

NT02-04 NEW TOWN, VICTORIA NORTH FULL PLANNING APPLICATION

Environmental Standards Statement

April 2023



TABLE OF CONTENTS

Introduction..... 3

Policy and Guidance Context 4

 NATIONAL POLICY.....4

 The National Policy Framework (NPPF) 4

 Planning Practice Guidance.....5

 National Design Guide 5

 Climate Change Act.....5

 Building Regulation’s Part L: Conservation of Fuel and Power 5

 Building Regulations, Part O – Overheating.....6

LOCAL POLICY.....6

LOCAL GUIDANCE 10

 Zero Carbon Manchester- Manchester City Council Climate
Change Action Plan 2020-2025..... 10

 Guide to Development in Manchester, Supplementary
Planning Document.....10

 Places for Everyone.....10

 Northern Gateway Strategic Regeneration Framework (SRF) 11

 Applicable targets.....12

Development response 13

Energy..... 14

 Meeting legislative and planning requirements 14

 Energy Improvements.....14

 Policy compliance 15

 TM59 / Part O Regulations.....15

Flood Management 17

 Flood management 17

 Drainage.....17

 Sustainable Urban Drainage Systems (SuDS).....17

 Discharge rates.....18

Waste Management..... 19

 Construction Waste 19

 Operational Waste 19

Materials..... 20

Ecology 21

 Planting Strategy 21

Green & Brown Roofs.....21

Ecological Launch Pad 22

Transport 23

 Allocated parking.....23

 Provision of local services.....23

 Pedestrian movement hierarchy 24

Introduction

This Environmental Sustainability Strategy has been prepared by WSP on behalf of Far East Consortium International Limited (FEC) in support of a full planning application for residential led buildings on three plots of land to the south of Dantzic Street and north of the railway viaduct known as plots NT02, NT03 and NT04. This residential scheme will provide a total of 1,551 apartments and will be supported by resident's amenity space within a 'clubhouse', together with flexible non-residential uses at lower levels. The full application site relates to the remainder of the development plots within the Red Bank Illustrative Masterplan area and is 2.81 hectares, located to the south of Dantzic Street adjacent to the outline application site. A detailed Environmental Standards Statement is submitted in support of FEC's full planning application.



Policy and Guidance Context

A range of local and national policies and guidance documents set the planning context for Red Bank. The key elements of these documents are now outlined.

NATIONAL POLICY

This section provides a summary of current national guidance and policy in relation to sustainable development.

The National Policy Framework (NPPF)

The NPPF document¹ (revised in July 2021) provides a framework for the development of locally prepared plans, establishes the government's planning policies for England, and describes how these are expected to be applied.

Paragraph 7 of the NPPF states that: 'the purpose of the planning system is to contribute to the achievement of sustainable development'. Paragraph 8 explains that, to deliver sustainable development, the planning system has three overarching objectives which are interdependent and must be pursued in mutually supportive ways.

The July 2021 update to the NPPF recognises the role planning must play in support of the UK's pursuit of the United Nations Sustainable Development

Goals (UNSDGs) which address social progress, economic wellbeing and environmental protection.



An economic role – contributing to building a strong, responsive, and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure.



A social role – supporting strong, vibrant, and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating beautiful and safe places, with accessible local services that reflect communities' needs and support its health, social and cultural well-being.



An environmental role – contributing to protecting and enhancing our natural, built, and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, eliminate waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

¹ UK Government, National Planning Policy Framework, [National Planning Policy Framework - GOV.UK \(www.gov.uk\)](https://www.gov.uk/national-planning-policy-framework)

Planning Practice Guidance

Planning Practice Guidance²(PPG) provides advice on various planning issues associated with development, including those linked to sustainability and renewable energy, and underpins the policies within the NPPF.

PPG is a material consideration in planning decisions and should be followed unless there are clear reasons not to. It sets out how local authorities should implement policies that protect the local environment and adopt strategies to mitigate and adapt to climate change and supports developments that are functional and adaptable for the future.

The March 2019 PPG update confirmed that local authorities have the option to set technical requirements exceeding the minimum requirements of the Building Regulations in respect of access, water, and space, where sufficient evidence is produced to justify the target.

National Design Guide

The National Design Guide³ is based on the national planning policy practice guidance and objectives for good design, as set out in the NPPF. The Guide introduces ten characteristics of well-designed places which work together to create developments of ‘Character and Community’, whilst positively addressing environmental issues affecting climate.

² Planning Practice Guidance, [UK Government, ‘Planning Practice Guidance’, 2016](#)

³ National Design Guide, [UK Government, ‘National Design Guide’, 2019](#)

⁴ UK Government, Climate Change Act, [Climate Change Act 2008 \(legislation.gov.uk\)](#)

Climate Change Act

The Climate Change Act 2008⁴ (2050 Target Amendment) sets legally binding targets to reduce carbon dioxide emissions in the UK by 100% by 2050 from 1990 levels. It also established an independent body, the Committee on Climate Change, to advise the Government on the level of each carbon budget. The Committee also reports to Parliament on progress made on reducing emissions.

The Act introduced carbon budgets which put legally binding limits on the amount of greenhouse gases the UK can emit over a five-year period. Five carbon budgets were put into law that run up to 2032 which require a 57% reduction by this time. The UK government has now also enshrined a new target in law to cut emissions by 78% by 2035, setting also the sixth carbon budget for the period 2033-37.

Building Regulation’s Part L: Conservation of Fuel and Power

The Building Regulations Part L⁵ governs the conservation of fuel and power in both new construction and refurbishment of the England and Wales building stock. Compliance with the Building Regulations is a regulatory requirement for all new developments. Carbon emissions of a development comparative to compliance with Part L is a key performance indicator for achieving carbon targets. The new Building Regulations which came into effect from 15 June 2022, comprise five new Approved Documents, including

⁵ UK Government, Conservation of Fuel and Power, [Conservation of fuel and power: Approved Document L - GOV.UK \(www.gov.uk\)](#)

uplifts to Part L (fuel and power) and Part F (ventilation), and will have a marked impact on new and existing buildings.

