



ELEMENT
SUSTAINABILITY

**23 RADIUM STREET,
MANCHESTER**

**ENVIRONMENTAL STANDARDS
STATEMENT**

APRIL 2025

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ELEMENT
SUSTAINABILITY

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1. INTRODUCTION

Element Sustainability has been commissioned by Shimla Enterprises Limited to review the sustainability and energy performance of the proposed commercial building to be constructed at 23 Radium Street, Manchester.

The purpose of this statement is to summarise the relevant policy background and requirements of Manchester City Council and to demonstrate the ways in which the developer has addressed these aims through their proposals, ensuring all practicable measures have been taken to deliver a sustainable development at this site.

Details of the design attributes, specifications and characteristics of the scheme are appraised in order to demonstrate how the proposals contribute to sustainable development in Manchester and seek to mitigate the environmental impacts of the scheme, providing a sustainability appraisal in support of the planning application.

This report is intended to support the planning application for this development and therefore, establish an approach to the delivery of this scheme which meets the criteria outlined by the council that the developer commits to implement at the site.



2. DEVELOPMENT PROPOSALS

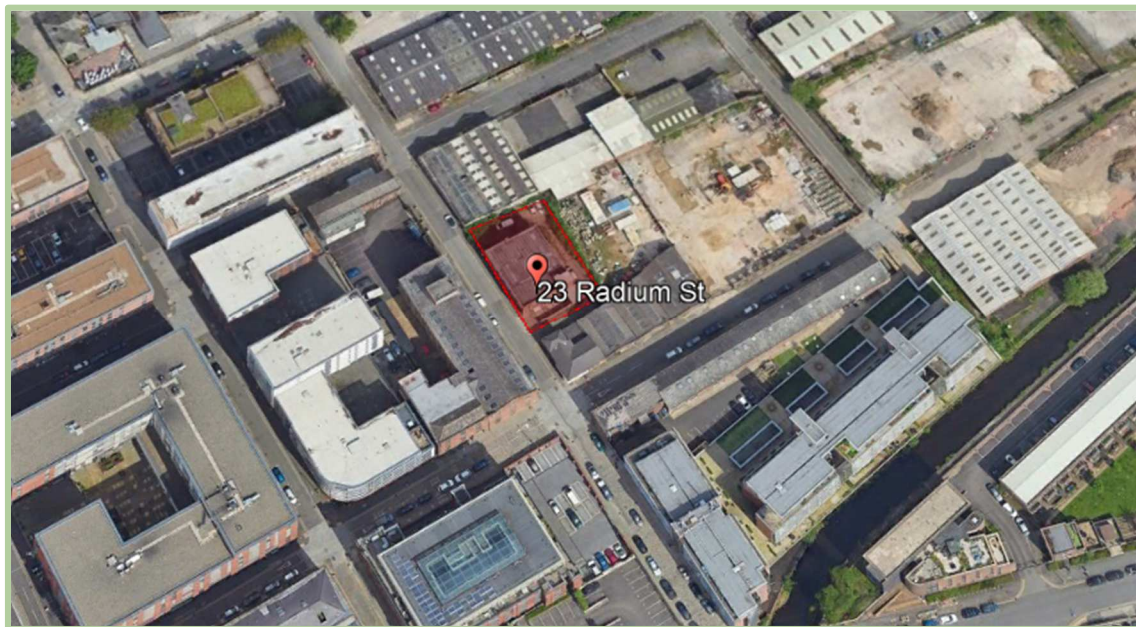
2.1 Development Site Description

The application site currently consists of a Victorian era three-story commercial building, located in Manchester City Centre, within the Ancoats Conservation Area.

The site is located within a densely developed area dominated by commercial uses, with buildings bordering both the north and south perimeter of the plot. To the east of the application site lies a large area of hardstanding, with Radium Street running parallel to the western perimeter separating the site from more commercial buildings.

The pre-development site is presented in Figure 2.1 below.

Figure 2.1 – Site Location Plan



2.2 Development Proposals

The proposed development comprises of the refurbishment and fit out of the existing building for commercial end use. Additionally, a covered terrace will be fitted across the rooftop space with fully retractable roof and windows. The refurbished building will provide c. 780msq gross internal floor area.

Figures 2.2 to 2.7 present the proposed floor plans and elevations for the proposed Radium Street development.



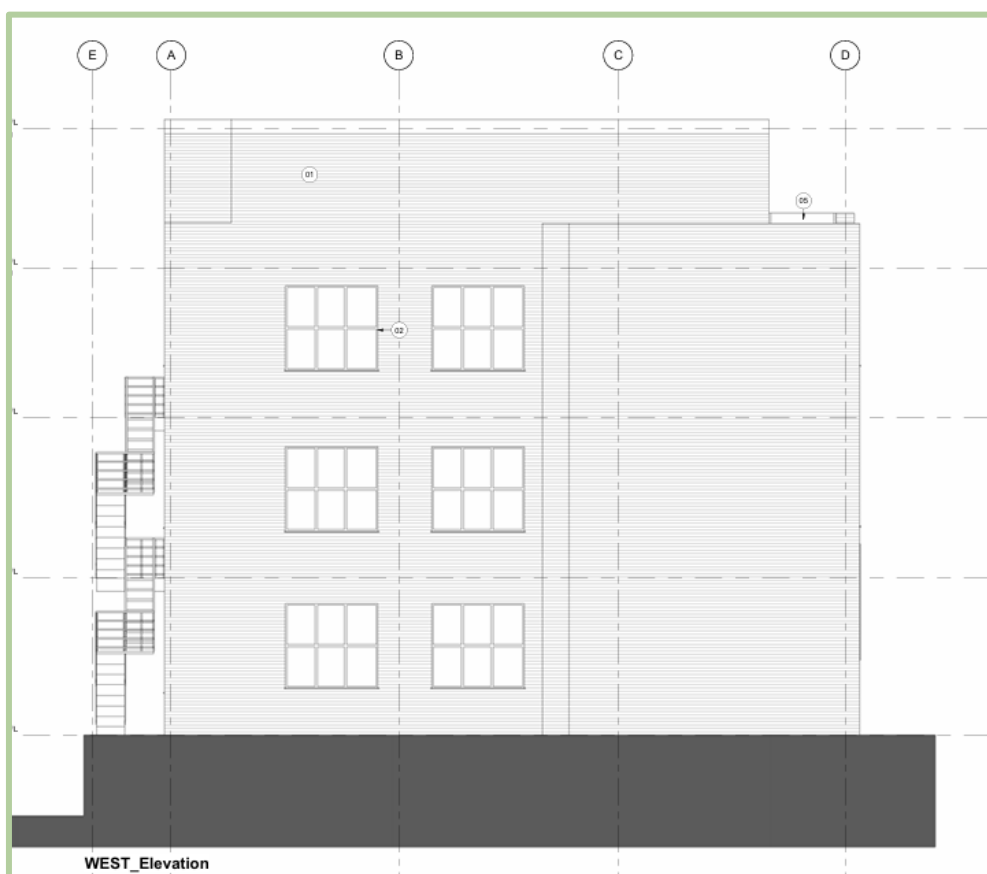
Figure 2.2 – North Elevation*Figure 2.3 – West Elevation*

