

NXQ

Lever Street, Manchester

Environmental Statement

Revision 01 - 27.03.2024



Howells

SOLLER

Volume 2 and 3 – Environmental Statement and Appendices

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1. The Introduction

- 1.1 Soller Nine ('the Applicant') are seeking to obtain full planning permission for NXQ, Lever Street, Manchester, a high quality office development, located within the Norther Quarter (NQ) of the City (hereafter referred to as the 'site'). The site is located within the administrative authority of Manchester City Council (MCC).
- 1.2 The proposals involve a heritage-led design with the retention and restoration of selective buildings and facades. The new building will provide a contemporary backdrop to the retained buildings, set back from Lever Street. The proposals will provide a significant quantum of quality new workspace in the NQ, alongside new public realm and ground floor uses.
- 1.3 The site location plan is shown on **drawing 2510-HWD-XXX-XX-D-A-05050**. The site is described in detail in Chapter 3: Site Description. A description of the development is provided in Chapter 5: The Proposed Development, which is supported by a number of plans and drawings.
- 1.4 RJK Consulting Limited have been appointed by the Applicant to coordinate the Environmental Impact Assessment (EIA) process and produce the Environmental Statement (ES) for the Proposed Development.

The Site

- 1.5 The Site extends to 0.16 hectares and is located at the junction between Great Ancoats Street and Lever Street. On the opposite sides of the junction are the Travelodge Hotel and the Express Building. The site is easily accessible from the City Centre with Piccadilly Gardens and station nearby and Shudehill transport interchange a 5 minute walk away. The site is located at the heart of the popular Northern Quarter benefitting from many surrounding bars and restaurants as well as various cultural amenities. The site is currently made up of eight buildings several of which are considered to be of interest either aesthetically or historically. None of the buildings are listed and the site is not located in a conservation area. The site sits on the border of the Stevenson Square Conservation area.

Development Proposals

- 1.6 The planning application seeks full planning permission for high quality office space on Lever Street. The proposal respects the heritage context with retention and restoration of selective buildings.

- 1.7 The full description of development on the planning application form is:

'Full planning application for part-retention, conversion and extension of existing buildings; selective demolition; the erection of a ground floor + 17 storey building comprising new office space (Use Class E) with ground floor reception area and ancillary uses; supporting infrastructure and ancillary facilities, roof top plant, and landscaping'

- 1.8 Environmental constraints and potential significant effects have been identified throughout the EIA process and, as a result, mitigation measures have been incorporated into the proposals through design (known as embedded mitigation). Where environmental mitigation measures have not been integrated into the proposals through design, it is expected that the requisite mitigation measures will be secured by appropriate planning conditions where relevant (known as further mitigation). Further detail relating to the approach to mitigation is presented in Chapter 2: Approach. Mitigation has been identified, where appropriate, in each technical chapter of this ES (Chapters 6-12) and summarised in Chapter 13: Summary of Mitigation and Residual Effects.
- 1.9 A detailed description of the Proposed Development can be found in Chapter 5: Proposed Development of this ES.

The Planning Application and Environmental Impact Assessment

EIA Context

- 1.10 EIA is a systematic process by which information about the scope and likely environmental effects of a proposed development are assessed and presented to the Local Planning Authority (LPA), relevant stakeholders and the public to inform the decision on whether the development should be granted planning permission.

- 1.11 The Proposed Development constitutes 'EIA development' under the Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2017 (SI 2017/571) as amended (hereafter referred to as the 'EIA Regulations'). Criteria for establishing the need for an EIA are set out in Schedules 1 and 2 of the EIA Regulations. The Proposed Development falls under Schedule 2, Category 10 'Infrastructure Projects', Subsection (b) 'Urban Development Projects'.
- 1.12 This document is the ES which reports the findings of the EIA and supports the planning application for the proposed development. It has been prepared by RJK Consulting Ltd with technical contributions from a range of specialist consultants experienced in EIA (see Chapter 2). This ES provides sufficient environmental information to enable MCC to make an informed decision on whether to grant planning permission.
- 1.13 This ES relates to the planning application which is defined by the description of the development and the detailed plans for development that accompany the application.

The Environmental Statement

- 1.14 This ES comprises of three volumes:
- Volume 1: Non-Technical Summary – a document providing a synopsis of the ES without utilising technical language. The summary includes a description of the proposed development, the potential environmental effects associated with the proposed development and the measures proposed to mitigate these effects.
 - Volume 2: Main Text - this volume contains the main body of text of the ES, split into chapters. it provides an introduction, the approach to assessment, the assessment of alternatives, a description of the proposed development, a series of technical assessments relating to specific environmental topics including cumulative and combined effects and a summary of residual effects.
 - Volume 2a: Main Text Figures – this volume contains the figures associated with the chapters in volume 2: main text.

- Volume 3: Appendices – this volume contains supporting information and a collection of technical reports upon which the conclusions of the ES are based.

1.15 All volumes of this ES are available to view on the MCC's planning portal. Further copies of this ES are available electronically at a cost of £25, and hard copies subject to a fee sourced from printing companies. If hard copies of the ES are required, please contact RJK Consulting at:

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2. Approach

- 2.1 This chapter describes the methodology used to undertake the EIA in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/571) as amended and National Planning Practice Guidance ('NPPG').
- 2.2 The chapter begins with a description of the general approach to assessment and EIA regulatory compliance, including how the planning application and EIA are linked. EIA procedure and methodology is presented before the spatial and temporal scope of the assessment is discussed.
- 2.3 Following this, the criteria used for impact prediction, assessing significance and implementing and securing mitigation measures are explained, along with any limitations and assumptions. With regard to the methodologies and assumptions for the technical assessments, each chapter has its own specific assessment methodology and assumptions, which are explained within the relevant sections.
- 2.4 A wide range of experience, resources and skills have been coordinated in order to bring together this application and the project team, along with their professional roles, is presented at the end of this chapter.

EIA Procedure and Methodology

- 2.5 The EIA Regulations, supported by precedents in UK case law, have established the legal framework for the process of EIA and contents of Environmental Statements. The application is to be submitted as a full planning application. The description of development and plans provides sufficient detail to identify, predict and assess the significance of any potential environmental effects.

Basis of Assessment

- 2.6 The EIA is based on the written description of the Proposed Development and is accompanied by a suite of detailed plans and information consisting of, the site red line application boundary, the quantum of development, including height and use

and the construction programme (see Chapter 5: The Proposed Development). The description of development, along with detailed plans submitted for approval as part of the application, allow the likely significant effects of the proposals to be fully assessed and appropriate mitigation measures secured.

- 2.7 The Design and Access Statement (DAS) (Howells, March 2024) which accompanies the planning application, presents further information about the Proposed Development.

Screening

- 2.8 The EIA Regulations require that for certain planning applications, an EIA must be undertaken. Schedule 1 of the EIA Regulations lists developments that always require EIA and Schedule 2 of the EIA Regulations list developments that may require EIA if it is considered that they could give rise to significant environmental impacts.
- 2.9 Regulation 6 of the EIA Regulations makes provision for a developer to request a 'Screening Opinion' from the Local Planning Authority (LPA) to ascertain whether an EIA is required if a development is classed as a Schedule 2 development. This decision is based on the likelihood of significant environmental effects arising in relation to the development proposals. Due to the scale and location of the Proposed Development, it has been assumed for the purposes of the application that a statutory EIA will be required and therefore the Applicant has undertaken an EIA in respect of the proposals without seeking a Screening Opinion from the Local Authority.

Scoping

- 2.10 Scoping is a process that, through research and consultation, identifies the environmental issues that require assessment as part of the EIA. This essentially refines the focus of the EIA on the environmental aspects which are likely to result in significant environmental impacts whilst also ensuring that no potentially significant areas are overlooked.

2.11 Through informal discussions with MCC, the scoping process concluded that there were potentially significant environmental effects in relation to the below topics and that these should be included in the EIA:

- Townscape and Visual;
- Built Heritage;
- Socio-economics;
- Daylight, Sunlight & Overshadowing;
- Wind Microclimate
- Climate Change; and
- Human Health

2.12 A number of other topics were scoped out of the EIA as they were not considered to give rise to significant environmental impacts. These topics included:

- Air Quality;
- Noise and Vibration;
- Ecology;
- Transport
- Ground Conditions;
- Water Resources and Flood Risk Management;
- Archaeology;
- Waste Management;
- Water Resources;
- Human Health; and
- Accidents and Disasters.

Consultation

2.13 An integral part of the EIA process is consultation with a range of statutory and non-statutory consultees. Consultation was undertaken at an early stage in the project to identify any initial environmental concerns associated with the Proposed Development that required examination in greater detail in the EIA. The EIA has been prepared based on pre-application discussions with MCC and advice from the technical experts advising the Applicant to prepare the planning application.

- 2.14 Consultation has been undertaken as part of the technical assessments as a means of establishing the environmental baseline and assessment methodologies. Details of further consultation undertaken as part of each technical assessment is described further within each technical chapter as relevant.
- 2.15 Extensive pre-application meetings were held with MCC Planning Regeneration Officers in 2023 and 2024. Consultation with other Stakeholders including Historic England has also been undertaken.
- 2.16 Engagement took place with Local Councillors in both the Piccadilly and Ancoats and Beswick wards in September and October 2022 on the principle of development and the forthcoming public consultation proposals. Meetings were held with Councillors for Piccadilly and Ancoats and Beswick, who were both supportive of the principle of development and the heritage-led approach to design and emerging scale.
- 2.17 A public consultation event was held on 2nd November 2022 within the Express Building opposite the application site. This was held in-person but a website and email response option was made available for those unable to attend.
- 2.18 The public consultation boards, which can be views within the submitted Design and Access Statement, contained information on the following:
- Overview of the scheme;
 - The site location;
 - The site's heritage;
 - The site today;
 - The initial options study for redeveloping the site;
 - The heritage-led option;
 - The ground floor experience;
 - The emerging scale and massing; and
 - The economic benefits and proposed project timeline.

- 2.19 Eleven formal responses were received to the public consultation. 82% were either supportive (6) or partially supportive (3), with a single response being not supportive and one being undecided.
- 2.20 Comments received included supporting an improvement to the currently neglected site and the retention of heritage elements, whilst there were some concerns raised about construction impacts and the proposed height.
- 2.21 Further details regarding consultation and feedback are reported through the accompanying Statement of Community Involvement, with comments covering a range of issues and concerns.

EIA Methodology

- 2.22 In addition to observing the formal requirements of the EIA Regulations, further formal guidance has been drawn from National Planning Practice Guidance (NPPG). Specific technical guidance is referenced in the individual technical chapters as appropriate.

Consistency

- 2.23 To assist the reader in understanding the technical assessments a consistent approach has been adopted throughout the EIA to ensure that likely significant effects are identified and evaluated in a transparent manner.

Spatial and Temporal Scope of Assessment

- 2.24 The spatial extent of the EIA is described by the geographical area potentially affected by the proposed scheme and will need to take into account:
- The physical extent of the proposed scheme defined by the limits of land to be used in operation (temporary and permanent);
 - The position of sensitive receptors within or outside of the Site boundaries; and
 - The nature of the baseline environment and the way in which the impacts are likely to be propagated.
- 2.25 The effects for each of the disciplines are likely to extend to different spatial extents. The spatial scope for each discipline will be described within each of the topic chapters as required.
- 2.26 The environmental baseline studies undertaken as part of the EIA consider the current conditions of the Site. Therefore, each technical chapter will contain a description of the relevant study area that may be affected by the scheme.
- 2.27 With reference to the baseline conditions, the impact assessment will be made against existing baseline conditions. The assessment will address effects arising from the operation of the proposed scheme as follows:
- Construction effects may arise directly from construction activities but also from the temporary use of land (e.g., construction sites) or from associated changes in traffic movements; and
 - Operational effects may arise from the permanent operational activities and ongoing use of the Proposed Development, including but not limited to day light & sunlight and wind.
- 2.28 The significance of the effects that will arise is based on any changes compared to the baseline conditions (i.e., those conditions which would exist if the proposed scheme did not go ahead).

Impact Prediction

2.29 The 2017 EIA Regulations state that an ES should include:

“A description of the likely significant effects of the development on the environment resulting from inter alia:

- *The construction and existence of the development, including, where relevant, demolition works;*
- *The use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;*
- *The emission of pollutants, noise, vibration, light, heat and radiation the creation of nuisances, and the disposal and recovery of waste;*
- *The risk to human health, cultural heritage or environment (for example accidents and disasters);*
- *The cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;*
- *The impact of the project on climate (for example nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;*
- *The technologies and substances used.”*

2.30 Predictions of environmental impacts are carried out using quantitative methods, or in some cases, qualitative terms using expert opinion. All assumptions used and any areas of uncertainty are defined in the relevant chapters.

2.31 The following types of effect are considered:

- Direct impacts that arise from activities that form an integral part of the proposed scheme (e.g., new infrastructure/land take);
- Indirect impacts that arise from activities not explicitly forming part of the proposed scheme (e.g., noise changes due to changes in road traffic flows on existing roads resulting from the operation of the scheme);
- Secondary impacts that arise as a result of an initial effect of the proposed scheme;

- Permanent impacts that result from an irreversible change to the baseline environment (e.g., land take) or impacts which persist for the foreseeable future (e.g. visual impact);
- Temporary impacts that persist for a limited period only;
- Beneficial impacts that have a positive influence; and
- Adverse impacts that have a negative influence.

Significance Criteria

2.32 The significance of effect is assessed by looking at what the changes will be against the existing or predicted baseline as a result of the operation of the scheme. It is a product of the sensitivity of the receptor, and the magnitude of the impact upon it. The criteria used to define the sensitivity of a receptor and magnitude of impact is provided in **Table 2.1** and **Table 2.2** below. These criteria are used as a guide only and the specific criteria for each technical assessment will be presented within each chapter.

Table 2.1: Description of the Sensitivity of an Environmental Receptor

Sensitivity	Typical descriptors
Very High	Very high importance and rarity, international scale and very limited potential for substitution.
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	High or medium importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.

2.33 Descriptions of the magnitude of impact are provided in **Table 2.2** below.

Table 2.2: Description of the Magnitude of an Impact

Magnitude of Impact	Impact Type	Typical criteria descriptors
Very Large	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements
	Beneficial	Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality
Large	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality
Medium	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring
Small	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements
No change	n/a	No loss or alteration of characteristics, features or elements; no observable in either direction.

Identification of Significant Effects

2.34 Based on the sensitivity and magnitude criteria set out above, specific significance criteria have been used in each technical assessment and these are explained in the methodology sections within each technical chapter. Often, these are based on clearly defined criteria from published best practice guidance. However, wherever possible, the following terminology has been utilised:

- Major Beneficial;
- Moderate Beneficial;
- Minor Beneficial;
- Negligible;
- Minor Adverse;
- Moderate Adverse; and
- Major Adverse.

2.35 Where potential environmental impacts have been found, further to assessment which are of no significance, they are said to have no effect.

2.36 The assessment of likely significant effects has been undertaken for all potential effects to determine their relative importance. This has taken into account the following considerations:

- Magnitude (size of impact);
- Sensitivity of the surrounding environment and receptors;
- Spatial extent (size of the area affected);
- Duration (short, medium or long term);
- Nature of the effect (direct or indirect, reversible or irreversible);
- Inter-relationships and combination effects;
- International, national or local standards; and
- Relevant policy guidance.

Mitigation

2.37 The development of measures designed to avoid, reduce or offset significant adverse environmental effects associated with a proposal is one of the key elements of EIA.

Measures to mitigate environmental effects of the Proposed Development can take two forms;

- Embedded mitigation - is the consideration of mitigation embedded into the fixed scheme with the aim where possible, of avoiding, reducing or offsetting significant adverse effects, determined during the course of the assessment; and
- Further mitigation – is the mitigation that is not embedded into the proposals and which requires further action than already proposed.

2.38 Where environmental mitigation measures have not been integrated into the proposals through design, it is expected that all other requisite measures or ‘further mitigation’ will be secured by appropriate planning conditions or obligations. Each technical chapter of the EIA will describe the relevant mitigation measures.

Cumulative Effects

2.39 In line with Schedule 4 Paragraph 5(e) of the EIA Regulations, an ES must provide a description of the likely significant effects of a project on the environment resulting from:

2.40 Such effects are known as ‘cumulative effects’.

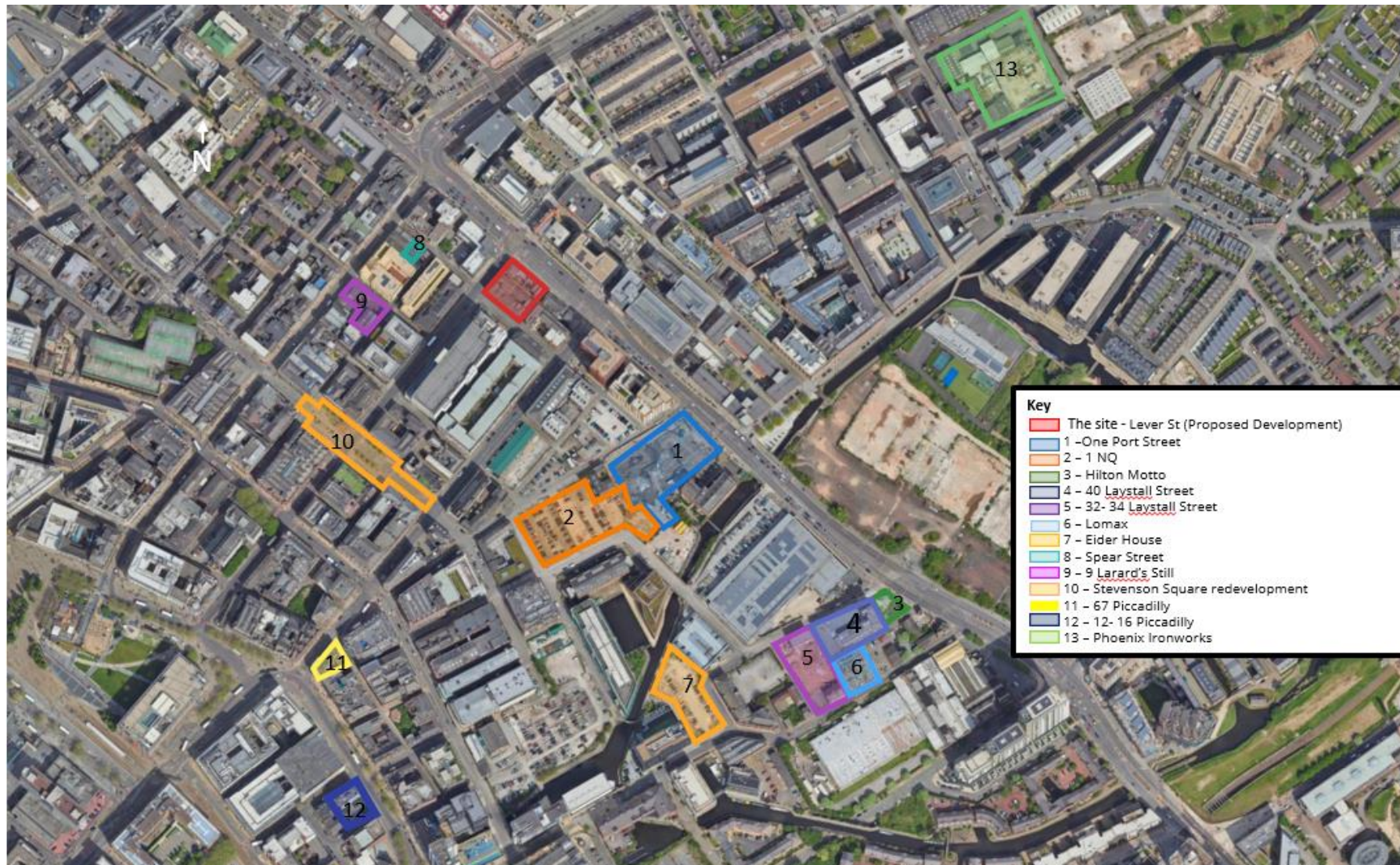
2.41 Given that existing development will be considered in the environmental baseline conditions relevant to the Site and the development, and a consideration of the likelihood of significant environmental effects of the development are judged against the relevant environmental baseline conditions, the potential for cumulative effects focuses as a minimum on those developments with:

- A resolution to grant planning permission.
- A valid planning permission and yet to start on-site.
- A valid planning permission and under construction.

2.42 These are referred hereafter as ‘committed developments’.

- 2.43 The assessment of cumulative effects is set out in two forms. The first relate to the impacts of the Proposed Development in conjunction with committed developments in the area. These committed developments should be located within a realistic geographical scope where environmental effects could combine to create a more significant effect on a particular sensitive receptor. The second type of cumulative effect is that of the combination of the various types of impacts from the Proposed Development. These are referred to as synergistic effects.
- 2.44 Committed developments for consideration in the cumulative effects assessment were identified through a planning application search of the MCC planning portal and through the EIA scoping process. **Table 2.3** below identifies the Cumulative Sites which have the potential to interact with the Proposed Development.

Table 2.3 Cumulative Sites



Site No.	Planning Reference	Description of Development	Status	Distance and Direction from the Site
1	132489/FO/2021	One Port, Street Erection of a part-33, part-11, part 9 part 7 storey residential building above semi-basement level, with associated residents' amenity space including gym (Use Class C3) (comprising 481 dwellings), commercial space (Use Class E), basement car parking (47 spaces), cycle parking (481 spaces) landscaping, and other associated works	Application validated: 01 January 2021 Application approved: 28 July 2022 Groundworks started:13 January 2023	150m south east
2	135675/FO/2022	1 NQ Erection of two residential apartment buildings (Use Class C3) comprising Block 1 -part 9, part 10 (plus roof level amenity block) and Block 2- 12 storey building (comprising of 261 dwellings in total) above basement levels with ground floor commercial units (Use Class E (excluding E (b))), associated residents amenity space, cycle parking, landscaping, access, street loading and other associated works following demolition of the existing building and structures on site	Application validated: 05 December 2022 Application approved: 01 June 2022 Groundworks started:26 July 2023	150m south east
3	135662/FO/2022	Hilton Motto Erection of a 20 storey building to create a 154 bedroom hotel (Class C1) above 2 basement levels with ancillary café / bar / restaurant and gym and other associated works including highway improvements, cycle parking and creation of accessible parking bay following removal of on site structures.	Application validated: 05 December 2022 Application approved: 1 June 2023	400m south east
4	119801/FU/2018	40 Laystall Street Retention of existing use of former residential building (Use Class C3) as an 84 suite apart hotel (Use Class C1), to comprise 81 suites on the first to twelfth floors and 3 suites, ancillary services and 6no. commercial units for use as shops (Use Class A1) or Financial and Professional Services (Use Class A2) or Offices (Use Class B1) on the ground floor.	Application validated: 10 May 2018 Application approved: 27 July 2018 Construction started: 29 June 2019	400m south east

Site No.	Planning Reference	Description of Development	Status	Distance and Direction from the Site
5	128911/FO/2020	32-34 Laystall Street Erection of 9 storey residential building (Use Class C3) comprising 89 residential units (28 x 1 bed and 61 x 2 bed) and conversion of and 3 storey extension to 32-34 Laystall Street for use as offices (Class E) with associated external works following demolition of outrigger and associated structures along with other associated works including access, servicing, landscaping and secure cycle parking	Application validated: 15 December 2020 Application approved: 2 February 2022 Groundworks started: 18 June 2022 Construction started: 14 October 2022	400m south east
6	120149/FO/2018	Lomax Erection of 7 to 8 storey residential building (Class C3) to provide 41 apartments (7 x 1-bedroom 1-person apartments, 6 x 1-bedroom 2-person apartments, 6 x 2-bedroom 3-person apartments, 22 x 2-bedroom 4-person apartments) with associated landscaping and other works.	Application validated: 11 June 2020 Application approved: 20 September 2020 Groundworks started: 27 March 2022 Construction started: 12 December 2022	400m south east
7	115178/FO/2017	Eider House Erection of 2 linked buildings ranging in height from 8 to 10 storeys (plus roof top plant room) to provide residential accommodation (Use Class C3) comprising 18 x 1 bed, 84 x 2 bed, 15 x 3 bed, 2 x duplex (4 bed) and 9 townhouses (7 x 3 bed, 1 x 2 bed and 1 x 4 bed) (128 units in total) works to create provision for access and servicing, hard and soft landscaping (to include a secure external area and public realm linking Ducie Street to the Rochdale Canal) and associated works following the demolition of existing buildings. Development to include 128 cycle parking spaces.	Application validated: 24 May 2017 Application approved: 29 June 2017 Groundworks started: 15 May 2019	330 south east

Site No.	Planning Reference	Description of Development	Status	Distance and Direction from the Site
8	117280/FO/2017	Spear Street Erection of a five-storey (ground floor plus 4) building to provide 6 no. residential apartments (Use Class C3) (5 x 1 bed (1 person)) and (1 x 2 bed duplex (4 person)) above ground floor commercial unit (Class E), private roof terrace for the top floor duplex apartment, cycle parking (6 x spaces), refuse and plant room.	Application validated: 16 August 2017 Application approved: 31 May 2018 Construction started: 8 September 2023	60m west
9	134953/FO/2022	9 Larard's Still Partial demolition of existing buildings (68-70 Oldham Street) (retention of facades to both 68 & 70 Oldham Street and internal floors of 68 Oldham Street), and erection of new 10 storey building (plus plant room) to incorporate retained elements, removal of roof and conversion of existing warehouse building (61 Spear Street) with 3 storey rooftop extension to create aparthotel (sui generis) and ground floor commercial uses (use class E)(a), (b), (c), (e) and (g) only.	Application validated: 15 September 2022 Application approved: 6 February 2023	115m west
10	N/A	Stevenson Square redevelopment Full-pedestrianisation and redevelopment of Stevenson Square. Part of a public realm and cycling improvement plan for the whole of the Northern Quarter.	Scheme announcement: 1 January 2020 Construction started: 20 July 2023	180m south west
11	127538/FO/2020	67 Piccadilly Erection of 11 storey building on site of 67 Piccadilly, as a Hotel (Use Class C1) with associated ground floor retail and leisure uses (Use Class A3 (Restaurant and Café), A4 (Drinking Establishment) and D2 (hotel leisure gym/fitness area); provision of flexible amenity space at roof level; installation of external plant at roof level; provision of new public realm and associated	Application validated: 12 August 2020 Application approved: 16 December 2020	280m south west

Site No.	Planning Reference	Description of Development	Status	Distance and Direction from the Site
		works following demolition of 67 Piccadilly/4 - 6 Newton Street ('67 Piccadilly') including internal and external alterations to 69-75 Piccadilly (Halls Building) (comprising refurbishment and infilling of an existing rear void of to provide a 9-storey infill) relating to the reuse, refurbishment of the building for use along with the new 11 storey building.		
12	137794/FO-2023	12-16 Piccadilly Erection of a 32 storey building (land at no. 14-16 Piccadilly) and conversion of adjacent building (no.12 Piccadilly) (basement to fourth floor) to create an aparthotel, including a ground floor cafe (Use Class E (b), first floor exhibition hall (Use Class F1) and a rooftop bar and restaurant (Use Class E (b)), and associated works.	Application validated: 5 December 2023	440m south
13	137346/FO/2023	Phoenix Ironworks Erection of a part 5, part 10 storey building comprising residential apartments and townhouses, residents' amenity space (Use Class C3a), ground floor commercial (Use Class E), cycle and car parking, landscaping, access and servicing, and other associated works following demolition of existing structures.	Application validated: 9 June 2023 Application approved: 16 November 2023	410m to north west

Limitations and Assumptions

- 2.45 The EIA has been undertaken based on the planning application drawings and description of the development submitted with the planning application. The technical assessments have been based on the current land uses and the existing baseline conditions at the Site. Any assumptions made or limitations relating to individual technical assessments are presented, where applicable, in the relevant technical chapters.

The Project Team

- 2.46 The ES has been compiled using a wide range of sources and with inputs from competent, technical specialists. The 2017 EIA Regulations require that an ES is prepared by competent experts and include a statement of the relevant expertise of the technical experts inputting into an EIA. The project team which has prepared and inputted into this ES is presented in **Table 2.4**.

Table 2.4 Technical Team

Discipline	Company	Personnel Profile
Townscape and Visual	Reform Landscape Architecture	<p>Mark Shilton (Associate Landscape Architect)</p> <p>CMLI, PG Dip Landscape Architecture, BA (Hons) Landscape Architecture</p> <p>Mark has over 14 years experience in professional practice. He has significant experience in delivering Townscape and Visual Assessments, Landscape and Visual Assessments, Landscape Capacity Studies and Green Belt appraisals for developments ranging in scale, including residential and mixed use schemes.</p> <p>Mark is responsible for coordinating assessment work across both offices and is involved in the development of the practice's approach to assessment work .</p>
Built Heritage	Turley Heritage	<p>Katy Lightbody (Senior Director)</p> <p>MA (Hons) Town Planning, PGDip Conservation of the Historic Environment, MRTPI, IHBC Affiliate</p> <p>Katy is a heritage specialist and town planner, with over 20 years' experience. She represents a range of public and private sector clients and specialises in the provision of strategic and detailed advice on managing change within the historic environment. Katy is experienced in dealing with the challenges presented by the reuse, adaptation and alteration of listed buildings, heritage-led regeneration and the integration of new development into a historic context. She has contributed to over 30 Built Heritage ES Chapters involving assessing the impact of new development on the significance and setting of heritage assets, utilising best practice and recognised Historic England guidance and methodology.</p>
Socioeconomics	Brookdale Consulting	<p>Donald Webb (Director)</p> <p>BSc Hons, MBA, MIC (Member of the Institute of Consulting)</p> <p>Donald is Director of Brookdale Consulting. He is an economist with nearly 30 years consultancy experience. He has undertaken numerous EIAs for a wide range of clients. He was formerly a Director of DTZ (now Cushman Wakefield) heading up DTZ's economics team based in Manchester.</p>

Discipline	Company	Personnel Profile
		Donald has extensive experience of the economics of real estate covering residential, office and commercial. He has undertaken socio-economic impact assessments of a wide range of developments across the UK including city centre, out of town, science parks and developments in the greenbelt.
Daylight, Sunlight & Overshadowing	GIA Surveyors	Nicola Hensey (Director) LLB (Hons) Nicola has worked in the daylight and sunlight industry for over 16 years and has produced more than 30 ES Chapters covering all of the disciplines (daylight, sunlight, overshadowing, light intrusion and solar reflection) that were relevant to some of the most iconic developments in the UK.
Wind Microclimate	GIA Surveyors	Jon Winchester (Wind Technical Director) BSc, MSc, PhD Jon is the Technical Director for wind analysis at GIA, and holds a BSc in Mathematics, MSc in Mechanical Engineering and PhD in Mechanical Engineering. Jon has 11 years of experience of wind analysis for the built environment, developing methods for pedestrian comfort analysis, wind loading and natural ventilation. Jon has been lead wind consultant on numerous large scale and high profile developments across the UK, with experience in multiple London boroughs, Manchester, Salford, Leeds, Liverpool, Birmingham, Bristol and Glasgow.
Climate Change	BWB Consulting	Matthew Wilby (Associate Director) PIEMA, MSc, BSc Matt is an Associate Director at BWB Consulting and has over 11 years of experience in the built environment sector. Matt specialises in the environmental appraisal of construction and operational effects on large scale projects both nationally and internationally, including the effects of climate change over the last six years. Matt is a Practitioner Member of the Institute of Environmental Management and Assessment.

Discipline	Company	Personnel Profile
EIA Coordinator/ Human Health	RJK Consulting Ltd	<p>Rick Kevan</p> <p>BSc, MA (EIA), MPLAN, MRTPI</p> <p>Rick is an Environmental Planner with twenty years' experience as an EIA coordinator. He has experience in all aspects of the EIA process, including preparation of screening opinion requests, carrying out scoping exercises and preparing detailed scoping reports, coordinating EIA specialists including in-house and external specialists and subconsultants, reviewing technical reports, advising clients on environmental planning risks, report writing and providing post-planning advice.</p> <p>Rick has worked on a wide range of projects across a variety of sectors including residential, commercial and infrastructure.</p>

3. Site Description

- 3.1 This chapter provides a description of the Proposed Development Site, including a brief site history and a description of its surrounding area. It also summarises the potential environmental considerations to the proposed development of the Site.
- 3.2 The Site extends to 0.16 hectares and currently comprises 8 buildings which include takeaway shops and the Bem Brasil restaurant, as well as vacant space. The Site is located at a key intersection with the Northern Quarter and Stevenson Square Conservation area located to the west, NOMA to the North, Ancoats to the east and the Piccadilly Basin to the South.

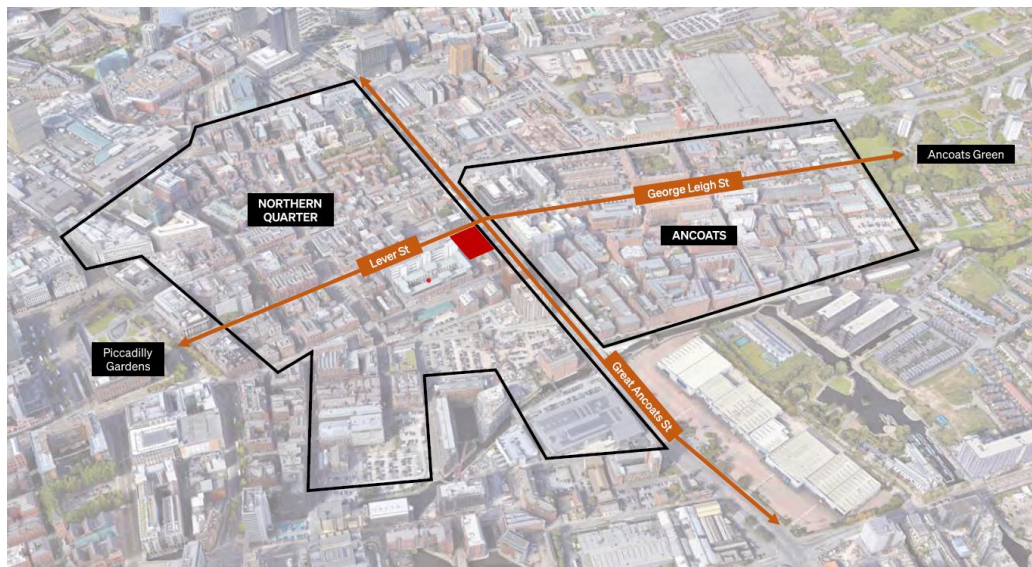


Figure 3.1: Aerial view of site

- 3.3 The site is located at the junction between Great Ancoats Street and Lever Street. On the opposite sides of the junction are the Travelodge Hotel and the Express Building. The site is easily accessible from the City Centre with Piccadilly Gardens and station nearby and Shudehill transport interchange a 5 minute walk away. The site is located at the heart of the popular Northern Quarter benefitting from many surrounding bars and restaurants as well as various cultural amenities.

- 3.4 The site is situated in a prominent position along Great Ancoats Street, the inner ring road and is excellently positioned for access into the city centre via the primary road network and public transport. Situated between the Northern Quarter and Ancoats, both of which contain a high concentration of the city's listed buildings and readily accessible to the Rochdale and Ashton Canal which provides a valuable link between the eastern edges of the city.
- 3.5 The buildings adjacent to the site predominantly range between 2-5 storeys. The ground floor uses of the local area vary and host a range of different uses. Surrounding the site are a range of commercial and residential buildings. Lever Street is predominantly made up of commercial buildings which have F&B offerings and commercial shops. Great Ancoats Street varies with commercial ground floors as well as residential, community and F&B buildings and large residential towers under construction.
- 3.6 The current on site uses is shown in figure 3.2 below:



Figure 3.2: Existing site

32-34 Lever Street, Bem Brasil

- 3.7 The building first opened as 'The Griffin' public house and attached brewhouse in 1791 and later renamed the 'Land O Cakes' in the late 19th/early 20th century. It re-opened as the 'Bem Brasil' in 2010.

36-38 Great Ancoats Street

- 3.8 During the 19th century 36 Great Ancoats Street was a mixture of residential and commercial units, which faced onto Great Ancoats Street. These uses remained throughout its history where during the 1960's number 36 was a Glass Works manufacturer and seller, named Berlyne Bailey & Co. Number 36 is now an Italian restaurant with unknown uses in the upper floors.
- 3.9 Much like no. 36 Great Ancoats Street during the 19th century 38 Great Ancoats Street was a mixture of residential and commercial units, which faced onto Great Ancoats Street. The traditional uses have remained throughout its history where during the 1960's it was home to a local Northern Quarter Butchers and Bakery. Number 38 is now an Indian restaurant with unknown uses in the upper floors.

Little Ancoats Street and Lever Street

- 3.10 Traditionally a tannery was a place where the skins and hides of animals were processed and treated to create leather products. During the 19th century a small tannery was present along Little Ancoats Street. The remanence of the old industrial building can be seen by the hoist hanging over the street. The tannery ceased to be located on Little Ancoats Street during the early 20th century.
- 3.11 During the 19th century no. 56 & 58 were used as industrial buildings, housing a number of industries such as a tin plate manufacturer and textile warehouses. Currently the site consists of two non-listed former textile warehouses which were amalgamated in the early 20th century. The property is currently in use as a textile store, but the upper floors are mostly unused and the structure is in a very poor state of repair.

Site History

- 3.12 The Site was developed from the late 18th century as part of the development of what is now known as the Northern Quarter, laid out on a grid pattern. By 1819 the Site was fully developed with a mixture of residential and commercial development.
- 3.13 During the 19th century properties on the site were changed and adapted, most notably with the addition of the tin plate manufactory as well as the late 19th century warehouses on the corner of Lever St and Houldsworth Street which remain extant today. The change from residential to commercial industrial development, often related to the textile industry, reflected wider changes within this part of Manchester.
- 3.14 Into the 20th century, the site and its surrounding context continued to evolve. The 1930s Daily Express Building with its Streamline Moderne architecture and curtain walling marked a step change in height and scale on Great Ancoats Street and a move away from traditional construction. The Threlfalls Brewery also sought to update the Griffin Public House on the corner of the Site at Lever Street and Great Ancoats Street at this time.
- 3.15 The post-war period and late 20th century saw the redevelopment and amalgamation of plots adjacent to the Site with Griffin House and the Travelodge, to the south and west respectively, dating from this period. The surrounding context has continued to evolve and today provides a varied urban environment. The buildings within the site are in varying condition and uses, with some including the two warehouses in a derelict state.

Environmental Context

Townscape and Visual

- 3.16 The Proposed Development is located within the built-up area of the Northern Quarter. Immediately surrounding the site, Ancoats and the Northern Quarter are characterised by a dense urban grain of small to mid-unit sizes set within orthogonal street grids. Similar gridded street patterns can also be found to some extent in the neighbouring New Cross and Lower Irk Valley areas; but here the urban fabric is less condensed, with higher proportions of open space.

- 3.17 Immediately within the site, the existing buildings range between 2 to 5 storeys, with relatively small-scale footprints. This is in keeping with the majority of the area, which mostly comprises of buildings between 1 to 10 storeys with relatively small building footprints; with a number of larger building units being located further from the site. These larger footprints are comprised of light industrial units to the North and East and larger Retail units to the South and West. Notable tall buildings include a cluster to the North-West of the study area, forming a Gateway to the City near Victoria Station. Oxygen Tower forms a local landmark as a tower building to the South-East of the study area, reaching over 20 storeys in height.
- 3.18 The site sits immediately adjacent to the nearby Conservation Area of Ancoats and Stevenson Square but is not situated within a Conservation Area itself. The wider area encompasses an additional 4 Conservation Areas: Smithfield, Shudehill, Upper King Street and Cathedral, each running West of the site. There are a large number of Listed Buildings located within the study area, with many in close proximity to the site. These are predominantly Grade II listings, with a number of Grade II* listings concentrated within Ancoats, along the Rochdale Canal and towards the City Centre.
- 3.19 There are Nine Townscape character areas within 750m of the site, including
- Northern Quarter
 - Ancoats
 - New Cross
 - New Islington
 - Piccadilly
 - Retail Core
 - NOMA
 - Lower Irk Valley
 - Collyhurst
- 3.20 13 Viewpoints have been identified these include;
- Sherratt Street
 - Portland Street
 - Hanover Street (NOMA)
 - Lever Street

- Rochdale Canal Path
- Great Ancoats Street, at the junction to Oldham Street
- Great Ancoats Street, near the corner of Blossom Street
- Junction of Princess Street and Charles Street
- Cross Key Street
- Cutting Room Square
- New Islington Marina
- Edge of Piccadilly Gardens
- Rochdale Road

3.21 An assessment of the effects of the Proposed Development on TVIA is presented in **Chapter 6: TVIA.**

Built Heritage

3.22 There are no designated Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, Registered Battlefields or Listed Buildings within the site boundary.

3.23 Within the 500m study area, there are a number of heritage assets, including:

- Daily Express Building (grade II* listed Building);
- Brownsfield Mill (grade II* listed building)
- Former Rochdale Canal Warehouse (grade II* listed building)
- Derros Building (grade II listed building)
- 66-77 Lever Street (including 10 Bradley Street) (grade II listed building)
- Stevenson Square Conservation Area
- Ancoats Conservation Area
- Former Land O'Cakes / Bem Brasil (non-designated heritage asset)
- 58 Lever Street (non-designated heritage asset)

- 56 Lever Street and 25 Houldsworth Street (non-designated heritage asset)
- 40-42 Great Ancoats Street (non-designated heritage asset)
- 27 Houldsworth Street and Little Lever Street (non-designated heritage asset)

3.24 An assessment of the effects of the Proposed Development on Built Heritage is presented in **Chapter 7: Built Heritage**.

Transport and Access

Walking Routes

3.25 The site is accessible from all approaches via foot, with footpaths situated on each road on the perimeter of the site.

Cycle Routes

3.26 The site is along a newly reconstructed cycle route on Great Ancoats Street, this route connects the site to the City Centre.

Vehicular Routes

3.27 Great Ancoats and Lever Street provide the primary means of vehicular access to the site, secondary being Houldsworth Street and Little Lever Street.

Public Transport

3.28 The site is situated in the Northern Quarter of Manchester City Centre boasting a range of public and private transport links. Services include trains, various free and paid for bus services, the Metrolink and pedestrian and cycle routes. The site is located 130m (less than 2-minute walk) from the bus stops on Great Ancoats Street and Lever Street.

3.29 The site is located within close proximity to Piccadilly Gardens Interchange which is 550m (7-minute walk) from the site and 650m (8 minute walk) from Shudehill interchange which are served by 29 and 16 different bus services respectively.

- 3.30 The nearest tram stops to the site are located at Piccadilly Gardens (550m/7 minute walk), Shudehill (650m/8 minute walk) and Piccadilly Station (800m/10 minute walk). The site is 800m (10-minute walk) from the mainline train services at Piccadilly.
- 3.31 The is very well served by existing public transport services.

Air Quality

- 3.32 The site is located within the Greater Manchester Combined Authority (GMCA) Air Quality Management Area (AQMA). This AQMA was declared by the GMCA for exceedances of the annual mean Nitrogen Dioxide NO₂.

Ecology

- 3.33 The site does not contain any statutory or non-statutory ecologically designated sites. There are no statutory designated sites within 1km of the site. The site is located within the Impact Risk Zone of the Rochdale Canale Special Area of Conservation (SAC) and SSSI which is located approximately 5.8km northeast of the site boundary. Due to the small size and nature of the proposed works and the distance between the site of the SAC/SSSI, no detrimental impacts are anticipated.
- 3.34 The site is comprised of hardstanding and buildings but was found to have the potential for bats and nesting birds.

Flood Risk

- 3.35 According to the Environment Agency's Flood Risk Map for Planning the Site is located in Flood Zone 1, where a low risk of flooding is anticipated.

Socioeconomics

- 3.36 According to the ONS, based on latest Census 2021 data, Manchester has a total population of 551,943. Within this, the Piccadilly ward accounts for 2.1% of the population at 11,654. A breakdown of the population by broad age category shows that Piccadilly has a very high proportion of working age people at 95%. A total of 32% of its population are in the 16-24 age reflecting the predominance of students.

- 3.37 The working age population in Manchester is by far the largest group and is expected to increase up to 2033 when it flattens off. The increase is driven by anticipated increases in student numbers. Those in retirement age are also expected to increase while the youngest age group is expected to reduce as a proportion of the population.
- 3.38 ONS data show that economic activity in the Piccadilly ward is 72.4%, well above Manchester at 59%, which is also below the level for the North West at 59%¹. The high economic activity rate is due to the proportion of working age people which is 95% of the total population compared to 70% at the Manchester level and 63% for the North West. The ward has a higher proportion of students than Manchester or the North West at 27% of over 16 year old residents compared to 18% for Manchester and 8% for the North West.
- 3.39 Full time employment rates are 83%, well above the 68.2% rate across Manchester. Nearly two-thirds (65.0%) of Piccadilly residents have Level 4 qualifications (degree) or above, well above the level in the rest of Manchester at 37.6% (31.2% for the North West).
- 3.40 In 2022 the total number of people working in Piccadilly was 83,375². This includes employees and working proprietors (sole traders, sole proprietors, partners and directors). The resident population of the ward is 11,654, and the working population is 11,071. This indicates that there is substantial net inward migration into the area for work of around 72,000. Given its city centre location and excellent public transport links, increased business space in the area would increase the opportunities for sustainable economic growth in Manchester.
- 3.41 Employment forecasts in the Greater Manchester Forecasting Model³ show employment in Greater Manchester is forecast to grow by 12% (183,000) jobs from 2017 to 2037. The city of Manchester is expected to provide a large share of this employment growth, especially if new development sites are brought forward, with Piccadilly being a key city centre ward with growth potential.

¹ Nomis Ward Profile using 2021 Census data

² According to the ONS Business Register and Employment Survey (BRES)

³ MCC (2017) *Greater Manchester Forecasting Model – Summary of outputs – 2017 update*, October 2017, Public Intelligence, Chief Executive's Department

- 3.42 Unemployment accounts for 6.2% of the working age population in the Piccadilly ward, which is just above the rate for the rest of Manchester of 5.7% and well above the 3.4% level for the whole of the North West⁴.
- 3.43 The largest proportion of resident workers in Piccadilly ward are in professional occupations at 36.5%, followed by associate professional and technical occupations at 23.9% and managers, directors and senior officials at 10.1% (Manchester 23.8%, 13.5% and 8.7% respectively). The top three categories of employment account for 70.5% of the working population, well above the 46% for the rest of Manchester.
- 3.44 An assessment of the effects of the Proposed Development on Socioeconomics is presented in **Chapter 9: Socioeconomics**.

Daylight, Sunlight & Overshadowing

- 3.45 There are no areas of amenity space which are located within 90° of due north of the site and in close enough proximity to be potentially affected in overshadowing terms. Following an inspection of the Site and the buildings in the vicinity, the following neighbouring buildings have been identified as relevant receptors that merit impact assessment:

- 39 Great Ancoats Street;
- 44 Great Ancoats Street;
- 41 - 45 Great Ancoats Street;
- Derros Building;
- Hudson Building
- Nuovo Apartments
- 113 Newton Street
- 40 Little Lever Street;
- 50-58 Spear Street;

⁴ Nomis Ward Profile using 2021 Census data

- 5 Warwick Street; and
- The Sorting House.

3.46 An assessment of the effects of the Proposed Development on Daylight Sunlight & Overshadowing is presented in **Chapter 10: Daylight, Sunlight & Overshadowing**.

Wind Microclimate

3.47 General thoroughfares and roadways in the immediate area range between suitable for sitting, standing and leisure walking in winter and for sitting and standing in summer. This is suitable for the intended use.

3.48 The principal off-site entrances range between suitable for sitting or standing in all seasons. This is suitable for the intended use.

3.49 There are no regions of strong winds (exceeding 15m/s for more than 0.025% annually) within the study area.

3.50 An assessment of the effects of the Proposed Development on Wind Microclimate is presented in **Chapter 11: Wind Microclimate**.

Climate Change

3.51 Information relating to climatic conditions in the North-West, the geographic region in which the Site is located, was obtained from the Met Office. The North-West of England has several distinct geographical areas. Much of the land west of the Pennines, which includes the area the Site is located, is relatively flat and generally below 150 m, with westward draining rivers.

3.52 In terms of local climatic conditions, average maximum and minimum temperatures have been lowest between December and February, whilst average maximum and minimum temperatures have been highest between May and September. Most rainfall has occurred between October - January, whilst the least has occurred between March - June. The monthly mean wind speed has been highest between January and April, whilst it has been weakest between July and October.

3.53 An assessment of the effects of the Proposed Development on Climate Change is presented in **Chapter 8: Climate Change**.

Human health

3.54 The health of residents in Manchester is generally worse than the national average. A detailed summary of various health related statistics are set out in Table 12.6 which allow the following conclusions to be drawn:

- The health of residents in Manchester is generally worse than the national average. The life expectancy for both males and females is below that of the North West and England. The trend is, however, improving over time.
- The mortality rate in Manchester is significantly above that of England, standing at 48% higher. Similarly the proportion of residents mortality attributed to cancer and cardiovascular diseases is significantly above that of the North West and England.
- Alcohol related conditions and smoking prevalence is worst in Manchester.
- Infant mortality rates are markedly higher in Manchester (7.0) when compared with the North West (4.5) and England (4.0).
- Poverty is higher in Manchester. 34.8% of households are within 'relative low income' households which have incomes below 60% of the mean average in that year. This is used to look at how changes in income for the lowest income households compare to change in incomes near the average. 24.8% of households are within 'absolute low income' households which have incomes 60% below the average in 2010/11, adjusted for inflation. It is used to look at how changes in income for the lowest income households compare to the changes in the cost of living.

3.55 An assessment of the effects of the Proposed Development on Climate Change is presented in **Chapter 12: Human Health**.

Summary

3.56 The chapter has presented a description of the Site including a description of the location, a brief site history and a description of its surrounding area. Based on the

information presented in this chapter, the main environmental characteristics of the Site have been identified as follows:

- Site extends to 0.16 hectares and currently comprises 8 buildings which include takeaway shops and the Bem Brasil restaurant, as well as vacant space.
- The site is accessible by a range of transport modes;
- The site does not contain any statutory or non-statutory ecologically designated sites.
- There are a number of heritage assets within 500m of the site.
- The site is located within Flood Zone 1;
- There are a number of receptors from a sunlight and wind perspective that require further assessment within the EIA; and
- The site is located within the Greater Manchester AQMA.

3.57 These identified constraints have been taken into account in the development of the proposals to ensure a thorough iterative design process and through the identification of appropriate mitigation measures as presented in **Chapter 5: The Proposed Development.**

4. Alternatives

- 4.1 A statutory requirement for inclusion in an EIA is the reporting of the consideration of alternatives in the development of a proposal. Schedule 4 of the EIA Regulations states that an EIA is required to provide:

“A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.”

- 4.2 This chapter describes the alternatives that were studied by the Applicant for the Proposed Development and the process of design evolution in response to the EIA process.
- 4.3 Firstly, the chapter considers the ‘no development’ option, which describes the likely conditions at the Site in the absence of implementing the Proposed Development.
- 4.4 Secondly, the constraints and opportunities identified in relation to the Site have been considered and have influenced the design of the Proposed Development. The Applicant and the design team have undertaken a continuous review process to improve the design, taking into account the views of key consultees, stakeholders and the public. This design evolution process is described and the reasons for the selection of the preferred option stated.
- 4.5 No alternative sites were considered by the Applicant, as the site is under the ownership of the Applicant. In the absence of the Proposed Development i.e., ‘no development scenario’ the site would remain as it is currently.

No Development Scenario

- 4.6 A no development option evaluates the likely environmental conditions at the site in the absence of implementing the Proposed Development. Schedule 4 of the EIA Regulations states that the assessment must provide *“an outline of the likely evolution thereof without implementation of the development as far as natural changes from the*

baseline scenario can be assessed". A brief description of the baseline scenario has been presented in **Chapter 3: Site Description** and further details have been provided within the technical chapters.

- 4.7 In the absence of the Proposed Development, it is not expected that there would be any significant changes to the baseline conditions within the short term. Under the 'no development' scenario therefore, the site would remain as it is currently. Given the location of the site, it can be assumed that some form of development is likely to come forward on site in the medium to long-term.
- 4.8 Although construction activities have the potential to increase the dust and noise in the local area, these will be controlled by best practice measures set out within a Construction Management Plan ('CMP') and will only be temporary effects on local receptors. In the absence of the Proposed Development there will be no temporary disruption caused during the construction period.
- 4.9 The Proposed Development offers socioeconomic benefits through direct and indirect construction jobs. Once operational, uses have the potential to increase annual spending and provide direct and indirect jobs. The Proposed Development will also result in increased revenue to MCC through business rates revenue. It should be noted that in the case of a no development scenario, the site has the potential to be returned to existing uses. Though this would permit some limited socio-economic benefits, this would not achieve the potential benefits associated with the Proposed Development.
- 4.10 As a result, under the no development scenario the benefits associated with the Proposed Development would not be realised. As such, the perceived negative effects of the proposed development should be weighed against the benefits of the scheme including the provision of new high quality office accommodation. In the absence of the Proposed Development, these effects would not occur, and the site would remain as existing.