Building Regulations, Part O – Overheating

Building Regulations Part O⁶ – Overheating sets the compliance standards for overheating in buildings. Guidance on how to meet the requirements of this regulation is provided within Approved Document O. The relevant document is referenced below:

Approved Document O addresses overheating in new dwellings. Part O (2021) requires all newly constructed dwellings to comply with the O1: Overheating Mitigation requirements. The aim of requirement O1 is to protect the health and welfare of occupants of the building by reducing the occurrence of high indoor temperatures. O1 is met by designing and constructing buildings to achieve both of the following:

- a) Limiting unwanted solar gains in summer; and
- b) Providing an adequate means of removing excess heat from the indoor environment.

Compliance with requirement O1 can be demonstrated by using one of the following methods:

- a) The simplified method for limiting solar gains and providing a means of removing excess heat, as set out in Section 1 of the Approved Document; and
- b) The dynamic thermal modelling method, as set out in Section 2 in the Approved Document.

⁶ UK Government, Overheating, [Overheating: Approved Document O - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/overheating-approved-document-o)

LOCAL POLICY

Local Plan Review: Manchester Core Strategy 2012 to 2027⁷

Manchester Core Strategy 2012-2027 Development Plan (2012) is the key document in the Manchester Local Plan. It sets out the long-term strategic policies for Manchester's future development and forms the framework against which planning applications are assessed. The following Core Strategy policies are of greatest relevance to sustainable development and the focus of this Statement.

Policy EN4: Reducing CO2 emissions by enabling low and zero carbon development. Development should be designed in accordance with the energy hierarchy to reduce energy demand through active and passive design measures, meeting residual requirements using zero carbon, renewable energy technologies. Developments are encouraged to consider the following principles:

- Locate and design in a manner that allows advantage to be taken of opportunities for low and zero carbon energy supplies where possible.
- Where possible new development and retrofit projects will be used as a mechanism to help improve the energy efficiency, and where possible provide low and zero carbon energy to existing buildings.
- Where appropriate, new development and retrofit projects are encouraged to connect to and/or make commitments to low or zero carbon energy schemes and/or to incorporate provision to enable future connection to any existing/potential decentralised energy networks.

⁷ Manchester City Council, Core Strategy 2012-2017, [Core Strategy 2012-2017](https://www.manchester.gov.uk/core-strategy-2012-2017), [Core Strategy 2012-2027](https://www.manchester.gov.uk/core-strategy-2012-2027) | [Core Strategy 2012-2027](https://www.manchester.gov.uk/core-strategy-2012-2027) | [Manchester City Council](https://www.manchester.gov.uk/core-strategy-2012-2027)

CS Policy EN 5: Strategic areas for low and zero carbon decentralised energy infrastructure. Within Manchester it is considered that the following strategic areas will play a major role 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 provide more detailed proposals for decentralised low and zero carbon energy infrastructure in the form of energy proposals plans.

Policy EN6: Target framework for CO₂ reductions from low or zero carbon energy supplies – applications for developments over 10 dwellings, or 1,000m² floor area, are expected to meet sustainability targets which vary depending on the scale of the development, where feasible.

Development that meets the criteria above is required to be accompanied by an energy statement which sets out the projected regulated energy demand and associated carbon emissions, and how the following targets will be met.

Development below the thresholds is expected to meet the targets but does not need to have an accompanying energy statement.

For the purpose of this policy, development is split into three target categories:

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

Table 1 provides an overview of current targets for domestic typologies.

Table 1- Policy EN6 Domestic CO₂ Emissions Reduction Target

Target	% Minimum Requirements
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 generation area	+15% increase on Part L 2010

To demonstrate compliance with these energy targets, an Energy Assessment is required to be submitted as part of planning. Developers are permitted to use green infrastructure elements to contribute to the carbon reduction requirements, provided adequate evidence of their respective contributions is clearly provided.

Policy EN8: Adaptation to Climate Change – all new development is expected to be adaptable to climate change and developments should have consideration of adaptation measures including:

- Minimising flood risk through sustainable drainage systems.
- Reducing the urban heat island effect through green infrastructure.
- Minimising overheating through passive design.
- 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.

CS Policy EN9: Green Infrastructure - new development will be expected to maintain existing green infrastructure in terms of its quantity, quality, and multiple functions. 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 DM1: Development Management – all new development should address a range of sustainability issues including site location, accessibility, waste management, biodiversity and flood risk, as well as incorporating sustainable construction techniques, which includes the application of BREEAM. New development should address the following specific issues:

- Appropriate siting, layout, scale, form, massing, materials, and detail.

- Impact on the surrounding areas in terms of the design, scale, and appearance of the proposed development.
- Development should be in keeping with the character of the surrounding area.
- Buildings and neighbourhoods should be fully accessible to disabled people and be accessible by sustainable transport modes.
- Design for health.
- Refuse storage and collection.

Policy CC5: Transport – developers should work to ensure that all users are able to access development by sustainable means, especially taking account of times when developments are likely to be busiest.

Policy EN 14: Flood Risk – 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).

All new development should minimise surface water run-off, including through the provision of sustainable drainage systems (SUDS) and the appropriate use of green infrastructure. Developers should disclose the surface water run-off rates in the Strategic Flood Risk Assessment (SFRA) User Guide. In critical drainage areas, evidence to justify the surface water run-off approach / rates will be required.

CS 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' such as 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 and 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 EN 17: Water Quality – development should avoid adverse impact on water quality, including during the construction phase, and minimise surface run-off.

Policy EN 19: Waste – require all developers, including those of new waste management facilities within the district, to demonstrate proposals' 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

LOCAL GUIDANCE

Zero Carbon Manchester- Manchester City Council Climate Change Action Plan 2020-2025

The Climate Change Action Plan (CCAP) of the Manchester City Council⁸ has a target to reduce direct emissions of CO₂ by 50% over the five-year period up to 2025. To achieve this, the Council aims to reduce its emissions by 13% every year, for five years. The CCAP sets a carbon budget of 119,917 tonnes of CO₂ for the five-year period of 2020-25, calculated using science-based targets. The Action Plan also details the activities that will have to be undertaken, developed, and investigated further over the next five years to ensure the successful transition to being a zero-carbon city by 2038.

