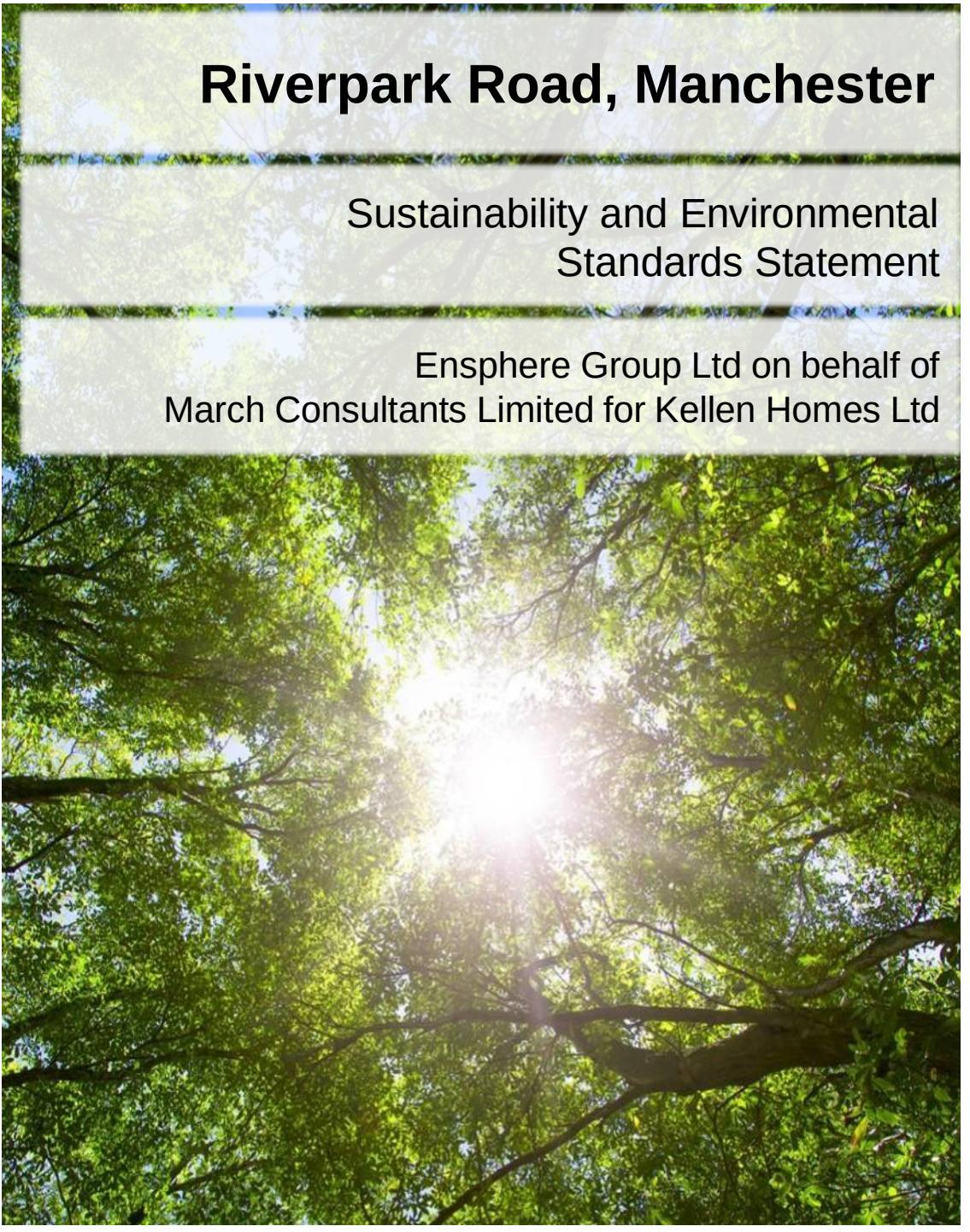


Riverpark Road, Manchester

Sustainability and Environmental Standards Statement

Ensphere Group Ltd on behalf of
March Consultants Limited for Kellen Homes Ltd



Ensphere Group Ltd
55A Catherine Place,
London, SW1E 6DY
+44 (0) 20 7846 9040
www.enspheregroup.com



Riverpark Road, Manchester

Sustainability and Environmental Standards Statement

Applicant Name: Kellen Homes Ltd

Document Reference: 24-E088-003

Project Number: 24-E088

Quality Assurance Approval Status

This document has been prepared and checked in accordance with Ensphere Group Ltd's Quality Management System.

Issue:	Version:	Prepared by:	Reviewed by:	Date:
Final	V02	Antonio Papageorgiou	Pete Jeavons	March 2025

Sustainability

Energy

Climate Change

Socio-Economic

Contents

1.	Executive Summary	1
2.	Introduction	2
3.	Assessment Methodology	3
4.	Planning Context	5
5.	Site Context	9
6.	Sustainable Design Proposals	12
7.	Sustainable Construction Proposals.....	17
8.	Summary	19
A.	Site Plans.....	22
B.	Key Local Planning Policy Requirements.....	24
C.	General Notes.....	40

1. Executive Summary

- 1.1 This Sustainability and Environmental Standards Statement presents the sustainability credentials for a proposed scheme at Riverpark Road, Manchester.
- 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 proposals are for the redevelopment of the above site into residential units consisting of apartment blocks as well as houses, with landscaping, cycle and car parking, and associated works. At a strategic level, the residential accommodation will assist with addressing the supply side housing shortages and will improve affordability. The development is therefore considered to be beneficial to the local community and aligned with socio-economic requirements.
- 1.4 A range of sustainable design features are proposed, and construction will be responsibly managed to ensure minimal impact on the environment and local community. Proposals include:
- Highly thermally efficient building fabric.
 - Integrated heat pump cylinder on the hot water for the apartments and houses. Electric panel heaters will be used on space heating in the apartments, with mains gas on space heating in the houses.
 - Potential for roof mounted PV to serve the houses, as well as landlord spaces of the apartment blocks.
 - 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.
- 1.5 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 on behalf of March Consultants Ltd was commissioned by Kellen Homes Ltd to produce a Sustainability and Environmental Standards Statement for the proposed development at Riverpark Road, Manchester.

Site and Surroundings

- 2.2 The Site currently consists of the Riverpark Trading Estate (“the Site”) which is 7.4 hectares (18.3 acres) in size. It is located in the Miles Platting & Newton Heath ward within the administrative boundary of Manchester City Council.
- 2.3 The Site is currently occupied by a number of buildings relating to its former use as an industrial estate, which are currently undergoing demolition. It is also the site of the former Manchester Abattoir which is understood to have operated at the Site until 2000.
- 2.4 The Site is bounded by Riverpark Road to the south, which is directly to the north of Phillips Park. Briscoe Lane forms the western boundary, with ten Acres Lane bounding it at the east and Manchester to Huddersfield railway line to the north. The wider surrounding area of the Site is characterised by a mix of residential and commercial development.

Proposed Development

- 2.5 The proposals are for the redevelopment of the above site into residential units consisting of apartment blocks as well as houses, with landscaping, cycle and car parking, and associated works.

Report Objective

- 2.1 The objective of the Sustainability and Environmental Standards 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 interchangeable 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 (2024)

4.2 The National Planning Policy Framework (NPPF) was updated in December 2024. 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.”*

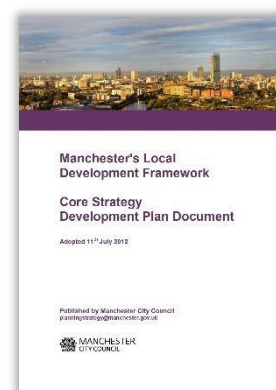
10. *“So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development”*

- 4.3 Chapter 14 of the NPPF includes consideration of climate change and the use and supply of renewable and low carbon energy. Paragraph 161 states:

“The planning system should support the transition to net zero by 2050 and full account of all climate impacts including overheating, water scarcity, storm and flood risks and coastal change. It should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.”

