energy efficient equipment.	Energy efficient equipment (1 Credit) 1. Completed template 2. Manufacturer literature confirming compliance with template	2	0	2	1.39%	0.00%	1.39%		Responsibilities M&E Comments Credit listed as potential - can be difficult to achieve if appliances procured don't have A/A+ efficiency labels.

Tra01	Transport assessment and travel plan Recognising developments in proximity to good public transport networks, thereby helping to reduce transport-related pollution and congestion	Travel Plan (2 Credits) 1. BREEAM compliant Draft travel plan produced during RIBA 2. 2. BREEAM compliant Transport Statement produced during RIBA 2. 3. Drawings showing incorporation of Travel Plan proposals	2	2	0	1.67%	1.67%	0.00%	Early Action RIBA Stage 2	Responsibilities Transport Consultant
										Comments
Tra02	Sustainable transport measures Recognising developments in close proximity of, and accessible to, local amenities which are likely to be frequently required and used by building occupants.	Sustainable Transport Measures (Up to 10 Credits) 1. Letter template 2. Drawings showing incorporation of Travel Plan measures into the design	10	7	3	8.33%	5.83%	2.50%		Responsibilities Transport Consultant Architect
										Comments
Wat01	Water consumption Reducing the demand for potable water through the provision of efficient sanitary fittings, rainwater collection and water recycling systems.	Water Consumption (Up to 5 Credits) 1. Completed schedule with all domestic fittings 2. Datasheets confirming reported flow rates as per schedule 3. Wat 01 Calculator	5	3	2	4.38%	2.63%	1.75%		Responsibilities BREEAM Assessor Contractor M&E
										Comments
Wat02	Water monitoring Specification of water meters to allow for management and monitoring of water use in the building. This encourages reductions in water use by identifying areas of high usage and investigating potential causes.	Water Monitoring (1 Credit) 1. Letter template 2. Schematics showing meter location(s) 3. Datasheet confirming meter has pulsed output	1	1	0	0.88%	0.88%	0.00%		Responsibilities M&E
										Comments
Wat03	Water leak detection Reducing the unintended water consumption due to leaks by installing leak detection systems and flow control devices.	Leak Detection System (1 Credit) 1. Letter template 2. Datasheet confirming system complies with letter requirements 3. Drawings showing leak detection system on site Flow Control Devices (1 Credit) 1. Letter template 2. Datasheet confirming system complies with letter requirements 3. Drawings showing location of flow control devices	2	2	0	1.75%	1.75%	0.00%		Responsibilities M&E
										Comments
Wat04	Water efficient equipment Reducing water consumption for non-domestic scale, non-sanitary water uses by specifying efficient systems and improving the design efficiency of any water-using processes.	Water efficient equipment (1 Credit) 1. Letter template 2. Drawings confirming items outlined in letter 3. Ecology information confirming management	0	0	0	0.00%	0.00%	0.00%		Responsibilities M&E Contractor
										Comments

Mat01	Environmental impacts from construction products - Building life cycle assessment (LCA) Reducing buildings' environmental life cycle impacts through conducting Life Cycle Assessment and integrating its outcomes in the design decision-making process.	RIBA 2 Life Cycle Model (Up to 5 credits) 1) Life cycle assessment 2) Completed BREEAM Calculator 3) Model submitted to the BRE RIBA 4 Life Cycle Model Update (Up to 2 credits) 1) As above	7	7	0	7.50%	7.50%	0.00%	Early Action RIBA Stage 2	Responsibilities Architect Structural Engineer M&E Comments
Mat02	Environmental impacts from construction products - Environmental Product Declarations (EPD) To encourage availability of robust and comparable data on the impacts of construction products by rewarding the specification of products with environmental products declarations.	Specification of Products with a Recognised Environmental Product Declaration (EPD) (1 Credit) 1. Completed Mat 02 template 2. EPDs for all materials listed - these can be sourced by the assessor once template is completed, but this will increase review time 3. Mat 02 Calculator	1	1	0	1.07%	1.07%	0.00%		Responsibilities Contractor BREEAM Assessor Comments
Mat03	Responsible sourcing of construction products Recognising and encouraging responsible sourcing of construction products. This includes the source of products and the intermediary companies processing and transporting the product to site.	Pre-requisite 1. Letter template confirming sustainable timber Sustainable Procurement Plan (1 Credit) 1. BREEAM compliant Sustainable Procurement Plan in place by RIBA stage Measuring Responsible Sourcing (Up to 3 Credits) 1. Completed Mat 03 template 2. Certificates for all materials listed - these can be sourced by the assessor once template is completed, but this will increase review time 3. Mat 03 Calculator	4	3	0	4.29%	3.21%	0.00%	Early Action RIBA Stage 2	Responsibilities Project Manager Contractor Comments
Mat04	Insulation This is no longer assessed as a separate issue within BREEAM UK New Construction 2018.	No Longer Assessed	0	0	0	0.00%	0.00%	0.00%		
Mat05	Designing for durability and resilience Increasing the lifespan of the building through designing for durability and protection from degradation and specifying appropriate construction products.	Protecting Vulnerable Parts of the Building from Damage (0.5 Credit) 1. Completed template 2. Drawings showing measures outlined in template Protecting Exposed Parts of the Building from Material Degradation (0.5 Credit) 1. As above	1	1	0	1.07%	1.07%	0.00%		Responsibilities Architect Comments
Mat 06	Material efficiency Encouraging the reduction of environmental impacts through optimising the use of materials during all stages of the project.	Material Efficiency (1 Credit) 1. Completed template from RIBA 1 2. Completed template from RIBA 2 3. Completed template from RIBA 3 4. Completed template from RIBA 4	1	0	0	1.07%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Architect Structural Engineer M&E Comments

Wst01	Construction waste management Improving resource efficiency through developing a pre-demolition audit and a Resource Management Plan, maximising the recovery of material during demolition and diverting non-hazardous waste from landfill.	Pre-demolition Audit (1 Credit) 1. BREEAM compliant Pre-demolition Audit Construction Resource Efficiency (Up to 3 Credits) 1. BREEAM compliant Site Waste Management Plan confirming m3 or tonnes of waste produced per 100m2 Diversion of Resources from Landfill (1 Credit) 1. BREEAM compliant Site Waste Management Plan confirming percentage of waste (non-demo, demo and excavation) diverted from landfill.	5	4	0	3.00%	2.40%	0.00%	Early Action RIBA Stage 2	Responsibilities Waste Consultant Contractor Comments
Wst02	Use of recycled and sustainably sourced aggregates Encouraging the use of recycled or secondary aggregate or aggregate types with lower environmental impact to reduce waste and optimise material efficiency.	Recycled Aggregate (1 Credit) 1. Recycled content calculator 2. Specification 3. Letter of commitment from Contractor	1	0	1	0.60%	0.00%	0.60%		Responsibilities Structural Engineer Contractor Comments
Wst03	Operational Waste Encouraging the diversion of operational waste from landfill through the provision of space and facilities allowing the segregation and storage of recyclable waste.	Operational Waste (1 Credit) 1. Completed letter template 2. Drawings showing waste storage in line with the letter	1	1	0	0.60%	0.60%	0.00%		Responsibilities Architect Waste Consultant Comments
Wst04	Speculative finishes (Offices only) Specification of floor and ceiling finishes only where agreed with the occupant or, for tenanted areas where the future occupant is unknown, installation in a show area only, to reduce wastage.	Not applicable	0	0	0	0.00%	0.00%	0.00%		Responsibilities Architect
Wst05	Adaptation to climate change Encouraging consideration and implementation of measures to mitigate the impact of more extreme weather conditions arising from climate change over the lifespan of the building.	Resilience of Structure, Fabric, Building Services and Renewables Installation (1 Credit) 1. Climate Change Adaptation Strategy produced during RIBA 2 2. Climate Change Adaptation Strategy updated at RIBA 4	1	1	0	0.60%	0.60%	0.00%	Early Action RIBA Stage 2	Responsibilities Appointed consultant Comments
Wst06	Design for disassembly and adaptability Encouraging consideration and implementation of measures design options related to adaptability and disassembly, which can accommodate future changes to the use of the building and its systems over its lifespan.	Design for Disassembly and Functional Adaptability - Recommendations (1 Credit) 1. Completed template from RIBA 2 Disassembly and Functional Adaptability – Implementation (1 Credit) 1. Completed template from RIBA 4 2. Building adaptability and disassembly guide	2	2	0	1.20%	1.20%	0.00%	Early Action RIBA Stage 2	Responsibilities Architect Structural Engineer Comments