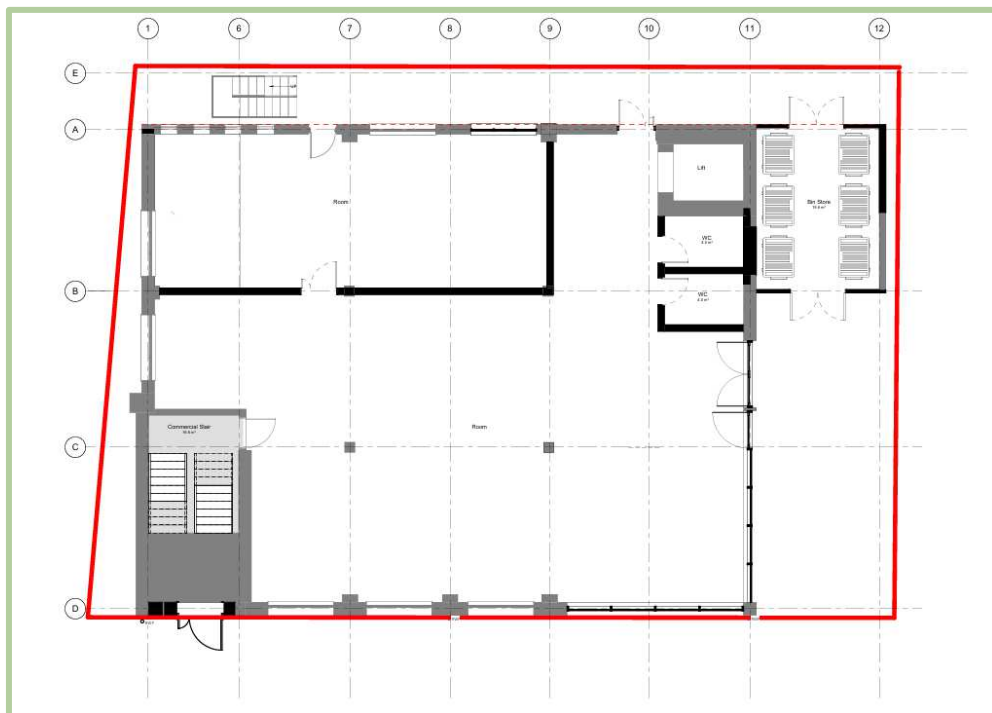
Figure 2.4 – Proposed Level 00*Figure 2.5 – Proposed Level 01*

Figure 2.6 – Proposed Level 02

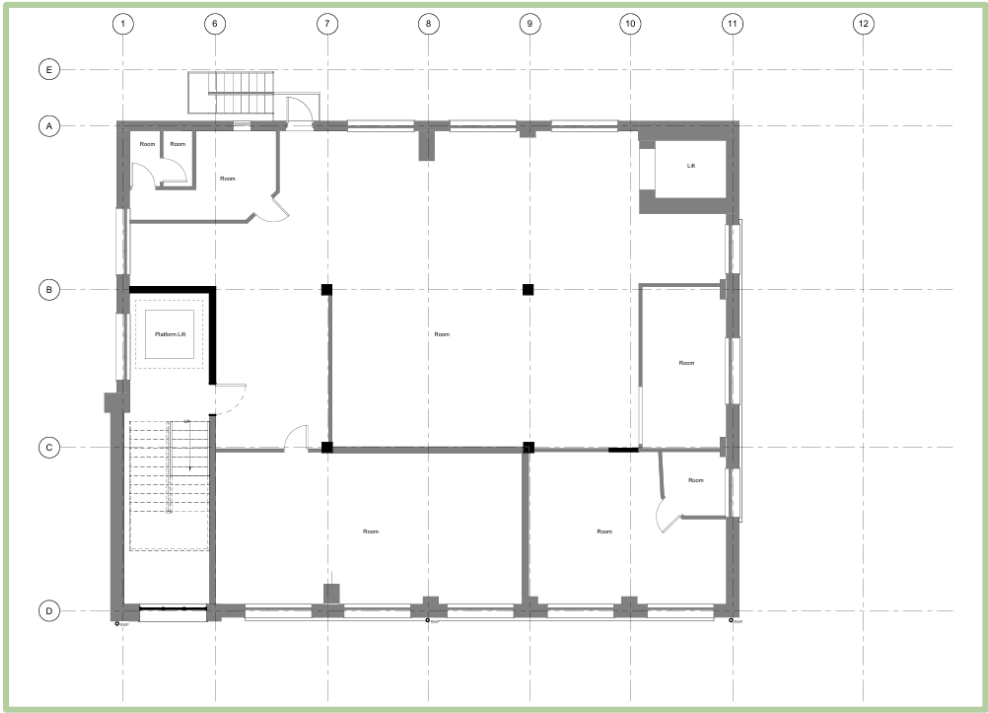
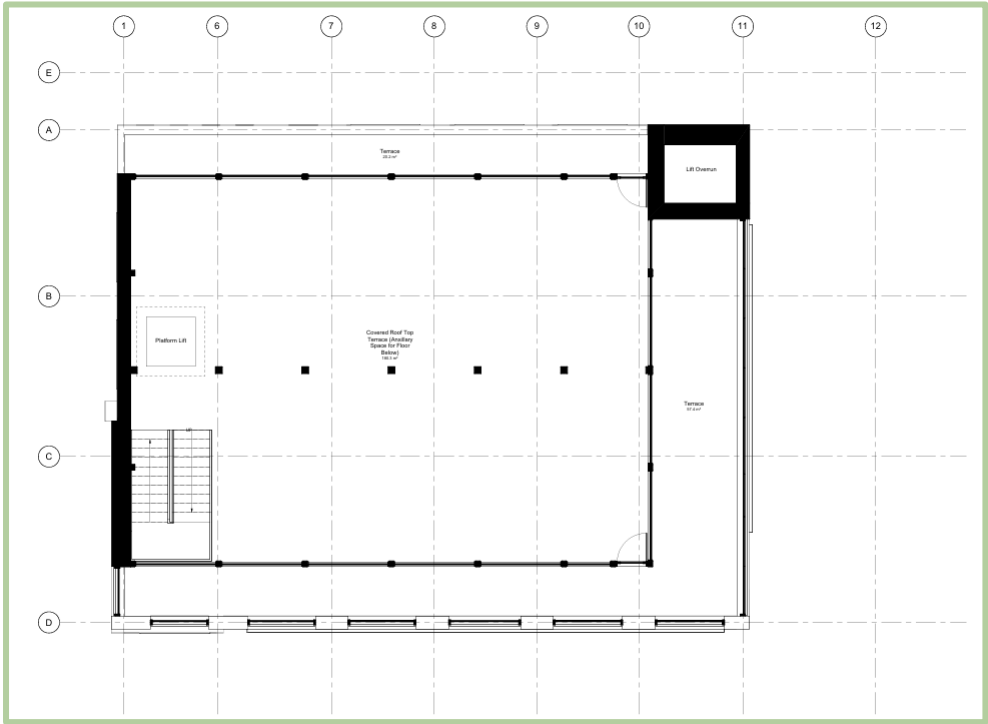


Figure 2.7 – Proposed Level 03



3. POLICY REVIEW

3.1 National Planning Policy

The National Planning Policy Framework was revised in response to the Levelling-up and Regeneration Bill: reforms to national planning policy consultation on 12th December 2024 and sets out the government's planning policies for England and how these are expected to be applied.

The purpose of the planning system is to contribute to the achievement of sustainable development. The planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways, as set out below:

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.

These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this framework. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.

3.2 Regional Planning Policy

3.2.1 Places for Everyone

Places for Everyone is the joint development plan of nine Greater Manchester local authorities (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, and Wigan) dealing with strategic planning issues including jobs, homes, transport, and the natural environment.

All nine authorities adopted the PfE Plan on 21st March 2024. Therefore, this will now become part of the statutory development plan for each of the nine PfE authorities.

As a result, the following policies have been considered as part of the proposed development:

Policy JP-S1: Sustainable Development: 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 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

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.

