



Mayfield Development Partnership LP

THE REPUBLIC

Environmental Standards Statement



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Environmental Standards Statement

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EXECUTIVE SUMMARY

This Environmental Standards Statement (ESS) has been prepared on behalf of the Mayfield Development Partnership LP in support of the proposed Republic building, within the Mayfield masterplan site. This strategy summarises the regulatory and local planning policies applicable to the new development and sets out how it will address the relevant policy targets.

ENVIRONMENTAL STANDARDS SUMMARY

The table below summarises the proposed development's approach to each of the areas covered in this ESS.

Section	Approach
BREEAM	Manchester local policy requires developers to demonstrate best practice by including the application of the Building Research Establishment Environmental Assessment Method (BREEAM) standard which is used to assess environmental performance of commercial developments. However, the 'Guide to Development in Manchester Supplementary Planning Document and Planning Guidance' (adopted April 2007) states that the City Council encourages the use of BREEAM, however using alternative methods that enable the developer to exceed the requirements of BREEAM are also promoted. In line with Landsec sustainability requirements the Republic has set an aspirational target to achieve BREEAM 'Outstanding'.
Energy Efficiency	The Energy Strategy for The Republic has been developed in accordance with the Energy Hierarchy: 'Be Lean > Be Clean > Be Green' and demonstrates the anticipated performance of the office development against the requirements of the Building Regulations Part L (2021) 'baseline'. The Energy Hierarchy approach follows guidance from the Manchester Core Strategy. Through passive design, energy efficiency and renewable energy measures, the Proposed Development achieves a 16% reduction in annual regulated carbon emissions over the Part L 2021 target, which also meets the requirements of the Manchester planning policy.
Renewable Technology	A range of low and zero carbon technologies, including renewable technologies, have been assessed in relation to The Republic. Photovoltaic panels have been determined to be the most appropriate renewable technology for use on the proposed building. At this stage, a roof mounted PV array generating 80.45MWh per year is proposed to be installed

Section	Approach
Water Efficiency	The proposed development will be designed to minimise water usage and impact on urban drainage. Water supplied to the proposed development will not give rise to significant adverse effects to the environment (particularly designated sites of European importance for nature conservation) as control and leak detection will be installed where appropriate. The proposed development will be designed to minimise water use through: • Water conservation • Managing water use • Leak detection and prevention • Water use during construction
Operational Waste Management	A Waste Management Strategy for the Proposed Development has been produced in line with the overarching servicing and waste management strategy for the Mayfield masterplan site, which implements Manchester City Council's Waste Management Guidelines. Dedicated waste storage facilities will be provided to cater for the segregation and storage of operational waste volumes for both recyclable and non-recyclable waste streams in order to divert waste from landfill. Due to site constraints, further processing of waste at the site is not likely to be possible, however the selected waste management contractor will be required to effectively divert waste from landfill, where possible. A plan has been developed demonstrating how in-use waste servicing will operate such as provision for waste vehicle access, frequency of servicing, refuse storage location and collection strategy. For further information on the operational waste management strategy, refer to the Waste Management Strategy.
Construction Waste Management	An Outline Construction Management Plan (CMP) has been produced which provides an outline structure on the construction waste management procedure for the Proposed Development. It is anticipated that this will be detailed by the selected contractor, prior to construction, and dealt with via planning condition. The appointed contractor will be required to develop a Site Waste Management Plan (SWMP) using the outline CMP to limit the production of waste during construction and maximise opportunities for the re-use and recovery of waste through good practice environmental and sustainability management and monitoring. Good practice targets will be set for limiting the amount of waste produced, as well as maximising the amount of waste diverted from landfill. Performance of the contractor's waste reduction and their environmental impact in this will make up an element of tender process.