Design Evolution

- 4.11 The Applicant and the design team for the application have regularly liaised with MCC during a series of pre-application meetings in order to ensure that the design evolves to meet the aspirations for the site. The Applicant has also engaged with statutory consultees and the public as outlined in the Statement of Community Involvement ("SCI") which is submitted as part of the planning application.
- 4.12 The design has evolved through the public engagement and pre-application discussions with MCC. A summary of the key feedback received and how the proposals have been amended is set out below.
- 4.13 The initial scheme was presented to planning and design officers which introduced the concept of an office building up to 150,000sq. ft net, whilst creating a unique type of workspace for digital creative and tech occupiers in the Northern Quarter. The aim was to have the best-in-class sustainability and wellness credentials. The initial design for the office was for complete demolition of the existing buildings for a 17 storey tower with two terraces, following the Express Building datum. The architectural approach for the 'stepped brick vertical warehouse' was a heavier base with carved out corner entrance, an elegant middle with recessed brickwork piers and finer top with slimmer piers and metalwork.
- 4.14 The demolition of all the buildings on site would allow for the creation of the largest possible building footprint. However, this option would remove all of the historical and architectural significance associated with the existing buildings on site.
- 4.15 Following meetings with MCC, Conservation Specialists and Historic England, a retention option became preferred. This scheme retained the Bem Brasil building for a food and beverage offering whilst retaining the adjacent building on Lever Street to provide a courtyard entrance experience. This option still involves the demolition of certain existing buildings which are considered to have low historic interest but seeks the conversion or façade retention of the remaining existing buildings, and a taller, stepped new build development filling the remainder of the site.
- 4.16 The meetings held with Historic England have informed the design. The new building is an example of high-quality architecture whilst not being a visually distracting

element within its immediate setting. An attempt has been made to incorporate some of the architectural language of the Express Building into the design.

4.17 The alternative chosen retains those historic elements with the greatest significance (BEM Brasil and the warehouse facades), retaining and enhancing the historic character of the site fronting onto Lever Street. By retaining the Houldsworth Street façade the scheme will have a greater sense of depth.

4.18 The figure 4.1 below show the design iteration.



Conclusion

4.19 Overall, the Proposed Development incorporates new high quality office accommodation. The appearance and materiality have been through a detailed and iterative design process with both the design team, Historic England and MCC Planning Officers to ensure a high-quality finish that respects the local character and materials, including both historical references and consented future development in the vicinity.

4.20 The consideration of alternatives has included the evaluation of a “no development” option, whereby it is likely the site would remain as it is currently in the short to medium term. The design of the scheme has evolved through consultation with MCC, key stakeholders and the public and the findings of the series of studies that make up the EIA. A detailed description of the development proposals is presented in **Chapter 5: The Proposed Development.**

5. Proposed Development

Introduction

- 5.1 Schedule 4, Part 1 of the 2017 EIA Regulations outlines the information that should be provided within an ES. This chapter includes a 'Description of the Development', including in particular:

- (a) *"A description of the location of the development;*
- (b) *A description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land use requirements during the construction and operational phases;*
- (c) *A description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;*
- (d) *An estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases)."*

- 5.2 This chapter and the accompanying figures define the study area, the maximum quantum of development proposed, the means of access and describes the proposed development in line with Schedule 4 of the EIA Regulations.

- 5.3 The information presented in this chapter alongside the plans submitted for approval form the basis of the EIA and provides the level of detail required to enable the assessment of environmental effects for an application of this nature in line with the 2017 EIA Regulations.

Description of Development

- 5.4 The planning application seeks full planning permission for the construction of office accommodation and ground floor uses.

- 5.5 The proposed development is defined on the planning application forms as:

"Full planning application for part-retention, conversion and extension of existing buildings; selective demolition; the erection of a ground floor + 17 storey building comprising new office space (Use Class E) with ground floor reception area and ancillary uses; supporting infrastructure and ancillary facilities, roof top plant, and landscaping."

- 5.6 Details of the proposed developments are described in the following sections. Further supporting information is provided in the accompanying Design and Access Statement (DAS) prepared by Howells and submitted with the planning application.

Assessment Plans

- 5.7 As detailed in Chapter 2: Approach, the assessment parameters including the detailed plans submitted for approval, along with the written description of the Proposed Development, allow the likely significant effects of the proposals to be fully assessed and appropriate mitigation measures secured. **Table 5.1** at the back of this chapter includes the list of plans that have been prepared and are submitted for approval with the planning application and have been used as a basis for the assessment of environmental effects. The full suite of plans can be viewed at **ES Volume 2a Main Text Figures**.

Use and Quantum of Development

- 5.8 The key elements of the Proposed Development sought for approval as part of the planning application is described below.
- i) Demolition of existing buildings and structures.
 - ii) The re-development of an existing urban block in the Northern Quarter, to deliver a significant quantum of new build 'Grade A' office space, alongside considered retention and restoration of selective buildings/facades along Lever Street. 16,989 m2 /182,870 ft2 (GIA) total of commercial office space provided across a ground + 17 storey building with flexible Class E space at ground floor, First Floor and Second Floor with south a facing terrace space on the Creative Hub at Second Floor connected to the Business Lounge.
 - iii) Below the proposed Tech Hub Offices and Creative Hub there will be basement serving which will include amenity space, cycle provision and plant space. Additionally, the existing basement serving No.32 (formerly Bem Brasil) will be renovated and serve the proposed restaurant.
 - iv) There is a dedicated cycle entrance located on Houldsworth Street on the south side of the proposal. The cycle provision includes 56 two tier cycle racks, with capacity for 112 cycle spaces.
 - v) Key to the proposal is a an intimate, publicly accessible courtyard which will serve the Tech Hub offices, Creative Hub and the restaurant, forming a central heart for the proposed development.

Layout, Use and Amount

Ground Floor

- 5.9 The Ground Floor has been designed to be as open as possible for all users. An independently run café is situated along the Northern elevation, fronting onto Great

Ancoats Street. This will activate the Streetscape along Great Ancoats Street. The main entrance is accessed through the courtyard. A double height entrance is proposed to the Ground Floor entrance. The core and back-of-house facilities have been consolidated to front onto the eastern elevation along Little Lever Street. This helps to maximise internal space for users of the Ground Floor.

- 5.10 An independent café is located on the Ground Floor of the Creative Hub. This fronts onto the Courtyard space with the main entrance located from the Tech Hub. The retained facades of the former warehouse (No. 56&58) are kept by the retaining structure along both Houldsworth Street and Lever Street. Spill out space into the Courtyard is provided to accommodate for all users during all seasons. The Courtyard is at the heart of the proposal, linking the No. 32 (formerly Bem Brasil), Tech Hub and Creative Hub. The Courtyard is open to the elements with a feature tree central to the space.
- 5.11 The entrance into the Courtyard is located on the west elevation, along Lever Street. The entrance is gated and provides security during closed hours. The main entrance to the Tech Hub is located within the Courtyard, with cycle access provided on the south elevation, along Houldsworth Street.
- 5.12 The entrance to No. 32 is located on the corner of Lever Street and Great Ancoats Street to clearly mark the original buildings entrance. A mixture of café and bar spaces are provided on the ground floor looking upon the central courtyard. Gated access is provided between the Tech Hub and No.32, with access from the Courtyard provided for security.

First Floor

- 5.13 A void is proposed on the first floor which provides a double height arrival space for visitors, with a feature staircase to connect the first floor to the ground. The Tech Hub has an open plan layout to provide flexibility for collaboration and spaces for breakout space. The Creative Hub benefits from three fully glazed elevations and similar to the Tech Hub, is designed to be open plan in its arrangement.
- 5.14 No. 32 is designed to provide a number of dining spaces with the southern elevation fronting onto the central courtyard and celebrated by a contemporary glazed façade.

Second Floor

- 5.15 The floor has been designed to provide flexible working space to accommodate a variety of needs depending on the tenancy. The two main office spaces are located in the Creative Hub and the Tech Hub. The Tech Hub office space aims to be flexible for future tenants, whilst the Creative Hub offers tenants a prime space for collaborative working while being flexible to accommodate breakout spaces for future users.

- 5.16 There is proposed fine dining spaces proposed on the second floor, designated for events and functions. A terrace space is provided along the southern elevation of the building, where it fronts onto the proposed central courtyard for users of the restaurant to enjoy.

Third Floor

- 5.17 The Third Floor has a variety of spaces including a Business Lounge, Terrace and Office space. The spaces offer opportunities for breakout spaces, events and collaborative working. The Business Lounge and Terrace are accessible to all users of the Tech Hub and accessed from the central core.

Typical Floors

- 5.18 The office floorplates are designed to be flexible working spaces which can accommodate single or multiple tenants with opportunities in the slabs to create voids to connect multiple floors together, depending on tenancy demands. The Tech Hub floorplates are designed as open plan and can accommodate cellular spaces subject to the limits of the building services and building regulations.

Basement

- 5.19 The basement houses amenity space and shower rooms for office users with a dedicated cycle store which has the capacity to store 112 no. bicycles over 56 no. two-tier cycle racks. These spaces are accessed from the central core and the cycle entrance leading off from Houldsworth Street. Accompanying these spaces are a variety of plant and tank rooms which service the Tech Hub and Creative Hub office, amenity and commercial spaces.

Use and Amount

- 5.20 c.16,989 m² / 182,870 ft² (GIA) of commercial office space provided across ground +17 storey office building (Tech Hub & Creative Hub) with flexible Grade A office space and South- West facing terrace fronting onto a private courtyard connected to Business Lounge and event space.

Appearance

- 5.21 The proposal aims to echo the architectural identity of the Northern Quarter through its materiality, tone and proportion. The prosperity of the many industries, such as weaving and milling brought wealth to the area which was reflected in the materials and ornamentation in the architecture. Now, in the 21st century the historic mills and warehouses of the 18th and 19th centuries are vital assets in retaining the Northern Quarters' architectural character for future generations.
- 5.22 The architectural vernacular of the Northern Quarter is most noticeable by its red and blue brick facades, used in a mixture of English Bond, Stretcher Bond and

Flemish Bond. Brick detailing such as brick corbelling can be seen across large swathes of Victorian Manchester. The application looks to preserve the Northern Quarters' distinct warehouse typology, by the retention of the facades along Lever Street and Houldsworth Street.

- 5.23 The purpose of this strategy is to maintain an important part of the Northern Quarters' architectural identity which can be seen by its 19th century warehouses. The retained façades will be achieved through an articulated exposed steel work. The steel retaining structure will look to be recessive in appearance so not to detract away from the main proposed buildings sitting behind the retained facades. Furthermore, the retaining steel structure is intended to echo the industrial past of the Northern Quarter.

Courtyard

- 5.24 The arrival space in the courtyard has been designed to be a calm space with a clean, articulated glazed façade. The glazed façade will provide a sense of space and provide clarity between the retained elements and the new buildings.

Tech Hub

- 5.25 The Tech Hub base is designed to be solid, to reflect the robustness of the traditional 19th century brick buildings of the past. The base is articulated by a regular rhythm of openings to echo the 19th century warehouse rhythm of openings alongside brick corbelling along the apex of the Tech Hub 2-storey base. The Grade II* Listed Express Building is a significant heritage asset which fronts onto Great Ancoats Street. The design of the typical floors of the Tech Hub have been designed to echo the prominent glazing banding and horizontality of the 1930's landmark. The typical floors of the Tech hub are designed to be a mixture of glazing and metal in reference to the Express Building. The cantilevered soffits are intended to follow the materiality of the Tech Hubs typical floors with an articulated perforated metal, with the intention to provide an opportunity to be backlit to provide a drama to the Northern Quarter streetscape during the evening.

NO.32 (formerly Bem Brasil)

- 5.26 The first and second floor façades of No. 32, (formerly the Bem Brasil) is intended to be retained and restored to its original 1930's faience terracotta appearance, subject to its condition. Faience terracotta was commonly used to clad public houses and is synonymous with 19th and early 20th century pubs. By restoring the former terracotta façade, the design looks to preserve the identity of the old Land O' Cakes pub; retaining it as a key local landmark along Lever Street. The Ground Floor is designed to provide a contrast to the upper floors with a darker faience terracotta face with traditional plinth detailing and reinstating the openings seen in the 1930's renovations of the former public house. This will create a distinct difference to the upper floors and aid in the Ground Floor experience of the restaurant.

Façade Retention

- 5.27 Façade retention forms a significant role in retaining the architectural character along Lever Street and Houldsworth Street. Along both streets, No.56 & 58, former warehouse buildings are situated. The proposed design aims to retain the facades whilst removing the derelict building behind, which will be achieved by a number of structural strategies.
- 5.28 The warehouse typology is valued in a heavily redeveloped area of the city and therefore a façade retention strategy is proposed to maintain the Northern Quarters architectural heritage as a former industrial quarter of Manchester. The proposed steelwork is to be a dark grey, this is to ensure the retaining structure remains recessive in the streetscape, which will ensure the retained facades and office buildings behind will be celebrated along Lever Street and Houldsworth Street.
- 5.29 The retention strategy for No. 58 is to restrain the proposed structure to the Creative Hub using a steel structure. The steel structure is proposed to be vertical and horizontal and be situated on the back face of the retained façade.
- 5.30 The façade retention for No.56 and the courtyard will differ from No. 58. The retaining structure is designed to be an independent structure which will support the warehouse façade.

Stepped Façade and Soffit

- 5.31 The form of the Tech Hub is a testament to the stepping of the Grade II* listed Express Building. The Tech Hub has an articulated façade which proposes two 3.6m cantilevers. The cantilevers are designed at level 7 & 13 with a perforated metal soffit. The soffit runs flush to the underside of the 450mm fins to create a seamless transition between the two interfaces. The soffits materiality and concept are designed to act as a neighbourhood marker during the evening, with the ability to showcase different lighting patterns and be controlled by the building management. The soffit is a bespoke element of the design which aims to celebrate the stepped approach amongst the Northern Quarters streetscape for passers-by.

Sustainability, Health and Wellbeing**Energy Efficiency**

- 5.32 The buildings energy performance has been tested and informed from the project outset with early-stage analysis completed to inform the building massing and glazing ratios. Following Manchester's Local Development Plan, the proposed development aims to minimise CO2 emissions to the atmosphere arising from the operations of and within the building. A design strategy has been applied to minimise energy consumption through passive design measures, supplying energy efficiently through active systems and maximising energy generation and on-site Low and Zero Carbon Technologies (LZCT) energy sources.

- 5.33 The proposed Tech Hub (offices) and Creative Hub have been designed, with an appropriate massing and form alongside airtightness and high levels of insulation to minimise heat losses. Solar control glass has been incorporated into the design to minimise solar heat gain and reduce the energy required for cooling.

Renewable Energy

- 5.34 PV panels are proposed on the roof with Air Source heat pumps which will help achieve a Net Zero Carbon in operation.

Water Management and Weather Resilience

- 5.35 The building has been designed to be resilient to the effects of climate change and extreme weather conditions. This includes designing and testing the building under warm weather conditions to ensure that thermal comfort within the building can be maintained. The buildings fabric will be designed to ensure it can provide a robust barrier to high levels of rain/ snow fall, wind driven rain, high wind speeds as well as high and low external temperatures. Additionally, the proposal aims to deliver climate resilience through Nature Based Solutions (NBS) such as planting and green roof areas.

Waste Management

- 5.36 Reducing the operational waste from the office users and visitors is a key objective to the project's sustainability strategy. To achieve this the buildings, refuse storage is located on the ground floor with dedicated access onto Little Lever Street. The proposal is for 5 no. bins and a dedicated compactor located in the Refuse store.

Embodied Carbon

- 5.37 Build Light - The building has been designed to minimise the structural loadings, such as minimising long spans and large cantilever building form and massing. Opportunities to design lean have been implemented such as focusing of passive design to reduce building services along with careful glazing design to reduce secondary steel work requirements. Re-purpose and re-use of the existing buildings on Lever Street and incorporating within the floor area of the proposed building has the effect of reducing the embodied carbon through the re-use of existing structures.
- 5.38 Build wise - Locally sourced new materials will be specified and procured to minimise transport emissions to and from site.
- 5.39 Low-carbon - The use of low embodied carbon materials will be minimised throughout the design, procurement and construction of the building. This will involve identifying and focusing on the inherently high carbon emission materials such as steel and concrete and maximising the recycle content and low emission solutions for these materials as far as possible.

- 5.40 Future - The proposed building has been designed with flexibility and future adaptation in mind. Measures include applying a regular structural grid and developing risers and plant space to facilitate adaption.

BREEAM

- 5.41 A BREEAM Pre-Assessment was carried out by Atelier Ten against the BREEAM 2018 New Construction Scheme as a Shell and Core Office. The Tech Hub and Creative Hub office proposal aims to achieve a high standard of sustainable design and construction and is thus targeting BREEAM Excellent certification. The results from the Pre-Assessment demonstrate that a BREEAM 'Excellent' rating can be achieved with an overall score of 75.52% being attained with 70% required to achieve an 'Excellent' rating.

Landscaping

- 5.42 The site is surrounded by streets on four sides. To deliver a high-quality public realm finish to the existing footpaths surrounding the development, the design maintains the generous pedestrian routes along Great Ancoats Street and Lever Street, while enhancing further through the stepping back of the building facade. Existing footpaths are retained and resurfaced along the other streets, and all redundant vehicle access points are closed and reinstated as a continuous footway on Little Lever Street.
- 5.43 Pedestrian crossings are retained on the Lever Street and Great Ancoats Street corner. A new dropped kerb crossing point is introduced on Lever Street at the corner of Houldsworth Street. The Heritage Hub and Creative Hub are accessible through steps from the public realm, while in the courtyard level access is provided to these facilities. For the tower block level access is achieved to all facilities including the servicing areas to the rear of the building. Cycle parking is accommodated within the new development, no additional cycle parking is proposed in the proximity of the building. The footpaths are unsuitable for street tree planting due to the extensive below ground services that exist below all footpaths.
- 5.44 The proposed high-quality finishes in both the public and private spaces tie the site to the heritage of the Northern Quarter and the adjacent Ancoats area. The heritage approach is strengthened by using reclaimed materials.
- 5.45 The adopted footpaths will be scoutmoor Yorkshire/concrete flags, granite setts and red concrete tactile paving to crossing points, concrete kerbs and reclaimed metal curbs to mark adoption boundaries. The courtyard will have a tapestry effect and make use of reclaimed cobbles.

- 5.46 The development is exempt from Biodiversity Net Gain (BNG) as no habitats are present on site. However, on the plant roof level, a biodiverse extensive living roof is proposed together with bird boxes.

Courtyard Design

- 5.47 The courtyard provides a spacious route to the towers principal entrance. This will be a lush green space for visitors to meet and socialise. The centrepiece of the courtyard is a tree growing on a podium. Timber seating and raised on ground planters are proposed.
- 5.48 Biodiverse, low-level planting underneath the large feature tree and raised planters is proposed containing a variety of pollenating herbaceous plants with evergreen species throughout. Plant climber shrubs growing on the steel support structure will produce a lush vertical greenery for the courtyard.

Access

- 5.49 The Proposed Development has been designed to promote 'green' choices. The development has therefore designed to include limited parking, provided solely for accessibility parking uses, loading bays and refuse and drop off spaces.

Pedestrian Access

- 5.50 The primary entrance to the Tech Hub and Creative Hub is located on Lever Street, entering through the retained façade of the former warehouse, adjacent to No. 32. Office workers and visitors will enter the courtyard as they are greeted by the feature tree. The entrance into the main Tech Hub building is situated within the courtyard through a large circular slider. The primary access into the Creative Hub is via the original doorway of No.56 and secondly through the Tech Hub where the two plots meet. Primary access into the Tech Hubs' independent café, situated along Great Ancoats Street is access via an entrance marked by a generous curved masonry ingress to provide separation from the main entrance of the Tech Hub for office workers.
- 5.51 The main entrance for No.32 has been designed to be relocated to the existing corner of the building, where traditionally, other public houses of its type would have had entrances located. This provides the visitors of the restaurant a separate experience, away from the office users of the Tech Hub and Creative Hub. The Creative Hub and No.32 have access to the central Courtyard, through the Glazed sliding doors, offering spill out space for the Creative Hub café during the warmer seasons.

Cycling

- 5.52 The entrance along Houldsworth Street has a generous curved entrance to mark the arrival space for cyclists to enter the Tech Hub. Office workers will be led to the basement where cycle storage is located. Once within the basement, demarcated routes will be provided guiding cyclists to the cycle stores. Once office workers have stored their bicycle in the cycle store they can access lifts taking them up through the building via the core. A total of 112 amount of cycle spaces have been provided including using two tier cycle racks.

Servicing and Refuse Strategy

- 5.53 Servicing activity will continue to be focused on the Houldsworth Street and Little Lever Street frontage for the new office building. Modifications are proposed along Houldsworth Street to introduce a loading bay, which will serve the office. This is in line with current arrangements for adjacent properties. All delivery vehicles for the office building are to park in these locations and then deliver to the reception/concierge. The main bin store is located on the Little Lever Street frontage. The number of bins has been calculated based on British Standards and is based on a 2-week collection frequency and the use of an on-site compactor. Refuse collection for the No.32 restaurant will continue as existing and will be gained from within the existing controls on Lever Street

Construction

- 5.54 Precise construction methodologies will only be finalised once a contractor is appointed. It is expected that the appointed contractor and its sub-contractors will at all times apply the principle of Best Practicable Means. A framework Construction Environmental Management Plan (CEMP) (**Appendix 5.1**) has been submitted with the planning application and will be agreed with MCC prior to construction. This document outlines the methods which will be employed by contractors to manage and where practical minimise the impact of the development's construction activities upon the site and surrounding area. The CEMP demonstrates a commitment to achieving high environmental standards and compliance with considerate contractor scheme procedures. The CEMP includes best practice measures and those mitigation measures identified through the EIA process, including:

- Program and Working Hours
- Logistics Overview
- Deliveries
- Site Plant
- Personnel Site Access
- Site Accommodation
- Construction and Demolition Methodology
- Control of Noise, Dust and Vibration
- Site Hoarding

- Traffic Management
- Logistics Manager
- Road Marshalls and Banksman
- Vehicle Types
- Vehicle Management, Timescales and Vehicle Types
- Lorry Holding Areas and Vehicle Routes
- Parking
- Waste Management Plan
- Management, Training and Awareness
- Waste Management Considerations
- Site Waste Management Operations
- Waste Stream Management Methodologies
- Neighbourly Issues
- Lighting
- Protection of existing facades

Construction Programme and Phasing

5.55 The anticipated construction programme is as follows:

- Anticipated Commencement Date: 2024
- Duration: Approximately 3 years

5.56 Normal site working hours for all construction work, and ancillary operations, including deliveries to and dispatch from the site shall be confined to the following periods:

- Between 07:30 and 18:00 Monday to Friday
- Between 08:30 and 13:00 on Saturdays
- No planned works on Sundays and Public Holidays.

5.57 The operation of plant/machinery/power tools and any noisy operations will be limited to the core hours stated above. Note that quiet works associated with office work may continue outside these hours.

5.58 It is recognised that there may be exceptional circumstances where the restriction on hours of work cannot be adhered to, in which case all reasonably practicable mitigation management procedures will be implemented, such as the Principal Contractor will provide advance notification and justification for any extension to the

working hours to the Planning Authority and notify any affected neighbours before works start outside normal hours.

Summary

- 5.59 In summary, this chapter has presented a description of the Proposed Development for NXQ, Lever Street, Manchester. This is supported by a set of detailed drawings. The description of development and plans set out the basis for the assessments described in this ES.
- 5.60 The potential environmental impacts of the construction phase of the proposed development have been considered and all controls or measures to mitigate these effects are in line with current environmental standards and legislative requirements. Further detail of construction impacts has been presented in each technical chapter, where applicable.
- 5.61 The Applicant has developed a framework CEMP for the Site which will be agreed with MCC prior to construction, thereby ensuring that any potential environmental effects are within suitable standards or mitigated in accordance with measures identified through the EIA process, where no standards exist.

Table 5.1 Assessment Plans

Drawing No.	Document Title	Scale
2510-HWS-XXX-22-L-A-01800	Area Schedule	N/A
2510-HWS-XXX-XX-D-A-05050	Site Location Plan	1:1000@A3
2510-HWS-XXX-XX-D-A-05051	Existing - Site Plan	1:200@A1
2510-HWS-XXX-ZZ-D-A-05055	Existing - Site Section & Elevations Sheet 1	1:200@A1
2510-HWS-XXX-ZZ-D-A-05056	Existing - Site Section & Elevations Sheet 2	1:200@A1
2510-HWS-XXX-00-D-A-05060	Demolition - Site Plan	1:200@A1
2510-HWS-XXX-00-D-A-05062	Demolition - 32 Great Ancoats St	1:100@A1
2510-HWS-XXX-ZZ-D-A-05065	Demolition - Elevations Sheet 01	1:100@A1
2510-HWS-XXX-ZZ-D-A-05066	Demolition - Elevation Sheet 02	1:100@A1
2510-HWS-XXX-ZZ-D-A-05067	Demolition - Elevation Sheet 03	1:100@A1
2510-HWS-XXX-ZZ-D-A-05068	Demolition - Elevation Sheet 04	1:100@A1
2510-HWS-XXX-00-D-A-05070	Proposed - Ground Floor Site Plan	1:200@A1
2510-HWS-XXX-B2-D-A-05098	Proposed - Basement Plan B02	1:100@A1
2510-HWS-XXX-B1-D-A-05099	Proposed - Basement Plan B01	1:100@A1
2510-HWS-XXX-00-D-A-05100	Proposed - Ground Floor Plan	1:100@A1
2510-HWS-XXX-01-D-A-05101	Proposed - 1st Floor Plan	1:100@A1
2510-HWS-XXX-02-D-A-05102	Proposed - 2nd Floor Plan	1:100@A1
2510-HWS-XXX-03-D-A-05103	Proposed - 3rd Floor Plan	1:100@A1
2510-HWS-XXX-04-D-A-05104	Proposed - 4th-6th Floor Plan	1:100@A1
2510-HWS-XXX-07-D-A-05107	Proposed - 7th-12th Floor Plan	1:100@A1
2510-HWS-XXX-13-D-A-05113	Proposed - 13th-17th Floor Plan	1:100@A1
2510-HWS-XXX-18-D-A-05118	Proposed - 18th Floor Plan	1:100@A1
2510-HWS-XXX-18-D-A-05120	Proposed - Roof Plan	1:100@A1
2510-HWS-XXX-ZZ-D-A-05301	Proposed - Section 01 - North-South	1:200@A1
2510-HWS-XXX-ZZ-D-A-05302	Proposed - Section 02 - North-South	1:200@A1
2510-HWS-XXX-ZZ-D-A-05303	Proposed - Section 03 - East-West	1:200@A1
2510-HWS-XXX-ZZ-D-A-05304	Proposed - Section 04 - East-West	1:200@A1
2510-HWS-XXX-ZZ-D-A-05401	Proposed - Great Ancoats Street - North Elevation 01	1:200@A1
2510-HWS-XXX-ZZ-D-A-05402	Proposed - Houldsworth Street - South Elevation 02	1:200@A1
2510-HWS-XXX-ZZ-D-A-05403	Proposed - Lever Street - West Elevation 03	1:200@A1
2510-HWS-XXX-ZZ-D-A-05404	Proposed - Little Lever Street - East Elevation 04	1:200@A1
2510-HWS-XXX-ZZ-D-A-05501	Typical Bay 01 - Tech Hub Facade	1:50@A1
2510-HWS-XXX-ZZ-D-A-05502	Typical Bay 02 - Great Ancoats Street elevation	1:50@A1
2510-HWS-XXX-ZZ-D-A-05503	Typical Bay 03 - Little Lever Street elevation	1:50@A1
2510-HWS-XXX-ZZ-D-A-05504	Typical Bay 04 - Houldsworth Street elevation	1:50@A1
2510-HWS-XXX-ZZ-D-A-05510	Typical Bay 05 - Lever Street elevation 01	1:50@A1
2510-HWS-XXX-ZZ-D-A-05511	Typical Bay 06 - Lever Street elevation 02	1:50@A1
2510-HWS-XXX-ZZ-D-A-05512	Typical Bay 07 - Courtyard Studies 01	1:50@A1
2510-HWS-XXX-ZZ-D-A-05513	Typical Bay 08 -Courtyard Studies 02	1:50@A1

6. Townscape and Visual

Introduction

- 6.1 This report has been prepared by re-form landscape architecture on behalf of Soller Nine to support a full planning application for an office development (hereafter referred to as the 'Proposed Development') on Lever Street (hereafter referred to as the 'site'). The Proposed Development will provide a significant quantum of new workspace in the Norther Quarter, alongside new public realm courtyard and ground floor uses. This application is accompanied by a comprehensive suite of technical documents, reports and plans.
- 6.2 This chapter assesses the effects of the Proposed Development on townscape character and visual amenity. In particular it identifies and assesses the anticipated effects of change resulting from the Proposed Development on the character and features of the townscape, and on people's views and visual amenity within the townscape and Visual Impact Assessment study area.
- 6.3 This Chapter is supported by the following figures and appendices:
- **Appendix 6.1** – TVA Figures and Viewpoints
 - **Appendix 6.2** – Relevant Planning Policy
 - **Appendix 6.3** – TVA Assessment Methodology
- 6.4 This chapter will refer to the relevant national guidance for:
- The assessment of townscape character.
 - Making judgements about the visual qualities of the townscape and its capacity for accommodating development.
 - Methodology for the assessment of townscape and visual effects which is in accordance with the 'Guidelines for Landscape & Visual Impact Assessment', Third Edition.¹
- 6.5 Drawing on this guidance, and an appraisal of the key townscape and visual issues associated with the Proposed Development, this report will consider:
- The character and sensitivity of the townscape within the vicinity of the Proposed Development.
 - The visual amenity of the receiving townscape.

¹ Landscape Institute, Institute of Environmental Management & Assessment, *Guidelines for Landscape & Visual Impact Assessment*, 3rd ed. (London: Routledge, 2013)

- 6.6 This chapter will demonstrate that the site and the local townscape within the vicinity of the site and the study area vary in sensitivity but have some capacity to receive development.
- 6.7 The report is structured as follows:
- Description of the site and its immediate context in general terms, identifying the location and main characteristics.
 - Description of the methodology for establishing the townscape and visual effects; this determines the assessment of the townscape and visual effects of the existing site and the Proposed Development.
 - Identification of the relevant planning policy context at national and local level that is pertinent to townscape character and visual issues.
 - Identification of baseline criteria of the site which is to be used to inform the assessment of townscape and visual effects is established.
 - An assessment of the townscape and visual effects of the Proposed Development in relation to the baseline conditions, and with mitigation.
 - An assessment of the townscape and visual effects of the Proposed Development in the context of identified cumulative sites.

The site

Refer to: **Figure 6.1** – Study Area

Figure 6.5 – Heritage Destinations

Figure 6.8 – Topography

- 6.8 The site currently comprises of takeaway shops including the Bem Brasil restaurant. The site is located at a key intersection with the Northern Quarter, with Stevenson Square Conservation area located to the West, NOMA to the North, Ancoats to the East and the Piccadilly Basin to the South. The site is easily accessible from the City Centre with Piccadilly Gardens and Station nearby and Shudehill Transport Interchange a 5-minute walk away. The Site extends to 0.16 hectares and currently comprises 8 building which include takeaway shops and the Bem Brasil restaurant, as well as vacant space:

32-34 Lever Street, Bem Brasil

- 6.9 The building first opened as 'The Griffin' public house and attached brewhouse in 1791 and later renamed the 'Land O Cakes' in the late 19th/early 20th century. It re-opened as the 'Bem Brasil' in 2010.

36-38 Great Ancoats Street

- 6.10 During the 19th century 36 Great Ancoats Street was a mixture of residential and commercial units, which faced onto Great Ancoats Street. These uses remained throughout its history where during the 1960's number 36 was a Glass Works manufacturer and seller, named Berlyne Bailey & Co. Number 36 is now an Italian restaurant with unknown uses in the upper floors.
- 6.11 Much like no. 36 Great Ancoats Street during the 19th century 38 Great Ancoats Street was a mixture of residential and commercial units, which faced onto Great Ancoats Street. The traditional uses have remained throughout its history where during the 1960's it was home to a local Northern Quarter Butchers and Bakery. Number 38 is now an Indian restaurant with unknown uses in the upper floors.

Little Ancoats Street and Lever Street

- 6.12 Traditionally a tannery was a place where the skins and hides of animals were processed and treated to create leather products. During the 19th century a small tannery was present along Little Ancoats Street. The remanence of the old industrial building can be seen by the hoist hanging over the street. The tannery ceased to be located on Little Ancoats Street during the early 20th century.
- 6.13 During the 19th century no. 56 & 58 were used as industrial buildings, housing a number of industries such as a tin plate manufacturer and textile warehouses. Currently the site consists of two non-listed former textile warehouses which were amalgamated in the early 20th century. The property is currently in use as a textile store, but the upper floors are mostly unused and the structure is in a very poor state of repair.
- 6.14 There is limited topographical variation across the site itself (Refer to **Figure 6.8**).
- 6.15 The site contains no apparent ecological features or existing planting.

Relevant Planning Policy

Refer to: **Figure 6.5** – Heritage Destinations

Figure 6.6 – Strategic Regeneration Frameworks

Figure 6.10 – Townscape Character Areas

- 6.16 The relevant planning policies in respect of townscape and visual issues are set out in **Appendix 6.2**.

Development Proposals

- 6.17 The re-development of an existing urban block in the Northern Quarter, to deliver a significant quantum of new build 'Grade A' office space, alongside considered retention and restoration of selective buildings/facades along Lever Street. 16,989 m² / 182,870 ft² (GIA) total of commercial office space provided across 19 storey building with flexible Class E space at ground floor, First Floor and Second Floor with

south a facing terrace space on the Creative Hub Second Floor connected to the Business Lounge.

- 6.18 Below the proposed Tech Hub Offices and Creative Hub there will be a basement serving both buildings which will include amenity space, cycle provision and plant space. Additionally, the existing basement serving the No.32 will be renovated and serve the proposed restaurant.
- 6.19 There is a dedicated cycle entrance located on Houldsworth Street on the south side of the proposal. The cycle provision includes 56 two tier cycle racks, with capacity for 112 cycle spaces. Key to the proposal is a an intimate, publicly accessible courtyard which will serve the Tech Hub offices, Creative Hub and the restaurant, forming a central heart for the proposed development.

Assessment Methodology and Significance Criteria

- 6.20 The methodology adopted within this Townscape and Visual Assessment to assess the townscape and visual effects of the proposed intervention has been informed by guidance contained within the following:
- Guidelines for Landscape and Visual Impact Assessment² often referred to as 'GLVIA 3'. Note: Terminology within GLVIA 3 (e.g. susceptibility) that is referred to within this methodology is recognised as being interchangeable between 'landscape' and 'townscape' assessment.
 - Townscape Character Assessment Technical Information Note 05/2017 (Revised April 2018).³
- 6.21 As defined within GLVIA 3, 'Townscape' refers to areas where the built environment is dominant and includes buildings, the relationship between them, different types of urban spaces and relationship between buildings and space. Townscape also reflects the relationship between people and place.
- 6.22 Townscape and visual matters are separate, although closely related and interlinked issues, and are dealt with as such throughout the TVA.
- 6.23 A brief description of the assessment methodology is described below. For a more detailed description, please refer to **Appendix 6.3: TVA Assessment Methodology**.

Baseline Study

- 6.24 The initial step of the TVA is to review the existing townscape and visual resource in the vicinity of the proposed intervention, known as the 'baseline' townscape and visual conditions. This is a process of gathering information, as part of a desk study

² Landscape Institute, Institute of Environmental Management & Assessment, *Guidelines for Landscape & Visual Impact Assessment*, 3rd ed. (London: Routledge, 2013)

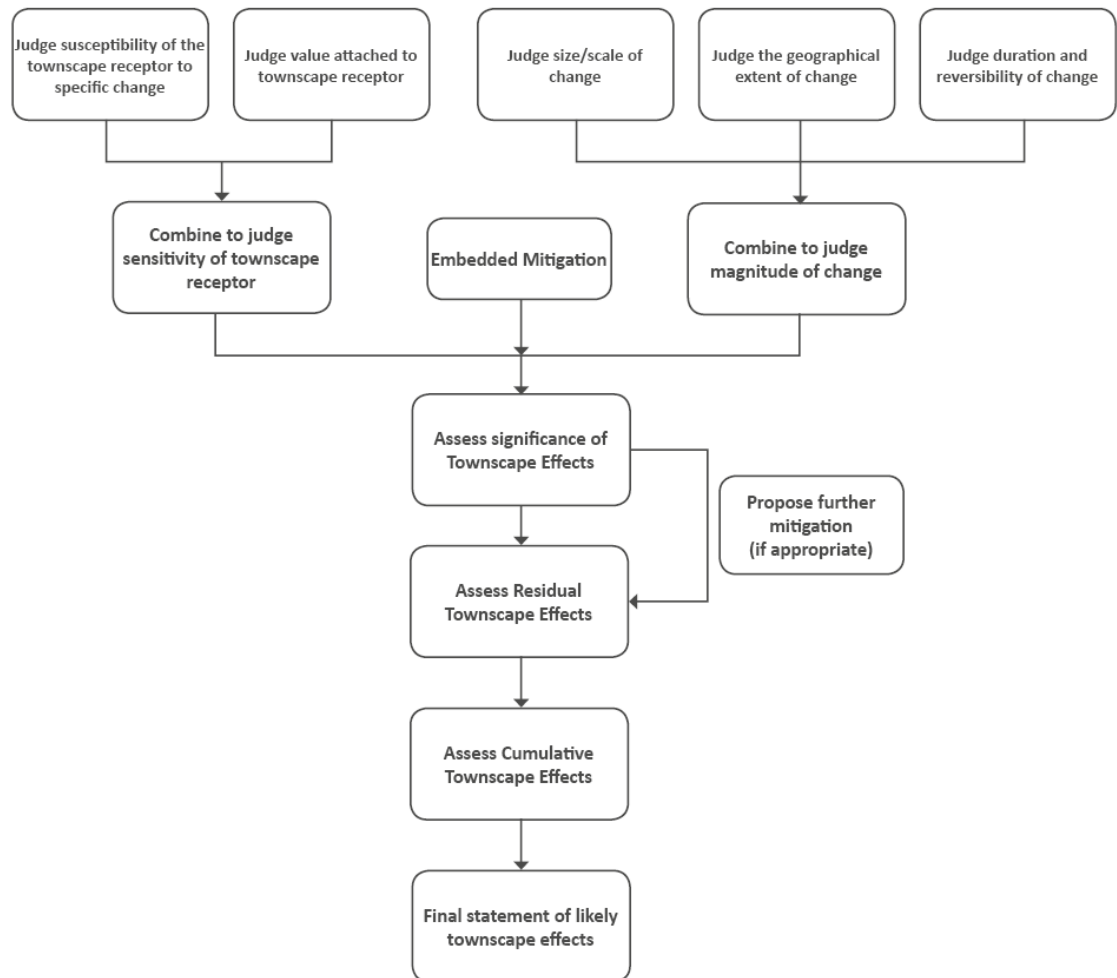
³ Landscape Institute, *Townscape Character Assessment, Technical Information Note, Revised April 2018*. (Landscape Institute, 2018) <<https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2018/04/tin-05-2017-townscape.pdf>> [accessed 26 January 2024]

and subsequent field survey work, to understand features and characteristics of the townscape, the way it is experienced, its quality and value or importance of the visual resources in the vicinity of the proposed intervention. The data collected forms the basis from which the townscape and visual effects of the intervention are identified and assessed.

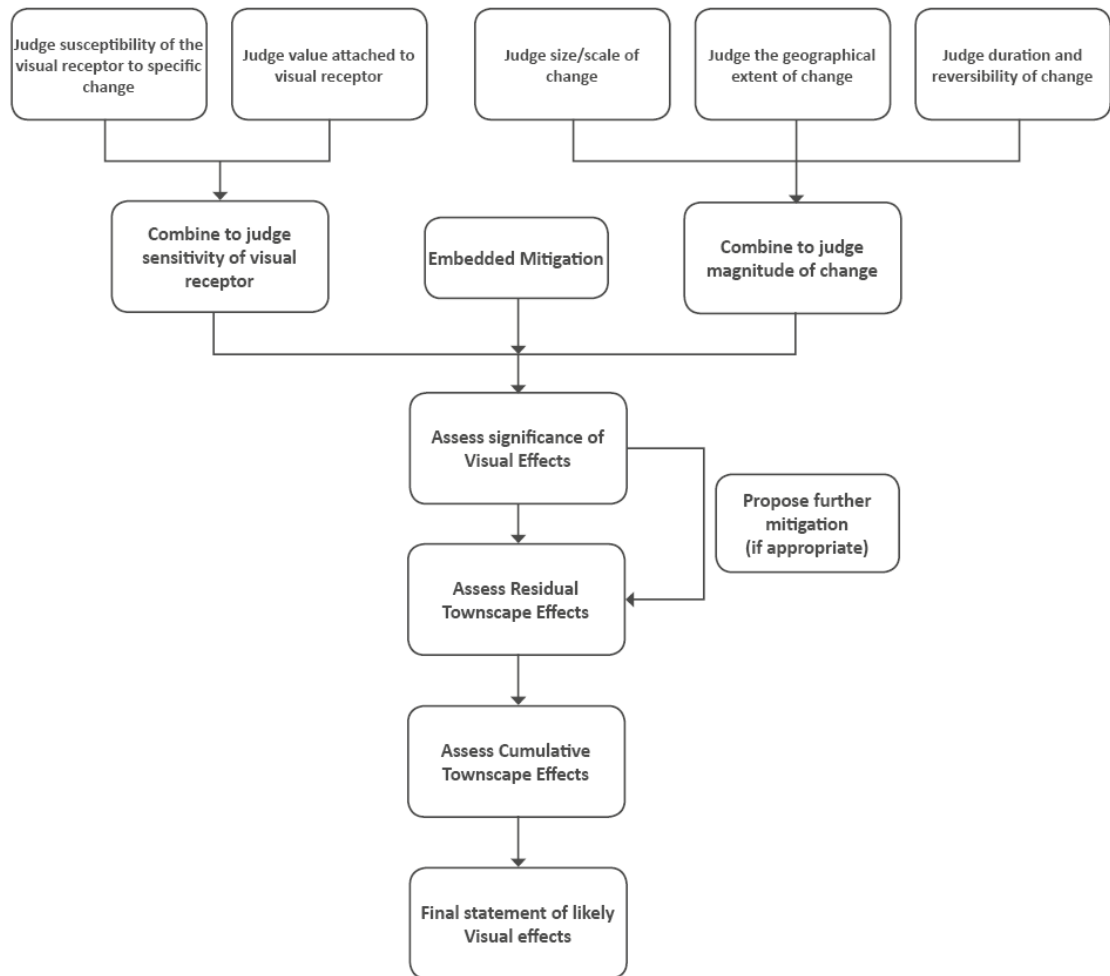
- 6.25 This baseline study informs a concise description of the existing character of the intervention site and its surrounding townscape context and enables the classification of the townscape into distinct character areas or types, which share common features and characteristics.

Assessment of Effects

- 6.26 The townscape assessment considers the potential effects of the proposed intervention on the components of the townscape (as identified within the Baseline Study). Physical change to the intervention site may result in changes to the distinctive character of the townscape and its context and how it is perceived.
- 6.27 The townscape assessment considers the potential effects of the proposed intervention on the components of the townscape (as identified within the Baseline Study). Physical change to the intervention site may result in changes to the distinctive character of the townscape and its context and how it is perceived.
- 6.28 Townscape receptors which could be affected by a proposed intervention may include:
- Individual constituent elements and features;
 - Specific aesthetic and perceptual qualities; and
 - The overall character and key characteristics as experienced in different areas (e.g. townscape character areas or types).
- 6.29 The flow chart below describes the townscape assessment process.



- 6.30 When assessing the visual effect of the proposed intervention, the area from which the proposed intervention is theoretically visible is established on plan through desktop surveys (or using digital software if available). Once this Zone of Theoretical Visibility (ZTV) is established, then the true visibility of the intervention site is checked on site in order to understand the screening effect of existing buildings, vegetation and other features and the effect of distance on a receptor's perception of the site. A number of key views are then selected within these areas which are most representative of the available views of the site.
- 6.31 Viewpoints are selected in order to demonstrate representative scenarios. It is not required that the assessment describe every effect of the proposed intervention, but only the main or likely level visual effects which are required to inform the decision-making authority. If possible, the viewpoints are agreed in advance with the local authority.
- 6.32 The flow chart below describes the visual assessment process.



6.33 The significance of the townscape and visual effects identified is determined by a consideration of the **Sensitivity** of the townscape/visual receptor and the **Magnitude of Change** to the townscape receptor or view;

- The **Sensitivity** of a townscape receptor or view combines judgements of their **Susceptibility** to the type of intervention proposed and the **Value** attached to the townscape receptor or view.

Sensitivity = Susceptibility + Value.

- The **Magnitude of Change** to the townscape receptor or view depends upon the size or scale of the intervention, the geographical extent of the area experiencing change and its duration and reversibility.

Magnitude of Change = Size/scale of intervention + geographical extent of change + duration / reversibility of change.

6.34 **Table 6.1** below describes the significance of effects matrix.

Significance of effects				
		Sensitivity		
		Low	Medium	High
Magnitude of Change	High	Moderate	Moderate - Major	Major
	Medium	Minor - Moderate	Moderate	Moderate - Major
	Low	Minor	Minor - Moderate	Moderate
	Negligible	Negligible	Negligible	Negligible

- 6.35 In accordance with the methodology suggested by the GLVIA 3⁴, the nature of the **townscape** effects in this assessment are classified as follows:

Major Adverse Effect: Where the proposed intervention would result in a complete variance from the scale, pattern and character of the townscape, and cause a very high-quality townscape to be permanently changed and its quality diminished.

Moderate Adverse Effect: Where the proposed intervention would be out of scale with the townscape, or conflict with the local pattern and character, and cause an adverse effect on a townscape of recognised quality.

Minor Adverse Effect: Where the proposed intervention would not quite fit into the local scale and pattern of the townscape and affect an area of recognised character.

Minor Beneficial Effect: Where the proposed intervention would fit in well with the scale, character and pattern of the area, and has the potential to improve the existing townscape quality.

Moderate Beneficial Effect: Where the proposed intervention would fit in well with the townscape character of the area and improve the quality of the townscape.

Major Beneficial Effect: Where the proposed intervention would fit in very well with the townscape character of the area, and greatly improve the quality of the townscape.

- 6.36 In accordance with the methodology suggested by the GLVIA 3⁵, the nature of the **visual** effects in this assessment are classified as follows:

Major Adverse Effect: Where the proposed intervention would cause a significant deterioration in the existing view.

⁴ Landscape Institute, Institute of Environmental Management & Assessment, *Guidelines for Landscape & Visual Impact Assessment*

⁵ Ibid.

Moderate Adverse Effect: Where the proposed intervention would cause a noticeable deterioration in the existing view.

Minor Adverse Effect: Where the proposed intervention would cause a slight deterioration in the existing view.

Minor Beneficial Effect: Where the proposed intervention would cause a slight improvement in the existing view.

Moderate Beneficial Effect: Where the proposed intervention would cause a noticeable improvement in the existing view.

Major Beneficial Effect: Where the proposed intervention would cause a significant improvement in the existing view.

- 6.37 The above levels of significance (**Minor, Moderate, Major** etc.) may, in some circumstances, result in neither 'beneficial' or 'adverse' nature of change. This will result in a **Neutral** outcome (e.g. **Moderate Neutral** Effect). This is determined where the proposed intervention results in a balanced combination of beneficial and adverse change, or where no distinctly discernible beneficial or adverse change is apparent.
- 6.38 Effects that are **Moderate** and above (i.e. **Moderate, Moderate – Major** and **Major**) are considered to be 'significant'. All other effects are considered to be 'not significant'.

Assessment of Cumulative Effects

- 6.39 The purpose of cumulative townscape and visual effects is to identify additional changes caused by the proposed intervention in addition to other similar developments, or as the combined effect of a set of developments taken together.
- 6.40 The approach to assessing cumulative effects is guided by the same principles as to the approach to the initial project assessment and considers a combination of susceptibility and value (sensitivity) and magnitude of change to determine the combined effects.

Viewpoint Selection

- 6.41 Confirmation of the viewpoint selection was received from Manchester City Council in January 2024.

Baseline Conditions

6.42 This section describes the principal spatial and built form components which give the site and surrounding area its distinct characteristics. The relevance of these components is identified and described below. The key documents consulted are:

- National Character Area Map⁶
- Greater Manchester Landscape Character and Sensitivity Assessment⁷
- Strategic level city-wide urban characterisation study⁸
- City Centre Strategic Plan⁹

6.43 The following are key issues in respect of townscape and visual effect relating to the site:

- Location and character of townscape elements and components which contribute to the townscape character.
- Identification of key receptors and their sensitivity.
- Determination of the existing townscape character and visual quality of the site.
- The ability of the existing townscape to accommodate change.
- The likely effects of development within the townscape (whether negative or positive), including:
 - Potential townscape effects on the existing townscape character of the site and its context.
 - Potential visual effects on views into, out of and across the site.

6.44 For the purposes of this assessment the following elements are considered relevant in determining the character of the study area: existing urban form, open space and vegetation; topography; and existing land use.

Refer to: **Figure 6.3 – Urban Grain**

Figure 6.4 – Existing Building Heights

Figure 6.5 – Heritage Designations

⁶ Natural England, *National Character Area profile: 55: Manchester Conurbation*, (Natural England, 2013) <<https://publications.naturalengland.org.uk/publication/5989113924681728?category=587130>> [accessed 26 January 2024].

⁷ Land Use Consultants, *Greater Manchester Landscape Character and Sensitivity Assessment*, (Manchester: Land Use Consultants, 2018) <<https://www.greatermanchester-ca.gov.uk/media/1727/greater-manchester-landscape-character-and-sensitivity-report.pdf>> accessed 26 January 2024].

⁸ Whyard, J, *Strategic level city-wide urban characterisation study*, (Manchester: Manchester City Council, 2010) <https://www.manchester.gov.uk/downloads/500002/council_policies_and_strategies> accessed 26 January 2024].

⁹ Manchester City Council, *City Centre Strategic Plan 2015-2018*, (Manchester: Manchester City Council, 2016) <https://secure.manchester.gov.uk/downloads/file/24745/city_centre_strategic_plan> accessed 24 January 2024].

Figure 6.7 – Movement Typologies

Figure 6.8 – Topography

Figure 6.10 – Townscape Character Areas

Urban Grain

- 6.45 'Urban grain' is used as a shorthand term for the pattern and inter-relationship of buildings and open space. A study of this pattern can contribute to an understanding of townscape and character to highlight the ratio of built form as a precursor to defining townscape character.
- 6.46 The urban grain varies across the study area, but largely follows the pattern of a tighter urban grain within its centre, with a looser urban grain towards its perimeters, with the exception of an area of dense larger scale retail units to the South-West.
- 6.47 The existing urban grain within the site itself comprises of adjoining small sized blocks set within an orthogonal street grid.
- 6.48 Immediately surrounding the site, Ancoats and the Northern Quarter are characterised by a dense urban grain of small to mid-unit sizes set within orthogonal street grids. Similar gridded street patterns can also be found to some extent in the neighbouring New Cross and Lower Irk Valley areas; but here the urban fabric is less condensed, with higher proportions of open space.
- 6.49 To the Northern, Eastern and Southern perimeters of the study area, there is predominantly a looser urban grain, set within larger scale, more incidental areas of open space. These are generally formed of a combination of small to medium blocks, punctuated by a number of larger scale units. The South-Eastern portion of the study area also incorporates the Rochdale and Ashton Canals, which loosely inform the structure of the surrounding settlements.
- 6.50 To the South of the site, the Retail Core area is comprised of dense formations of larger scale units.

Built Form

- 6.51 There is notable variation in the scale and massing of the built form within the study area.
- 6.52 Immediately within the site, the existing buildings range between 2 to 5 storeys, with relatively small-scale footprints. This is in keeping with the majority of the study area, which mostly comprises of buildings between 1 to 10 storeys of with relatively small building footprints; with a number of larger building units being located further from the site towards the perimeter of the study area. These larger footprints are comprised of light industrial units to the North and East and larger Retail units to the South and West. Notable tall buildings include a cluster to the North-West of the study area, forming a Gateway to the City near Victoria Station. Oxygen Tower forms

a local landmark as a tower building to the South-East of the study area, reaching over 20 storeys in height.

