

Charles Street

Environmental Statement Volume 3:

Environmental Management Plan



Charles Street, Manchester

Volume 3: Environmental Management Plan

December 2023

Turley

This document provides a summary of all the mitigation committed to within **Volume 1, Chapters 2 and 6** to manage the environmental effects during the construction and operational stages of the Proposed Scheme and to establish a suitable mechanism to link to planning conditions, thereby delivering and securing mitigation.

This Environmental Management Plan (EMP) has been produced as a separate ‘clearly-marked’ document. However, this document should be read in conjunction with **Volume 1: Main Text and Figures, Volume 2: Technical Appendices** and **Volume 4: Non-Technical Summary**.

As set out within **Volume 1, Chapter 2: Approach to EIA**, the EIA has considered primary, secondary and tertiary mitigation in line with Institute of Environmental Management & Assessment’s (IEMA) Environmental Impact Assessment Guide to Delivering Quality Development (2016).

Chapters 2 and 6, in Volume 1 have considered primary and tertiary mitigation prior to undertaking the assessment of likely significant effects. Following the conclusion of effects based on the Proposed Scheme, any further mitigation measures or monitoring arrangements (i.e. secondary mitigation) have been detailed.

The three types of mitigation considered are defined as:

- **Primary** – modifications to the location or design of the Proposed Scheme made during the pre-application stage that are an inherent part of the project;
- **Secondary** – actions that will require further activity in order to achieve the anticipated outcome; and
- **Tertiary** – actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislation requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects.

All primary, secondary and tertiary mitigation referenced throughout the Environmental Statement (ES) has been collated and are summarised in the EMP (**Table 1**).

It should be noted that, given the definition of primary mitigation and the fact that the measures are inherent to the Proposed Scheme, all primary mitigation is to be secured through approval of plans submitted for approval referred to in **Volume 1, Chapter 4: Development Specification** and any associated design strategies / principles referenced in **Volume 1, Chapter 4: Development Specification** that are submitted in support of the ES or the Application. This includes **Plans**.

Therefore within the EMP (**Table 1**) there is a summary of primary mitigation measures used to inform **Volume 1, Chapters: 2 and 6**.

In most cases it is assumed that secondary mitigation will be subject to planning conditions and when preparing such conditions Manchester City Council (MCC) should give due consideration to the long-term effectiveness of the mitigation proposed. Therefore, there will be a requirements for long-term monitoring of mitigation measures identified in the EMP

(**Table 1**) to ensure the mitigation committed to, is implemented and the EMP remains fit for purpose during the lifespan of its implementation.

Table 1: Environmental Management Plan

Ref.	Primary Mitigation
All forms of primary mitigation are based on the description of the Proposed Scheme set out in Volume 1, Chapter 4: Development Specification and the plans as set out in Volume 1, Figures 4.1 – 4.11, which the Proposed Scheme will be delivered in accordance with.	
Layout / general arrangement and amenity space	
P1	Ground floor level of the building set at 31.900m AOD, which is 300mm above the pavement on Charles Street, to allow for internal ramped disabled access. The ground floor level will only be used for less vulnerable uses. Inclusion of a void (undercroft) underneath the ground floor slab with cladding around the envelope of the building designed with flood vents. The soffit of the ground floor slab will be set no less than 31.400m AOD (higher than 1 in 100 year on-site flood level). Inclusion in ground floor of the building for approximately 6m x 6m flood proofed area, in which the lift shafts and M&E services will be located. The building will be designed to include flood proofing measures in accordance with CIRIA C624 ‘Development and Flood Risk Guidance for the Construction Industry’. Attenuation in the form of a blue roof at Level 09.
Building Heights	
P2	Maximum height of the building up to 79.705m AOD.
Building materials	
P3	External façade will principally comprise of anodised window system, anodised rapid vents, flat panel terracotta spandrels and terracotta extruded cladding, brick (square edge) with protruding bullnose glazed brick. No windows to be located on the northern façade.
Operational Access and Parking	
P4	The Proposed Scheme has been designed to limit use of cars and does not provide for any car parking on Site, thereby minimising vehicle movements to those for servicing and maintenance.

Ref. **Primary Mitigation**

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- P5 Interim Travel Plan which will outline measures regarding additional traffic movements on specific days of the year when students arrive / depart.

Lighting Design

- P6 Lighting installations on north façade to comprise of wall lights with full light cut off (Thorn Cesar LED spotlights).

Waste Strategy

- P7 Storage and collection facilities will be provided through provision of 4, 1100 litre eurobins based on 70 l/bed with two collections per week provided.

Energy Strategy

- P8 The energy strategy provides for an all electric with Variable Refrigerant Flow (VRF) type space heating and cooling and an Air Source Heat Pumps (ASHP) for Domestic Hot Water (DHW), as well as highly efficient fabric. It is assumed that there will be a requirement for a gas fired backup provided for the DHW but this is intended just for backup or very cold external temperatures.

