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BODDINGTONS SITE, MANCHESTER

DRAFT SUSTAINABILITY STATEMENT

LATIMER DEVELOPMENTS

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CLARION
HOUSING GROUP



LATIMER
by Clarion Housing Group

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Introduction

This Sustainability Statement provides a summary of the Sustainability Strategy developed for the Boddingtons Site, Manchester project and sets out the key aspects of the sustainability performance of the current project design proposals.

Aiming to be an exemplar of sustainable design and construction, the project provides strong support for many sustainability related aspects of Manchester City Council policy, as well as key national policy, in terms of carbon emissions and pollution reduction; enhancement of biodiversity; provision of healthy and vibrant places to live; promotion of active travel and easy access to green space and local amenities.

1. Project Background and Context

Purpose of this Document

The purpose of this Sustainability Statement is to provide a summary of the Sustainability Strategy developed for the project, which is based on Clarion Housing Group's Sustainability Framework, and set out the key aspects of the sustainability performance of the current project design proposals against the Framework.

Site Description and Context

The project site is located to the north of the Manchester Inner Ring Road, on the existing car park of the former Boddington's Brewery site. The site is within the area covered by the Manchester City Council (MCC) Strategic Regeneration Framework (SRF). The site is adjacent to the Manchester Arena and Manchester Victoria train station.



Source: Strategic Framework Analysis Design Response, Assael, 2021

Figure 1-1 – Plan View of Site and Context

location provides an opportunity to encourage positive development in the area through place-making, both societal and economic.

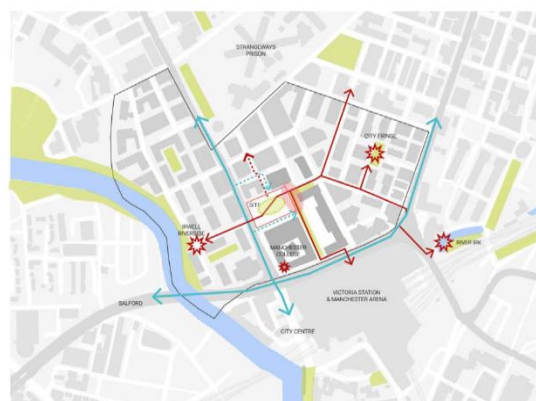
The site currently has no planting or vegetation. There is an existing foundation from the former brewery. The site has good connectivity to transport links and vehicle routes. Due to the proximity to the river, the site is in an EA Flood Zone 2, so there is a consequent risk of flooding. There is a strong opportunity to develop high quality public realm and greening in the form of soft landscaping on the site.

Proximity of the site to the River Irwell provides an opportunity to also contribute to development of a riverside environment and create an attractive point for social gathering and outdoor activities.

The SRF area covers a mix of small to medium sized businesses, many of which are important businesses within their industries, such as apparel, textile, wholesales, food industry and small manufacturers. However, currently the quality of businesses is reducing. It also includes primary and secondary education facilities. The SRF area has lacked investment and this has resulted in deterioration of the local environment. The site's

Desire Lines Analysis

- KEY**
- Site
 - Great Ducie Street SRF
 - Key pedestrian routes
 - Key vehicle routes
 - Public landmark/point of interest
 - Public plaza
 - High quality public realm
 - Proposed pocket park



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Source: Strategic Framework Analysis Design Response, Assael, 2021

Figure 1-2 – SRF Masterplan Analysis

National and Local Planning Policy Context

Key national and local policy and planning which support the development and regeneration of key areas of Manchester, which include the project site, as well as key local policy and guidance related to sustainable development, are summarised below.

National Planning Policy Framework (NPPF)

The NPPF sets out the government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. 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: an economic objective (building a strong, responsive and competitive economy), a social objective (support strong, vibrant and healthy communities) and an environmental objective (protect and enhance the natural, built and historic environment).

Future Homes Standard

The Future Homes Standard, published in 2019 by the Ministry of Housing, Communities and Local Government, is a consultation document setting out proposed changes to Building Regulations in the UK which will require all new homes built from 2025 to produce 75-80% less carbon emissions, compared to existing regulation builds. The new standard is proposed to be implemented on a phased basis, with a 31% reduction in carbon emissions from new homes from 2022. The proposed regulation changes, however, do not include the embodied carbon emissions associated with building new homes. The standard has been created to tackle carbon emissions from future new buildings within the UK to help meet UK Net-zero targets by 2050.