Section	Approach
Ecology Biodiversity	A full Ecology Assessment has been undertaken as part of the Environmental Impact Assessment for Phase 1 of Mayfield, which includes The Republic. The Ecology Strategy for Mayfield aligns with the broad principles set out within the original Mayfield SRF and sets out the measures to be embedded in the design in order to deliver the Natural Capital objective of the Mayfield SRF to 'increase biodiversity and public access to green space' (Mayfield SRF, 2018) The Ecology Assessment states that whilst there will be a short-term loss of semi-natural habitats across the site to implement the Phase 1 development works, these are considered to be common urban habitat types, some of which are in a poor condition. The nearby proposed Mayfield Park development will include the replacement of these habitats. The net biological gain in habitat across the wider SRF site means the residual effect for the loss of existing semi-natural vegetation across the Phase 1 site is considered to be negligible. Ecological features at streetscape level within the site boundaries of the Proposed Development will be considered in order to increase the ecological value of the industrial central urban area. Given the nature of the site boundary for The Republic there will be limited landscaping that can be accommodated.

1 INTRODUCTION

This Environmental Standards Statement (ESS) has been prepared on behalf of the Mayfield Development Partnership LP (Mayfield Partnership) in support of the proposed Republic building.

The proposed development comprises a 13 storey office development including ground and mezzanine floors comprising circa 29,046 sq. m. (GIA) with active ground floor uses, and associated access and public realm.

This ESS summarises the relevant regulatory and planning policies applicable to the Proposed Development and sets out how it will address and achieve the relevant policy targets.

2 NATIONAL AND LOCAL POLICIES AND DRIVERS

This section sets out the policies and drivers relevant to environmental standards.

2.1 BUILDING REGULATIONS PART L (2021)

Part L of the Building Regulations is the mechanism by which government is driving reductions in the regulated CO₂ emissions from new buildings. All new non-domestic buildings, and hence The Republic, must meet the requirements of Part L2 of the 2021 Building Regulations.

2.2 NATIONAL PLANNING POLICY FRAMEWORK

The National Planning Policy Framework (NPPF) was published in February 2019 and has superseded all Planning Policy Statements (PPS) and Planning Policy Guidance (PPG) documents, with the exception of PPS10 (Waste). The NPPF sets out the Government's strategy on the delivery of sustainable development.

The NPPF places responsibility for policy making with the Local Planning Authority, who shall communicate their policies through Local Plans and facilitate the creation of Neighbourhood Plans. The NPPF states that there is a presumption in favour of sustainable development.

The following is extracted from paragraph 11 of the NPPF:

"Plans and decisions should apply a presumption in favour of sustainable development.

For plan-making this means that:

- a) plans should positively seek opportunities to meet the development needs of their area, and be sufficiently flexible to adapt to rapid change;
- b) strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:
 - i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or
 - ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

For decision-taking this means:

- a) approving development proposals that accord with an up-to-date development plan without delay;
- or
- b) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
 - i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
 - ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."

In respect of energy policy contained within the NPPF, paragraph 151 sets out that:

"To help increase the use and supply of renewable and low carbon energy and heat, plans should:

- a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);
- b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for collocating potential heat customers and suppliers.”

2.3 LOCAL PLANNING POLICY

Manchester City Council (MCC) documentation:

- Core Strategy (CS) (July, 2012)
- Supplementary Planning Documentation and Planning Guidance (SPDPG) (April 2007)

This strategy summarises the response of the Proposed Development to the policy framework of the MCC Adopted Core Strategy, and SPDPG documentation that together form the city’s policy landscape. The CS documentation supersedes the SPDPG and therefore the CS documentation will take precedence, however policies within the SPDPG are addressed within this Environmental Standards Statement.

2.4 5-YEAR ENVIRONMENT PLAN FOR GREATER MANCHESTER

Included in the five-year plan are a number of key items, including, but not limited to; increasing local renewable electricity generation, increasing the diversity and flexibility of energy supply and decarbonising how buildings are heated (serviced). These items encourage passive design and a shift away from fossil fuels to service buildings.

The five-year plan also notes that new developments should seek to generate 20% onsite / renewable energy generation.