Planning Practice Guidance (2016; updated 2024)

- 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 - Guidance to help local councils in developing policies for renewable and low carbon energy and identifies the planning considerations.



Local Context

Manchester City Council Core Strategy (2012)

- 4.4 The Manchester City Council Core Strategy was adopted in 2012 and covers a 15-year period up until 2027. This is the key document in the Manchester Local Plan and the purpose of the document is to set out the Councils' vision for Manchester's future development through setting out long term strategic policies.
- 4.5 Some policies of the Core Strategy (CS) have been partially replaced by policies from the 'Places for Everyone (PfE) Joint Development Plan for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan 2022 To 2039' which was adopted in March 2024. As such, the Core Strategy must be read alongside the Addendum to Manchester Core Strategy 2024, which outlines these changes.
- 4.6 The following policies are considered most pertinent to this report:
- Policy SP1 (*Spatial Principles*)

- Policy H2 (*Strategic Housing Location*)
- Policy EN2 (*Tall Buildings*)
- Policy EN4 (*Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development*)
- Policy EN5 (*Strategic Areas for Low and Zero Carbon Decentralised Energy Infrastructure*)
- Policy EN6 (*Target Framework for CO₂ reductions from low or zero carbon energy supplies*)
- Policy EN7 (*Energy Infrastructure Opportunities*)
- Policy EN8 (*Adaption to Climate Change*)
- Policy EN9 (*Green Infrastructure*)
- Policy EN14 (*Flood Risk*)
- Policy EN15 (*Biodiversity and Geological Conservation*)
- Policy EN16 (*Air Quality*)
- Policy EN17 (*Water Quality*)
- Policy EN19 (*Waste*)

PLACES FOR EVERYONE JOINT
DEVELOPMENT PLAN DOCUMENT
FOR BOLTON, BURY,
MANCHESTER, OLDHAM,
ROCHDALE, SALFORD, TAMESIDE,
TRAFFORD AND WIGAN

2022 to 2039
ADOPTED 21 MARCH 2024

Places for Everyone Joint Development Plan Document for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan (2024)

- 4.7 The Places for Everyone Joint Development Plan Document sets out the development pathway for nine of the ten Greater Manchester boroughs from 2022 to 2039 to support their sustainable growth. It provides a strategic framework for local plans and supports the delivery and protection of key infrastructures and environmental assets.
- 4.8 As noted in section 4.4, a range of policies from the guide replace sections from the Core Strategy, and the relevant policies to this report are provided below with full details in the appendices.
- Policy JP-S1 (*Sustainable Development*)
 - Policy JP-S2 (*Carbon and Energy*)
 - Policy JP-S3 (*Heat and Energy Networks*)
 - Policy JP-S4 (*Flood Risk and the Water Environment*)
 - Policy JP-S5 (*Clean Air*)
 - Policy JP-S6 (*Resource Efficiency*)

- Policy JP-G8 (*A Net Enhancement of Biodiversity and Geodiversity*)
- Policy JP-P1 (*Sustainable Places*)

Guide to Development in Manchester (SPD) (2007)

- 4.9 The Guide to Development in Manchester (SPD) sets out the required documents and format that should accompany planning proposals in Manchester. Whilst written in the context of the former Unitary Development Plan, the guide remains an adopted document and gives reference to environmental standards, particularly in relation to energy efficiency and renewable energy.
- 4.10 References are made to carbon reduction targets in the context of earlier versions of the Building Regulations; and reference is made for developers to aim for at least 20% of final site energy demand from renewable energy generation.
- 4.11 References are also made to waste management strategies including the promotion of waste reduction and recycling along with waste storage and recycling facilities design.

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 regards 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 Manchester will increase from circa 220,459 in 2024 to around 242,703 by 2043; a ~10.1% increase over the period.

Output Area Classifications

- 5.5 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.
- 5.6 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.
- 5.7 Data from the 2021 Census identifies the site in Output Area Code (OAC) of E00026630 which is classified as “Baseline UK” (Supergroup Code 6), “Challenged Communities” (Group Code 6a) and “Younger Ethnic Minority Families in Flats” (Subgroup Code 6a3).

Pen portraits are provided by the Consumer Data Research Centre. Based on the classification above, the data indicates that terraced houses and flats in Supergroup 6 I are the most prevalent, with employment in intermediate or low-skilled occupations. Within the Group code 6a, overcrowded social housing is common, with private renting occurring at average UK levels. The type of housing most dominant are semi-detached houses, along with a significant number of terraced properties and flats in this Group. Unemployment is deemed high and those in

employment work mainly in caring leisure and other services; process, plant and machine operation; or elementary occupations in this Group.

Indices of Multiple Deprivation

- 5.8 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%).
- 5.9 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.
- 5.10 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 224 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.
- 5.11 The table below provides the data for the individual domains:

Table 5.1 **IMD Domain Scores**

Domain	Score
Income Rank	379
Employment Rank	422
Education, Skills and Training Rank	593
Health Deprivation and Disability Rank	797
Crime Rank	820
Barriers to Housing and Services Rank	6,020
Living Environment Rank	16,668
Rank of IMD Score	224

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

Environmental Context

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

Land Use

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

Flooding

- 5.14 The site is identified as being in Flood Zone 1 meaning the area has a low probability of flooding from rivers and sea, according to the Environment Agency's 'flood map for planning'. Further details can be found in the accompanying Flood Risk Assessment.

Ecology

- 5.15 The existing site is almost entirely covered by hardstanding and existing structures, with some areas of woodland and scrub on the rail embankment to the north. Further details can be found in the accompanying Ecological Appraisal.

Local Amenities & Public Transport

- 5.16 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.
- 5.17 The site's location close to the city centre puts a wide array of amenities and services within walking distance of the site. The Site is located within 1-mile walk of restaurants, cash machines, supermarkets and hairdressers/salons.
- 5.18 Greater Manchester Accessibility Levels (GMAL) provide a measure of the accessibility of the conventional public transport network, as well as Greater Manchester's Local Link (flexible transport service), taking into account walk access time and service availability. The government dataset identifies that the majority of the Site has a GMAL level of 5 (remainder of the Site ranges from 4 to 8), which indicates a moderate level of public transport accessibility. Multiple bus stops, serving around 10 routes, are in a close proximity to the Site and provide access across Manchester, including Oldham, Manchester Piccadilly, Monsall and Moston, with links to various railway stations. In addition to this, there are a multiple tram stops within 1.5 miles of the Site, serving the pink, blue and purple lines, therefore providing access across Manchester in particular to central Manchester, Rochdale and Eccles and Didsbury.
- 5.19 Further detail of the transport infrastructure can be found in the Transport Statement 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.

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. Further detail on energy matters is presented in the Energy Statement accompanying the application.

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 site shape, the development has multiple faces orientated in all directions. 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

- 6.5 Fabric efficiency concerns the thermal properties associated with the building fabric and construction.
- 6.6 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).
- 6.7 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, thus preserving the heat within the space and reducing the requirement for mechanical heating.
- 6.8 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.
- 6.9 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.
- 6.10 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.

System Efficiency

- 6.11 Where fans are employed, the specific fan power (SFP) for these systems will be efficient and target a power consumption rate of 0.3W//l/s.

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 Regulations requirements. It is intended that lighting efficacy shall be in excess of 110 lumens/circuit Watt (likely predominately LEDs).

Ventilation / Cooling Systems

- 6.14 Given that there are some acoustic considerations, it is anticipated that mechanical ventilation heat recovery will be included in the apartments to help maintain thermal comfort levels. The apartments will also have the potential to be ventilated naturally via openable windows.
- 6.15 For the proposed houses, the dwellings will be naturally ventilated via openable windows and cross ventilation.