To meet the carbon commitments, the following will be required:

- Be carbon neutral by 2038;
- Hold cumulative carbon dioxide emissions to within the council's carbon budget; and,
- 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; and,
 - Increasing biofuel use.
- In supporting Greater Manchester's 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:
 - 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'; and,
 - The delivery of renewable and low carbon energy schemes Policy JP-S3 'Heat and Energy Networks'.

Carbon and Energy

- 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.
- 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.
- 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.
- 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.



- By following the energy hierarchy, new development will need to achieve net zero carbon through the maximisation of on-site measures first. However, 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.

Policy JP-S 2 – 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:

- Promoting the use of life cycle cost and carbon assessment tools to ensure the long-term impacts from development can be captured;
- Taking a positive approach to renewable and low carbon energy schemes, particularly schemes that are led by, or meet the needs of local communities;
- An expectation that new development will, unless it can be demonstrated that it is not practicable or financially viable;
 - Be net zero carbon 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:
 - Minimise energy demand;
 - Maximise energy efficiency;
 - Use renewable energy;
 - Use low carbon energy; and
 - Utilise other energy sources.
- From 2025 any residual carbon emissions that cannot be fully mitigated onsite 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 2021 Part L Building Regulations unless superseded by changes to building regulations and/or national or local planning policies.
 - 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; and,



- In residential developments, achieve energy demand reductions for residential development in terms of space heat demand; hot water energy demand and the delivery of on-site renewable energy generation.
- 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; and,
- 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 Local Plans may set out specific carbon emission reduction and energy demand targets within Local Plans.

Policy JP-STRAT14 - A Sustainable and Integrated Transport Network: New development will have a significant role in delivering a sustainable and integrated transport network in order to reduce car dependency and increase levels of walking, cycling and public transport.

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. Sufficient density of existing heat demand occurs; and
 - c. 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.

Policy JP-S4 - Flood Risk and the Water Environment: An integrated catchment-based approach will be taken to protect the quantity and quality of water bodies with reference to the North West River Basin Management Plan and managing flood risk, by:

- Working with natural processes and adopting a natural flood management approach to slow the speed of water drainage and intercept water pollutants;
- 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; and,
- 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.
- 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.
- 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-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:

- 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;
- Recognition of the role of existing infrastructure in managing our waste and protecting such facilities to ensure adequate waste management capacity is maintained; and
- 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-G2 – Green Infrastructure Network: A strategic approach will be taken to the protection, management and enhancement of Greater Manchester's Green Infrastructure in order to protect and enhance the ecosystem services which the Green Infrastructure Network provides, including flood management, climate change mitigation and adaptation.

Wherever practicable, opportunities to integrate new and existing green infrastructure into new development will be taken to protect, enhance and expand the green infrastructure network.

Policy JP-G6: Urban Green Space: To ensure there is an appropriate scale, type, quality and distribution of accessible urban green space that can support a high quality of life and other important green infrastructure functions:

- Existing urban green space will be protected and enhanced in balance with other considerations; and
- Developers and other stakeholders will be required to deliver new high quality urban green spaces.

Development should be designed to support the positive use of nearby green spaces, such as by offering a high-quality setting, providing natural surveillance, and facilitating easy access by walking and cycling.



Policy JP-G7 - Trees and Woodland: the aims and objectives of the Greater Manchester Tree and Woodland Strategy, aiming to significantly increase tree cover, protect and enhance woodland, and connect people to the trees and woodland around them.

This will be done through local planning and associated activities such as:

- Where development would result in the loss of existing trees, requiring replacement on the basis of two new trees for each tree lost, or other measures that would also result in a net enhancement in the character and quality of the treescape and biodiversity value in the local area, with a preference for on-site provision; and
- Protecting trees and woodland during the construction phase of development.

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:

- 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;
- 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;
- Enhancing the management of existing habitats, including through habitat restoration, avoiding habitat fragmentation and combating invasive species;
- Protecting sites designated for their nature conservation and/or geological importance, with the highest level of protection given to international and then national designations;
- Facilitating greater access to nature, particularly within urban areas;
- Supporting the development and implementation of the Great Manchester Wetlands Nature Recovery Network; and
- Safeguarding, restoring and sustainably managing our most valuable soil resources, tackling soil degradation/erosion and recovering soil fertility.

Development will be expected to:

- Follow the mitigation hierarchy of:
 - Avoiding significant harm to biodiversity, particularly where it is irreplaceable, through consideration of alternative sites with less harmful impacts, then
 - Adequately mitigating any harm to biodiversity, then
 - Adequately compensating for any remaining harm to biodiversity.
- Achieve a measurable net gain in biodiversity of no less than 10%; and,
- 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: The aim is 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:



- Distinctive, with a clear identity that:
 - Conserves and enhances the natural environment, landscape features, historic environment and local history and culture;
 - Enables a clear understanding of how the place has developed; and
 - Respects and acknowledges the character and identity of the locality in terms of design, siting, size, scale and materials used.
- Resilient, capable of dealing with major environmental events;
- Adaptable, able to respond easily to varied and changing needs and technologies;
- Durable, being built to last and using robust materials that reflect local character, weather well and are easily maintained;
- Resource-efficient with:
 - A low carbon footprint;
 - Efficient use of land;
 - Minimised use of new materials; and,
 - High levels of recycling,
- Supported by critical infrastructure, such as energy, water and drainage and green spaces; and,
- 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.

3.3 Local Planning Policy

3.3.1 Manchester Core Strategy

Manchester's Core Strategy was adopted on the 11th July 2012 and remains the key document in the adopted Manchester Local Plan. It sets the out the long-term strategic policies for Manchester's future development and will form the framework that planning applications will be assessed against.

Policy EN 4 - 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; and,
- To meet residual energy requirements using low or zero carbon energy generating technologies.

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 EN 5 - Strategic Areas for Low and Zero Carbon Decentralised Energy Infrastructure: Within Manchester it is considered that the following strategic areas, 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; and,
- 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.

Policy EN 6 - Target Framework for CO₂ Reductions from Low or Zero Carbon Energy Supplies: The council requires applications for residential development of ten or more units and all other development over one thousand square metres to meet, as a minimum, the targets shown in the tables below, unless unviable.

Table 3.1 – Policy EN6 Non-Domestic CO₂ Emissions Reduction Targets

Target	% Minimum Requirements
Target One: Network development area	CHP/District heating anchor or connection or where not feasible a 15% increase on Part L 2010
Target Two: Electricity intense buildings	+10% increase on Part L 2010
Target Three: Micro generation area	+15% increase on Part L 2010

The scheme will be specified and constructed to comply with Building Regulations Part L, Approved Document Volume 2 (2021). Therefore, the scheme will significantly improve upon the minimum requirements stipulated in Policy EN6 which requests a 15% improvement upon 2010 regulations.

Policy EN 8 – Adaption to Climate Change requires all new development 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 rainwater permeability;
- Reduction in urban heat island effect using green infrastructure such as green roofs, green walls, increased tree cover and waterways;



- The need to control overheating of buildings through passive design; and
- The opportunity to provide linked and diverse green space to enhance natural habitats which will assist species adaptation.

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: 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.

Policy EN14 – Flood Risk: The council requires developments to:

- 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); and
- 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 critical drainage areas, evidence to justify the surface water run-off approach / rates will be required.

Policy EN15 – Biodiversity and Geological Conservation: The council will seek to maintain or enhance sites of biodiversity and geological value throughout the city.

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;
 - Manchester's Climate Change Action Plan;
 - The Strategic Flood Risk Assessment (SFRA) for Manchester;
 - The River Basin Management Plan for the North West; and,
 - The Manchester Tree Strategy.