LE01	Site selection Recognising the reuse of previously developed and contaminated land where appropriate remediation has taken place.	Previously Occupied Land (1 Credit) 1. Drawing showing footprint of previous development confirming what percentage of this footprint is covered by the new development. Contaminated Land (1 Credit) 1. Contaminated site investigation and risk assessment/report 2. Commitment letter from the contractor that the remediation strategy will be implemented 3. Evidence of remedial works	2	1	1	2.00%	1.00%	1.00%		Responsibilities Architect Contaminated land consultant Comments
LE02	Identifying and understanding the risks and opportunities for the project Identifying and understanding the ecological risks and opportunities associated with the site to inform the determination of the strategic outcome for the site.	Pre-requisite - Ecological Value of Site 1. Letter template Foundation Route (1 Credit) 1. Completed GN34 Comprehensive Route (2 Credits) 1. BREEAM compliant Ecology report	2	2	0	2.00%	2.00%	0.00%	Early Action RIBA Stage 1	Responsibilities Ecologist Selected team member Comments
LE03	Managing negative impacts on ecology Recognition of steps taken to avoid impacts on existing site ecology as far as possible.	Prerequisite 1. Close out LE 02 above Planning and Measures On-Site (1 Credit) 1. BREEAM compliant Ecology report 2. CV confirming Ecologist's qualifications 3. Confirmation of implemented site measures in line with report Managing Negative Impacts of the Project (Up to 2 Credits) 1. BREEAM compliant Ecology report 2. Letter template 3. Confirmation of implemented site measures in line with report	3	3	0	3.00%	3.00%	0.00%	Early Action RIBA Stage 1	Responsibilities Ecologist Project Manager Contractor Architect Comments
LE04	Change and enhancement of ecological value Recognition of steps taken to enhance site ecology.	Prerequisite 1. Close out LE 03 above 2. Letter template Change and Enhancement of Ecology - Route 1 ONLY (1 Credit) 1. Confirmation that the project team have implemented local ecological solutions and measures to enhance the site Ecological Enhancement - Route 2 ONLY (1 Credit) 1. BREEAM compliant Ecology report 2. Drawings showing incorporation of recommended measures into the design Change and enhancement of ecology (Up to 3 Credits) - Route 2 ONLY 1. Ecologist completes biodiversity calculations	4	4	0	4.00%	4.00%	0.00%		Responsibilities Ecologist Project Manager Contractor Architect Comments
LE05	Long term ecology management and maintenance Encouraging the long term maintenance and management of ecology on site to ensure both new and existing ecological features continue to thrive.	Long Term Impact on Biodiversity 1. Letter template 2. Close out LE 03 and LE 04 above Planning Liaison, Data, Monitoring and Review Management and Maintenance (1 Credit) 1. BREEAM compliant Ecology report 2. Drawings showing incorporation of recommended measures 3. Confirmation of implemented site measures in line with report 3. Letter template Landscape and Ecology Plan (1 Credit) 1. BREEAM compliant Ecology report	2	2	0	2.00%	2.00%	0.00%		Responsibilities Ecologist Project Manager Contractor Architect/Landscape Architect Comments

Pol01	Impact of refrigerants Rew arding buildings that reduce the impact of refrigerant gas emissions.	Impact of Refrigerants (2 Credits) 1. Completed Pol 01 template 2. Datasheets showing all numbers used in template 3. Draw ings show ing AC units on site 4. Pol 01 Calculator Tool Leak Detection (1 Credit) 1. Datasheets for the leak detection sysem 2. Draw ings show ing location of leak detection system (not required if system is in the unit by default)	3	1	2	2.00%	0.67%	1.33%	Responsibilities M&E BREEAM Assessor Comments
Pol02	Local air quality Recognising buildings w hich limit their impact on local air quality, by consideration of the combustion plant and fuel used on site.	Local Air Quality (Up to 2 Credits) 1. Letter template 2. Draw ings show ing system 3. Datasheets for boilers (if not all electric) confirming NOx, PM10 and VOC emissions	2	2	0	1.33%	1.33%	0.00%	Responsibilities M&E Comments
Pol03	Flood and surface water management Rew arding buildings and their sites that limit on-site and off-site local flooding and hence the damage this can cause.	Flood Resilience (Up to 2 Credits) 1. BREEAM compliant Flood Risk Assessment Pre-requisite - Surface Water Run-off 1. BREEAM compliant Drainage Strategy 2. Letter template confirming no change/decrease in impermeable surfaces 3. Draw ings confirming the above Surface Water Run-off Rates (1 Credit) 1. BREEAM compliant Drainage Strategy 2. Draw ings confirming strategy Surface Water Run-off Volume (1 Credit) 1. As per above	5	5	0	3.33%	3.33%	0.00%	Responsibilities Flood Risk Consultant Drainage Engineer Comments
Pol04	Reduction of night time light pollution Avoiding or reducing the impact of night time light pollution, through careful design and specification of light sources.	Night Time Light Pollution (1 Credit) 1. Completed letter template 2. External lighting schedule including relevant controls 3. Draw ings to show the location of the external lighting, time switches and photo-cells 4. Datasheets for all the above.	1	1	0	0.67%	0.67%	0.00%	Responsibilities M&E Comments
Pol05	Reduction of noise pollution Avoiding or reducing the impact of external noise from the building.	Reduction of Noise Pollution (1 Credit) 1. BREEAM compliant Noise Impact Assessment 2. Draw ings confirming installation of any recommendations.	1	1	0	0.67%	0.67%	0.00%	Responsibilities Acoustician Comments
Inn01	Innovation Test out new ideas w hich, if successful, could change the status quo of the industry. Allow the industry to explore new opportunities and evolve its processes.	Up to 10 Credits Man 03 - Responsible Construction Practices LE 04 - Ecological Enhancement Wst 05 - Adaptation to Climate Change	10	1	1	10.00%	1.00%	1.00%	
Total							76.76%	12.35%	

D. BREEAM Pre-Assessment - Retail

Issue ID	Issue ID/ Description/Aim	Credit Requirements	Available Credits	Predicted Credits	Contingency Credits	Available Score	Predicted Score	Awarded Score	Contingency Credits	RIBA Stage - Critical	Responsibilities/Comments
Man01	Project brief and design Encouraging an integrated design process and considering BREEAM performance targets early to influence decision-making and optimise building performance, while avoiding unnecessary costs.	Project Delivery Planning (1 Credit) 1. Responsibilities Matrix template 2. Project team consultation template 3. RIBA stage timeframe template 4. Meeting minutes Stakeholder Consultation (interested parties) (1 Credit) 1. Stakeholder engagement report covering minimum content from RIBA 2 2. Drawings/specifications confirming how the design was updated in line with consultation 3. Stakeholder Consultation letter template BREEAM AP (concept design) (1 Credit) 1. Letter template 2. Formal target template 3. Meeting minutes 4. Progress reports BREEAM AP (developed design) (1 Credit) As above	4	4	0	2.44%	2.44%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Project Manager Ensphere Comments
Man02	Life cycle cost and service life planning Promoting the business case for sustainable buildings through the enhanced understanding of capital cost. Improving design, specification, maintenance and operation, by encouraging the use of life cycle costing.	Elemental Life Cycle Cost (LCC) (2 Credits) 1. A copy of Elemental Life Cycle Cost Report from RIBA 2 2. List of design changes as a result of the LCC Component Level LLC Option Appraisal (1 Credit) 1. A copy of component Life Cycle Cost Report from RIBA 4 2. List of design changes as a result of the LCC Capital Cost Reporting (1 Credit) 1. Predicted Capital Cost template	4	4	0	2.44%	2.44%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Project Manager Contractor Costing Consultant Comments
Man03	Responsible Construction Practices Encouraging construction sites to be managed in an environmentally and socially considerate and responsible manner. Monitoring to encourage continuous improvements and utility consumption reduction.	Pre-requisite 1. Letter template confirming that all timber will be legally harvested. Environmental Management (1 Credit) 1. Completed PPG6 2. Letter template confirming operation of compliant EMS 3. EMS certificate Responsible Construction Management (Up to 2 credits) 1. Copy of CCS certificate/report 2. Letter template Monitoring of Construction Site Impacts (1 Credit) 1. Completed letter template Monitoring of Construction Site Impacts - Transport of construction materials & waste (1 Credit - Potential expemplary) 1. As above	6	6	0	3.67%	3.67%	0.00%	0.00%		Responsibilities Contractor Comments