Transport 2040

This transport strategy sets out Greater Manchester's long-term ambition for transport. The vision is for Greater Manchester to have "World-class connections that support long-term sustainable economic growth and access to opportunity for all". The opportunities offered by devolution and greater local determination of policies, funding and delivery allow Greater Manchester to take a much bolder and longer-term view of their transport needs. This means an evidence-based, long-term vision for the 'right mix' of transport modes on the network can be identified. The Right Mix vision is for 50% of trips to be made by sustainable modes, with no net increase in motor vehicle traffic, by 2040. Greater Manchester also have a long-term environmental ambition for carbon neutrality by 2038. Greater Manchester have recognised that it is vital to take actions which reduce the impact of transport on the environment. At every stage, this strategy takes into consideration the actions needed to protect people's health, reduce air pollution and tackle the climate emergency.

Greater Manchester Strategy

The new plan for Greater Manchester is called 'Our People, Our Place'. It has been developed by 10 councils, including the Mayor, the NHS, transport and the police and fire service. The vision is "to make Greater Manchester one of the best places in the world to grow up, get on and grow old". The strategy includes schemes to help children get ready to start school, create good jobs, opportunities and housing, create stronger communities, make Greater Manchester age-friendly and create a green city. Greater Manchester are working to reduce carbon emissions and air, land, and water pollution. By 2020, Greater Manchester were planning to reduce CO₂ emissions to 11mt, have 50% of all waste recycled, and double the amount of Manchester residents reporting that they visited the natural environment at least once in the previous week.

Manchester City Council Residential Growth Strategy

The Residential Growth Strategy, published in 2016, sets out key priorities for delivering residential growth across the Manchester city area. It principally focusses on sustainable housing delivery in communities which can accommodate growth, which are connected to existing employment opportunities, and utilising low-carbon practices through the integration of public transport services and environmentally friendly construction practice technologies. The overall strategy aims for the construction of 25,000 new homes by 2025, which support the city's sustained economic growth and wider sustainability agenda.

Manchester City Council Core Strategy 2012 to 2027

The Core Strategy 2012 to 2027 is a 15-year plan describing conditions in Manchester and the Council's vision for Manchester in 2027. It also includes planning policies which will be used to deliver that vision. The strategy is divided into three broad sections: Manchester Now (current situation and challenges), Local Strategic Content (key elements of existing and emerging strategic landscape), and the Vision (outlines strategic objectives and includes a range of policies). Policy DM 1 within the Core Strategy Development Plan Document

(DPD) details targets “For new commercial developments to demonstrate best practice which will include the application of the BREEAM standards. By 2019 provisions similar to the Code for Sustainable Homes will also apply to all new non-domestic buildings.” Sustainable Home standards will be noted alongside other building regulations set out by the City Council. Policy EN6 will also be used as a baseline to encourage the design team to provide an energy statement at the outset of the project to align with the target framework for CO₂ reductions in residential developments.

Manchester City Council Guide to Development in Manchester

The Guide to Development in Manchester, published in 2007, is Supplementary Planning Guidance for the importance and recognition of attractive, well-designed neighbourhoods which support sustainable development and vibrant communities. The guidance aims to help shape and guide developers, designers, and residents to a sustainable vision for Manchester which adheres to the principles outlined above, enhancing the future, and increasing the longevity of development.

Manchester's Great Outdoors Initiative

Manchester's Great Outdoors is an infrastructure strategy developed by Manchester City Council which aims to integrate nature-based solutions within urban infrastructure to support urban wildlife and increase human health. The initiative was adopted in July 2015, with work carried out repurposing urban spaces with increased greenery, trees and urban gardens to help tackle climate change and reduce Manchester's wider environmental impact.

Manchester's Climate Change Framework 2020-25

The Manchester Climate Change Framework 2020-25 is the city's high-level strategy for tackling climate change. It sets out how Manchester will “play its full part in limiting the impacts of climate change” - a commitment in the Our Manchester Strategy 2016-25. It was produced in 2020 by the Manchester Climate Change Partnership and Agency. The objectives include staying within carbon budgets, climate adaptation and resilience, health and wellbeing and inclusive, zero carbon economy. The seven areas that need action to meet the objectives are buildings, renewable energy, transport and flying, food, the things we buy and throw away, green infrastructure and supporting residents.