- 6.53 Within the study area, architectural quality, appearance, materiality and use vary significantly. Closest to the site, historic Victorian and Georgian buildings are common, including many red brick buildings and historic mills. These areas incorporate a range of uses, notably creative industries, small retail enterprises, offices and residential developments. Along Great Ancoats Street, numerous newer developments can be seen interspersed with their more historic counterparts. Throughout the rest of study area, there is a greater mix of historic, mid- 20th century and contemporary developments, incorporating a wide range of materials and facades.
- 6.54 The site sits immediately adjacent to the nearby Conservation Area of Ancoats and Stevenson Square but is not situated within a Conservation Area itself. The wider study area encompasses an additional 4 Conservation Areas: Smithfield, Shudehill, Upper King Street and Cathedral, each running West of the site. There are a large number of Listed Buildings located within the study area, with many in close proximity to the site. These are predominantly Grade II listings, with a number of Grade II* listings concentrated within Ancoats, along the Rochdale Canal and towards the City Centre. There are no listed buildings included within the site boundary.

Topography

- 6.55 The general topography of the study area is relatively flat. There is a general sloping upwards from the City Centre to the South, with falls towards the nearby blue infrastructure; the River Irk and River Irwell to the North-West, and the Rochdale and Ashton Canals in the South-East (Refer to **Figure 6.8**).
- 6.56 The existing topographic variation within the site boundary is very minor and imperceivable (Refer to **Figure 6.8**).

Existing Vegetation

- 6.57 There is no notable vegetation included within the site.

Existing Townscape

- 6.58 Townscape assessment encompasses an appraisal of physical, aesthetic and intangible attributes including sense of place, rarity or representativeness, and unspoilt appearance. The combination of townscape elements (trees, hedgerows, woodlands, settlement and buildings, their architecture and fabric) and their arrangement give the different areas a unique sense of place, or 'character'. These aspects, together with scale and character of surrounding landscapes, patterns and scale of landform, land cover and built development, need to be considered when assessing townscape effect.

National Townscape Character

- 6.59 Natural England have produced a series of National Character Area (NCA) profiles that identify broad, strategic character areas for England and the key opportunities for local decision making. The development site is located within the National Character Area 55: Manchester Conurbation¹⁰ which summarises this area as follows:

"A number of settlements have grown and come together to form the Manchester Conurbation [...] This area is characterised by dense urban and industrial development, commercial, financial, retail and administrative centres, commuter suburbs and housing, interspersed with a network of green infrastructure.

The conurbation is centred on low hills, crossed by several river valleys that thread through the urban fabric. The geology is dominated by sandstones, overlain by thick deposits of glacial till. [...]

River valleys form important corridors of semi-natural habitats and natural greenspace – with open grassland, woodland and wetland – linking urban centres with open countryside...Canals that weave through the conurbation not only offer opportunities for access and recreation, but also form a network of wetland habitats. Sections of the Rochdale Canal, in particular, have been designated as being of international importance as a Special Area of Conservation (SAC). [...]

*In the late 18th century, the areas became rapidly industrialised, with dramatic growth in the cotton industry and expansion in ancillary trades. The population increased, fuelled by a need for labour, with rows of terraced housing built for the workers as well as mills and industrial buildings. Red brick and sandstone buildings are prominent in the city and town centres, alongside buildings using a mix of modern materials, high-rise buildings and landmark 19th-, 20th- and 21st-century buildings."*¹¹

- 6.60 The classification covers a wide area extending from Urmston in the west to Denton in the east, and as far as Cheadle Hulme and Bramhall to the south and Prestwich in the north. NCAs are primarily used for understanding broad landscape context, rather than townscape and are therefore of limited use for the purpose of this assessment.
- 6.61 Although relevant, the level of detail is considered insufficient in providing an accurate depiction of the site and locally specific issues. However, it is noted that several of the above characteristics are discernible in relation to the wider townscape surrounding the site. Specifically, the presence of large settlements characterised by dense urban and industrial development, commercial, financial, retail, and administrative centres. Additionally, the presence of the Ashton and Rochdale Canals within the study Area and the significant road networks, in particular the A665 along Great Ancoats Street forming part of the Mancunian Way. For the purposes of this TVA a more local scale character assessment is appropriate.

Regional townscape Character

¹⁰ Natural England, *National Character Area profile: 55: Manchester Conurbation*, (Natural England, 2013)

¹¹ Natural England, *National Character Area profile: 55: Manchester Conurbation*, (Natural England, 2013)

- 6.62 The Greater Manchester Landscape Character and Sensitivity Assessment¹² focuses on regional townscape character areas. The site is not located in a particular landscape character type but is described as urban.

Local Townscape Character

- 6.63 A Strategic Level City-Wide Urban Characterisation¹³ was undertaken in 2010 as an evidence base for the Core Strategy. The purpose of the study was to understand how the local character of different areas varies across Manchester as a means of identifying how local needs may be addressed by proposals for new development. The study identifies the Strategic Character Areas within the city, 2 of which may be affected by the Proposed Development. Most of the site study Area falls within the 'City Centre' area, with the very North entering into the 'Central Area of Change'.

- 6.64 The urban form of the 'City Centre' Strategic area is described as:

- *'...one of contrasts.'*
- Having a radial street pattern from the historic central area influenced by pre-Victorian routes that *'respond organically to topography and other landscape features'*.
- Having a varied, *'sometimes dramatically'* so, scale of built form with *'the core area [being] mainly one of higher, larger scale buildings'*.
- Encompassing relatively modest quantities of open space in comparison to built-up areas
- Including a high number of Conservation Areas and listed buildings; indicating *'the urban history and quality of the urban environment'* of the area.
- Around the central core, the urban form *'reflects the economic, social and physical dynamic of the city's on-going evolution and transition from the core to the outer areas.'* and includes *'a mix of building ages, types and quality but with a predominance of often lower scale built form a greater sense of space and lower density arising from areas of cleared, previously developed land'*.¹⁴

- 6.65 The urban form of the 'Central Area of Change' Strategic area is described as:

- Having a *'current-day character principally derives from change'*.
- Comprised of low-density development from the 1960s *'set within open areas consisting of a mix of generous principal highways and junctions, commercial yards...[and]...public open space'*.

¹² Land Use Consultants, *Greater Manchester Landscape Character and Sensitivity Assessment*, (Manchester: Land Use Consultants, 2018)

¹³ Whyard, J, *Strategic level city-wide urban characterisation study*, (Manchester: Manchester City Council, 2010)

¹⁴ Whyard, J, *Strategic level city-wide urban characterisation study*, (Manchester: Manchester City Council, 2010)

- Remaining *'the focus of the city's industrial and other out-of-centre commercial activity'* alongside *'a significant concentration of 1960's housing with a predominance of purpose-built, social housing estates'*.

6.66 The Strategic Urban Character areas identified above are broad in scope and extent. It is considered that there will unlikely be any notable townscape or visual effects, within the context of the wider Strategic Character Areas as a result of the Proposed Development. As such townscape and visual effects of the Proposed Development will not be assessed for the Strategic Urban Character Areas and any local level issues will be identified as part of an assessment of local townscape character

Local Townscape Character Areas (TCAs)

6.67 The Manchester City Centre Strategic Plan¹⁰ identifies local level Townscape Character Areas (TCAs), as shown in **Figure 6.10** in **Appendix 6.1**. Only TCAs located within 750m of the site are assessed as part of this TVA. It is considered that there will be no likely perceivable change to other TCAs located fully outside of the study area as a result of the Proposed Development on site, due to the heavily urbanised nature of the city environment and resulting screening effects of buildings, and the orientation of nearby public spaces and streets, which limit visual connectivity.

TCA 1: Northern Quarter

6.68 The site is located on the edge of the Northern Quarter. The Northern Quarter Character area is bound by the A665 Great Ancoats Street to the northeast, Port Street/China Lane/Paton Street/Lena Street to the southeast, the A6 Piccadilly to the southwest and High Street and Shudehill to the North-West. The TCA encompasses Stephenson Square and Smithfield Conservation Areas and includes a high number of Grade II and Grade II* listed buildings of a variety of architectural styles and historic uses. The TCA is characterised by distinctive architecture, red brick buildings and converted warehouses with many creative and cultural industries and independent retailers. As a result, the TCA has a strong sense of place. The TCA has a relatively tight and uniform urban grain, with buildings varying in size and massing, although most buildings are under 5 storeys. There is some public realm but few areas that are pedestrianised and limited provisions of greenspace. There have been some modern developments within the TCA, however, regeneration has largely been incremental and has broadly retained the area's distinct identity.

6.69 **Table 6.2: Townscape Character Area 1: Northern Quarter**

Townscape Character Area 1: Northern Quarter		
Susceptibility	Medium	The townscape in this area includes distinctive historic architectural qualities and streetscape character, with areas of small and incremental modern development. The area has some ability to accommodate the Proposed Development without considerable consequences for the retention of the existing baseline.
Value	High	The townscape has a distinctive urban structure and architectural qualities. It includes a number of Listed Buildings and Conservation Areas.
Sensitivity	High-Medium	

TCA 2: Ancoats

- 6.70 The site is located directly opposite the Southern edge of the Ancoats TCA. The Ancoats TCA is bound by the A62 Oldham Road to the northeast, Butler Street to the northwest, the Rochdale Canal to the southeast and the A665 Great Ancoats Street to the southwest. The entirety of the TCA is situated within the Ancoats Conservation Area and includes a number of Grade II and Grade II* listed buildings. Most of these are historic mill buildings now converted into residential or commercial units, however they also include the Crown and Kettle Public House, Daily Express Building, former Church of St Peter and Victoria Square. As a result, the TCA has a distinctive sense of place and historic prevalence. Within the study area, the southwestern part of the TCA has a relatively tight and uniform urban grain. There is some public realm, the most notable being Cutting Room Square, however limited greenspace.

6.71 **Table 6.3: Townscape Character Area 2: Ancoats**

Townscape Character Area 2: Ancoats		
Susceptibility	Medium	Although this townscape has a distinctive historical character it is heavily built up, with some modernised elements. The area has some ability to accommodate the Proposed Development without considerable consequences for the retention of the existing baseline.
Value	High	The townscape has a distinctive urban structure and architectural qualities. It includes a number of Listed Buildings and Conservation Areas.
Sensitivity	High-Medium	

TCA 3: New Cross

6.72 New Cross lies to the North-West of the site boundary. The area is bound by Swan Street section of the Inner Ring Road to the South, Oldham Road to the East and Rochdale Road to the West. New Cross TCA is designated for future development as part of the Victoria North SRF and is subject to a Neighbourhood Development Framework. The area encompasses a high volume of car parks and other brownfield sites and is heavily divided on account of the various carriageways that traverse the area. Towards the city centre there is evidence of a more historic street grid pattern with a finer urban grain, transitioning into a looser urban fabric associated with industrial and commercial uses. Building appearances are varied, with a mix of historic red brick buildings, newer residential developments and low-rise industrial units. The area includes a number of listed buildings, but unlike within the adjacent Ancoats and Northern Quarter TCAs, these are scattered and do not form a cohesive streetscape.

6.73 **Table 6.4: Townscape Character Area 3: New Cross**

Townscape Character Area 3: New Cross		
Susceptibility	Low	Although this townscape has some historic elements, it is disparate in character with extensive modern development. The area has ability to accommodate the Proposed Development without considerable consequences for the retention of the existing baseline.
Value	Low	The area is identified as having some characteristic architectural features but has been identified as an area for urban improvement and development.
Sensitivity	Low	

TCA 4: New Islington

6.74 The New Islington TCA is located to the northeast of the site. Within the extents of the study area, it is bound by the Piccadilly TCA to southwest and the Rochdale Canal to the northwest. The TCA is centred around the New Islington Marina. There has been significant development in within the TCA, including new residential and commercial buildings along with new public realm. The centre of the TCA is characterised by modern high-density residential buildings, some above 10 storeys, arranged in a relatively formal urban grid. There are also some older residential buildings and associated public open space further north. As a result, there is a concentrated residential population within the TCA. At the southern end of the TCA, adjacent to Great Ancoats Street, is a large area of formally developed vacant land. There is a concentration of listed buildings around the Ashton Canal, although there are no Conservation Areas within the TCA. The most significant greenery within the TCA is Cotton Field Park (adjacent to the marina), Islington Park, and green space associated with the Rochdale Canal. Elsewhere within the TCA, greenery mostly comprises of large grass verges associated with residential areas and private gardens.

6.75 **Table 6.5: Townscape Character Area 4: New Islington**

Townscape Character Area 4: New Islington		
Susceptibility	Low	The townscape in this area currently includes a varied streetscape, urban grain and build form, with a mixture of architectural qualities and appearance. A large proportion of the buildings are modern with some large-scale buildings. The marina and associated green space offer a sense of distinctiveness, however overall, the area lacks a cohesive sense of place. As a result, the has ability to accommodate the Proposed Development without considerable consequences for the retention of the existing baseline.
Value	Moderate	The townscape has a mixed urban structure with some scope to improve elements. There are no historic designations or Conservation Areas.
Sensitivity	Medium-Low	

TCA 5: Piccadilly

6.76 Piccadilly TCA is bound by the A665 Great Ancoats Street to the north and east and the trainline leading to Piccadilly Station to the south. Piccadilly is currently undergoing significant urban regeneration and comprises several modern apartment and office buildings and construction sites. There are no Conservation Areas within the TCA, however, there are a small number of Grade II and Grade II* listed buildings, mostly associated with historic uses of the canal and Manchester Piccadilly station. The station is a large and significant element within the TCA and has influence on the urban grain in its immediate context. Extensive areas of surface car parking situated on undeveloped plots of land are also commonplace. As a result, the urban grain is currently fragmented and inconsistent. Recently implemented public realm improvements and peripheral treatments to new buildings introduce isolated, positive characteristics. There are some notable areas of public realm and greenspace associated with the Rochdale and Ashton Canals which run through the TCA.

6.77 **Table 6.6: Townscape Character Area 5: Piccadilly**

Townscape Character Area 5: Piccadilly		
Susceptibility	Low	The townscape has inconsistent urban structure and includes a varied streetscape, urban grain and build form resulting in a relatively indistinct sense of place. Buildings are generally of a medium-large scale. The area can accommodate the Proposed Development without considerable consequences for the retention of the existing baseline.
Value	Low	Broadly the townscape comprises components of relatively poor / medium quality, with low distinctiveness and detracting elements. The canal basins within the area offer some components of value, however it is subject to degradation and inconsistencies in quality in places
Sensitivity	Low	

TCA 6: Retail Core

- 6.78 The Retail Core is located to the South-West of the site. The TCA is a major retail hub with several flagship stores across a range of shopping destinations: the largest and most notable being the Manchester Arndale. The TCA has a tight urban grain which occasionally opens up around key public spaces such as Piccadilly Gardens. Buildings vary in scale, age, and architectural character. Within the TCA there are several areas of well used public realm and greenspace alongside areas of pedestrianisation associated with key retail areas. The most notable within the study area is Piccadilly Gardens which. The TCA includes the Smithfield Conservation Areas at the edge of the study area, as well as several Grade II listed buildings.

6.79 **Table 6.7: Townscape Character Area 6: Retail Core**

Townscape Character Area 6: Retail Core		
Susceptibility	Low	The townscape in this area currently includes a mixture of large-scale buildings with a variety of architectural characteristics and quality. The urban grain is relatively distinguishable but is imbalanced and uncharacteristic in places. The area can accommodate the Proposed Development without considerable consequences for the retention of the existing baseline.
Value	Moderate	The townscape includes a number of Conservation Areas and historic designations, as well as a concentration of key public open spaces. The area comprises some detracting qualities.
Sensitivity	Medium-Low	

TCA 7: NOMA

- 6.80 The NOMA TCA is located to the North-West of the site. The area sits North of the Shudehill area and Victoria Station, and is bound by Corporation Street, Shudehill, Angel Street and Gould Street. It is subject to a Strategic Regeneration Framework and has seen proactive development in recent years including Angel Gardens and Sadler's Yard. The TCA encompasses a small portion of the Shudehill Conservation area and contains a number of Grade II Listed Buildings in and around this area. The area has been historically associated to the Co-operative Group, who remain key to its current redevelopment. There is architectural contrast between the historic 19th century buildings of brick and stone and the more contemporary tower building, but both old and new developments share an emphasis on facades with strong geometries and material articulation. Towards the South of the TCA there is a relatively fine urban grain within orthogonal arrangements, which become looser and larger in scale further to the North. The area sits within several major vehicle routes and is traversed by two major carriageways: the Inner Ring Road and the A664. Recent development has begun to create a series of public civic spaces nestled between the urban streetscapes.

6.81 **Table 6.8: Townscape Character Area 7: NOMA**

Townscape Character Area 7: NOMA		
Susceptibility	Medium	This townscape has an evolving character defined by its synergy between its contemporary development and its historic assets. The area therefore has some ability to accommodate the Proposed Development without considerable consequences for the retention of the existing baseline.
Value	High	The area contains a number of Listed Buildings and public spaces of value. There is a distinctive mixed architectural fabric in good condition.
Sensitivity	High-Medium	

TCA 8: Lower Irk Valley

- 6.82 The Lower Irk Valley TCA is sited North of the site, outside of the Inner Ring Road. It is bound by Red Bank and the Green Quarter to the West, the Railway line and Rochdale Road to the South-East, and Collyhurst to the North. It is subject to a Neighbourhood Regeneration Framework and forms part of the wider Victoria North SRF. Historically an industrial area, the architecture is of low distinctiveness, largely comprising small industrial units and mixed residential buildings, including low rise red brick terraces and more contemporary blocks of flats. The TCA has a divided character, with distinct disparity between the North and South of the area. The South is defined by a tight urban grid of mid-rise residential flats, as well as a significant area of green space at Angel Meadow. In contrast, the Northern portion of the TCA is of a degenerated industrial character, with large vacant plot sizes, low levels of development and broad views to the sky. Central to the TCA is the River Irk, which alongside the existing railway viaduct dictates the distinct and sharply sloping topography within the area. Redevelopment strategies focus on restoring and enhancing the river valley, whilst creating a mixed-use area with a network of public spaces.

6.83 **Table 6.9: Townscape Character Area 8: Lower Irk Valley**

Townscape Character Area 8: Lower Irk Valley		
Susceptibility	Low	Due to the current underdeveloped nature of the area, there is capacity to accommodate intervention without considerable consequences for the existing townscape or proposed strategies.
Value	Low	There are currently few identifying features, with most existing being in poor condition. There is identified scope for recovery and redevelopment.
Sensitivity	Low	

TCA 9: Collyhurst

6.84 Collyhurst TCA is situated North of the site. It is positioned North of New Cross, straddled between Rochdale Road and Oldham Road, forming part of the Victoria North Strategic Regeneration Framework. The existing urban fabric is comprised of red brick residential terraces, set in and around a patchwork of open green spaces and the railway viaduct. The low-level skyline and high proportion of open space creates wide vistas across to adjacent neighbourhoods, with numerous high-rise buildings visible throughout the area. Collyhurst is designated for future residential neighbourhood development, with plans for Collyhurst Village and Collyhurst South at construction stage, providing up to 274 new homes. Current proposals indicate low to mid-rise development, with 2-5 storey buildings set within new areas of public realm.

6.85 **Table 6.10: Townscape Character Area 9: Collyhurst**

Townscape Character Area 9: Collyhurst		
Susceptibility	Medium	A residential area with an existing precedent of surrounding high rise development being visible from within the TCA. The area thereby has some ability to accommodate the Proposed Development without considerable consequences for the existing townscape or proposed strategies.
Value	Moderate	The area has a distinguishable architectural character and urban grain, with low rise residential units set within areas of open green space. The urban fabric is largely of a moderate condition, with some green infrastructure requiring improvement.
Sensitivity	Medium	

6.86 **Table 6.11:** Summary of Townscape Character Areas

Character Area	Susceptibility	Value	Sensitivity
1 – Northern Quarter	Medium	High	High-Medium
2 - Ancoats	Medium	High	High-Medium
3 – New Cross	Low	Low	Low
4 – New Islington	Low	Moderate	Medium-Low
5 – Piccadilly	Low	Low	Low
6 – Retail Core	Low	Moderate	Medium-Low
7 - NOMA	Medium	High	High-Medium
8 – Lower Irk Valley	Low	Low	Low
9 - Collyhurst	Medium	Moderate	Medium

Views, Visibility and Visual Character

- 6.87 A comprehensive visual assessment has been undertaken to determine the degree of visual effect the Proposed Development would have upon the surrounding landscape. A scoping study, which was developed in co-ordination with the project Heritage Consultant, before being agreed with Manchester City Council.
- 6.88 A total of 13 representative views within the established ZTV (**Figure 6.2**) have been selected for the analysis of visual effects.
- 6.89 The ZTV has been provided by the project Heritage Consultant and has formed the basis of the visual assessment within this document. It covers an area of at least 1km from the site.
- 6.90 All views assessed are verified and have been confirmed with Manchester City Council. Where the Proposed Development is not visible, or the view is long-distance, a wireframe outline is shown for location purposes. Close range views include a rendered model in order to provide an indication of the Proposed Development's appearance.
- 6.91 Key views have been selected at strategic locations around the site. It is considered 'best practice' to categorise views into 3 ranges depending on the proximity of the viewpoint. The categorisation is based on the scale and nature of the landscape, and is as follows:
- Close: less than 250m
 - Medium: between 250m – 1km
 - Long: More than 1km

Sensitivity of visual receptors

- 6.92 The views shown on **Figure 6.12** to **Figure 6.24** have been selected in order to be representative of a range of locations and distances from which the site is visible, and for the type of occupancies (e.g. residential properties), activities (e.g. footpath users) and the expectations of potential receptors (e.g. visitors to the locality). The sensitivity of the receptor has been recorded against each view considered, based upon judgements of their susceptibility to the type of intervention proposed and the value attached to the view.

6.93 **Table 6.12:** Baseline visual conditions for viewpoint A

Viewpoint A – Sherratt Street	
Figure reference	Figure 6.12
Distance	Medium, <500m
Direction	South
Season and condition	Winter, bright sunshine. Good visibility
Type of receptor	Pedestrians, residents
Reason for view selection	Route into Ancoats Conservation Area. Distinctive and unique terrace buildings in view
Description of existing view	<p>The view shows two rows of red brick terraces. These are not listed but are incorporated within the Ancoats Conservation Area. The public realm in the foreground shows a minor vehicle access route and pavement, with bollards, lampposts, and signage. The street furniture largely detracts from the view, but with paving, walls and gates being more in keeping with the historic architectural character.</p> <p>The view is somewhat compromised by the encroachment of taller buildings. The rear upper storeys of No.3 George Leigh Street can be seen above the terraces, with its grey façade in sharp contrast to the red brick buildings in the foreground. To the far right of the view, the top floors of several flats situated along Oldham Road are just within view. There is a wide-open view of the sky across the image.</p>
Visual susceptibility	High
Value attached to view	Moderate
Visual sensitivity	High-Medium

6.94 **Table 6.13:** Baseline visual conditions for viewpoint B

Viewpoint B – Portland Street	
Figure reference	Figure 6.13
Distance	Medium, <1km
Direction	North
Season and condition	Winter, bright sunshine. Good visibility
Type of receptor	Road users, pedestrians, office workers
Reason for view selection	Several listed buildings along street. Key vehicle route towards City Centre.
Description of existing view	<p>The view includes a vehicular carriageway bordered by pavements and building frontages on both sides. The foreground is visually dominated by a large carriageway, including signage, crossing points, and street furniture, which detracts from the overall view.</p> <p>Towards the horizon, a row of 4-6 storey Grade II Listed Building frontages can be seen facing onto Piccadilly. In the midground, the Southern Frontage of the Grade II* Britannia Hotel can be seen, with 3 more red brick Grade II Listed building frontages in view to the left. Several other mixed height buildings are also visible within the view, notably the Mercure Hotel, a distinctively shaped concrete tower, and the high-rise Manchester One Tower on the right, with its dark gridded façade. The overall urban form is mixed, with an assortment of taller towers and mid-rise buildings comprising a disparate and varied skyline.</p>
Visual susceptibility	Low
Value attached to view	Moderate
Visual sensitivity	Medium-Low

6.95 **Table 6.14:** Baseline visual conditions for viewpoint C

Viewpoint C – Hanover Street (NOMA)	
Figure reference	Figure 6.14
Distance	Medium, <750m
Direction	East
Season and condition	Winter, sunny, light cloud. Good visibility
Type of receptor	Pedestrians, workers, tourists
Reason for view selection	Public space within NOMA and Conservation Area. Distinctive buildings in view. Near Victoria Station, a key arrival point into the city.
Description of existing view	<p>The view shows a one-way paved street surrounded by building frontages, leading towards a distanced urbanised area. To the left, the very edge of Sadler's Yard can be seen, alongside a high-quality area of public realm with minimal street clutter.</p> <p>Fronting the public realm in the foreground, are several Grade II Listed buildings. These buildings provide a high-quality architectural character within the view. Towards the horizon line to the centre right of the image, a cluster of mixed buildings can be seen. these have a range of a facades in various materials and lack the visual coherency and architectural quality of the buildings in the foreground. Whilst the view to the sky is generally open, in the top left-hand corner, a taller glass and steel-clad tower building can be seen projecting above the roofline of Holyoake House.</p>
Visual susceptibility	High
Value attached to view	Moderate
Visual sensitivity	High-medium

6.96 **Table 6.15:** Baseline visual conditions for viewpoint D

Viewpoint D – Lever Street	
Figure reference	Figure 6.15
Distance	Medium, <500m
Direction	North
Season and condition	Winter, bright sunshine. Good visibility
Type of receptor	Pedestrians, vehicle users, tourists, workers
Reason for view selection	View from St Stevenson Conservation Area with numerous listed buildings are positioned along street. Edge of Stevenson Square, a key public space within the Northern Quarter also in view.
Description of existing view	<p>The view shows part of St Stevenson Conservation area, along a key route between Great Ancoats Street and the City Centre. There is a two-lane carriageway, accompanied by traffic signage, roadblocks and bollards near St Stevenson Square. On the pavement, a high volume of pedestrians can be seen alongside an assortment of street furniture.</p> <p>In the foreground, the several Grade II listed buildings with reddish facades in a mix of brick and stone are in view, characteristic of the St Stevenson Conservation Area. Behind them, a more mixed architecture, of between 4-7 storeys can be seen. Among these is the Grade II Listed Arts and Crafts style Derros building on Great Ancoats Street. The overall roofline is mixed, with a clear distinction between the more analogous historic buildings in the foreground and the disparate architecture further North.</p>
Visual susceptibility	High
Value attached to view	Moderate
Visual sensitivity	High-Medium

6.97 **Table 6.16:** Baseline visual conditions for viewpoint E

Viewpoint E – Rochdale Canal Path	
Figure reference	Figure 6.16
Distance	Medium, <500m
Direction	North
Season and condition	Winter, strong sunlight. Good visibility
Type of receptor	Pedestrians, boats
Reason for view selection	Rochdale Canal basin on towpath. Canal and towpath and both heritage and contemporary buildings in view.
Description of existing view	<p>The view is taken along a section of the Rochdale Canal Path overlooking the Piccadilly Marina. In the foreground, Rochdale Canal and Towpath can be seen, leading towards the red brick Tarriff Street Bridge to the right-hand side. On the far side of the canal, the edge of Piccadilly Marina is in view, with a low wall, a metal footbridge canopy and some small tree planting visible.</p> <p>Across the canal, Burlington House apartment block sits in the centre of the view, a prominent volumetric building with vertically layered red, white and grey elements. 2 Grade II* Listed Buildings can be seen behind, the Former Rochdale Canal Warehouse to the left and Brownfield Mill to the right. These are both 19th century red brick industrial buildings that contribute to the heritage character of the area. Behind the towpath to the right-hand side of the image, a collection of light industrial units can be seen. To the left of the frame, a dark grey apartment block encroaches on the otherwise unobstructed view of the sky.</p>
Visual susceptibility	High
Value attached to view	Moderate
Visual sensitivity	High Medium

6.98 **Table 6.17:** Baseline visual conditions for viewpoint F

Viewpoint F – Great Ancoats Street, at the junction to Oldham Street	
Figure reference	Figure 6.17
Distance	Close, <250m
Direction	East
Season and condition	Winter, bright sunlight. Good visibility
Type of receptor	Pedestrians, workers, road users
Reason for view selection	Key vehicle junction and crossing point on major road. Edge of both Northern Quarter Conservation Area and Ancoats.
Description of existing view	<p>The view shows a high-volume carriageway and streetscape, with building frontages visible to either side. The carriageway imposes fairly heavily on the view; with a prominent a central island, alongside highway paraphernalia including traffic lights, road signage and junction barriers. The adjoining pavements are heavily cluttered with a variety of street furniture.</p> <p>All visible buildings are entirely contained within the view, allowing a continuous view of the sky above the rooflines. Although there is some variation in building heights, contrast in height is minimal, with a strong directional perspective towards the horizon line. Materiality varies along the streetscape, with the eye being drawn to the red brick frontages on the right-hand side. The Grade II* Express building can be seen on the left-hand side, with its prominent art deco curvature visible. There is a strong sense of urbanism being the defining feature of the view.</p>
Visual susceptibility	Low
Value attached to view	Moderate
Visual sensitivity	Medium-Low

6.99 **Table 6.18:** Baseline visual conditions for viewpoint G

Viewpoint G – Great Ancoats Street, near the corner of Blossom Street	
Figure reference	Figure 6.18
Distance	Close, <250m
Direction	West
Season and condition	Winter, bright sunshine. Good visibility
Type of receptor	Pedestrians, workers, road users
Reason for view selection	Key vehicular route through the city. Edge of both Northern Quarter Conservation Area and Ancoats.
Description of existing view	<p>The view shows the edge of the Northern Quarter character area along Great Ancoats Street. There are mix of buildings along this edge, with generally small plot sizes and heights of between 4-7 storeys. At ground level are several shop frontages, with some derelict units and a high level of graffiti. The visible units sit outside any Conservation Areas. On the other side of the carriageway several taller buildings can be seen in a mix of materials. Those to the foreground sit within the Ancoats Conservation Area.</p> <p>The inner ring road is a prominent feature of the view and comprises a 4-lane carriageway with a wide central reservation edged by footpaths on both sides. The extent of the carriageway and associated highway infrastructure, including streetlights and signage, are significant detracting features of the view.</p>
Visual susceptibility	Low
Value attached to view	Moderate
Visual sensitivity	Medium-Low

6.100 **Table 6.19:** Baseline visual conditions for viewpoint H

Viewpoint H – Junction of Princess Street and Charles Street	
Figure reference	Figure 6.19
Distance	Medium, <750m
Direction	North-West
Season and condition	Winter, bright sunshine
Type of receptor	Pedestrians, road users
Reason for view selection	Clear view over Ancoats roofscape and town centre. Open vista. Key junction in major road
Description of existing view	<p>The view is dominated by the carriageway which runs through the centre of the frame. The carriageway has a large central island with associated crossing equipment and highway paraphernalia.</p> <p>In the background, a mixed skyline with buildings of various heights, including several towers as well as two large cranes can be seen to the right-hand side, the more cohesive red brick frontages of the Grade II and Grade II* Listed mill buildings along Rochdale Canal can be seen. The view to the sky is open and unobstructed.</p>
Visual susceptibility	Low
Value attached to view	Low
Visual sensitivity	Low

6.101 **Table 6.20:** Baseline visual conditions for viewpoint I

Viewpoint I – Cross Key Street	
Figure reference	Figure 6.20
Distance	Medium, <500m
Direction	East
Season and condition	Winter, bright, light cloud
Type of receptor	Car parks, secondary vehicle route, residential
Reason for view selection	Junction of Cross Key Street and Goulden St. Location to capture New Cross area and high potential visibility according to ZTV.
Description of existing view	<p>The view shows an urban area with a road, several car parks and a number of buildings visible. The road cuts through the centre of the image, adjoined by tarmac pavements and various car parks. In the centre of the view, a triple stack of grey shipping containers can be seen.</p> <p>To the left of the frame, the Grade II listed Former Police and Ambulance Station can be seen (partially under scaffolding), with its distinctive redbrick chimney stack in view. To the centre and right of the image are the rear frontages of a relatively cohesive group of modern flat developments. These have simple geometries, with orthogonal gridded facades in a mix of red and buff materials. Building heights and rooflines are fairly consistent, with the sky visible across the entire frame.</p>
Visual susceptibility	Low
Value attached to view	Low
Visual sensitivity	Low

6.102 **Table 6.21:** Baseline visual conditions for viewpoint J

Viewpoint J – Cutting Room Square	
Figure reference	Figure 6.21
Distance	Close, <250m
Direction	South
Season and condition	Winter, clear sky, sunshine
Type of receptor	Pedestrians, residents, tourists
Reason for view selection	Cutting Room Square on Blossom St adjacent to Halle. Key public space adjacent to heritage building in Conservation Area
Description of existing view	<p>The view shows a paved public square with some tree planting adjacent to a narrow road and surrounded by midrise buildings.</p> <p>The buildings in the foreground comprise part of the Ancoats Conservation area. Although not analogous, these are of a generally high architectural quality, with features such as simple rhythmic facades, clean linear geometries and complementary palettes of red brick, sandstone and grey detailing; in keeping with the area's wider character. Notably taller elements are offset from the primary facades, allowing an uninterrupted roofline to be perceived and an open view to the sky. This also creates a strong sense of containment to the space, with a positive urban interface.</p> <p>Visible beyond the immediate architectural setting is a singular grey tower building, set along Great Ancoats Street behind. This feature moderately encroaches upon the view of this Conservation Area and is out of keeping with the area's character.</p>
Visual susceptibility	High
Value attached to view	Moderate
Visual sensitivity	High-Medium

6.103 **Table 6.22:** Baseline visual conditions for viewpoint K

Viewpoint K – New Islington Marina	
Figure reference	Figure 6.22
Distance	Medium, <500m
Direction	West
Season and condition	Winter, bright sunshine
Type of receptor	Pedestrians, residents, canal users
Reason for view selection	New Islington Marina north tow path at junction of canal arms (adjacent to Urban Splash)
Description of existing view	<p>The view shows part of New Islington Marina, looking West towards Ancoats Conservation Area. The marina comprises a paved areas with pedestrian access bridges and spill out areas to local establishments. Several canal boats are present in the marina. There is a taller development visible to the right-hand side of the view, but otherwise the low-rise nature of the local built form permits open views of the sky.</p> <p>To the left-hand side of the frame, the low rise rectilinear New Islington Free School can be seen, as well as two tall cranes. Behind the marina, the edge of Ancoats can be seen, with two Grade II* Listed red brick historic mill buildings in view. To the left of these buildings, a modern residential block can be seen, with height in keeping with the older industrial architecture.</p>
Visual susceptibility	Medium
Value attached to view	Moderate
Visual sensitivity	Medium

6.104 **Table 6.23:** Baseline visual conditions for viewpoint L

Viewpoint L – Edge of Piccadilly Gardens	
Figure reference	Figure 6.23
Distance	Medium, <500m
Direction	North
Season and condition	Winter, bright, light cloud
Type of receptor	Public space, pedestrians, workers, tourists
Reason for view selection	View from edge of Piccadilly Gardens, as a key central public space looking up Lever Street.
Description of existing view	<p>The view shows the edge of Piccadilly Gardens with a large area of paving in front of a mixed streetscape. In the foreground, an expansive area of paving can be seen, alongside various street furniture and bordered by a number of deciduous trees. Behind these, a vehicle carriageway traverses the frame, with a crossing area and traffic lights visible.</p> <p>The urban frontage is mixed in character. The edges of both St Stevenson Conservation Area and the Smithfield Conservation Area are visible, including a number of Grade II Listed buildings. In the distance, the Grade II Listed Arts and Crafts Derros building can be seen. Views to the sky are encroached upon by the urban form, with a degree of consistency between rooflines and building heights. The overall view is one of a highly urbanised area, with a high proportion of hard surfacing.</p>
Visual susceptibility	Medium
Value attached to view	Moderate
Visual sensitivity	Medium

6.105 **Table 6.24:** Baseline visual conditions for viewpoint M

Viewpoint M – Rochdale Road	
Figure reference	Figure 6.24
Distance	Medium, <500m
Direction	East
Season and condition	Winter, sunny with cloud
Type of receptor	Pedestrians, vehicle users
Reason for view selection	View from the corner of Rochdale Road in front of angel gardens
Description of existing view	<p>The view shows a large carriageway leading towards a mixed streetscape.</p> <p>The carriageway dominates this view, with a crossing point and associated highways paraphernalia visible in the centre of the frame. In the distance, the edge of the Northern Quarter and Smithfield Conservation Area can be seen. The overall streetscape shows a mixed urban form, with a lack of cohesive building heights and an uneven skyline.</p>
Visual susceptibility	Low
Value attached to view	Low
Visual sensitivity	Low

6.106 **Table 6.25:** Summary of baseline visual conditions

Viewpoint	Susceptibility	Value	Sensitivity
A	High	Moderate	High-Medium
B	Low	Moderate	Medium-Low
C	High	Moderate	High-Medium
D	High	Moderate	High-Medium
E	High	Moderate	High-Medium
F	Low	Moderate	Medium-Low
G	Low	Moderate	Medium-Low
H	Low	Low	Low
I	Low	Low	Low
J	High	Moderate	High-Medium
K	Medium	Moderate	Medium
L	Medium	Moderate	Medium
M	Low	Low	Low

Embedded Mitigation

6.107 The reduction or elimination of negative effects on the townscape and visual environment is a key part of the development proposals. As set out in GLVIA3, key mitigation processes that have been considered are prevention, reduction, remedy, and enhancement. The design of the building and associated public realm have been subject to extensive pre-application discussions to refine their form and appearance. Through this process, potential adverse townscape and visual effects have been identified, and eliminated or reduced, and positive effects enhanced. Mitigation of adverse townscape and visual effects is therefore embedded in the Proposed Development, and no “applied” mitigation is proposed. In summary, the embedded mitigation strategy is set out below.

Buildings

- 6.108 The proposal aims to echo the architectural identity of the Northern Quarter through its materiality, tone and proportion.
- 6.109 The prosperity of the many industries, such as weaving and milling brought wealth to the area which was reflected in the materials and ornamentation in the architecture. The architectural vernacular of the Northern Quarter includes red and blue brick facades, used in a mixture of English Bond, Stretcher Bond and Flemish Bond.
- 6.110 Façade retention forms a significant role in retaining the architectural character along Lever Street and Houldsworth Street. Along both streets, No.56 & 58, former warehouse buildings are situated. The proposed design aims to retain the facades whilst removing the derelict building behind, which will be achieved by a number of structural strategies. This will look to preserve the Northern Quarters’ distinct warehouse typology, part of the area’s former industrial heritage. The retained façades will be achieved through an articulated exposed steel work. The steel retaining structure will look to be recessive in appearance so not to detract away from the main proposed buildings sitting behind the retained facades.
- 6.111 The Tech Hub base is designed to be solid, to reflect the robustness of the traditional 19th century brick buildings of the past. The base is articulated by a regular rhythm of openings to echo the 19th century warehouse rhythm of openings alongside brick corbelling along the apex of the Tech Hub 2-storey base.
- 6.112 The design of the typical floors of the Tech Hub have been articulated to echo the prominent glazing banding and horizontality of the 1930’s Grade II* Listed Express Building situated along Great Ancoats Street. The typical floors of the Tech are designed to be a mixture of glazing and metal in reference to the Express Building. The cantilevered soffits are intended to follow the materiality of the Tech Hubs typical floors with an articulated perforated metal, with the intention to provide an opportunity to be backlit to provide a drama to the Northern Quarter streetscape during the evening.

- 6.113 The first and second floor façades of No. 32, (formerly the Bem Brasil) are intended to be retained and restored to their original 1930's faience terracotta appearance, subject to its condition. Faience terracotta was commonly used to clad public houses and is synonymous with 19th and early 20th century pubs. By restoring the former terracotta façade, the design looks to preserve the identity of the old Land O' Cakes pub. The Ground Floor is designed to provide a contrast to the upper floors with a darker faience terracotta face with traditional plinth detailing and reinstating the openings seen in the 1930's renovations of the former public house.
- 6.114 Between May 2020 and January 2022, several preapplications discussions were had with MCC planning and heritage officers, to discuss emerging design concepts, approach to heritage retention and scale and massing. These discussions were followed by consultations with Historic England (Aug 2022) and both Piccadilly and Ancoats Ward Councillors (Sept-Oct 2022), to present the developed design ahead of a public consultation.
- 6.115 Various massing options were explored which tested the number, sizes and proportions, with the preference being to create a double-step which responds to both the medium and long-distance vistas along both Great Ancoats Street and Lever Street.
- 6.116 In the period between Jan 2023 and Jan 2024, the design continued to be developed through consultation with MCC planning officers.

Effects of lighting

- 6.117 The Proposed Development will be subject to an internal and external lighting scheme, expected to consist of lit internal spaces at high levels with greater and more intensely lit internal and external spaces closer to ground level. This will be developed post planning but is likely to include feature architectural lighting, safety lighting to building escape routes, and internal lighting to ground floor units. The greater heights of the building will extend the visibility of this lighting. This will be noticeable in all views in which the Proposed Development is visible.
- 6.118 This increased lighting will be seen in the context of other large-scale buildings that already emit high levels of lighting across Great Ancoats Street. The adjacent carriageway is subject to high levels of lighting through the night. A greater level of lighting to the development will be a positive addition and will activate and animate the streetscape for those walking along Great Ancoats and Lever Street. The change to the existing baseline should be considered in this context.

Mitigating effects of lighting

- 6.119 The amount of light and 'throw' or 'spill' can be mitigated and reduced through the use of appropriate shrouds, angled fittings, and low energy light fittings, subject to detailed technical design. This is beyond the scope of this general assessment, which is based on the general assumptions of the likely lighting schemes typical of this form of development and the mitigation methods and technologies currently used on similar developments.

Assessment of Likely Significant Effects

- 6.120 The predicted townscape effect brought about by the Proposed Development on each Townscape Character Area, for both the construction period and the operational development, is set out in the tables below. This assessment assumes that the embedded mitigation described in the section above has been implemented.
- 6.121 **Table 6.26:** Assessment of townscape effects for Townscape Character Area 1

Townscape Character Area 1 – Northern Quarter		
Proximity to site	Close, site within character area	
Townscape receptor	Distinctive historic area; 2 Conservation Areas; high number of listed buildings; low to mid rise building; fine urban grain; incremental modern development, commercial, residential; strong sense of place	
Sensitivity	High-Medium	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will result in direct, albeit localised and temporary, effects to the north eastern edge of TCA 1. There will be some increased construction traffic during the construction period, however as the site is located on the periphery of this TCA the impacts on traffic circulation in this area are likely to be limited. Hoardings will be erected around the boundaries, enclosing the site. As construction progresses, a central concrete core and tall plant including tower cranes will be visible within the skyline intermittently across the area.</p> <p>The Proposed Development is located to the north-eastern edge of TCA 1. This edge adjoins Great Ancoats Street, where larger scale development is more common. The construction site will also sit outside of the 2 Conservation Areas located within the Northern Quarter.</p> <p>The magnitude of change to TCA 1 during the construction period will be Low.</p>	<p>The Proposed Development will differ from the baseline conditions of TCA 1. This is largely on account of its building height and architectural characteristics in comparison to the wider TCA.</p> <p>However, the Proposed Development is located to the north-eastern edge of TCA 1. This edge adjoins Great Ancoats Street, which exhibits a larger scale of urban grain and buildings. The height and massing of the Proposed Development is thereby more suited to this fringe zone of TCA 1. The Proposed Development will sit outside of the two Conservation Areas located within TCA 1.</p> <p>The mid-rise units of the Proposed Development are in keeping with the baseline TCA conditions. The tower element is of a different visual quality to the majority of TCA 1 but is comparable to the urban fabric of Great Ancoats Street, that already encroaches along this Northern edge.</p> <p>The midrise buildings and tight urban grain characteristic of this area are expected to result in limited and intermittent views of the Proposed Development within the area.</p>

		The magnitude of change to TCA 1 during the operation period will be Medium
Predicted townscape effects	Moderate	Moderate-Major
Nature of townscape effects	Adverse	Adverse

6.122 **Table 6.27:** Assessment of townscape effects for Townscape Character Area 2

Townscape Character Area 2 – Ancoats		
Proximity to site	Close, >50m	
Townscape receptor	Conservation area, numerous listed buildings, distinctive historic character, office, commercial and residential uses, relatively tight urban grain, midrise building heights	
Sensitivity	High-Medium	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will result in indirect, albeit localised and temporary, effects upon TCA 2. There will be some increased construction traffic during the construction period. Hoardings will be erected around the boundaries, enclosing the site. These will only impact the edge of TCA 2 along Great Ancoats Street, which is already impacted by and increased concentration of modern development and construction processes. As construction progresses, a central concrete core and tall plant including tower cranes will be visible within the skyline along several key routes within the area.</p> <p>The magnitude of change to TCA 2 during the construction period will be Low.</p>	<p>The Proposed Development will differ from the baseline conditions of TCA 2. This is largely on account of its building height and architectural characteristics in comparison to the wider TCA.</p> <p>There is however precedent at the fringes of TCA 2 of taller buildings with a variety of architectural styles, particularly along Great Ancoats Street. This symptomatic of the TCA's setting in close proximity to the City Centre, a factor which influences its distinct townscape character.</p> <p>Although the TCA has a generally tight and regular urban grain, several key streets look towards the Proposed Development, meaning intervisibility between the Proposed Development and TCA will be noticeable.</p> <p>The magnitude of change to TCA 2 during the operation period will be Medium.</p>
Predicted townscape effects	Moderate	Moderate-Major
Nature of townscape effects	Adverse	Adverse

6.123 **Table 6.28:** Assessment of townscape effects for Townscape Character Area 3

Townscape Character Area 3 – New Cross		
Proximity to site	Close, >250m	
Townscape receptor	Car parks, brownfield sites, light industrial units, residential units in Southern portion, mixed urban grain between Northern and Southern portions	
Sensitivity	Low	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will unlikely be perceivable TCA 3 and not impact upon the TCA's character.</p> <p>The magnitude of change to TCA 3 during the construction period will be Negligible.</p>	<p>The scale and massing of Proposed Development will differ from the urban fabric located within TCA 3. However, the TCA currently has a largely undefined sense of place and lacks a distinctive urban form. There is an existing precedent of nearby tower buildings surrounding this area.</p> <p>The area is currently undergoing significant change with the introduction of several large-scale building blocks. This will reduce intervisibility to surrounding areas and the change incurred by the Proposed Development will likely be very limited.</p> <p>The magnitude of change to TCA 2 during the operation period will be Low.</p>
Predicted townscape effects	Negligible	Minor
Nature of townscape effects	N/A	Neutral

6.124 **Table 6.29:** Assessment of townscape effects for Townscape Character Area 4

Townscape Character Area 4 – New Islington		
Proximity to site	Medium, <500m	
Townscape receptor	Commercial, residential, public realm spaces, modern high-density development, blue infrastructure	
Sensitivity	Medium-Low	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will unlikely result in any effects upon TCA 4.</p> <p>As construction progresses, a central concrete core and tall plant including tower cranes will be visible within the skyline, largely in the southern portion of the area, including several key areas of public realm. However, there is a strong precedent of other large-scale construction and development projects within TCA 4 and in close proximity to.</p> <p>The magnitude of change to TCA 4 during the construction period will be Negligible.</p>	<p>The Proposed Development will contrast to the urban form of TCA 4 on account of its height. However, TCA 4 encompasses a variety of architectural appearances and typologies, including a range of scales, heights and densities. There is an existing precedent of taller tower buildings located around the fringes of this TCA.</p> <p>The Proposed Development is expected to be primarily visible throughout a considerable proportion of the southern edge of the TCA 4, including from several key areas of public realm such as the marina.</p> <p>The magnitude of change to TCA 4 during the operation period will be Low.</p>
Predicted townscape effects	Negligible	Minor-Moderate
Nature of townscape effects	N/A	Neutral

6.125 **Table 6.30:** Assessment of townscape effects for Townscape Character Area 5

Townscape Character Area 5 – Piccadilly		
Proximity to site	Close, >250m	
Townscape receptor	Varied urban form of medium to large scale, car parks, hotels	
Sensitivity	Low	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will unlikely result in any effects upon TCA 5.</p> <p>The magnitude of change to the majority of TCA 5 during the construction period will be Negligible.</p>	<p>Large extents of the area lack a distinctive sense of place due to construction activity, several surface car parks and varied architectural characteristics. However, around the canal there is a greater concentration of industrial heritage buildings.</p> <p>TCA 5 encompasses a high number of tall buildings, akin to the scale and massing of the Proposed Development. The baseline urban grain is varied but has the capacity to be strengthened by more consistent development of land within the area. Overall, the Proposed Development will not make a marked change on the overall character of this TCA.</p> <p>The magnitude of change to TCA 4 during the operation period will be Negligible.</p>
Predicted townscape effects	Negligible	Negligible
Nature of townscape effects	N/A	N/A

6.126 **Table 6.31:** Assessment of townscape effects for Townscape Character Area 6

Townscape Character Area 6 – Retail Core		
Proximity to site	Medium, >750m	
Townscape receptor	Commercial centre, public realm	
Sensitivity	Medium-Low	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will unlikely be perceivable TCA 6 and not impact upon the TCA's character.</p> <p>The magnitude of change to the majority of TCA 6 during the construction period will be Negligible.</p>	<p>The height of the Proposed Development will contrast with the smaller scale historic architecture within the TCA. However, the character area is highly mixed with a compact urban grain and layered form, with some taller buildings which increases its capacity to absorb new developments.</p> <p>In balance, due to the distance from the site and intervening dense and layered urban form, the magnitude of change to TCA 6 during the operation period will be Negligible.</p>
Predicted townscape effects	Negligible	Negligible
Nature of townscape effects	N/A	N/A

6.127 **Table 6.32:** Assessment of townscape effects for Townscape Character Area 7

Townscape Character Area 7 – NOMA		
Proximity to site	Medium, >750m	
Townscape receptor	Public realm space, historic buildings, contemporary developments	
Sensitivity	High-Medium	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will unlikely be perceivable TCA 7 and not impact upon the TCA's character.</p> <p>The magnitude of change to TCA 7 during the construction period will be Negligible.</p>	<p>The TCA has a distinct architectural character, with a mix of listed historic buildings and newer geometric developments. The historic buildings are contained to a well-defined area and are already surrounded by a number large scale and taller modern developments. The Proposed Development will be largely in keeping with the latter, on account of its modern form and tower scale.</p> <p>The magnitude of change to TCA 4 during the operation period will be Negligible.</p>
Predicted townscape effects	Negligible	Negligible
Nature of townscape effects	N/A	N/A

6.128 **Table 6.33:** Assessment of townscape effects for Townscape Character Area 8

Townscape Character Area 8 – Lower Irk Valley		
Proximity to site	Medium, >750m	
Townscape receptor	Residential, light industry, car parks	
Sensitivity	Low	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will unlikely be perceivable TCA 8 and not impact upon the TCA's character.</p> <p>The magnitude of change to TCA 8 during the construction period will be Negligible.</p>	<p>The TCA lacks a cohesive urban character that will be altered by the Proposed Development. The Proposed Development will be of a comparable height to the taller blocks within this area but taller than most however, it will have little effect on the urban grain. The distance from the Site and intervening dense and layered urban form will further minimise any impact on the existing townscape character.</p> <p>The magnitude of change to TCA 4 during the operation period will be Negligible.</p>
Predicted townscape effects	Negligible	Negligible
Nature of townscape effects	N/A	N/A

6.129 **Table 6.34:** Assessment of townscape effects for Townscape Character Area 9

Townscape Character Area 9 - Collyhurst		
Proximity to site	Medium, >750m	
Townscape receptor	Residential	
Sensitivity	Medium	
	Construction	Operation
Magnitude of change	<p>It is considered that the construction activity associated with the Proposed Development will unlikely be perceivable TCA 9 and not impact upon the TCA's character.</p> <p>The magnitude of change to TCA 9 during the construction period will be Negligible.</p>	<p>Although the architecture of the Proposed Development is in contrast to the urban forms set within TCA 9 itself, a precedent of surrounding taller buildings is already evident within the area and can be considered part of the existing townscape character. The varied urban form and distance from the Proposed Development further reduce the impact on the overall townscape.</p> <p>The magnitude of change to TCA 4 during the operation period will be Negligible.</p>
Predicted townscape effects	Negligible	Negligible
Nature of townscape effects	N/A	N/A

Visual

6.130 The predicted visual effects brought about by the Proposed Development on each viewpoint, for both the construction period and the operational development, is set out in the tables below. This assessment assumes that the embedded mitigation described in the section above has been implemented.