Low Carbon / Renewable Technologies

- 6.16 It is proposed to use heat pumps for Domestic Hot Water (DHW). Electric panel heaters will be used on space heating in the apartments, with mains gas on space heating in the houses.
- 6.17 There is potential to install an extent of PV at roof level. This area will be maximised in the context of the available roof space and other demands on the roof area (e.g., green roof).
- 6.18 Further information can be found in the accompanying Energy Statement.

Climate Change

Thermal Comfort

- 6.19 The issue of overheating is being separately addressed; on the basis that, as buildings become progressively better sealed and insulated, the potential for overheating increases. The use of openable windows assisted by mechanical ventilation can help reduce the overheating risk, however the use of openable windows may be limited due to security, air quality and noise considerations. If acoustic or air quality constraints restrict window usage, provisions will be made for installing a comfort cooling system.

Flood Risk

- 6.20 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
- 6.21 The Site will incorporate appropriate drainage (SuDS) throughout the development to minimise run-off and reduce the risk of flooding elsewhere.
- 6.22 Further information can be found in the accompanying Drainage Strategy.

Water

- 6.23 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.
- 6.24 Water saving fittings and appliances shall be installed to achieve an overall water consumption level of <110 litres / person / day as a minimum.

Pollution

- 6.25 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.
- 6.26 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.
- 6.27 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.
- 6.28 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 & Materials

Waste and Recycling

- 6.29 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, including Manchester City Council's "Waste Storage and Collection Guidance for New Developments".

Circular Economy

- 6.30 Consideration has been given to the most appropriate Circular Economy ("CE") strategic approaches based on the nature and predicted lifespan of the development.
- 6.31 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

- 6.32 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.

- 6.33 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

- 6.34 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.
 - Additional habitat could be created above ground level such as the provision of bird and bat boxes.
- 6.35 The total net change in terms of biodiversity for habitat units is positive and expected to be in the order of 272.76%. Further details can be found in the Ecology Report submitted as part of the application.

Transport

- 6.36 Secure cycle storage will be provided to encourage building users to cycle, so promoting exercise and helping reduce congestion and emissions.
- 6.37 Electric Vehicle (EV) charging points are also anticipated, with provision for 7kW chargers included in the proposals.
- 6.38 The design team will aim to 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.

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 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' (2013), a guide for developers.

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.
- 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. Specific measures shall be outlined in the contractor's CEMP.

8. Summary

8.1 This Sustainability and Environmental Standards 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 Manchester's planning policies has identified a number of requirements relating to sustainable development including PfE Policies JP-S1 (*Sustainable Development*), and JP-S2 (*Carbon and Energy*). Consideration has also been given to the supplementary guidance documents and the National 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 Household projections in Manchester 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 with regards to most indicators, including in the 'Barriers to Housing and Services' rank. Output Area Classification data also suggests the potential for 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.

Sustainable Design and Construction

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

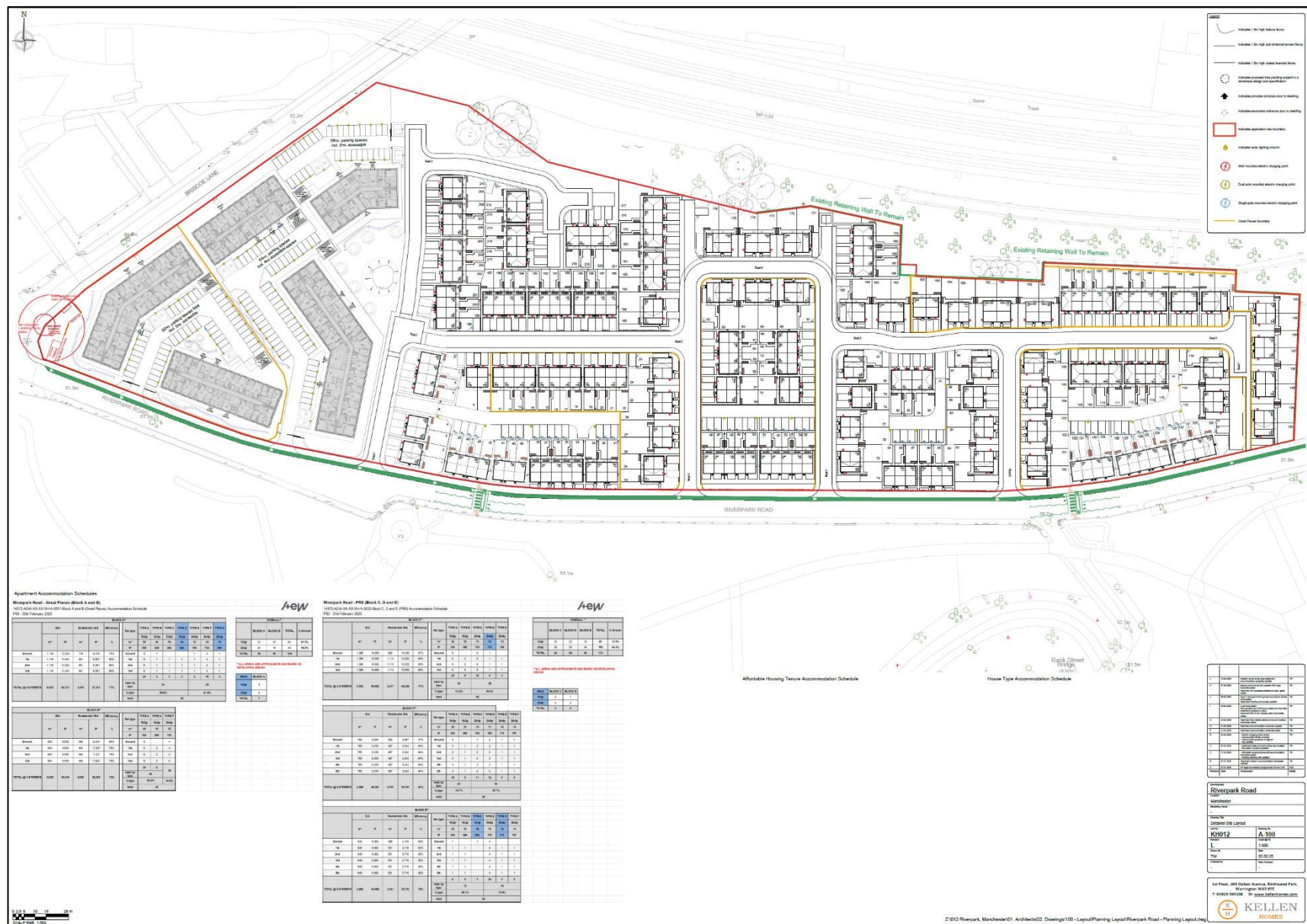
- Highly thermally efficient building fabric.
- Integrated heat pump cylinder on the hot water for the apartments and houses. Electric panel heaters will be used on space heating in the apartments, with mains gas on space heating in the houses.

- Potential for roof mounted PV to serve the houses, as well as landlord spaces of the apartment blocks.
- 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.

8.8 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



B. Key Local Planning Policy Requirements

Local Planning Policy Framework

Manchester City Council Core Strategy (2012)

The Manchester City Council Core Strategy is the overall strategic plan for Manchester. The following references include notes from the Addendum to Manchester Core Strategy 2024, which summarises the Core Strategy (CS) policies which have been partially replaced by Places for Everyone (PfE) policies.