Five-Year Environment Plan for Greater Manchester 2019-2024

This plan, launched in March 2019, sets out a long-term environmental vision for Greater Manchester – to be carbon neutral by 2038 – and the urgent actions that need to be taken in the next five years to help achieve this. There are eight sectors that need developing to achieve carbon neutrality by 2038: manufacturing and materials, construction, health, education, digital and media, transport, energy, and environment. The projects in place to meet the target are carbon-neutral retrofit and new builds, citizen-orientated Circular Economy and Sharing Economy Initiatives, walkability, cyclability and clean transit links, climate resilient public realm, behaviour change for zero carbon living and 21st century energy supply.

General Description of the Proposed Development

The project consists of the development of circa 461 residential units with associated ancillary accommodation, comprising two buildings ranging from 10 to 27 storeys. The residential accommodation comprises a mix of 1, 2 and 3 bedroom dwellings to promote a vibrant and mixed community. Residential layouts follow the Nationally Described Space Standards (NDSS)¹.

Non-residential uses comprising retail / commercial units at ground floor are proposed in order to provide an active frontage where appropriate. The proposals incorporate residents' communal areas, including main entrance, amenity space, residents' facilities, bin stores, cycle storage and a central courtyard. The site is currently essentially flat, with only a slight difference in level from east to west, and level access will be provided for all users at ground level to the residential entrances, commercial units, and the pocket park. The landscaped courtyard will be accessible to all.

Aiming to be an exemplar of sustainable design and construction, the project provides strong support for many sustainability related aspects of MCC policy, as well as key national policy, in terms of carbon emissions and

¹ Department for Communities and Local Government (2015), *Nationally Described Space Standards*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1012976/160519_Nationally_Described_Space_Standard.pdf.

pollution reduction; enhancement of biodiversity; provision of healthy and vibrant places to live, promotion of active travel, and easy access to green space and local amenities.

2. Clarion Sustainability Framework

Introduction

As part of Clarion Housing Group (hereafter 'Clarion'), Latimer Development's mission is to provide good quality homes and neighbourhoods to people failed by the market. Latimer Developments (hereafter 'Latimer') understand that socio-economic considerations need to go hand-in-hand with environmental concerns, and that putting people first is key to the design of sustainable communities. As the UK's largest Housing Association with a portfolio of 125,000 homes, the impact of decisions made during construction on the long term are important to Clarion. This means thinking about longevity and resilience, as well as whole life costing and carbon calculations becoming important tools in designing Latimer's new homes.

Clarion aim to deliver a healthy, happy environment for all to live in - not just human residents being happy and healthy; the flora and fauna in and around Clarion developments should be too. Clarion will also contribute to reversing the decline of biodiversity and bring back the beauty of nature for everyone's benefit.

Sustainability Framework

Clarion have developed a framework of key sustainable development principles. It is derived from the group sustainability strategy, the Clarion Sustainable Development Roadmap 2025. It informs the considerations needed at each stage of initiating, designing, and constructing new homes and communities. It has been written from a design and delivery perspective, setting out the minimum standards they expect in terms of sustainability on every project.

The framework consists of five 'pillars' which embody a holistic approach to sustainability based on Clarion's driving principles, as follows:

- **Social Value** - Developments that generate real socio-economic benefits for the community;
- **Healthy Places** - Developments that provide healthy environments and promote human health and wellbeing;
- **Adaptable and Resilient** - Developments and new homes that anticipate and mitigate against the impacts of climate change;
- **Planet Friendly** - Developments that reduce their environmental impact on the planet; and
- **Energy and Carbon** - Developments that ensure they are on track to achieve a zero-carbon future.

3. Project Sustainability Strategy

Introduction

The project is being developed to be an exemplar of sustainable design and construction. Accordingly, the project has had a lot of focus on the energy strategy, and the technical approaches which could achieve this outcome using the increasingly decarbonised grid electricity and no reliance on fossil fuels. The current design is based on use of an all-electric space heating system, and hot water generation using individual air source heat pumps. The project will follow the best practice energy hierarchy, i.e. be lean, be clean and be green. The building fabric is set to perform in excess of MCC's Policy EN6 which requires a 15% improvement on Building Regulations Part L. Roof mounted solar photovoltaic (PV) cells are proposed. The development is essentially car free, with five car parking spaces to be provided on-street to the south of the site and provision of cycle parking on-site at a 1:1 ratio with apartments. The development's proximity to the city centre affords easy access to local amenities.