6.131 **Table 6.35:** Assessment of visual effects for viewpoint A

Viewpoint A – Sherratt Street		
Figure reference	Figure 6.12	
Visual sensitivity	High-Medium	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will be potentially noticeable by the observer.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be partially visible in the distance above the rooflines. This will be in contrast to the low-rise historic character of the Conservation Area to the foreground.</p>	<p>The upper storeys of the Proposed Development will be visible within the view.</p> <p>The Proposed Development breaks with the existing rooflines. The tower massing visually juxtaposes with the shared horizontal emphasis between the historic terraces and No.3 George Leigh Street. Although it will comprise a small portion of the view, it will be clearly perceivable to the observer.</p> <p>The façade treatment of the Proposed Development is in contrast to the red brick of the mills and worker terraces within the Ancoats Conservation Area but is somewhat analogous with No. 3 George Leigh Street.</p> <p>The Proposed Development will therefore incur a minor alteration to the baseline view</p>
Magnitude of change	Low	Low
Predicted visual effects	Moderate	Moderate
Nature of visual effects	Adverse	Adverse

6.132 **Table 6.36:** Assessment of visual effects for viewpoint B

Viewpoint B – Portland Street		
Figure reference	Figure 6.13	
Visual sensitivity	Medium-Low	
	Construction	Operation
Proposed view	Construction of the Proposed Development including tall tower cranes and concrete core, will unlikely be clearly discernible to the casual observer. This is due to the distance of the view and varied and notably distracting nature of components within the view, including a variety of building scales and styles, extensive road infrastructure and the expanding and contracting extent of the street.	The upper storeys of the Proposed Development will be partially visible within this view, towards the middle-distance of the frame. However, it will unlikely be clearly discernible to the casual observer, due to the distance of the view and varied and notably distracting nature of components within the view, including a variety of building scales and styles, extensive road infrastructure and the expanding and contracting extent of the street.
Magnitude of change	Negligible	Negligible
Predicted visual effects	Negligible	Negligible
Nature of visual effects	N/A	N/A

6.133 **Table 6.37:** Assessment of visual effects for viewpoint C

Viewpoint C – Hanover Street (NOMA)		
Figure reference	Figure 6.14	
Visual sensitivity	High-medium	
	Construction	Operation
Proposed view	<p>The upper extent of construction of the Proposed Development will potentially be noticeable by the observer above buildings in the background of the view.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be visible in the distance. This will be in contrast to the character of the Conservation Area to the foreground, but not uncharacteristic of the existing view at this point towards the horizon line.</p>	<p>The tower element of the Proposed Development will be partially visible towards the rooftops at the end of the view. The perceived height of the Proposed Development from this viewpoint will be in keeping with the existing architecture, notably not exceeding the rooflines of the conservation area to the foreground.</p> <p>The distance from the proposed intervention would result in a minorly perceptible change to the existing view, but this would not impact upon the view's character or quality.</p>
Magnitude of change	Low	Low
Predicted visual effects	Moderate	Moderate
Nature of visual effects	Neutral	Neutral

6.134 **Table 6.38:** Assessment of visual effects for viewpoint D

Viewpoint D – Lever Street		
Figure reference	Figure 6.15	
Visual sensitivity	High-Medium	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will likely be noticeable to the observer.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be visible in the distance. This will be in contrast to the character of the wider view.</p>	<p>The Proposed Development will be largely visible within the view, with the upper storeys of the tower most prominent. Its perceived height will be in contrast to buildings within the area, marking a significant change to the current skyline.</p> <p>The Proposed Development has noticeable similarities with the horizontally expressed architecture of the buildings to the top of Lever Street but will differ significantly from the listed buildings in the foreground and the Conservation Area around Stevenson's Square. It will however, be visually distanced from this more historic architecture on the right of the image.</p>
Magnitude of change	Medium	Medium
Predicted visual effects	Moderate-Major	Moderate-Major
Nature of visual effects	Adverse	Adverse

6.135 **Table 6.39:** Assessment of visual effects for viewpoint E

Viewpoint E – Rochdale Canal Path		
Figure reference	Figure 6.16	
Visual sensitivity	High Medium	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will potentially be noticeable by the observer but will only occupy a small portion of the view.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be partially visible, above the historic mill buildings. which will be somewhat uncharacteristic of the view. However, another crane is already visible to the centre of the image.</p>	<p>The tower element of the Proposed Development will be partially visible behind the Grade II* listed Former Rochdale Canal Warehouse. This will break with the existing rooflines and encroach upon the historic character of the view. However, the perceived height of the Proposed Development will not exceed that of the existing development of Burlington House.</p> <p>The Proposed Development will occupy a small proportion of the view, but nevertheless likely remain noticeable to the observer.</p> <p>The visual appearance of the building is likely to be in contrast with the historic red brick buildings in the view, but perhaps complement the upper storey of Burlington House.</p>
Magnitude of change	Low	Low
Predicted visual effects	Moderate	Moderate
Nature of visual effects	Adverse	Adverse

6.136 **Table 6.40:** Assessment of visual effects for viewpoint F

Viewpoint F – Great Ancoats Street, at the junction to Oldham Street		
Figure reference	Figure 6.17	
Visual sensitivity	Medium-Low	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will be easily noticed by the observer. There will be increased construction traffic along Great Ancoats Street and site hoardings will be visible at street level.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be visible, which will be somewhat uncharacteristic of the view.</p>	<p>The Proposed Development will significantly break with the existing roofline. The Proposed Development will occupy a significant proportion of the view and be clearly noticeable to the observer.</p> <p>The architecture of the Proposed Development draws on the architectural language and materiality of the Grade II* listed Express Building, however its scale is in contrast to that of the baseline condition within the Northern Quarter.</p>
Magnitude of change	High	High
Predicted visual effects	Moderate-Major	Moderate-Major
Nature of visual effects	Adverse	Adverse

6.137 **Table 6.41:** Assessment of visual effects for viewpoint G

Viewpoint G - Great Ancoats Street, near the corner of Blossom Street		
Figure reference	Figure 6.18	
Visual sensitivity	Medium-Low	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will be easily noticed by the observer. There will be increased construction traffic along Great Ancoats Street and site hoardings will be visible at street level.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be visible, which will be uncharacteristic of the view.</p>	<p>The tower element of the Proposed Development is of a significantly different height to the surrounding buildings. The tower element will occupy a large and extensive portion of the view, being distinctly perceivable and easily noticed by the observer. The tower substantially breaks with the existing roofline.</p> <p>The first two storeys of the Proposed Development are largely in keeping with the view's architectural vernacular and the horizontal banding of the façade shows similarities to the adjacent block, however, the tower element strongly juxtaposes the existing architecture in scale. This will result in a significant change to the existing character of the view, particularly along this edge at the periphery of the Northern Quarter.</p>
Magnitude of change	High	High
Predicted visual effects	Moderate-Major	Moderate-Major
Nature of visual effects	Adverse	Adverse

6.138 **Table 6.42:** Assessment of visual effects for viewpoint H

Viewpoint H – Junction of Princess Street and Charles Street		
Figure reference	Figure 6.19	
Visual sensitivity	Low	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will unlikely be distinctly noticeable by the observer due to the distance, and current extent of taller buildings in view.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be partially visible, but this will not be uncharacteristic of the view.</p>	<p>The upper portion of tower element of the Proposed Development will be visible in the distance towards the centre of the view. It will be visually distanced from the more historic architecture on the right of the image, and the perceived height and mass will largely be in keeping with the existing modern development and taller buildings in this area. The Proposed Development will not significantly alter views to the sky or affect the general sense of openness across the frame.</p> <p>The Proposed Development will therefore not change the overall character of the view.</p>
Magnitude of change	Low	Low
Predicted visual effects	Minor	Minor
Nature of visual effects	Neutral	Neutral

6.139 **Table 6.43:** Assessment of visual effects for viewpoint I

Viewpoint I – Cross Key Street		
Figure reference	Figure 6.20	
Visual sensitivity	Low	
	Construction	Operation
Proposed view	There will be no visibility of the construction of the Proposed Development.	There will be no visibility of the Proposed Development.
Magnitude of change	Negligible	Negligible
Predicted visual effects	Negligible	Negligible
Nature of visual effects	N/A	N/A

6.140 **Table 6.44:** Assessment of visual effects for viewpoint J

Viewpoint J – Cutting Room Square		
Figure reference	Figure 6.21	
Visual sensitivity	High-Medium	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will likely be noticeable by the observer, although it will only occupy a relatively small portion of the view.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be partially visible above the Conservation Area to the foreground. This will be somewhat noticeable within the view.</p>	<p>The upper storeys of the Proposed Development will be clearly visible to the observer above the existing skyline. The height of the Proposed Development will not significantly disrupt the existing roofline around the square but will slightly increase the sense of surrounding encroachment upon this Conservation Area. It sits behind a mix of more modern developments.</p> <p>The impact of the Proposed Development is not entirely uncharacteristic of the baseline view, on account of an existing tower building being visible from the square.</p>
Magnitude of change	Low	Low
Predicted visual effects	Moderate	Moderate
Nature of visual effects	Neutral	Neutral

6.141 **Table 6.45:** Assessment of visual effects for viewpoint K

Viewpoint K – New Islington Marina		
Figure reference	Figure 6.22	
Visual sensitivity	Medium	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will likely be noticeable by the observer, although it will only occupy a relatively small portion of the view.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be partially visible above the Ancoats Conservation Area.</p>	<p>The storeys of the Proposed Development will be visible above the roofline of the Ancoats Conservation Area. This visually distracts from the Grade II* Listed Mill Buildings and disrupts the distinctive consistency of the existing rooflines.</p> <p>The Proposed Development will thereby incur a slight change on the overall view.</p>
Magnitude of change	Low	Low
Predicted visual effects	Minor-Moderate	Minor-Moderate
Nature of visual effects	Adverse	Adverse

6.142 **Table 6.46:** Assessment of visual effects for viewpoint L

Viewpoint L – Edge of Piccadilly Gardens		
Figure reference	Figure 6.23	
Visual sensitivity	Medium	
	Construction	Operation
Proposed view	Construction of the Proposed Development including tall tower cranes and concrete core, will unlikely be clearly discernible to the casual observer. This is due to the distance of the view and varied and notably distracting nature of components within the view, including trees, which partially screen the development, and a variety of building scales and styles.	Both the tower and the ground floor elements of the Proposed Development will be partially in view but largely screen by buildings and trees However, its perceived height will not be incongruous with the scale of the wider existing built form and the development will unlikely be noticeable to the casual observer.
Magnitude of change	Negligible	Negligible
Predicted visual effects	Negligible	Negligible
Nature of visual effects	N/A	N/A

6.143 **Table 6.47:** Assessment of visual effects for viewpoint M

Viewpoint M – Rochdale Road		
Figure reference	Figure 6.24	
Visual sensitivity	Low	
	Construction	Operation
Proposed view	<p>Construction of the Proposed Development will be clearly visible to the observer.</p> <p>As construction progresses, a tall concrete core and a tall plant including a tower crane will be visible above the existing roofline. This is not substantially incongruent with the baseline view, which encompasses a mix of urban development.</p>	<p>The Proposed Development will form a prominent feature within the view, creating a new focal point along Great Ancoats Street. It will increase the sense of urban enclosure along this edge, making a substantial change to the existing skyline along the periphery of the Northern Quarter and Smithfield Conservation Area. Its perceived height will create a greater synergy with the buildings to the foreground, subverting the existing directional line of vision.</p> <p>The architecture of the Proposed Development is not substantially uncharacteristic of the existing baseline, which presents a mixed urban fabric.</p>
Magnitude of change	Medium	Medium
Predicted visual effects	Minor-Moderate	Minor-Moderate
Nature of visual effects	Neutral	Neutral

Additional Mitigation / Enhancement Measures

6.144 This section describes the measures which are required to mitigate any significant environmental effects with regards to townscape character and visual amenity.

Effects of construction

6.145 To facilitate any development on the site, there will be a period of construction activity, estimated at 2-3 years. A range of construction activities are anticipated to be conducted, with the potential to result in direct and indirect effects on townscape character and visual amenity. These include:

- Site clearance, including the removal of surfaces, materials, and vegetation from the site.
- Temporary footpath diversions
- Establishment of temporary site compounds and hoarding
- Construction of temporary access points into the site
- Temporary working areas within the site
- Erection of temporary batching plants and tower cranes
- Excavation, removal and stockpiling of materials and soils
- Construction of hard standings
- Underground and over-ground service installation and diversion
- Temporary traffic management signs and signals on local roads
- Movements of construction traffic and other vehicles
- Construction of the new building.

6.146 The construction of the Proposed Development could give rise to temporary effects on townscape character and visual amenity. As construction activity is of a temporary nature, the effects will be over a relatively short period of time. The effects are reversible and will only be experienced during the construction phase. These include:

- Effects arising from changes to the structure of the townscape within the site area and effects on its immediate setting.
- Effects to townscape character or visual amenity within the wider study area because of visibility of construction activities and the presence and occupation of tower cranes and demolition works.
- Effects of temporary site infrastructure, such as site traffic and construction compounds especially those located in areas adjacent to sensitive townscape and visual receptors.

Mitigation of construction effects

6.147 The following mitigation measures are considered industry standard and would be expected as a minimum. Demolition and construction methodology will be based on minimising the impact upon the surrounding area by making the site as self-sufficient within its boundary as possible and committing to implementing industry best practice. Impact mitigation measures will be set out in a Construction Environmental Management Plan (CEMP) and will include the measures to minimise and manage potential townscape and visual effects as set out below:

- The work site will be surrounded by hoardings to reduce visual effects from construction traffic, plant, and equipment, as well as demolition of existing and construction of new built fabric. The hoardings will create an orderly appearance to the edge of the site and will be a minimum of 2.4m high, well maintained and will include observation windows to allow the public to view progress on the site.
- Lighting will be provided to site boundaries and precautions will be taken to avoid shadows being cast onto surrounding footpaths, roads, amenity areas and residential properties.
- The roads providing access to the work sites will be kept free of excessive dust and mud as far as is reasonably practicable. The surrounding roads and pavements will be maintained to a reasonable standard.
- To help keep areas outside the work sites tidy, the outside perimeters will be maintained free of weeds and litter.
- Because people within surrounding buildings will have views over the work sites, the internal image of the site will, as far as is reasonable, be organised, clean and tidy, and maintained through good housekeeping.
- Regard will be given to the impact site lighting could have on surrounding receptors to ensure it is located and aligned so as not to intrude into nearby properties.
- Regard will also be given to the timing and phasing of construction occupations, including the phased reduction in the worksite area as works progress.
- The location of plant and equipment within the worksite will be carefully considered.
- The location and height of temporary site accommodation and materials storage will be appropriate.
- The choice of an appropriate neutral colour will be applied to site hoarding.

The Completed and Operational Development

6.148 As outlined in the mitigation section earlier in this chapter under 'Embedded Mitigation', the design of the building has been subject to extensive pre-application

discussions to refine their form and appearance. Through this process, potential adverse townscape and visual effects have been identified, and eliminated or reduced, and positive effects enhanced. Mitigation of adverse townscape and visual effects is therefore embedded in the Proposed Development, and no “applied” mitigation or enhancement measures are proposed.

Residual Effects

Townscape and Visual

- 6.149 Although the implementation of the additional mitigation/enhancement measures would likely reduce the overall effect on each townscape and visual receptor during construction, it is not anticipated that this will be enough to alter the results of the assessment already described and summarised in **Tables 6.26 to 6.47**.

6.150 **Table 6.48:** Residual effects summary

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)		Further Mitigation	Residual Effect (inc. Significance)	
		Construction	Operation		Construction	Operation
Townscape Character Area 1: Northern Quarter	Incorporated into building and public realm design, as described in 'Embedded Mitigation' above.	Moderate Adverse	Moderate-Major Adverse	Construction mitigation as described in 'Additional Mitigation / Enhancement Measures' above. No "applied" building or landscape mitigation proposed.	Moderate Adverse	Moderate-Major Adverse
Townscape Character Area 2: Ancoats		Moderate Adverse	Moderate-Major Adverse		Moderate Adverse	Moderate-Major Adverse
Townscape Character Area 3: New Cross		Negligible	Minor Neutral		Negligible	Minor Neutral
Townscape Character Area 4: New Islington		Negligible	Minor-Moderate Neutral		Negligible	Minor-Moderate Neutral
Townscape Character Area 5: Piccadilly		Negligible	Negligible		Negligible	Negligible
Townscape Character Area 6: Retail Core		Negligible	Negligible		Negligible	Negligible
Townscape Character Area 7: NOMA		Negligible	Negligible		Negligible	Negligible
Townscape Character Area 8: Lower Irk Valley		Negligible	Negligible		Negligible	Negligible
Townscape Character Area 9: Collyhurst		Negligible	Negligible		Negligible	Negligible

Viewpoint A - Sherratt Street		Moderate Adverse	Moderate Adverse		Moderate Adverse	Moderate Adverse
Viewpoint B – Portland Street		Negligible	Negligible		Negligible	Negligible
Viewpoint C – Hanover Street (NOMA)		Moderate Neutral	Moderate Neutral		Moderate Neutral	Moderate Neutral
Viewpoint D – Lever Street		Moderate – Major Adverse	Moderate – Major Adverse		Moderate – Major Adverse	Moderate – Major Adverse
Viewpoint E – Rochdale Canal Path		Moderate Adverse	Moderate Adverse		Moderate Adverse	Moderate Adverse
Viewpoint F – Great Ancoats Street, at the junction to Oldham Street		Moderate – Major Adverse	Moderate – Major Adverse		Moderate – Major Adverse	Moderate – Major Adverse
Viewpoint G - Great Ancoats Street, near the corner of Blossom Street		Moderate – Major Adverse	Moderate – Major Adverse		Moderate – Major Adverse	Moderate – Major Adverse
Viewpoint H – Junction of Princess Street and Charles Street		Minor Neutral	Minor Neutral		Minor Neutral	Minor Neutral
Viewpoint I – Cross Key Street		Negligible	Negligible		Negligible	Negligible
Viewpoint J – Cutting Room Square		Moderate Neutral	Moderate Neutral		Moderate Neutral	Moderate Neutral
Viewpoint K – New Islington Marina		Minor – Moderate Adverse	Minor- Moderate Adverse		Minor – Moderate Adverse	Minor- Moderate Adverse
Viewpoint L – Edge of Piccadilly Gardens		Negligible	Negligible		Negligible	Negligible

Viewpoint M – Rochdale Road		Minor – Moderate Neutral	Minor – Moderate Neutral		Minor – Moderate Neutral	Minor – Moderate Neutral
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Conclusions

Townscape

- 6.151 The Proposed Development will introduce townscape effects to 9 Townscape Character Areas which have been identified and evaluated within the baseline study.
- 6.152 The predicted townscape effects of the Proposed Development are highly varied, ranging from **Negligible** to **Moderate-Major**.
- 6.153 TCAs 5, 6, 7, 8 and 9 are anticipated to experience **Negligible** effects to the existing townscape on account of the Proposed Development, during both the construction and operating periods. This is largely due to the distance of the TCAs from the proposed development, and these areas having mixed urban characters or precedents of other similar developments within the TCA. TCA 3 is expected to experience **Minor** effects and TCA 4 is expected to experience **Minor-Moderate** effects throughout the operational period, but these are likely to be of a **Neutral** nature. Both these TCAs are expected to experience **Negligible** effects during the construction period.
- 6.154 Significant effects are those which are predicted to be **Moderate** and above. TCAs 1 and 2 are anticipated to experience **Moderate-Major Adverse** effects on account of the Proposed Development. These areas incorporate high levels of Conservation Areas and listed buildings, with more distinctive sense of place and urban fabric in comparison to their neighbouring area. Both TCA 1 and TCA 2 are anticipated to experience **Moderate Adverse** effects throughout the construction period. The effects during the construction period are anticipated to be lower on account of the volume mass during construction; being relatively less pronounced and obtrusive in these areas than the completed development. Both TCA 1 and 2 sit in close proximity to the Proposed Development, increasing the severity of the impact once built. The baseline conditions of these areas are also in notable contrast to the scale of the Proposed Development, comprising generally low to mid rise developments, largely of a historic variety.

Visual

- 6.155 The Proposed Development will introduce visual effects to 13 verified views which have been identified and evaluated within the baseline study.
- 6.156 The predicted visual effects during operation of the Proposed Development range from **Negligible** to **Moderate-Major Adverse**.
- 6.157 Viewpoints B, I and L will experience **Negligible** effects during both the construction and operational periods. Viewpoint H will experience **Minor Neutral** effects, during both the construction and operational phases, on account of the distance from the Proposed Development, and the capacity of the existing view to accommodate such developments and construction sites according to its baseline. Viewpoint K will experience **Minor-Moderate Adverse** effects, and viewpoint M will experience **Minor-Moderate Neutral** effects throughout both phases. Viewpoint M has a layered urban fabric which largely obscures impacts of the Proposed Development.

Within Viewpoint K the Proposed Development and its construction site will be visible above a conservation area, but these will not be substantially out of keeping with the overall baseline view. The effects on viewpoints B, H, I, L, K and M will not be considered significant.

- 6.158 Significant effects are those which are predicted to be **Moderate** and above. During operation and construction of the Proposed Development, viewpoints A and E will experience **Moderate Adverse** effects and Viewpoints C and J will experience **Moderate Neutral** effects. Viewpoints A, C and J all show Conservation Areas, with Viewpoint E showing a number of listed buildings along a key public heritage path, increasing the visual sensitivity of these viewpoints. Viewpoints D, F and G will experience **Moderate-Major Adverse** effects during both the construction and operational periods of the Proposed Development. Viewpoints F and G are both close range views towards the site (<250m) and demonstrate the scale of the Proposed Development will bring a prominent change to the nature of its immediate streetscape. Viewpoint D has a **High-Medium** sensitivity, on account of its high proportion of conservation areas and listed buildings within the frame. The nature of the Proposed Development, both in scale, mass and architectural aesthetic strongly contrasts with this setting and disrupts the key elements of the existing view. In viewpoints D, F and G Proposed Development is considered substantially uncharacteristic of the view, as well as being easily noticed by the observer.

Assessment of Cumulative Effects

Refer to: **Figure 6.9** – Committed Developments

Approach

- 6.159 The purpose of assessing the cumulative townscape and visual effects is to identify additional changes caused by the Site in addition to other similar developments, or as the combined effect of a set of developments taken together.
- 6.160 The assessment of cumulative effects in this report focuses specifically on the effects of the Site in addition to other significant developments of a similar scale and type within a 750m radius of the Site. The Site will be assessed for townscape and visual effects within the context of the cumulative sites. The sites selected for the cumulative assessment are situated within the extents of the study area. Beyond this extent, it is anticipated that there will be no likely perceivable change to views of the Proposed Development on Site, and no likely cumulative townscape effects in relation to the Proposed Development on Site. The assessment presupposes the cumulative schemes identified will be built as per the planning proposals.
- 6.161 With respect to visual effects in particular, the level of cumulative effects is assessed with regards to what is visible within the observer's arc of vision at the same time, without moving their head, as described within the GLVIA¹⁵.
- 6.162 **Table 6.49** provides a list of the developments which have been included within the cumulative effects assessment.
- 6.163 **Table 6.49: Cumulative Sites**

¹⁵ Landscape Institute, Institute of Environmental Management & Assessment, *Guidelines for Landscape & Visual Impact Assessment*

site Ref.	Application No.	Distance and Direction	Proposal	Scoped-in / Scoped-out	Justification
1	132489/FO/2021	150m south east	One Port, Street Erection of a part-33, part-11, part-9 part-7 storey residential building above semi-basement level, with associated residents' amenity space including gym (Use Class C3) (comprising 481 dwellings), commercial space (Use Class E), basement car parking (47 spaces), cycle parking (481 spaces) landscaping, and other associated works	Scoped-in	<ul style="list-style-type: none"> - Located within very close proximity to the Site - Located on boundary of Northern Quarter TCA - Located within Piccadilly TCA - Significant height at 33 storeys
2	135675/FO/2022	150m south east	1 NQ Erection of two residential apartment buildings (Use Class C3) comprising Block 1 - part 9, part 10 (plus roof level amenity block) and Block 2- 12 storey building (comprising of 261 dwellings in total) above basement levels with ground floor commercial units (Use Class E (excluding E (b))), associated residents amenity space, cycle parking, landscaping, access, street loading and other associated works following demolition of the existing building and structures on site	Scoped-in	<ul style="list-style-type: none"> - Located within very close proximity to the Site - Located on boundary of Northern Quarter TCA - Located within Piccadilly TCA
3	135662/FO/2022	400m south east	Hilton Motto Erection of a 20 storey building to create a 154 bedroom hotel (Class C1) above 2	Scoped-in	<ul style="list-style-type: none"> - Located within close proximity to the Site - Located within Piccadilly

			basement levels with ancillary café / bar / restaurant and gym and other associated works including highway improvements, cycle parking and creation of accessible parking bay following removal of on-site structures.		TCA - Height similar to Proposed Development
4	119801/FU/2018	400m south east	40 Laystall Street Retention of existing use of former residential building (Use Class C3) as an 84 suite apart hotel (Use Class C1), to comprise 81 suites on the first to twelfth floors and 3 suites, ancillary services and 6no. commercial units for use as shops (Use Class A1) or Financial and Professional Services (Use Class A2) or Offices (Use Class B1) on the ground floor.	Scoped-in	- Located within close proximity to the Site - Located within Piccadilly TCA
5	128911/FO/2020	400m south east	32-34 Laystall Street Erection of 9 storey residential building (Use Class C3) comprising 89 residential units (28 x 1 bed and 61 x 2 bed) and conversion of and 3 storey extension to 32-34 Laystall Street for use as offices (Class E) with associated external works following demolition of outrigger and associated structures along with other associated works including access, servicing, landscaping and secure cycle parking	Scoped-in	- Located within close proximity to the Site - Located within Piccadilly TCA
6	120149/FO/2018	400m south east	Lomax Erection of 7 to 8 storey residential building (Class C3) to provide 41 apartments (7 x 1-	Scoped-in	- Located within close proximity to the Site - Located within Piccadilly

			bedroom 1-person apartments, 6 x 1-bedroom 2-person apartments, 6 x 2-bedroom 3-person apartments, 22 x 2-bedroom 4-person apartments) with associated landscaping and other works.		TCA
7	115178/FO/2017	330 south east	Eider House Erection of 2 linked buildings ranging in height from 8 to 10 storeys (plus roof top plant room) to provide residential accommodation (Use Class C3) comprising 18 x 1 bed, 84 x 2 bed, 15 x 3 bed, 2 x duplex (4 bed) and 9 townhouses (7 x 3 bed, 1 x 2 bed and 1 x 4 bed) (128 units in total) works to create provision for access and servicing, hard and soft landscaping (to include a secure external area and public realm linking Ducie Street to the Rochdale Canal) and associated works following the demolition of existing buildings. Development to include 128 cycle parking spaces.	Scoped-in	- Located within close proximity to the Site - Located within Piccadilly TCA
8.	117280/FO/2017	60m west	Spear Street Erection of a five-storey (ground floor plus 4) building to provide 6 no. residential apartments (Use Class C3) (5 x 1 bed (1 person)) and (1 x 2 bed duplex (4 person)) above ground floor commercial unit (Class E), private roof terrace for the top floor duplex apartment, cycle parking (6 x spaces), refuse and plant room.	Scoped-in	- Located within very close proximity to the Site - Located within Northern Quarter TCA

9.	134953/FO/2022	115m west	9 Larard's Still Partial demolition of existing buildings (68-70 Oldham Street) (retention of facades to both 68 & 70 Oldham Street and internal floors of 68 Oldham Street), and erection of new 10 storey building (plus plant room) to incorporate retained elements, removal of roof and conversion of existing warehouse building (61 Spear Street) with 3 storey rooftop extension to create aparthotel (sui generis) and ground floor commercial uses (use class E)(a), (b), (c), (e) and (g) only.	Scoped-in	<ul style="list-style-type: none"> - Located within very close proximity to the site - Located within Northern Quarter TCA - Building of significant height within same TCA as Proposed Development
10.	N/A	180m south west	Stevenson Square redevelopment Full-pedestrianisation and redevelopment of Stevenson Square. Part of a public realm and cycling improvement plan for the whole of the Northern Quarter.	Scoped-out	<ul style="list-style-type: none"> - Ground level development not anticipated to be visible throughout majority of study area.
11	127538/FO/2020	280m south west	67 Piccadilly Erection of 11 storey building on site of 67 Piccadilly, as a Hotel (Use Class C1) with associated ground floor retail and leisure uses (Use Class A3 (Restaurant and Café), A4 (Drinking Establishment) and D2 (hotel leisure gym/ fitness area); provision of flexible amenity space at roof level; installation of external plant at roof level; provision of new public realm and associated works following demolition of 67 Piccadilly/4 - 6 Newton Street ('67 Piccadilly') including internal and	Scoped-in	<ul style="list-style-type: none"> - Located in close proximity to the site - Located on boundary of Northern Quarter TCA - Located within Piccadilly TCA

			external alterations to 69-75 Piccadilly (Halls Building) (comprising refurbishment and infilling of an existing rear void of to provide a 9-storey infill) relating to the reuse, refurbishment of the building for use along with the new 11 storey building.		
12	TBC	440m south	12-16 Piccadilly Awaiting Validation.	Scoped-in	- Located within close proximity to the Site - Located within Piccadilly TCA
13	137346/FO/2023	410m to north west	Phoenix Ironworks Erection of a part 5, part 10 storey building comprising residential apartments and townhouses, residents' amenity space (Use Class C3a), ground floor commercial (Use Class E), cycle and car parking, landscaping, access and servicing, and other associated works following demolition of existing structures.	Scoped-in	- Located within close proximity to the Site - Located within Ancoats TCA

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Likely Residual Cumulative Effects and their Significance

Townscape

6.164 The study area comprises 9 Townscape Character Areas (TCA) as illustrated within **Figure 6.10**. Each TCA represents a distinct area of individual local townscape character within the local vicinity of the Site. The 13 cumulative sites as shown in **Figure 6.9** are distributed amongst the study area and are situated within various TCAs.

6.165 **Tables 6.50 to 6.58** below identify the cumulative townscape effects each TCA will experience as a result of the combined presence of cumulative sites in addition to the Proposed Development on Site.

6.166 **Table 6.50:** Townscape Character Area 1 cumulative effects

Townscape Character Area 1 –Northern Quarter		
Townscape sensitivity	High-Medium	
Cumulative sites present	8,9	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Medium	Medium
Townscape effect	Moderate Major Adverse	Moderate Major Adverse
Comments	Cumulative sites 8 and 9 will be somewhat smaller in scale than the Proposed Development, at 5 and 10 (plus plant room) storeys respectively. Given the scale of the Proposed Development, the townscape effect will remain unchanged by these sites. Cumulative sites 1, 2 and 11 will likely have some impact on TCA 1 on account of their proximity to the area on the border of TCA 5. Cumulative site 1 will reach 33 storeys at its tallest point, introducing a similar change to the TCA skyline as the Proposed Development. This will have a minimal impact on the magnitude of change of the Proposed Development, which will remain Medium .	

6.167 **Table 6.51:** Townscape Character Area 2 cumulative effects

Townscape Character Area 2 – Ancoats		
Townscape sensitivity	High-medium	
Cumulative sites present	13	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Medium	Medium
Townscape effect	Moderate-Major-Adverse	Moderate-Major-Adverse
Comments	Cumulative Site 13 will see the redevelopment of an existing plot to the North of TCA 2. This will be of a comparable scale to the existing urban fabric in this area. It is likely cumulative site 1 will also have some impact TCA, on account of its significant vertical height. Given the scale of the Proposed Development and its proximity to TCA 2, the townscape effect will remain Medium .	

6.168 **Table 6.52:** Townscape Character Area 3 cumulative effects

Townscape Character Area 3 – New Cross		
Townscape sensitivity	Low	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Low	Low
Townscape effect	Minor Neutral	Minor Neutral
Comments	There are no cumulative sites positioned within TCA 3. The nearest cumulative sites will be sites 8 and 9 in the Northern Quarter, Site 13 in Ancoats and sites 1 and 2 in Piccadilly. Due to the distance and relative heights of these developments, they are estimated to have negligible impact on TCA 3. As a result, the perceived change to the townscape brought about by the Proposed Development will remain Low .	

6.169 **Table 6.53:** Townscape Character Area 4 cumulative effects

Townscape Character Area 4 – New Islington		
Townscape sensitivity	Medium-Low	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Low	Negligible
Townscape effect	Minor-Moderate Neutral	Negligible
Comments	There are no cumulative sites positioned within TCA 4. However, cumulative sites 1,2,3,4,5 and 6 located within TCA 5 are anticipated to impact the area. These will consolidate the urban skyline of TCA 4, with a similar architectural appearance to that of the proposed development. As a result, the perceived change to the townscape brought about by the Proposed Development will be reduced to Negligible .	

6.170 **Table 6.54:** Townscape Character Area 5 cumulative effects

Townscape Character Area 5 – Piccadilly		
Townscape sensitivity	Low	
Cumulative sites present	1,2,3,4,5,6,7,11,12	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Negligible	Negligible
Townscape effect	Negligible	Negligible
Comments	There are a high number of cumulative sites located within TCA 5. These will reinforce the local urban grain by infilling currently vacant sites, particularly towards Great Ancoats Street. These will strengthen the modern, high density urban character emerging in this area. This level of development of a similar variety to that of the Proposed Development will mean the perceived change to the townscape brought about by the Proposed Development will remain Negligible .	

6.171 **Table 6.55:** Townscape Character Area 6 cumulative effects

Townscape Character Area 6 – Retail Core		
Townscape sensitivity	Medium-Low	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Negligible	Negligible
Townscape effect	Negligible	Negligible
Comments	There are no cumulative sites positioned within TCA 6. The nearest cumulative sites will be 11 and 12 located within Piccadilly and sites 8 and 9 in the Northern Quarter. These developments may contribute to the densification of the surrounding urban area within this TCA but will be comparatively smaller in height than the Proposed Development. The perceived change to the townscape brought about by the Proposed Development will therefore remain Negligible .	

6.172 **Table 6.56:** Townscape Character Area 7 cumulative effects

Townscape Character Area 7 – NOMA		
Townscape sensitivity	High-Medium	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Negligible	Negligible
Townscape effect	Negligible	Negligible
Comments	There are no cumulative sites positioned within TCA 7. The nearest cumulative sites to this TCA, sites 8 and 9, will be comparatively lower in scale than the Proposed Development, and therefore unlikely to make any significant change to the TCA 7 skyline. Therefore, the perceived change to the townscape brought about by the Proposed Development will therefore remain Negligible .	

6.173 **Table 6.57:** Townscape Character Area 8 cumulative effects

Townscape Character Area 8 – Lower Irk Valley		
Townscape sensitivity	Low	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Negligible	Negligible
Townscape effect	Negligible	Negligible
Comments	There are no cumulative sites positioned within TCA 8, nor anticipated to be within a significant proximity to this area. Therefore, the perceived change to the townscape brought about by the Proposed Development will therefore remain Negligible .	

6.174 **Table 6.58:** Townscape Character Area 9 cumulative effects

Townscape Character Area 9 – Collyhurst		
Townscape sensitivity	Medium	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Negligible	Negligible
Townscape effect	Negligible	Negligible
Comments	There are no cumulative sites positioned within TCA 9 nor anticipated to be within a significant proximity to this area. Therefore, the perceived change to the townscape brought about by the Proposed Development will therefore remain Negligible .	

Visual

6.175 An assessment of 13 representative views of the Site has been undertaken, as identified in **Figure 6.11**. The 12 cumulative sites as shown in **Figure 6.9** will be visible in several of the viewpoints.

6.176 **Tables 6.59 to 6.71** below identify the cumulative visual effects each viewpoint will experience as a result of the combined presence of cumulative sites within the view and the Proposed Development on Site.

6.177 **Table 6.59:** Viewpoint A cumulative effects

Viewpoint A - Sherratt Street		
Visual sensitivity	High-Medium	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Low	Low
Visual effects	Moderate Adverse	Moderate Adverse
Comments	As there are no cumulative sites visible within Viewpoint A, the magnitude of change of the Proposed Development will remain Low .	

6.178 **Table 6.60:** Viewpoint B cumulative effects

Viewpoint B – Portland Street		
Visual sensitivity	Medium-Low	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Negligible	Negligible
Visual effects	Negligible	Negligible
Comments	As there are no cumulative sites visible within Viewpoint B, the magnitude of change of the Proposed Development will remain Negligible .	

6.179 **Table 6.61:** Viewpoint C cumulative effects

Viewpoint C – Hanover Street (NOMA)		
Visual sensitivity	High-Medium	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Low	Low
Visual effects	Moderate Neutral	Moderate Neutral
Comments	As there are no cumulative sites visible within Viewpoint C, the magnitude of change of the Proposed Development will remain Low .	

6.180 **Table 6.62:** Viewpoint D cumulative effects

Viewpoint D – Lever Street		
Visual sensitivity	High-Medium	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Medium	Medium
Visual effects	Moderate-Major Adverse	Moderate-Major Adverse
Comments	As there are no cumulative sites visible within Viewpoint D, the magnitude of change of the Proposed Development will remain Medium .	

6.181 **Table 6.63:** Viewpoint E cumulative effects

Viewpoint E – Rochdale Canal Path		
Visual sensitivity	High-Medium	
Cumulative sites present	1, 2, 7	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Low	Negligible
Visual effects	Moderate Adverse	Negligible
Comments	Cumulative sites 1,2 and 7 will be clearly visible within Viewpoint E and obscure views to the Proposed Development. These will drastically alter the existing skyline, and site 1 will split views to the sky across the frame. The overall effect will be to create a more heavily urbanised view, in which the effects of the Proposed Development will be reduced to Negligible .	

6.182 **Table 6.64:** Viewpoint F cumulative effects

Viewpoint F – Great Ancoats Street, at the junction to Oldham Street		
Visual sensitivity	Medium-Low	
Cumulative sites present	1 and 3	
	Proposed Development	Addition of cumulative sites
Magnitude of change	High	High
Visual effects	Moderate-Major Adverse	Moderate-Major Adverse
Comments	Cumulative sites 1 and 3 will be visible within viewpoint F. Both of these sites will have a minimal effect on the character of the view, as they will not disrupt the baseline roofscape nor divert from the directional quality of the view. The effect of the Proposed Development on the view will thereby remain High .	

6.183 **Table 6.65:** Viewpoint G cumulative effects

Viewpoint G - Great Ancoats Street, near the corner of Blossom Street		
Visual sensitivity	Medium-Low	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	High	High
Visual effects	Moderate-Major Adverse	Moderate-Major Adverse
Comments	As there are no cumulative sites visible within Viewpoint G, the magnitude of change of the Proposed Development will remain High .	

6.184 **Table 6.66:** Viewpoint H cumulative effects

Viewpoint H - Junction of Princess Street and Charles Street		
Visual sensitivity	Low	
Cumulative sites present	1, 3 and 4	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Low	Negligible
Visual effects	Minor Neutral	Negligible
Comments	Cumulative sites 1, 3 and 4 are visible within viewpoint H. These will introduce a bolder urban edge to one side of the view, with perceivable heights exceeding the existing rooflines. The magnitude of change introduced by the Proposed Development will therefore be reduced to Negligible .	

6.185 **Table 6.67:** Viewpoint I cumulative effects

Viewpoint I - Cross Key Street		
Visual sensitivity	Low	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Negligible	Negligible
Visual effects	Negligible	Negligible
Comments	As there are no cumulative sites visible within Viewpoint I, the magnitude of change of the Proposed Development will remain Negligible .	

6.186 **Table 6.68:** Viewpoint J cumulative effects

Viewpoint J – Cutting Room Square		
Visual sensitivity	High-Medium	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Low	Low
Visual effects	Moderate Neutral	Moderate Neutral
Comments	As there are no cumulative sites visible within Viewpoint J, the magnitude of change of the Proposed Development will remain Low .	

6.187 **Table 6.69:** Viewpoint K cumulative effects

Viewpoint K – New Islington Marina		
Visual sensitivity	Medium	
Cumulative sites present	1	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Low	Negligible
Visual effects	Minor-Moderate Adverse	Negligible
Comments	Cumulative site 1 will be distinctly visible and very prominent to the far left of viewpoint K. This will likely draw attention away from the proposed development, which only has a small extent visible in view. The magnitude of change of the Proposed Development will therefore be reduced to Negligible .	

6.188 **Table 6.70:** Viewpoint L cumulative effects

Viewpoint L – Edge of Piccadilly Gardens		
Visual sensitivity	Medium	
Cumulative sites present	N/A	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Negligible	Negligible
Visual effects	Negligible	Negligible
Comments	As there are no cumulative sites visible within Viewpoint L, the magnitude of change of the Proposed Development will remain Negligible .	

6.189 **Table 6.71:** Viewpoint M cumulative effects

Viewpoint M – Rochdale Road		
Visual sensitivity	Low	
Cumulative sites present	1 and 3	
	Proposed Development	Addition of cumulative sites
Magnitude of change	Medium	Low
Visual effects	Minor-Moderate Neutral	Minor Neutral
Comments	Cumulative sites 1 and 3 are visible within viewpoint M. Site 1 will be of a comparable perceived height and scale to the Proposed Development. The magnitude of change introduced by the Proposed Development will therefore be reduced to Low .	

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7. Built Heritage

Introduction

- 7.1 This chapter assesses the likely significant effects of the proposed development on the historic built environment including both designated and non-designated heritage assets.
- 7.2 The chapter describes the methods used to assess the likely significant effects, the baseline conditions currently existing at the site and in its surroundings, the potential direct and indirect effects of the proposed development arising from the construction and the operational phase, the mitigation measures required to prevent, reduce, or offset the identified significant effects and the residual effects. It has been written by suitably qualified heritage professionals (MRTPI and IHBC) at Turley Heritage.
- 7.3 This Chapter is supported by the following figures and appendices:
- **Appendix 7.1: Heritage Assessment**
 - **Figure 7.1: Zone of Theoretical Visibility**
 - **Figure 7.2: Heritage Asset Plan**

Assessment Methodology and Significance Criteria

- 7.4 In the absence of specific prescribed criteria for the assessment of impacts on built heritage for an ES, the methodology informing judgements on the relative value of heritage assets; the magnitude of change; and the significance of effect is drawn from Design Manual for Roads and Bridges (DMRB).¹ This assessment has also been informed by Historic England guidance. Analysis has been supported by the findings from site visits which sought to gauge the potential effects of the Proposed Development on heritage assets, judge their relative heritage significance and importance, including within any grouping, and also how sensitive their heritage significance would be to change. This evaluation is set out in the Heritage Assessment

Identification of the Study Area

- 7.5 A 750m Study Area from the Site Boundary has been used as a guide and basis for identifying built heritage assets with potential to be affected by the Proposed Development together with site visits and inspection of relevant assets and informed by a Zone of Theoretical Visibility (ZTV) (**Figure 7.1**). The Site, Study Area and all heritage assets within it are identified on a Heritage Asset Plan at **Figure 7.2**.
- 7.6 In defining an appropriate Study Area, best practice guidance, professional judgement, and a review of the potential effects of the Proposed Development on

¹ Highways England (2020) The 'Design Manual for Roads and Bridges' ((LA 104 Environmental Assessment and Monitoring) and (LA 106 Cultural Heritage Assessment))

built heritage has been applied. The following factors have been taken into consideration:

- The nature and extent of the Proposed Development;
- The proximity of heritage assets to the Proposed Development;
- The degree of inter-visibility between heritage assets and the Site taking into consideration, for instance, changes in topography as well as interposing townscape and landscape features and seasonal changes; and
- The significance (in heritage terms) of the relevant heritage assets and the contribution made by their setting, including any known historic or functional relationships.

7.7 Whilst the ZTV indicates that there will be visibility of the Proposed Development beyond the 750m Study Area, this will be limited and the Proposed Development will be experienced as part of the existing and emerging city centre backdrop with there being no significant change to the overall character of the setting of heritage assets. As such, the 750m Study Area was concluded to be an appropriate, reasonable and proportionate Study Area to capture potential significant effects. In accordance with the NPPF and Historic England guidance the professional judgements made in this Assessment are based on the effect of the Proposed Development on the significance of heritage assets, rather than whether the development will be visible from them, although this is also a consideration.

Surveys and Data Sources

7.8 A detailed **Heritage Assessment (Appendix 7.1)** has been prepared by Turley Heritage to address the statutory duty of s66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 and in accordance with planning policy (including the requirement of NPPF Paragraph 200) and best practice guidance. The Heritage Assessment describes the heritage significance and setting of assets within the Study Area with potential to be affected by the Proposed Development and the impact of the Proposed Development on that significance. The Heritage Assessment includes consideration of those assets where the effects are not considered to be significance and are therefore not included within this Chapter.

7.9 The following data sources have been used to identify heritage assets:

- The National Heritage List¹
- The Greater Manchester Historic Environment Record (HER)

Assessment Process

7.10 In the absence of specific prescribed criteria for the assessment of impacts on built heritage, the methodology for establishing the relative value or importance of heritage assets; the magnitude of change; and the significance of effect will be taken from Design Manual for Roads and Bridges (DMRB)² and informed by Historic England guidance.

² Highways England (2020) The 'Design Manual for Roads and Bridges' ((LA 104 Environmental Assessment and Monitoring) and (LA 106 Cultural Heritage Assessment))

- 7.11 Analysis has also been informed by site visits undertaken during December 2023 and January 2024. Site visits sought to gauge potential effects of the Proposed Development on heritage assets, inform judgements on their relative heritage significance and importance within any grouping, and also how sensitive they would be to change within their setting.

Reporting of the Environmental Effect and Significance Criteria

- 7.12 The assessment of likely significant environmental effects as a result of the Proposed Development has been taken into account for the construction and operational phases.

Determining Sensitivity of Receptor

The heritage significance (value or importance) of the heritage assets (receptors) is defined on the basis of **Table 7.1** which has been informed by the DMRB and a clear understanding and appreciation of heritage significance as set out in the Heritage Assessment (**Appendix 7.1**) which provides a detailed heritage baseline. This has been undertaken in accordance with Historic England guidance and informed by a site visit, research and professional judgement. There are no assets within the 'very high' sensitivity category (e.g. World Heritage Sites) within the Study Area and this category has therefore been omitted from the methodology.

Table 7.1 Criteria for Determining the Sensitivity of the Receptor

Sensitivity	DMRB Definition	Asset Type
High	High importance and rarity, national scale, and limited potential for substitution	Scheduled monuments with standing remains Registered Battlefields Grade I and II* listed buildings Other listed buildings that can be shown to have exceptional qualities in their fabric or historical association not adequately reflected in the listing grade Grade I and II* registered parks and gardens Conservation areas containing very important buildings
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution	Grade II listed buildings Historic (unlisted) buildings that can be shown to have exceptional

Sensitivity	DMRB Definition	Asset Type
		qualities in their fabric or historical association Grade II registered parks and gardens Conservation areas containing important buildings Historic townscape or built-up areas with historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Low	Low or medium importance and rarity, local scale	'Locally listed' buildings and landscapes Historic (unlisted) buildings of modest quality in their fabric or historical association Historic townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Negligible	Very low importance and rarity, local scale.	Assets of no architectural or historic note; buildings of an intrusive character

Determining the Magnitude of Change

7.13 The magnitude of change (or impact) to heritage assets is assessed using the criteria outlined in Table 7.2 below. The terminology used in **Table 7.2** (Major, Moderate, Minor, negligible, No Change) differs to the DMRB (major/ large, moderate/medium, minor/ small), however it has been adopted to ensure consistency across the ES.

Table 7.2 Criteria for Determining the Magnitude of Change/Impact to Heritage Assets

Magnitude of Change (Impact)		DMRB Definition	Application to the Built Environment
Major	Adverse	Loss of resource and/or quality and integrity of	Change to key elements of the

Magnitude of Change (Impact)		DMRB Definition	Application to the Built Environment
		resource; severe damage to key characteristics, features or elements.	heritage asset, such that the asset is totally altered and
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.	much of its heritage significance is lost or enhanced. Substantial change within the setting of a heritage asset leading to considerable loss or enhancement of heritage significance of the asset.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.	Change to many key elements of the heritage asset, such that the asset is clearly modified and there is some loss or
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.	enhancement of heritage significance. Change within the setting of a heritage asset leading to some loss or enhancement of heritage significance of the asset.
Minor	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.	Changes to key elements of the heritage asset, such that the asset is slightly altered and there is some loss or
	Beneficial	Minor benefit to, or addition of, one (maybe	enhancement of heritage

Magnitude of Change (Impact)		DMRB Definition	Application to the Built Environment
		more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.	significance. Change within the setting of a heritage asset leading to a slight loss or enhancement of heritage significance of the asset
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.	Slight changes to elements of a heritage asset or within its setting that hardly affect the heritage significance of the asset.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.	
No Change		No loss or alteration of characteristics, features or elements; no observable impact in either direction	No change to the significance of the heritage asset.

Determining the Level of Effect

7.14 The level of effect attributed has been assessed based on the sensitivity of the affected receptor and the magnitude of changes due to the Proposed Development, as set out in **Table 7.3**. This has been informed by the Significance Matrix at Table 3.8.1 in the DMRB).

Table 7.3 Criteria for Determining the Significance of Effect on Heritage Asset Receptors

Sensitivity of Receptor	Magnitude of Effect				
	No Change	Negligible	Minor	Moderate	Major
High	Neutral	Slight	Slight or moderate	Moderate or large	Large or very large
Medium	Neutral	Neutral or slight	Slight	Moderate	Moderate or large

Sensitivity of Receptor	Magnitude of Effect				
	No Change	Negligible	Minor	Moderate	Major
Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
Negligible	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight

- 7.15 The level of effect is confirmed as a single level and not a range, informed by professional judgement. For each effect, it has been concluded whether the effect is 'beneficial' or 'adverse'. A statement is also made as to whether the level of effect is '**Significant**' or '**Not Significant**', again based on professional judgement.

Significance Criteria

- 7.16 The following terms have been used to define the significance of the effects identified and these can be 'beneficial' or 'adverse' for consistency across the ES. These criteria are not an exact equivalence with the DMRB five-point significance categories. Professional judgement has been used in determining the category of significance for the effect on each asset, informed by **Table 7.4** below:

Table 7.4 Definition of significance categories

Level of effect (DMRB)	Definition	DMRB Definition	Standardised ES Significance Criteria
Very Large	Where the Proposed Development is likely to cause a considerable change from the baseline conditions and the receptor has limited adaptability, tolerance or recoverability or is of the highest sensitivity	Effects at this level are material in the decision-making process	Major
Large	Where the Proposed Development is likely to cause a considerable change from the baseline	Effects at this level are likely to be material in the decision-making	Moderate/Major

Level of effect (DMRB)	Definition	DMRB Definition	Standardised ES Significance Criteria
	conditions and the receptor has limited adaptability, tolerance or recoverability or is of the highest sensitivity		
Moderate	Where the Proposed Development is likely to cause either a considerable change from the baseline conditions at a receptor which has a degree of adaptability, tolerance or recoverability or a less than considerable change at a receptor that has limited adaptability, tolerance or recoverability. This effect is considered more likely to be 'Significant' but will be subject to professional judgement	Effects at this level can be considered to be material decision-making factors	Minor/Moderate
Slight	Where the Proposed Development is likely to cause a small, but noticeable change from the baseline conditions on a receptor which has limited adaptability,	Effects at this level are not material in the decision-making process.	Negligible/Minor

Level of effect (DMRB)	Definition	DMRB Definition	Standardised ES Significance Criteria
	tolerance or recoverability or is of the highest sensitivity; or where the Proposed Development is likely to cause a considerable change from the baseline conditions at a receptor which can adapt, is tolerant of the change or/and can recover from the change.		
Neutral	Where the Proposed Development is unlikely to cause a noticeable change at a receptor, despite its level of sensitivity or there is a considerable change at a receptor which is not considered sensitive to a change.	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.	Neutral/Negligible

7.17 The level of effect to heritage assets is quantified based upon the particular heritage significance and setting of the asset and the nature of the effect on that significance. A detailed discussion is set out within the accompanying Heritage Assessment (**Appendix 7.1**). The assessor has therefore exercised professional and reasoned judgment in determining which of the levels of effect is more appropriate and this Chapter should be read in conjunction with the accompanying Heritage Assessment.