Man04	Commissioning and handover Encouraging a well-managed handover and commissioning process, which will ensure building services and fabric defects are identified and rectified. Ensuring that the building responds to the needs of the occupants.	Pre-Requisite 1. Completed letter template. Commissioning - Testing Schedule and Responsibilities (1 Credit) 1. Appointment letter for commissioning manager. 2. Completed commissioning template Commissioning - Design and Preparation (1 Credit) 1. Appointment template 2. Meeting minutes from commissioning manager showing input during design stage. 3. Evidence the commissioning manager has the relevant qualification Testing and Inspecting Building Fabric (1 Credit) 1. Commitment letter from client to undertake thermographic survey and rectify any issues Handover (1 Credit) Completed letter template	4	3	1	2.44%	1.83%	0.00%	0.61%		Responsibilities Commissioning Manager/appointed individual Contractor Project Manager Comments
Man05	Aftercare Encouraging aftercare support during the first year of the building operation, to ensure the building operates in accordance with the design intent and in response to the building occupants' needs.	Aftercare Support (1 Credit) 1. Letter template Commissioning - Implementation (1 Credit) 1. Letter template Post-Occupancy Evaluation (1 Credit) 1. Letter template	0	0	0	0.00%	0.00%	0.00%	0.00%		Responsibilities Project Manager Comments
Hea01	Visual comfort Providing occupants with the conditions that facilitate good visual comfort by designing out the potential for glare, achieving good practice daylight factors and having an adequate view out. Designing internal and external lighting systems to provide appropriate illuminance (lux) levels, thereby giving a more comfortable environment for occupants. Internal lighting is zoned to allow for occupant control.	Daylighting (building type dependent) (Up to 2 Credits) 1. BREEAM daylighting report View Out (1 Credit) 1. View out drawings showing % of external walls in relevant building areas occupied by a window Internal Lighting, External Lighting and Zoning and Occupant Control (1 Credit) 1. Internal lighting datasheets and drawings with model names 2. External lighting datasheets and drawings with model names 3. Letter template 4. Zoning and controls strategy	4	3	0	5.09%	3.82%	0.00%	0.00%		Responsibilities Daylight Consultant Architect M&E Comments
Hea02	Indoor air quality Facilitating good indoor air quality by considering indoor air pollution early in the design process so that a mitigation strategy can be put in place. Managing harmful emissions from construction products by specifying finishes and products that have been tested in accordance with the appropriate standards. Specifying an appropriate ventilation strategy that maintains good indoor air quality.	Pre-requisite - Indoor Air Quality (IAQ) plan 1. Indoor Air Quality Plan from RIBA 2 Ventilation (1 Credit) 1. Letter template 2. Supplementary evidence in line with letter	1	0	1	1.27%	0.00%	0.00%	1.27%	Early Action RIBA Stage 2	Responsibilities Air Quality Consultant M&E Contractor Comments
Hea03	Safe containment in laboratories This is no longer assessed as a separate issue within BREEAM UK New Construction 2018.	Not applicable	0	0	0	0.00%	0.00%	0.00%	0.00%		Not applicable
Hea04	Thermal comfort Thermal modelling informs the building design to provide a comfortable thermal environment that considers current climatic conditions, and projected climate change scenario conditions. Giving occupants control over their environment through appropriate temperature control strategies and thermal zoning.	Thermal Modelling (1 Credit) 1. Thermal Modelling and full dynamic thermal analysis Design for Future Thermal Comfort (1 Credit) 1. Thermal Modelling and full dynamic thermal analysis	2	0	2	2.55%	0.00%	0.00%	2.55%		Responsibilities M&E Comments

Hea05	Acoustic performance Enabling occupants to experience best practice acoustic performance levels appropriate to the functional activities in occupied spaces.	Acoustic Performance (Up to 4 Credits) 1. BREEAM Acoustic report	1	0	1	1.27%	0.00%	0.00%	1.27%		Responsibilities Acoustician Comments
Hea06	Security Designing the building to consider and take into account security needs to ensure occupants safety and wellbeing.	Security of Site and Building (1 Credit) 1. Security Needs Assessment by SQSS produced during RIBA 2 2. Draw ings showing that the recommendations have been incorporated 3. Completed template if consultant appointed later than RIBA 2	1	1	0	1.27%	1.27%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Security Specialist Architect Comments
Hea07	Safe and healthy surroundings Providing external site areas that are safe for occupant use. Enhancing the wellbeing of building users by giving access to an outdoor space.	Safe Access (1 Credit) 1. Letter template 2. Draw ing showing all items outlined in the letter Outside Space (1 Credit) 1. Letter template 2. Draw ing showing all items outlined in the letter	2	2	0	2.55%	2.55%	0.00%	0.00%		Responsibilities Security Specialist Architect Comments
Ene 01	Reduction of energy use and carbon emissions Encouraging the design of energy efficient buildings with energy performance above national building regulations. Encouraging the accurate modelling of operational energy consumption.	Energy Performance (Up to 9 Credits) 1. As Designed BRUKL 2. INP file Prediction of Operational Energy (4 Credits) 1. Produce compliant Passive Design study as per Ene 04 2. Compliant TM54 report including scenarios agreed on by the client and prospective occupant 3. Meeting minutes confirming the discussions which influenced the above report 4. Completed letter template confirming PC update	13	4	0	9.90%	3.05%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Energy Specialist Comments
Ene02	Energy monitoring Helping to identify and reduce high energy demands where possible by accurate measurement of the energy consumption of the building by end use.	Sub-metering of End Use Categories (1 Credit) 1. Letter template 2. Draw ings showing the location of the meter and monitoring system 3. Datasheets confirming meters with pulsed output Sub-metering of High Energy Load and Tenancy Areas (1 Credit) 1. As above	2	2	0	1.52%	1.52%	0.00%	0.00%		Responsibilities M&E Contractor Comments
Ene03	External lighting Reducing the building's energy consumption through the specification of energy efficient external lighting.	External Lighting (1 Credit) 1. Letter template 2. Schematic showing all external lights and their controls 3. Datasheets confirming luminous efficacy 4. Datasheets for the controls (i.e. PIR, photocells, etc)	1	1	0	0.76%	0.76%	0.00%	0.00%		Responsibilities M&E Comments