Policy SP1 – Spatial Principles

The key spatial principles which will guide the strategic development of Manchester to 2027 are:

- The Regional Centre will be the focus for economic and commercial development, retail, leisure and cultural activity, alongside high quality city living.
- The growth of Manchester Airport will act as a catalyst for the regional economy, and will also provide the impetus for a second hub of economic activity in this part of the City.
- Beyond these areas, the emphasis is on the creation of neighbourhoods of choice, providing high quality and diverse housing around district centres which meet local needs, all in a distinct environment. The majority of new residential development in these neighbourhoods will be in the Inner Areas, defined by the North Manchester, East Manchester and Central Manchester Regeneration Areas.
- The City is covered by regeneration areas including the City Centre. All development should have regard to the character, issues and strategy for each regeneration area as described in the North, East, Central and South Manchester and Wythenshawe Strategic Regeneration Frameworks and the Manchester City Centre Strategic Plan.
- The City's network of open spaces will provide all residents with good access to recreation opportunities. The River Valleys (the Irk, Medlock and Mersey) and City Parks are particularly important, and access to these resources will be improved.
- New development will maximise the potential of the City's transport infrastructure, in particular promoting walking, cycling and use of the public transport. The extension to the Metrolink network through the Oldham and Ashton lines will create key corridors for new development.

Core Development Principles

Development in all parts of the City should:-

- Make a positive contribution to neighbourhoods of choice including:-
 - creating well designed places that enhance or create character.
 - making a positive contribution to the health, safety and wellbeing of residents
 - considering the needs of all members of the community regardless of age, gender, disability, sexuality, religion, culture, ethnicity or income.
 - protect and enhance the built and natural environment.
- ~~Minimise emissions, ensure efficient use of natural resources and reuse previously developed land wherever possible.~~
(Replaced by PfE Policy JP-S1)
- Improve access to jobs, services, education and open space by being located to reduce the need to travel and provide good access to sustainable transport provision.

Policy H2 – Strategic Housing Location

The key location for new residential development throughout the plan period will be within the area to the east and north of Manchester City Centre identified as a strategic location for new housing.

Land assembly will be supported in this area to encourage the creation of large development sites or clusters of sites providing the potential for significant regeneration benefits. Developers should take advantage of these opportunities by: -:

- Diversifying the housing offer with particular emphasis on providing medium density ~~(40-50 dwellings per hectare)~~ family housing including affordable housing. In locations which are close to the City Centre, such as the Lower Irk Valley and Holt Town, higher densities will be appropriate. However, the provision of family homes should remain an emphasis in these areas, too.

(Sections replaced by PfE Policy JP-H4)

- Including environmental improvements across the area.
- Creating sustainable neighbourhoods which include complementary facilities and services.
- Considering the scope to include a residential element as part of employment-led development.

Proposals will be expected to show how they contribute to decentralised low and zero carbon energy infrastructure as set out in the energy policies (EN4 - EN7).

Housing proposals in the Strategic Housing Location, in particular in West Gorton, the Irk Valley, Holt Town and the Lower Medlock Valley, will need to take account of the flood risk issues in line with policy EN14 - Flood Risk.

Policy EN2 – Tall Buildings

Tall buildings are defined as buildings which are substantially taller than their neighbourhoods and/or which significantly change the skyline.

Proposals for tall buildings will be supported where it can be demonstrated that they

- Are of excellent design quality,
- Are appropriately located,
- Contribute positively to sustainability,
- Contribute positively to place making, for example as a landmark, by terminating a view, or by signposting a facility of significance, and
- Will bring significant regeneration benefits.

A fundamental design objective will be to ensure that tall buildings complement the City's key existing building assets and make a positive contribution to the evolution of a unique, attractive and distinctive Manchester, including to its skyline and approach views.

Suitable locations will include sites within and immediately adjacent to the City Centre with particular encouragement given to non-conservation areas and sites which can easily be served by public transport nodes.

Elsewhere within Manchester tall building development will only be supported where, in addition to the requirements listed above, it can be shown to play a positive role in a coordinated place-making approach to a wider area. Suitable locations are likely to relate to existing district centres. The height of tall buildings in such locations should relate more to the local, rather than the City Centre, urban context.

By their very size tall buildings can have a significant impact on the local environment and its micro-climate. It is therefore expected that this impact be modelled and that submissions for tall buildings also include appropriate measures to create an attractive, pedestrian friendly local environment.

It will be necessary for the applicant/developer to demonstrate that proposals for tall buildings are viable and deliverable.

Policy EN4 – Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development

The Council will seek to reduce fuel poverty and decouple growth in the economy, growth in CO₂ emissions, and rising fossil fuel prices, through the following actions:

- ~~All development must follow the principle of the Energy Hierarchy, being designed:~~
 - ~~to reduce the need for energy through design features that provide passive heating, natural lighting and cooling~~

- ~~○ to reduce the need for energy through energy efficient features such as improved insulation and glazing~~
- ~~○ to meet residual energy requirements through the use of low or zero carbon energy generating technologies~~

(Sections replaced by PfE policy JP-S2)

- Wherever possible new development and retrofit projects, including energy generation plant, must be located and designed in a manner that allows advantage to be taken of opportunities for low and zero carbon energy supplies.
- Where possible new development and retrofit projects will be used as a mechanism to help improve energy efficiency and provide low and zero carbon energy supplies to existing buildings.
- Where appropriate new development and retrofit projects will be required to connect to and/or make contributions to low or zero carbon energy schemes and/or to incorporate provision to enable future connection to any existing / potential decentralised energy schemes.
- The use of building materials with low embodied carbon in new development and refurbishment schemes.

Policy EN5 – Strategic Area for Low and Zero Carbon Decentralised Energy Infrastructure

Within Manchester it is considered that the following strategic areas, indicated on the key diagram, will have a major role to play in achieving an increase in the level of decentralised, low and zero carbon energy supplies available:

- The Regional Centre, which also includes the Oxford Road Corridor and Eastlands
- District Centres and associated major development sites
- Airport Strategic Site
- Strategic housing location
- Strategic employment locations

Within these areas new development, regeneration and retrofit projects, will be expected to take place in the context of more detailed proposals for decentralised low and zero carbon energy infrastructure in the form of energy proposals plans. The Council will work with all relevant stakeholders, which may include developers, landowners, residents, community groups, private sector partners, utilities companies, neighbouring authorities and other public sector bodies, as appropriate, to bring forward such plans.

Where investment or development is being undertaken into or adjacent to a public building/asset or district heating network, full consideration shall be given to the potential role that these can have in providing an anchor load within a decentralised energy network or in creating opportunities for CO₂ reduction funded by contributions.

Policy EN6 – Target Framework for CO₂ reductions from low or zero carbon energy supplies

Applications for residential development of 10 or more units and all other development over 1,000 sq m will be expected as a minimum to meet the target shown in Tables 12.1 or 12.2, unless this can be shown not to be viable. This should be demonstrated through an energy statement, submitted as part of the Design and Access Statement. Such a statement will be expected to set out the projected regulated energy demand and associated CO₂ emissions for all phases of the development.

~~Developments smaller than the above threshold but involving the erection of a building or substantial improvement to an existing building will also be expected to meet the minimum target, where viable, but will not be expected to submit an energy statement.~~

~~The target framework relates to three broad development locations and their potential for low and zero carbon, decentralised energy. The areas are defined as follows:~~

- ~~• Target 1 Network development areas: Locations where the proximity of new and existing buildings, the mix of uses and density of development provide the right conditions to support district heating (and cooling).~~
- ~~• Target 2 Electricity intense areas: Locations where the predominant building type has an all electric fit out such as retail units and leisure complexes.~~
- ~~• Target 3 Micro generation areas: Locations where lower densities and a fragmented mix of uses tend to mean that only building scale solutions are practical.~~

Domestic CO₂ emissions reduction targets

Table 12.1

Target	% Minimum requirement
Target 1: Network development area	CHP/district heating anchor or connection or where not feasible a 15% increase on Part L 2010
Target 2: Electricity intense buildings	+15% increase on Part L 2010
Target 3: Micro development area	+15% increase on Part L 2010

Non-domestic CO₂ emissions reduction targets

Table 12.2

Target	% Minimum requirement
Target 1: Network development area	CHP/district heating anchor, or connection or where not feasible, a 15% increase on Part L 2010
Target 2: Electricity intense buildings (Applies to commercial uses with a high proportion of emissions from electricity use (>45 kg CO ₂ /m ²))	+10% increase on Part L 2010
Target 3: Micro generation area	+15% increase on Part L 2010

Where the CO₂ emissions reduction required under any future revision to Part L of the building regulations becomes greater than the '% Minimum requirement', the reduction required under building regulations would apply.