Surface Water Drainage Strategy

- P9 Surface water flows resulting from the building's roof area will discharge into the public surface water sewer located at the north of York Street. Surface water discharge rates must be restricted to a minimum of 50% compared to the existing situation during the 1 in 100 year + 50% climate change event. This equates to 2.5l/s for the Site. Flows in excess of this will be attenuated within a blue roof at Level 09 (as stated above).
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Ref. **Tertiary mitigation**

Tertiary mitigation presented below has been collated from **Chapter 2: Approach to the ES, Chapter 4: Development Specification and Technical Chapter 6.**

Construction Environmental Management Plan (CEMP)

T1 A CEMP will be prepared by the appointed contractor in advance of commencing any demolition or construction works, who will ensure the CEMP complies with all current and relevant legislation (including the *Health and Safety at Work etc. Act 1974*, the *Control of Pollution Act 1974* and *Construction (Design and Management) Regulations 2015*).

The document will provide detailed measures / controls to avoid and manage potential adverse effects upon the environment during the demolition and construction stages. A commitment has been made to several environmental measures and management practices during the construction stage and, where appropriate, these have been set out as part of the CEMP and will be agreed with MCC. The CEMP will include:

- Outline of construction working hours, which will be restricted to 08:00 to 18:00 Mondays to Fridays; 08:00 to 13:00 on Saturday; and it is anticipated that there will be no construction on Sundays or Bank Holidays. Any activities outside of these hours will be subject to agreement with MCC.
- A Construction Transport Management Plan (CTMP) in line with best practice guidelines. Specifically, the CTMP will set out the following:
 - Delivery timings and associated control mechanisms for all construction traffic. Delivery of large, oversized plant/machinery to the Site should take place outside of peak highway hours (where possible);
 - Management of all construction related traffic, including details of HGV Booking/management systems;
 - Proposed construction vehicle routing to and from the Site;
 - Necessary temporary signage on the local road network;
 - Set out specifics of temporary parking for all construction staff, deliveries and sub-contractors; and
 - Provision of alternative pedestrian / cycle routes (including diversions, where required) with appropriate signposting.
- Construction noise mitigation measures including adherence to Best Practicable Means and methods set out in *BS 5228-1:2009 + A1:2014 Code of Practice for noise and vibration control on construction and open sites - Part 1 - Noise and Part 2 – Vibration*.

Ref. **Tertiary mitigation**

Tertiary mitigation presented below has been collated from **Chapter 2: Approach to the ES, Chapter 4: Development Specification and Technical Chapter 6.**

- Site security arrangements will be in line with the requirements set out in the Construction (Design and Management) Regulations 2015, including 24-hour on-Site security and CCTV, where required.
 - Inclusion of temporary fencing/hoarding around the perimeter of the Site, where necessary and adoption of general Site tidiness and sensible layout.
 - Careful sourcing of construction materials to reduce associated GHG emissions as well as direct emission-reducing practices.
 - Construction lighting measures in line with industry standards and guidance [*ILP Guidance Note 01/21 The Reduction of Obtrusive Light (2021)*; *CIE - Technical Report Document 129 (1998) Guide for Lighting Exterior Work Areas*; and *British Standards (2014) BS EN 12464-2 – Lighting of Work Places – Part 2: Outdoor Work Places. ILP Guidance Note 08/23: Bats and Artificial Lighting at Night*], including the use of sufficient lighting units for the task in hand to avoid the need for tall, wide beam lighting units; the reduction of fixed lighting outside construction working hours; and luminaires to be positioned at the boundaries and orientated inwards to the Site, reducing light spill beyond the lit areas.
 - Site Waste Management Plan outlining measures / practices to minimise waste generation, including the re-use and recycling of materials where possible. It is assumed that the appointed contractor(s) will manage construction related waste in line with relevant legislation (*Environmental Protection Act 1990 No. 43, Environmental Protection (Duty of Care) Regulations 1991 No. 2839, The Waste (England and Wales) Regulations 2011 No 988, Controlled Waste (England and Wales) Regulations 2012, The Hazardous Waste (England and Wales) Regulations 2005 and Control of Asbestos Regulations 2012*) and will set out the principles and legal requirements relating to waste, including any hazardous waste that is encountered and required to be exported off-site for disposal.
 - Setting out preventative measures included within the *Chartered Institute of Ecology and Environmental Management (CIEEM) (2017) Guidelines on Ecological Report Writing* such as screening stockpiles of materials, deployment of windbreak netting and banksmen and dampening exposed soils/ aggregates as appropriate and set out requirements for ongoing monitoring and liaison with MCC
 - Identification of best practice measures to be adopted for the control / minimise the risk of pollution events to the ground / waterbodies arising from demolition or construction activities, including provision of appropriate Personal Protective Equipment (PPE); implementation of risk assessments and method statements; adherence to appropriate Guidance for Pollution Prevention (GPPs); bunded storage; provision of designated wheel washing areas; screening stockpiles of materials; and requirements for ongoing monitoring and liaison.
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Ref. Tertiary mitigation