7.18 For each effect, a statement has been made as to whether the level of effect is 'significant' or 'not significant.' This determination has been based on professional judgement and / or relevant guidance/legislation where applicable. The Design Manual for Roads and Bridges (DMRB) advises that the effect on the cultural heritage resource is not significant when the impact does not substantially diminish the heritage interest of the cultural heritage resource.ⁱⁱ

Assumptions / Limitations

7.19 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- The assessment relies on available data, and best endeavours have been made to ensure that the data is accurate and up to date. The HER was reconsulted in January 2024. It is assumed that information obtained from Historic England, the Greater Manchester Historic Environment Record database and other sources are accurate.
- The ZTV used to inform the Study Area and the identification of unlikely/non-significant and likely/significant effects is based on an iteration of the scheme which was for a building of greater height. The ZTV therefore identifies a larger theoretical extent of visibility of the development than would be the case for the current proposals. However, it remains relevant and reasonable to use the original ZTV to inform the scoping of the ES as all potential receptors and likely/significant effects will be captured by the ZTV.
- Not all views to and from heritage assets have been modelled and assessed. A series of views were agreed with MCC and Historic England as being representative and professional judgement, informed by those representative views, has been used to assess visual impacts on the heritage significance and setting of receptors.
- There has been no access to the interiors of the relevant listed building(s); with an external inspection sufficient for the purposes of assessing the impacts of the Proposed Development on their particular heritage significance through change in part of the buildings' setting.

Consultation**Table 7.5 – Consultation Table**

Consultation	Date and Time	Comments	Actions
Historic England (HE)	Meeting 19 January 10-11am Follow-up correspondence regarding viewpoint locations and formal pre-application letter dated 27 February 2024 (included at Appendix 7.1).	Pre-application meeting following an initial meeting in August 2022 to update HE on the emerging Proposed Development and consult on receptors and viewpoints. Confirmed agreement with proposed viewpoints. Formal letter confirmed that Historic England's heritage considerations had been addressed.	No further action required.

Baseline Conditions

General History and Development

- 7.20 The baseline conditions have been established through an initial desktop survey to identify the relevant heritage assets within the Study Area, supported by a site visit. Desktop analysis was confirmed through a review of Historic England's National Heritage List for England, Greater Manchester Historic Environment Record (provided by Greater Manchester Archaeological Advisory Service (GMAAS) and other local resources. Desktop and archival research have contributed to an understanding of the historic development of the Site, heritage assets and surrounding area.
- 7.21 The historical development of the site is discussed in detail within the accompanying Heritage Assessment (**Appendix 7.1**); however, a summary of the historic development is set out below:
- The Site was developed from the late 18th century as part of the development of what is now known as the Northern Quarter, laid out on a grid pattern. By 1819 the Site was fully developed with a mixture of residential and commercial development.
 - During the 19th century properties on the site were changed and adapted, most notably with the addition of the tin plate manufactory as well as the late 19th century warehouses on the corner of Lever St and Houldsworth Street which remain extant today. The change from residential to commercial industrial development, often related to the textile industry, reflected wider changes within this part of Manchester.
 - Into the 20th century, the site and its surrounding context continued to evolve. The 1930s Daily Express Building with its Streamline Moderne architecture and curtain walling marked a step change in height and scale on Great Ancoats Street and a move away from traditional construction. The Threlfalls Brewery also sought to update the Griffin Public House on the corner of the Site at Lever Street and Great Ancoats Street at this time, which was extended and clad in faience.
 - The post-war period and late 20th century saw the redevelopment and amalgamation of plots adjacent to the Site with Griffin House and the Travelodge, to the south and west respectively, dating from this period. The surrounding context has continued to evolve and today provides a varied urban environment. The buildings within the site are in varying condition and uses, with some including the two warehouses in a derelict state.

Designated Heritage Assets

- 7.22 The designated heritage assets that have been identified and considered within the Chapter are set out in **Table 7.6**. These are assets with potential to experience a significant environmental effect. With reference to guidance set out in the DMRB, the effect on the cultural heritage resource is not significant when the impact does not substantially diminish or enhance the heritage interest of the cultural heritage resource.

Table 7.6: Sensitive Heritage Assets

Sensitive asset/receptor	Description of value/importance of the asset	Sensitivity Category
Daily Express Building (grade II* listed building)	The Daily Express Building has architectural interest as an impressive example of the Streamline Moderne style featuring Art Deco motifs. It draws historic interest from its association with the Daily Express newspaper and the architect Sir Owen Williams, as well as being an early example of the use of glazed curtain walling.	High
Brownsfield Mill (grade II* listed building)	The mid 19 th century former steam powered cotton spinning mill is the oldest mill of its specific arrangement in Manchester and a rare surviving example of its construction system.	High
Former Rochdale Canal Warehouse (grade II* listed building)	Constructed in 1836 and converted to apartments and commercial use, the former warehouse is of significance as an early 19 th century canal warehouse.	High
Decker Mill and Old Mill (grade II* listed building)	Old Mill dates from the late 18 th century (c.1798) and is one of the oldest surviving cotton-spinning mills in the region and the earliest surviving in Manchester. Decker Mill is an extension added in the early 19 th century (c.1802) to its east.	High
Sedgwick Mill including Sedgwick New Mill (grade II listed building)	Sedgwick Mill dates to the early to mid-19th century (c.1818-20) and consists of a cotton spinning mill. Sedgwick New Mill was added later in the mid to late 19th century (c.1868) as a doubling mill.	Medium
Derros Building (grade II listed building)	The Derros Building is of significance as a former women's shelter and rescue home built in the Arts and Crafts style to the design of Walter Richard Sharp in 1899.	Medium

Sensitive asset/receptor	Description of value/importance of the asset	Sensitivity Category
Former Doctor's Surgery (grade II listed building)	The asset represents a well-preserved example of a converted house with distinctive Arts and Crafts style detailing, including decorative brickwork, oriel window and stained and leaded patterned glazing.	Medium
66-77 Lever Street (including 10 Bradley Street) (grade II listed building)	The terrace of late 18 th century former residential dwellings is of significance by virtue of their age and classical detailing as well as their rarity as surviving examples of such buildings within Manchester city centre and the understanding it provides in relation to the city's history and development.	Medium
Stevenson Square Conservation Area	The significance of the conservation area lies in its development as a polite residential area from the late 18 th century, which was overtaken by the area's industrial development in the 19 th century. Due to the way in which the area developed, there is little uniformity to the architecture or overall planning in the conservation area and the buildings exhibit a variety of architectural styles, typologies and materials. Today, the area forms part of Manchester's Northern Quarter which has a creative and alternative culture.	Medium
Ancoats Conservation Area	Ancoats was laid out during the latter part of the 18 th century, though picked up pace and became more industrial in nature following the opening of the Rochdale Canal in 1804. The special interest of the conservation area derives from the juxtaposition and interlinking of manufacturing, transport and residential uses that combine to represent the first	High

Sensitive asset/receptor	Description of value/importance of the asset	Sensitivity Category
	industrial estate. Despite pockets of demolition and the insertion of new buildings, the industrial estate remains legible.	
Former Land O'Cakes / Bem Brasil (non-designated heritage asset)	The building is highly altered, but has historic interest as the birthplace of the National Chartist Association in 1840.	Low
58 Lever Street (non-designated heritage asset)	The building has aesthetic value in its Italianate frontage, though it is currently derelict and roller shutters at the ground floor obscure Corinthian columns, diminishing the appreciation of the building's architectural character. contributes to an understanding of the development of the Manchester warehouse typology and the city's industrial development during the 19 th century.	Low
56 Lever Street and 25 Houldsworth Street (non-designated heritage asset)	Dating from the 1830s-1840s, it is an altered example of a warehouse building which has a limited level of local value arising from its group and townscape value with other historic warehouses in the area and an understanding of the development of the typology. The building's red brick, proportions and regular fenestration provide some degree of aesthetic value, albeit it limited due to the combination of the building's functional style and extent of alteration.	Low
40-42 Great Ancoats Street (non-designated heritage asset)	The buildings have a limited degree of significance as two late 19 th century brick properties. The buildings hold local aesthetic value in their traditional construction and the yellow stock brick	Low

Sensitive asset/receptor	Description of value/importance of the asset	Sensitivity Category
	detailing albeit the value is diminished by the poor condition of windows on the upper floors and the altered ground floor.	
27 Houldsworth Street and Little Lever Street (non-designated heritage asset)	Two former townhouses thought to date to the late 18 th century and converted into one-unit commercial use in the 1920s. The brick-built properties are altered but remain legible as former residential properties. They hold local historic significance in illustrating the planned late 18 th century residential development for this part of Manchester prior to its development for industry. The buildings are typical of their type and date, and given the loss of original features, their architectural interest is limited.	Low

7.23 The designated heritage assets within **Table 7.6** are identified on a Heritage Asset Plan, together with other assets within the Study Area at **Figure 7.2**.

Embedded Mitigation

Construction

There is no embedded mitigation for the construction phase.

The Completed and Operational Development

7.24 The evaluation of effects arising from the completed and operational development is based on the detailed design of the Proposed Development as set out in the Design and Access Statement. Those key aspects of the design which are relevant to heritage receptors are:

- The location of height towards the east of the Site, away from Lever Street and a maximum height of ground +17 storeys with plant on the roof.
- Retaining Bem Brasil, 58 Lever Street, 56 Lever Street and 27 Houldsworth Street as part of the Proposed Development and enhancing their external elevations.

- The materiality of the proposed Tech Hub with a solid two-storey masonry base with the upper floors being a combination of glazing and metal.

Assessment of Likely Significant Effects

Construction

- 7.25 Direct and indirect construction impacts have been assessed on the significance of the relevant built heritage assets, arising from construction activities directly affecting them or within part of their settings.
- 7.26 The likely effects on the significance of built heritage assets would be temporary in nature and vary according to the nature of the construction works overtime, with certain operations have more perceptible effects than others. With time, the construction effects would transition to the operational phase effects as the Proposed Development nears completion.
- 7.27 During the construction phase, **40-42 Great Ancoats Street and 27 Houldsworth Street and 63 Little Lever Street** (non-designated heritage assets) will be demolished along with the following buildings dating from the late 18th century:
- 36-38 Great Ancoats Street
 - 65-67 Little Lever Street
 - Former Bakery, Little Ancoats Street
- 7.28 The demolition of 40-42 Great Ancoats Street and 27 Houldsworth Street and 63 Little Lever Street would result in the total loss of their local significance. The sensitivity of the assets is low, there will be a major adverse change to the significance of the asset. The level of effect is therefore **slight (minor) adverse (not significant)**. The effect is long term, permanent and of a local level.
- 7.29 As a result of the demolition of the above late 18th and 19th century buildings within the Site there will be a reduction in the degree to which the Site contributes to the significance of a number of heritage assets, where the buildings contribute to an understanding of historic context. The impact is limited given the extent to which the buildings are altered.
- 7.30 That impact is greatest in relation to the following non-designated heritage assets on Site where the buildings to be demolished form part of a complete urban block and have group and townscape value.
- **Former Land O'Cakes/Bem Brasil**
 - **58 Lever Street**
 - **56 Lever Street**
- 7.31 The sensitivity of these assets is low, there will be a moderate adverse change to the significance of the asset. The level of effect is therefore **slight (minor) adverse (not significant)**. The effect is long term, permanent and of a local level.

- 7.32 These assets will also be partly obscured by hoarding and scaffolding during the construction phase reducing the ability to appreciate their significance. This will have a minor adverse change to the significance of the asset. The level of effect is therefore **slight (minor) (not significant)**. The effect will be short term, reversible and of a local level.
- 7.33 The following assets are situated outside the Site and separated from it by Great Ancoats Street and/or intervening development. The impact of the proposed demolition is confined to the very limited part of significance which the assets derive from the buildings proposed for demolition:
- **Derros Building (grade II listed building)**
 - **Former Doctor's Surgery (grade II listed building)**
 - **69-77 Lever Street (grade II listed building) and 4, 6 and 8 Bradley Street (grade II listed building)**
 - **Crown and Kettle Public House (grade II listed building)**
 - **72 to 76 Newton Street (grade II listed building)**
 - **The City Public House (grade II listed building)**
 - **Stevenson Square Conservation Area**
 - **Ancoats Conservation Area**
 - **Smithfield Conservation Area**
 - **Hudson Building (non-designated heritage asset)**
- 7.34 With the exception of the Ancoats Conservation Area and the Hudson Building, the sensitivity of the assets is medium, there will be a negligible adverse change to the significance of the asset. The level of effect is therefore **slight (negligible/minor) adverse (not significant)**.
- 7.35 The sensitivity of the Ancoats Conservation Area is high, there will be a negligible adverse change to the significance of the asset. Having considered the significance of the conservation area as a whole and the contribution made by setting, the level of effect is **slight (negligible/minor) adverse (not significant)**.
- 7.36 The sensitivity of the Hudson Building is low, there will be a negligible adverse change to the significance of the asset. The level of effect is therefore **slight (negligible/minor) (not significant)**.
- 7.37 The above effects are all long term, permanent and local in level.
- 7.38 With regards the other identified heritage assets, due to their physical and visual separation from the Site and the very limited (if any) contribution the buildings proposed for demolition make to their significance, it is concluded that there will be no discernible change to their significance.
- 7.39 During the construction phase there will be visual and other indirect effects arising from the construction works including visibility of spoil for demolition, associated noise, dust, construction and vehicular activity, and other experiential effects. The

incomplete structure of the Proposed Development and associated cranes and other high-level equipment will be experienced within the setting of and in combination with the heritage receptors. However, the effects will be temporary, lessened by the intervening distance and will be experienced within an existing urban environment. For these reasons, these aspects of the construction phase are not concluded to materially affect the significance of heritage receptors.

The Completed and Operational Development

- 7.40 Effects resulting from the Proposed Development, when complete and operational, are determined on the basis of supporting design information including:
- ES Development Specification
 - The Design and Access Statement ('DAS')
 - The Accurate Visual Representations (AVRs) for the Proposed Development contained within **Appendix 6.1**.
- 7.41 This section should be read in conjunction with the Impact Assessment within the Heritage Assessment at **Appendix 7.1** which provides further detailed assessment. The demolition of **40-42 Great Ancoats Street** and **27 Houldsworth Street and 63 Little Lever Street** was considered as part of the construction phase. Following completion of the construction phase the assets will no longer be extant and therefore are not relevant considerations in assessing the effects of the completed and operational development. All identified effects are long-term, permanent and local in level.

The Daily Express Building (grade II* listed building)

- 7.42 The listed building is of a similar height to other 20th century development on this part of Great Ancoats Street but has greater prominence due to its distinctive and high-quality design. The Proposed Development will exceed that established datum and, within those views where it is experienced in combination with the Daily Express Building will, to a degree, diminish that prominence. The impact is lessened by the architectural approach of the Proposed Development which emphasises the architectural qualities of the listed building.
- 7.43 It is therefore concluded that there will be a degree of harm to the significance of the Daily Express Building but that is limited to that significance drawn from the prominence of the listed building within a small number of views and is minimised through the design of the Proposed Development.
- 7.44 The sensitivity of the asset/receptor is high, there will be a negligible adverse change to the significance of the asset. The level of effect is therefore **slight (minor) adverse (not significant)**.

Brownsfield Mill (grade II* listed building)

- 7.45 The Proposed Development would further add to emerging modern surroundings of the mill as an area primarily comprised of buildings of taller height. Due to the intervening distance and existing development, the Proposed Development would not bring that context closer to the listed building, but would bolster the existing and emerging modern city backdrop behind the listed building to the north west of the

asset. Having considered the contribution the affected element of setting makes to the significance of the asset, the impact of the Proposed Development is concluded to be negligible (adverse).

- 7.46 The sensitivity of the asset/receptor is high, there will be a negligible adverse change to the significance of the asset. The level of effect is therefore **slight (negligible) adverse (not significant)**.

Rochdale Canal Warehouse (grade II* listed building)

- 7.47 The Proposed Development will be visible above the roofline of the asset in views from the Rochdale Canal Towpath, orientated towards the Site. The breaching of the roofline will detract slightly from the simple architectural form of the building and its roof structure, albeit that structure was altered during the building's residential conversion. The element of the Proposed Development that will be experienced within the view will be dark in colour and, combined with the intervening distance, will ensure that it appears recessive within the view. The impact on significance is limited by the functional significance of the building. Nonetheless, there is concluded to be a minor adverse change to the significance of the asset.
- 7.48 The sensitivity of the asset/receptor is high, there will be a minor adverse change to the significance of the asset. The level of effect is therefore **slight (minor) adverse (not significant)**.

Sedgwick Mill including Sedgwick New Mill (grade II listed building) and Decker and Old Mill (grade II* listed building)

- 7.49 The upper most floors of the Proposed Development will be visible in some views of the eastern frontages of the mills. In views along Great Ancoats Street, the Proposed Development will be experienced as part of an existing group of tall buildings to the south of, and distinct from the Redhill Street frontage. However, as previously identified, due to the alignment of the Site behind the frontage, the Proposed Development will be visible above Sedgwick Mill (grade II listed building) in some views from Ancoats Marina (Viewpoint 14). Here the Proposed Development interrupts the simplicity of the strong horizontal form of the mill rooflines. The view is kinetic and the visibility and extent of visibility will vary in views across the area. Nonetheless, there is concluded to be a degree of harm to the significance of the mills arising from the visual impact on the Redhill Street frontage in some views from Ancoats Marina.
- 7.50 The sensitivity of Decker Mill/Old Mill is high and the sensitivity of Sedgwick Mill is medium, there will be a minor adverse change to the significance of the asset. The level of effect is therefore **slight (minor) adverse (not significant)**.

Derros Building (grade II listed building) and Doctors Surgery (grade II listed building)

- 7.51 The Site is situated approximately opposite the asset and the 19th century buildings within the Site contribute to an understanding of the historic context of the Derros Building and Doctors Surgery. The contribution to significance is limited by the separation created by Great Ancoats Street and the altered state of buildings within

the Site. The historic interest arising from the former functions of the buildings and the legibility of those functions will not be affected by the Proposed Development.

- 7.52 The architectural interest of the assets is best appreciated in close proximity and in views orientated away from the Site or from the top end of Lever Street which take in the Lever Street frontage of the Site. In views along Great Ancoats Street in which the height and scale of the taller element of the Proposed Development will be experienced the architectural interest of the assets is not readily experienced. Given the height and scale of the new build element, it will have a presence within the surrounding area, however the approach and detailing to the ground and first floors anchors the development to the street. In this way, the completed and operational development will be experienced as part of the varied urban environment along Great Ancoats Street and will not diminish or detract from the significance of the assets.
- 7.53 The sensitivity of Derros House and the Doctors Surgery is medium, there will be no change to the significance of the asset. The level of effect is therefore **neutral (not significant)**.

69-77 Lever Street (grade II listed building)

- 7.54 The taller new build element of the Proposed Development will be set back from Lever Street; maintaining and focusing height away from the street frontage. The new build element will be experienced alongside the 20th century Griffin House and Travelodge which sit between the Site and the assets.
- 7.55 69-77 Lever Street and the Proposed Development will largely be experienced sequentially along Lever Street. The key views in which the asset's age and architectural character are appreciated are localised and orientated away from the Site. By bringing the warehouses within the Site back into use, there will be a general enhancement to the surrounding townscape but the effect on significance will not be material given their later date, differing typology and intervening distance. The group value with 4, 6 and 8 Bradley Street will be sustained by the completed and operational development.
- 7.56 The sensitivity of the assets/receptors are medium, there will be no change to the significance of the asset. The level of effect is therefore **neutral (not significant)**.

Stevenson Square Conservation Area

- 7.57 A number a slight (minor) adverse effects have been identified in relation to listed buildings within the conservation area:
- The listed buildings within the Upper Lever Street grouping were designed to have a strong presence on the street and, to a degree that is diminished by the Proposed Development.
 - There is potential for the Proposed Development to breach the roofline of 45 and 47 Newton Street, 29 and 51 Dale Street and 49 Newton Street (all grade II listed buildings).
 - At some points along Portland Street, the Proposed Development will be visible behind the Dutch gable of Gardens House, which will diminish the

appreciation of the building's ornate roofline and by association due to their similarly ornate rooflines and grouped townscape value.

- 7.58 In each case the impact is limited by the architectural approach to the design of the Proposed Development which has set height back from Lever Street, used a visually recessive palette of materials and a simple design that contrasts. These changes will also be experienced within the existing varied urban setting of the conservation area. Therefore, it is concluded there will be a degree of harm to the significance of the conservation area, but for the reasons set out above, that harm will be limited.
- 7.59 The sensitivity of the Stevenson Square Conservation Area is medium, there will be a minor adverse change to the significance of the assets. The level of effect is therefore **slight (minor) adverse (not significant)**.

Ancoats Conservation Area

- 7.60 The Site is situated to the south of Ancoats Conservation Area and is separated by Great Ancoats Street, which has a varied urban townscape as previously described. There will be a degree of separation between the Proposed Development and the conservation area and it will be experienced alongside existing 20th and 21st century development along Great Ancoats Street.
- 7.61 With the exception of the Daily Express Building, the heritage assets and other historic development along the south boundary of the conservation area, fronting Great Ancoats Street in proximity of the Site, does not draw significance from being prominent or landmark buildings. As set out above, the Daily Express Building is of a similar height to other 20th century development on this part of Great Ancoats Street but has greater prominence due to its distinctive and high-quality design. The Proposed Development will deviate from that established datum and within those views where it is experienced in combination with the Daily Express Building, will to a degree diminish that prominence. The impact is limited to that significance drawn from the prominence of the listed building within a small number of views and is minimised through the design of the Proposed Development.
- 7.62 The ZTV informed the selection of a series of viewpoints within or within the setting of the conservation area to understand the impact of the Proposed Development on the character and appearance of the conservation area and its setting. There will be glimpsed views of the Proposed Development from the conservation area in views south, where the dense townscape and road alignment allows. Due to the intervening distance and the design approach, previously described, the Proposed Development will not be dominant but form part of the city centre backdrop to the conservation area. It will be viewed alongside existing modern development within the setting of the conservation area. The Proposed Development will not compete with or interrupt the skyspace around the tower of the Former Church of St Peter.
- 7.63 The ZTV indicates large areas to the east of the conservation area where the Proposed Development will be visible. The most significant and striking edge is the Redhill Street frontage along the eastern boundary of the conservation area. It is visible from a wide area, accentuating the significance of these assets individually, as a group and also within the context of the conservation area. On approach along Great Ancoats Street the Proposed Development sits comfortably within an existing group of tall buildings to the south of, and distinct from the Redhill Street frontage.

However, as previously identified, due to the alignment of the Site behind the frontage, the Proposed Development will be visible above Sedgewick Mill (grade II listed building) in some views from Ancoats Marina. Here the Proposed Development interrupts the simplicity of the strong horizontal form of the mill rooflines. The view is kinetic and the visibility and extent of visibility will vary in views across the area.

- 7.64 Therefore, there is concluded to be a degree of harm to the significance of the Ancoats Conservation Area arising from the limited impact on the prominence of the Daily Express Building and the visual impact on the Redhill Street frontage in some views from Ancoats Marina. In considering the level of change and level of effect, the significance of the conservation area as a whole has been considered.
- 7.65 The sensitivity of the Ancoats Conservation Area is high, there will be a minor adverse change to the significance of the asset. The level of effect is therefore **slight (minor) adverse (not significant)**.

Former Land O' Cakes/ Bem Brasil (non-designated heritage asset)

- 7.66 The Proposed Development will retain the building and restore it to its 1930s phasing. This phase does not relate to the building's historic interest as the birthplace of the National Chartist Association in 1840, which is the principal element of its significance. However, the condition of the brickwork beneath the faience is unknown and removing the 1930s faience would damage the brickwork, compromising the ability to successfully restore the character of the building as it existed in 1840. Restoring the building to its c.1933 appearance aligns with the Proposed Development's reference to the Daily Express Building and stylistically ties Bem Brasil to the new build element. The Proposed Development will enhance the aesthetic value of the building, which at present is limited and will maintain the communal value as a place of gathering.
- 7.67 The sensitivity of the Bem Brasil is low, there will be a minor (beneficial) change to the significance of the asset. The level of effect is therefore **slight (minor) beneficial (not significant)**.

58 Lever Street

- 7.68 The Proposed Development will retain and enhance the principal front elevation of the late 19th century warehouse in which its architectural interest is focused. The roller shutters will be removed and an entrance into the Site will be created between the Corinthian columns; better revealing and allowing greater appreciation of the building's architectural significance. The rear part of the building which has a typical warehouse arrangement with open floorplates and supporting cast-iron columns will be demolished but is not readily experienced and, as a non-designated heritage asset, the interior of the building is not protected. The building will continue to be legible as a former 19th century warehouse and its communal value, derived from it being a building typology characteristic of this area of Manchester that contributes to a sense of identity, will be sustained. Whilst the Proposed Development will result in some loss of historic fabric and understanding of the historic 3D form of the building, it will also enhance the building's aesthetic value and the appreciation of its significance. The overall change is concluded to be a minor beneficial change.

- 7.69 The sensitivity of the 58 Lever Street is low, there will be a minor (beneficial) change to the significance of the asset. The level of effect is therefore **slight (minor) beneficial (not significant)**.

56 Lever Street and 25 Houldsworth Street

- 7.70 The Proposed Development will retain the two elevations to Lever Street and Houldsworth Street which provide an understanding of the form and function of the building. It will continue to be legible as a 19th century warehouse and its associated communal value, derived from it being a building typology characteristic of this area of Manchester that contributes to a sense of identity, will be sustained. The building is in a derelict state and the Proposed Development will enhance its aesthetic value. Whilst the interior of the building will be removed, as a non-designated heritage asset, it is not projected. The historic, architectural and townscape value of the building will also be sustained.
- 7.71 The sensitivity of the 56 Lever Street and 25 Houldsworth Street is low, there will be a negligible (beneficial) change to the significance of the asset. The level of effect is therefore **slight (minor) beneficial (not significant)**.

Additional Mitigation / Enhancement Measures

Construction

- 7.72 Relevant to impacts on built heritage, construction works are anticipated to comprise works to secure the Site, formation of a temporary construction compound, Site preparation works, demolition works, earthworks, levels and material management, construction of new buildings through the use of mobile cranes and infrastructure and implementation of proposed landscaping, lighting, internal and external finishes. Construction activity will be subject to a Construction Environmental Management Plan (CEMP) which will include a series of measures to reduce and avoid environmental effects. Those mitigation measures that act to reduce the impact on built heritage receptors are:
- The erection of hoardings around the Site.
 - Appropriate measures to protect the retained facades during the construction phase.

The Completed and Operational Development

- 7.73 No further additional mitigation has been identified.

Residual Effects

- 7.74 The residential effects of the construction phase and the completed and operational development remain unchanged from those assessed in the assessment of likely significant effects section.

Residual Effects Summary**Table 7.7 Residual Effects Summary**

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Construction				
Direct impact of the demolition the demolition of the following non-designated heritage assets resulting in total loss of their local significance: 40-42 Great Ancoats Street 27 Houldsworth Street and 63 Little Lever Street	N/A	Minor adverse (not significant)	Construction management measures and CEMP	Minor adverse (not significant)
Indirect impact of the demolition of 18 th and 19 th century development within the Site affecting the appreciation of the historic context of the following heritage assets within the Site: Former Land O'Cakes/Bem Brasil	N/A	Minor adverse (not significant)	Construction management measures and CEMP	Minor adverse (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
58 Lever Street 56 Lever Street				
Indirect impact of the demolition of 18 th and 19 th century development within the Site affecting the appreciation of the historic context of the following heritage assets outside the Site: Derros Building (grade II listed building) Former Doctor's Surgery (grade II listed building) 69-77 Lever Street (grade II listed building) and 4, 6 and 8 Bradley Street (grade II listed building) Crown and Kettle Public House (grade II listed building) 72 to 76 Newton Street (grade II listed building) The City Public House (grade II listed building) Stevenson Square Conservation Area Ancoats Conservation	N/A	Negligible/minor adverse (not significant)	Construction management measures and CEMP	Negligible/minor adverse (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Area Smithfield Conservation Area Hudson Building (non-designated heritage asset)				
Direct impact on the following non-designated heritage assets within the Site which will be partially obscured by hoarding and scaffolding during the construction phase reducing the ability to appreciate their significance: Former Land O'Cakes/Bem Brasil 58 Lever Street 56 Lever Street	N/A	Minor adverse (not significant)	Construction management measures and CEMP	Minor adverse (not significant)
Operation				
Indirect effect on the significance of the Daily Express Building (grade II* listed building) arising from a reduction in its prominence in a limited number of views.	Design and materiality of the Proposed Development and location of height away from Lever Street.	Minor adverse (not significant)	N/A	Minor adverse (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Indirect effect on the significance of Brownsfield Mill (grade II* listed building) arising from it adding to the emerging modern surroundings of the mill.	Design and materiality of the Proposed Development	Negligible adverse (not significant)	N/A	Negligible adverse (not significant)
Indirect effect on the significance of the Rochdale Canal Warehouse (grade II* listed building) arising from the Proposed Development breaching its roofline in views of the asset from the towpath.	Design and materiality of the Proposed Development	Minor adverse (not significant)	N/A	Minor adverse (not significant)
Indirect effect on the significance of Sedgwick Mill including Sedgwick New Mill (grade II listed building) and Decker and Old Mill (grade II* listed building) arising from the Proposed Development interrupting the simple roofline of the mills in some views from the Ancoats Marina.	Design and materiality of the Proposed Development	Minor adverse (not significant)	N/A	Minor adverse (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Indirect effects to the significance of Stevenson Square .	Design and materiality of the Proposed Development and location of height away from Lever Street.	Minor adverse (not significant)	N/A	Minor adverse (not significant)
Indirect effects to the significance of Ancoats Conservation Area	Design and materiality of the Proposed Development	Minor adverse (not significant)	N/A	Minor adverse (not significant)
Effect on the significance of Bem Brasil (non-designated heritage asset) arising from the Proposed Development	Retention and restoration of the building and the design of build elements, as set out in the Design and Access Statement.	Minor beneficial (not significant)	N/A	Minor beneficial (not significant)
Effect on the significance of 58 Lever Street (non-designated heritage asset) arising from the Proposed Development	Retention and enhancement of principal elevation and the design of build elements, as set out in the Design and Access Statement.	Minor beneficial (not significant)	N/A	Minor beneficial (not significant)
Effect on the significance of 56 Lever Street and 25 Houldsworth Street (non-designated heritage asset) arising from the Proposed Development	Retention and enhancement of principal elevations and the design of build elements, as set out in the Design and Access Statement.	Minor beneficial (not significant)	N/A	Minor beneficial (not significant)

- 7.75 There will be no significant residual effects on built heritage receptors as a result of the Proposed Development.

Conclusions

- 7.76 This chapter assesses the likely significant effects of the Proposed Development on the historic built environment and sets out the methodology used to assess and identify likely significant effects, both direct and indirect, arising from the construction phase and the operational and completed development. It has been prepared by suitably qualified heritage professionals at Turley Heritage in combination with a supporting Heritage Assessment at **Appendix 7.1**. It concluded that neither the construction phase nor the operational and completed development would give rise to significant effects.

Assessment of Cumulative Effects

- 7.77 Cumulative effects are the combined effects of several committed/consented schemes (in conjunction with the Proposed Development) which may, on an individual basis be insignificant but, cumulatively, have a significant effect.

Approach

- 7.78 The ES has given consideration to 'Cumulative Effects' for those cumulative schemes agreed with MCC where there are common built heritage receptors will experience effects arising from both the Proposed Development and cumulative schemes. Where relevant, the cumulative AVR included at **Appendix 6.1** have informed the judgements made. The assessment of cumulative effects is reliant on the accuracy and conclusions of the heritage assessment work carried out by other consultants. The cumulative schemes considered as part of the cumulative effects assessment are outlined in Table 7.8.

Table 7.8 Cumulative Sites

Site Ref.	Application No.	Distance and Direction	Proposal	Scoped-in / Scoped-out	Justification
1.	132489/FO/2021	150m southeast	One Port, Street Erection of a part-33, part-11, part 9 part 7 storey residential building above semi-basement level, with associated residents' amenity space including gym (Use Class C3) (comprising 481 dwellings), commercial space (Use Class E), basement car parking (47 spaces), cycle parking (481 spaces) landscaping, and other associated works	Scoped-in	The following common receptors are identified: <ul style="list-style-type: none"> • Brownsfield Mill (II*) – Minor to moderate adverse Moderate adverse • Former Rochdale Canal Warehouse (II*) – Neutral Minor adverse • Stevenson Square Conservation Area – Minor adverse • Ancoats Conservation Area – Negligible adverse
2.	135675/FO/2022	150m southeast	1 NQ Erection of two residential apartment buildings (Use Class C3) comprising Block 1 -part 9, part 10 (plus roof level amenity block) and Block 2- 12 storey building (comprising of 261 dwellings in total) above basement levels with ground floor commercial units (Use Class E (excluding E (b)), associated	Scoped in	The following common receptors are identified: <ul style="list-style-type: none"> • Brownsfield Mill (II*) – less than substantial harm • Former Rochdale Canal Warehouse (II*) – less than substantial harm • Stephenson Square Conservation Area (positive effect)

			residents amenity space, cycle parking, landscaping, access, street loading and other associated works following demolition of the existing building and structures on site		An ES was not completed for built heritage and therefore the effects are categorised as per the NPPF terminology of 'less than substantial harm.'
8.	117280/FO/2017	60m northwest	Spear Street Erection of a five-storey (ground floor plus 4) building to provide 6 no. residential apartments (Use Class C3) (5 x 1 bed (1 person)) and (1 x 2 bed duplex (4 person)) above ground floor commercial unit (Class E), private roof terrace for the top floor duplex apartment, cycle parking (6 x spaces), refuse and plant room.	Scoped-in	The Heritage Statement identifies a positive effect on the Stevenson Square Conservation Area arising from the reuse of a vacant site and regenerative effects of the scheme.
9.	134953/FO/2022	85m west	9 Larard's Still Partial demolition of existing buildings (68-70 Oldham Street) (retention of facades to both 68 & 70 Oldham Street and internal floors of 68 Oldham Street), and erection of new 10 storey building (plus plant room) to incorporate retained elements, removal of roof and conversion of existing warehouse building (61 Spear Street) with 3 storey rooftop extension to create aparthotel (sui generis) and	Scoped-in	The scheme identifies both positive and negative effects on the significance of Stevenson Square Conservation Area. With regards the negative effect, these arise from a deviation of prevailing character and appearance, and visual impact of increased height would result in less than substantial harm.

			ground floor commercial uses (use class E)((a), (b), (c), (e) and (g) only.		
11.	127538/FO/2020	325m southwest	67 Piccadilly Erection of 11 storey building on site of 67 Piccadilly, as a Hotel (Use Class C1) with associated ground floor retail and leisure uses (Use Class A3 (Restaurant and Café), A4 (Drinking Establishment) and D2 (hotel leisure gym/ fitness area); provision of flexible amenity space at roof level; installation of external plant at roof level; provision of new public realm and associated works following demolition of 67 Piccadilly/4 - 6 Newton Street ('67 Piccadilly') including internal and external alterations to 69-75 Piccadilly (Halls Building) (comprising refurbishment and infilling of an existing rear void of to provide a 9-storey infill) relating to the reuse, refurbishment of the building for use along with the new 11 storey building	Scope-in	The Heritage Statement submitted in connection with the scheme concludes a degree of less than substantial harm to Stevenson Square Conservation Area arising from the demolition of existing buildings.
12.	137794/FO/2023	425m southwest	12-16 Piccadilly Erection of a 32 storey building	Scoped-in	The Heritage Statement concludes a negligible to minor beneficial effect

			(land at no. 14-16 Piccadilly) and conversion of adjacent building (no.12 Piccadilly) (basement to fourth floor) to create an aparthotel, including a ground floor cafe (Use Class E (b), first floor exhibition hall (Use Class F1) and a rooftop bar and restaurant (Use Class E (b)), and associated works.		on the significance of the Stevenson Square Conservation Area.
13.	137346/FO/2023	375m northeast	Phoenix Ironworks Erection of a part 5, part 10 storey building comprising residential apartments and townhouses, residents' amenity space (Use Class C3a), ground floor commercial (Use Class E), cycle and car parking, landscaping, access and servicing, and other associated works following demolition of existing structures.	Scoped-in	The Heritage Impact Assessment identifies that the scheme will positively contribute to the character and appearance of the Ancoats Conservation Area.

Likely Residual Cumulative Effects and their Significance

Construction

- 7.79 It was concluded that aspects of the construction phase (Proposed Development) related to construction activities (spoil, noise, vehicular activity etc) and the visual appearance of the incomplete development would not materially affect the significance of heritage receptors. It is these, or similar effects, which would arise in relation to the cumulative schemes. The Proposed Development in combination with the cumulative schemes would therefore not result in additional cumulative effects.

The Completed and Operational Development

- 7.80 The cumulative impact of contemporary development of greater scale and height has eroded the original state of **Brownsfield Mill** as one of the buildings of greatest height, scale and massing within the local townscape and this impact would be extended by the Proposed Development in combination with **cumulative schemes 1 and 2**. Given the industrial and functional role of the mill, the prominence of the mill is not a principal element of its significance, but there is nonetheless an impact resulting from the cumulative effect of development, including the completed and operational development. The cumulative schemes would not affect the relationship between Brownsfield Mill and the adjacent Rochdale Canal which forms a key element of its setting. The significance of the building as a 19th century steam powered cotton spinning mill, and the oldest example of a mill incorporating an internal engine house, underground boilers and chimney contained within the stair tower would also not be affected by the Proposed Development. The cumulative effect on this receptor is therefore limited.
- 7.81 The sensitivity of **Brownsfield Mill** is high, there will be a minor adverse change to the significance of the asset. The level of effect is therefore slight to moderate (minor) adverse (not significant).
- 7.82 The cumulative effect of the Proposed Development in combination with **cumulative schemes 1 and 2** within views of the **Rochdale Canal Warehouse** from the tow path would diminish, to a degree, the impression of the scale, stature and prominence of the Former Canal Warehouse. It is therefore considered that the Proposed Development in combination with the other consented and intended proposals would have an increased impact on the significance of the former Canal Warehouse building. It would still remain that only the aspect of significance the asset draws from the affected element of setting would be affected. The asset's significance as an early example of a 19th century canal warehouse and the spatial relationship with the canal basin would be unaffected.
- 7.83 The sensitivity of **Rochdale Canal Warehouse** is high, there will be a moderate adverse change to the significance of the asset. The level of effect is therefore moderate adverse (not significant).
- 7.84 A number of **cumulative schemes (1, 9, 11)** identify a number of adverse effects on the significance of the **Stephenson Square Conservation Area** in addition to the minor adverse (not significant) effect identified arising from the Proposed Development. These effects are localised and affect different areas and aspects of the conservation area's character and appearance. Due to the varied and ever evolving character of the conservation area and its city centre setting, it has some

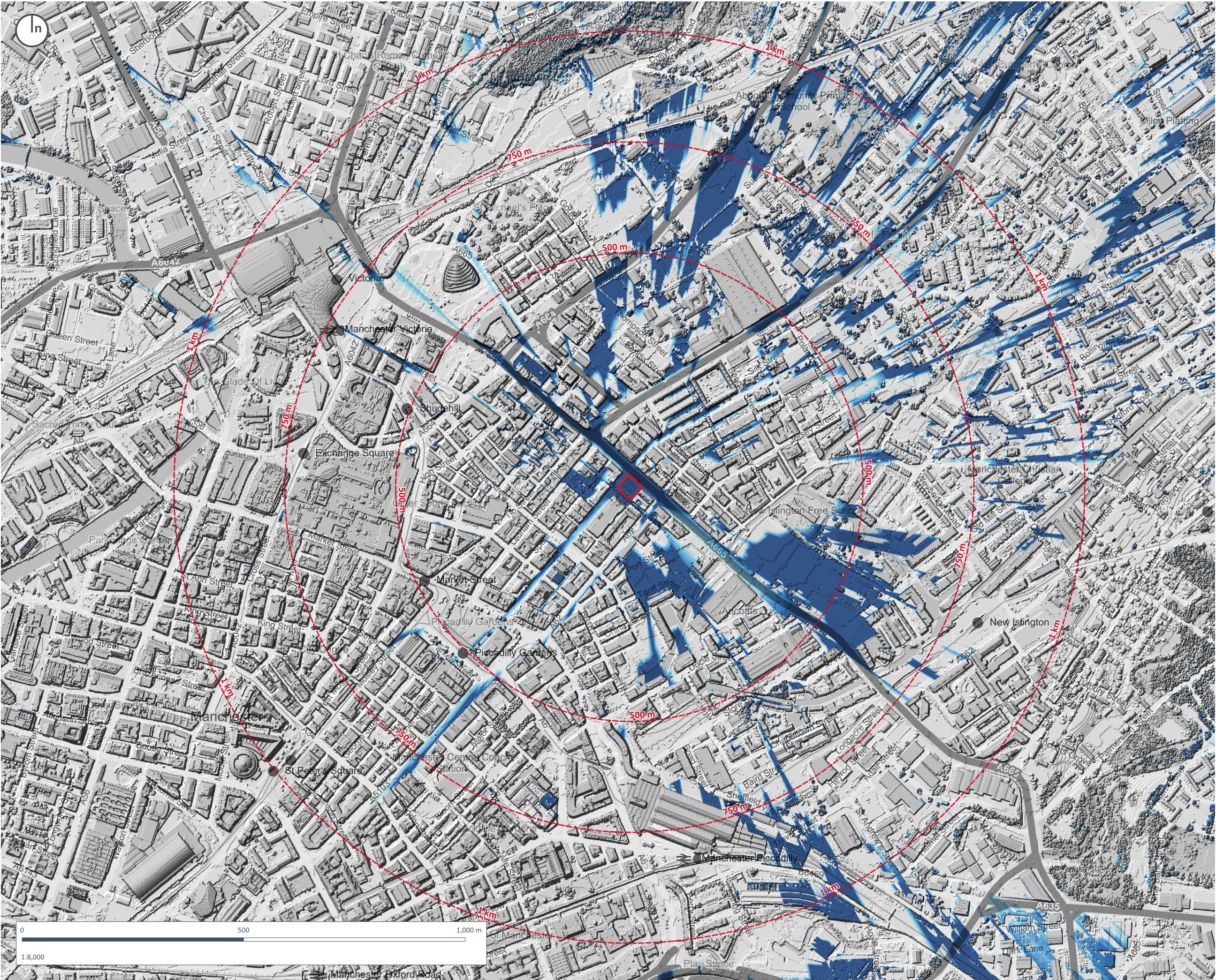
resilience to change. The cumulative effect is therefore not concluded to be significant.

- 7.85 The sensitivity of the **Stevenson Square Conservation Area** is medium, there will be a moderate adverse change to the significance of the assets. The level of effect is therefore moderate (moderate) adverse (not significant).
- 7.86 A number of cumulative schemes identified beneficial effects in relation to **Stevenson Square Conservation Area (2, 8, 9, 12) and Ancoats Conservation Area (13)**. Due to the limited (not significant) effects and there being no identified beneficial impacts on these receptors arising from the Proposed Development, it is concluded that there will not be cumulative beneficial effects.

References

ⁱ Historic England (2024) The National Heritage List for England (NHLE) available at historicengland.org.uk/listing/the-list/ [accessed December 2023]

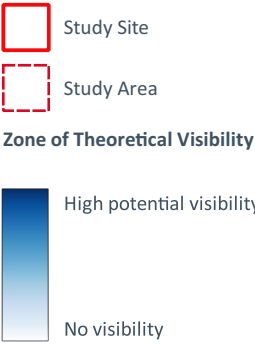
ⁱⁱ Highways England (2020) The 'Design Manual for Roads and Bridges' ((LA 104 Environmental Assessment and Monitoring) and (LA 106 Cultural Heritage Assessment))



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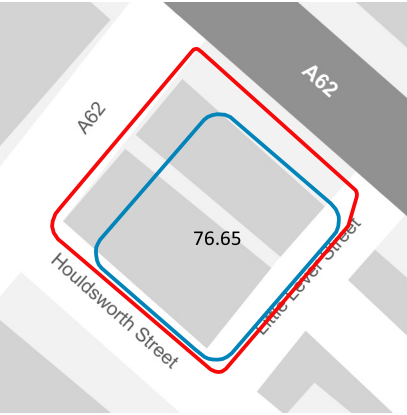
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Notes:-

This viewshed was created using Lidar data from the Environment Agency. The most recent data to cover this area was captured in 2022. The inset map shows the building heights (in metres from ground level) used for the viewshed.



CLIENT:
Soller Nine Limited

PROJECT:
Land bounded by Great Ancoats Street, Lever Street, Houldsworth Street and Little Lever Street, Manchester

DRAWING:
Zone of Theoretical Visibility - 1km

PROJECT NUMBER:
SOLH3001

DRAWING NUMBER:
GIS_103

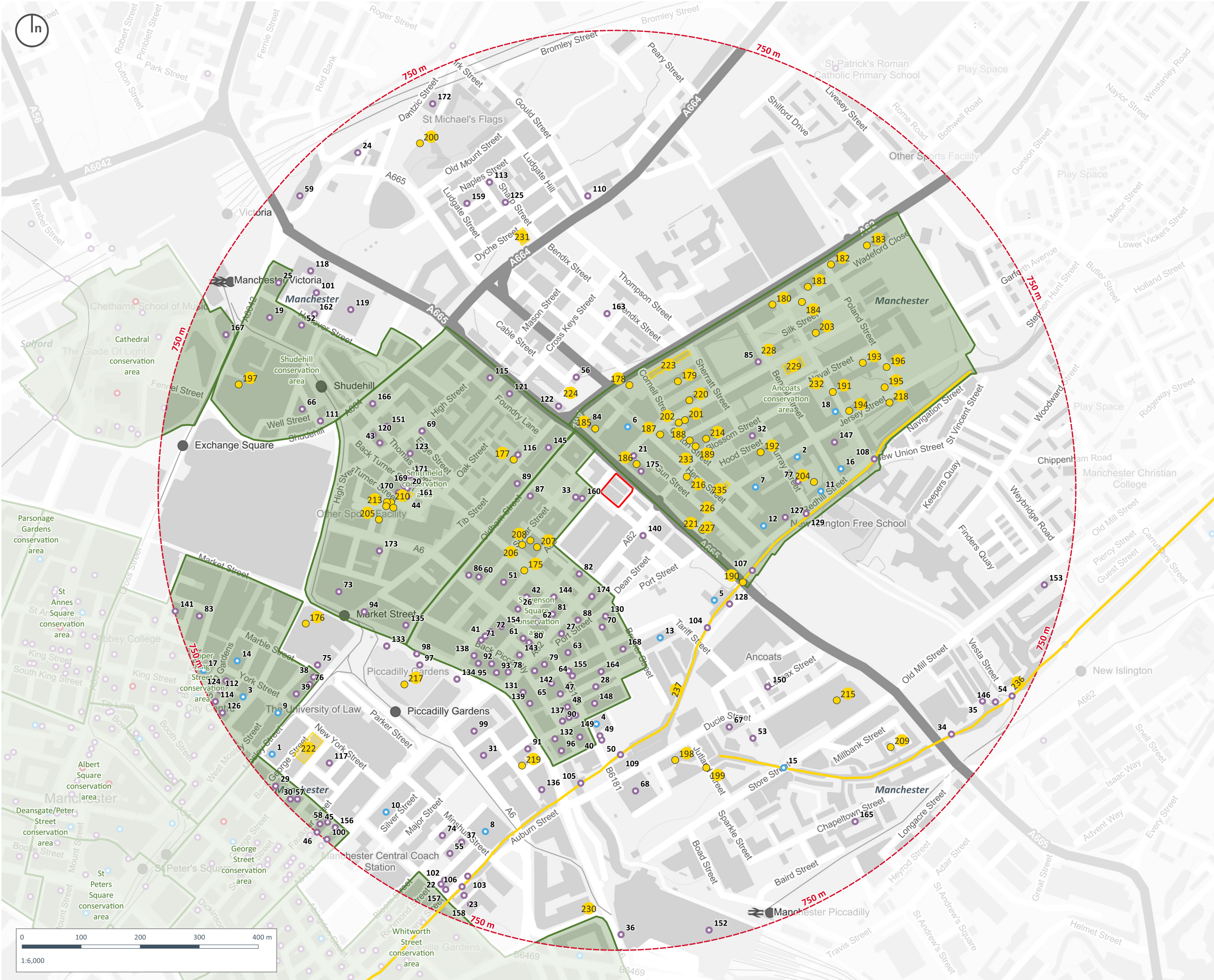
CHECKED BY:
KM

REVISION:
1.0

STATUS:
Draft

DATE:
December 2023

SCALE:
1:8,000 @ A3



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- Application Site
- Study Area
- Conservation Area
- HER Entry (polygon)
- HER Entry (line)
- HER Entry (point)
- Listed Buildings
 - I
 - II*
 - II

CLIENT:
Soller Nine Limited

PROJECT:
Land bounded by Great Ancoats Street, Lever Street, Houldsworth Street and Little Lever Street, Manchester

DRAWING:
Heritage Asset Plan

PROJECT NUMBER:
SOLH3001

DRAWING NUMBER:
GIS_101

CHECKED BY:
KM

REVISION:
1.0

STATUS:
Draft

DATE:
December 2023

SCALE:
1:6,000 @ A3

Ref	Listed Building	Grade
1	The Portico Library And The Bank Public House	II*
2	New Mill	II*
3	Estate Exchange	II*
4	Dale Warehouse	II*
5	Brownsfield Mill	II*
6	Daily Express Building	II*
7	Paragon Mill	II*
8	City Police Courts	II*
9	Royal Bank Of Scotland	II*
10	Britannia Hotel	II*
11	Decker Mill old Mill	II*
12	Royal Mill	II*
13	Former Rochdale Canal Warehouse	II*
14	Former National Westminster Bank On Corner At Junction With Spring Gardens	II*
15	Store Street Aqueduct	II*
16	Doubling Mill fireproof Mill	II*
17	Former Reform Club manchester Club	II*
18	Beehive Mill	II*
19	Cooperative Wholesale Society	II
20	Workshops, Shop And Warehouse	II
21	Derros Building	II
22	The Churchill Public House	II
23	Mintierna House	II
24	Ashton House	II
25	Cooperative Wholesale Society Building To North Of Junction With Hanover Street	II
26	25 And 27, Dale Street (see Details For Further Address Information)	II
27	Bradley House	II
28	Langley Buildings	II
29	Charlotte House	II
30	Austin House	II
31	Grand Hotel	II
32	Former Church Of St Peter	II
33	Numbers 4, 6 And 8 And Attached Screen Walls	II
34	Ashton Canal Lock Number 1 Immediately East Of Great Ancoats Street	II
35	Ashton Canal Towpath Bridge Over Junction With Islington Branch Canal West Of Lock Number 2	II
36	Former Goods Offices To Piccadilly Station	II
37	Minshull House	II
38	12, Mosley Street	II
39	Colwyn Chambers	II
40	Former Horrocks, Crewdson And Company Warehouse	II
41	10, Lever Street	II
42	Watts Brothers	II
43	75 And 77, High Street	II
44	1, Kelvin Street	II
45	Nos. 41 And 43, Faulkner Street	II
46	45 And 47, Faulkner Street	II
47	Eleska House	II
48	64 And 66, Dale Street	II
49	Rochdale Canal Company Office	II
50	Entrance Archway And Lodge To Yard Of The Rochdale Canal Company	II
51	Sevendale House	II
52	Cooperative Society Building	II
53	Stable Block To South East Of Junction Works At Paradise Wharf	II
54	Ashton Canal Lock Number 2 Off South End Of Vesta Street	II
55	11, Bloom Street	II
56	8, Cable Street	II
57	No, 12, Charlotte Street And No. 17, George Street	II