Additionally, the strategy includes a clean air plan to help tackle poor air quality – safeguarding Manchester residents from high levels of Nitrogen Dioxide (NO₂).

2.5 MANCHESTER ZERO CARBON FRAMEWORK

Manchester has recently set an ambitious target to be a ‘zero carbon city’ by 2038. As part of the strategy the city is looking to move away from fossil fuel as a primary means of serving buildings and looking more towards low carbon technologies. A key part of the zero-carbon city ambition is for building’s to be zero carbon by 2028.

Whilst this is not a current policy requirement, the Proposed Development has acknowledged this aspiration and is aiming to reduce carbon emissions beyond targets set out within Building Regulations by applying the ‘lean, clean, green’ approach to low carbon design.

2.6 MANCHESTER'S GREAT OUTDOORS A GREEN AND BLUE INFRASTRUCTURE STRATEGY FOR MANCHESTER (2015-2025)

High quality green and blue infrastructure (GI) is an essential part of successful, liveable cities. The Council's commitment to produce a Manchester Green and Blue Infrastructure Strategy was set out in the Manchester Core Strategy (2012-2027), making it clear that action on GI should be seen in the context of the city's plans for growth and development.

The document sets out the importance of GI in Manchester and the vision, objectives, headline actions, implementations and monitoring, contributing to the city's plans for growth and reform.

2.7 MAYFIELD STRATEGIC REGENERATION (SRF) FRAMEWORK, MAY 2018.

The Mayfield SRF is the shared vision of the Mayfield Partnership, and is a bold commercial vision. The framework will allow Mayfield to be brought forward in a co-ordinated manner, ensuring delivery of world-class development and maximising the regeneration opportunities for the whole of Manchester.

The SRF has been prepared in order to comprehensively guide the future regeneration of the Mayfield area of Manchester city centre. The SRF is intended as the catalyst for the regeneration of the Mayfield area and seeks to maximise on the opportunity to transform this part of Manchester, by creating a new gateway and extending the city centre eastwards and beyond.

The Mayfield area will deliver a series of significant regeneration benefits, which in turn will help drive wider economic growth within Manchester city centre and adjacent neighbourhoods.

The following objectives lie within the heart of the framework and the Proposed Development will capitalise on these aims as paramount:

- Place Making: To offer exceptional design which respects and restores the Mayfield area's heritage assets
- New Jobs: Creation of new jobs accommodated in high quality commercial and business workspaces
- Townscape & Urban Design: To create a locality that has its own distinctive character, improving the environment around the Mayfield area and Piccadilly Station
- Natural Capital: Increasing biodiversity and public access to green space
- Functional Connectivity: Physically, socially, and economically connecting key regeneration areas and transport hubs
- Local Socio-Economic Impact: Open a range of economic, social and environmental benefits to residents in nearby wards. Include the provision of apprenticeships throughout the construction programme.
- Economic growth from clustering of economic activity adjacent to transport infrastructure: Capture the economic benefits from the potential substantial transport investment at Piccadilly Station, including the Northern Hub proposals, HS2 station at Piccadilly and potentially Northern Powerhouse Rail
- Economic Benefits from Construction: Construction programme sustaining workforce with associated supply chain expenditure increasing job growth to support Greater Manchester economy.

3 THE REPUBLIC SUSTAINABILITY PROPOSALS

3.1 BREEAM

Manchester local policy requires developers to demonstrate best practice by including the application of the Building Research Establishment Environmental Assessment Method (BREEAM) standard which is used to assess environmental performance of commercial developments. However, the 'Guide to Development in Manchester Supplementary Planning Document and Planning Guidance' (adopted April 2007) states that the City Council encourages the use of BREEAM, however using alternative methods that enable the developer to exceed the requirements of BREEAM are also promoted.