Tertiary mitigation presented below has been collated from **Chapter 2: Approach to the ES, Chapter 4: Development Specification and Technical Chapter 6.**

- If present, programmed removal of the identified asbestos materials will be undertaken at the outset of the enabling works under an Asbestos Management Plan. Asbestos will be identified, removed, handled and disposed of in line with appropriate guidance and Regulations, including *The Hazardous Waste (England and Wales) Regulations 2005 No. 894, Control of Asbestos Regulations 2012 No. 632* and *CIRIA (2014) C733 Asbestos in soil and made ground: a guide to understanding and managing risks*.
- Details of the proposed temporary drainage strategy to be adopted throughout the demolition and construction stage. The existing drainage infrastructure within the Site will be used to manage surface water until the controlled surface drainage strategy has been implemented. If required, a temporary drainage system utilising the existing drainage system will be installed. Appropriate water management measures will also be implemented, including the protection of existing drainage pop-ups (In line with industry best practice and guidance, including *British Standard 8582:2013 — Code of practice for surface water management for development sites*), the regular maintenance of gullies and drainage systems to prevent debris from causing obstructions, awareness training for construction workers and the siting of material storage areas to avoid increasing flood risk off-site.
- Measures to be undertaken in line with the *Fire Protection Association (2023) 'Fire Prevention on Construction Sites: The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation'*. There will be areas for the storage / stockpiling of construction waste. These areas will be managed appropriately and maintained safely in fenced locations away from sensitive receptors.
- Controls for dust and particulate matter (PM) emissions informed by *IAQM (2023) Guidance on the assessment of dust from demolition and construction* as provided in **Appendix 2.1**.

Site Security

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| T2 | The operation of the Proposed Scheme will be informed by 'Secure by Design' principles and appropriate design and site management measures (such as CCTV cameras, appropriate security lighting and digital entry systems at each building), with on-Site security staff, with staff present 24 hours a day. |
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| T3 | The Proposed Scheme will contain safety measures in place to deter criminals included in the design such as CCTV operation, security lighting, etc., to deter criminals during construction. |
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Ref. **Tertiary mitigation**

Tertiary mitigation presented below has been collated from **Chapter 2: Approach to the ES, Chapter 4: Development Specification and Technical Chapter 6.**

Building Safety / Comfort

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| T4 | Fire prevention/protection measures including a Fire Emergency Evacuation Plan (FEEP)) or apparatus/instruments (i.e. smoke detectors/sprinklers) will be in place. The Proposed Scheme will be designed, in line with Building Regulations Approved Document D: Fire Safety, with appropriate fire preventative measures (i.e. fire doors, extinguishers etc.) and all external façades and materials will meet the necessary fire resistance standards set out within Building Regulations and by law. |
| T5 | The building will be designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in CIBSE TM52: The limits of thermal comfort: avoiding overheating in European buildings or CIBSE TM59: Design methodology for the assessment of overheating risk in homes. |
| T6 | All necessary groundworks and foundation design will be implemented in order to provide suitable construction platforms in line with best practice guidance and applicable British Standards. Such guidance and British Standards could potentially include <i>CIRIA report C572: Treated ground engineering properties and performance</i> ; <i>BRE document FB75: Building on Fill - Geotechnical Aspects</i> and <i>British Standard 6031:2009: Code of Practice for Earthworks</i> . |

Waste Strategy

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| T7 | An operational waste strategy will be developed in line with the British Standard (BS) 5906:2005 Waste Management in Building – Code of Practice and in accordance with Manchester City Council (2023) ‘GD 04 Waste Storage and Collection Guidance for New Developments’, Version 7.00. |
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Internal Noise Strategy

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| T8 | Noise limits generated by plant from the Proposed Scheme will comply with <i>Manchester City Council (2022) ‘Planning & Noise Technical Guidance’ October 2022</i> , <i>BS 4142:2014+A1:2019</i> ; ‘ <i>Methods for rating and assessing industrial and commercial sound</i> ’ and <i>BS 8233: 2014 Guidance on sound insulation and noise reduction for buildings</i> . |
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Remediation and Verification report

Ref. **Tertiary mitigation**

Tertiary mitigation presented below has been collated from **Chapter 2: Approach to the ES, Chapter 4: Development Specification and Technical Chapter 6.**

T9 Remediation of the Site will be undertaken in line with the recommendations of the Phase 2 Site Investigation and Remediation Strategy report submitted with the Application. A verification report will be prepared thereafter to ensure that the proposed remedial works have been completed and this will be submitted to MCC.

Ref **Secondary Mitigation**

Full detail is outlined in **Chapter 6: Daylight, Sunlight and Overshadowing.**

N/A