Although the Plan includes investment in green and blue infrastructure to increase carbon storage and sequestration, reaching zero carbon will not include offsetting the emissions. The ambition has been informed by the SCATTER project (Setting City and Area Targets and Trajectories for Emissions Reductions), which is a model that helps cities set zero carbon targets from their buildings, energy, and transport.

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' SPD⁹, adopted on 11 April 2007, supports and enhances the ongoing shaping of the city by providing a set of reasoned principles which will guide developers, designers, and residents. Its role is to inform the ongoing development of the city over the next decade by highlighting its many and varied existing qualities and describing how they can be enhanced in the future.

Places for Everyone

Until December 2020 a joint development plan document of the ten Greater Manchester local authorities was being prepared, known as the Greater Manchester Spatial Framework (GMSF).

However, progression of the GMSF ceased following the decision by Stockport Council to withdraw. Instead, a joint committee formed by the nine other boroughs has been formed to prepare 'Places for Everyone' (PfE), a joint development plan for jobs, new homes and sustainable growth across these boroughs.

Places for Everyone: Publication Plan5 was published in July 2021, with a period for representations taking place between 9th August and 3rd October

⁸ Manchester City council, Climate Change Action Plan 2020-2025, [Final MCC Climate Change Action Plan 2020-25.pdf \(manchester.gov.uk\)](https://www.manchester.gov.uk/media/2020-25.pdf)

⁹ Manchester City Council, Guide to Development in Manchester, [Guide to Development in Manchester - Supplementary Planning Document and guidance | Manchester City Council](https://www.manchester.gov.uk/media/2007-08-11.pdf)

2021. The Greater Manchester Combined Authority submitted the plan to the Secretary of State for examination on 14th February 2022. The examination hearings concerning the plan were to commence on Tuesday 1 November 2022. They are expected to run until Thursday 30 March 2023.

PfE sets out a number of ambitious sustainability policies, accounting for climate mitigation and adaptation, social value, economic growth and the natural environment.

Policies include a requirement for new commercial development to achieve at least BREEAM 'Excellent' standard for the Ene 01 Reduction of Energy Use and Carbon emissions credit issue, rising to Outstanding' from 2038.

Development will be expected to adopt a net zero carbon approach to operational carbon up to 2028 and incorporate construction carbon from then onwards. However, the practicalities of this policy including carbon calculation method and offset payments have not been fully confirmed yet.

Development should also achieve a net gain in biodiversity of at least 10%.

The policies within PfE are not considered further within this statement, due to its current stage of publication. However, the aspiration of Greater Manchester to become net zero carbon by 2038 is supported by the Applicants.

Northern Gateway Strategic Regeneration Framework (SRF)

In February 2019 MCC approved a Strategic Regeneration Framework (SRF)¹⁰ for Northern Gateway (now known as Victoria North) which sets out a series of principles and a “big picture” plan to guide the future development of this area over the next 15 to 20 years. Red Bank is one of seven neighbourhoods identified within this Framework. The SRF area covers approximately 155 hectares (ha) to the north of Manchester city centre between Victoria Station, NOMA and the Northern Quarter in the south-west, and Queens Park and the intermediate ring road (Queens Road) to the north-east. The eight Core objectives for the Northern Gateway are:

1. A unique and high-quality residential-led regeneration scheme;
2. A varied network of high-quality green streets and public open spaces;
3. Manchester's unique city river park;
4. Build on the best of what is there;
5. Improve connectivity across the northern gateway and beyond;
6. Create new gateways to and from the city centre;
7. Promote truly sustainable places; and
8. Foster the emergence of local retail and service hubs.

¹⁰ Manchester City Council, Northern Gateway Strategic Regeneration Framework, [SRF Appendix 5.pdf](https://manchester.gov.uk/srf-appendix-5.pdf) (manchester.gov.uk)

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 the proposal:

Manchester Core Strategy

- CS Policy EN 4 – Reducing CO₂ Emissions;
- CS Policy EN 5 - Strategic Areas for low and zero carbon decentralised energy infrastructure;
- CS Policy EN 6 – Target Framework for CO₂ Reductions from Low or Zero Carbon Energy Supplies;
- CS Policy EN 8 – Adaptation to Climate Change;
- CS Policy EN9 – Green Infrastructure
- CS Policy EN14 – Flood Risk
- CS Policy EN15 – Biodiversity & Geological Conservation
- CS Policy EN19 – Waste
- CS Policy DM1 – Development Management

Building Regulations: Part L

- Approved Document Volume 1 (2021 edition)
- Approved Document Volume 2 (2021 edition)

Development response

The NT02-NT04 Proposed Development largely consists of hardstanding and prepared ground. To the north, the site is bound by Dantzic Street, beyond which is the Application 4 area of the Site. To the east, the site is bound by Dalton Street and a small number of two-storey homes and a mid-rise residential tower building. To the south, the site is bound by the railway line into Victoria Station. To the west, the site area is bound by the emerging Victoria Riverside development.

The detailed planning application will seek approval for 1,551 residential units across the three plots along with amenity spaces like the clubhouse building.

The following section provides an appraisal of the Proposed Development and details the approach, design features and specifications. It demonstrates the commitments that have been made to ensure the NT02-NT04 Proposed Development contributes to sustainable development and thus responds effectively to relevant local and national policies and guidance.

The targets mentioned in the chapter should be viewed as benchmarks that Red Bank will aspire to meet, and exceed where possible, through various design interventions and optimisation. Achievement of certain targets may also be influenced by financial viability at detailed application stage, in accordance with adopted Core strategy Policies DM1 and EN6.