For the process of the BREEAM Assessment, the project under assessment comprises:

Table 3-1 – Project Details

Project Name	The Republic
Location	Manchester
Main Use Function	Offices
BREEAM Assessment Scheme	BREEAM Non-Domestic New Construction 2018
Assessment type	Office (Cat A)
Approximate NIA (m2)	21,000 m ²
Current Stage	RIBA Stage 2
Target Rating/ Reason	BREEAM 'Outstanding'
Stage of Assessment	Pre-Assessment (RIBA Stage 2)

3.2 ENERGY EFFICIENCY

The Energy Strategy for The Republic has been developed in accordance with the Energy Hierarchy: 'Be Lean > Be Clean > Be Green' and demonstrates the anticipated performance of the office development against the requirements of the Building Regulations Part L (2021).

In line with policy EN 06, the proposed development falls into a 'micro generation area'. As such the following target applies:

- 15% beyond Part L 2010 (equivalent to a 3.5% improvement on Part L 2013, for deep plan office blocks).

BASELINE CARBON EMISSIONS

The first stage of the energy assessment is to establish the baseline site energy demand and CO₂ emissions.

Detailed energy modelling has been undertaken based on the methodology from Part L2A of the Building Regulations to establish the baseline carbon emissions for the proposed development. The figures below show renders of the energy model.

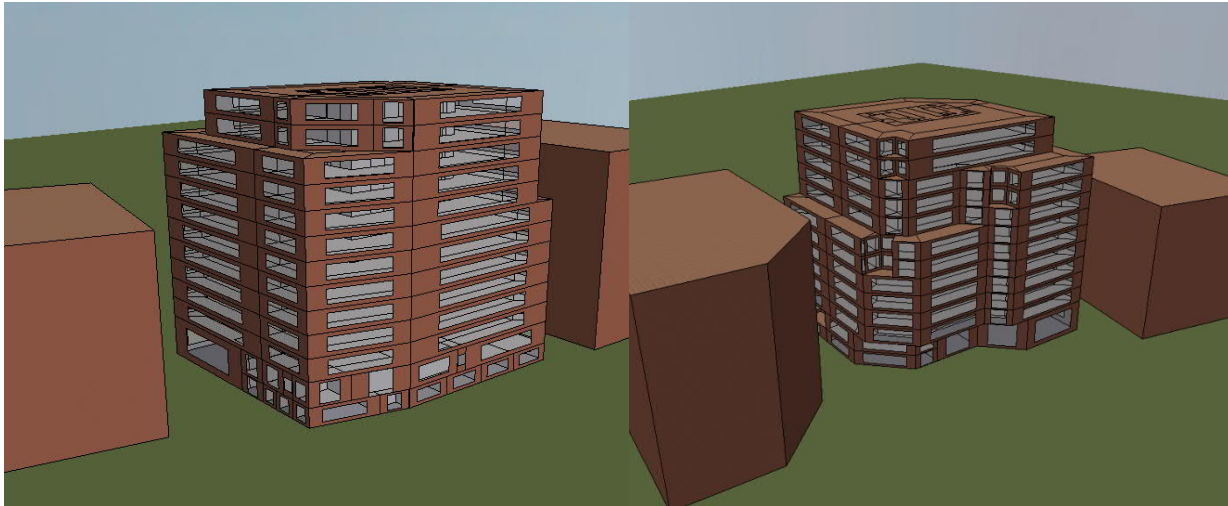


Figure 3-1 - Render of Thermal Model

Base line carbon emissions for the proposed development are as follows:

Table 3-2 – Baseline Carbon Emissions

	BER (Building Emissions Rate) (KgCO₂/m²)	TER (Target Emissions Rate) (KgCO₂/m²)	% Beyond Part L 2021
Baseline: Part L 2021 of the building regulations compliant development	4	4	0

BE LEAN: REDUCE ENERGY DEMAND

The first step to reducing carbon emissions is to reduce the energy demand associated with the proposed development. The following section provides details of the demand reduction measures specific to the development.