Any adverse impacts on biodiversity will need to be justified against the wider benefits of the proposal, assessed against other Local Development Framework 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.

Policy EN16 – Air Quality: The council will seek to improve the air quality within Manchester, and particularly within Air Quality Management Areas. 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.

Policy EN17 – Water Quality: The council require:

- New developments to 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; and,
- 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.

Policy EN19 – Waste: The council will:

- 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 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; and,
- Encourage communities to take responsibility for the waste they create through the provision of accessible facilities.

Policy DM1 – Development Management: All development should have regard to the following specific issues, for which more detailed guidance may be given within a supplementary planning document:

- Accessibility: buildings and neighbourhoods fully accessible to disabled people, access to new development by sustainable transport modes;
- Community safety and crime prevention;
- Design for health;
- Adequacy of internal accommodation and external amenity space;
- Refuse storage and collection;
- Effects relating to biodiversity, landscape, archaeological or built heritage;
- Green infrastructure including open space, both public and private;
- The use of alternatives to peat-based products in landscaping/gardens within development schemes;
- Flood risk and drainage and,
- Subject to scheme viability, developers will be required to demonstrate that new development incorporates sustainable construction techniques (In terms of energy targets this policy should be read alongside policy EN6 and the higher target will apply).



Policy T1 – Sustainable Transport: To deliver a sustainable, high quality, integrated transport system to encourage modal shift away from car travel to public transport, cycling and walking, to support the needs of residents and businesses and to prepare for carbon free modes of transport, the council will support proposals that:

- Improve choice by developing alternatives to the car;
- Facilitate modes of transport that reduce carbon emissions, e.g. by incorporating charging points for electric vehicles, subject to their appropriate design and location;
- Would reduce the negative impacts of road traffic, for example, congestion, air pollution and road accident casualties; and,
- Take account of the needs of road users according to a broad hierarchy consisting of, in order of priority:
 1. pedestrians and disabled people
 2. cyclists, public transport,
 3. commercial access,
 4. general off-peak traffic,
 5. general peak time traffic.

3.4 Guide to Development in Manchester, Supplementary Planning Document

Manchester's Core Strategy requires that all new residential developments should accord with the design guidance set out in the Supplementary Planning Documents (SPD). The Guide to Development in Manchester SPD was adopted on 11th April 2007 and supports and enhances the ongoing shaping of the city by providing a set of reasoned principles which will guide developers, designers and residents. These principles include a number of environmental standards, and includes the following categories which are identified in the SPD:

- Energy efficiency;
- Renewable energy;
- Environmental design;
- Water management and weather resilience;
- Waste management;
- Construction management;
- Biodiversity; and,
- Waterways.

3.5 Manchester's Great Outdoors

The Green and Blue Infrastructure Strategy for Manchester aims to invest in the city's green and blue infrastructure over the next ten years (by 2025). Four objectives have been established to enable the vision to be achieved:

1. Improve the quality and function of existing green and blue Infrastructure, to maximise the benefits it delivers.
2. Use appropriate green and blue infrastructure as a key component of new developments to help create successful neighbourhoods and support the city's growth.
3. Improve connectivity and accessibility to green and blue infrastructure within the city and beyond.



4. Improve and promote a wider understanding and awareness of the benefits that green and blue infrastructure provides to residents, the economy and the local environment.

3.6 Climate Emergency

On 10th July 2019, a motion asking Manchester City Council (MCC) to formally declare a **climate emergency** was unanimously agreed. The motion declares that climate change is a serious risk to Manchester's future. Manchester is committed to embedding the issue as an integral part of council decision-making – making sure that all key decisions are taken with the city's target of becoming zero-carbon by 2038 in mind. The council has agreed the following:

- To deliver the 2038 zero carbon target and determine if an earlier target can be possible;
- Make climate breakdown and the environment an integral part of activity throughout the council, including all decision making, ensuring key decisions take into account the impact on achieving the zero-carbon target;
- Investigate and introduce measures to help reach domestic zero carbon levels, including addressing fuel poverty and retrofitting existing homes; and
- Investigate ways to ensure that future local plans place a mandatory requirement for all new development to be net zero carbon by the earliest possible date.

In March 2020 the Executive adopted the Manchester Climate Change Framework 2020-2025. The five-year framework sets out measures that MCC will take in order to reduce carbon emissions from its buildings, energy use and transport. Measures include retrofitting buildings to improve energy efficiency, increasing the use of electric vehicles, and seeking 100% renewable energy. Whilst this has also not been formally adopted into planning policy, it is a key consideration for future development proposals.

3.7 Regulatory Framework

Building Regulations, Part L - Conservation of Fuel and Power sets the compliance standards for energy demand and carbon dioxide emissions from buildings. Guidance on how to meet the requirements of this regulation is provided within a number of approved documents. The relevant document is referenced below:

Approved Document Volume 2: In new buildings other than dwellings: Gives guidance on how to comply with Part L of Schedule 1 to the Building Regulations and the energy efficiency requirements for buildings other than dwellings.

The minimum energy performance requirements shall be approved and expressed in accordance with the methodology for:

- New buildings, in the form of target CO₂ emission rates;
- New buildings, in the form of target fabric efficiency rates; and,
- New buildings in the form of target primary energy rates.

3.8 Applicable Targets



Based upon a review of relevant planning policy requirements, legislative drivers, and client priorities, the following list provides a brief precis of the key criteria that should be targeted for this development:

Places for Everyone

- **Policy JP-S1:** Sustainable Development
- **Policy JP-S2:** Carbon & Energy
- **Policy JP-STRAT14:** A Sustainable and Integrated Transport Network
- **Policy JP-S3:** Heat and Energy Networks
- **Policy JP-S4:** Flood Risk and the Water Environment
- **Policy JP-S6:** Resource Efficiency
- **Policy JP-G2:** Green Infrastructure Network
- **Policy JP-G6:** Urban Green Space
- **Policy JP-G7:** Trees and Woodland
- **Policy JP-G8:** A Net Enhancement of Biodiversity and Geodiversity
- **Policy JP-P1** Sustainable Places

Manchester Core Strategy

- **Policy EN 4** - Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development
- **Policy EN 5** - Strategic Areas for low and zero carbon decentralised energy infrastructure
- **Policy EN 6** - Target Framework for CO₂ Reductions from Low or Zero
- **Policy EN 8** – Adaption to Climate Change
- **Policy EN9** - Green Infrastructure
- **Policy EN14** – Flood Risk
- **Policy EN15** – Biodiversity and Geological Conservation
- **Policy EN16** – Air Quality
- **Policy EN19** – Waste
- **Policy DM1** – Development Management
- **Policy T1** - Sustainable Transport

Guide to Development in Manchester, Supplementary Planning Document

The Green and Blue Infrastructure Strategy for Manchester

Manchester City Council Climate Emergency Declaration

Building Regulations, Part L

- Approved Document Volume 2: Buildings other than Dwellings



4. SUSTAINABILITY STATEMENT

This section provides an appraisal of the proposals and details the specific approach, design features and specifications which will contribute to reducing the environmental impact of the scheme.

4.1 Energy Performance

In order to limit energy demand and carbon dioxide (CO₂) emissions from the operation of the building, a number of design features will be integrated that will collectively contribute towards the emissions reduction target for the scheme.

Detailed measures are presented in Section 5 of this report, but in essence, the energy strategy proposed is an enhanced 'fabric led' solution coupled with the inclusion of an energy efficient servicing provision to maximise the buildings' performance.