Ene04	Low carbon design Reducing the building's energy consumption through the adoption of passive design solutions, free cooling and low or zero carbon (LZC) energy sources.	Passive Design Analysis (PDA) (1 Credit) 1. Passive design analysis report from RIBA 2 2. Close out Hea 04 3. CV confirming qualifications of energy modeller 4. Draw ings showing passive design measures Free Cooling (1 Credit) 1. Close out PDA above. 2. CV confirming qualifications of energy modeller 3. Dynamic simulation model demonstrating that the cooling demand can be met by free cooling 4. Draw ing confirming incorporation of recommended measures Low and Zero Carbon Technologies (1 Credit) 1. LZC analysis report from RIBA 2 2. CV confirming qualifications of energy modeller 4. Datasheet(s) for recommended technology 5. Draw ings showing the recommended technology on site	3	1	2	2.29%	0.76%	0.00%	1.52%	Early Action RIBA Stage 2	Responsibilities M&E Comments
Ene05	Energy efficient cold storage Reducing the building's operational greenhouse gas emissions (CO ₂ -eq) through the design, installation and commissioning of energy efficient refrigeration systems.	Not applicable	0	0	0	0.00%	0.00%	0.00%	0.00%		Responsibilities M&E
Ene06	Energy efficient transportation systems Reducing the building's energy consumption by specifying the optimum number and size of energy efficient transportation systems.	Energy Consumption (1 Credit) 1. BREEAM lift traffic analysis Energy Efficient Features (1 Credit) 1. Datasheets confirming standby condition, luminaire lumens per circuit watt of lighting in cabin and use of drive controller capable of variable speed, variable-voltage, and variable-frequency 2. Draw ing confirming lift to be installed as per analysis	0	0	0	0.00%	0.00%	0.00%	0.00%		Responsibilities Lift Consultant Comments
Ene07	Energy efficient laboratory systems Reducing the building's operational greenhouse gas emissions (CO ₂ -eq) by specifying best practice energy efficient laboratory equipment.	Not applicable	0	0	0	0.00%	0.00%	0.00%	0.00%		Responsibilities M&E
Ene08	Energy efficient equipment Demonstrating a meaningful reduction in the total unregulated energy demand of the building by using energy efficient equipment.	Energy efficient equipment (2 Credit) 1. Completed template 2. Manufacturer literature confirming compliance with template	2	0	2	1.52%	0.00%	0.00%	1.52%		Responsibilities M&E Comments Credit listed as potential - can be difficult to achieve if appliances procured don't have A/A+ efficiency labels.
Tra01	Transport assessment and travel plan Recognising developments in proximity to good public transport networks, thereby helping to reduce transport-related pollution and congestion	Travel Plan (2 Credits) 1. Draft travel plan produced during RIBA 2. 2. Transport Statement produced during RIBA 2. 3. Draw ings showing incorporation of Travel Plan proposals	2	2	0	1.67%	1.67%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Transport Consultant Comments
Tra02	Sustainable transport measures Recognising developments in close proximity of, and accessible to, local amenities which are likely to be frequently required and used by building occupants.	Sustainable Transport Measures (Up to 10 Credits) 1. Letter template 2. Draw ings showing incorporation of Travel Plan measures into the design	10	5	3	8.33%	4.17%	0.00%	2.50%		Responsibilities Transport Consultant Architect Comments

Wat01	Water consumption Reducing the demand for potable water through the provision of efficient sanitary fittings, rainwater collection and water recycling systems.	Water Consumption (Up to 5 Credits) 1. Completed schedule with all domestic fittings 2. Datasheets confirming reported flow rates as per schedule 3. Wat 01 Calculator	5	3	2	4.38%	2.63%	0.00%	1.75%		Responsibilities BREEAM Assessor Contractor Comments
Wat02	Water monitoring Specification of water meters to allow for management and monitoring of water use in the building. This encourages reductions in water use by identifying areas of high usage and investigating potential causes.	Water Monitoring (1 Credit) 1. Letter template 2. Schematics showing meter location(s) 3. Datasheet confirming meter has pulsed output	1	1	0	0.88%	0.88%	0.00%	0.00%		Responsibilities M&E Comments
Wat03	Water leak detection Reducing the unintended water consumption due to leaks by installing leak detection systems and flow control devices.	Leak Detection System (1 Credit) 1. Letter template 2. Datasheet confirming system complies with letter requirements 3. Drawings showing meter on site Flow Control Devices (1 Credit) 1. Letter template 2. Datasheet confirming system complies with letter requirements 3. Drawings showing meter on site	2	2	0	1.75%	1.75%	0.00%	0.00%		Responsibilities M&E Comments
Wat04	Water efficient equipment Reducing water consumption for non-domestic scale, non-sanitary water uses by specifying efficient systems and improving the design efficiency of any water-using processes.	Water efficient equipment (1 Credit) 1. Letter template 2. Drawings confirming items outlined in letter 3. Ecology information confirming management	0	0	0	0.00%	0.00%	0.00%	0.00%		Responsibilities M&E Contractor Comments
Mat01	Environmental impacts from construction products - Building life cycle assessment (LCA) Reducing buildings' environmental life cycle impacts through conducting Life Cycle Assessment and integrating its outcomes in the design decision-making process.	RIBA 2 Life Cycle Model 1) Life cycle assessment 2) Completed BREEAM Calculator 3) Model submitted to the BRE RIBA 4 Life Cycle Model Update 1) As above	7	7	0	7.50%	7.50%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Architect Structural Engineer M&E BREEAM Assessor Comments
Mat02	Environmental impacts from construction products - Environmental Product Declarations (EPD) To encourage availability of robust and comparable data on the impacts of construction products by rewarding the specification of products with environmental products	Specification of Products with a Recognised Environmental Product Declaration (EPD) (1 Credit) 1. Completed Mat 02 template 2. EPDs for all materials listed - these can be sourced by the assessor once template is completed 3. Mat 02 Calculator	1	1	0	1.07%	1.07%	0.00%	0.00%		Responsibilities Contractor BREEAM Assessor Comments
Mat03	Responsible sourcing of construction products Recognising and encouraging responsible sourcing of construction products. This includes the source of products and the intermediary companies processing and transporting the product to site.	Pre-requisite 1. Letter template Sustainable Procurement Plan (1 Credit) 1. Procurement plan in place by RIBA stage 2 Measuring Responsible Sourcing (Up to 3 Credits) 1. Completed Mat 03 template 2. Certificates for all materials listed - these can be sourced by the assessor once template is completed 3. Mat 03 Calculator	4	3	0	4.29%	3.21%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Client Contractor BREEAM Assessor Comments

Mat04	Insulation This is no longer assessed as a separate issue within BREEAM UK New Construction 2018.	No Longer Assessed	0	0	0	0.00%	0.00%	0.00%	0.00%		
Mat05	Designing for durability and resilience Increasing the lifespan of the building through designing for durability and protection from degradation and specifying appropriate construction products.	Protecting Vulnerable Parts of the Building from Damage (0.5 Credit) 1. Completed template 2. Drawings showing measures outlined in template Protecting Exposed Parts of the Building from Material Degradation (0.5 Credit) 1. As above	1	1	0	1.07%	1.07%	0.00%	0.00%		Responsibilities Architect Comments
Mat 06	Material efficiency Encouraging the reduction of environmental impacts through optimising the use of materials during all stages of the project.	Material Efficiency (1 Credit) 1. Completed template from RIBA 1 2. Completed template from RIBA 2 3. Completed template from RIBA 3 4. Completed template from RIBA 4	1	0	0	1.07%	0.00%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Architect Structural Engineer M&E Comments
Wst01	Construction waste management Improving resource efficiency through developing a pre-demolition audit and a Resource Management Plan, maximising the recovery of material during demolition and diverting non-hazardous waste from landfill.	Pre-demolition Audit (1 Credit) 1. Pre-demolition Audit Construction Resource Efficiency (Up to 3 Credits) 1. Site Waste Management Plan confirming m3 or tonnes of waste produced per 100m2 Diversion of Resources from Landfill (1 Credit) 1. Site Waste Management Plan confirming percentage of waste (non-demo, demo and excavation) diverted from landfill.	5	4	0	3.00%	2.40%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Waste Consultant Contractor Comments
Wst02	Use of recycled and sustainably sourced aggregates Encouraging the use of recycled or secondary aggregate or aggregate types with lower environmental impact to reduce waste and optimise material efficiency.	Recycled Aggregate (1 Credit) 1. Recycled content calculator 2. Specification 3. Letter of commitment from Contractor	1	0	1	0.60%	0.00%	0.00%	0.60%		Responsibilities Structural Engineer Contractor Comments Potential credit - dependent on use of recycled/sustainably sourced aggregate
Wst03	Operational Waste Encouraging the diversion of operational waste from landfill through the provision of space and facilities allowing the segregation and storage of recyclable waste.	Operational Waste (1 Credit) 1. Drawings/Specifications to demonstrate the location of the operational waste facility 2. Confirmation for the likely waste streams for the site.	1	1	0	0.60%	0.60%	0.00%	0.00%		Responsibilities Architect Waste Consultant Comments
Wst04	Speculative finishes (Offices only) Specification of floor and ceiling finishes only where agreed with the occupant or, for tenanted areas where the future occupant is unknown, installation in a show area only, to reduce wastage.	Not applicable	0	0	0	0.00%	0.00%	0.00%	0.00%		Responsibilities Architect
Wst05	Adaptation to climate change Encouraging consideration and implementation of measures to mitigate the impact of more extreme weather conditions arising from climate change over the lifespan of the building.	Resilience of Structure, Fabric, Building Services and Renewables Installation (1 Credit) 1. Climate Change Adaptation Strategy produced during RIBA 2 2. Climate Change Adaptation Strategy updated at RIBA 4	1	1	0	0.60%	0.60%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Architect Structural Engineer M&E Comments