Where the Council identifies an 'allowable solution', for example within an energy proposals plan, that would produce higher carbon reductions at no extra cost than that of achieving the '% Minimum requirement' (or required under building regulations if greater) the higher percentage reduction will be required. The cost comparison is based on the cost of incorporating the 'allowable solution' at design stage.

(Sections replaced by PfE Policy JP-S2)

The energy statement will be required to be submitted at the outset of any proposed development (outline application or before). Developers will be permitted to use green infrastructure elements such as green roofs, green walls, street trees and waterways to contribute to compliance with CO₂ mitigation, subject to the energy statement incorporating evidence such as modelling to demonstrate compliance.

Guidance on what the energy statement should contain and how to decide which target applies to a development proposal is given in Appendix A.

Policy EN7 – Energy Infrastructure Opportunities

There will be a general presumption in favour of low and zero carbon decentralised energy schemes, subject to the following considerations:

- That any new generating plant capable of producing heat and cooling as well as electricity should be located in a way that facilitates future connection to a local distributed energy system.
- That any energy centre, including generating plant, standby/boiler plant and substations, shall be located and designed to a high quality so as to integrate with and contribute to the townscape.
- Biofuels should be obtained from sustainable sources and processes and in a way that minimises transport impacts, following a sequential approach in order to minimise CO₂ emissions – firstly prioritising local and regional sources, followed by national, European and international.
- Consideration should be given to biofuel delivery by rail and waterways where possible. Where large-scale fuel or feedstock delivery is required by road the energy centre must be located in or adjacent to light industrial, industrial or leisure uses with any impact on local residential amenity minimised.

- The cumulative impact of energy schemes will be taken into account when considering applications, to include modelled impacts on air quality and landscape character, with reference to Policy EN16.
- Flood risk, through the Manchester-Salford-Trafford Strategic Flood Risk Assessment.

In determining proposals for development, consideration will be given to the need to safeguard strategic energy sites and network routes, both proposed or existing, where these have been identified as having strategic significance for the delivery of low or zero carbon energy infrastructure or, would be required in order to achieve the successful regeneration of an area in line with targets for reducing carbon emissions.

Policy EN8 – Adaption to Climate Change

All new development will be expected to be adaptable to climate change in terms of the design, layout, siting and function of both buildings and associated external spaces. In achieving developments which are adaptable to climate change developers should have regard to the following, although this is not an exhaustive list:

- ~~• Minimisation of flood risk by appropriate siting, drainage, and treatment of surface areas to ensure rain water permeability~~
- Reduction in urban heat island effect through the use of Green Infrastructure such as green roofs, green walls, increased tree cover and waterways
- The need to control overheating of buildings through passive design
- ~~• The opportunity to provide linked and diverse green space to enhance natural habitats which will assist species adaptation~~

(Sections replaced by PfE Policies JP-S2, JP-S4 and JP-G8)

Developers will be permitted to use green infrastructure elements such as green roofs, green walls, street trees and waterways to contribute to compliance with CO₂ mitigation under Policy EN6, subject to sufficient evidence to quantify their contribution to compliance.

Policy EN9 – Green Infrastructure [extract]

New development will be expected to maintain existing green infrastructure in terms of its quantity, quality and multiple function. Where the opportunity arises and in accordance with current Green Infrastructure Strategies the Council will encourage developers to enhance the quality and quantity of green infrastructure, improve the performance of its functions and create and improve linkages to and between areas of green infrastructure. Where the benefits of a proposed development are considered to outweigh the loss of an existing element of green infrastructure, the developer will be required to demonstrate how this loss will be mitigated in terms of quantity, quality, function and future management.

Key features of Manchester's green infrastructure will include:

[...]

- The encouragement of green roofs, green walls, tree planting and other forms of green infrastructure to allow for the adaption to climate change in heavily urbanised areas.

New green infrastructure provision should be an exemplar of best practice and innovation in terms of both its design and management.

Policy EN14 – Flood Risk

- In line with the risk-based sequential approach contained within PPS25, development should be directed away from sites at the greatest risk of flooding, and towards sites with little or no risk of flooding; this should take account of all sources of flooding identified in the Manchester-Salford-Trafford Strategic Flood Risk Assessment (SFRA).
- In addition to the requirements for site-specific Flood Risk Assessments (FRAs) set out in PPS25, an appropriate FRA will also be required for all development proposals, including changes of use, on sites greater than 0.5ha within Critical Drainage Areas (CDAs) and Canal Hazard Zones identified in the SFRA.
- ~~• All new development should minimise surface water run-off, including through Sustainable Drainage Systems (SUDS) and the appropriate use of Green Infrastructure. Developers should have regard to the surface water run-off rates in the SFRA User Guide. In CDAs, evidence to justify the surface water run-off approach / rates will be required.~~

(Sections replaced by PfE Policy JP-S4).

- The City of Manchester contains many sections of rivers which are culverted or 'hidden'; where these are indicated in the SFRA beneath the proposed development site, further investigation will be required and the development proposal should take this into account; where feasible and appropriate development should seek to open up culverted/hidden rivers to reduce the associated flood risk and danger of collapse, taking advantage of opportunities to enhance biodiversity and Green Infrastructure.

Policy EN 15 – Biodiversity and Geological Conservation [extract]

[...]

Developers will be expected to identify and implement reasonable opportunities to enhance, restore or create new biodiversity, ~~either on-site or adjacent to the site~~, contributing to linkages between valuable or potentially valuable habitat areas where appropriate, with reference to:

- the Manchester Biodiversity Strategy, which provides further details of priority habitats within Manchester and opportunities for biodiversity enhancement including corridors such as the Mersey, Medlock and Irk river valleys, the canals and disused railway lines and areas of managed greenspace particularly in parks;
- the Green Infrastructure Framework for Greater Manchester, which encompasses an ecological framework that seeks to guide and inform habitat creation and repair, including identifying large 'biodiversity opportunity areas' including the Moston Brook Corridor and Nutsford Vale;
- the Open Space, Sport & Recreation Study, which identifies areas where there is a deficit of natural and semi-natural greenspace, opportunities for green corridors and other linkages;
- Manchester's Climate Change Action Plan;
- the Strategic Flood Risk Assessment (SFRA) for Manchester;
- the Habitats Regulations Assessment (HRA) for Manchester, which gives detailed consideration to Special Areas of Conservation (SACs), including the Rochdale Canal SAC just outside the district boundary;
- the River Basin Management Plan for the North West;
- the Manchester Tree Strategy.

Any adverse impacts on biodiversity will need to be justified against the wider benefits of the proposal, assessed against other LDF policies. Where adverse impacts are unavoidable, developers will be required to provide appropriate mitigation and/or compensation.

~~Development should wherever possible seek to maintain, enhance or restore existing geology.~~

(Sections replaced by PfE Policy JP-G8)

Policy EN 16 – Air Quality

The Council will seek to improve the air quality within Manchester, ~~and particularly within Air Quality Management Areas, located along Manchester's principal traffic routes and at Manchester Airport~~. Developers will be expected to take measures to minimise and mitigate the local impact of emissions from traffic generated by the development, as well as emissions created by the use of the development itself, including from Combined Heat and Power and biomass plant.

(Sections replaced by PfE Policy JP-S5)

When assessing the appropriateness of locations for new development the Council will consider the impacts on air quality, alongside other plan objectives. This includes cumulative impacts, particularly in Air Quality Management Areas.