Ref	Listed Building	Grade
58	Lindencourt House	II
59	Parkers Hotel	II
60	3, Dale Street	II
61	Nos. 24, 26, And 28, Dale Street	II
62	29 And 31, Dale Street	II
63	35, Dale Street	II
64	47, Dale Street	II
65	56, Dale Street	II
66	Victoria Buildings	II
67	Former Junction Works At Paradise Wharf	II
68	London Warehouse	II
69	Nos. 104 And 106, High Street	II
70	45, 47 And 47a, Hilton Street	II
71	8, Lever Street	II
72	12 And 14, Lever Street	II
73	Rylands Building (debenhams)	II
74	8, Minshull Street (see Details For Further Address Information)	II
75	No. 10 Mosley Street	II
76	Harvest House	II
77	Former Warehouse And Offices Of Old Mill, Decker Mill, And New Mill	II
78	St Margarets Chambers	II
79	14 And 16, Newton Street (see Details For Further Address Information)	II
80	Nos. 17-25, Newton Street, And Nos. 32 And 34, Dale Street	II
81	45 And 47, Newton Street	II
82	Former Newton Street Police Station	II
83	Barclays	II
84	Crown And Kettle Public House	II
85	Victoria Square	II
86	Dale Street Chambers	II
87	Castle Hotel	II
88	Newton Buildings	II
89	105, Oldham Street	II
90	Numbers 13 And 15 And Attached Railings	II
91	Barclays Bank	II
92	49 Piccadilly	II
93	Clayton House, 59, Piccadilly And 61 Piccadilly	II
94	1, Piccadilly	II
95	Gardens Hotel And Shops	II
96	107, Piccadilly	II
97	Queen Victoria Monument	II
98	Watt Statue	II
99	The Portland Thistle Hotel	II
100	44-50, Portland Street	II
101	Cooperative Society Building	II
102	9, Richmond Street	II
103	Rochdale Canal Boundary Wall To Canal Between Chorlton Street And Minshull Street	II
104	Rochdale Canal Lock Number 83, To The East Of Tariff Street	II
105	Rochdale Canal Lock Number 85, In Tunnel Between Piccadilly And Dale Street	II
106	Rochdale Canal Lock Number 86, To East Of Chorlton Street	II
107	Rochdale Canal Lock Number 82, To East Of Great Ancoats Street	II
108	Union Street Bridge	II
109	Rochdale Canal Lock Number 84 (dale Street Lock)	II
110	Marble Arch Inn	II
111	29, Shude Hill	II
112	43 And 45, Spring Gardens	II
113	Sharp Street Ragged School	II
114	47, Spring Gardens	II
115	Smithfield Market Hall	II
116	49-53, Tib Street	II
117	Telephone Buildings	II

Ref	Listed Building	Grade
	New Century House, Including Its Attached	
118	Conference Hall And Abstract Concrete Relief Wall In The Entrance Piazza	II
119	Co-operative Insurance Society (cis) Building	II
120	10-20, Thomas Street	II
121	29, Swan Street	II
122	Former Midland Bank	II
123	31-35, Thomas Street	II
124	41, Spring Gardens	II
125	Warehouse On West Corner Of Junction With Simpson Street	II
126	49, Spring Gardens	II
127	Sedgwick Mill (to West Of Junction With Murray Street)	II
128	Rochdale Canal Towpath Footbridge And Associated Ramps Opposite Brownsfield Mill	II
129	Rochdale Canal Retaining Wall On South Side Of Redhill Street, West Of Union Street Bridge	II
130	50-62, Port Street	II
131	Halls Buildings	II
132	The Brunswick Hotel	II
133	Peel Statue	II
134	Wellington Statue	II
135	15 And 17, Piccadilly (see Details For Further Address Information)	II
136	Joshua Hoyle Building, Including Roby House	II
137	19, Paton Street	II
138	47 Piccadilly Including Warehouse Facing Back Piccadilly	II
139	77-83, Piccadilly	II
140	72-76, Newton Street	II
141	Northern Stock Exchange	II
142	8-12, Newton Street	II
143	Kingsley House	II
144	49, Newton Street (see Details For Further Address Information)	II
145	The City Public House	II
146	Ashton Canal Lock Keepers Cottage Beside Lock Number 2 At Islington Branch Junction Basin	II
147	Little Mill	II
148	Industry House	II
149	68, Dale Street	II
150	32 And 34 Laystall Street	II
151	Former Wholesale Fish Market	II
152	Train Shed And Undercroft At Manchester Piccadilly Station	II
153	Ardwick And Ancoats Hospital	II
154	22, Dale Street	II
155	45, Dale Street	II
156	Fraser House	II
157	39, Chorlton Street	II
158	Minshull House	II
159	Cooperative Press	II
160	Nos. 69-77, Lever Street And No. 10, Bradley Street	II
161	7, Kelvin Street	II
162	Holyoake House	II
163	Former Police And Ambulance Station	II
164	49 And 51, Dale Street (see Details For Further Address Information)	II
165	Crusader Works	II
166	Hare And Hounds	II
167	City Buildings	II
168	Fourways House	II
169	38 Back Turner Street	II
170	Warehouse, Workshop And Shops	II
171	42, 44 And 46 Thomas Street (including 41, 43 And 45 Back Turner Street)	II
172	Charter Street Mission (formerly Charter Street Ragged School And Working Girls' Home)	II
173	Unicorn Hotel	II
174	Marlsbro House	II

Ref	HER Entry
175	Stevenson Square Residential District
176	Lewis's (formerly Lewis's department store; now Primark)
177	Buildings at 47 Tib Street
178	New X Surplus Store (10&14 Oldham Road)
179	Anita Street
180	116&122 Oldham Road
181	126&160 Oldham Road
182	162 Oldham Road (repurposed fa&#x27cde of)
183	190&208 Oldham Road (standing buildings) and vicinity
184	Portugal Street Houses
185	Virginia House
186	The Hudson Buildings
187	24&28 George Leigh Street
188	2&4 Loom Street
189	Building at junction of Cotton Street/ Blossom Street
190	Rochdale Canal Road Bridge (Great Ancoats Street)
191	Former Canal Bridge, Radium Street
192	Warehouse on Hood Street/ Murray Street
193	Regina Textile Mill
194	The Cross Keys public house (former) (97 Jersey Street)
195	Phoenix Iron Works (fa&#x27cde), Jersey Street
196	Former Canal Bridge, Poland Street
197	The Printworks
198	Ashton Canal/ Rochdale Canal Junction
199	Jutland Street Bridge
200	Retaining Wall, Aspin Lane
201	St Michael's School
202	St Michael's Clergy House (former)
203	107&111 George Leigh Street, 9&11 Radium Street and 80&82a
204	Old Mill/ Decker Mill Engine House
205	The Bull's Head public house (former)
206	1 and 1b Stevenson Square
207	5&7 Stevenson Square and 43&45 Lever Street
208	3 Stevenson Square
209	Ashton Canal Basin
210	Barley Mow public house (former)
211	15 Red Lion Street
212	14 and 16 Union Street
213	1&7 Catlow Lane (buildings)
214	Warehouse on Blossom Street (former)
215	Iron and Steel Warehouse
216	16 Blossom Street
217	Piccadilly Gardens
218	64 Jersey Street (building associated with the former Flint G
219	The Waldorf public house
220	Terraced housing on George Leigh Street
221	87 and site of 89&93 Great Ancoats Street
222	Rutherford House (now The Exchange)
223	44&68 Oldham Road
224	St Vincents public house (former; now St Vincents House)
225	3 & 5 Kelvin Street
226	5 Jersey Street (now part of 1 Jersey Street)
227	The Coates School
228	The Shamrock Inn
229	School House (former)
230	Monroes public house (36 London Road)
231	Particular Baptist Chapel
232	Radium Street Warehouse
233	The Edinburgh Castle public house and 17a Blossom Street
234	17 & 19 Jersey Street
235	Electricity Sub Station (former)
236	Ashton Canal
237	Rochdale Canal

8. Climate Change

Introduction

- 8.1 This chapter assesses the effects that may arise as a result of climate change on the Proposed Development (hereafter referred to as the 'Climate Change Resilience [CCR] Assessment') and the effects of greenhouse gases (GHG) emissions as a result of the Proposed Development (hereafter referred to as the 'GHG Emissions Assessment') in accordance with the EIA Regulations 2017¹ (as amended).
- 8.2 The chapter describes the methods used to assess the likely significant effects, the baseline conditions currently existing at the Site and surroundings, the potential direct and indirect effects of climate change on the Proposed Development and the potential direct and indirect effects of the Proposed Development on climate change, mitigation measures required to prevent, reduce, or offset the identified significant effects and the residual effects. It has been written by BWB Consulting Ltd.
- 8.3 In accordance with the EIA Regulations, this Chapter presents an assessment of:
- Vulnerability to climate change – the CCR Assessment demonstrates the effects of a changing climate on the Proposed Development, including how the design will mitigate the anticipated impacts of climate change;
 - GHG emissions – the effects on the climate of GHG emissions arising from the construction, operation and decommissioning of the Proposed Development, including how the Proposed Development would affect the ability to achieve the UK carbon budgets and GHG emissions policy objectives at national, regional and local scales; and
 - The cumulative and 'in-combination' effects of the Proposed Development.
- 8.4 The Planning Policy Context for this chapter is set out in **Appendix 8.1** of **Volume 3: Appendices**.
- 8.5 This chapter is supported by the following figures and technical appendices (see Volume 2a: Main Text and Figures and Volume 3: Appendices, respectively):
- Volume 2a: Main Text and Figures - **Figure 8.1**: PCRAM Methodology;
 - Volume 2a: Main Text and Figures - **Figure 8.2**: GHG emissions in Manchester from 2005 – 2021;

¹ UK Government (updated 2020) Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations') Available from: <https://www.legislation.gov.uk/ukxi/2017/571/2020-12-24>

- Volume 2a: Main Text and Figures - **Figure 8.3:** UK's Baseline and Balanced Net Zero Pathway to 2050;
- Volume 3: Appendices – **Appendix 8.1:** Planning Policy Context
- Volume 3: Appendices – **Appendix 8.2:** Steps Involved in a CCR Assessment in EIA and Determining the Significance of Impacts;
- Volume 3: Appendices – **Appendix 8.3:** Climatic Variables Considered for Each Sensitive Receptor;
- Volume 3: Appendices – **Appendix 8.4:** District, Regional and National GHG Emissions (2021);
- Volume 3: Appendices – **Appendix 8.5** – Embodied Carbon Assessment; and
- Volume 3: Appendices – **Appendix 8.6:** Climate Change Resilience Assessment.

Assessment Methodology and Significance Criteria

- 8.7 The scope and methodologies for the resilience of the Proposed Development to climate change and the influence of the Proposed Development on climate change will be addressed in separate subsections in the remainder of this Chapter.

Consultation

- 8.8 An informal EIA Scoping Note for the Proposed Development was submitted to Manchester City Council (MCC) on the 16th January 2024 to determine the extent of issues to be considered in the assessment and reported in this chapter of the ES.
- 8.9 In relation to the CCR Assessment, it was proposed within the EIA Scoping Note to undertake a comprehensive and evidence-based assessment following IEMA guidance (2020)². The assessment would utilise climate information published by the UK Meteorological Office ('Met Office') and the latest UK Climate Projections 2018 ('UKCP18') where available to determine the current and future baseline.
- 8.10 It was proposed to utilise information from documents to be submitted as part of the Application, including the Design and Access Statement and other Chapters within this ES.
- 8.11 For the GHG Assessment, it was proposed to undertake a proportionate assessment inclusive of both quantitative and qualitative approaches to assessing emissions in accordance with IEMA guidance from 2022³. It should be recognised that qualitative assessments are acceptable in accordance with IEMA guidance where, for example, data is unavailable. The exact scope for the GHG Assessment is set out in the methodology section.

Methodology to Assess the Resilience of the Proposed Development to Climate Change

Introduction

- 8.12 ISO14091 'Adaptation to climate change – Guidelines on vulnerability, impacts and risk assessment'⁴ determines an internationally recognised guideline on approaches to assessing climate change-related risks. It states that *"risk assessments improve planning of adaptation to climate change and inform the implementation and monitoring of climate change adaptation activities"*.
- 8.13 Both the 'UK Climate Risk Independent Assessment 2021'⁵ and 'UK Climate Change Risk Assessment 2022'⁶ fulfil the requirement under the Climate Change Act 2008 for the Government to produce a five-yearly assessment of the risks for the UK of the current and predicted impacts of climate change. The methodology for the CCR

² IEMA (2020) Environmental Impact Assessment Guide to Climate Change Resilience and Adaptation

³ IEMA (2022) 'Assessing Greenhouse Gas Emissions and Evaluating their Significance'

⁴ ISO (2021). ISO 14091:2021 Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment

⁵ Betts, R.A. and Brown, K, (2021). Introduction. In: The Third UK Climate Change Risk Assessment Technical Report [Betts, R.A., Haward, A.B. and Pearson, K.V.(eds.)]. Prepared for the Climate Change Committee, London

⁶ UK Government (2022) 'UK Climate Change Risk Assessment 2022'

Assessment detailed in Section 14.8 draws from principles within the UK Climate Change Risk Assessment.

- 8.14 The Climate Change Adaptation Manual (NE751) was updated in 2020⁷. It is designed to support practical and pragmatic decision-making on considering climate change adaptation for impacts on habitats, green infrastructure, geology and geomorphology, and access and recreation.
- 8.15 IEMA's guidance² for making a development resilient against, and adaptable to, climate change stresses that climate change should be an integrated consideration within the EIA. This includes, for example, the review of alternatives and the project design, how baseline environmental conditions may vary with a changing climate and the resilience of mitigation measures to climate change. It should be informed by an understanding of future climate change scenarios and of the potential range of effects associated with these projections.
- 8.16 In conformity with Physical Climate Risk Assessment Methodology (PCRAM) methodology⁸ for assessing PCRs, this assessment follows a prescribed four stage process as illustrated in **Figure 8.1**.

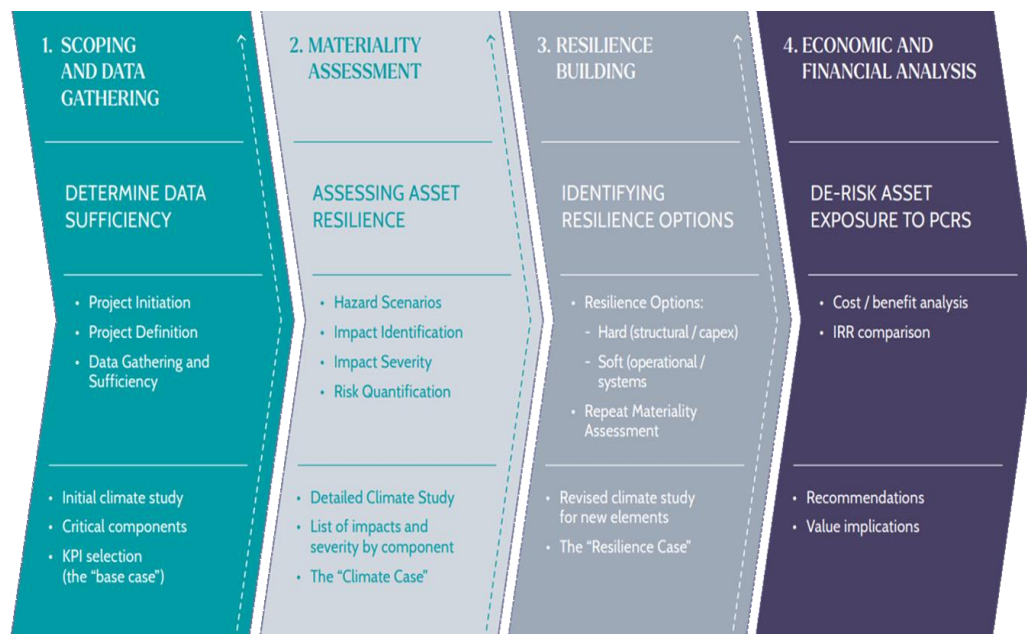


Figure 8.1: PCRAM Methodology (2021)

- 8.17 The details of Stage 1: 'Scoping and Data Gathering' are outlined hereafter in this section:

Study Area

- 8.18 The study area consists of the infrastructure within the Site, as shown in the Site Layout Plan (**Drawing No. 2510-HWS-XXX-00-D-A-05100**). Information on climate trends and projections at the regional and local scale (where available) are utilised.

⁷ Natural England (2020) 'Climate Change Adaptation Manual (NE751)'

⁸ Coalition for Climate Resilient Investment (2021) 'Physical Climate Risk Assessment Methodology'. Available from: <https://resilientinvestment.org/pcram/>

- 8.19 The location of the Site is shown in **Drawing No. 2510-HWS-XXX-XX-D-A-05050** (Howells, 2023).

Temporal Scope

- 8.20 As the construction phase of the Proposed Development is expected to take approximately three years (see **Chapter 5: Proposed Development** of this ES), the variability of the climate in the last 10 years has been taken into account when judging its resilience to climate change during this phase. The identification of recent extreme short-term weather events has also been done, as recommended by IEMA. Given the anticipated length of the construction phase, potential impacts during this phase will not be considered within the CCR Assessment. However, climate change-related mitigation measures for the construction phase have been recommended to bolster resilience.
- 8.21 In relation to the operational phase, the long-term impacts of climate change, as predicted in the UKCP18, will be used to judge its resilience. This accords with IEMA guidance. Climate change-related mitigation measures for the operational phase will be based on these long-term projections, looking at changes over the planned lifetime of the Proposed Development, which is assumed to be at least 60 years from commissioning.

Baseline Data Collection

- 8.22 The baseline data collected and presented in this Chapter were sourced through desktop research, as well as information from other chapters within this ES.
- 8.23 Historical regional weather data for North-West England published by the Met Office and data from relevant websites will be utilised to establish the current climate within the region and the Site in which the Proposed Development would be located.
- 8.24 Climate trends and projections are published by the Met Office through the UKCP website and provide the most up to date assessment of how the climate of the UK may change over this century. UK Climate Projections 2018 (UKCP18) provide the latest set of climate change projections for which the future baseline has been determined. It includes projections of how climate variables could change in the coming decades for the 2080s under a high emissions scenario ('Representative Concentration Pathway⁹ 8.5') for the 12 km² UKCP18 grid square in which the Proposed Development is located.
- 8.25 Data used within the CCR Assessment has been collected from the following sources:
- Relevant websites which provide information on recent weather patterns at the regional and local scales;

⁹ A Representative Concentration Pathway is a greenhouse gas concentration trajectory adopted by the International Panel on Climate Change (IPCC). RCP 8.5 is the worst-case scenario modelled for climate projections.

- UK Climate Projections (2018) (UKCP18¹⁰) – UK climate change projections used to define the future baseline against which the resilience of the Proposed Development to climate change is assessed;
 - Centre for Environmental Data Analysis (CEDA¹¹) – for observed climate data;
 - Met Office regional climate profile for North-West England and Isle of Man¹² – for observed climate data;
 - Relevant websites which provide information on recent weather patterns at the local scale; and
 - Where relevant, information within assessments offered in respect of other Chapters within this ES.
- 8.26 By its very nature, climate change spans a range of topics and therefore elements of climate change are considered throughout this ES and other planning documents. This assessment applies the guiding methodology, the steps of which are set out in **Appendix 8.2 of Volume 3: Appendices**.
- 8.27 Taken together, it is considered that the data sources in combination with other topical assessments that form the Application provide a robust indication of the prevailing baseline situation relevant to the assessment reported within this Chapter.
- Identifying Sensitive Receptors
- 8.28 Sensitive receptors were identified through examination of:
- The Site Layout Plan (**Drawing No. 2510-HWS-XXX-00-D-A-05100**) for the Proposed Development;
 - Other Chapters within this ES;
 - Other documents which will be submitted as part of the Application, such as the Design and Access Statement; and
 - Professional judgement.
- 8.29 Following a review of the above information, the following receptors have been identified as being sensitive:
- Substructure;

¹⁰ Met Office (2018) 'UK Climate Projections (UKCP)'. Available from:

<https://www.metoffice.gov.uk/research/approach/collaboration/ukcp>

¹¹ CEDA Catalogue 'UK Climate Projections 2018 (UKCP18)'. Available from:

<https://catalogue.ceda.ac.uk/uuid/c700e47ca45d4c43b213fe879863d589?jump=related-docs-anchor>

¹² Met Office (2016) 'North West England & Isle of Man: climate' Available from:

<https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/regional-climates/north-west-england--isle-of-man--climate---met-office.pdf>

- Infrastructure / Building Structures;
 - Landscaping / Habitats; and
 - Employees, Ancillary Equipment (construction phase) / Operators, Users (operational phase).
- 8.30 **Appendix 8.3 of Volume 3: Appendices** lists the climate variables, including extreme weather events, which have been considered in the CCR Assessment (indicated with a tick in the table). Blank cells indicate variables that have not been considered further in this assessment due to geography and/or the context of the Proposed Development. A risk-based approach to assessing change adaptation for settlements and infrastructure has been applied and adapted using best practice guidance and professional judgement^{2,8}.
- 8.31 Given the location of the Site in relation to the coast, potential sea-related effects have not been considered relevant to the CCR Assessment and have therefore been excluded. The potential effects of wind have been scoped out of the CCR Assessment given the following:
- There are no regions of strong winds (exceeding 15m/s for more than 0.025% annually) within the study area for the baseline scenario assessed within **Chapter 11: Wind Microclimate**; and
 - IPCC's prediction that the increase in wind speeds for the second half of the 21st century is not expected to deviate significantly compared to the current variability of wind speeds¹³ and that the scale of superstructures within the Proposed Development is not expected lead to significant effects.
- 8.32 The potential effects of humidity and the salinity /pH have also been excluded based on the professional judgement that any potential future effects of these variables would not lead to significant impacts.
- Hazard Identification
- 8.33 Global warming will result in changes to a range of climate variables and hazards that result from these changes.
- 8.34 Climatic hazards are defined as "*conditions that manifest from climate variables (e.g. drought, flooding, heatwave). These are broadly divided into acute (extreme events) and chronic (progressive changes in average climate conditions)*".
- 8.35 The assessment identifies a list of potential climate hazards to consider in the assessment, based on known sensitivities of the asset type, coupled with geographic climate projections.

¹³ Met Office (no date) 'UK and Global extreme events – Wind storms'. Available from: <https://www.metoffice.gov.uk/research/climate/understanding-climate/uk-and-global-extreme-events-wind-storms>

Assumptions and Limitations

- 8.36 The assumptions and limitations which apply to the CCR Assessment are outlined in **Table 8.1**. For each assumption or limitation, an explanation of the possible effect of the assumption has been provided, as well as a description of any corrective actions that have been taken to adjust for any limitations. These assumptions are considered reasonable and are not likely to impact on the outcome of the assessment.

Table 8.1: CCR Assessment Assumptions and Limitations

Assumption / Limitation	Consequence	Resolution
The assessment undertaken provides a broad indication of the potential impacts of climate change on the Proposed Development.	The assessment is based on a qualitative assessment and professional judgement.	An approach has been developed and applied in this assessment based on existing best practice IEMA guidance.
The UKCP18 projections have been used to infer future changes in a range of climate variables that may affect the resilience of the Proposed Development to climate change. At the time of writing, these represent the most up-to-date representation of future climate in the UK.	There are inherent uncertainties associated with climate projections and they are not predictions of the future. It is possible that future climate will differ from the baseline climate against which the resilience of the Proposed Development has been assessed depending on global emissions over the next century.	A 'high' emissions scenario (Representative Concentration Pathways (RCP) 8.5) using the 2080s time-slice (2070- 2099 – the longest temporal scale available through UKCP18) has been used to develop the baseline against which resilience has been assessed. This is consistent with the precautionary principle (i.e. 'worst case' scenario).
Analysis of climate projections is based on selected observational data available at the time of assessment.	Future climate projections, which may be more accurate, could not be accounted for within this assessment.	Any future decision-making based on this analysis should consider the range of literature, evidence and research available at that time and any changes to this.
The determination of resilience has been undertaken under the assumption that industry design standards will be adhered to where detailed information is unavailable.	Industry design standards may not have been updated to account for climate resilience.	Industry design standards are to be applied, as applicable, as the design, construction and operation of the Proposed Development develops.
Limitations associated with the approach taken for the in-combination climate change impacts (ICCI) Assessment relate to uncertainties inherent within UKCP18 Projections.	Climate change, by its very nature, is associated with a range of assumptions and limitations. For example, there is uncertainty regarding how global climatic trends will be reflected at the regional scale. To overcome these	Assessments made in relation to 'consequence' and 'likelihood' rely on professional judgement and evidence gathered through other environmental disciplines. All assumptions and limitations, including any exclusions, together with

Assumption / Limitation	Consequence	Resolution
	issues, probabilistic forecast climate change data has been used from UKCP18. This has been coupled with the replication of proven effective approaches undertaken for similar project types.	assumptions for choices and criteria leading to exclusion of input and output data have been documented as part of the assessment.

Determining the Significance of Impacts

Sensitivity of Receptors

- 8.37 The CCR Assessment has not only identified the Proposed Development's potentially sensitive receptors to climate change, but also determined each receptor's sensitivity to these changes should they occur. In simplistic terms, the sensitivity of receptors is determined as follows:

Susceptibility of the receptor x Vulnerability of the receptor to climatic change = the degree of Sensitivity

- 8.38 To aid the user, definitions for each have been set out in **Table 8.2**.

Table 8.2: Definitions for Sensitivity of Receptors

Term	Definition
Receptor's Susceptibility	A measure of the ability to be affected by a change
Receptor's Vulnerability	A measure of the potential exposure to the changing climate
Receptor's Sensitivity	The degree of response of a receiver to a change and a function of its capacity to accommodate and recover from a change if it is affected.

- 8.39 More detailed criteria for determining a receptor's sensitivity and vulnerability in this assessment are included within **Tables 2 - 3 of Appendix 8.2 of Volume 3: Appendices**.
- 8.40 Assessing the significance of potential effects on the Proposed Development has applied a risk-based methodology for identifying potential climate impacts and assessing their severity (IEMA, 2020) and can be summarised into the following steps:
- Identifying potential climate change risks to a scheme or project;
 - Assessing these risks (potentially prioritising to identify the most severe); and

- Formulating mitigation actions to reduce the impact of the identified risks.
- 8.41 The CCR Assessment includes assessing the likelihood (or probability) and consequence of the impacts identified. The likelihood and consequence of each effect have been qualitatively assessed using the descriptions in **Table 4** and **Table 5** of **Appendix 8.2** of **Volume 3: Appendices**. The determination of the likelihood and consequence have been based on professional judgement and IEMA guidance.
- 8.42 The assessment has considered factors including:
- The acceptability of any disruption in use if the Proposed Development fails;
 - Its capital value if it had to be replaced;
 - Its impact on neighbours; and
 - Whether there are dependencies between the receptor and any interconnected network of nationally important assets on the Proposed Development.

Significance of Effects

- 8.43 The significance of the potential effects of climate change on receptors is determined by combining the likelihood and consequence ratings in **Tables 4** and **5** of **Appendix 8.2** of **Volume 3: Appendices** respectively, as shown in **Table 8.3**.

Table 8.3: Significant Matrix for the CCR Assessment

Measure of Consequence	Measure of Likelihood				
	Very Low	Low	Medium	High	Very High
Negligible	Not significant	Not significant	Not significant	Not significant	Not significant
Minor	Not significant	Not significant	Not significant	Significant	Significant
Moderate	Not significant	Not significant	Significant	Significant	Significant
Large	Not significant	Significant	Significant	Significant	Significant
Very Large	Not Significant	Significant	Significant	Significant	Significant

- 8.44 There are some instances where the effects of climate change may be beneficial for receptors. This is clearly stated where relevant within the CCR Assessment.

Applying Mitigation

- 8.45 Suitable mitigation measures to address adverse effects on the ability of receptors to adapt to climate change will be developed by other topical specialists and chapter authors contributing to the ES. For example, climate change projections based on current Environment Agency guidance have been used in the drainage design for the Proposed Development.
- 8.46 Measures will be embedded into the design of the Proposed Development and would increase its resilience to climate change. Following the identification of any residual impacts, additional mitigation measures might also be recommended to further increase the Proposed Development's resilience to climate change.

Influence of the Proposed Development on Climate Change **Introduction**

- 8.47 The GHG Assessment relates to the effects of GHG emissions relating to the Proposed Development which would contribute to climate change. The Proposed Development will be assessed within the context of the UK's evolving carbon agenda. The GHG Assessment follows IEMA's best practice procedures, the steps of which are illustrated in **Figure 8.1.1** of **Appendix 8.1** of **Volume 3: Appendices**.
- 8.48 In selecting or developing an approach for an EIA GHG Assessment, the aim should be to deliver a robust, proportionate, appropriate and consistent assessment.
- 8.49 In summary, this chapter provides a quantitative assessment of GHG emissions for:
- Vehicle trips during construction and operation;
 - Embodied carbon in construction materials; and
 - Energy generation during the operational phase.

Study Area

- 8.50 GHG emissions are not geographically limited. They have a global effect rather than directly affecting any specific local receptor to which a level of sensitivity can be assigned. The GHG Assessment is not restricted by geographical area and a spatially limited study boundary cannot be clearly drawn as the scale of the impact considered in the context of atmospheric GHG concentrations is global. Therefore, in accordance with IEMA guidance, the receptor for GHG emissions is the global atmosphere. Reference has been made to the global context as appropriate. However, for the purposes of this assessment, the study area relates to the land within the red line boundary, as shown in the Site Layout Plan (Drawing No.: 2510-HWS-XXX-00-D-A-05100), and the immediate roads that vehicles either enter or exit the Site from. Traffic flows associated with other roads included within the affected transport network, as set out in data provided by the Transport Consultant for the Proposed Development, have not been included to avoid the double counting of traffic. Assumptions for the journey length of each vehicle is set out in the 'Baseline Data Collection' sub-section below.

Identifying Sensitive Receptors

- 8.51 In accordance with IEMA guidance, the global environment within which GHG emissions are emitted is considered to be the sensitive receptor within the GHG Assessment; the sensitivity of the global atmosphere is high.

Sources of GHG Emissions

- 8.52 **Table 8.4** sets out the GHG emissions considered ('direct'¹⁴ and 'indirect'¹⁵) and whether they have been assessed quantitatively or qualitatively. It should be recognised that qualitative assessments are acceptable in accordance with IEMA guidance where, for example, data is unavailable.
- 8.53 For clarity, sources of carbon emissions have been grouped to differentiate between primary, secondary and tertiary sources as follows:
- 'Scope 1' refers to emissions from sources that an organisation owns or controls directly – for example from burning fuel in our fleet of vehicles (if they're not electrically-powered);
 - 'Scope 2' are emissions that a company causes indirectly and come from where the energy it purchases and uses is produced. For example, the emissions caused when generating the electricity that we use in our buildings would fall into this category; and
 - 'Scope 3' encompasses emissions that are not produced by the company itself and are not the result of activities from assets owned or controlled by them, but by those who are indirectly responsible for up and down its value chain. An example of this is when we buy, use and dispose of products from suppliers. Scope 3 emissions include all sources not within the Scope 1 and 2 boundaries.

¹⁴ Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity.

¹⁵ Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity but occur at sources owned or controlled by another entity.

Table 8.4: GHG Emission Sources

GHG Emissions Sources	Description	Quantitative / Qualitative
Construction		
Direct GHG (Energy) - Scope 1	Construction energy - On-site fuel combustion (e.g. construction plant)	Quantitative
Direct GHG (Vehicles) - Scope 1	Vehicular emissions	Quantitative
Indirect GHG (Construction) - Scope 3	Embodied carbon associated with construction (materials, transport and construction process)	Quantitative
Solid Waste - Scope 3	Waste arising during construction	Qualitative
Water - Scope 3	Water demand associated with construction works	Qualitative
Operation		
Natural Capital - Scope 3	Green and blue infrastructure (e.g. soft landscaping, water bodies, sustainable drainage features)	Qualitative
Direct GHG (vehicles) - Scope 1	Vehicular emissions	Quantitative
Direct GHG (Energy) - Scope 1	Operational energy - On-site fuel combustion (e.g. gas, biomass, solar provisions, vehicular emission)	Quantitative (Consistent with Energy Statement)
Indirect GHG (Energy) - Scope 2	Operational energy - Off-site generation (e.g. Grid electricity, heat and steam).	Quantitative (Consistent with Energy Statement)
Solid Waste - Scope 3	Waste arising during construction	Qualitative
Water - Scope 3	Water demand associated with construction works	Qualitative

Baseline Data Collection

8.54 Baseline data for the GHG Assessment has been collected from the following sources:

- The National Atmospheric Emissions Inventory¹⁶; and
 - UK Local and regional CO₂ emissions – data tables¹⁷.
 - The traffic data provided by the Transport Consultant with respect to development-related vehicle movements during the construction and operational phases.
- 8.55 No baseline traffic data relevant to the GHG Assessment was available from the Transport Consultant at the time of writing. However, annual average daily traffic (AADT) data for Lever St. was gathered from the Department of Transport website¹⁸.

Quantifying Effects

- 8.56 GHG quantification follows the principles outlined in key documents such as the GHG Protocol Corporate Standard¹⁹, BS EN ISO 14064-2:2019²⁰ or PAS 2080.
- 8.57 GHGs include seven gases but only the following are relevant to the assessment of GHG emissions within this Chapter: Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O). Carbon dioxide (CO₂) equivalent, abbreviated as 'CO₂e', is a metric used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP) for a 100 year period, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same GWP.
- 8.58 When undertaking a quantification calculation the formula for determining a GHG emission (or removal value), associated with the construction works, energy consumption and vehicular trips has applied the following structure:

$$GHG\ emission\ factor \times Activity\ data = GHG\ emission\ or\ elimination$$

- 8.59 The CO₂e for a gas is derived by multiplying the tonnes of the gas by the associated GWP. Reporting of GHG emissions in this Chapter is done in kilo tonnes of CO₂e (ktCO₂e).

Assessing Effects

Vehicular Emissions

- 8.60 In the absence of pre-defined distances for commuter vehicles (LDVs), the most recent UK average journey distance as defined by the Department for Transport (DfT) statistics for 'data on distance travelled by trip purpose'²¹ (8 miles / 12.9 km) was

¹⁶ NAEI: Local Authority GHG Map Available from: <https://naei.beis.gov.uk/laghgapp/>

¹⁷ Gov.uk (2022) 'UK local authority and regional greenhouse gas emissions national statistics'. Available from: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

¹⁸ Department of Transport (no date) 'Road traffic statistics'. Available from: <https://roadtraffic.dft.gov.uk/#/6/55.254/-6.053/basemap-regions-countpoints>

¹⁹ World Resources Institute (2004): The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard.

²⁰ British Standards Institute (2019): Greenhouse gases - Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.

²¹ Department for Transport (2023): NTS0403: Average number of trips, miles and time spent travelling by trip purpose: England, 1995 onwards

applied. Domestic road freight statistics²² from the DfT was used to determine the average journey distance of rigid HGVs²³ in the UK (59 km). The roads were classified as “Urban (not London)” as applicable. An assumed load of 100% has been applied for all vehicle movements, thus presenting a worst case. An average vehicle speed of 20 mph (32 kph) has been assumed based on the speed limit along Lever Street. A summary of the assumptions used in the traffic data modelling is provided in **Table 8.5**.

Table 8.5: Traffic Modelling Assumptions

Proposed Development Traffic Modelling Assumptions	
Average Link Length (LDV)	12.9 km
Average Link Length (HDV)	59 km
Road Type	Urban (not London)
Assumed load	100%
Average vehicle speed	32 kph / 20 mph

- 8.61 An indicative assessment for vehicular emissions during both the construction phase and operational phase was determined for relevant scenarios using applicable traffic data and Department of the Environment, Food and Rural Affairs (Defra) Emission Factors Toolkit (EFT) v12.0, which is deemed suitable for large scale and high-level applications. The EFT allows users to calculate road vehicle pollutant emission rates for NO_x, PM₁₀, PM_{2.5} and CO₂, the GHGs which comprise the vast majority of exhaust fumes from vehicles, for a specified year, road type, vehicle speed and vehicle fleet composition. The main product of fuel combustion in vehicles is CO₂. Though long-lived gases, like CH₄, N₂O, CO, and H₂, are GHGs and have global effects on atmospheric chemistry and climate, they have not been assessed independently as they are more difficult to estimate and depend strongly on technology, vehicle type and driving conditions, information which is not available at the time of writing. What is more, the contribution of these gases are considered small in comparison to CO₂.
- 8.62 The EFT is updated periodically due to updates to underlying data including vehicle fleet composition and emissions factors. The projection method takes into account the local baseline Euro fleet and the national fleet projections. It is assumed that the local fleet will follow the same profile as the national fleet, and that the difference between the two fleets is due to the local fleet being either ‘ahead’ or ‘behind’ the national fleet in terms of Euro class uptake.
- 8.63 It is anticipated that the Proposed Development will be car-free during the operational phase. Strictly limited car parking spaces will be provided for accessibility use only, with no permanent general car parking to be provided on site. Vehicle servicing will be delivered by integrated loading bay areas. All vehicle trips included within modelling for the operational phase are associated with servicing and taxi movements only.

²² Department for Transport (updated December 2023) ‘Road freight statistics: 2019’. Available from: <https://www.gov.uk/government/statistics/road-freight-statistics-2019>

²³ Rigid, rather than articulated or other HGVs, were selected as they are more likely to be utilised during construction and for delivery purposes under operational circumstances.

Embodied Carbon

- 8.64 An indicative quantitative assessment of indirect emissions associated with embodied carbon within construction materials has been undertaken (**Appendix 8.5 of Volume 3: Appendices**) based on the latest drawings and known materials available at the time of writing. The assessment includes the shell and core, which constitutes the large majority of embodied carbon within new buildings. There is currently no information available to allow an assessment of fit out materials and drainage infrastructure.
- 8.65 The calculations covered Stages A1 – A5 (cradle to practical completion) of the life cycle stages are defined by BS EN 15978²⁴ and EN 15804²⁵ standards. Stages A1 – A3 cover the production of the materials, Stage A4 covers the transportation of the materials to the Site and Stage A5 covers the construction installation process. It is considered that the Stage A5 covers the GHG emissions associated with construction plant.
- 8.66 The assumptions associated with the Embodied Carbon Assessment are included within **Appendix 8.5 of Volume 3: Appendices**.

Energy Emissions

- 8.67 GHG emissions from energy consumption during the operational phase have been assessed quantitatively based on the Energy Statement (Doc. ref. no.: 60035 Lever Street Energy Statement 2024.02.13 RevS2A) provided by Atelier Ten, the Energy Consultant for the Proposed Development.

Emissions from Waste and Water

- 8.68 There is insufficient information at the time of writing to undertake an indicative quantitative assessment of emissions from waste arisings and water usage during the construction and operational phases. Therefore, qualitative assessments have been undertaken and mitigation measures have been recommended.

Natural Capital

- 8.69 An assessment of emissions associated with land use change requires a multi-disciplinary approach and necessitate extensive qualitative and quantitative field work on species populations and ecosystem dependencies over different seasons. With no final site plans or technical specifications firmed up, the carbon analysis will have to make too many assumptions reducing reliability.

Maintenance

- 8.70 Maintenance associated with the Proposed Development is not considered to be a significant source of GHG emissions. Therefore, this has been scoped out.

Decommissioning

- 8.71 The effects of the decommissioning phase of the Proposed Development have been scoped out due to a design life of over 25 years and uncertainties around the carbon

²⁴ European Standards (2011) 'BS EN 15978:2011 Sustainability of construction works. Assessment of environmental performance of buildings. Calculation method'

²⁵ European Standards (2020) 'CSN EN 15804+A2 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products'

intensity of fuels which would be used within the deconstruction techniques. It is therefore not possible to proportionally assess effects and impacts during decommissioning, however given that decommissioning is unlikely to involve the construction of new infrastructure it would be anticipated that GHG emissions would be less than during the construction phase. Given that decommissioning is anticipated to occur post 2050, and consistent with policy, the UK construction sector (for decommissioning works) is expected to be net zero.

Determining Significance

8.72 Key information from IEMA guidance (2022) in relation to determining the significance of effects is as follows:

- *"The GHG emissions from all projects will contribute to climate change, the largest interrelated cumulative environmental effect. GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit; as such any GHG emissions or reductions from a project might be considered to be significant";*
- *"The crux of significance is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050";*
- *"The UK has set a legally binding GHG reduction target for 2050 with interim five-yearly carbon budgets which define a trajectory towards net zero. The 2050 target (and interim budgets set to date) are, according to the CCC, compatible with the required magnitude and rate of GHG emissions reductions required in the UK to meet the goals of the Paris Agreement, thereby limiting severe adverse effects";*
- *"To meet the 2050 target and interim budgets, action is required to reduce GHG emissions from all sectors, including projects in the built and natural environment. An EIA for any development must therefore give proportionate consideration to whether and how that development will contribute to or jeopardise the achievement of these targets";*
- *"For the avoidance of doubt, a 'minor adverse' or 'negligible' non-significant effect conclusion does not necessarily refer to the magnitude of GHG emissions being carbon neutral (i.e. zero on balance) but refers to the likelihood of avoiding severe climate change, aligning project emissions with a science-based 1.5°C compatible trajectory, and achieving net zero by 2050"; and*
- *"When evaluating significance, all new GHG emissions contribute to a significant negative environmental effect; however, some projects will replace existing development that have higher GHG profiles. The significance of a project's emissions should therefore be based on its net impact, which may be positive, negative or negligible".*

8.73 Although it is accepted that all GHG emissions contribute to climate change, IEMA has set out how to determine whether GHG emissions associated with individual developments are significant in EIA terms.

- 8.74 IEMA guidance states that the significance of effects can be defined and compared against various carbon budgets, such as local authority budgets and sectoral budgets. Where this cannot be achieved, or where it is more suitable, the determination of significance can also be defined and compared against UK Carbon Budget Targets, which are set out in **Table 8.6**. In the absence of agreed, quantifiable, thresholds for what level of GHG emissions is considered significant in an EIA, IEMA guidance and professional judgement based on both sectoral and UK carbon budgets has been used to assess the significance of effects.
- 8.75 Further to sectoral and UK carbon budgets, yearly carbon budgets set by MCC are not deemed to be applicable to private development. However, a yearly GHG budget for energy usage in the Greater Manchester Combined Authority area for 2027, the year the Proposed Development becomes operational has been considered. This budget was derived following a study by researchers from the Tyndall Centre and is based on commitments enshrined in the Paris Agreement²⁶.

Table 8.6: UK Carbon Budgets

Carbon Budget Years	Total Carbon Budget (ktCO ₂ e)
Five-year UK Total GHG Budget Targets	
2023 – 2027 (4th Carbon Budget)	1,950,000
2028 – 2032 (5th Carbon Budget)	1,765,000
2033 – 2037 (6th Carbon Budget)	965,000
Relevant Yearly Total UK GHG Budget Targets	
2026	416,400
2027	391,000
Relevant Sectoral Yearly UK Carbon Budget Target for Manufacturing and Construction	
2026	47,350
Relevant Sectoral Yearly UK Carbon Budget Target for Non-Residential Buildings	
2027	16,250
Relevant Sectoral Yearly UK GHG Budget Target for Surface Transport Sector	
2026	86,600
2027	81,220
Relevant Sectoral Yearly Energy GHG Budget Target for GMCA	
2027	690

2026: Peak year of construction

2027: Opening year of development / Operational Circumstances

- 8.76 IEMA Guidance notes that in relation to the largest-scale developments, “an indicative threshold of 5% of the UK or devolved administration carbon budget in the applicable time period is proposed, at which the magnitude of GHG emissions irrespective of any reductions is likely to be significant. A project that meets this threshold can in itself materially affect achievement of the carbon budget”. As the Proposed Development is

²⁶ Kuriakose, Jones, Anderson, Broderick & McLachlan (2024) ‘Setting Climate Commitments for Manchester’. Available from: <https://carbonbudget.manchester.ac.uk/reports/E08000003/>

not considered to qualify as a development of the largest-scale, a more stringent threshold of 1% of the relevant sectoral and UK Carbon Budgets has been set.

8.77 **Table 8.7** sets out the significance criteria for the GHG Assessment.

Table 8.7: Significance Criteria for GHG Emissions

Effect Significance	Description of Criteria
Negligible	The project's GHG impacts would be reduced through measures that go well beyond existing and emerging policy and design standards for projects of this type, such that radical decarbonisation or net zero is achieved well before 2050. A project with negligible effects provides GHG performance that is well 'ahead of the curve' for the trajectory towards net zero and has minimal residual emissions; or emissions are equal to the emissions predicted in the 2026 (construction) / 2027 (operational) 'Do Nothing' baseline scenarios.
Minor Adverse	The project's GHG impacts would be fully consistent with applicable existing and emerging policy requirements and good practice design standards for projects of this type. A project with minor adverse effects is fully in line with measures necessary to achieve the UK's trajectory towards net zero, and/or: An increase in combined (i.e. total) emissions predicted in the 2026 (construction) / 2027 (operational) 'Do Nothing' baseline scenarios, but less than 1% of total emissions from the relevant sectoral and UK Carbon Budgets and with a commitment to reasonable and deliverable measures to seek to reduce these emissions in accordance with relevant policy and guidance.
Moderate Adverse	The project's GHG impacts are partially mitigated and may partially meet the applicable existing and emerging policy requirements but would not fully contribute to decarbonisation in line with local and national policy goals for projects of this type. A project with moderate adverse effects falls short of fully contributing to the UK's trajectory towards net zero, and/or: An increase in combined (i.e. total) emissions predicted in the 2026 (construction) / 2027 (operational) 'Do Nothing' baseline scenarios, but less than 1% of total emissions from the relevant sectoral and UK Carbon Budgets and without a commitment to reasonable and deliverable measures to seek to reduce these emissions, in accordance with relevant policy and guidance.
Major Adverse	The project's GHG impacts are not mitigated or are only compliant with do-minimum standards set through regulation, and do not provide further reductions required by existing local and national policy for projects of this type. A project with major adverse effects

Effect Significance	Description of Criteria
	<p>is locking in emissions and does not make a meaningful contribution to the UK's trajectory towards net zero, and/or:</p> <p>An increase in combined (i.e. total) emissions predicted in the 2026 (construction) / 2027 (operational) 'Do Nothing' baseline scenarios, that results in GHG emissions representing greater than 1% of total emissions from the relevant sectoral and UK Carbon Budgets.</p>

- 8.78 For the purposes of the GHG Assessment, negligible and minor adverse effects are not considered to be significant in EIA terms and in line with measures necessary to achieve the UK's trajectory towards net zero.

Applying Mitigation

- 8.79 It is important that project designers incorporate measures to reduce GHG emissions at an early stage. GHG mitigation is best achieved by taking a planned and focused approach following the IEMA GHG management hierarchy principles. The IEMA GHG Management Hierarchy, as shown in **Table 8.8**, comprises the following stages: eliminate; reduce; substitute and compensate.

Table 8.8: EIA Hierarchy for Managing Project-related GHG Emissions (adapted from IEMA, 2022³)

Step	Strategy
Eliminate	Within all major development decisions, investigate and deploy options to eliminate GHG emissions.
Reduce	Ensure that construction and operational activities will deliver efficient use of energy and resources.
Substitute	Commit to renewables and low carbon materials, methods and technologies in place of more carbon intensive sources.
Compensate	Develop a strategy to compensate residual or 'unavoidable' emissions.

Assumptions and Limitations

- 8.80 Uncertainty can arise from quality of data, study boundaries and period of assessment, and can never be eliminated from a study.
- 8.81 The assumptions and limitations which apply to the GHG Assessment are outlined in **Table 8.9**. For each assumption or limitation, an explanation of the possible effect of the assumption has been provided as well as a description of any corrective actions that have been taken to adjust for any limitations. These assumptions are considered reasonable and are not likely to impact on the outcome of the GHG Assessment.
- 8.82 It should be noted that a calculated approach for quantifying GHG emissions is of course completed in advance of supply chain mobilisation and associated construction works.

Table 8.9: GHG Assessment Assumptions and Limitations

Assumption / Limitation	Consequence	Resolution
The embodied carbon assessment has utilised the most current information available on structural elements only at the time of writing. Reasonable assumptions were made on the specifications of construction materials to be used. All assumptions have been included in Appendix 8.5 of Volume 3: Appendices .	The total figure provided in the embodied carbon assessment is likely to be lower than the total figure is likely to be once the detailed design stage is completed as some elements of the superstructure have been omitted due to unavailability of information at the time of writing. The consultant has therefore presented a 'worst case scenario' for the purposes of this assessment.	The majority of the embodied carbon of structures is associated with Modules A1–A5 and the assessment undertaken includes the majority of embodied carbon associated with Modules A1–A5. An updated assessment could be undertaken at the detailed design stage if required.
Data on the anticipated transportation distances for both LDVs and HGVs are unknown.	Any changes to the distances could be considered to materially affect the chapter outcomes.	Distances used in modelling have been based on average journey distances as defined by the Department for Transport for both LDVs and HGVs. These assumptions are considered reasonable based on professional judgement.
The future traffic levels for the assessment are based upon an opening year predicted to be in 2027. An operational period of 60 years has been assumed for the assessment of GHG emissions.	If Proposed Development was to become fully operational in a year other than 2027, vehicular GHG emissions would be less accurate.	To model the GHG emissions, the assessment has used the Defra EFT v12.0 which take into account the proportions of the vehicle types, fuel type and forecast fuel consumption for the opening date 2027. As the assessment provides an indicative amount of GHG emissions, it is considered that calculations would be representative of approximate emissions if the year the Proposed Development becomes fully operational deviates a little from 2027. This has produced a worst-case scenario for vehicular emissions.
All HGV traffic movements would be rigid HGVs, rather than articulated HGVs.	If any HGV traffic movements would be articulated HGVs, this would increase the amount of GHG emissions as the average length of articulated HGVs is longer than rigid HGVs.	It is considered reasonable to assume that all HGV traffic movements would be rigid HGVs given the type of development proposed and the location.

Assessing In-combination and Cumulative Effects

- 8.83 This chapter should be read in conjunction with the description of the Proposed Development provided in **Chapter 5: The Proposed Development**. The GHG assessment should be read in conjunction with relevant parts of the Transport Statement.
- 8.84 The CCR Assessment should be read in conjunction with relevant parts of other environmental topic chapters/reports where common receptors have been considered and where there is an overlap or relationship between the assessment of effects. The relevant chapters/reports are:
- Chapter 11: Wind Microclimate;
 - Drainage Assessment (AKT II, 2024); and
 - Preliminary Ecological Appraisal Report (Doc. ref. no.: 81-633-R1-1); and
 - The Landscape Masterplan (Doc. ref. no.: 3217-PLA-00-GF-DR-L-0001).

In-combination Climate Change Impact

- 8.85 The In-combination Climate Change Impact (ICCI) assessment relates to the combined effect of the impacts of the Proposed Development and the potential for climate change impacts to modify other environmental topic impacts on the receiving environment. The ICCI assessment considers the extent to which climate change exacerbates effects on Receptors identified in the other topic chapters, including the efficacy of any mitigation. The ICCI is described in relevant topic environmental chapters of the ES.
- 8.86 The approach to the ICCI followed the guidance set out in by IEMA and included within **Table 1** of **Appendix 8.1** of **Volume 3: Appendices**. This involved a review of other chapters within the ES which have the potential to affect the significance of impacts identified in relation to climate change.
- 8.87 The ICCI assessment includes receptors in the surrounding environment, as defined by each environmental discipline in their technical assessments reported in **Chapters 6 – 12** of this ES.
- 8.88 The ICCI assessment scenario considers construction and operation of the Proposed Development. The baseline for the ICCI assessment is the same as that identified for the CCR Assessment. It has been informed using historic climate observations and climate change projection data to identify existing and future climate conditions in the geographical location of the Application Site; forecast climate change data has been used from UKCP18.
- 8.89 The likelihood of an in-combination impact occurring is determined based on the likelihood of a climate hazard occurring, combined with the sensitivity of the receptor to the combined impact of the climate hazard and the Proposed Development. The determination of significance is the same as that for resilience, outlined in **Appendix 8.2** of **Volume 3: Appendices**.

Baseline Conditions

Resilience of the Proposed Development to Climate Change

Regional Climatic Conditions

- 8.90 Information relating to climatic conditions in the North-West, the geographic region in which the Site is located, was obtained from the Met Office¹² and is summarised below to provide a general indication of climatic conditions in the region. Climate conditions which are more relevant to the Site is discussed in the 'Local Climatic Conditions' sub-section below.
- 8.91 The North-West of England has several distinct geographical areas. Much of the land west of the Pennines, which includes the area the Site is located, is relatively flat and generally below 150 m, with westward draining rivers.

Temperature

- 8.92 The mean annual temperature across the region varies from around 9°C to just over 10.5°C. Variations in temperature depend on both altitude, with a decrease of about 0.5°C for each 100 m increase in altitude, and proximity to the coast. Mean daily maximum temperatures range from just over 7°C to 10°C during the winter months and from 19°C to 21°C in the summer.
- 8.93 According to the Met Office¹², the highest daily maximum temperature record for the north-west region was set in Nantwich, Cheshire on 19th July 2022 when the temperature reached 38.4°C. The lowest daily minimum temperature record for the north-west region was set in St Michaels-on-Wyre, Lancashire when the temperature reached -21.9°C.
- 8.94 An 'air frost' occurs when the temperature at 1.25 m above the ground falls below 0°C, whereas incidence of a 'ground frost' refers to a temperature below 0°C measured on a grass surface. The number of days of frost ranges from 20 to 75 across the region, depending on altitude.