Wst06	Design for disassembly and adaptability Encouraging consideration and implementation of measures design options related to adaptability and disassembly, which can accommodate future changes to the use of the building and its systems over its lifespan.	Design for Disassembly and Functional Adaptability - Recommendations (1 Credit) 1. Completed template Disassembly and Functional Adaptability – Implementation (1 Credit) 1. Completed template 2. Building adaptability and disassembly guide	2	2	0	1.20%	1.20%	0.00%	0.00%	Early Action RIBA Stage 2	Responsibilities Architect Structural Engineer Comments
LE01	Site selection Recognising the reuse of previously developed and contaminated land where appropriate remediation has taken place.	Previously Occupied Land (1 Credit) 1. Drawing showing footprint of previous development confirming how much of this footprint is covered by the new development.	2	1	1	2.00%	1.00%	0.00%	1.00%		Responsibilities Architect Contaminated land consultant Comments Contamination credit is a potential depending on whether contamination is found and remediated on site.
LE02	Identifying and understanding the risks and opportunities for the project Identifying and understanding the ecological risks and opportunities associated with the site to inform the determination of the strategic outcome for the site.	Pre-requisite - Ecological Value of Site 1. Letter template Foundation Route (1 Credit) 1. Completed GN34 Comprehensive Route (2 Credits) 1. BREEAM compliant Ecology report	2	2	0	2.00%	2.00%	0.00%	0.00%	Early Action RIBA Stage 1	Responsibilities Ecologist Selected team member Comments
LE03	Managing negative impacts on ecology Recognition of steps taken to avoid impacts on existing site ecology as far as possible.	Prerequisite 1. Close out LE02 above Planning and Measures On-Site (1 Credit) 1. BREEAM compliant Ecology report 2. CV confirming Ecologist's qualifications 3. Confirmation of implemented site measures in line with report Managing Negative Impacts of the Project (Up to 2 Credits) 1. BREEAM compliant Ecology report 2. Letter template	3	3	0	3.00%	3.00%	0.00%	0.00%	Early Action RIBA Stage 1	Responsibilities Ecologist Selected team member Comments
LE04	Change and enhancement of ecological value Recognition of steps taken to enhance site ecology.	Prerequisite 1. Close out LE03 above 2. Letter template Change and Enhancement of Ecology - Route 1 ONLY (1 Credit) 1. Confirmation that the project team have implemented local ecological solutions and measures to enhance the site Ecological Enhancement - Route 2 ONLY (1 Credit) 1. BREEAM compliant Ecology report 2. Drawings showing incorporation of recommended measures into the design Change and enhancement of ecology (Up to 3 Credits) - Route 2 ONLY 1. Ecologist completes biodiversity calculator	4	4	0	4.00%	4.00%	0.00%	0.00%		Responsibilities Ecologist Selected team member Comments
LE05	Long term ecology management and maintenance Encouraging the long term maintenance and management of ecology on site to ensure both new and existing ecological features continue to thrive.	Long Term Impact on Biodiversity 1. Letter template 2. Close out LE03 and LE04 above Planning Liason, Data, Monitoring and Review Management and Maintenance (1 Credit) 1. BREEAM compliant Ecology report 2. Drawings showing incorporation of recommended measures 3. Confirmation of implemented site measures in line with report 3. Letter template Landscape and Ecology Plan (1 Credit) 1. BREEAM compliant Landscape and Ecology Plan	2	2	0	2.00%	2.00%	0.00%	0.00%		Responsibilities Ecologist Selected team member Client Comments

Pol01	Impact of refrigerants Rewarding buildings that reduce the impact of refrigerant gas emissions.	Impact of Refrigerants (2 Credits) 1. Completed Pol 01 template 2. Datasheets showing all numbers used in template 3. Drawings showing AC units on site 4. Pol 01 Calculator Tool	3	1	1	2.00%	0.67%	0.00%	0.67%		Responsibilities M&E BREEAM Assessor Comments
Pol02	Local air quality Recognising buildings which limit their impact on local air quality, by consideration of the combustion plant and fuel used on site.	Local Air Quality (Up to 2 Credits) 1. Letter template 2. Drawings showing system 3. Datasheets for boilers (if not all electric) confirming NOx, PM10 and VOC emissions	2	2	0	1.33%	1.33%	0.00%	0.00%		Responsibilities M&E Comments
Pol03	Flood and surface water management Rewarding buildings and their sites that limit on-site and off-site local flooding and hence the damage this can cause.	Flood Resilience (Up to 2 Credits) 1. BREEAM compliant Flood Risk Assessment Pre-requisite - Surface Water Run-off 1. BREEAM compliant Drainage Plan 2. Letter template confirming no change/decrease in impermeable surfaces 3. Drawings confirming the above Surface Water Run-off Rates (1 Credit) 1. BREEAM compliant Drainage Plan Surface Water Run-off Volume (1 Credit) 1. BREEAM compliant Drainage Plan Minimising Water Course Pollution (1 Credit) 1. BREEAM compliant Drainage Plan	5	5	0	3.33%	3.33%	0.00%	0.00%		Responsibilities Flood Risk Consultant Drainage Engineer Comments
Pol04	Reduction of night time light pollution Avoiding or reducing the impact of night time light pollution, through careful design and specification of light sources.	Night Time Light Pollution (1 Credit) 1. Completed letter template 2. Drawings to show the location of the external lighting, time switches and photo-cells 3. Datasheets for all the above.	1	1	0	0.67%	0.67%	0.00%	0.00%		Responsibilities M&E Comments
Pol05	Reduction of noise pollution Avoiding or reducing the impact of external noise from the building.	Reduction of Noise Pollution (1 Credit) 1. Noise Impact Assessment 2. Drawings confirming installation of any recommendations.	1	1	0	0.67%	0.67%	0.00%	0.00%		Responsibilities Acoustician Comments
Inn01	Innovation Test out new ideas which, if successful, could change the status quo of the industry. Allow the industry to explore new opportunities and evolve its processes.	Up to 10 Credits Man 03 - Responsible Construction Practices LE 04 - Ecological Enhancement	10	2	1	10.00%	2.00%	0.00%	1.00%		
Total							73.53%	0.00%	16.27%		