Policy EN 17 – Water Quality

With reference to the Manchester-Salford-Trafford SFRA and other relevant documents:

- Development should avoid any adverse impact on water quality, including during the construction phase, and wherever possible should seek to enhance water quality, both chemical and ecological;

- ~~Development should minimise surface water run-off from development and associated roads, and maximise the use of appropriate sustainable drainage systems, to minimise groundwater contamination, and to avoid pollutants reaching watercourses~~

(Sections replaced by PfE Policy JP-S4)

- Development close to a watercourse should also ensure that waste or litter cannot enter the watercourse from the site;
- Development should, where feasible and appropriate, seek to open up any culverted or hidden watercourse beneath the site to improve the ecological status of that watercourse.

Policy EN 19 - Waste

The Council will

- Work with other Districts through the Greater Manchester Joint Waste Development Plan Document (GMJWDPD) to safeguard existing sites for waste management and identify and safeguard new sites in existing areas of employment where appropriate.
- Require all developers, including those of new waste management facilities within the District, to demonstrate the proposal's consistency with the principles of the waste hierarchy (prevention, reduction, re-use, recycling/composting, energy recovery, final disposal)
- Require all developers of new waste management facilities within the District to plan for and, where appropriate, use sustainable modes for waste transport, including use of modes such as rail and the Manchester Ship Canal.
- Require all developers to submit a waste management plan to demonstrate how both construction and demolition waste will be minimised and recycled on site wherever possible and how the sustainable waste management needs of the end user will be met.
- Have full regard to the economic and environmental benefits that well designed and run, waste management facilities can bring to the District, subject to any conditions required to protect the amenity of existing adjacent users.
- Promote the development of innovation and technological advancement within the sustainable waste management industry, aiming to achieve a closed-loop waste management system.
- Require waste management practices to have full regard to the environmental, social and economic impacts of such development and encourage long-term benefits in improving the environment, the regeneration of areas in need of investment and co-location with other employment uses where appropriate.
- Encourage communities to take responsibility for the waste they create through the provision of accessible facilities.

Places For Everyone Joint Development Plan Document (March 2024)

The Places For Everyone Joint Development Plan Document provides a strategic framework for local plans and sets out policies to inform planning applications in nine of the Greater Manchester boroughs. A range of policies from the plan also replace sections from the Core Strategy.

Policy JP-S1: Sustainable Development [extract]

To help tackle climate change, development should aim to maximise its economic, social and environmental benefits simultaneously, minimise its adverse impacts, utilise sustainable construction techniques and actively seek opportunities to secure net gains across each of the different objectives.

In preparing plans, authorities should make as much use as possible of suitable previously developed (brownfield) land and vacant buildings to meet development needs.

In bringing forward previously developed sites for development, particular attention will be paid to tackling land contamination and stability issues, ensuring that appropriate mitigation and remediation is implemented to enable sites to be brought back into use effectively.

[...]

Addressing Climate Change

5.5 Greater Manchester's Vision is to be at the forefront of action on climate change and to make its fair contribution to international commitments by becoming a carbon neutral city region by 2038. In acknowledgment of climate change, by 2020, all 10 districts and the Greater Manchester Combined Authority have declared a climate emergency. To support this vision a 5 Year Environment Plan¹⁸ was launched in 2019 to identify the urgent actions that are needed to ensure Greater Manchester can follow the required pathway for carbon neutrality.

5.6 To meet our carbon commitments we will need to:

- Be carbon neutral by 2038
- Hold cumulative carbon dioxide emissions to within our carbon budget
- Initiate a programme of mitigation to reduce emissions including by:
 - Significantly upscaling solar photovoltaic energy;
 - Reducing heat demand in homes;
 - Moving away from carbon intensive gas as the primary source of heat;
 - Reducing heating and cooling demand for public and commercial buildings;
 - Increasing biofuel use;
 - Enable sustainable choices for travel and decarbonise transport;
 - Significantly upscaling building retrofit; and
 - Increase the delivery of nature-based solutions and biodiversity net gain.

5.7 In supporting our ambitions, climate change is a key theme running throughout the plan, rather than being reduced to a single policy, and it is only through this combination of actions that it can be properly addressed. In particular we set out:

- Methods to de-carbonise the city region through new and existing development, effective land management and through the provision of infrastructure and new technologies Policy JP-S2 'Carbon and Energy';
- The delivery of renewable and low carbon energy schemes Policy JP-S3 'Heat and Energy Networks';
- Water based measures to adapt and reduce the impacts of climate change Policy JP-S4 'Flood Risk and the Water Environment'; and
- Measures to help achieve a circular and zero-waste economy Policy JPS6 'Resource Efficiency'

Carbon and Energy

[...]

5.10 Without any mitigation, new development is estimated to result in around a 3% increase in energy demand. However, new development also enables carbon reduction through the delivery of sustainable patterns of growth, which can support new public transport investment, the establishment of new energy centres and decentralised heat infrastructure, and nature based solutions to sequester carbon, which also provide multi-benefits, as well as opportunities to deliver high standards of energy efficiency through good design. Clean growth is essential to meet future emission targets and to avoid costly retrofit

programmes at a later date. Making this happen will require a co-ordinated approach towards carbon reductions through new and existing buildings and strategic energy infrastructure.

[...]

5.12 Meeting the 2038 carbon neutrality target will require a radical transformation across a range of sectors to drive carbon reduction. Within this, new development will have a critical role to play and all new homes and commercial/industrial buildings will need to achieve net zero carbon by 2028. The definition of net zero carbon development has been established by the UK Green Building Council.²² It is expected that development in the Plan area will apply a net zero carbon approach to operational emissions up until 2028, thereafter emissions in construction should be considered. Minimum carbon reduction targets will be set in line with the Future Homes Standard of 80% or until such a time this is superseded.

[...]

5.14 Part L 2021 of national Building Regulations took effect on 15 June 2022 and is a stepping stone to Future Homes and Future Building Standards (FHS), which is currently being consulted on in 2024 and is expected to be introduced in 2025. In the interim, the policy will follow the trajectory of FHS in relation to carbon reduction with applicants demonstrating how savings have been maximised following the energy hierarchy. From 2025, applicants will need to demonstrate carbon reductions have been maximised with an opportunity to offset any residual carbon to a carbon offset fund. The approach will be reviewed in line with future standards as they are introduced.

[...]

5.17 Based on the evidence which has informed the 5 Year Environment Plan and achieving net zero carbon in new development, this has shown that there will need to be a significant increase in photovoltaic technology. Therefore where planning applications for residential development are accompanied by an energy statement, the following best practice thresholds should be seen as the starting point in relation to reducing energy demand and onsite renewable energy generation. The thresholds set out in Table 5.1, for post 2025, are consistent with the GM Five Year Environment Plan.

Table 5.1 Best Practice Thresholds for Reducing Energy Demand and Onsite Renewable Energy Generation within residential developments

-	Space Heat Demand ²⁵	Hot Water Energy Demand ²⁶	Renewable Energy Generation Targets
2021 -2025	Houses (30kWh/m ²) Flats (25kWh/m ²)	20% energy demand reduction in the total heat required for water heating	*Photovoltaic installation: 20% ground floorspace
2025 -onwards	Houses (20kWh/m ²) Flats (15kWh/m ²)	^20% energy demand reduction in the total heat required for water heating	*Photovoltaic installation: 40% ground floorspace
*Ground floorspace used as a proxy for available roof area.	-	-	-
^will need to be reviewed with Future Homes Standard 2025 to determine if savings already embedded.	-	-	-

²⁵ As calculated within SAP 10.2, Space Heating Requirement (Box99 or equivalent at later SAP versions). It does not take into account the efficiency of the space heating system. It is based on a fabric first approach (insulation and airtightness)

²⁶ Reduction in expected DHW grid energy demand compared to the Part L concurrent notional building. Takes into account the efficiency of the domestic hot water generating system, on-site energy generation and direct use, and any other passive hot water energy recovery systems installed, as shown in Calculation Reference 62 in SAP10.2.