Precipitation

- 8.95 Rainfall across the North-West region tends to be associated with low pressure weather patterns from the Atlantic to the west or with convection (when the sun's energy heats the surface of the Earth, causing water to evaporate to form water vapour), with most rainfall occurring in autumn and winter months. Meanwhile, the majority of rainfall during the summer months originate from convection caused by solar surface heating, which forms shower clouds leading to showers and thunderstorms. Periods of prolonged rainfall can lead to widespread flooding in the region, especially in winter and early spring when soils are usually near saturation. The autumn of 2000 was particularly wet, with over twice the normal rainfall in much of the Pennines and Greater Manchester. Historically, Manchester receives 830 mm on average each year, which is much lower than amounts of rainfall at areas of higher altitude within the North-West region.
- 8.96 Thunderstorms are most likely to occur from May to September, reaching their peak in July and August.

Sunshine

- 8.97 The length of the day at the study area is extremely variable over the course of the year. Between 1981 – 2010, mean monthly hours of sunshine ranged between approximately 49 (December) – 190 (May) at Manchester Airport.
- 8.98 Between 1942 – 2004 at the same location, extreme minimum mean monthly hours of sunshine ranged from approximately 10 (January) – 110 (May), whilst extreme maximum mean monthly hours of sunshine ranged from approximately 75 (January) – 285 (June).

Wind

- 8.99 The North-West of England is amongst the most exposed parts of the UK given its proximity to the Atlantic Ocean and large number of upland areas. Strong winds across the area are associated with pockets of low pressure which travel from a westerly direction. The frequency and strength of these depressions is greatest during winter months, especially from December to February, and this is when mean wind speeds and gusts (short duration peak values) are strongest. The range of wind directions between south and north-west accounts for the majority of occasions and the majority of the strongest winds blow from this range of directions. Spring months tend to have a maximum frequency of winds from the north east, whilst summer months can have a greater incidence of north west or west winds associated with sea breezes.

Local Climatic Conditions

- 8.100 Weather data for 2022 was collected to build a profile of recent weather conditions in proximity to the Site. Data presented was obtained from the weatherspark website, unless stated otherwise, and interpolated from recorded weather conditions at the Manchester Airport.

Temperature

- 8.101 In 2023, the warmest part of the year was between early June and early September, whilst the coldest part of the year was between October and March.
- 8.102 Maximum temperatures peak at 30°C during June, whilst the lowest temperature was -3°C recorded on January 18th. The hottest temperature recorded in the Manchester area was on July 18th 2022 when the temperature hit 37.7°C. The previous record was 33.9°C at Rochdale weather station on July 25th 2019²⁷.

Precipitation

- 8.103 According to the Meteostat website²⁸, the total amount of precipitation at Manchester Airport in 2023 was 1,205.4 mm. The most rainfall in one day was 43.4 mm on October 20th. The months with the most number of rain days (with 15mm precipitation or more) occurred between June and November.

²⁷ Manchester Evening News (2023) 'Greater Manchester smashes heat record for second day in row' <https://www.manchestereveningnews.co.uk/news/greater-manchester-news/greater-manchester-smashes-heat-record-24530828>

²⁸ Meteostat (no date) 'Manchester' Available from: <https://meteostat.net/en/place/gb/manchester?s=03334&t=2023-01-01/2023-12-31>

Wind

- 8.104 Wind speeds were higher on average in spring and winter months in 2023 at Manchester Airport. December witnessed the highest number of days (6) that had gusts of wind stronger than 60 km/h, with the strongest (83.3 km/h) occurring on December 9th. The distribution of wind direction for Manchester International Airport is shown in the seasonal wind rose in **Figure 11.1** of this ES.

Influence of the Proposed Development on Climate Change

Existing GHG Baseline

Site Description and Context

- 8.105 A description of the existing Site has been provided in **Chapter 5: The Proposed Development** of this ES. Although the exact technologies being used to power the existing buildings are unknown, it is considered likely that they employ relatively old, non-renewable technologies given the age of the buildings. It is also considered likely that the existing building are not energy efficient.

National emissions

- 8.106 In 2021, the latest year for which detailed emissions data is available, net territorial emissions in the UK of the basket of seven GHGs covered by the Kyoto Protocol were estimated to be 399,046.1 ktCO₂e, an increase of 5.9% compared to the 2020 figure but a decrease of 4.3% compared to the 2019 figure. and 47.3% lower than they were in 1990. CO₂ made up around 80% of the 2021 total²⁹.
- 8.107 The commercial sector is estimated to have been responsible for around 4.4% of CO₂ emissions in the UK in 2021. Between 2005 and 2019, there has been a 76.5% decrease in emissions from this sector.
- 8.108 The transport sector consists of emissions from road transport, railways, domestic aviation, shipping, fishing and aircraft support vehicles. It is estimated to have been responsible for around 28.5% of CO₂ emissions in the UK in 2021. The main source of emissions from this sector is the use of petrol and diesel in road transport. CO₂ emissions from transport increased by 9.3% in 2021 compared to 2020. Between 2005 and 2019, there has been a 18.1% decrease in emissions from this sector.

Local, regional and national emissions comparison

- 8.109 A summary of local, regional and national GHG emissions (2021)²⁹ for relevant sectors are presented in **Appendix 8.4** of **Volume 3: Appendices**. The continued reduction of GHG emissions in Manchester from 2005 – 2021 is illustrated in **Figure 8.2**.

²⁹ Department for Business, Energy and Industrial Strategy (February 2022): 2021 UK Greenhouse Gas Emissions, Provisional Figures (latest available at the time of writing)

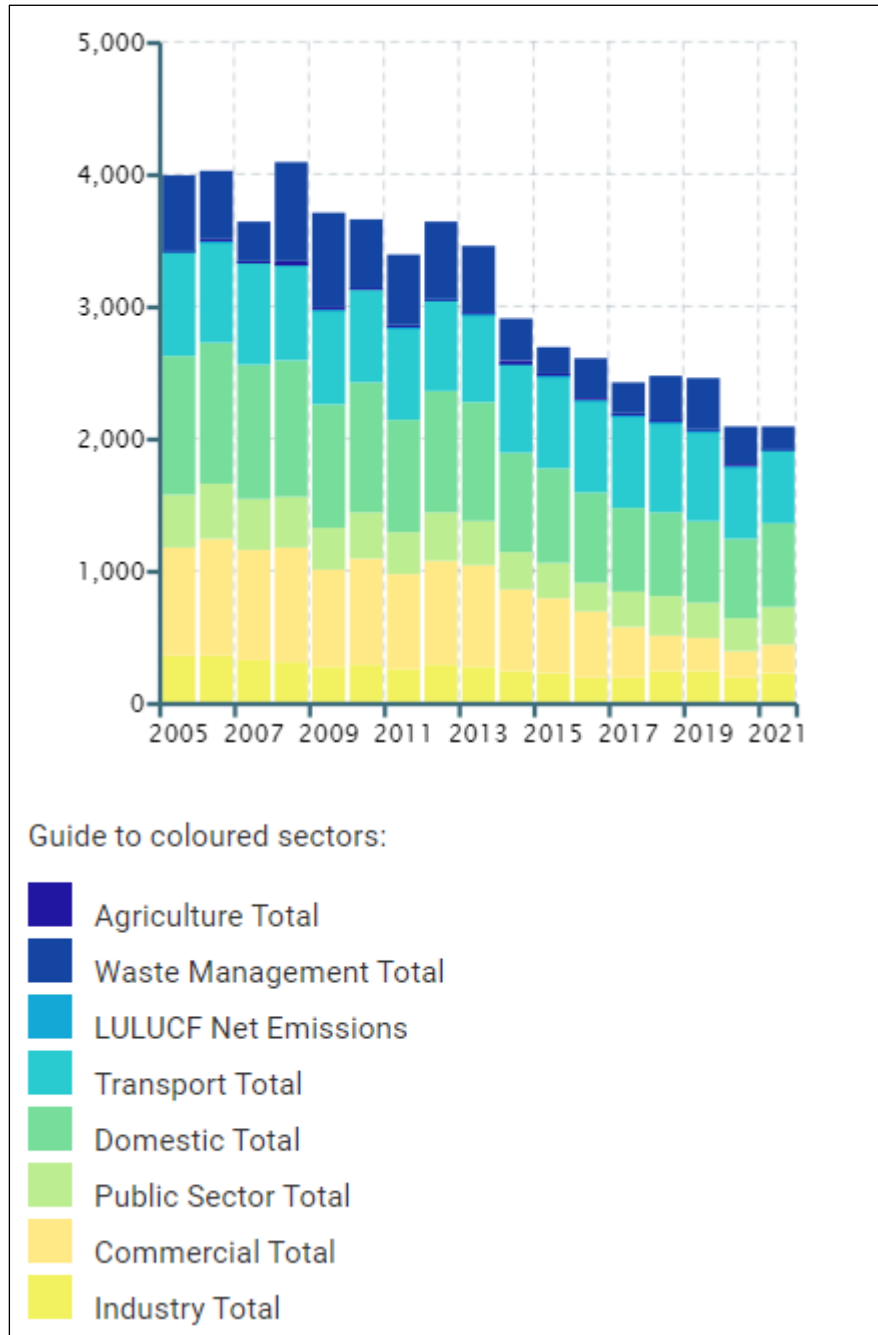


Figure 8.2: GHG emissions in Manchester from 2005 – 2021 (kilogram equivalent Carbon Dioxide [kgCO₂e] per annum) (source: National Atmospheric Emissions Inventory¹⁶)

Vehicular Emissions from Road

- 8.110 Business, Energy and Industry Strategy (BEIS) data (2022)²⁹ demonstrate a trend in the reduction in vehicular carbon emissions from local, regional and national sources from the year 2005, with forecasts showing a continuation in reductions over the next years in keeping policy, targets and a betterment in technology. The data shows that vehicular road emissions contributed approximately 26.5% of the total GHG emissions within Manchester in 2021.
- 8.111 The total GHG emissions from road transport in Manchester for 2021 (534.5 ktCO₂e) constitutes an increase of 0.09% compared to the equivalent figure for 2020 (534

ktCO₂e). Between 2005 and 2019, there has been a 53.2% decrease in emissions from vehicular road emissions.

Future Baseline

Resilience of the Proposed Development to Climate Change

- 8.112 As the world warms, the UK is generally likely to have hotter, drier summers and warmer, wetter winters. Extreme weather events such as heatwaves and heavy downpours could become more frequent and more intense.
- 8.113 The following future climatic conditions are predicted for the 12 km² area within which the Site is located based on extensive weather measurement records collected by the Met Office and reported in the UKCP18³⁰. They identify the likely challenges that the Proposed Development should be designed to withstand over the lifetime of the project. These predictions are based on a 4°C rise in global average temperatures, which aligns with RCP 8.5, and are as follows:
- The hottest summer day is likely to be 38.5°C, which is an increase of 5.8°C compared to the hottest summer day between 1991 – 2019;
 - The hottest winter day is likely to be 20.4°C, which is an increase of 1.7°C compared to the hottest winter day between 1991 – 2019;
 - It is expected that there may be eight “summer days” (days above 25°C per month on average) compared to one summer day between 1991 – 2019;
 - A decrease in the average number of rainy days per month in summer to ten days, compared to 13 days between 1991 – 2019. No change is expected in the average number of rainy days per month in winter compared to the average number (15) between 1991 – 2019;
 - An increase in the wettest day of summer to 60 mm of rain, compared to 51 mm of rain for the wettest day of the summer year between 1991 – 2019; and
 - An increase in the wettest day of winter to 61 mm of rain, compared to 51 mm of rain for the wettest day of winter between 1991 – 2019.
- 8.114 In relation to wind, according to UKCP18 projections there is projected to be *“an increase in near surface wind speeds over the UK for the second half of the 21st century for the winter season when more significant impacts of wind are experienced. However, the increase in wind speeds is modest compared to natural variability from month to month and season to season, so confidence is low”*¹³.

³⁰ British Broadcasting Corporation (2021) ‘What will climate change look like near me?’. Available from: <https://www.bbc.co.uk/news/resources/idx-d6338d9f-8789-4bc2-b6d7-3691c0e7d138>

Sensitivity of Receptors

- 8.115 The resilience of the Proposed Development to climate change depends on the level of exposure of the receptors to changes in different climate variables. In the short-term, natural vulnerability will dominate the weather-related risks that are experienced, including any extreme events (such as storms and heatwaves). Over the long term, the climate we experience will be influenced by levels of GHG emissions.
- 8.116 The sensitivity of each receptor was determined through professional judgement and the results are shown in **Table 8.10**.

Table 8.10: Determining the Sensitivity of Receptors

Receptor	Susceptibility	Vulnerability	Sensitivity
Substructure	Low	Low	Low
Infrastructure / Building Structures	Moderate	Moderate	Moderate
Landscaping / Habitats	Low	Moderate	Moderate
End Users	Moderate	Moderate	Moderate

The Influence of the Proposed Development on Climate Change

Site Context

- 8.117 Under the 'Do-Nothing' scenario, GHGs associated with the existing Site uses, which are likely to be energy inefficient and use old technologies, are expected to be emitted.

Vehicular GHG Emissions

- 8.118 There is no information available at the time of writing to determine the 'Do-Nothing' scenario (i.e. the future baseline scenario without the build-out of the Proposed Development).

Energy

- 8.119 **Figure 8.3** shows the Baseline and Balanced Net Zero Pathway trendlines relating to GHG emissions in the UK up to 2050. This figure shows that in order for the UK to achieve net zero by 2050, GHG emissions would need to be reduced to 391,000 ktCO₂e by 2027, the completed year of the Proposed Development.

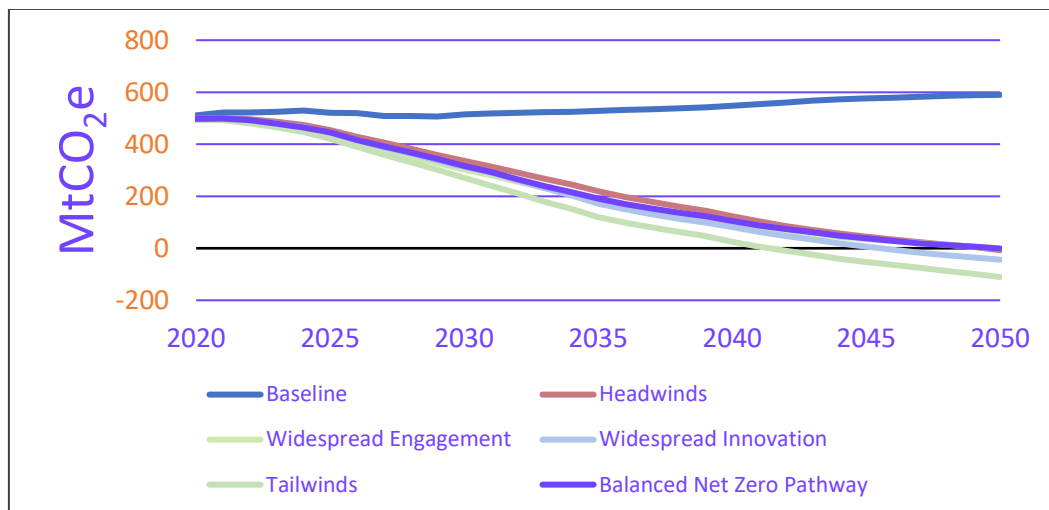


Figure 8.3: UK's Baseline and Balanced Net Zero Pathway to 2050 (source UK's 6th Carbon Budget³¹)

- 8.120 According to the UK's 6th Carbon Budget, non-residential buildings should contribute to no more than 5,180 ktCO₂e to the abatement of CO₂ through energy efficiency measures by 2027 if the UK is to achieve its net-zero targets³¹.
- 8.121 Embedded Mitigation
- 8.122 This section describes the measures which have been 'embedded' into the Proposed Development. Adaptation and mitigation are complementary strategies for reducing and managing the risks of climate change. Many adaptation and mitigation options can help address climate change, but no single option is sufficient by itself³².

Resilience of the Proposed Development to Climate Change

- 8.123 According to the Design and Access Statement (Howells, 2024), the building has been designed to be resilient to the effects of climate change and extreme weather conditions and the buildings fabric will be designed to ensure it can provide a robust barrier to high levels of rain/ snow fall, wind driven rain, high wind speeds as well as high and low external temperatures. Additionally, climate resilience will be increased via Nature Based Solutions such as planting and green roof areas.
- 8.124 The Design and Access Statement also sets out the following elements of the building design that will increase resilience:
- Urban heat island mitigation through optimised building design and vegetation;
 - Future proofed landscaping;
 - The use of robust and durable materials; and
 - Designing the building for future adaptability.

³¹ UK Government (2021) The Carbon Budget Order 2021. Available from: <https://www.legislation.gov.uk/uksi/2021/750/contents/made>

³² IPCC (2014): Climate Change 2014 Synthesis Report

- 8.125 According to the Drainage Assessment for the Proposed Development, The Site is located within Flood Zone 1 which has a low probability of flooding and has a very low risk of surface water flooding. The Drainage Assessment states that water will be contained within the proposed drainage system for every event up to and including the 1 in 100 year plus 40% climate change allowance event.
- 8.126 The Landscape Masterplan (Drawing No.: **3217-PLA-00-GF-DR-L-0001**) shows that there will be one tree planted, as well as mixed shrub and herbaceous perennial planting on within the north-eastern and north-western boundaries of the Site. This will provide a small increase in resilience in relation to the risk of flooding.

Influence of the Proposed Development on Climate Change

- 8.127 The overarching principles for management of carbon emissions follows the process outlined in IEMA Guidance and is summarised in **Table 8.8**. Mitigation follows a hierarchy whereby if GHG emissions cannot be avoided, the assessment should aim to reduce the residual significance of a project's emissions at all stages – design, construction and operation and substitute GHG intensive approaches where possible. Compensation should only be considered when these first three steps are exhausted.
- 8.128 The embedded design mitigation is considered best practice, with the aim of promoting an energy efficient and low carbon approach which minimises carbon usage now and in the future. On-site buildings will require energy for various activities such as the heating and cooling of indoor areas.
- 8.129 The Proposed Development will be designed to minimise this requirement for energy through the following measures: According to the Energy Statement for the application, of the Low and Zero Carbon Generation Technologies (LCTZ) considered, photovoltaic (PV) panels and Air Source Heat Pumps (ASHPs) were deemed to be the most feasible. The report concludes that 100 m² of PV panels would be sufficient to meet all Part L, local planning and BREEAM Excellent requirements. The Energy Statement sets out how a low-carbon building will be achieved during operation by following an energy hierarchy approach. The proposed energy strategy for the Proposed Development consists of:
- U-values beyond those required for compliance;
 - Reasonable glazing ratios and solar control glazing;
 - Air permeability of 3 m³/h.m² @ 50Pa;
 - High-efficiency hybrid variable refrigerant flow to the office spaces;
 - Ventilation with heat recovery to the majority of the core spaces;
 - Specific fan power of 1.6W/l/s for supply & extract systems;
 - High lighting efficacy and controls;
 - Domestic hot water via Air Source Heat Pumps (ASHP) for the shower block; and
 - A PV array with circa 100 m² total panel area.

- 8.130 The tree and shrub planting shown in the Landscape Masterplan will capture a small amount of CO₂ throughout the operational phase.

Assessment of Likely Significant Effects

Resilience of the Proposed Development to Climate Change

- 8.131 This Section comprises Stage 2 of the CCR (see **Table 1** of **Appendix 8.2** of **Volume 3: Appendices**). The significance of potential impacts on receptors due to climate change depends on the likelihood of them occurring and the consequence if they do occur.
- 8.132 Future climatic conditions predicted for the area under RCP 8.5, as set out in the 'Future Baseline' subsection of this Chapter, were considered when assessing the significance of climate impacts on receptors.
- 8.133 **Appendix 8.5** of **Volume 3: Appendices** presents the outcome the CCR Assessment with respect to the significance criteria. It has also taken account of the embedded mitigation measures described in the 'Embedded Mitigation' section in this Chapter. The effects relate to operation only as outlined earlier in this Chapter. All impacts related to the operational phase are considered to be long-term and local.
- 8.134 As can be seen in **Appendix 8.6** of **Volume 3: Appendices**, it is expected that there will be **no significant effects** in relation to the resilience of the Proposed Development to climate change. However, measures have been suggested within the 'Additional Mitigation / Enhancement Measures' section of this chapter to help bolster resilience.

Influence of the Proposed Development on Climate Change

- 8.135 GHG emissions result in the same global climate change effects wherever and whenever they occur and therefore the sensitivity of different human and natural receptors is not considered.

Construction Phase

Embodied Carbon, Transport of Materials and Site Operations

- 8.136 Given the current methods of producing of construction materials, it is inevitable that a large amount of carbon will be embedded within the materials used for the construction of the Proposed Development. Embodied carbon generally constitutes the largest proportion of GHG emissions during the construction phase.
- 8.137 An assessment of embodied carbon was undertaken by BWB Consulting Ltd for the shell and core of the new building and refurbishment of the existing six-storey building. As stated in the methodology section, it is considered that Stage A5 covers emissions associated with construction plant. The result of this assessment are set out in **Table 8.11**.

Table 8.11: Embodied Carbon Assessment Results

Life Cycle Stage	Embodied Carbon (ktCO ₂ e)
Stages A1 – A3	5.03
Stage A4	0.22
Stage A5	0.59
Total	5.84

8.138 As can be seen in **Table 8.11**, the total embodied carbon is expected to be 5.84 ktCO₂e. As the construction phase would occur across the time period for the 4th Carbon Budget only (2023 – 2027), the budget of 1,950,000 has been assessed against to determine significance.

8.139 The assessment of significance for these emissions sources is set out in **Table 8.12**.

Table 8.12: Assessment of Significance for Embodied Carbon

Carbon Budget	Carbon Budget Total (ktCO ₂ e)	Embodied Carbon Total (ktCO ₂ e)	Percentage of Total Carbon Budget	Effect
UK's 4 th Carbon Budget (2023 - 2027)	1,950,000	5.84	0.0003%	Permanent moderate adverse effect
2027 UK Budget	391,000		0.001%	Permanent moderate adverse effect
UK's Manufacturing and Construction Budget (2026)	47,350		0.01%	Permanent moderate adverse effect

8.140 In accordance with the criteria set out in **Table 8.7**, if unmitigated, each of the totals would result in a **permanent, moderate, adverse** effect. In accordance with the methodology for determining significance, this is considered to be a **significant** impact in EIA terms.

Vehicular Road Emissions

8.141 Total vehicular GHG emissions during the construction phase are presented in **Table 8.12** for the 'Baseline' scenario year 2022 and the 'Do Something' scenario year 2026 (i.e. the year of peak construction with the Proposed Development being

built out). As set out in the methodology, there is no information at the time of writing to determine emissions associated with the 'Do Nothing' scenario year 2026 (i.e. i.e. the year of peak construction without the Proposed Development being built out).

Table 8.13: Vehicular Emissions During Construction

Year	Total Vehicles	Total LDV	Total HGV	Total ktCO ₂ e
2022 Baseline Scenario	39,425	38,242	1,183	61.16
2026 'Do Something' Scenario	39,497	38,304	1,193	0.26
Predicted Change	+72	+62	+10	+ 0.26

- 8.142 As can be seen in **Table 8.13**, under the worst-case scenario, vehicular emissions would result in a total amount of 0.26 ktCO₂e per year during the construction phase. Given that the construction phase is expected to last 3 years, the total amount of GHG emissions from vehicles during the construction phase would be 0.78 ktCO₂e.
- 8.143 This total of 0.78 ktCO₂e represents 0.00004% of the UK's 4th Carbon Budget (1,950,000 ktCO₂e), which would result in a **permanent, moderate, adverse** effect. In accordance with the methodology for determining significance, this is considered to be a significant impact in EIA terms.
- 8.144 Compared to the UK Yearly surface transport budget for 2026 (86,600 ktCO₂e – as shown in **Table 8.6**) this total of 0.78 ktCO₂e represents 0.0009%, which would result in a **permanent, moderate, adverse** effect. In accordance with the methodology for determining significance, this is considered to be a **significant impact** in EIA terms.

Solid Waste and Water

- 8.145 There is no information available at the time of writing to undertake an indicative assessment of GHG emission associated with solid waste and water during construction. Based on experience of previous projects, it is considered that emissions from these sources are relatively minor compared to other sources and would not be a contributing factor in the overall determination of significance of effects. However, if unmitigated emissions from these sources would result in a **permanent, moderate, adverse** effect. In accordance with the methodology for determining significance, this is considered to be a **significant** impact in EIA terms.

The Completed and Operational Development Vehicular Emissions

- 8.146 **Table 8.14** shows a comparison between GHG emissions for the Baseline scenario and future 'Do Something' scenario for the year 2027 with respect to vehicular road emissions. As 2027 is expected to be the year when the Proposed Development will be built in full and operational, the 'Do Something' scenario represents the 'worst case' scenario for these vehicular GHG emissions as emissions would be expected to reduce year on year as there is increased uptake in electric vehicles (EVs).

Table 8.14: Vehicular Emissions During Operation

Year	Total Vehicles	Total LDV	Total HGV	Total ktCO ₂ e
2022 Baseline Scenario	39,425	38,242	1,183	61.16
2027 'Do Something' Scenario	39,504	38,313	1,191	0.22
Predicted Change	+ 79	+ 71	+ 8	+ 0.22

8.147 As can be seen in **Table 8.14** the total vehicular GHG emissions for the 'Do Something' scenario in 2027 is predicted to be 0.22 ktCO₂e per year, which constitutes a 0.36% increase from the Baseline scenario. This figure of 0.22 ktCO₂e represents 0.0003% of the 2027 sectoral budget for surface transport in the UK (81,220 tCO₂e – as shown in **Table 8.6**).

8.148 The significance of these vehicular emission are assessed in **Table 8.15**.

Table 8.15: Significance of Operational Vehicular Emissions

Carbon Budget	Carbon Budget Total (ktCO ₂ e)	Total Vehicular Emissions (ktCO ₂ e)	Percentage of Total Carbon Budget	Effect
UK's 4 th Carbon Budget (2023 - 2027)	1,950,000	0.22	0.00001%	Permanent moderate adverse effect
2027 UK Budget	391,000		0.00006%	Permanent moderate adverse effect
UK's Surface Transport (2027)	81,220		0.0003%	Permanent moderate adverse effect

8.149 In accordance with the criteria set out in **Table 8.7**, if unmitigated, each of the totals would result in a **permanent, moderate, adverse** effect. In accordance with the methodology for determining significance, this is considered to be a **significant** impact in EIA terms.

Energy

8.150 According to the Energy Statement, the total energy consumption per year is expected to be 20.6 kWh/m². Based on the Building Emissions Rate (BER) of 2.73 kgCO₂/m² per year, and the assumed floor area within energy calculations (15,619 m²), the expected GHG emissions would be 0.043 ktCO₂e per year.

8.151 This figure of 0.043 ktCO₂e represents 0.006% of the 2027 carbon budget for energy in GMCA (690 ktCO₂e - as shown in **Table 8.6**). In accordance with the criteria set out in **Table 8.7**, if unmitigated, this total would result in a **permanent, moderate,**

adverse effect. In accordance with the methodology for determining significance, this is considered to be a **significant** impact in EIA terms.

Additional Mitigation / Enhancement Measures

Resilience of the Proposed Development to Climate Change

- 8.152 As discussed in the 'Embedded Mitigation' section, embedded mitigation measures and standard practice measures have been incorporated within the design of the Proposed Development, which would greatly increase its resilience to climate change. This section discusses mitigation measures additional to those set out in the 'Embedded Mitigation' section.

Construction

- 8.153 The impacts of climate change on the Proposed Development during the construction stage would be managed through a CEMP, which would contain detailed procedures to minimise any potential impacts associated with extreme weather events. This will compliment best practice mitigation measures employed in the construction industry.
- 8.154 Construction contractors will use a short to medium-range weather forecasting service from the Met Office, or other approved meteorological data and weather forecast provider, to inform short to medium-term programme management, environmental control and impact mitigation measures.
- 8.155 The lead contractor will ensure appropriate measures within the CEMP are implemented and, as appropriate, additional measures to ensure the resilience of the proposed mitigation of impacts during extreme weather events.
- 8.156 The lead contractor's Environmental Management System will consider all measures deemed necessary and appropriate to manage extreme weather events and should specifically cover training of personnel and prevention and monitoring arrangements. As appropriate, method statements should also consider extreme weather events where risks have been identified.
- 8.157 **Table 8.16** details examples of mitigation measures for each of the identified receptors during the construction phase.

Table 8.16: Mitigation Measures for Construction

Receptor	Mitigation
Substructure and Infrastructure / Built Structures	<ul style="list-style-type: none"> • Stormwater management system, including water tanks to store water for drought events, to reduce risk of flooding and subsidence; • Appropriate storage of construction materials when not in use to prevent drying out; • Good design and earthwork failure monitoring; • Establish a fire safety manual; • Provision of lightning rods on built structures; and • Appropriate ventilation to reduce humidity.
Roads, Pedestrians and Cycleways	<ul style="list-style-type: none"> • Erect temporary fencing where appropriate to protect pedestrians and cyclists from heavy winds.
Ancillary Equipment	<ul style="list-style-type: none"> • Stormwater management system to stop drain blockage and water accumulation during heavy rainfall; • Provide shading for equipment during heatwaves; • Provide buffers to block heavy winds at wind-sensitive receptors; and • Ensure power supply and other linked infrastructure is appropriately located to avoid damage/disruption.
Construction Employees	<p>The Principal Contractor will ensure that:</p> <ul style="list-style-type: none"> • Adequate breaks are taken during hot weather; • Drinking water is readily available; and • Provision for areas to shelter during extreme rainfall events.

The Completed and Operational Development

8.158 Adaptation and resilience to climate and weather-related risks should be considered periodically through maintenance regimes. A schedule of general inspections and principal inspections of each structure should be carried out to determine their condition and identify any potential maintenance requirements. In addition, a list of extreme weather-related incidents (for example, road surface deformations, snow and ice, etc.) should be maintained by the occupant of each building to assist in identifying thresholds which, when exceeded, would require maintenance. The following should be implemented appropriately:

- Have emergency response and contingency plans in place;
- Undertake effective, essential winter maintenance;

- Regularly review and updated winter maintenance plans;
- Inspect assets regularly to detect deterioration and damage;
- Produce standard operating procedures for use in the event of necessary road closure and/or traffic diversion;
- Use construction materials with superior properties which offer increased tolerance to fluctuating temperatures;
- Provide road/site user warning systems in areas exposed to high winds;
- Undertake regular sweeping and cleaning to remove debris;
- Undertake effective vegetation maintenance;
- Undertake regular surveys, management and monitoring of lighting to ensure asset stability; and
- Undertake regular maintenance and cleaning of drainage systems.

The Influence of the Proposed Development on Climate Change

- 8.159 As discussed in the 'Embedded Mitigation' section, measures have been incorporated within the design of the Proposed Development, which would avoid or reduce the amount of GHGs emitted during the operational phase. This section discusses mitigation measures additional to those set out in the 'Embedded Mitigation' section.
- 8.160 The overarching principles for management of carbon emissions follows the process outlined in **Table 8.8**. Where GHG emissions cannot be avoided, the assessment should aim to reduce the residual significance of a project's emissions at all stages – design, construction and operation.

Construction

Embodied Carbon

- 8.161 A review of materials to be utilised in the construction of the Proposed Development should be undertaken at the detailed design stage to determine where savings could be made in relation to embodied carbon. This may be done as part of a Whole Life-Cycle Carbon Assessment.
- 8.162 The procurement of high quality, durable, ethical and sustainable materials (from local sources where appropriate) should be prioritised to reduce lifetime embodied carbon emissions of the building process. Examples include:
- Utilising a less carbon-intensive alternative to cement in concrete;
 - Increasing the use of low carbon products, such as timber, in lieu of high carbon materials such as steelwork;
 - Liaising with contractors and suppliers to engage in their research to reduce embodied carbon; and

- Sourcing building materials from sustainable and, where practicable, local sources.
- 8.163 The following standard measures should be included within the Construction Environmental Management Plan (CEMP) which would minimise the use of GHGs by construction plant Emissions associated with construction plant:
- Using fuel-efficient vehicles and machinery where reasonably practicable; and
 - Switching off machinery and vehicles when not in use.

Vehicular Emissions

- 8.164 The employment of local construction workers and the provision of information which would maximise the use of sustainable modes of transport by these workers would contribute to the avoidance of GHG emissions.
- 8.165 Emissions associated with vehicular emissions will be mitigated, albeit to an unquantifiable extent, by implementing the mitigation measures recommended within the Construction Traffic Management Plan (CTMP).
- 8.166 It is considered that this mitigation would reduce the significance of effects from permanent, moderate adverse to **permanent, minor, adverse**. This is considered to be **not significant** in EIA terms.

Solid Waste and Water

- 8.167 It is expected that these emissions could be largely avoided or minimised through appropriate mitigation measures recommended in the Construction Environmental Management Plan (CEMP) and Site Waste Management Plan (SWMP) for the Proposed Development. Standard measures within these documents which help to reduce GHG emissions include:
- Providing adequate capacity for the storage and disposal of recyclable materials;
 - Ordering materials at appropriate times and appropriate storage of materials to avoid waste;
 - Repairing any damaged items which experience water flow; and
 - Providing water efficient hygiene facilities.
- 8.168 Provided these measures are adhered to during the construction process, emissions from these sources would result in a **permanent, minor, adverse** effect. In accordance with the methodology for determining significance, this is considered to be a **not significant** impact in EIA terms.

Sustainability Credentials

- 8.169 According to the BREEAM Pre-Assessment (Appendix B of the Energy Statement) BREEAM credits are being targeted which would increase resilience to climate change:

- Mat 05: Designing for Durability and Resilience;
- Mat 06: Material Efficiency;
- Wst 05:Adaption to Climate Change; and
- Wst 06:Design for Disassembly and Adaptability.

The Completed and Operational Development

Vehicular Emissions

8.170 As mentioned previously, the Proposed Development is expected to be car-free and vehicular movements during the operational phase are associated with servicing and taxi movements only are expected to be very low. Mitigation measures to further help avoid or reduce GHG emissions include:

- The provision of 112 bicycle parking spaces;
- Localised footway improvements;
- The promotion of the benefits of walking and cycling and provision of information on active travel routes and new pedestrian and cycle infrastructure to operators/staff; and
- Provision of cycle repair kits that can be used by operators/staff at the Site.

Energy

8.171 According to the Energy Statement, 1.11 kWh/m² of the energy produced to power the yearly energy consumption for the Proposed Development per year (20.6 kWh/m²) would be generated through the proposed 100m² of PV panels.

8.172 It is considered that this mitigation would reduce the significance of effects from permanent, moderate adverse to **permanent, minor, adverse**. This is considered to be **not significant** in EIA terms.

Sustainable Credentials

8.173 According to the Energy Statement, the following will be achieved for the Proposed Development if the finalised energy strategy complies with the Energy Statement:

- Compliance with Part L 2021;
- 15% pass over Part L 2010, as required in Policy EN 6 of MCC's Core Strategy; and
- Achievement of the prerequisite credits for BREEAM 'Excellent' and six credits under Ene01 under BREEAM UK New Construction 2018.

8.174 Other credits being targeted under BREEAM UK New Construction 2018 are set out in Appendix B BREEAM Pre-assessment of the Energy Statement. Much of the work done to achieve these credits will assist minimising GHG emissions during both the construction and operational phases.

Indirect Emissions Reduction / Carbon Savings

8.175 Where not specifically recommended within other ES Chapters and planning reports / assessments, the following should be considered to help reduce GHG emissions during the operational phase of the Proposed Development:

- Avoiding mechanical cooling and investing into natural cooling and natural ventilation;
- Optimising the building envelope for thermal regulation;
- Designing automatic lighting controls and fit low energy and LED lighting throughout the Site;
- Implementing building management technology to control energy consumption;
- Minimise the use of finite sources and using renewable sustainable elements instead;
- Providing recycling facilities; and
- Using recycled components wherever possible.

Likely Residual Effects of the Development and their Significance

Resilience of the Proposed Development to Climate Change

Construction

8.176 Given that the construction is only expected to last three years and the assumption that a detailed CEMP would be produced for the Proposed Development which would include mitigation measures to increase resilience, it is not expected that there will be significant effects due to climate change during the construction phase.

The Completed and Operational Development

8.177 As shown in **Appendix 8.6** of **Volume 3: Appendices**, the Resilience Assessment determined that there would be no significant effects due to climate change on the identified sensitive receptors during the operational phase. Nevertheless, mitigation measures have been recommended to bolster the resilience of the identified sensitive receptors.

The Influence of the Proposed Development on Climate Change

8.178 **Table 8.17** provides a summary of the following:

- The likely significance of effects pre-mitigation;
- The mitigation proposed; and

- The likely significance of effects post-mitigation

Table 8.17: Residual Effects Summary

Description of Effect	Embedded Mitigation	Potential Effect including Significance	Mitigation Measures	Residual Effect including significance
<i>Demolition and Construction</i>				
Embodied Carbon in Construction Materials	N/A	5.38 ktCO ₂ e Permanent, moderate adverse - significant	Whole LCA and review of construction materials during detailed design stage	Permanent, minor adverse - not significant
Vehicular GHG Emissions	N/A	Permanent, moderate adverse - significant	Employment of measures within the CTMP	Permanent, minor adverse - not significant
Solid Waste and Water	N/A	Permanent, moderate adverse - significant	Measures within the SWMP and CEMP	Permanent, minor adverse - not significant
<i>Completed and Operational Development</i>				
Vehicular GHG Emissions	Cycle Parking Provision	0.22 ktCO ₂ e per year (permanent, moderate adverse - significant)	Measures within Travel Plan	Permanent, minor adverse - not significant
Energy Generation	Passive and active design measures to increase efficiency and reduce demand	0.043 ktCO ₂ e per year (permanent, moderate adverse - significant)	Provision of PV panels and ASHPs	Permanent, minor adverse - not significant
Solid Waste and Water	N/A	Permanent, moderate adverse - significant	Incorporation of water saving measures provision of recycling facilities	Permanent, minor adverse - not significant

Conclusions

8.179 An assessment of the following was undertaken using IEMA guidance^{2,3}:

- The resilience of the Proposed Development to climate change; and
- The influence of the Proposed Development on climate change.

Baseline Conditions

8.180 Information on baseline conditions were gathered from a range of sources including:

- UKCP18;
- Weather-related websites;
- 6th UK Carbon Budget; and
- AADT from the Department of Transport website.

Likely Significant Effects

Resilience of the Proposed Development to Climate Change

8.181 No significant effects are expected in relation to the resilience of the Proposed Development to climate change during either the construction phase or the completed and operational development.

Influence of the Proposed Development on Climate Change

8.182 A summary of the likely significance of effects pre-mitigation; the mitigation proposed; and the likely significance of effects post-mitigation for both the construction and operational phases is set out in **Table 8.17**.

Assessment of Cumulative Effects and their Significance

Resilience of the Proposed Development to Climate Change

8.183 Projected changes to average climatic conditions, as well as an increased frequency and severity of extreme weather events, have the potential to affect the ability of the natural environment surrounding the Site and surrounding schemes to adapt to climate change. Of the climate variables included in consideration for the CCR Assessment, only extreme precipitation events have been considered applicable due to the potential for excess surface water runoff from committed developments to enter Site or increase the demand on drainage infrastructure in proximity to the Site.

8.184 No significant residual cumulative effects are anticipated as it is expected that any committed developments which gain planning approval would need to demonstrate that national and local policies related to flood risk and drainage, including accounting for climate change, are met prior to the granting of planning permission by MCC.

In-Combination Climate Change Effects

- 8.185 Other ES Chapters and reports were examined to determine whether any potential identified effects would be likely to increase the significance of any effects assessed within this Chapter in relation to resilience to climate change. A summary of this assessment is provided in **Table 8.18**.

Table 8.18: In-combination Climate Change Impact Assessment

Environmental Topic	Receptor	Potential Effect	Proposed Mitigation	Significance of Effect
Construction				
Air Quality and Dust	Habitats and End users	Increased dust due to construction activities during drought conditions	Dust Management Plan	Not Significant
Flood Risk and Drainage	Attenuation tank	Blockage of pipework by silt	Routine inspections and clearance	Not Significant
Operation				
Flood Risk and Drainage	Proposed SuDS	Blockage of SuDS	Regular maintenance and monitoring	Not Significant

Influence of the Proposed Development on Climate Change

8.186 GHG emissions are inherently cumulative for the following reasons:

- The environmental impact arising from GHG emissions is the aggregation and increased concentration of GHGs within the atmosphere, and the resulting warming effect this causes;
- The location of the emissions source is not relevant to the impact arising from it; any development leading to GHG emissions has the same impact regardless of its location; and
- The climate change impacts on a given location arise from the aggregated GHG levels in the atmosphere, not from the magnitude of GHG emissions in the local area.

8.187 Given this, the identified receptor is the global atmosphere as the effects of GHG emissions are not geographically constrained. As all development emits GHGs, each has the potential to result in a cumulative effect on climate change. For this reason, it is not possible to define a study area and carry out a cumulative effects assessment for GHG emissions. As a result, consideration of the effects of the Proposed Development, together with Cumulative Schemes on GHG emissions, is not considered to be applicable. This accords with IEMA Guidance³.

8.188 The predicted GHG emissions of Cumulative Schemes are not known at this stage. Furthermore, the cumulative GHG emissions would not just be limited to the Cumulative Schemes as the receptor of the GHG emissions assessment is the global climate, with the sectoral and UK National Carbon Budgets used as a proxy. Therefore, whilst any GHG emissions across the UK could be considered to have cumulative effects with the GHG emissions of the Proposed Development, the assessment methodology has by default already covered this wider perspective.

8.189 It is considered that Cumulative Schemes will have undertaken similar best practice appraisals and embedded mitigation into design to limit their respective effects on climate change.

8.190 Taking into account the design and mitigation measures already identified for the Proposed Development, it is concluded that potential cumulative climate change is not anticipated to change the significance of any effects for the environmental topics assessed.

9. Socioeconomics

Introduction

- 9.1 This chapter assesses the significance of the socio-economic effects of the proposed development on the identified study area. For the purposes of this assessment, the study areas are Piccadilly ward (inner study area), Manchester (wider study area) and the North West of England. In particular, the assessment considers:
- Population;
 - Employment, unemployment and occupations including employment demand; and
 - The Manchester office market
- 9.2 The chapter describes the methods used to assess the likely significant effects, the baseline conditions currently existing at the site and surroundings, the potential direct and indirect effects of the development arising from the proposed new employment space, the mitigation measures required to prevent, reduce, or offset the identified significant effects and the residual effects. It has been written by Brookdale Consulting.
- 9.3 This chapter is supported by the following tables and charts.
- Table 9.1: Impact Methodology;
 - Table 9.2: Matrix for Significance of Effect;
 - Table 9.3: Population of Piccadilly ward compared to Manchester and North West, 2021;
 - Table 9.4: Structure of employment by sector 2022 (%)
 - Table 9.5: Calculation of Construction Jobs
 - Table 9.6: Residual Effects Summary
 - Table 9.7: Cumulative Sites
 - Figure 9.1: Population projections for Manchester local authority area 2023-2043 (number);
 - Figure 9.2: Population projections for Manchester local authority area by age group 2023-2043 (% change)

Assessment Methodology and Significance Criteria

Identification of Study Area

- 9.4 The study areas are selected to provide the best overview at local level (ward), local authority and regional level. As stated above, the ward for the proposed

development is Piccadilly (inner study area), Manchester (wider study area) and the North West of England.

Methods of Baseline Data Collection

- 9.5 The Site, as described in the **Baseline Conditions** section of this chapter, consists of takeaway shops and the Bem Brasil restaurant located at a key intersection with the Northern Quarter and Stevenson Square Conservation area located to the west, NOMA to the North, Ancoats to the east and the Piccadilly Basin to the South. The current economic impact of the site is calculated based on the existing uses.
- 9.6 The first stage of the assessment is to establish the baseline conditions through interrogation of published data and other sources. This includes a review of policies and strategies related to economic development and regeneration, which is used to identify priorities at the local level. It also establishes the existing demographic, economic and social conditions through reference to a number of published data sources such as Census data, the Office of National Statistics (ONS), Manchester Office Market reports and NOMIS. The baseline analysis will consider the following broad topics:
- Population;
 - Employment, unemployment and occupations including employment demand; and
 - The Manchester office market
- 9.7 The second stage of the assessment is to assess the socio-economic effects during both the construction and operational phases of development. Existing site uses and associated jobs will be calculated along with their supply chain effects as these will be lost from the site. The construction spend on the scheme will support construction jobs over the lifetime of the build. Construction will have multiplier effects through induced (supply chains) and indirect (employee spend supporting further jobs) impacts. These will be quantified and their significance evaluated at local and regional level in terms of jobs and Gross Value Added (GVA).
- 9.8 Operational impact of the offices will be calculated from official employment densities and the economic profile of typical office uses. Jobs and GVA will be calculated for appropriate sectors in the study areas and beyond including multiplier effects. This will take account of local spend of new office workers.
- 9.9 An assessment of business rates impacts will be included.
- 9.10 The assessment of additionality factors (leakage and displacement) will allow net benefits to be calculated drawing upon the UK Government's Additionality Guide. This will include deduction of the jobs currently supported on the site.

Identification of Sensitive Receptors

- 9.11 The sensitivity of the receptor is typically assessed in terms of the recoverability of the receptor and importance of the receptor. However, this method of assessment does not perform well in terms of socioeconomic impacts (particularly beneficial impacts), where the receptor is assumed to be the economy, population, businesses

and workforce in the study area. For example, in the case of job creation (or job losses) the sensitivity has been judged in terms of the level of unemployment in the area. Specific receptors identified in the assessment include construction, office market employment along with supporting employment sectors and the sensitivity is judged on the ability of the sector to absorb the predicted increase in employment.

Sensitivity of Receptors

9.12 The Sensitivity of the Receptor is measuring the capacity of the variable in question (e.g. population, employment/unemployment) to absorb any change. This is classified as a subjective judgement based on the best available evidence within the following model:

- Very High Sensitivity – evidence base suggests the variable is already over capacity before any new change is introduced;
- High Sensitivity – evidence base suggests the variable is close to or is at capacity;
- Medium Sensitivity – evidence base suggests the variable has capacity to accommodate some change; and
- Low Sensitivity – evidence base suggests the variable has no capacity issues and can easily accommodate change.

9.13 The Magnitude of Impact is a composite measure which judges the combined effects of the modelled impact of the development, including the location, duration and scale of the effect. The composite measure follows this model:

- Very High – a long-term and/or large-scale impact in the Inner Study Area;
- High – any combination of impacts between the Very High and Medium definition;
- Medium – a medium-term and/or moderate scale impact in the Wider Study Area;
- Low – any combination of impact between the Medium and Negligible definition; and
- Negligible – a temporary and/or small-scale impact at the North West of England level.

Characterisation of Effect

9.14 The overall impact methodology is primarily based on a quantitative assessment of the economic impacts in terms of jobs and Gross Value Added (GVA), in line with HM Treasury Green Book guidance.

9.15 The level of significance is assessed as shown in **Table 9.1**.

Table 9.1: Impact Methodology

Magnitude of the Impact		
Spatial Extent of Impact	Duration of Impact	Scale of Impact

Magnitude of the Impact		
<ul style="list-style-type: none"> Inner Study Area (Piccadilly) Wider Study Area (Manchester) North West of England (or beyond) 	<ul style="list-style-type: none"> Long-term/permanent (more than 10 years) Medium-term (existing for 5 to 10 years) Short-term (existing for 1 to 5 years) Temporary effect (existing for less than 1 yr) 	<ul style="list-style-type: none"> As there are no specific standards or guidelines, the impacts have been assessed relative to baseline conditions, or a 'No Development' scenario

Significance Criteria

9.16 There are no recognised significance criteria for socioeconomic and health effects and, as such, professional judgement will be used based upon the identified needs of the local area, planning policy objectives and the magnitude of potential impacts in line with the significance criteria set out in **Chapter 2: EIA Approach**. Mitigation measures will be identified as required along with any residual effects.

9.17 The significance takes into consideration the following variables:

- The sensitivity of the receptor – i.e. their value and susceptibility to change;
- The magnitude of effect experienced by the receptor – i.e. the degree of alteration from the baseline;
- The scale at which any effect will be felt – i.e. site level, at the immediate setting of the site, at the scale of the study area;
- The duration of any effect (short-term, long-term etc);
- The socioeconomic effect of the development itself; and
- The changes that will occur over time with the development in place.

9.18 The magnitude of change is considered alongside the sensitivity of the receptor and the significance of the impact is thus identified. **Table 9.2** sets out the resulting impact matrix.

Table 9.2: Matrix for Significance of Effect

Magnitude of Effect (based on spatial, duration and scale of impact)	Sensitivity of Receptor			
	Very High	High	Medium	Low
Very High	Major	Major	Major	Moderate

High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor
Low	Moderate	Minor	Minor	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

- 9.19 The major, moderate and minor ratings can be with Beneficial or Adverse. Any identified effects rated as Major are regarded as Significant to the EIA and are shaded grey in **Table 9.2**.

Assumptions / Limitations

- 9.20 The assessment is based on the latest available and most comprehensive socio-economic data sources provided by central and local government. A number of these carry production lags, for example the latest population projections are based on 2018 mid-year estimates.

Consultation

- 9.21 As the socio-economic assessment draws upon existing sources of information, largely government statistics, no consultation was deemed necessary. Statutory consultation responses relating to socio-economics did not highlight any issues beyond those already considered within scope.

Baseline Conditions

- 9.22 This section describes the baseline conditions at the site and the study area.

Current Site

- 9.23 As explained above, the site consists of takeaway shops and the Bem Brasil restaurant located at a key intersection with the Northern Quarter and Stevenson Square Conservation area located to the west, NOMA to the North, Ancoats to the east and the Piccadilly Basin to the South.

Population

- 9.24 According to the ONS, based on latest Census 2021 data, Manchester has a total population of 551,943. Within this, the Piccadilly ward accounts for 2.1% of the population at 11,654. A breakdown of the population by broad age category is given in **Table 9.3**. It can be seen that Piccadilly has a very high proportion of working age people at 95%. A total of 32% of its population are in the 16-24 age reflecting the predominance of students. The North West has more than seven times the level of retired people as Piccadilly ward.

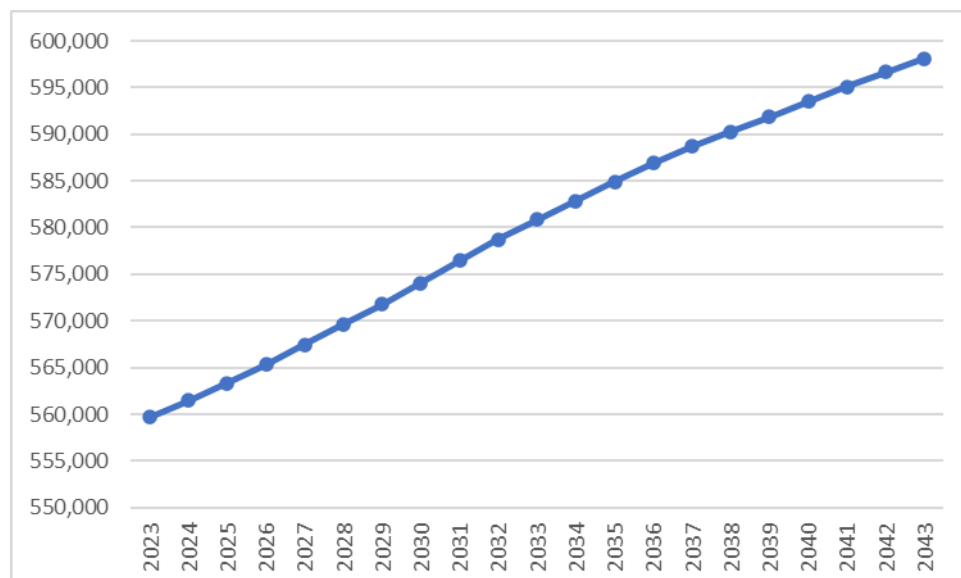
Table 9.3: Population of Piccadilly ward compared to Manchester & North West, 2021

Age Range (number)	Piccadilly ward	Manchester	North West
0 to 15 years	286	113,980	1,391,762
16 to 64 years	11,071	385,795	4,639,319
65 and over	297	52,168	1,386,312
Total number	11,654	551,943	7,417,393
Age Range (%)	Piccadilly ward	Manchester	North West
0 to 15 years	2.5%	20.7%	18.8%
16 to 64 years	95.0%	69.9%	62.5%
65 and over	2.5%	9.5%	18.7%
Total %	100%	100%	100%

Source: ONS Census 2021

- 9.25 Population projections, often referred to as sub-national population projections (SNPP), are produced every two or three years at local authority level, with the most recent release based on 2018 data (published March 2020). **Figure 9.1** shows the population projections for Manchester for the period 2023 to 2043. The overall population is expected to grow from 559,674 to 598,149, which represents an 6.9% increase over the period.