Building Fabric

During pre-planning design development, significant consideration has been given to how the building fabric will respond to its environment to reduce the energy consumption of the building as far as possible through passive means.

A façade optimisation exercise has been undertaken which included detailed analysis of g-values, U-values and shading and their impact on the cooling and heating requirements of the building.

The building fabric of the proposed development will be optimised to reduce heat loss in winter months and minimise heat gains in summer months. This will reduce the energy required to heat and cool the building.

The table below sets out the fabric performance parameters of the proposed building.

Table 3-3 – Fabric Performance Targets

Fabric Parameter	Target Performance
Glazing U-value (W/m ² .K) (unitised façade)	1.3
Glazing g-value	0.30
External Wall U-value (W/m ² .K)	-
Ground floor U-value (W/m ² .K)	0.13
Roof U-value (W/m ² .K)	0.13
Air permeability (m ³ /hr/m ² @50pa)	3.0

BUILDING SERVICES

Heating and cooling to the office areas are provided by a central air-water heat pump and chiller located at roof level. A 4-pipe heat pump is proposed to be provided sized to match the building's simultaneous heating and cooling load to maximize energy recovery. Supplementary 2-pipe reversible heat pump/s are proposed sized to meet the remaining heating load. A high efficiency chiller is also proposed to be provided sized on the cooling load shortfall from the air-water heat pump proposed. The 4-pipe heat pump shall be setup to operate as lead unit whenever a simultaneous heating and cooling load is realized.

The ancillary spaces and the toilets/changing facilities will have heating provided by central radiators using a central ASHP.

Ventilation to office areas shall be provided via AHUs (air-handling units) located on the roof with a high efficiency thermal wheels providing heat recovery. The ventilation systems to the office areas shall operate as variable air-volume systems with CO₂ sensors provided linked to variable air-volume dampers. Store rooms and refuse areas shall be provided with local mechanical ventilation. The toilets and changing facilities will have dedicated ventilation systems provided with heat recovery.

The hot water shall be generated via electric water heaters for toilets serving offices. The high hot water demand spaces like café and changing facilities will have heat pump for hot water.

The Calculations in this Energy Statement are based on the building utilising a 4-pipe to provide heating and cooling. As the design progresses however, other systems may be considered. Any alternative system will perform at least as well as the currently proposed system in terms of energy and carbon emissions.

Proposed Energy Conservation Measures

Element	Design Rationale
Air Handling Plant	Ventilation is proposed to be through centralised high efficiency Air Handling Units (AHU) which will be provided to achieve low specific fan powers.
Energy Recovery	Air handling systems will incorporate heat recovery systems with a minimum efficiency of 75%. These transfer waste heat from the exhaust air stream to the supply air stream.
Cooling Plant	High efficiency cooling plant will have a minimum SEER (Seasonal Energy Efficiency Ratio) of 5.78
Terminal Units	Specific fan power of terminal units will be 0.2 W/l/s or lower.
Space Heating and domestic hot water	Heating is provided by a central air-water heat pump and domestic hot water is provided via air-water heat pump to the changing facilities and café while point of use electric for the toilets. This will minimise the heat losses from pipework.
Lighting Technology	High efficiency lighting will be provided throughout to significantly exceed the minimum requirements of the Non- Domestic Building Services Compliance Guide. This includes the use of high efficiency fluorescent and/or LED luminaires throughout.
Lighting Control	Occupancy and daylight sensing will be specified to an appropriate level throughout the different areas of the building. This will reduce the use of artificial lighting when areas are not occupied.

Carbon Emissions Reduction

Based on the energy efficiency measures outlined, and excluding the contribution of any renewable technologies, the total carbon emissions are as per the table below.