The reduction in energy demand to meet the carbon reduction targets will be achieved through the following design measures and low carbon technology options:

- Improved thermal insulation;
- A low air permeability;
- Efficient heating system;
- Low energy lighting.

These measures will secure the carbon reduction targets sought by the local planning authority and **Building Regulations Part L: Approved Document Volume 2 (2021 edition)**.

4.2 Flood Risk and Surface Water Management

Data obtained from the Environment Agency was used to determine which flood zone the site is located within and the potential flood risk to the proposed development.

Figure 4.1 below presents the latest Environment Agency (EA) Flood Zone Map data which demonstrates that the site is located wholly within Flood Zone 1, demonstrating a low probability of flooding from rivers.



Figure 4.1 – Environment Agency Flood Risk Zone Map

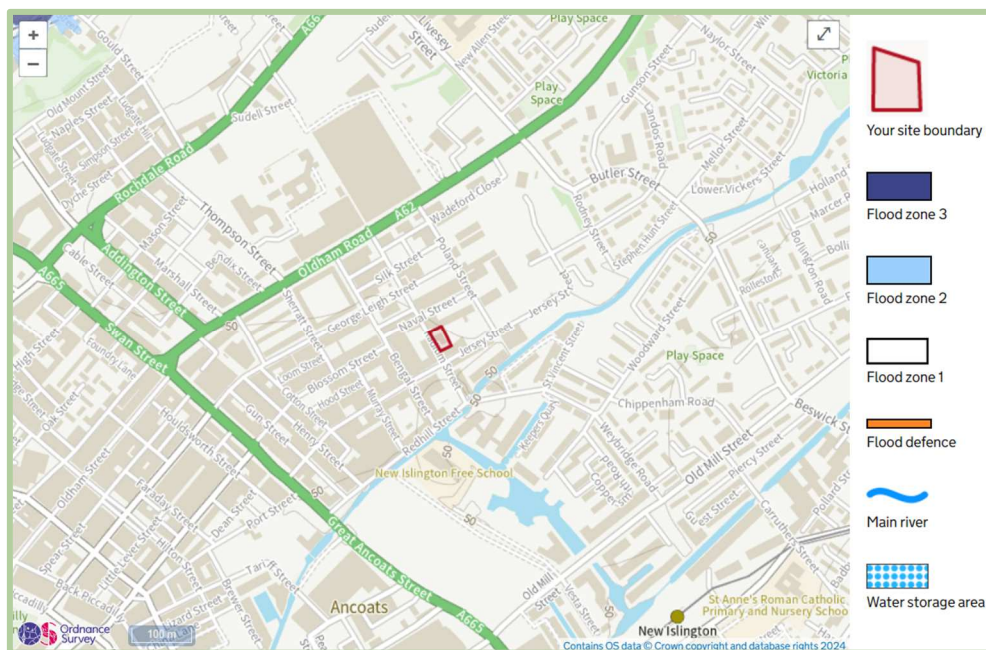
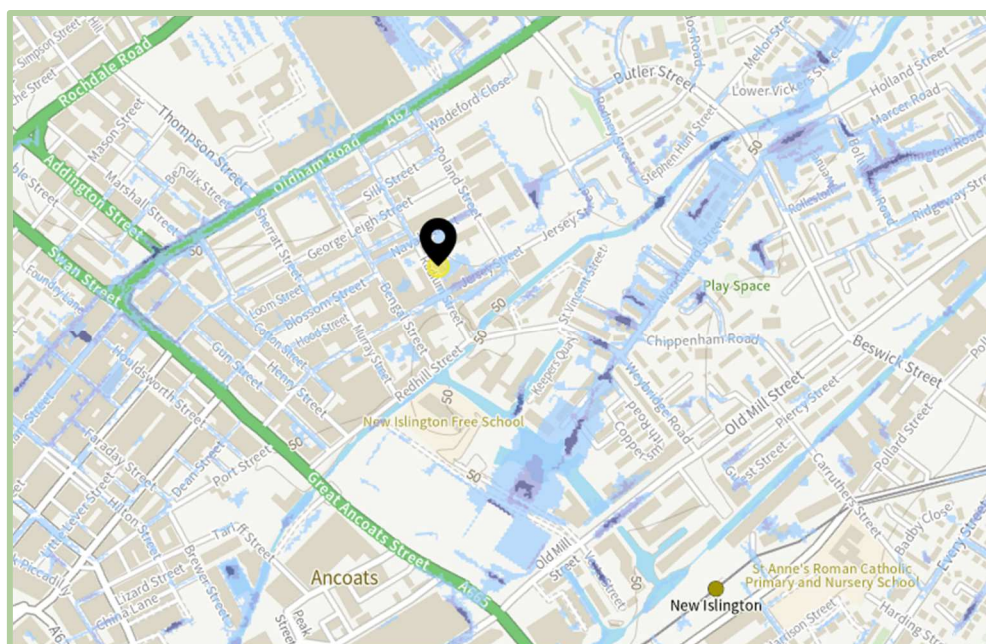


Figure 4.2 demonstrates that the area is at low risk from surface water flooding as well, with a chance between 0.1% and 1% each year.

Figure 4.2 – Extent of Flooding: Flood Risk from Surface Water



In accordance with **Manchester Core Strategy Policy EN14 – Flood Risk** the proposed development is not considered to be in an area at high risk of flooding.



4.2.1 Drainage Strategy

A drainage strategy will be produced for the scheme that outlines the following possible drainage solutions, which will be utilised to manage any flood risk on site:

- In line with Policy **EN8 – Adapting to Climate Change** the client will seek to minimise flood risk by appropriate siting, drainage, and treatment of surface areas to ensure rainwater permeability; and,
- Where feasible for the new build extension surface water run-off will be minimised through the use of Sustainable Drainage Systems (SUDS) and the appropriate use of green infrastructure.

These design solutions will assist in **minimising surface water run-off** on site in accordance with **Manchester Core Strategy Policy EN14 – Flood Risk**.

4.3 Materials

The proposals will contribute towards making more efficient use of non-renewable materials resources, and to reducing the lifecycle impact of materials used in construction. This is demonstrated by:

- Through retaining the existing building, this will significantly reduce the upfront embodied carbon levels associated with the proposed scheme, due to the fact that less energy intensive virgin materials will be required which are associated with new build projects;
- Materials with a low environmental impact throughout their life cycle should be prioritised. Plus, materials with associated Environmental Performance Declarations (EPDs) should be favoured;
- Materials should be sourced in accordance with a Sustainable Procurement Plan (SPP). A SPP includes sustainability aims, objectives and strategic targets to guide procurement activities;
- Responsibly sourced materials from suppliers operating an Environmental Management System and procuring timber verified by either the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification standard (PEFC) should be prioritised;
- The developer will 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;
- Material selection should be carefully considered to avoid the use of toxic materials, such as Volatile Organic Compounds (VOCs) and contribute towards creating a healthy indoor environment; and,



- Excavated material (such as soil and substructural elements) from construction works should be used, where practical, for landscaping purposes.

Local sourcing of construction materials where feasible and viable will minimise the impact of carbon dioxide emissions associated with the transportation of materials. In addition to this, materials with low levels of embodied carbon will be prioritised in accordance with **Manchester Core Strategy Policy EN4 – Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development**, and a waste management plan will be submitted in accordance with **Manchester Core Strategy Policy EN19 – Waste**.

4.4 Water Efficiency

The proposed development will be designed to reduce mains / potable water consumption and will include the following water efficient designs and equipment:

- A water efficiency strategy will be determined for the site and will include for the provision of 'A' rated appliances as a minimum;
- A water meter on the mains water supply to the building will be specified to monitor and manage consumption.