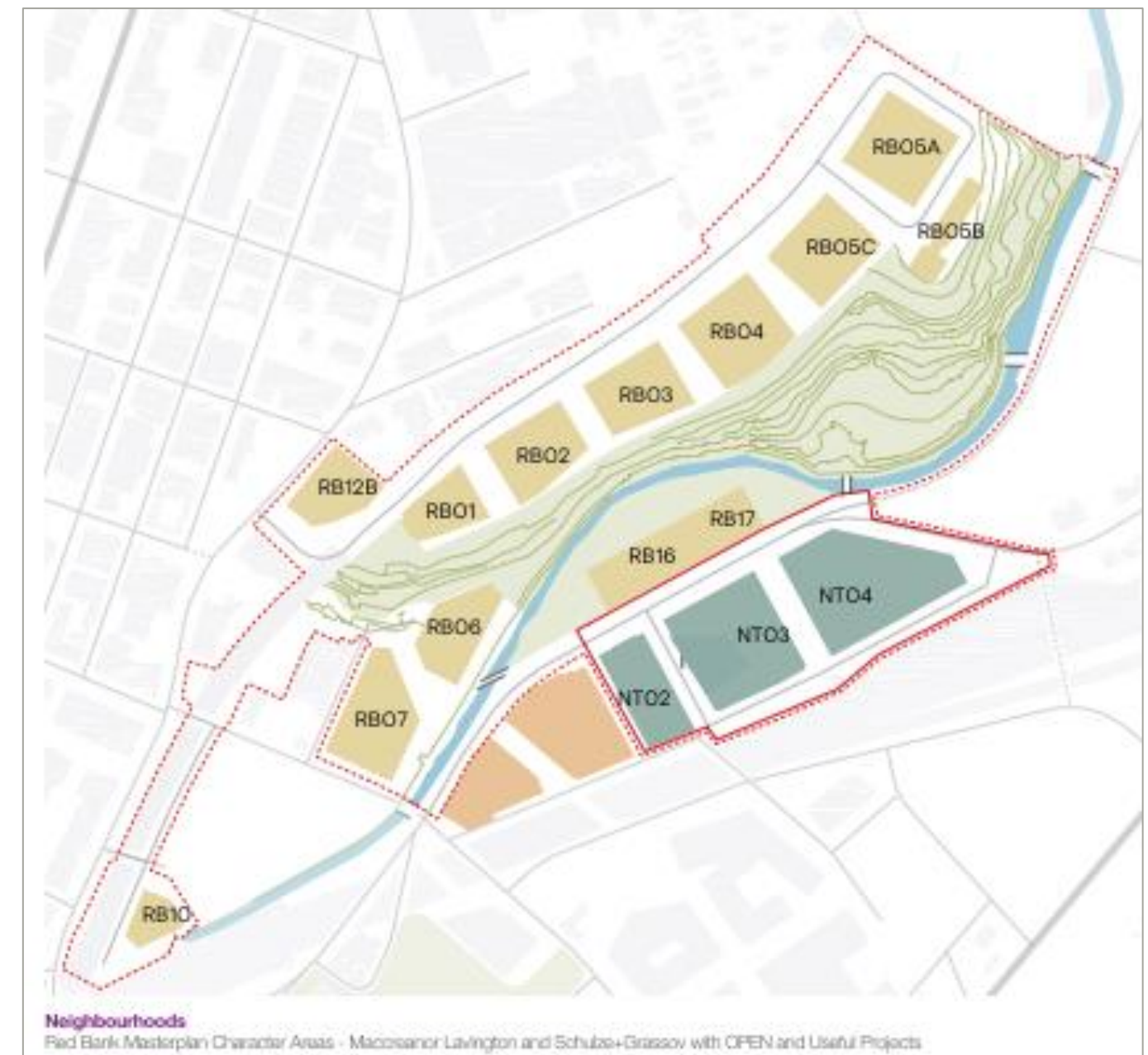


Figure 1- Masterplan plot summary, with Full application plots NT02-NT04 shown

Energy

All new buildings constructed in the UK must meet the minimum requirements of the UK Building Regulations. Specifically, with regards to energy and carbon compliance, all buildings must meet the Building Regulations Part L ‘Target Emission Rate’ (TER) requirements for the Part L revision which is applicable at the time of initial construction works for each developmental phase.

Meeting legislative and planning requirements

For the NT02-NT02 full application, a number of planning policies, both national and local that apply to the proposed development, have been reviewed together with the Building Regulations Approved document part L1A & L2A. The policies advise that a carbon emissions reduction of 15% greater than Part L of the Building Regulations (2010) shall be achieved.

An energy emissions baseline has been prepared for the development, in the form of a preliminary SAP calculation for typical units in the apartment buildings. Underpinning this calculation, a fabric first approach has been prioritised with passive measures being adopted to create significant improvements to thermal performance and air tightness. The improvements made beyond current Building Regulations Part L1a are identified in Figure 2 indicating a 25-45% improvement on U-values and a 50% improvement on air permeability.

Construction Element	Building regulation Part L Limiting U-Values for fabric elements	Development Specification
Floor	0.18 W/m²K	0.11 W/m²K
External Wall	0.26 W/m²K	0.15 W/m²K
Roof	0.16 W/m²K	0.11 W/m²K
Unitised Façade	1.6 W/m²K	0.9 W/m²K
Window	1.6 W/m²K	1.2 W/m²K
Air Permeability	8 m³/h/m²	3.75 m³/h/m²

Figure 2- Improvements made to construction elements beyond Part L1a

In addition to the fabric first passive design measures, active building services have been designed to minimise direct energy consumption and CO₂ emissions, with particular emphasis on the following:

- Increased hot water generating efficiencies;
- Reduced standing losses from pipes and cylinders;
- Energy efficient LED lighting;
- Improved lighting controls;
- Low energy motors in pumps and fans;
- Efficient heat recovery in relevant systems;
- Enhanced heating controls – Wi-Fi enabled; and
- Combined natural and mechanical ventilation systems.

Energy Improvements

The proposed development will incorporate energy efficient building services, designed to reduce the carbon footprint of the site below the passive improvement stage (fabric first approach), using highly efficient heat generation plant, heat recovery systems and energy efficient and highly controllable lighting.

Electric heating will be supplied in the apartments, utilising increasingly decarbonised electricity from the UK grid, but also power from PV arrays.