E. HQM Tracker - Residential

Our Surroundings						
Issue ID	Issue ID/ Description/Aim	Credit Requirements	Available Credits	Predicted Credits	RIBA Stage - Critical	Responsibilities/Comments
1	Transport and Movement		48	25		
1.1	Public Transport Availability Recognising and encouraging developments which are close to public transport networks. This will give consumers a choice and mean they are not as dependent on their cars, which will reduce associated emissions.	Accessibility Index (up to 12 credits) 1. Transport Accessibility Report confirming Accessibility score 2. Copy of the HQM Transport Calculator Improved Local Service (3 credits) 1. Discussions with transport companies to increase Accessibility Index score of 1.0 through increasing local service provision local to the development, lasting for a minimum of 5 years.	15	6		
1.2	Sustainable Transport Options Providing alternative sustainable transport and associated facilities so that people become less dependent on traditionally fuelled cars.	Home Information (Prerequisite) 1. Close out issue number 11.2 Cycle Storage (up to 6 credits) 1. Site drawings to confirm the number of cycle spaces to be installed for the development. 2. Lighting fixtures and controls datasheets Cycle Networks (4 credits) 1. Consultation with local authority to identify improvements the development could make. 2. Drawings to show the implementation of the chosen improvement within the design. Electric Vehicle Charging Points (4 credits) 1. Drawings/specifications to confirm electrical vehicle points being installed on site. 2. Letter template Car Clubs (3 credits) 1. Evidence to confirm that there is a compliant car club within 650m of the home (2 credits). 2. Evidence to confirm that at least 60% of the vehicles available at the car club are electric or hybrid (1 credit).	17	8	Early Action RIBA Stage 1	Car club credits are a potential as there may be access to Zipcars in the area. Further research will be required by the team to confirm this if credits are to be targeted.
1.3	Local Amenities Ensuring occupants have easy access to a range of key amenities to reduce the need for motorised transport.	Key Local Amenities (11 credits) 1. A Local Amenities Report including key amenities within walking distance of the development. Beneficial Local Amenities (5 credits) 1. A Local Amenities Report including beneficial amenities within 1.5 miles of the development.	16	11		Beneficial local amenities credits are potentials depending on whether there are at least two beneficial amenities within 650m of the site - these include leisure facility (fitness or sports), childcare or school, large scale retail or community facility.
2	Outdoors		58	27		
2.1	Identifying Ecological Risks and Opportunities Calculating the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving the best outcomes.	Assessment Route Selection (Prerequisite) 1. Assessment route to be chosen based on ecology on current site (based on GN34) Survey and Evaluation (up to 3 credits) 1. Ecologist's completed survey including current and potential ecological value, indirect risks and suggested enhancements. Determining Ecological Outcomes (3 credits) 1. Ecologist's report including actions to mitigate negative impacts and outline possible ecological enhancements. Comprehensive route - Wider Site Sustainability (1 credit) 1. Wider site sustainability-related activities considered, in addition to, the optimal ecological outcome for the site within the ecologist's report.	7	5	Early Action RIBA Stage 2	
2.2	Managing Impacts on Ecology Avoiding, or limiting as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.	Ecological Risks and Opportunities for the Project (Prerequisite) 1. Signed letter to confirm that compliance will be monitored against all relevant UK, EU and international legislative. Liaison, Implementation and Data (3 credits) 1. Completed Ecologist's report with recommendations. Managing Negative Impacts (3 Credits) 1. Ecologist's report including the change in ecological value for the area.	9	6		

2.3	Ecological Change and Enhancement Enhancing the ecological value of the site and areas within its zone of influence to support local, regional and national priorities.	Previously Occupied Land (2 credits) 1. Site drawings to show that at least 75% of the proposed development is on previously developed land. Ecological Risks and Opportunities for the Project (Prerequisite) 1. Signed letter to confirm that compliance will be monitored against all relevant UK, EU and international legislative. Liaison, Implementation, and Data (2 credits) 1. Drawings to confirm the implementation of ecologist's recommendations within the design. Foundation Route (2 credits) 1. Communication showing collaboration and incorporation of recommended measures into the design Comprehensive Route (up to 8 credits) 1. Ecologist's report including the change in ecological value for the area.	12	4		
2.4	Long Term Ecological Management and Maintenance Monitoring, managing and maintaining the site and its biodiversity and ecological features to achieve the intended outcomes for the long term.	Roles and Responsibilities, Implementation, Statutory Obligations (Prerequisite) 1. Signed letter to confirm that compliance will be monitored against all relevant UK, EU and international legislative. Home Information (Prerequisite) 1. Close out issue number 11.2 Liaison, Review and Management (Prerequisite) 1. Drawings to confirm the implementation of ecologist's recommendations within the design. Landscape and Ecology Management Plan (4 Credits) 1. Ecologist's Landscape and Ecology Management Plan Monitoring and Update (4 Credits) 1. Arrangements for the ongoing management of landscape and ecology on site where the ecological value is maintained	8	8	Early Action RIBA Stage 2	
2.5	Recreational Space Providing occupants with access to outdoor recreational space, promoting community spirit, activity and wellbeing.	Home Information (Prerequisite) 1. Close out issue number 11.2 Accessible Recreational Spaces (4 Credits) 1. Maps surrounding the site to confirm recreational spaces within walking distance to the site. Private Space (up to 6 credits) 1. Site drawings to confirm any private external space in association with the dwellings (credits dependent on space dedicated to each apartment) Communal Space (up to 7 credits) 1. Site drawings to confirm the dwellings are in close proximity to communal external space. 2. Letter template Growing Space (up to 3 credits) 1. Site drawing/ local maps to confirm the site is in close proximity to growing space. Expert Input (2 credits) 1. Specialist input for the design of the growing space, including implementing low maintenance species within the	22	4		Private space is a potential, depending on the size of the private outdoor space provided (i.e. balconies with a 1.5m depth; overall size over 4m ² depending on flat type.
3	Safety and Resilience		47	42	0	
3.1	Flood Risk Reducing the risk of flooding for occupants and neighbours by considering the location, master-planning and design of new homes.	Flood Risk Assessment (Minimum Requirement) 1. Site specific Flood Risk Assessment. 2. Letter template Flood Risk (up to 19 credits) 1. Low risk - 19 credits awarded. 2. Medium to High risk - Flood risk report considers resilience and resistance of the development to flooding (17 credits).	19	19		

3.2	Managing Rainfall Impacts Encouraging new developments to include measures to manage rainfall to help reduce the risk of flooding, as well as the impact on the local environment and the environment downstream of the site, and improve the quality of run-off water.	Home Information (Prerequisite) 1. Close out issue number 11.2 Managing the rate and volume of run-off (up to 14 credits) 1. Surface water discharge report Water Quality (3 credits) 1. Confirmation by a specialist of pollution prevention measures installed in surface water drainage systems. Designing for Maintenance and Operation (2 credits) 1. Confirmation for the agreement plan place for the ownership, long term operations and maintenance of all SUDs installed on the development.	19	14		
3.3	Security Promoting the design of developments where people feel safe and secure, and where crime and the fear of crime does not reduce people's quality of life or sense of community.	Home Information (Prerequisite) 1. Close out issue number 11.2 Security Needs Assessment (Prerequisite) 1. A copy of the Security Needs Assessment completed by the Suitably Qualified Specialist Security Features (up to 9 credits) 1. Report containing the security specialist's recommendations for the site following the Security Needs Assessment. 2. Drawings confirming the implementation of these recommendations on site	9	9	Early Action RIBA Stage 2	

My Home						
Issue ID	Issue ID/ Description/Aim	Credit Requirements	Available Credits	Predicted Credits	RIBA Stage - Critical	Responsibilities/Comments
4	Comfort		68	27		
4.1	Indoor Pollutants Increasing comfort for occupants and minimising negative impacts on health arising from indoor air pollutants emitted from the building and its materials.	Home Information (Prerequisite) 1. Close out issue number 11.2 Minimising Emissions from Space and Water Heating (Prerequisite) 1. Drawings/Specifications to confirm flues within the design if there are combustion appliances present Minimising the Effects of Cooking (up to 2 credits) 1. Drawings/Specifications to confirm that a cooker hood has been installed and is appropriate for the ventilation strategy for the building. Minimising Emissions from Building Product Types (up to 4 credits) 1. Manufacturer specifications for building product types to be installed are compared to Table 17 (to be provided) emissions limits. Minimising Airborne Formaldehyde from all Sources (3 credits) 1. Commitment for post construction formaldehyde concentration testing. Minimising Airborne TVOCs (total volatile organic compounds) from all Sources (3 credits) 1. Commitment for post construction TVOC concentration testing.	12	6		
4.2	Daylighting Promoting access to daylight, which will improve the occupants' quality of life and reduce the amount of energy used to light the home.	Average Daylight Factor (kitchens) (5 credits) 1. Daylight report stating the average daylight factor for kitchens within the dwellings. Target of 2% for compliance. Average Daylight Factor (living spaces) (up to 5 credits) 1. Daylight report stating the average daylight factor for the living spaces within the dwellings. Target of 2% for compliance. View of Sky (3 credits) 1. Daylight report stating the percentage of living areas receiving direct light from the sky. Target of 80% for compliance.	13	0		Potential credits - pending daylight modelling.