Efficient water fixtures will be specified throughout the building such as low flow taps and dual flush WCs in order to reduce water consumption.

4.5 Ecology and Biodiversity

A Preliminary Roost Assessment has been carried out by E3P limited to check if bats utilise the existing building and to determine whether further surveys will be required. From this the following conclusion was made:

- The building was assessed as having moderate bat roosting potential.
- As such, two nocturnal bat surveys, spaced three weeks apart, are required on the building between May and September (inclusive).
- If bats are identified roosting within the building, a European Protected Species Licence will be required, and would require up to date surveys from the survey season prior to the application submission.

In order to enhance the ecological value of the site, the following will be considered in line with the policy requirements stipulated within Manchester City Councils Core Strategy.

- In accordance with **Policy EN9 - Green Infrastructure** the council encourages 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; and,



- In accordance with **Policy EN15 - Biodiversity and Geological Conservation** the developer will enhance the sites biodiversity and geological value.

The incorporation of the roof terrace within the scheme will provide opportunities for the introduction of additional **planting which will favour native species**.

4.6 Waste Management

4.6.1 Construction Waste

Best practice techniques to prevent and minimise waste during the design and construction phase of the development will be adopted, as follows:

- Through retaining the existing building, this will result in significantly less construction waste being created, which would otherwise be associated with the demolition process required to create a new build alternative;
- Prior to commencement of the above ground construction phase, a site waste management plan (SWMP) will be produced by the developer to limit the on and off-site environmental impacts of construction:
- The SWMP will detail:
 - Recycled and secondary materials;
 - Waste reduction;
 - Waste segregation;
 - Waste recovery; and,
 - Waste disposal.
- This development will promote the minimisation of waste arising and seek to maximise the use of recycled materials in construction.

The **principal contractor will implement sound environmental management practices** and consideration for neighbouring sites during their activities on-site, and a waste management plan will be submitted in accordance with **Manchester Core Strategy Policy EN19 – Waste**.

4.6.2 Operational Waste

The operational waste strategy for the scheme focuses on the segregation of waste at source, in order to maximise the potential for the building users to recycle. All users will be informed on collection frequency, as well as guidance on local recycling facilities to assist with the management and storage of waste.

The proposed waste management strategy has been developed in compliance with the policies of Manchester City Council to optimise recycling rates:

- Waste will be segregated at source with the help of split bins to receive multiple streams of waste – general, recyclables and compost;



- The waste will be collected by the building management company and transferred to the designated refuse area, to be collected by refuse operators on the designated collection day.

The proposed development will seek to **minimise waste and promote recycling**, during both construction and occupation.

4.7 Pollution

To reduce the schemes impact on the surrounding communities and environments, the proposals will include the following:

- The external lighting strategy should be designed to reduce unnecessary light pollution through effective design, energy consumption and nuisance to neighbouring properties;
- Pollution Prevention Guidance should be adhered to in respects of air (dust) and water (ground and surface) pollution during the demolition and construction phase; and,
- Dust suppression measures should also be put in place as part of the principal contractor's Environmental Management Plan, such that any potential risks to watercourses or the neighbouring properties are minimised.

The principal contractor will put measures in place to ensure that the surrounding area will not be polluted as a direct result of the activities on site during the construction phase.

4.8 Health and Wellbeing

To enable the occupants of the proposed development to lead lower impact lifestyles and enhance their quality of life, the following measures will be delivered:

- Good levels of natural daylighting will be achieved and the glazing will be specified to help limit solar gains in the summer; and,
- The proposed design will create a close community allowing users to socialise and improving community engagement.

Good levels of natural day lighting will be achieved. This will provide a good quality of life for the occupants and reduce the need for energy to light proposed development.

4.9 Transport

A transport Statement has been produced by SCP Limited and a review of the most appropriate and sustainable modes of transport has been conducted in order to assess the feasibility of each transport option available to the future occupiers of the proposed car free development. The conclusions that can be drawn from this appraisal are as follows:



4.9.1 Public transport

- The closest bus stop to the application site is located on the A62 Oldham Road, approximately three hundred and fifty metres away;
- Having regard to the above, prospective residents and staff of the site will have access to bus services stopping within an acceptable walk distance from the site which provides access to key destinations at a good frequency;
- Manchester Piccadilly train station is located approximately one point one kilometres south of the application site and is therefore within an acceptable walking (seventeen minute) and cycling (four minute) distance; and,
- In addition to this Manchester Victoria train station is located one point five kilometres to the north-west of the application site and is within an acceptable walking (nineteen minutes) and cycling (six minutes) distance.

4.9.2 Cycling and Walking

- The site is within an acceptable walking distance of Manchester City Centre, Ancoats, Collyhurst and Miles Platting, as well as an array of local facilities;
- Nearby areas of Manchester, Cheetham Hill, Moston, Clayton, Ancoats, Moss Side and Longsight, amongst others, are all located within a five-kilometre catchment area from the development site. The topography of the area is generally conducive to cycling, so the site is therefore well located to encourage prospective residents to travel via bicycle; and,
- The proposed development site is also located near numerous National Cycle Routes, including:
 - **NCR 6** - is located to the south and west of the application site and locally links Moss Side to Hulme, and Lower Broughton via Manchester City Centre
 - **NCR 55** - is located to the west of the application site and locally links the site to Seedley and Eccles.
 - **NCR 60** - is located to the east, locally linking the application site to Clayton, Reddish, Levenshulme and Fallowfield.
 - **NCR 66** - is located to the north-east of the application site and connects Ancoats to Newton Heath and Failsworth.

Due to the site's proximity to local amenities and the presence of public transport services within easy walking distance, the site is considered to be well located to encourage trips to be made on foot, bicycle or via public transport in accordance with **Manchester Core Strategy Policy T1 – Sustainable Transport**.



5. ENERGY STRATEGY

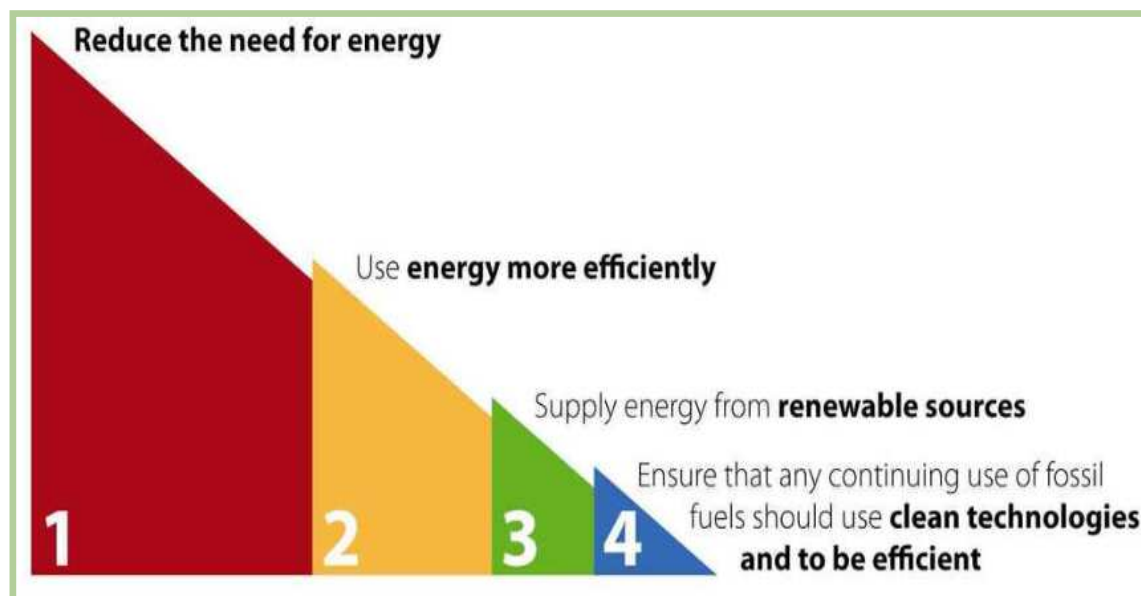
The proposed energy strategy outlined in this report for the refurbished commercial building aligns with the requirements stipulated within Building Regulations Approved Document - Volume 2 (2021 edition).