100% of internal lighting installations will make use of low energy technologies, combined with 'presence and absence detection' in conjunction with timed setbacks. Photo switching and automatic dimming will be specified to communal areas, to reduce overall energy consumption.

All fans, motors and pumps shall be specified to incorporate Enhanced Capital Allowance (ECA) accredited technology and appropriate controls.

The NT02 Amenity Clubhouse will use an Air Source Heat Pump (ASHP) system, Amenity and back of house areas will use local electric hot water heaters. Apartments are suggested to have pressurised hot water cylinders with integral heat pumps to meet demand.

The space heating will be via electric panel heaters or similar in all residential areas of the building. These will be complete with thermostatic and time controllers. These units will also have enhanced central Wi-Fi enabled controls. The ventilation will be via whole dwelling Mechanical Heat Recovery Ventilation (MVHR) units in each apartment.

Policy compliance

The carbon emissions from the NT02-NT04 Proposed Development apartments have been calculated to be in excess of 15% below Part L 2010 which is therefore in line with the local Manchester energy policy (Supplementary Planning Document 2009).

In addition to the above, an assessment has been undertaken to check compliance with the current Part L 2021 Building Regulations. Using SAP10, the initial results indicate the development performs well and is compliant with the new Building Regulations. This will also improve over time as the UK electricity grid continues to decarbonise in the future. The carbon reduction on this development has been calculated to be around 70% over Part L 2010 and in line with Manchester City Council Local Plan Document.

Furthermore, the measures adopted across the buildings will provide carbon savings in line with Policy EN 4 & EN 6 of the Core Strategy.

Electric heating shall be provided to each apartment within the development, to meet the requirements of the Environmental Criteria section and will ensure full compliance with the Part L1A of The Building Regulations (2021).¹¹

TM59 / Part O Regulations¹²

In addition to the carbon calculations completed to demonstrate compliance with current Building Regulations, an assessment has been undertaken to provide a preliminary overheating analysis.

The preliminary analysis indicates that if the windows can be opened during the day (8am to 7pm in living rooms, 8am to 11pm in bedrooms) then overheating may be controlled by means of MVHR and enhanced ventilation rates for the majority of the NT02-NT04 Proposed Development. To achieve this, the openings must meet the requirements of Part F and Part O of the

¹¹ NT02, NT03 and NT04 Stage 2 MEP Report by FutureServ

¹² Energy Statement by FutureServ. Dated: March 2023

building regulations, in relation to the purge ventilation. The façade glazing will require some elevations to have a g Value of circa 0.4.

Temperatures- External/internal¹³: All temperatures shall be designed with due consideration of, and fully in accordance with, the guidance published within the CIBSE guide and following the specific criteria listed in Figure 3.

Space	Temperature (Heating)	Temperature (Cooling)
Bedrooms	22°C	TM59
Living rooms	22°C	TM59
Bathrooms	22°C	N/A
Entrance lobby and foyer	22°C	N/A
Amenity Space & staff office	22°C	22°C
Gym area	20°C	18°C
Corridors and stairwells	18°C	TM52 corridors only
Communications room	19°C	19°C
Basement Carparks	Unheated	N/A
Plantrooms	Frost protection to 10°C	N/A

Figure 3- NT02-NT04 Temperature specifications

¹³ NT02, NT03 and NT04 Stage 2 MEP Report by FutureServ

Flood Management¹⁴

The FEC Baseline Model represents the existing flood risk to the site from the River Irk. This model shows that plots NT02- NT04 are within the extents of Flood Zone 3a and Flood Zone 2 or the 1 in 100-year and the 1000-year event flood.

Flood management

The design flood level for NT02-NT04 proposed Development is defined as the 100-year event plus a 35% allowance for climate change. The overview of the proposed flood risk strategy for NT02-NT04 is as follows:

- The finished floor level (FFL) for plot NT02 is set above the design flood level (Figure 4).
- The FFL for plot NT03 is split but all FFL's are set above the design flood level including an allowance for climate change.
- Plot NT04 is the only plot with a vulnerable (commercial) use across the masterplan with an FFL which is set below the design flood level, however, mitigation measures are in place in the form of an impermeable concrete upstand provided to 610mm above FFL.
- Flood doors or retractable flood barriers will be provided at door thresholds. This is aligned with the approach taken for the neighbouring consented Victoria Riverside development.

- Safe access and egress for the commercial plots will be provided via a ramped corridor to the rear of the units which emerges along Dalton Street.

Drainage

Surface water from the proposed development is to be discharged to the River Irk via the adoptable site wide HIF drainage system. It is proposed that the NT02-NT04 surface water will ultimately drain to the River Irk.

A new adoptable surface water carrier drain will be installed in Dalton Street and Dantzie Street which discharges to the River Irk via a proposed new headwall located to the west of Plot RB16. The proposals for the new adoptable carrier drain and outfall have been discussed with United Utilities, the Environment Agency and the Manchester Lead Local Flood Authority (LLFA).

A new foul drainage network is proposed for NT02 to NT04 Proposed Development which consists of new carrier drains and chambers with connections provided to the proposed structures on site.

Sustainable Urban Drainage Systems (SuDS)

A detailed assessment of the suitability of all types of SuDS has been carried out. The provision of SuDS has been considered and will, where appropriate, be included within the surface water drainage proposals.

Due to the spatially constrained nature of the site, there is limited scope to incorporate space intensive, green SuDS such as swales or detention basins

¹⁴ Flood Risk Assessment and Drainage Strategy Report March 2023

within the plot boundaries or the public realm. As a result of this lack of space within the plots, it is anticipated that the SuDS provision within each plot will be provided in the form of underground attenuation tanks located under areas of hard landscaping, or underground car parks found within the plots.

Discharge rates

The calculations for the plot attenuation for NT02-NT04 Proposed Development were completed using the Micro Drainage source control detailed design function. A 45% allowance for climate change was applied. In addition to the plan area of the NT02-NT04 plot, an allowance for the vertical surfaces of the proposed buildings was included. This area was taken as 50% of the area up to 10 storeys high of the tower blocks on each plot, using a worst-case wind direction that affected the longest length of building façade. This was only applied to buildings over 10 storeys high. This approach is in line with BS 12056.