Table 3-4 - 'Be Lean' carbon dioxide emissions for non-domestic buildings (tonnes CO₂ per annum)

	BER (Building Emissions Rate) (KgCO ₂ /m ²)
Baseline: Part L 2021 of the building regulations compliant development	4

Emissions after Energy
demand reduction

4.23

BE CLEAN: SUPPLY ENERGY EFFICIENTLY

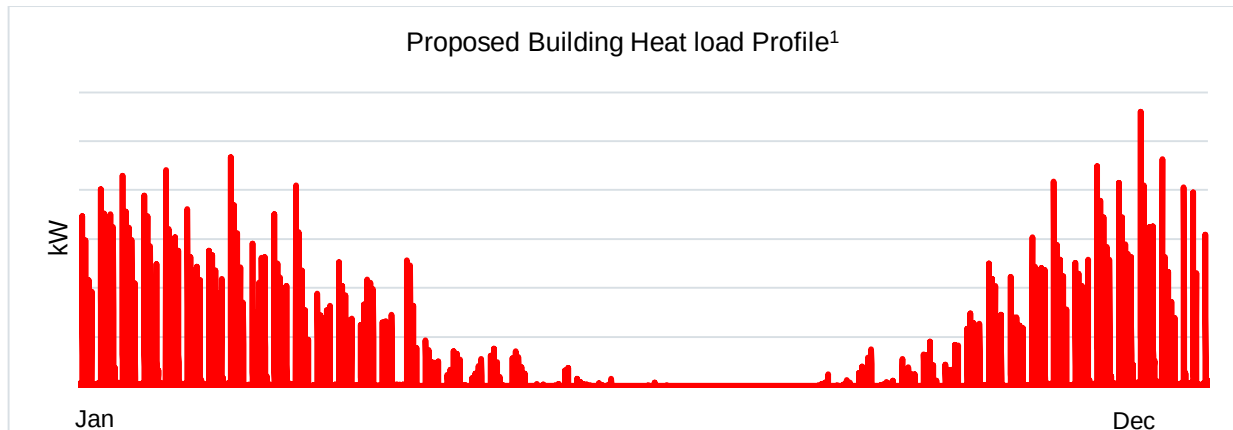
After consumption has been reduced through the application of energy efficiency measures, the next step is to consider low carbon technologies in order to provide further reductions in carbon dioxide emissions.

An appraisal of an assessment of district heating networks and Combined Heat and Power (CHP).

There is no district heating network proposed for the Mayfield area, therefore connection to a network is not possible for the proposed development.

A combined heat and power feasibility analysis has been carried out to determine whether space heating and domestic hot water to the building can be generated by a centralised LTHW heating system led by a CHP engine.

The heat load profile of the building has been shown to be intermittent, and hence not suitable for efficient operation of a CHP (see graph below).



In addition to this, the carbon emissions factor of electricity has come down significantly in recent years as the grid has decarbonised.

For this reason, the carbon savings available from a gas fired CHP solution have been significantly reduced. Hence a CHP solution is not considered appropriate for the proposed development.

¹ Estimated from Part L Thermal Model

BE GREEN: USE RENEWABLE ENERGY

In accordance with the requirements of EN 6, we have evaluated a number of renewable technologies to determine their potential applicability to the proposed development.

Photovoltaic Panels

It has been determined that Photovoltaic (PV) panels are the most appropriate renewable technology to utilise at the proposed development. It is proposed that a roof mounted PV array generating 80.45MWh per year is installed on the roof of the proposed development.

Carbon Emissions Reduction

Savings from renewable energy are shown in the table below.

Table 3-5 - Be Green: Carbon Emissions Reduction from Renewable Energy

	BER (Building Emissions Rate) (KgCO₂/m²)	TER (Target Emissions Rate) (KgCO₂/m²)	% Beyond Part L 2021
Baseline: Part L 2021 of the building regulations compliant development	4.0	4.0	0
Emissions after renewable energy	3.34	4.0	16.5%

CONCLUSIONS

The design of the proposed development will maximise carbon reductions through the provision of:

- highly efficient building fabric,
- highly efficient building services,
- low energy lighting, and
- roof mounted PV

The proposed development has been shown to achieve a 16.5% reduction in carbon emissions compared to Part L 2021.