4.3	Noise sources Reducing noise disturbance to occupants in both inside and outside areas of homes by promoting low levels of sound from noise sources outside the home and from building services.	Internal Noise Levels (2 credits) 1. Acoustic report confirming the dwellings meet the internal noise requirements External Noise Levels (up to 2 credits) 1. Noise impact report confirming that the predicted noise levels from the external functional spaces do not exceed the requirements.	4	0	Potential credits - pending acoustic modelling.
4.4	Sound Insulation Reducing noise disturbances for occupants and neighbours by promoting good levels of sound insulation between neighbouring homes and different rooms within the home.	Sound Insulation Between Homes (5 credits) 1. Acoustic report confirming the predicted airborne sound insulation and impact sound insulation for the dwellings. Sound Insulation Levels for Internal Walls and Floors (up to 4 credits) 1. Acoustic report confirming the predicted airborne sound insulation for the between floors and walls.	9	0	Potential credits - pending acoustic modelling.
4.5	Temperature Minimising the risk of uncontrollable high temperatures happening as a result of current and projected future climate scenarios by recognising that this needs to be considered early in the design process.	Home Information (Prerequisite) 1. Close out issue number 11.2. Temperature Analysis (Minimum requirement) Thermal analysis (up to 17 credits) 1. Thermal Comfort Report including predicted climate change scenarios	17	17	
4.6	Ventilation Achieving a high standard of air quality in the home to avoid environments that could damage the health and wellbeing of people living in it.	Information Sign (Minimum Requirement) 1. Confirmation that an information sign will be securely fixed to the rear of the boiler, meter or airing cupboard. Ventilation Air Intakes (4 credits) 1. Specifications to show confirmation that the home's ventilation air intakes will avoid drawing in pollution in accordance with CIBSE TM21 Ventilation Rates (Minimum Requirement) Ventilation Rates (5 credits) 1. The ventilation rates comply with requirements set out in table 25 (to be provided) Maintenances and Controls (Minimum Requirement) Maintenance and Controls (4 credits) 1. The maintenance and controls requirements will be complied with in accordance to table 28 (to be provided)	13	4	
5 Energy			83	15	
5.1	Energy and Cost Improving energy performance and reducing costs associated with running the home, and encouraging more thorough energy calculations during the design stage.	Home Information (Prerequisite) 1. Close out issue number 11.2. Energy Performance (up to 40 credits) 1. SAPs associated with each dwelling ≥ 0.9 and zero net regulated CO ₂ emissions. Towards Carbon Negative (up to 6 credits) 1. Dwelling achieves a home efficiency performance rating ≥ 0.9 and zero net regulated CO ₂ emissions. Cost (up to 14 credits) 1. Credits awarded based on the cost output taken from the HQM energy engine based on the modelled outputs	60	0	Credits to be awarded based on how the building performs once modelled
5.2	Decentralised Energy Maximising the cost and carbon-saving benefits of generating energy from low and zero carbon technologies (LZCTs) by encouraging best practice when selecting, installing and allowing for easy future installation of LZCTs.	Home Information (Prerequisite) 1. Close out issue number 11.2 Feasibility Study (Prerequisite) 1. Feasibility study for renewable energy options Implementation of Feasibility Study Findings (up to 8 credits) 1. Confirmation that the recommended Low Zero Carbon Technologies (LZCT) have been incorporated into the design or appropriate infrastructure is available for future retrofit of at least one LZCT	8	0	Potential credits based on the technologies being specified for the building (i.e. PV) and the relevant studies being conducted.

5.3	Impact on Local Air Quality Promoting the use of heating and hot-water generating appliances which have little or no impact on local air quality.	Impact on Local Air Quality (15 credits) 1. Letter confirming that all heating and hot water within a home is supplied by non-combustion appliances 2. Drawings confirming the system to be installed OR 1. Specifications for the plant equipment in line with the NOx emissions levels outlined in table 35 (to be provided) (up to 10 credits)	15	15		
6 Materials			69	23		
6.1	Responsible Sourcing Encouraging the selection of construction products where sustainable development principles have been followed across the supply chain, including when extracting, processing and manufacturing materials and parts.	Legally Harvested Timber (Pre-requisite) 1. Letter template to confirm that all timber and timber based products used in the building is legally harvested and traded timber Product Procurement Policy (2 credits) 1. Sustainable Procurement Plan for sourcing products from RIBA 2. Responsible Sourcing of Construction Products Assessment (up to 23 credits) 1. A spreadsheet of materials details, manufacturers and areas (m2) required for the HQM Material assessment tool.	25	10	Early Action RIBA Stage 2	
6.2	Environmental Impact of Materials Reducing the effect construction products have on the environment by recognising and encouraging the selection of products with a low environmental impact, including embodied carbon over the life cycle of the building.	Product Procurement Policy (2 Credits) 1. Sustainable Procurement Plan for sourcing products from RIBA 2. Product Environmental Information (up to 4 credits) 1. A spreadsheet of materials details and manufacturers to source verified EPDs Building Life Cycle Assessment (up to 19 credits) 1. Material Life Cycle Assessment	25	6	Early Action RIBA Stage 2	Life cycle assessment credits are a potential as modelling of the building is required, and credits are based on the outcome of this.
6.3	Life Cycle Costing Encouraging economic sustainability by recognising and encouraging people to use and share life cycle costing analysis data to reduce maintenance and operational costs and deliver value over the whole life of a home.	Occupant's Life Cycle Cost Report (6 credits). 1. Life Cycle Cost report Component Level Life Cycle Cost Optimisation (6 credits) 2. Component Level Life Cycle Cost Report	12	0		Potential credit - life cycle costing reports must be produced on time (initial report from RIBA 2), and an additional occupiers report is required. Credits can be awarded if these are done by a qualified individual.
6.4	Durability Reducing the need for maintenance, repairs and frequent replacement of materials resulting from damage to exposed elements of the building and landscape.	Integral Elements (5 credits) 1) Drawings/Specifications to illustrate protection measures within the building. Finishing Elements (2 credits) 1) Drawings/Specifications to illustrate measures in place to limit degradation of surface building elements.	7	7		
7 Space			24	7		
7.1	Drying space Providing access to sufficient and convenient drying space to reduce the effect drying clothes inside has on occupants' health and the amount of energy used.	External Drying (1 credit) 1. Site plans to show any secure external drying spaces Internal Drying (2 credits) 1. Specifications to confirm tumble dryer or washer dryer to be installed on site has the required Energy Efficiency Class.	3	0		Potential credit - External drying space will need to be a minimum of 20m long depending on building type. Also, the internal drying space credit will depend on the EU energy label the drier has.

7.2	Access and Space Providing an acceptable and effective internal space that is accessible to all and supports the function of the home.	Home Information (Prerequisite) 1. Close out issue number 11.2. Nationally Described Space Standards (5 credits) 1. Confirmation that the dwellings meet the Technical Housing Standard - Nationally Described Space Standard Accessible and Adaptable Design (3 credits) 1. Accredited Access Consultant assigned and assessment conducted. Accredited Access Consultant Confirmation (3 credits) 1. Site inspection report from accredited access consultant and 'As built' evidence review.	11	0		Potential credit - depends on accessible design and the appointment of an accredited access consultant
7.3	Recyclable Waste Providing occupiers with suitable options for storing and disposing of recyclable waste, and reducing the amount of waste that goes to landfill by making it more convenient to store of recycling in the home before it is collected.	Home Information (Prerequisite) 1. Close out issue number 11.2. Consultation with the Waste Collection Authority (2 credits) 1. Recorded discussions with the waste collection authority to determine the waste collection patterns and number of recyclable waste streams. Internal Waste Storage (5 credits) 1. Drawings/room specifications to confirm internal recyclable waste facilities. Composting Facilities and Management (3 credits) 1. Drawings/specifications for composting facilities in the development.	10	7	Early Action RIBA Stage 2	
8	Water		17	8		
8.1	Water Efficiency Reducing the amount of mains water used in the home.	Water Efficient Fittings (up to 11 credits) 1. Manufacturer's data sheets for the water components to be installed within the dwelling. Water Recycling (up to 6 credits) 1. Confirmation of rainwater or greywater recycling systems that have been installed on site	17	8		To close out this credit we require: 1) Water fitting schedule listing all water fittings and their flow rates 2) Datasheets for all fittings confirming flow rates from the schedule