The site is presently occupied by a surface carpark on previously developed land. The potential for ecological improvements and increased biodiversity will be exploited. The central pocket park and residents' roof terraces will be used to enhance biodiversity on the site. The landscape strategy will include a focus on sustainable drainage with features such as permeable paving.

The Clarion Sustainability Framework forms the foundation for the development of a Sustainability Strategy specific to the Boddingtons site project. The sections below provide an overview commentary on the sustainability performance of the current project design proposals against the requirements of the Framework. The sections are organised around the Framework pillars and goals.

Social Value

Generate sustainable economic growth

The project will aim to ensure provision of opportunities for local suppliers / supply chains / services and local labour, incorporating a focus on diversity and under-represented sectors of society, matched to local needs. High-speed broadband capability will be provided to enable home working in 100% of the homes in the development. Homes will be designed to reduce energy costs and resident costs.

Participate in community engagement activities

The project will establish a strategy for community engagement, with potential initiatives identified based on local needs. This will include engagement with local social enterprises, e.g. in relation to procurement of services, goods, or charitable donations.

Work with considerate and responsible partners

Procurement criteria will include minimum Living Wage for all employees of the main contractor and sub-contractors working on the project. Tender documentation will include requirement for consultants and contractors to provide Supplier Diversity Policies in line with or higher than Clarion's Procurement and diversity policies. Contractor Health and Safety Management systems will be compliant with appropriate standards. Contractors will require Considerate Constructors Scheme "Beyond compliance" certification.

Healthy Places

Create inclusive and well-connected communities

Inclusive environments require well-connected communities that make residents feel safe, secure and healthy. The design will use Secured by Design principles to shape the landscape and urban design. Consideration has been given to good access for walking, cycling and public transport. All homes will have access to key community facilities and amenities, as most of them are already located in the area or will be introduced within the commercial space.

Create happy places to live

Each home will have access within 200m to spacious outdoor amenity in the form of both green terrace roofs and a public garden. Furthermore, just slightly beyond the 200m mark are the Cathedral Gardens. Other nearby green space includes that located outside the Urbis building by Cheethams Library, alongside the River Irwell, and beside The Friars primary school.

Provide healthy indoor environments

Indoor environments are specified to meet standards for noise / sound. Daylight assessment has been carried out to confirm the development causes no serious reduction of daylight / sunlight to neighbouring properties. An overheating assessment has been carried out. This indicated that the Project design passed the industry standard basic overheating test for the design summer year, based on a representative sample of rooms.

Adaptable and Resilient

Deliver developments resilient to the impacts of climate change

Anticipated climate change for the area has been assessed. Resilient approaches have been considered in design to meet concerns such as higher wind speeds and rising ground water conditions. These include adaptable designs, resilient materials, and hardy landscape species. Mitigations for flood risk, fire risk and overheating have also been evaluated. Low water in use has been specified in design.

Resilient homes for the long-term

The design considers ease of access, inspection and maintenance for both internal and external fit-out, and the use of standardised and prefabricated components where possible. Replacement parts for all products specified shall be affordable and readily available. Whole life costing is to be utilised and maintainability assessed when the design is confirmed, as well as a high-level review of future proofing.

Planet Friendly

Promote local ecology and biodiversity

The development on this brownfield site promotes gain in biodiversity and ecology, including increase in green space and number of trees. The landscape proposals aim to provide residents and visitors alike with a green parklet to enjoy. On podium level a terrace for residents only is proposed providing both passive and active recreation. The soft landscape strategy is designed to create a strong green framework for the development using a range of new native tree and shrub planting. The new planting will use a range of robust evergreen and deciduous species to give year-round seasonal interest, and selected considering aspect and site conditions.

The design follows the core principles of the Building with Nature² initiative. The development's outdoor landscape design includes consideration of a recycling system, in accordance with Sustainable Drainage Systems (SuDS) principles.

Reduce the environmental impact of our construction activities

Minimising pollution, and maximising diversion of construction and demolition waste from landfill, will be required.

Promote use of low or non-harmful materials

Contractor procurement documentation will indicate preference for responsibly sourced materials wherever possible and the provision of Environmental Product Declaration (EPDs) for materials where available. All timber, both temporary and permanent, will be from legally harvested sources.

Energy and Carbon

Energy efficiency and renewables

The design is focused on high thermal performance and airtight building fabric to minimise the need for heating.

² www.buildingwithnature.org.uk.