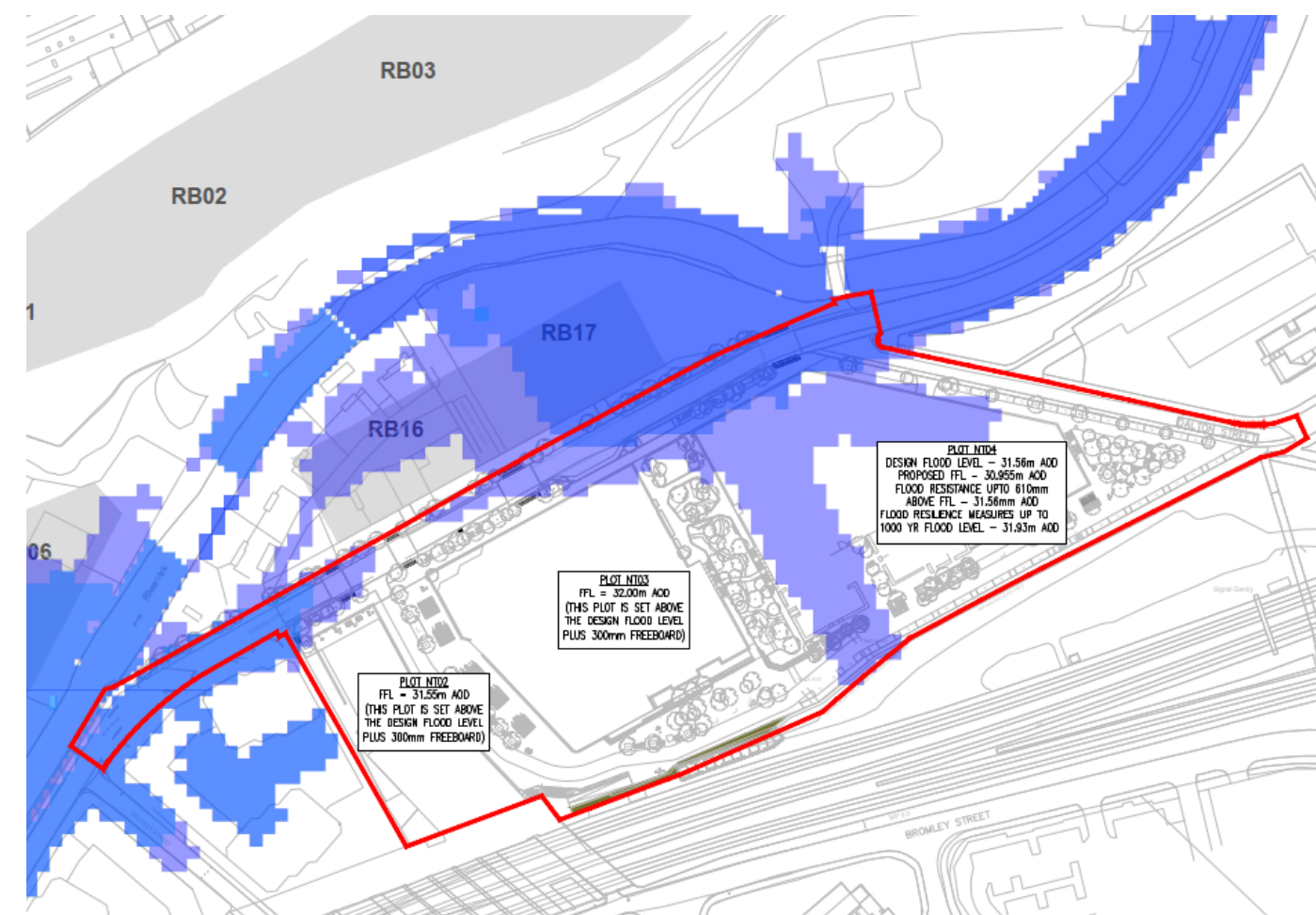


Figure 4- Minimum finished floor levels and design flood extents (Source- BIM: RDB-WSP-00-XX-DR-CV-0017)

Waste Management

Construction Waste

During construction, waste management measures will be put in place, with any salvageable materials considered for reuse on-site or recycling. This will form part of a wider requirement to promote sustainable construction techniques on Site during the construction phase.¹⁵

Operational Waste

The refuse provision and waste stores on the development have been designed in accordance with the criteria set out in Appendix E Proforma for Planning Applications (Planning Application- Waste Management Strategy) GD04 v6¹⁶. A breakdown of the assumed waste capacity for the commercial and individual residential areas has been calculated to inform these designs.

All buildings within NT02-NT04, (with the exception of the mid-rise block on NT03) have a refuse chute with a tri-separator to encourage recycling, accessed from shared corridors. Residents in the Mid-Rise block on NT03 will be able to take refuse and recycling directly to the refuse stores located adjacent to the circulation cores at ground level.

The size of each the stores have been designed to exceed the guidance recommendation of 0.43m² per apartment. All refuse stores will be managed

by the facilities staff. Residents will not be permitted to enter refuse stores that are fed by chutes.