The energy strategy for this development prioritises an enhanced ‘fabric led’ solution coupled with ‘full electric’ servicing provision. An enhanced building fabric specification throughout the scheme allied to efficient servicing and controls will achieve compliance with Building Regulation, Part L Approved Document Volume 2 (2021) and Manchester’s Core Strategy.

The Energy Hierarchy (see Figure 5.1) provides a framework to guide energy policy and decision making to achieve practical and cost-effective carbon emission reductions. The energy hierarchy is built upon four principles:

- i. **First Principle**
 - o Reduce the need for energy.
- ii. **Second Principle**
 - o Use energy more efficiently.
- iii. **Third Principle**
 - o Supply energy from renewable sources.
- iv. **Fourth Principle**
 - o Ensure that any continuing use of fossil fuels should use clean technologies and be efficient.

Figure 5.1 – The Energy Hierarchy



In accordance with **Places for Everyone Policy JP-S2 – Carbon and Energy**, the Energy Hierarchy has been used as a framework to guide this energy strategy to achieve practical and cost-effective carbon emission reductions. It is intended that the construction, design and specification proposed for this scheme will be inherently efficient and cost-effective during occupation.

Details of the proposed energy strategy are presented below.

5.1 Build Fabric and Thermal Performance

The standard measurement of heat transfer through a given building material or construction type is the U-value ($\text{W/m}^2\text{K}$). The lower the U-value, the more slowly heat transfers and is lost out of a building. In buildings, heat loss generally occurs through the following main areas and elements of the construction:

- Ground Floor;
- External Walls;
- Roofs;
- Doors and windows;
- Thermal bridging; and,
- Uncontrolled ventilation.

Recognising the inherent constraints presented by this type of scheme, the refurbishment of this heritage building will benefit from a material and design specification that is aligned with Building Regulation standards and includes numerous efficiency measures designed to reduce heat losses and minimise energy demand in accordance with the first principle of the energy hierarchy.

This 'fabric led' approach to minimising energy demand and associated carbon dioxide emissions through the performance of the thermal envelope is aligned with the first principle of the energy hierarchy, which states that reduction in energy demand should be achieved initially by energy efficiency.

The material specification that will be incorporated to limit heat loss and ensure efficient operation of the proposed commercial facility is aligned with the building regulation criteria, as prescribed by Building regulation Approved Document Volume 2.

This enhanced fabric specification will **ensure an inherently energy efficient development, focussing upon limiting demand side reductions** in accordance with the energy hierarchy.

In comparison to the pre-refurbished specification, the proposed enhanced material specification and design will provide the following benefits to both the change-in-use and new build elements of the scheme:

- **Upgraded performance thermal insulation** will ensure low U-values for all heat loss elements and will minimise heat loss through the building's thermal envelope;
- **Thermally efficient, 'A' rated, double glazed windows** will be specified with argon gas fill and low emissivity coatings to limit heat loss through the pane. Thermal breaks will be incorporated within the frames of the windows to further limit heat loss. The glazing g value will be specified to optimise beneficial solar gains but limit the propensity for overheating;
- **Improved air permeability** will minimise uncontrolled ventilation. This will reduce heat losses and provide high levels of occupant comfort; and,



This mechanical and electrical specification removed fossil fuels from the scheme and is intended to limit carbon dioxide emissions during operation. It **will deliver a Building Regulation Part L Approved Document Volume 1 (2021) compliant scheme** for all aspects of the proposed development.

- **Improved cold bridging junctions** will significantly improve the emission rate of through the provision of insulation, limiting heat losses that occur at the junctions between building elements and around openings. 'Bespoke' psi values will be used to achieve a low γ -value, thus minimising heat loss through cold bridge junctions.

An enhanced fabric specification will **deliver a Building Regulation, Part L Approved Document Volume 2 (2021) compliant scheme for all aspects of the proposed development**. It ensures an inherently energy efficient development, focussing upon limiting demand side reductions in accordance with the energy hierarchy.

5.2 Building Services

As per the second principle of the energy hierarchy, the operational efficiency of the building will be optimised via the use efficient mechanical and electrical systems including the use of 100% low energy and LED lighting provision and the incorporation of sophisticated control systems for the space and water heating.

The proposed mechanical and electrical specification that will be incorporated to ensure efficient servicing of the building is presented in Table 5.2.

Table 5.2 – Proposed Mechanical and Electrical Specification

Item	Proposed Specification
Lighting	100% 'Low E' / LED
Ventilation	Natural Vent. / Intermittent Extract
Space Heating	Electric Panel Heaters
Water Heating	Point of use water heaters
Heating Controls	Programmer and Appliance Thermostats

In comparison to the pre-refurbished specification, the proposed improved mechanical and electrical specification will provide the following benefits to both the change-in-use and new build elements of the scheme:

- **Low energy and LED lighting** will be specified throughout the development in order to maximise operational efficiencies and lifespan of the fittings. LEDs operate with an estimated energy efficiency of up to 90% when compared to traditional lighting and conventional light bulbs. This means that about c.90% of the electrical energy is converted to light, rather than wasted heat as in conventional bulbs;



- **Electrical panel heating** is 100% efficient at the point of consumption. It generates a reduced overheating potential – electric space heating delivers virtually instantaneous heating at the location it is required;
- **Point of use water heaters** minimise standing losses associated with hot water storage cylinders which are not required for this scheme due to the anticipated low water loads associated with the intended end use; and,
- **Sophisticated heating controls** including programmer and appliance thermostats will ensure the efficient delivery of heat to further reduce the building's energy demand.

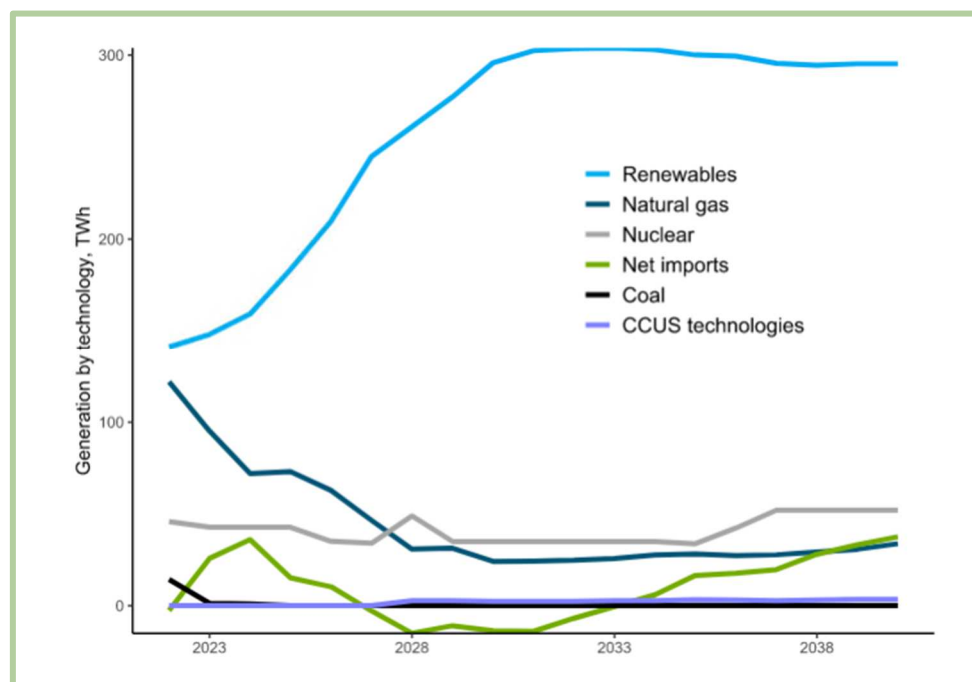


6. DECARBONISATION

As the UK electricity grid's CO₂ footprint continues to improve, so too would the carbon dioxide emissions associated with the operational phase of the proposed scheme, which benefits from a 'full electric' energy strategy.