3.3 LOW AND ZERO CARBON TECHNOLOGY

A range of low and zero carbon technologies (including renewable technologies) have been assessed in relation The Republic, as per the table below.

Photovoltaic panels have been determined to be the most appropriate renewable technology for use on the proposed building.

At this stage, a roof mounted PV array generating 80MWh per year is proposed to be installed.

Table 3-6 - Low and Zero Carbon Technology Appraisal

Technology	Description	Capital Cost	Maintenance	Carbon / Energy Savings	Recommended for The Republic
Wind Power	Turbine / generator converts wind energy to electrical power	£ Low - medium for small scale turbines in built up urban areas.	Medium Requires regular maintenance. Access may be an issue.	Low For small scale.	× Not suitable for built up urban environment.
Solar Hot Water	Solar energy used to heat water, usually for domestic hot water purposes.	£ Low—medium	Medium Increased legionella risk can cause additional maintenance	Low—Medium	× Limited roof space better utilised with PV.
PV Panels	Converts sunlight to electrical power	££ Low - medium	Low No moving parts. Regular visual inspection required.	Medium—High Approx. 250m2 of roof area set aside.	✓ Technically viable option for this site.
Biomass Boiler	Uses plant-derived organic material to produce heat.	££ Medium. Cost and availability of fuel can fluctuate	High Deliveries to site can be particularly problematic.	Medium—High Depending on carbon content of fuel.	× Not considered viable due to deliveries to site, fuel availability and air quality.
Ground Source Heat Pump	Provides low carbon heating and cooling by using the ground as a heat source and sink.	£££ Cost of drilling boreholes below pitch would be very high.	Low—Medium Relatively few moving parts.	Medium	× Deep boreholes would be required to meet load.

Technology	Description	Capital Cost	Maintenance	Carbon / Energy Savings	Recommended for The Republic
CHP	Generates both electricity and heat using fossil or renewable fuels	££ Medium	Medium	Low Due to intermittent operation.	× Constant base heat load not present.

3.4 WATER EFFICIENCY

The proposed development will be designed to minimise water usage and impact on urban drainage. Water supplied to the proposed development will not give rise to significant adverse effects to the environment (particularly designated sites of European importance for nature conservation) as control and leak detection will be installed where appropriate. The proposed development will be designed to minimise water use through:

WATER CONSERVATION

The proposed development employs best practice regarding water conservation and will have reduced mains water demand over typical building performance. Proposed water saving methods include:

- Water efficient sanitary fittings such as low flush WC's and low flow taps and showers with flow regulators shall be installed.
- Fittings specified to provide a reduction over a notional building of at least 25%.

MANAGING WATER USE

- To ensure ongoing sustainability performance during building operation, water use will be appropriately and effectively managed
- Pulsed output water meters will be installed and connected to the BMS to allow monitoring of water consumption

LEAK DETECTION AND PREVENTION

- A leak detection system which is capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter
- Proximity controls will be installed in the office toilet blocks to ensure that the water supply is only supplied when required

WATER USE DURING CONSTRUCTION

Water consumption targets will be set for the construction site and usage will be monitored

3.5 OPERATIONAL WASTE MANAGEMENT

A Waste Management and Servicing Strategy for the Proposed Development has been produced in line with the overarching servicing and waste management strategy for the Mayfield masterplan site, which implements Manchester City Council's Waste Management Guidelines.

A plan has been developed demonstrating how in-use waste servicing will operate such as provision for waste vehicle access, frequency of servicing, refuse storage location and collection strategy.

The buildings will be provided with sufficient waste storage capacity to allow for storage of recyclable and non-recyclable waste streams in order to maximise the diversion of waste from landfill. Storage volumes will be in line with benchmark targets identified within MCC's guidance GD04 for the different class uses of the Proposed Development.