The project Energy Statement addresses the MCC Planning requirements. It considers the SAP³ rating of the residential space as a whole, and the SBEM⁴ modelling of the commercial space at ground floor level. Assessment of applicable low carbon technologies favours domestic hot water generated by air source heat pumps, all-electric panel heaters for space heating and high efficiency LED lighting. Roof mounted PV panels make a further contribution. The result is a 40% reduction beyond the Building Regulations Part L 2013 requirements (see Project Energy Statement for details).

The roof space will be used to maximise on-site renewables potential, considering the limitations of space dedicated to the terrace and serving other plant requirements. The design currently proposes 175m² of PV panels on top of Building B, equating to approximately 11% of total roof space, with an estimated generation capacity of 36kWp. All five parking bays will be provided with EV charging facilities.

Total annual operational regulated energy consumption in relation to residential and non-residential space is estimated as equating to approximately 402 tonnes CO₂e, taking into account the potential contribution of on-site renewables and low or zero carbon technologies.

Using circular economy principles

An initial, high level embodied carbon assessment has been carried out, based on preliminary estimates of building components. The Project is estimated to result in 17,550 tCO₂e of embodied carbon emissions during the Construction Phase. This indicates an estimated kgCO₂e / m²GIA value in the region of 500 may be possible. Guidance from the Royal Institute of British Architects (RIBA)⁵ provides targets of 800 and 625 kgCO₂e / m²GIA for 2025 and 2030 respectively, for residential development. Guidance from the London Energy Transformation Initiative (LETI)⁶ provides targets of 500 and 300 kgCO₂e / m²GIA for 2020 and 2030 respectively, for residential development. The initial assessment will be further refined in the next stage.

Manage energy and carbon performance in operation

Where possible, smart submetering will be provided for each apartment and commercial unit.

³ The Standard Assessment Procedure (SAP) is the methodology used by the Government to assess and compare the energy and environmental performance of dwellings.

⁴ Simplified Building Energy Model (SBEM) is a software tool developed by BRE that provides an analysis of a building's energy consumption. SBEM is used for non-domestic buildings in support of the National Calculation Methodology (NCM), the Energy Performance of Buildings Directive (EPBD) and the Green Deal.

⁵ Royal Institute of British Architects (2021), *RIBA 2030 Climate Challenge, Version 2*, <https://www.architecture.com/about/policy/climate-action/2030-climate-challenge#>.

⁶ London Energy Transformation Initiative (2020), *Climate Emergency Design Guide, LETI Embodied Carbon Primer*, <https://www.leti.london/cedg>.

4. Overview of Project Sustainability Performance

The project Sustainability Strategy is based on Clarion's Sustainability Framework. This provides a strong foundation for delivery of sustainable outcomes for the project across the full spectrum of socio-economic and environmental sustainability imperatives which Clarion seeks to address.

The sections below provide an overview of the sustainability performance of the project as set out in the current design proposals.

Social Value

The project provides a strong opportunity to engage with local people, businesses and social enterprises to foster project buy-in and contribute to achievement of local community goals, as well as providing an educational showcase for sustainable methods. The project focuses on developing relationships with local designers and contractors to minimise travel time and associated carbon emissions for the workforce, and prioritise use of local materials and products. Additionally, contractors and suppliers will be selected based on their policies and behaviours towards considerate operations, fair wages, and use of low impact, sustainable materials.

Healthy Places

The project is aimed at creation of a place which feels secure and healthy, both inside and out, by providing appropriate security, safety and a healthy urban environment and accommodation. Green space will be created using roof terraces reserved for residents and ground level gardens; and the development is in close proximity to existing open green spaces in Manchester. The indoor environment considers daylight, noise, views out and overheating.

Adaptable and Resilient

The project will include adaptable designs, resilient materials and landscaped spaces responding to likely accelerating climate change. Mitigations for flood risk, fire risk and overheating have also been evaluated. The project provides for ease of access for inspection and maintenance for both internal and external fit-out.

Planet Friendly

Converting this brownfield site into a high quality residential development will enhance local biodiversity and ecology. The outdoor landscape design considers SuDS approaches. The contractor will seek to include use of responsibly sourced materials where possible and timber from legally harvested sources.

Energy and Carbon

The project proposals are aimed at operational carbon emissions well below the Building Regulations requirements using low carbon design approaches and technologies, deployment of on-site renewable energy generation, and a car-free movement strategy. Initial estimates of embodied carbon emissions will be further developed and refined, aimed at further reductions, in the next design stage. Proposals for submetering will also be further developed.



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