Figure 5- Refuse provision for NT02-03 (Source – Design and Access Statement)



Figure 6- Refuse provision for NT04 (Source - Design and Access Statement)

¹⁵ Health and Wellbeing ES Chapter

¹⁶ Appendix E Proforma for Planning Applications (Planning Application- Waste Management Strategy). Available at: <https://docs.planning.org.uk/20210525/27/QR1YIFXBC0CT00/lo5rwve9n532e387.pdf>

Materials

The Proposed Development will efficiently use of material resources, by utilising the following approaches:

- The design has adopted a fabric-first approach to sustainability. Care has been taken with the façade design in order to minimise the requirements for mechanical means to mitigate the internal environment. The façade design has sought to achieve the optimal balance between providing views out, maximising access to sunlight and daylight, whilst maximising thermal performance and minimising overheating. Target glazing percentages and u-values have been established through initial energy modelling.
- The design of the façades mediate between the glazing requirements, and the appearance and proportions with sculptural facades that step into the window openings. These create a generously proportioned appearance whilst maintaining the correct amount of solid and void for the needs of the interior.
- Towers 1 and 3, which form the tallest buildings within NT02-NT04 Proposed Development, would be finished with anodised aluminium in a range of colours, with full-height windows, responding to the materiality of the towers within the adjacent Victoria Riverside, as well as development within the wider city centre to the south.
- Tower 2 would be finished with a purple-brown brick, responding to the neighbouring masterplan proposals.
- The mid-rise elements within NT02 – NT03 comprise a pale grey brick to respond to more traditional residential materiality.
- Low carbon construction methods and materials with low embodied carbon levels throughout their whole lifecycle will be prioritised where possible;
- Responsibly sourced materials from suppliers operating an Environmental Management System, or procuring timber verified by either the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification standard (PEFC);
- Local sourcing of construction materials where feasible and viable, which will minimise the impact of carbon dioxide emissions associated with the transportation of materials;
- Material selection within the buildings will 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,
- Robust materials such as sandstone setts pavers will be utilised for hard landscaping therefore, minimising the frequency of replacement and maximising materials optimisation and extending replacement intervals.

Ecology

The existing Site has a low ecological value; however, the new landscaped areas will enhance biodiversity by providing habitat through a diverse planting scheme.

The BNG assessment indicates a net gain of 26.86% for area-based habitats within the NT02-NT04 full application area only. No linear or river habitats are present or to be created. This demonstrates that for the full planning application, well in excess of 10% in biodiversity units is achievable. Metric 3.1, the most up to date metric at the time of this assessment, was used in line with Natural England advice and consultation with the Environment Agency. Thirty-year Landscape and Ecology Management Plans (LEMP's) for each phase of Application 5 will be secured by way of planning condition.¹⁷ Figure 7 show details of the proposed habitats for the Full planning application.

Planting Strategy¹⁸

The planting strategy for the site has been broken down into a series of themes. These themes will be applied to the different character areas across the NT02-04 plots, each responding to localised requirements of the surrounding area and contributing to biodiversity improvements across the site.

Green & Brown Roofs¹⁹

The NT02-NT04 Proposed Development aims to maximise the biodiversity and wildlife value of the roofscape by providing three different roof conditions:

Extensive green roofs: Located on mid-level roofs. Inaccessible and low maintenance roof with native wildflower mix. Attractive to invertebrates and provide foraging for birds and bats. Suitable for inclusion around PV panels.

Intensive green roof terrace: Located on accessible mid-level NT04 roof. Accessible roof with herbaceous perennial and shrub planting. Attractive to invertebrates and provides opportunity for contact with nature.

Brown roofs: Located on high roofs of tower buildings. Low-nutrient substrate left to self-vegetate via wind-blown or bird dispersal creating a

¹⁷ Biodiversity Net Gain Assessment- April 2023

¹⁸ Red Bank Detailed Plots NT02-04 Design and Access Statement

¹⁹ Red Bank Detailed Plots NT02-04 Design and Access Statement

natural habitat. Provides foraging and nesting potential for birds, including Black Redstarts.

Ecological Launch Pad

The pocket forest launch pad mimics the natural succession of local forests. Whips and feathered trees are layered and mixed with semi-mature, so a dense, wild tree strategy naturally adapts and changes over time.

Small boulders and locally sourced logs imbue a sense of the forest, and dense ground cover and shrub planting complement the tree canopy.

The pocket forest provides critical ecological niches for local pollinators and visiting wildlife, while also offering visitors and residents a space to enjoy a naturalistic setting amidst urban life.