Due to site constraints, further processing of waste at the site is not likely to be possible, however the site's waste management contractor will be required to effectively divert waste from landfill, where possible. The central waste storage area is situated in an appropriate location for collection by the waste management contractor.

3.6 CONSTRUCTION WASTE MANAGEMENT

An Outline Construction Management Plan (CMP) has been produced which provides an outline structure on the construction waste management procedure for the Proposed Development. It is anticipated that this will be detailed by the selected contractor, prior to construction, and dealt with via planning condition.

The appointed contractor will be required to develop a Site Waste Management Plan (SWMP) using the outline CMP to limit the production of waste during construction through good practice quality, environmental and sustainability management and monitoring. The Contractor will be required to reduce the need for waste disposal, minimise the generation and environmental impacts of waste arising during construction and maximise opportunities for the re-use and recovery of waste.

The management and disposal of waste generated will be required to be managed in accordance with the contractors Waste Management Procedure and recorded in the Site Waste Management Plan (SWMP). Good practice targets will be set for limiting the amount of waste produced, as well as maximising the amount of waste diverted from landfill. Performance of the contractor's waste reduction and their environmental impact in this will make up an element of tender process.

3.7 ECOLOGY AND BIODIVERSITY

A full Ecology Assessment has been undertaken the Environmental Impact Assessment for Phase 1 for Mayfield, which includes The Republic.

The Ecology Strategy for Mayfield aligns with the broad principles set out within the original Mayfield SRF and sets out the measures to be embedded in the design in order to deliver the Natural Capital objective of the Mayfield SRF to 'increase biodiversity and public access to green space' (Mayfield SRF, 2018).

The Site of the Proposed Development has no notable existing Green and Blue Infrastructure (G&BI) and due to the man-made nature of the Site there is an absence of semi-natural habitats.

However, the Proposed Development is in close proximity to the following:

- Directly North the River Medlock meanders around the Site. – Plants and trees are established along the banks / walls to the River.
- A variety of plants can be observed growing from existing brickwork walls throughout.

- There are a several bat roosts in built structures on the site including the Baring Street culvert.

Refer to the Mayfield Park Design and Access Statement for further details on the existing and proposed G&BI of the Site surrounding the Proposed Development.

There are some site clearance activities underway in the Phase 1 area of the masterplan. The site mainly comprises hardstanding and built structures. The Ecology Assessment states that in order to deliver Phase 1, a number of existing habitats on site will be lost. These include semi-improved neutral grassland, scrub, tall ruderal vegetation, scattered broadleaved trees and buildings. Whilst there will be a short-term loss of semi-natural habitats across the site to implement the Phase 1 development works, these are considered to be common urban habitat types some of which are in a poor condition. The Mayfield Park will include the replacement of these habitats. The net biological gain in habitat across the wider SRF site means the residual effect for the loss of existing semi-natural vegetation across the Phase 1 site is considered to be negligible.

Ecological features at streetscape level within the site boundaries of the Proposed Development will be considered in order to increase the ecological value of the industrial central urban area. However, given the nature of the site boundary for The Republic, there will be limited landscaping that can be accommodated.

The design aims to limit the impact on protected species by incorporating variegated flora across the external amenity spaces, which will include native species and pollen and nectar-rich planting.

The Proposed Development sit within close proximity to open spaces including public realm areas in the near surroundings of the site such as Ardwick Green Park and Piccadilly Gardens. The Republic also sits adjacent to the proposed Mayfield Park which will offer end users a new ecological habitat and an improved river environment to explore.

4 CONCLUSION

This Energy and Environmental Standards Statement has been prepared to demonstrate that the Applicant and design team have given due consideration to the principles of sustainability which will be implemented at proposed The Republic development, located within Manchester's Mayfield site.

This strategy has outlined considerations for each of the following issues and identified key points of focus going forward:

- BREEAM
- Energy Efficiency
- Renewable Technology
- Water Efficiency
- Operational Waste Management
- Construction Waste Management
- Ecology and Biodiversity



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