Delivery

Issue ID	Issue ID/ Description/Aim	Credit Requirements	Available Credits	Predicted Credits	RIBA Stage - Critical	Responsibilities/Comments
9	Quality Assurance		33	18		
9.1	Project Preparation Encouraging procedures that improve the overall quality of the home and reduce the difference between predicted and actual performance in the home.	Feedback from Previous Projects (4 credits) 1. An outline delivery plan which is kept up to date as the project progresses. Demonstrations of lesson learned from previous projects have been incorporated. Project Delivery Plan (Minimum requirement) 1. Production of a project delivery plan. Product Procurement and Substitution Policy (Minimum requirement) 1. Sustainable Procurement Plan. Dissemination of Information (Minimum requirement) 1. Confirmation of how the communication of the project delivery plan will be issued to the relevant teams. Site Worker Feedback (2 credits) 1. Documented policy and procedure for site worker feedback.	6	2	Early Action RIBA Stage 2	
9.2	Commissioning and Testing Ensuring homes and their systems are performing as designed when they are handed over to the occupiers.	Commissioning Building Services and Control Systems (Minimum requirement) 1. Letter to confirm that an appropriate team members have been appointed to conduct and manage commissioning activities. Fabric Pre-Testing (up to 4 credits) 1. Airtightness testing by appropriate professional body. Post-Construction Testing (up to 7 credits) 1. Post Construction testing and inspection by professional body	11	0		

9.3	Inspections and Completions Increasing confidence that the home is capable of meeting its specified performance targets and a high level of build quality.	Visual Defects Inspection (Minimum requirement) 1. An appropriately qualified third party has conducted a visual defects inspection. Construction Inspections (Minimum requirement) 1. Letter to confirm the appropriately qualified individual has carried out systematic and scheduled inspections of build quality. Construction Record (minimum requirement) 1. Construction record an appropriately qualified person, demonstrating quality assurance measures. Right to Inspect (2 credits) 1. Letter to confirm right to inspect the dwelling for potential owners. Feedback dissemination (1 credit) 1. Appropriately Qualified individual provides feedback on any lessons learned and examples of good practice. Third Party Verification (5 credits) 1. Credit awarded if the Construction Inspections are conducted by an appropriately qualified person is from an independent third party. Early Inspection Visit (4 credits) 1. Contracted commitment in place for a visit to be made between four and six weeks after the occupant's have moved in. Seasonal Inspection Visit (4 credits)	16	16		
10	Construction Impacts		31	25		
10.1	Responsible Construction Practices Promoting the environmentally and socially considerate, and accountable, management of construction sites	Responsible Construction Management (up to 5 credits) 1. Copy of CCS report/certificate 2. Letter template	5	5		
10.2	Construction Energy Use Avoiding wasting energy on site and reduce as far as possible the amount of energy used, and associated carbon emissions, during the construction process.	Contractor's Energy Efficiency Checklist (2 credits) 1. Completed Contractor's energy efficiency checklist (table 58 to be provided) Energy Monitoring and Reporting (2 credits) Target, monitor and report Energy use on site during construction. Weekly Detailed Monitoring and Reporting of Metered Energy Use (1 Credit) Target, monitor and report Energy use on site during construction on a weekly basis.	5	5		
10.3	Construction Water Use Avoiding wasting water on site, by using it efficiently and reducing usage as far as possible.	Contractor's Water Efficiency Checklist (2 credits) 1. Completed Contractor's energy efficiency checklist (table 58 to be provided). Energy Monitoring and Reporting (2 credits) Target, monitor and report water use on site during construction. Weekly Detailed Monitoring and Reporting of Metered Energy Use (1 Credit) Target, monitor and report water use on site during construction on a weekly basis.	5	5		
10.4	Site Waste Management Promote resource efficiency and reducing as far as possible the effect of construction on the environment by managing construction waste effectively to reduce the total amount of waste produced, and by looking at alternatives to landfill for disposing waste.	Product Procurement Policy (1 Credits) 1. Sustainable Procurement Plan for sourcing products. Construction Resource Efficiency (up to 8 credits) 1. Pre-demolition audit and Site Waste Management Plan (SWMP) Diversion of construction waste from landfill (up to 4 credits) 1. Target set in SWMP Diversion of excavation waste from landfill (3 credits) 1. Target set in SWMP	16	10		
11	Customer Experience		22	9		
11.1	Aftercare Supporting occupants when they first move into their home, to help them manage their home efficiently, live comfortably and deal with any early problems as soon as possible.	Building Warranty (Minimum requirement) 1. Confirmation that the home is covered by a building warranty from a warranty provider who is a member of The Consumer Code for Home Builders. Handover visit (Minimum requirement) 1. Contracted commitment is in place for an introduction to the home information and demonstrations of how things operate. On-call support (up to 4 credits) 1. Contracted commitment has been made to provide on-call support to the occupants up to 3 years.	4	4		

11.2	Home Information Providing occupants with useful and accessible information that helps them get the most from their home, work with their local community and reduce their costs and environmental footprint.	Home Information (minimum requirements) 1. Home information pack that will be distributed to the occupant at the time of move in.	0	0	Early Action RIBA Stage 2	
11.3	Smart homes Ensuring that the home is able to adapt to increasingly digital lifestyles, taking account of developing technologies, and responding to the growing demand for digital connectivity and smart systems throughout the home.	Home Information (Prerequisite) 1. Home information pack to be provided to the occupant at time of move in. Connectivity to the Home (up to 2 credits) 1. Confirmation that a network infrastructure provider is contacted through the planning stage. Connectivity within the Home (1 credit) 1. Drawings to confirm that there is a primary home distribution space containing a patching panel and further connectivity within the flat. Basic Smart Heating (1 credit) 1. Drawing/specification for the smart home devices or systems that will be installed. Advanced Smart Heating (1 credit) 1. Drawing/specification for the smart home device with additional smart heating functionality or systems. Basic Smart Lighting (1 credit) 1. Drawing/specification for the smart home devices or systems that will be installed. Smart Energy Management (1 credit) 1. Drawing/specification for the smart home devices or systems that will be installed. Additional Smart Solutions (1 credit) 1. Drawing/specification for the smart home devices or systems that will be installed at no extra cost to the occupant. Occupant Satisfaction Feedback and Bill Data (2 credits) 1. A commitment from an appropriately qualified professional to carry out a formal offer to be involved with the POE in an accessible format.	8	3	Early Action RIBA Stage 2	
11.4	Post Occupancy Evaluation Providing improved feedback on the performance and the occupants' experience of the home, to inform stakeholders in the future and to help reduce performance gaps in homes.	Energy and Temperature Monitoring (3 credits) 1. A commitment from an appointed qualified professional to collect and monitor Energy consumption in kWh per person or m2 and record internal temperatures within the bedrooms and communal spaces hourly for one year. Advanced POE (2 credits) 1. Appropriately qualified professional commits to undertake at least one other Post Occupancy Evaluation (POE) Independent Third Party (3 credits) 1. A Third Party has been appointed as the suitably qualified professional to carry out the POE commitments.	10	2		

F. General Note

The report is based on information available at the time of the writing and discussions with the client during any project meetings. Where any data supplied by the client or from other sources have been used it has been assumed that the information is correct. No responsibility can be accepted by Ensphere Group Ltd for inaccuracies in the data supplied by any other party.

The review of planning policy and other requirements does not constitute a detailed review. Its purpose is as a guide to provide the context for the development and to determine the likely requirements of the Local Authority.

No site visits have been carried out, unless otherwise specified.

This report is prepared and written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information, improved practices and changes in guidance may necessitate a re-interpretation of the report in whole or in part after its original submission.

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