UK grid mix electricity carbon emissions will decrease significantly by 2035, with the carbon intensity of electricity generation falling by 93% between 2020 and 2035. This is due to the progressive shift away from fossil fuels as demonstrated in Figure 6.1 below.

Figure 6.1 - Electricity generation by Fuel Source, TWh



Source – BEIS, Energy and Emissions Projections (2022)

Electricity is recognised as a less carbon-intensive fuel source than mains gas and other fossil fuels, which is only likely to improve as the percentage of electricity generation from renewable technologies increases.

Therefore, this will further support the schemes move towards operational net zero carbon.



7. PLACES FOR EVERYONE – POLICY JP-S2 – CARBON AND ENERGY

Manchester City Council formally adopted the Places for Everyone Policies in March 2024, which includes **Policy JP-S2- Carbon and Energy**.

In support of this, the developer wishes to highlight the following measures that will form part of the energy strategy for this development:

- Materials with a low life cycle cost and embodied carbon will be prioritised where feasible to ensure the long-term impacts from the development can be minimised. In order to measure the environmental impacts of the scheme;
- The proposed scheme will secure carbon emissions reduction associated with the prevailing Part L compliance requirements;
- The proposed scheme has been designed in accordance with the energy hierarchy;
- The proposed development has been assessed against the latest version of Part L Building Regulations (2021) – Approved Document Volume 2;
- It has been determined that there are no existing or proposed heat networks / energy centres within a moderate radius from the development, and there are no existing networks local to the site;
- The proposed development will achieve energy demand reductions in terms of both space and hot water energy demand.

Places for Everyone Policy JP S2 – Carbon and Energy expects new developments to be net zero carbon by:

- from adoption – to regulated operational carbon emissions; and
- from 2028 - to all emissions ‘in construction’.

However, as the proposed scheme is predominantly an existing building, it is not practicable to achieve net zero carbon emissions from adoption. Despite this, and allied to the enhanced specification for the heritage building and the decarbonisation of the national grid, the scheme is on a positive trajectory towards achieving this target.

The energy strategy proposed for the scheme uses efficient electrical systems that utilise grid electricity. The proposed scheme will therefore work towards net zero carbon during operation. This will be achieved through:

1. The specification of an upgraded fabric specification and efficient M&E technologies aligned with Part L – Volume 2 (2021) of Building Regulations.
2. The fully electric energy strategy will also benefit further from the decarbonisation of the grid, which is expected to improve as the percentage of electricity generation from renewable technologies increases (see Figure 6.2).
3. Therefore, the operational CO₂ emissions associated with the proposed scheme are anticipated to decrease in line with these improvements.



8. CLIMATE CHANGE EMERGENCY

On 10th July 2019, a motion asking Manchester City Council (MCC) to formally declare a **climate emergency** was unanimously agreed. In support of this, the developer wishes to highlight the following measures that will form part of the specification of this development:

- An energy strategy that exceeds Building Regulations, Part L Approved Document Volume 2 (2021), in relation to reducing carbon emissions and minimising energy consumption.
- A site waste management plan (SWMP) will be produced by the developer to limit the on and off-site environmental impacts of construction waste.
- The building will be designed to incorporate features that will serve to reduce energy demand, and in turn, carbon emissions arising from access to the building.
- The site is well located to encourage trips to be made on foot, by bike or via public transport. This is facilitated by:
 - The closest bus stop is located on the A62 Oldham Road accessible along Medlock Street;
 - Manchester Piccadilly station is located approximately one point one kilometres south of the application site; and,

These commitments, in combination, seek to work towards the carbon reduction target of no more than 1.5°C global temperature increase and assist the council in meeting their Climate Change Emergency objectives.



9. CONCLUSION

This statement has reviewed the sustainability performance of the proposed Radium Street development against national and local planning policies. The conclusions that may be drawn from the review are as per the following:

Sustainability Performance –

- This scheme promotes access to sustainable modes of transport, which will contribute towards creating a highly connected and sustainable development in accordance with **Manchester Core Strategy Policy T1 – Sustainable Transport**.
- The site is in an area at low risk from flooding, with it being **located within a Flood Risk Zone 1** in accordance with **Manchester Core Strategy Policy EN14 - Flood Risk**.
- Waste arising during construction will be minimised through the **implementation of a Site Waste Management Plan (SWMP) in accordance with Manchester Core Strategy Policy EN19 - Waste**. The SWMP will be used to ensure that there is adequate management, and that storage of construction waste takes place in line with the council's policies. Opportunities for the possible recycling of construction from excavation works will also be considered.
- A **Refuse Management Strategy** has been developed to manage waste and recyclables from the operational phase of the development. Source segregation will encourage the individuals to recycle and **divert waste away from landfills**.
- **Materials with low environmental impact** will be selected and local suppliers will be prioritised where possible in accordance with **Manchester Core Strategy Policy EN4 - Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development**.
- Through retaining the existing building, this will **significantly reduce the upfront embodied carbon levels associated with the proposed scheme**, due to the fact that **less energy intensive virgin materials will be required** which are associated with new build projects. Thereby using **less materials** in accordance with **PfE Policy JP-P1 - Sustainable Places**
- **Surface water will be managed in accordance with Manchester Core Strategy Policy EN14 – Flood Risk**.

Energy Strategy –

The scheme will be designed and specified in accordance with **the principles of the energy hierarchy** and improves upon the **carbon dioxide (CO₂) reduction targets and guidance set by Manchester City Council and the Places for Everyone criteria**:

- Several measures have been implemented to ensure that the proposed specification aligns with the **Places for Everyone Policy JP-S2 – Carbon and Energy**.
- This is a fossil fuel free development, efficiently utilising electricity drawn from the UK's decarbonising grid. Thus, securing a trajectory towards operational zero carbon.



- The refurbishment specification will be designed in accordance with **Part L Approved Document Volume 2: Buildings other than dwellings**.
- The proposed material and mechanical specification will **provide various benefits** including; **upgraded thermal insulation, efficient mechanical servicing**, and low energy lighting.

Furthermore, the proposals accord with the aims of the National Planning Policy Framework, as follows:

- The **re-use of the piece of land** will provide a development that inherently supports **sustainable accommodation space with access to local amenities and sustainable modes of transport**. The reuse of the site is also an efficient use of land and resources;
- **Construction practices that minimise adverse impacts on the environment** will be adhered to including a waste management strategy to reduce the quantity of waste generated, and to increase re-use and recycling, a commitment will be made to minimise waste and pollution; and,
- **Compliance with the regulatory Part L compliance criteria** will assist in lessening the impact of this development on the environment by way of reducing carbon emissions.

In conclusion, the proposed development will deliver a quality development that accords with the guidance provided within local, regional and national planning policy guidance and regulatory standards.