5.18 In calculating carbon emissions from 2025, 'unregulated' emissions (e.g. those associated with cooking and small appliances) should be assessed, in addition to 'regulated' emissions. The only way that this can be deliverable will be through the use of onsite electricity generation or through carbon offsetting ('allowable solutions') as occupants' lifestyle choices are not predetermined by energy efficiency measures associated with construction standards.

5.19 By following the energy hierarchy, new development will need to achieve net zero carbon through the maximisation of on-site measures first. However, in circumstances where a development has demonstrated that the hierarchy has been followed and there are no reasonable alternatives to meet the minimum carbon reductions, then payment to offset remaining emissions will also be required. Such payments should be expected to fund other carbon saving programmes within Greater Manchester to help meet the 5 Year Environment Plan targets (such as energy efficiency retrofit and renewable energy installations). The Mayor of Greater Manchester has developed the Greater Manchester Environment Fund, which will provide a mechanism for carbon offset payments to be made. Districts may also set up their own carbon off-setting schemes

and set their own carbon price. District carbon off-set funds will need to be ring-fenced and used effectively to support local carbon reduction projects and programmes (such as retrofitting existing properties with energy efficiency measures).

5.20 When considering a whole life approach for any new building, embodied emissions from construction can account for up to half of the carbon impacts associated with its lifecycle. In addition, other emissions can be attributed to the end-of-life stages such as demolition, repair or refurbishment.

[...]

5.22 Greater Manchester seeks to promote investment in new zero-carbon technologies, to reduce the reliance on carbon-based fuels to accelerate the speed at which such new technologies become financially viable and/or technically feasible.

[...]

Policy JP-S2: Carbon and Energy

The aim of delivering a carbon neutral Greater Manchester no later than 2038, with a dramatic reduction in greenhouse gas emissions, will be supported through a range of measures including:

1. Promoting the retrofitting of existing buildings with measures to improve energy efficiency and generate renewable and low carbon energy, heating and cooling;
2. Promoting the use of life cycle cost and carbon assessment tools to ensure the long-term impacts from development can be captured;
3. Taking a positive approach to renewable and low carbon energy schemes, particularly schemes that are led by, or meet the needs of local communities;
4. Increasing the range of nature-based solutions including carbon sequestration through the restoration of peat-based habitats, woodland management, tree-planting and natural flood management techniques;
5. An expectation that new development will, unless it can be demonstrated that it is not practicable or financially viable;
 - a. Be net zero carbon⁽²⁹⁾ which applies:
 - from adoption– to regulated operational carbon emissions;
 - from 2028 -to all emissions 'in construction'.

From 2025 development should also calculate and minimise carbon emissions from unregulated emissions alongside regulated emissions.

Development proposals should set out how this has been achieved in an energy statement in accordance with the energy hierarchy, which in order of importance seeks to:

- i. Minimise energy demand;
- ii. Maximise energy efficiency;
- iii. Use renewable energy;
- iv. Use low carbon energy; and
- v. Utilise other energy sources.

From 2025 any residual carbon emissions that cannot be fully mitigated on-site should be offset, in agreement with the relevant local planning authority through a financial contribution to a carbon offset fund.

As an interim measure, development should be consistent with the 2022 Part L Building Regulations unless superseded by changes to building regulations and/or national or local planning policies.

- b. Incorporate adequate electric vehicle charging points, in line with Part S of the Building Regulations, unless superseded by relevant Local Plan policies, to future proof for the likely long-term demand, taking account of the potential maximum energy demand for the site;

- c. Where practicable, prioritise connection to a renewable energy/heating/cooling network in the first instance or a low carbon energy/heating/cooling network that is adaptable to non-fossil fuels at a later date;
- d. In residential developments, achieve energy demand reductions in terms of space heat demand; hot water energy demand and the delivery of on-site renewable energy generation, in accordance with Table 5.1.

For renewable energy generation priority should be given to PV installation where technically feasible, alternative technologies will be appropriate where the equivalent generation is evidenced.

- e. For non-residential developments, achieve at least BREEAM excellent standard (or equivalent) for the 'Ene 01 – reduction of energy use and carbon emissions' category rising to 'BREEAM outstanding' equivalent for ENE 01 from 2028.
- f. Include a detailed energy statement to demonstrate via site relevant evidence how the development has sought to maximize reductions in carbon emissions in line with relevant policy targets, including the minimisation of overheating risks and appropriate measures for post occupancy evaluation. Whole life cycle emissions should be considered where possible.

Districts may set out specific carbon emission reduction and energy demand targets within Local Plans.

Policy JP-S3: Heat and Energy Networks

The provision of decentralised energy infrastructure is critical to the delivery of our objectives for low carbon growth, carbon reductions and an increase in local energy generation. The following measures will help to achieve this:

1. Delivery of renewable and low carbon energy schemes will be supported with particular emphasis on the use of decentralised energy networks in areas identified as "Heat and Energy Network Opportunity Areas". These have been identified where:
 - a. Existing heat/energy networks are operational or have been commissioned;
 - b. Proposals for new heat networks/energy networks are being progressed, or future opportunities have been identified in city-region master planning;
 - c. Sufficient density of existing heat demand occurs; and
 - d. Significant future development is proposed at the strategic development locations.
2. Within the identified "Heat and Energy Network Opportunity Areas", unless it can be demonstrated that there are more effective alternatives for minimising carbon emissions or such connection is not practicable or financially viable, it is expected that:
 - a. New residential developments that are '10 dwellings or more' or other developments over 1,000 m² floorspace shall:
 - i. Connect to an existing or planned heat/energy network or be designed to enable future connection (where within 500m of such a network); and/or
 - ii. Install a site-wide or communal heat/energy network solution.
 - b. An expectation that new industrial development will demonstrate that opportunities for using waste heat locally have been fully examined, and included in proposals;
 - c. An expectation that where publicly-owned buildings and assets adjoin new major development sites, opportunities for these buildings and assets to connect to site-wide proposals will be considered; and
 - d. An expectation that any site-wide networks will be designed so as to enable future expansion to adjoining buildings or assets as appropriate.

Policy JP-S4: Flood Risk and the Water Environment

catchment-based approach will be taken to protect the quantity and quality of water bodies with reference to the North West anagement Plan and managing flood risk, by:

1. Returning rivers to a more natural state, where practicable;
2. Working with natural processes and adopting a natural flood management approach to slow the speed of water drainage and intercept water pollutants;

3. Locating and designing development so as to minimise the impacts of current and future flood risk, including retrofitting or relocating existing developments, infrastructure and places to increase resilience to flooding;
4. Expecting developments to manage surface water runoff through sustainable drainage systems and as close to source as possible. Development should achieve greenfield run-off rates unless it is demonstrated to be impracticable. District local plans should consider setting more detailed surface water drainage policies to reflect local circumstances, including alternative surface water discharge rates, such as in areas with critical drainage issues;
5. Ensuring that sustainable drainage systems:
 - Are designed to provide multifunctional benefits wherever possible, including for water quality, nature conservation and recreation;
 - Avoid adverse impacts on water quality and any possibility of discharging hazardous substances to ground;
 - Are delivered in a holistic and integrated manner, including on larger sites split into different phases; and
 - Are managed and maintained appropriately to ensure their proper functioning over the lifetime of the development.
6. Securing the remediation of contaminated land and the careful design of developments to minimise the potential for urban diffuse pollution to affect the water environment; and
7. As a minimum, residential development should meet the mandatory water efficiency standard of 125 litres/person/day as set out in Building Regulations. District local plans may and should consider setting a tighter water efficiency standard of 110 litres/person/day where there is a clear local need with reference to national guidance on housing optional technical standards.