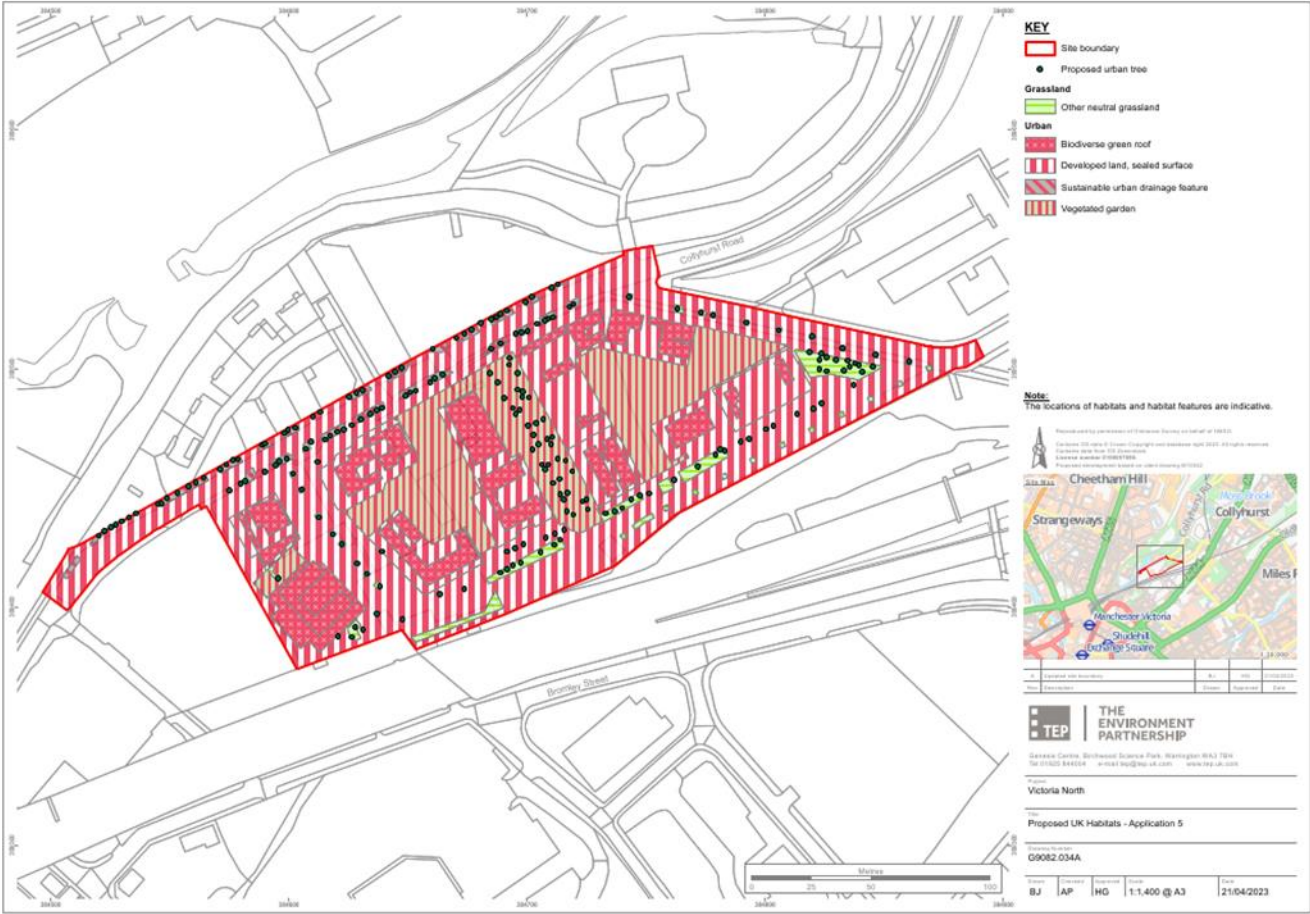


Figure 7- Proposed UK Habitats - Application 5

Transport²⁰

The proposed development is located in a ‘public transport accessible’ location and accords with the principles of national, regional and local transport planning policy. In particular:

Allocated parking

The provision of parking spaces for the Proposed Development is 10% resident’s car parking, in line with the principles set within the “Northern Gateway Initial Development Area Transport Strategy (March 2019)” which recommends a parking provision of no more than 10% for residential uses. The implications of this level of provision have been tested through the master planning process for the Red Bank neighbourhood which has informed the preparation of this full planning application.

Given the highly accessible location of the NT02-NT04 Site, the proposed on-site facilities, and the existing and proposed active travel infrastructure, it is considered this level of parking provision is suitable and appropriate. Parking provision at this level, taken together with the factors mentioned above, will encourage active travel and public transport to be the mode of choice for new residents.

The full application proposes the following car and cycle parking provision:

- 10% car parking for residents of the development totalling 156 onsite and off-site car parking spaces comprising:

- 7% car parking for residents of the development on site and within the podiums and on Dulwich Street totalling 104 car parking spaces. Of these 104 car parking spaces, 10 are accessible which equates to 6.5% of the overall car parking proposed for the Proposed Development and will be provided on site.
- 3% car parking for residents of the development off site in a location within the outline planning application area to be identified totalling 52 car parking spaces. Initially, the offsite car park will be temporary in a secure and well-lit car park until the permanent solution is delivered as part of the Red Bank outline application development. It is proposed that the location, design and specification of this off-site car parking area will be secured by condition.
- 13 car parking spaces on site are proposed at Dulwich Street, Dantzic Street and Dalton Street (including 4 accessible spaces) for visitors to residents and users of the non-residential uses proposed by the development located in close proximity to main residential and non-residential entrances.

Provision of local services

To reduce the need for residents to travel off site, the Proposed Development at the NT02-04 site, includes a range of complementary uses such as retail, food and beverage, fitness, medical services, a creche, and other local community facilities to serve residents needs at a local level. By

²⁰ Transport Assessment – Outline and Detailed Applications April 2023

incorporating these facilities within the development proposal there will be a reduction in the need for residents to travel off-site for similar services, with a consequent beneficial effect in terms of active travel use versus car use.

Pedestrian movement hierarchy

A focal point of the NT02-NT04 Proposed Development has been to encourage walking and cycling within the site, to reduce the dominance of the car / motor vehicle on the residential streets within the site boundary.

Accordingly, the street and public realm design are underpinned by best practice standards, including Manual for Streets / Manual for Streets 2, and Local Transport Note 1/20.

Therein, the design principles for transport respect the principles and objectives of the Greater Manchester Transport Strategy 2040, in particular the Streets for All design guidance²¹. The NT02-NT04 Proposed Development is well aligned with the Streets for All vision to enable walking, cycling and public transport use, through placing walking and cycling at the heart of the movement strategy by reducing the dominance of vehicles on key routes including Dantzic Street and the Plateau Avenue.

Specific ways in which the on-site infrastructure is encouraging active travel include:

- All on-site street design incorporating a maximum 20mph speed limit;

- Carriageway widths being minimised to 5.5m except where a larger width is needed to specifically facilitate delivery / refuse / emergency vehicles or buses;
- Use of planting, street furniture and materials to soften the appearance of the streets, encourage active travel use and reinforce the streets as a place to use and dwell rather than a place to simply travel through;
- 1,551 cycle spaces (316 cycle spaces in NT02, 579 cycle spaces in NT03, 656 cycle spaces in NT04) will be provided;
- Cycling lanes are accommodated within the street where possible, or with segregated facilities along key routes such as Dantzic Street;
- Additional cycle parking will be provided in the public realm to accommodate visitors to the non-residential uses, in line with the relevant MCC standards for the exact non-residential land uses and quantum proposed
- Segregated cycle facilities designed to LTN1/20 standards;
- Footways have been designed to exceed the minimum width requirements set out in LTN1/20.
- A mobility hub is proposed within the outline planning application area, which could include facilities such as a delivery consolidation hub, cycle parking, e-cycle and e-scooter charging, cycle and scooter maintenance and a community café facility.

²¹ Streets for All design guidance. Available at:
https://assets.ctfassets.net/nv7y93idf4jq/2jl7ApjSymHATQzRtObTT7/0cdf7890fa7053ed80d0bfe19c063f/Streets_for_All_strategy.pdf



Far East Consortium
Second Floor, Northern Assurance Building
9-21 Princess Street
Manchester, M2 4DN