Policy JP-S5: Clean Air

A comprehensive range of measures will be taken to support improvements in air quality, focusing particularly on locations where people live, where children learn and play, where there are impacts on the green infrastructure network and where air quality targets are not being met, including:

1. Locating and designing development, and focusing transport investment, so as to reduce reliance on forms of transport that generate air pollution
2. Determining planning applications having regard to the most recent development and planning control guidance published jointly by the Institute of Air Quality Management (IAQM) and Environmental Protection UK (EPUK), and the most recent IAQM Guidance on the Assessment of Dust from Demolition and Construction, or relevant successor guidance, including the requirement for developers to submit construction management plans as appropriate;
3. Requiring applications for developments that could have an adverse impact on air quality to submit relevant air pollution data so that adverse impacts on air quality can be fully assessed and development only permitted where they are acceptable and/or suitable mitigation can be provided;
4. Restricting developments that would generate significant point source pollution such as some types of industrial activity and energy generation;
5. Significantly expanding the existing commercial network of electric vehicle charging points, both for public and private use, including as part of new developments;
6. Implementing the Clean Air Plan and associated measures;
7. Facilitating the more sustainable distribution of goods within the urban area, including through accommodating urban consolidation centres and urban distribution centres that use ultra-low-emission vehicles, and local delivery facilities to reduce repeat delivery attempts;
8. Designing streets to avoid trapping air pollution at ground level, including through the appropriate location and scale of buildings and trees;
9. Controlling traffic and parking within and around schools, early years sites and other locations that are particularly sensitive to air quality;
10. Promoting actions that help remove pollutants from the air, such as enhancing the green infrastructure network and using innovative building materials that capture air pollutants; and

Development should be located in areas that maximise the use of sustainable travel modes and be designed to minimise exposure to high levels of air pollution, particularly for vulnerable users.

Policy JP-S6: Resource Efficiency

The achievement of a circular economy and a zero-waste economy will play a key role in meeting Greater Manchester's ambition of becoming a leading green city region by 2038. The following measures will help achieve this:

1. Development and implementation of the Zero Waste Strategy for Greater Manchester which promotes overall reduction in the level of waste produced and supports resource efficiency within the Plan area in order to gain the maximum value from the things we produce;
2. Recognition of the role of existing infrastructure in managing our waste and protecting such facilities to ensure adequate waste management capacity is maintained; and
3. Using sustainable design and construction techniques to reduce carbon emissions, adapt and future proof to the impact of climate change, reduce and recycle waste and minimise water use.

Policy JP-G8: A Net Enhancement of Biodiversity and Geodiversity

Through local planning and associated activities a net enhancement of biodiversity resources will be sought, including, where relevant, by:

1. Increasing the quality, quantity, extent and diversity of habitats, particularly priority habitats identified in national or local biodiversity action plans and those that support priority species;
2. Improving connections between habitats, to protect and enhance the provision of corridors, ecological networks (including Nature Recovery Networks) and steppingstones that enable the movement of species, especially as the climate changes;
3. Enhancing the management of existing habitats, including through habitat restoration, avoiding habitat fragmentation and combating invasive species;
4. Protecting sites designated for their nature conservation and/or geological importance, with the highest level of protection given to international and then national designations;
5. Facilitating greater access to nature, particularly within urban areas;
6. Supporting the development and implementation of the Great Manchester Wetlands Nature Recovery Network; and
7. Safeguarding, restoring and sustainably managing our most valuable soil resources, tackling soil degradation/erosion and recovering soil fertility, particularly to ensure protection of peat-based soils and safeguard 'best and most versatile' agricultural land.

Development will be expected to:

- a. Follow the mitigation hierarchy of:
 - i. Avoiding significant harm to biodiversity, particularly where it is irreplaceable, through consideration of alternative sites with less harmful impacts, then
 - ii. Adequately mitigating any harm to biodiversity, then
 - iii. Adequately compensating for any remaining harm to biodiversity
- b. Avoid fragmenting or severing connectivity between habitats;
- c. Achieve a measurable net gain in biodiversity of no less than 10%
- d. Make appropriate provision for long-term management of habitats and geological features connected to the development;
- e. Where appropriate, development should: mitigate air pollution impacts on Manchester Mosses SAC; mitigate urban edge, functionally linked land and recreation disturbance impacts on the South Pennine Moors SAC/SPAs; and assess and potentially mitigate boat movement, water pollution, and light spillage and shading impacts on the Rochdale Canal SAC; and
- f. Development proposals should be informed by the findings and recommendations of the appropriate biodiversity/ecological assessment(s) in the PfE evidence base and/or any updated or appropriate biodiversity/ecological assessments submitted as part of the planning application process.

Policy JP-P1 Sustainable Places

We aim to become one of the most liveable city regions in the world, consisting of a series of beautiful, healthy and varied places, each having the following key attributes that all development, wherever appropriate, should be consistent with:

1. Distinctive, with a clear identity that:
 - A. Conserves and enhances the natural environment, landscape features, historic environment and local history and culture;
 - B. Enables a clear understanding of how the place has developed; and
 - C. Respects and acknowledges the character and identity of the locality in terms of design, siting, size, scale and materials used
2. Visually stimulating, creating interesting and imaginative environments which raise the human spirit through the use of green space, public art and quality design
3. Socially inclusive:
 - A. Responding to the needs of all parts of society;
 - B. Enabling everyone to participate equally and independently;
 - C. Providing opportunities for social contact and support; and
 - D. Promoting a sense of community
4. Resilient, capable of dealing with major environmental events
5. Adaptable, able to respond easily to varied and changing needs and technologies
6. Durable, being built to last and using robust materials that reflect local character, weather well and are easily maintained
7. Resource-efficient with:
 - A. A low carbon footprint;
 - B. Efficient use of land;
 - C. Minimised use of new materials;
 - D. High levels of recycling
8. Safe, including by designing out crime and terrorism, reducing opportunities for anti-social behaviour and by ensuring that developments make appropriate provision for response and evacuation in the case of an emergency or disaster.
9. Supported by critical infrastructure, such as energy, water and drainage and green spaces
10. Functional and convenient, enabling people and uses to act efficiently with minimal effort, and responding to needs relating to servicing, recycling facilities, refuse collection and storage
11. Incorporating inclusive design within all spaces with support for tackling inequality and poverty to form part of creating sustainable places
12. Legible, being easy to understand and navigate, with the protection and enhancement of key views and new development well-integrated into the place
13. Easy to move around for those of all mobility levels, particularly by walking and cycling, with enjoyable routes free from obstacles and disorienting stimuli, and with places to rest
14. Well-connected to other places, particularly by public transport and digital infrastructure enabling everyone to take advantage of the employment, cultural and leisure opportunities across Greater Manchester and beyond
15. Comfortable and inviting, with indoor and outdoor environments:
 - A. Offering a high level of amenity that minimises exposure to pollution; and
 - B. Addressing microclimate issues such as sunlight, indoor air quality, overheating, shade, wind and shelter

16. Incorporating high quality and well managed green infrastructure and quality public realm, with:
 - A. Opportunities for recreation and outdoor play for children, and interaction between the generations;
 - B. Public and private spaces clearly distinguished;
 - C. Development clearly defining, and promoting activity within, public spaces;
 - D. High quality landscaping with schemes
17. Well-served by local shops, services and amenities, including education and health facilities

C. General Notes

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.

The copyright in the written materials shall remain the property of Ensphere Group Ltd but with a royalty-free perpetual licence to the client deemed to be granted on payment in full to Ensphere Group Ltd by the client of the outstanding amounts.

The report is provided for sole use by the Client and is confidential to them and their professional advisors. No responsibility whatsoever for the contents of the report will be accepted to any person other than the client, unless otherwise agreed.

These terms apply in addition to the Ensphere Group Ltd "Standard Terms of Business" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms of Business the said Standard Terms of Business shall prevail.). In the absence of such a written contract the Standard Terms of Business will apply.



Ensphere Group Ltd
55A Catherine Place,
London, SW1E 6DY
+44 (0) 20 7846 9040
www.enspheregroup.com