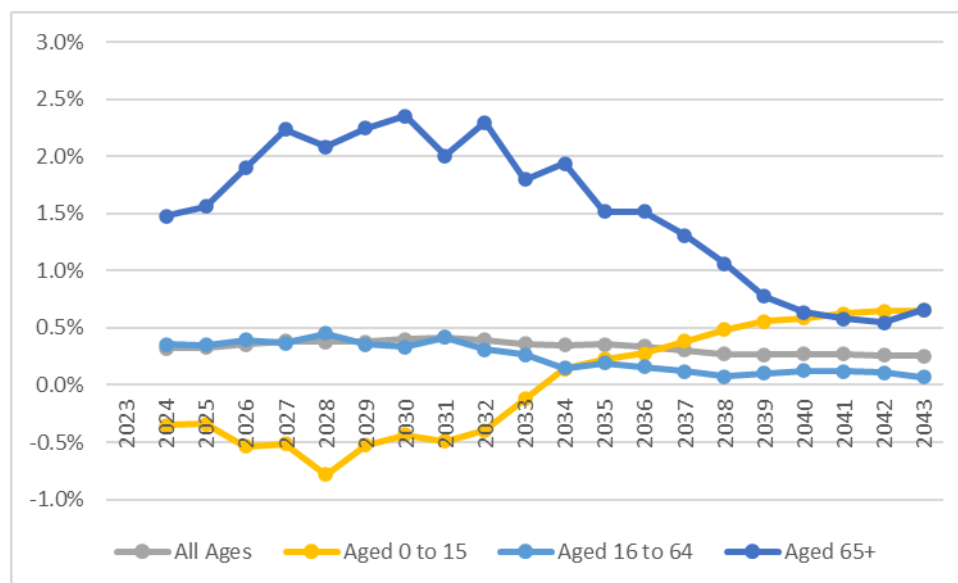
Figure 9.1: Population projections for Manchester local authority area 2023-2043 (number)



Source: ONS Crown Copyright [Population Projections from Nomis on 1 February 2024]

- 9.26 The projections by age range are shown in Figure 9.2. The working age population is by far the largest and is expected to increase up to 2033 when it flattens off. The increase is driven by anticipated increases in student numbers. Those in retirement age are also expected to increase while the youngest age group is expected to reduce as a proportion of the population.

Figure 9.2: Population projections for Manchester local authority area by age group 2023-2043 (% change)



Source: ONS Crown Copyright [from Nomis on 1 February 2024]

- 9.27 Due to the methodology employed to calculate migration, the ONS mid-year estimates attribute a lower growth rate than would be expected. The Greater Manchester (GM) Forecasting Model was developed to strengthen and supplement the ONS mid-year estimates, by drawing upon local intelligence including expected residential development. Whilst the GM baseline forecast only goes to 2037, for Manchester, it forecasts a higher level of population growth at 16%, more than double the ONS projection to 2043¹. This highlights the need to plan for growth of a vibrant and dynamic city such as Manchester with a strong research and business base – see employment section.

Employment

- 9.28 ONS data show that economic activity in the Piccadilly ward is 72.4%, well above Manchester at 59%, which is also below the level for the North West at 59%². The high economic activity rate is due to the proportion of working age people which is 95% of the total population compared to 70% at the Manchester level and 63% for the North West. The ward has a higher proportion of students than Manchester or the North West at 27% of over 16 year old residents compared to 18% for Manchester and 8% for the North West.
- 9.29 Full time employment rates are 83%, well above the 68.2% rate across Manchester. Nearly two-thirds (65.0%) of Piccadilly residents have Level 4 qualifications (degree)

¹ Greater Manchester Forecasting Model Summary of outputs – 2019 update

² Nomis Ward Profile using 2021 Census data

or above, well above the level in the rest of Manchester at 37.6% (31.2% for the North West).

- 9.30 MCC's Core Strategy was adopted in July 2012 with an expectation of employment land growth to meet a growing population³. Core Strategy Policy EC 8 states that Central Manchester is expected to provide approximately 14ha of employment land. The Council will promote development which has regard to ensuring employment within Central Manchester complements uses within the City Centre.
- 9.31 Wages data are only available for the whole of Manchester and the North West. By place of residence, at £536.50 per week (gross weekly earnings full time and part time) Manchester is below the North West at £551.10. However, by place of work, Manchester is above the North West at £632.90 versus £552.90⁴. This highlights that Manchester as a whole, is a relatively prosperous area with significant in-commuting for work.
- 9.32 In 2022 the total number of people working in Piccadilly was 83,375⁵. This includes employees and working proprietors (sole traders, sole proprietors, partners and directors). The resident population of the ward is 11,654, and the working population is 11,071. This indicates that there is substantial net inward migration into the area for work of around 72,000. Given its city centre location and excellent public transport links, increased business space in the area would increase the opportunities for sustainable economic growth in Manchester.
- 9.33 Employment forecasts in the Greater Manchester Forecasting Model⁶ show employment in Greater Manchester is forecast to grow by 12% (183,000) jobs from 2017 to 2037. The city of Manchester is expected to provide a large share of this employment growth, especially if new development sites are brought forward, with Piccadilly being a key city centre ward with growth potential.

Unemployment

- 9.34 Unemployment accounts for 6.2% of the working age population in the Piccadilly ward, which is just above the rate for the rest of Manchester of 5.7% and well above the 3.4% level for the whole of the North West⁷.

Occupations

- 9.35 According to the ONS, the largest proportion of resident workers in Piccadilly ward are in professional occupations at 36.5%, followed by associate professional and technical occupations at 23.9% and managers, directors and senior officials at 10.1% (Manchester 23.8%, 13.5% and 8.7% respectively). The top three categories of employment account for 70.5% of the working population, well above the 46% for the rest of Manchester.

³ Manchester's Local Development Framework Core Strategy Development Plan Document Adopted 11th July 2012

⁴ ONS Annual Survey of Hours and Earnings (ASHE) 2023 Weekly median pay - Gross (£) - For all employee jobs

⁵ According to the ONS Business Register and Employment Survey (BRES)

⁶ MCC (2017) *Greater Manchester Forecasting Model – Summary of outputs – 2017 update*, October 2017, Public Intelligence, Chief Executive's Department

⁷ Nomis Ward Profile using 2021 Census data

- 9.36 **Table 9.4** shows the structure of employment broken down by sector. BRES figures show that Piccadilly employment is dominated by professional, scientific and technical (20.2%), business administration and support (16.7%), and finance and insurance (10.7%). These three categories represent nearly half (48%) of jobs in the ward, compared with 30% in Manchester and 20% in the North West. Jobs in retail, accommodation and food services and property are also over-represented in Piccadilly ward compared to both Manchester and the North West.

Table 9.4: Structure of employment by sector 2022 (%)

	Piccadilly	Manchester	North West
Agriculture, forestry and fishing	0.0%	0.0%	0.4%
Mining, quarrying and utilities	0.2%	0.4%	1.1%
Manufacturing	0.8%	2.8%	8.9%
Construction	1.5%	2.1%	5.1%
Motor trades	0.3%	0.5%	1.6%
Wholesale	1.5%	3.1%	4.4%
Retail	9.5%	7.0%	8.7%
Transport and storage	5.4%	6.1%	4.7%
Accommodation and food services	9.5%	8.7%	7.9%
Information and communication	5.4%	5.6%	3.4%
Financial and insurance	10.7%	4.2%	2.4%
Property	6.0%	2.8%	1.6%
Professional, scientific and technical	20.2%	13.8%	9.4%
Business administration & support	16.7%	11.7%	8.3%
Public administration and defence	5.4%	5.4%	4.9%
Education	1.2%	9.4%	8.0%
Health	2.1%	12.4%	15.1%
Arts, entertainment, recreation & other	3.0%	3.8%	4.0%
Total	83,375	425,770	3,475,000

Source: ONS: BRES 2022

Office Market

- 9.37 Take-up of office space in Manchester in Q3 2023 was almost double that of Q2 at 351,000 sq ft. A total of 59 deals were completed over the quarter. Headline rents reached record levels in the city centre, achieving £43/sq ft. Demand has been driven by the ongoing appeal of city centre locations and office developments offering quality on-site amenity.⁸
- 9.38 The Q3 take-up was 25% above the five-year Q3 average. Agents report a 'flight-to-quality' that is continuing in the market as Prime and Grade A space made up 52% of

⁸ Place North West, *Manchester office take-up almost doubles in Q3*, article by Dan Whelan 23 October 2023

total take-up in Q3 2023. The Prime office market in Manchester is regarded as undersupplied with capacity of just over 1 year of supply based on average sector demand.⁹

- 9.39 The Professional sector accounts for 29% of latest take-up across 13 transactions, followed by Public Services, Education and Health at 28% across 7 transactions. The market has seen 18% rental growth over the past five years and the latest five-year forecasts estimate top rent will grow by at least 9% to £47 per sq ft by 2027. Decreasing availability in the Grade A space is likely to push up average rents.¹⁰
- 9.40 At the end of 2023, the total available office space in Manchester was 3m sq ft with an overall vacancy rate at 11.5%. Average rental values in Piccadilly are £32-34 per sq ft for Grade A and £22-32 for Grade B.¹¹ It is estimated that there is 900,000 sq ft currently under construction (27% let and 73% speculative).¹²

Embedded Mitigation

- 9.41 The section describes the measures which have been ‘embedded’ into the development.

Demolition and Construction

- 9.42 There are no embedded mitigation measures of relevance in this category.

The Completed and Operational Development

- 9.43 The completed and operational development will be carefully designed to provide high quality office space that is attractive to workers and employers. Necessary traffic improvement works will be undertaken.

The location is highly sustainable given its proximity to the city centre, with rail, tram and bus transport, cycle and walking routes and proximity to the West Coast mainline and Manchester airport.

Assessment of Likely Significant Effects

- 9.44 This section of the chapter reviews the potential impacts of the scheme and their significance, accounting for the embedded mitigation.

Existing Site

- 9.45 Much of the existing site will be lost with some heritage elements retained. The total area of existing accommodation has been calculated at 3,286 sq m gross internal area (GIA) comprising the following buildings:
- 32-42 Great Ancoats Street
 - 56-58 Lever Street
 - 25-27 Houldsworth Street

⁹ Savills Research, *Market in Minutes: Manchester Occupational Office Data Q3 2023*, 17 November 2023

¹⁰ Savills Research, *Market in Minutes: Manchester Occupational Office Data Q3 2023*, 17 November 2023

¹¹ Oktra, *The Manchester Office Rent Report*, 2024 Edition

¹² Knight Frank LLP, *Manchester Office Market Q3 2023*

- 65-67 Little Ancoats Street

9.46 Based on a net internal area of 2,517 at (80% of the GIA and excluding basement of 139 sq m) the existing buildings are capable of sustaining 180 direct and indirect jobs and GVA of £8.5m. This based on 20 sq m¹³ per direct job and a multiplier of 1.44¹⁴.

Demolition and Construction

- 9.47 There will be a number of economic impacts as a result of the construction phase of the development. The calculations are based on the estimated construction costs for the development of £55-65m excluding VAT. The midpoint of £60m has been used.
- 9.48 It is estimated in **Table 9.5** that the scale of the development could support 921 person years of construction related employment, comprising 341 on-site construction job years and a further 580 indirect job years in supporting industries such as specialist suppliers and manufacturing. It is estimated that the Proposed Development could be completed over a 3 year period which implies that there will be 114 construction FTE jobs supported on-site during the build period and a further 193 off-site indirect FTE jobs. The GVA associated with these jobs will be £20.7m per year.

Table 9.5: Calculation of Construction Jobs

Title	Metric
Construction expenditure (a)	£60m
Number of jobs per £1m of expenditure (b)	5.7 ¹⁵
Number of direct construction job years (c) = (a)*(b)	341.1
Employment multiplier for construction (d)	2.7 ¹⁶
Number of indirect construction job years (e) = (c)*(d-1)	579.9
Total number of direct and indirect job years (f) = (c)+(e)	921.1

Source: Brookdale Consulting

- 9.49 This generates two effects that have thus been measured on the significance of effects scale. Firstly, short-term disruption to the local area during the construction programme, though its proximity to good road connections will support access and materials movement in the immediate area. In the short-term, this could be disruptive to local businesses. The main receptor in this case is the ability of the local businesses to accommodate change. As a result of a rating of high magnitude of

¹³ HCA Employment Density Matrix 2015

¹⁴ UK Additionality Guide 2014

¹⁵ ONS Annual Business Survey 2021

¹⁶ UK Additionality Guide 2014

impact and medium sensitivity of receptor, this has been given an overall **Moderate Adverse effect**, which is **Not Significant** in EIA terms.

- 9.50 Secondly, there will be a short-term employment gain for the construction industry which is well represented in Manchester at 9,000 workers and 179,000 in the North West as a whole. It is likely that most employment benefits will be retained within the North West, but a very small level within Piccadilly which has 1,250 workers in the sector. The contractor will be appointed on a competitive tender basis, but local contractors will be welcome to bid to maximise the opportunity for the local gain, and the use of local materials encouraged where possible. In addition, the construction workers based in Manchester will generate further benefits as they spend in local shops and other services. The main receptor in this case is construction employment. As a result of a rating of medium magnitude of impact and high sensitivity of receptor, this indicator has been given a **Moderate Beneficial** effect rating, which is **Not Significant** in EIA terms.

The Completed and Operational Development

- 9.51 The development will create approximately 11,600 sq m of office space. This is in high demand within Manchester. In addition a further 550 sq m of restaurant space will be created within the existing retained buildings on the site.
- 9.52 A development of this size will create 1,224 direct and indirect jobs based on an employment density of 11 sqm per job for office space and 17.5 for restaurant space. Displacement of 20% for in line with national guidance¹⁷ and a multiplier of 1.411 for offices and 1.485 for food service¹⁸. This will result in total GVA per year of £53.4m.
- 9.53 The development will increase the revenues to MCC through business rates related to the office and space with a total of £1.85m per year in additional taxes to the Council.
- 9.54 The main receptor in this case is the local economy. As a result of a rating of medium magnitude of impact and medium sensitivity of receptor, this indicator has been given a **Moderate Beneficial** effect rating, which is **Not Significant** in EIA terms.

Additional Mitigation / Enhancement Measures

- 9.55 This section describes the measures which are required to mitigate any significant environmental effects with regards to socioeconomics.

Demolition and Construction

- 9.56 The Construction impact assessment presented identifies the potential for short term disruption to the local area during the construction programme including the logistical implications of access and materials movement in the area. While short-term, this could be moderately disruptive to the local businesses.
- 9.57 To mitigate the potential disruption, it is suggested that the design and timings for the construction programme should take this into account to minimise these effects, avoiding rush hour where possible for logistics. Best practice measures will be

¹⁷ Additionality Guide Fourth Edition HCA

¹⁸ ONS Input Output Tables 2018

included within a Construction Environment Management Plan (CEMP) and secured by condition.

- 9.58 The introduction of a Local Employment Scheme could help to retain some of the employment benefits in the local area. The development will provide training for new entrants during construction.

The Completed and Operational Development

- 9.59 The impacts of the development during the operational phase are assessed as **Moderate Beneficial**. Therefore, no additional mitigation of negative impacts is required. However, the developer is committed to increasing the beneficial impacts through promoting local employment through multiple routes including the Greater Manchester Local Enterprise Partnership, local groups and partnerships with Manchester focused job fairs and events.

Likely Residual Effects of the Development and their Significance

- 9.60 With implementation of best practice demolition and construction management practices, it is assumed that the effect would reduce from **Moderate Adverse** in the short-term to a short-term **Negligible** residual effect in the inner study area, which is Not Significant. **Table 9.6** summarises this assessment.
- 9.61 As the effects of the completed development are assessed as **Moderate Beneficial** no additional mitigation measures are required so the residual impacts remain the same and are rated as Not Significant.

Table 9.6: Residual Effects Summary

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Demolition and Construction				
Disruption to local area due to movement of materials etc.		Moderate Adverse short-term effect on immediate area, which is Not Significant	Best practice mitigation measures implemented by way of CEMP	Negligible short-term effect on immediate area, which is Not Significant
Employment gain for construction industry		Moderate Beneficial short-term effect on the wider area, which is Not Significant	Nothing additional to embedded mitigation	Moderate Beneficial short-term effect on the wider area, which is Not Significant
Operation				

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Local population		Minor Beneficial effect rating on immediate area, which is Not Significant	Nothing additional to embedded mitigation	Minor Beneficial effect rating on immediate area, which is Not Significant.
Local employment		Moderate Beneficial long-term effect on immediate area, which is Not Significant	Nothing additional to embedded mitigation	Moderate Beneficial long-term effect on immediate area, which is Not Significant

Conclusions

- 9.62 As explained above, the site consists of takeaway shops and the Bem Brasil restaurant located at a key intersection with the Northern Quarter and Stevenson Square Conservation area located to the west, NOMA to the North, Ancoats to the east and the Piccadilly Basin to the South. There is strong demand for high quality office and student accommodation and a need to ensure that land is allocated to the best uses.
- 9.63 Construction of the development will support 921 person years of construction related employment, with GVA of £20.7m per year for 3 years. This is assessed as a **Moderate Beneficial** short-term effect on the wider area, which is **Not Significant**.
- 9.64 The development will create approximately 11,600 sq m of office space and 550 sq m of restaurant space creating 1,224 direct and indirect jobs in relevant sectors and GVA per year of £53.4m. Deducting the 180 direct and indirect jobs and GVA of £8.5m on the existing site gives a net impact of 1,044 jobs and GVA of £33.9m per year.
- 9.65 The Proposed Development will contribute to Manchester's economic prosperity providing sought after office accommodation to the benefit of Greater Manchester and the North West. It will increase the revenues to Manchester City Council through business rates in the order of £1.85m per year.
- 9.66 Given this context, the Proposed Development is regarded as having a positive and lasting effect in the area. This is assessed as a **Moderate Beneficial** overall rating which is **Not Significant** in EIA terms.

Assessment of Cumulative Effects

- 9.67 **Table 9.7** sets out the Cumulative Schemes noting which are scoped-in or scoped-out of Socioeconomics' Cumulative Effects Assessment (CEA).

Approach

- 9.68 The first stage of the cumulative sites assessment is to establish which sites are to be included in the assessment. Of the thirteen sites identified, ten are scoped in. All sites will have an impact on the construction sector. Only one site increases office accommodation provision.
- 9.69 These sites are assessed to establish the potential cumulative effects from the combination of all of the relevant developments to assess the potential wider impact.
- 9.70 There are no further synergistic effects included in the assessment.

Table 9.7 Cumulative Sites

Site Ref.	Application No.	Distance and Direction	Proposal	Scoped-in / Scoped-out	Justification
1.	132489/FO/2021	150m south east	One Port, Street Erection of a part-33, part-11, part 9 part 7 storey residential building above semi-basement level, with associated residents' amenity space including gym (Use Class C3) (comprising 481 dwellings), commercial space (Use Class E), basement car parking (47 spaces), cycle parking (481 spaces) landscaping, and other associated works	In	The development is residential with some commercial but will have an impact on the local receptors such as the construction industry and the wider economy.
2.	135675/FO/2022	150m south east	1 NQ Erection of two residential apartment buildings (Use Class C3) comprising Block 1 -part 9, part 10 (plus roof level amenity block) and Block 2- 12 storey building (comprising of 261 dwellings in total) above basement levels with ground floor commercial units (Use Class E (excluding E (b))), associated residents amenity space, cycle parking, landscaping, access, street loading and other associated works following demolition of the existing building and structures on site	In	The development is residential with some commercial but will have an impact on the local receptors such as the construction industry and the wider economy.
3.	135662/FO/2022	400m south east	Hilton Motto Erection of a 20 storey building to	In	The development is for a hotel but will

			create a 154 bedroom hotel (Class C1) above 2 basement levels with ancillary café / bar / restaurant and gym and other associated works including highway improvements, cycle parking and creation of accessible parking bay following removal of on site structures.		have an impact on the local receptors such as the construction industry and the wider economy.
4.	119801/FU/2018	400m south east	40 Laystall Street Retention of existing use of former residential building (Use Class C3) as an 84 Application validated: 10 May 2018 400m south east Site No. Planning Reference Description of Development Status Distance and Direction from the Site suite apart hotel (Use Class C1), to comprise 81 suites on the first to twelfth floors and 3 suites, ancillary services and 6no. commercial units for use as shops (Use Class A1) or Financial and Professional Services (Use Class A2) or Offices (Use Class B1) on the ground floor.	Out	Unlikely to have impact on local receptors such as construction as retention of existing building.
5.	128911/FO/2020	400m south east	32-34 Laystall Street Erection of 9 storey residential building (Use Class C3) comprising 89 residential units (28 x 1 bed and 61 x 2 bed) and conversion of and 3 storey extension to 32-34 Laystall Street for use as offices (Class E) with associated external works following demolition of outrigger and associated structures along with other associated works including access, servicing, landscaping and secure cycle parking	In	The development is residential and will increase the supply of office accommodation and will have an impact on the local receptors such as the construction industry and the wider economy.

6.	120149/FO/2018	400m south east	Lomax Erection of 7 to 8 storey residential building (Class C3) to provide 41 apartments (7 x 1-bedroom 1-person apartments, 6 x 1-bedroom 2-person apartments, 6 x 2-bedroom 3-person apartments, 22 x 2-bedroom 4-person apartments) with associated landscaping and other works.	In	The development is residential but will have an impact on the local receptors such as the construction industry and the wider economy.
7.	115178/FO/2017	330 south east	Eider House Erection of 2 linked buildings ranging in height from 8 to 10 storeys (plus roof top plant room) to provide residential accommodation (Use Class C3) comprising 18 x 1 bed, 84 x 2 bed, 15 x 3 bed, 2 x duplex (4 bed) and 9 townhouses (7 x 3 bed, 1 x 2 bed and 1 x 4 bed) (128 units in total) works to create provision for access and servicing, hard and soft landscaping (to include a secure external area and public realm linking Ducie Street to the Rochdale Canal) and associated works following the demolition of existing buildings. Development to include 128 cycle parking spaces.	In	The development is residential but will have an impact on the local receptors such as the construction industry and the wider economy.
8.	117280/FO/2017	60m west	Spear Street Erection of a five-storey (ground floor plus 4) building to provide 6 no. residential apartments (Use Class C3) (5 x 1 bed (1 person)) and (1 x 2 bed duplex (4 person)) above ground floor commercial unit (Class E), private roof terrace for the top floor duplex apartment, cycle parking (6 x spaces),	In	The development is residential with some commercial but will have an impact on the local receptors such as the construction industry and the wider economy.

			refuse and plant room.		
9.	134953/FO/2022	115m west	9 Larard's Still Partial demolition of existing buildings (68-70 Oldham Street) (retention of facades to both 68 & 70 Oldham Street and internal floors of 68 Oldham Street), and erection of new 10 storey building (plus plant room) to incorporate retained elements, removal of roof and conversion of existing warehouse building (61 Spear Street) with 3 storey rooftop extension to create aparthotel (sui generis) and ground floor commercial uses (use class E)((a), (b), (c), (e) and (g) only.	In	The development is for a hotel but will have an impact on the local receptors such as the construction industry and the wider economy.
10.	N/A	180m south west	Stevenson Square redevelopment Full-pedestrianisation and redevelopment of Stevenson Square. Part of a public realm and cycling improvement plan for the whole of the Northern Quarter.	Out	Public realm project unlikely to impact local receptors.
11.	127538/FO/2020	280m south west	67 Piccadilly Erection of 11 storey building on site of 67 Piccadilly, as a Hotel (Use Class C1) with associated ground floor retail and leisure uses (Use Class A3 (Restaurant and Café), A4 (Drinking Establishment) and D2 (hotel leisure gym/ fitness area); provision of flexible amenity space at roof level; installation of external plant at roof level; provision of new public realm and associated works following demolition of 67	In	The development is for a hotel but will have an impact on the local receptors such as the construction industry and the wider economy.

			Piccadilly/4 - 6 Newton Street ('67 Piccadilly')including internal and external alterations to 69-75 Piccadilly (Halls Building) (comprising refurbishment and infilling of an existing rear void of to provide a 9-storey infill) relating to the reuse, refurbishment of the building for use along with the new 11 storey building.		
12.	137794/FO-2023	440m south	12-16 Piccadilly Erection of a 32 storey building (land at no. 14-16 Piccadilly) and conversion of adjacent building (no.12 Piccadilly) (basement to fourth floor) to create an aparthotel, including a ground floor cafe (Use Class E (b), first floor exhibition hall (Use Class F1) and a rooftop bar and restaurant (Use Class E (b)), and associated works.	In	The development is for a hotel but will have an impact on the local receptors such as the construction industry and the wider economy.
13.	137346/FO/2023	410m to north west	Phoenix Ironworks Erection of a part 5, part 10 storey building comprising residential apartments and townhouses, residents' amenity space (Use Class C3a), ground floor commercial (Use Class E), cycle and car parking, landscaping, access and servicing, and other associated works following demolition of existing structures.	In	The development is residential with some commercial but will have an impact on the local receptors such as the construction industry and the wider economy.

Likely Residual Cumulative Effects and their Significance

Construction

- 9.71 Given the scale of these developments relative to the local construction industry, it is likely that construction jobs will leak outside the immediate area and external contractors will be required from outside the area. The indirect benefits of the construction, such as the workers' spend in the area, will still remain and are increased by the total volume of new construction activity across the programme of approved developments.
- 9.72 Given that other developments are likely to complete while new ones emerge, the overall scale of construction activity is likely to remain at a similar level. This indicator would remain as **Moderate Beneficial** impact rating for the wider area, which would remain as **Not Significant** in EIA terms.
- 9.73 The Construction effects assessment highlighted the potential for short term disruption to the local area during the construction programme given the need for access and materials movement. While short-term, this could be moderately disruptive to the area.
- 9.74 With implementation of best practice construction practices, it is assumed that the residual impact of the proposed development would move from **Moderate Adverse** in the short-term to a short-term **Negligible** residual impact in the inner study area, which is **Not Significant**. This is not expected to change for the cumulative impact assessment, assuming all developments implement the same mitigating factors.

The Completed and Operational Development

- 9.75 The cumulative effect assessment of the completed developments is based on an overall assessment of the impact on the local population and economy. The development will provide employment space, which is needed. Only one of the cumulative sites includes office accommodation. The sustainable transport links will support business space growth drawing in employees from across Greater Manchester. The cumulative effect of these developments will be to increase supply of office space which will increase local economic activity and contribute towards established growth objectives.
- 9.76 Therefore, the impact significance is assumed to remain **Moderate Beneficial** to the immediate study area and **Moderate Beneficial** for the wider area, which is **Not Significant** in EIA terms.

Mitigation Measures

- 9.77 The cumulative developments and this proposed development, are complementary to Manchester's growth strategy, meeting the established demand forecast for growth in the City Centre.

References

1. Greater Manchester Forecasting Model Summary of outputs – 2019 update
2. Nomis Ward Profile using 2021 Census data

3. Manchester's Local Development Framework Core Strategy Development Plan Document Adopted 11th July 2012
4. ONS Annual Survey of Hours and Earnings (ASHE) 2023 Weekly median pay - Gross (£) - For all employee jobs
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9. Savills Research, *Market in Minutes: Manchester Occupational Office Data Q3 2023*, 17 November 2023
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13. ONS Annual Business Survey 2021
14. ONS Input-Output Tables 2018

10. Daylight, Sunlight & Overshadowing

Introduction

- 10.1 This Chapter assesses the impacts of the Proposed Development on the daylight and sunlight amenity of both existing and future neighbouring sensitive receptors.
- 10.2 Figure 10.1 below is an aerial photograph of the site and surrounding context, showing that there are no areas of amenity space which are located within 90° of due north of the site and in close enough proximity to be potentially affected in overshadowing terms. No detailed overshadowing assessments have, therefore, been undertaken.

Figure 10.1 - Aerial Photograph of the Site and Surrounding Context



- 10.3 The Chapter describes:-
- the methods used to assess the likely significant effects;
 - the baseline conditions currently existing at the Site and surroundings;
 - the potential direct and indirect effects of the Proposed Development arising from its construction;
 - the mitigation measures required to prevent, reduce, or offset the identified significant effects; and
 - the residual effects.
- 10.4 The Chapter has been written by GIA and is supported by the following figures and appendices:-
- **Appendix 10.1** – Baseline & Proposed Drawings
 - **Appendix 10.2** – Daylight & Sunlight Results

Assessment Methodology and Significance Criteria

- 10.5 The assessment of daylight and sunlight effects is based principally on the amount of visible sky before and after the construction of a new development.
- 10.6 The assessments undertaken to inform this Chapter are in accordance with the provisions of the Building Research Establishment guidance document *Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2022*.ⁱ (the BRE Guidelines)
- 10.7 The BRE Guidelines provide advice on site layout planning to achieve good sunlighting and daylighting within buildings. It is intended for use by building designers, developers, consultants and Local Planning Authorities (LPAs). The advice it gives is not mandatory and should not be used as an instrument of planning policy, It states in the summary on page 4:-

“This guide is a comprehensive revision of the 2011 edition of Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice. It is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location.”

- 10.8 It also states at paragraph 1.6:-

“The advice is given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. In special circumstances the developer or planning authority may wish to use different target values... in an area with modern high-rise buildings, a higher degree of obstruction maybe unavoidable if new developments are to match the height and proportions of existing building.”

Study Area & Sensitive Receptors

- 10.9 The BRE Guidelines suggest that residential properties have the highest requirement for daylight and sunlight and states at paragraph 2.2.2 that:

“the guidelines are intended for use for rooms in adjoining dwellings where light is required, including living rooms, kitchens and bedrooms.”

- 10.10 The scope of residential properties that have been assessed has been determined through professional judgement, considering the orientation of their windows and proximity to the Proposed Development.

- 10.11 The following properties are defined as receptors and will be considered due to their proximity to the Site, and their residential use:

- 39 Great Ancoats Street;
- 44 Great Ancoats Street;
- 41 - 45 Great Ancoats Street;
- Derros Building;
- Hudson Building;
- Nuovo Apartments;

- 113 Newton Street;
- 40 Little Lever Street;
- 50-58 Spear Street;
- 5 Warwick Street; and
- The Sorting House.

Assessment Methodology and Significance Criteria

10.12 The BRE Guidelines recommend the following assessment methodologies:-

Daylight

- Vertical Sky Component (VSC); and
- No Sky Line (NSL) Method.

Sunlight

- Annual Probable Sunlight Hours (APSH).

VSC Assessment Method

10.13 The VSC method of assessment is defined in the BRE Guidelines as the:

“ratio of that part of illuminance at a point on a given vertical plane that is received directly from a CIE standard overcast sky, to illuminate on a horizontal plane due to an unobstructed hemisphere of this sky”.

10.14 This ratio is the percentage of the total unobstructed view that is available, once obstructions (e.g. the Proposed Development), are placed in front of the point of view.

10.15 The assessment is calculated from the centre of a window on the outward face and measures the amount of light available on a vertical wall or window following the introduction of visible barriers, such as buildings. The VSC has been calculated using a 'Waldram Diagram'.

10.16 The Waldram Diagram is effectively a snapshot taken from that point of the sky in front of the window, together with all relevant obstructions to it, i.e. the buildings. For calculation purposes, trees may be ignored unless they form dense continuous belts.

10.17 Due to the limitations of peripheral vision, the maximum VSC value is almost 40% for a completely unobstructed vertical wall or window.

NSL Assessment Method

10.18 The BRE Guidelines provide that where room layouts are known, the effect on the daylight distribution can be calculated by plotting the NSL. In terms of the surrounding receptors, it has not been possible to obtain room layouts for all of the properties and therefore layouts have been assumed where information is not available.

- 10.19 The NSL method is a measure of the distribution of daylight at the 'working plane' within a room. The 'working plane' means a horizontal 'desktop' plane 0.85m in height for residential properties. The NSL divides those areas of the working plane which can receive direct sky light from those which cannot. If a significant area of the working plane lies beyond the NSL (i.e. it receives no direct sky light), then the distribution of daylight in the room will be poor and supplementary electric lighting may be required.
- 10.20 The potential effects of daylighting distribution in an existing building can be found by plotting the NSL in each of the main rooms. For houses, this will include living rooms, dining rooms and kitchens. Bedrooms should also be analysed, although the BRE state that they are less important.
- 10.21 In regard to deep rooms which are lit by windows on one side, the BRE Guidelines state at paragraph 2.2.12:-

"If an existing building contains rooms lit from one side only and greater than 5m deep, then a greater movement of the no sky line may be unavoidable."

- 10.22 The 3D model uses 3D geometric calculations for NSL.

APSH Assessment Method

- 10.23 Sunlight is measured using a sun indicator which contains 100 spots, each representing 1% of APSH. Therefore, where no obstruction exists the total annual probable sunlight hours would amount to 1486, and each spot equates to 14.86 hours of the total annual sunlight hours.
- 10.24 The number of spots is calculated for the Baseline and Proposed Development scenarios during the year and also during the winter period, and a comparison made between the two. This provides a percentage of APSH for each of the time periods for each window assessed.
- 10.25 The BRE Guidelines note that:-

"In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day, but especially in the afternoon."

"all main living rooms of dwellings...should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun".

"If the main living room to a dwelling has a main window facing within 90° of due north, but a secondary window facing within 90° of due south, sunlight to the secondary window should be checked."

- 10.26 As is often the case, it is not possible to determine the room uses within each of the neighbouring properties, nor is it clear which window should be considered as the 'main windows'. Therefore, unless the rooms use is known through plans, all the rooms with windows facing the Site and within 90 degrees of due south have been considered in the assessment. Windows that do not face within 90 degrees of due

south do not have a realistic expectation of direct sunlight, due to their orientation and the sunlight path in the northern hemisphere.

Survey and Data Sources

- 10.27 To facilitate the running of the above technical analysis, computerised 3D massing simulations of the Site and its immediate surroundings have been constructed, in its Baseline, Proposed and Cumulative massing configurations. In building the 3D massing models, the following information has been relied upon:
- Photogrammetric model to the Site and surrounding area provided by VuCity;
 - GIA survey data; and
 - Floor plans from Manchester City Council's planning portal or other publicly accessible online sources such as marketing particulars.
- 10.28 For the purposes of the cumulative assessments, GIA's understanding of the massing and, if appropriate, internal configurations of the relevant schemes, is based upon the information included within the VuCity model and any floor plans available from Manchester City Council's planning portal.

Assumptions / Limitations

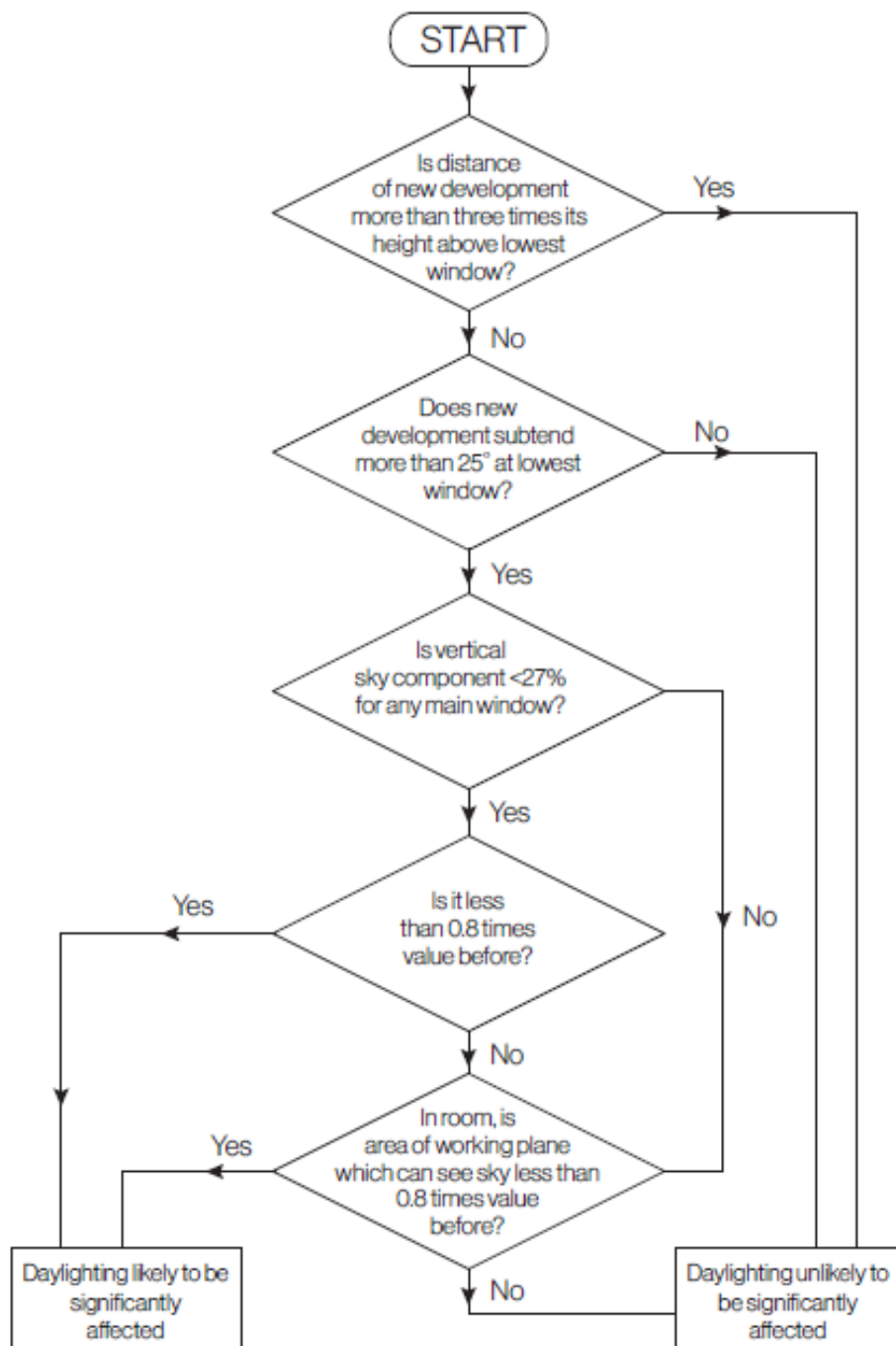
- 10.29 Where actual room layouts were available on the planning portal or other publicly available sources, these have been considered in regard to the modelling of the internal layouts within the existing surrounding properties. Where layout information was not available, assumptions have been made as to the use and internal configuration of the rooms (from external observations during a site inspection) behind the fenestration observed.
- 10.30 In such cases a standard 4.2 metre (m) (14ft) room depth has been assumed, unless the building form dictated otherwise. This is common practice where access to buildings for surveying is unavailable. Obtaining these room layouts enables precise evaluation of the diffuse levels of daylight within each of the rooms via the NSL.
- 10.31 Floor levels have been assumed for adjoining properties assessed, where access has not been obtained. This dictates the level of the working plane which is relevant for the NSL assessments.

Characterisation of Effect

- 10.32 Construction of the Proposed Development will be the source of any identified daylight and sunlight effects due to the reduced sky visibility from within habitable rooms of neighbouring buildings and the windows that serve them.
- 10.33 The identified effects will likely be adverse, permanent and localised to individual receptors.

Significance Criteria**Daylight**

- 10.34 To decide whether the daylight amenity within a neighbouring room is likely to be adversely affected by the construction of a proposed development, the BRE recommends the following assessment process be undertaken using the results of the above described VSC and NSL assessments in combination.

Figure 10.2 – BRE Decision Chart

Sunlight

- 10.35 The BRE Guidelines provide that a window may be adversely affected if a point at the centre of the window receives less than 25% of the APSH, including at least 5% of the APSH during the winter months (21 September to 21 March), or less than 0.8 times its baseline sunlight hours during either period, or if there is a reduction in total APSH which is greater than 4%.

Table 10.1 Summary of Daylight and Sunlight Assessment Criteria

Method	BRE Assessment Criteria
VSC	A window may be adversely affected if its VSC measured at the centre of the window is less than 27% and less than 0.8 times its former value.
NSL	A room may be adversely affected if the daylight distribution (NSL) is reduced beyond 0.8 times its existing area.
APSH	A window may be adversely affected if a point at the centre of the window received for the whole year, less than 25% of the APSH including at least 5% of the APSH during the winter months (21 September to 21 March) and less than 0.8 times its former sunlight hours during either period, and for existing neighbouring buildings, if there is a reduction in total APSH which is greater than 4%.

Significance Evaluation Methodology

- 10.36 For daylight and sunlight, the BRE Guidelines outline the approach within the accompanying appendix, in terms of assigning criteria to assess the effects it states:-

“Adverse impacts occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is required...The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied.”

“Where the loss of skylight or sunlight fully meets the guidelines, the impact is assessed as negligible or minor adverse. Where the loss of light is well within the guidelines, or only a small number of windows or limited area of open space lose light (within the guidelines), a classification of negligible impact is more appropriate. Where the loss of light is only just within the guidelines and a larger number of windows or open space are affected, a minor adverse impact would be more appropriate, especially if there is a particularly strong requirement for daylight and sunlight in the affected building or open space.”

"Where the loss of skylight or sunlight does not meet the guidelines in this book, the impact is assessed as minor, moderate or major adverse. Factors tending towards a minor adverse impact include:

- *Only a small number of windows are affected;*
- *The loss of light is only marginally outside the guidelines;*
- *An affected room has other sources of skylight or sunlight; and*
- *The affected building only has a low level of requirement for skylight or sunlight."*

"Factors tending towards a major adverse impact include:

- *a large number of windows are affected;*
- *the loss of light is substantially outside the guidelines;*
- *all the windows in a particular property are affected; and*
- *the affected indoor spaces have a particular strong requirement for skylight or sunlight, e.g. a living room in a dwelling".*

- 10.37 Beneficial impacts occur when there is a significant increase in the amount of skylight and sunlight reaching an existing building. Beneficial impacts should be worked out on the same principals as adverse impacts.
- 10.38 The BRE Guidelines do not provide any guidance on what constitutes a moderate adverse impact. Best practice guidance and professional judgment will be used to determine any impacts based on the guidance set out in Appendix I of the BRE Guidelines. Potential effects will be identified as beneficial, adverse, or negligible, and their magnitude of effects will be set out as Minor, Moderate and Major.
- 10.39 The initial numerical criteria for determining the magnitude of effect are based on percentage alterations, as follows:-

Table 10.2 – Daylight and Sunlight Magnitude of Effect

Magnitude	Percentage Alteration from Baseline
Negligible	0-20%
Minor	20-29.9%
Moderate	30-39.9%
Major	40%+

- 10.40 Appendix F of the BRE guidelines provides an alternate baseline VSC value for city centre regions of 18% rather than the 27% referenced through the body of the document which is the level of VSC to be expected in an environment where the neighbouring construction angle is around 25 degrees ie a more suburban location.
- 10.41 18 is 67% of 27. 67% of the BRE target value for NSL (80%) is 53.6% Therefore, as the Proposed Development is in a more urban location, if the changes in VSC and/or NSL should breach the standard BRE guidelines beyond a minor extent, the magnitude of effect is still considered to be of minor significance provided that the windows either experience no change or retain 18% VSC and the rooms retain at least 53.6% NSL.

Sensitivity of Identified Daylight & Sunlight Receptors

- 10.42 It is important that the location and nature of the Site and surrounding are considered when determining the significance of any impacts identified. The BRE Guide is very clear that the targets provided are not mandatory. The location of the development could be deemed to be special circumstances in which the planning authority may wish to use different target values. This scope and view should also be followed through to the sensitivity of the surrounding receptors. There should be an expectation that a higher degree of obstruction is inevitable in an area with modern high-rise buildings. This point is also made in the National Planning Policy Framework (2023)ⁱⁱ (NPPF) and the National Planning Practice Guidanceⁱⁱⁱ (2021) (NPPG).
- 10.43 For these reasons, the surrounding receptors may have a lower sensitivity to change in an urban location than those located in suburban, less dense areas. Sensitivity classification is assigned on how the proposed receptor is able to accommodate or adapt to the effect of the development. The existing residential receptors surrounding the Site are in a developing city centre location where there is an expectation for a higher density of development. The Site is currently underdeveloped. As such, given the dense, urban location, the surrounding receptors are therefore receiving higher levels of daylight and sunlight than would typically be expected in a city centre location.
- 10.44 All of the daylight and sunlight sensitive receptors are therefore considered to be of moderate sensitivity.

Significance of Daylight & Sunlight Effects

- 10.45 The significance of any identified environmental effects is determined by the assessment of their magnitude against the sensitivity of the receptor. The table below illustrates how the sensitivity of the receptors and the magnitude of any effect combine to confirm significance.

Table 10.3 - Daylight and Sunlight Significance of Effect

		Sensitivity		
		High	Moderate	Low
Magnitude of Change	Major	Major Adverse	Major Adverse	Moderate Adverse
	Moderate	Major Adverse	Moderate Adverse	Minor Adverse
	Minor	Moderate Adverse	Minor Adverse	Negligible
	Negligible	Negligible / Minor	Negligible	Negligible

- 10.46 When assigning significance criteria for daylight and sunlight effects, professional judgement has been used. Consideration has been given to the proportion of rooms/windows affected, as well as the percentage alterations, absolute changes, sensitivity of the receptor, and any other relevant factors. There may be mitigating factors such as location and nature of development, balconies, overhangs or design features which may also affect the determination of assigning the criteria.

- 10.47 Those impacts identified as Moderate or Major adverse, highlighted above, are considered to be Significant.

Significance of Effects in Context to the Locality

- 10.48 The context of the Site and surrounding area is key to understanding the sensitivity of the surrounding receptors and significance of daylight and sunlight effects.
- 10.49 It is well established that the published targets within the BRE Guide are based on low rise, suburban development. The PPG – Making Effective Use of Land - Paragraph 007 Reference ID: 66-007-20190722 states:-

“All developments should maintain acceptable living standards. What this means in practice, in relation to assessing appropriate levels of sunlight and daylight, will depend to some extent on the context for the development as well as its detailed design. For example, in areas of high-density historic buildings, or city centre locations where tall modern buildings predominate, lower daylight and sunlight levels at some windows may be unavoidable if new developments are to be in keeping with the general form of their surroundings.”

- 10.50 This is a key point to consider in respect of the Proposed Development and its impact on surrounding properties, particularly as it is situated in Manchester City Centre. The Manchester Core Strategy 2012-2027 sets out development principles for the city centre in Policy CC 6 (p60), which states the following:

“City Centre development will generally be high-density. It is a location where land should be used to its maximum efficiency. The appropriate scale, massing and height of development in the City Centre will significantly exceed what is appropriate elsewhere in the City.”

- 10.51 This approach is also acknowledged in the BRE Guide, which states:

“...in special circumstances the developer or planning authority may wish to use different target values... in a historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings”.

- 10.52 It would therefore be unrealistic for the surrounding residential properties to expect to maintain similar levels of daylight as those currently experienced, as the Site is currently underdeveloped.

Manchester City Centre Benchmarking

- 10.53 Considering the contextual discussion above, in order to fully understand the results in context, it is appropriate to consider what are deemed to be appropriate daylight levels in the city centre. The retained VSC daylight levels in established, successful residential areas in the city centre of Manchester have therefore been reviewed and are set out below. The areas reviewed all include residential buildings and are recognised as positive urban environments that people choose to live in. The locations give practical, recognisable examples of living conditions around the city centre. This is an evidential method of benchmarking daylight levels in a dense,

urban area, which allows a better understanding of the application of the BRE guide in such locations.

Table 10.4 – Retained VSC Daylight Levels in Manchester City Centre

Address	Retained VSC Daylight Level
Deansgate Quay, Deansgate	4.0%
Boxworks, Castlefield	5.1%
MoHo, Castlefield	6.4%
Hill Quays, Great Jackson Street	6.2%
Anvil Street, McIntosh Village	8.0%
Lumiere, Great Jackson Street	7.1%
Princess House, Oxford Road	11.9%
The Hacienda, Whitworth Street West	13.6%
Gallery Gardens, Castlefield	13.9%
Britannia Mills, Castlefield	18.0%
Deansgate Square, Great Jackson Street	19.8%
12 Thomas Street, Northern Quarter	20.2%

10.54 The above table demonstrates that several of the most successful and desirable residential locations in Manchester City Centre do not meet the BRE target criteria. In some cases, the levels of retained daylight are substantially below the written BRE targets. The city centre context is such that deviations from the BRE target criteria are to be anticipated, and this sets the benchmark of what is acceptable in terms of daylight giving due consideration to the specific site characteristics, history and location. It is an inevitable consequence of living in a city centre that compromises are made on certain aspects, such as daylight amenity, in order to avail of other benefits that living in such a location provides.

10.55 The impacts discussed to the surrounding sensitive receptors below have therefore been considered in context to the BRE guidance, but also against what is considered acceptable in other residential locations in Manchester City Centre.

Baseline Conditions

10.56 Drawings of this assessment scenario can be found in Appendix 10.1.

10.57 A total of 477 windows facing the Site serving 235 rooms within 11 buildings were assessed for VSC and NSL (daylight) and 77 rooms were assessed for APSH (sunlight) within the 8 buildings which are material for consideration in sunlight terms ie their windows are orientated to within 90 degrees of due south.

10.58 The full Baseline daylight and sunlight results can be found in Appendix 10.2 and are summarised in Table 10.5 below.

Table 10.5 – Baseline levels of VSC, NSL & APSH within the surrounding sensitive receptors

Address	Total No. Windows That Meet VSC Criteria		Total No. Rooms That Meet NSL Criteria		Total No. Rooms That Meet APSH Criteria	
	Total	Pass	Total	Pass	Total	Pass
39 Great Ancoats Street	11	10	4	2	0	0
44 Great Ancoats Street	6	0	3	0	0	0
41 - 45 Great Ancoats Street	113	99	90	90	35	35
Derros Building	20	14	11	9	6	6
Hudson Building	21	21	21	21	9	9
Nuovo Apartments	190	72	34	20	12	12
40 Little Lever Street	19	2	8	4	4	3
113 Newton Street	32	16	14	11	2	0
50-58 Spear Street	4	0	4	0	0	0
5 Warwick Street	11	0	10	0	4	1
The Sorting House	50	32	36	26	5	5
Total	477	266	235	183	77	71

10.59 Out of the 477 windows assessed for VSC daylight, 266 (56%) meet or exceed the BRE recommended criteria. For NSL, 183 (78%) of the 235 rooms assessed meet or exceed the BRE recommended criteria. For sunlight, 71 (92%) of the 77 rooms assessed meet or exceed the BRE criteria for both Winter and Annual APSH.

10.60 Overall, there is a reasonable level of baseline daylight and sunlight compliance considering the city centre context of the Site.

10.61 If the Proposed Development was not constructed, the baseline daylight and sunlight levels would remain the same as there are no 'natural' factors that would influence baseline conditions, only human induced changes (i.e. development). With respect to human induced changes, any proposed development of the Site could influence the baseline conditions of varying degrees, as any drivers for change in baseline conditions would be linked to massing and layout of the surrounding context.

Embedded Mitigation

10.62 No mitigation measures are embedded into the Proposed Development which are relevant to the daylight and sunlight assessment.

Assessment of Likely Significant Effects

Construction

- 10.63 Owing to the evolving and changing nature of construction activities, the assessment of potential effects during construction of the Proposed Development on daylight and sunlight to surrounding properties have not been modelled.
- 10.64 Since the potential daylight and sunlight effects relating to construction works will vary throughout the construction programme and gradually increase to the potential effects identified for the completed Proposed Development, the interim construction effects will not be assessed quantitatively as it is considered that the completed Proposed Development represents the worst-case assessment in terms of likely daylight and sunlight.
- 10.65 For these reasons, the Construction Phase will not be discussed further in this report.

The Completed and Operational Development

- 10.66 Drawings of this assessment scenario can be found in Appendix 10.1.
- 10.67 A total of 477 windows facing the Site serving 235 rooms within 11 buildings were assessed for VSC and NSL (daylight) and 77 rooms were assessed for APSH (sunlight) within the 8 buildings which are material for consideration in sunlight terms ie their windows are orientated to within 90 degrees of due south.
- 10.68 The full daylight and sunlight results can be found in Appendix 10.2 and are summarised in Tables 10.6 to 10.9 below.

Table 10.6 – Summary of VSC Daylight Results

Address	Total No. of windows	No. of windows that meet BRE Guidelines Negligible	Below BRE Guidelines - Magnitude of Change		
			Minor	Moderate	Major
39 Great Ancoats Street	11	1	2	8	0
44 Great Ancoats Street	6	0	0	1	5
41 - 45 Great Ancoats Street	113	66	40	7	0
Derros Building	20	8	7	5	0
Hudson Building	21	0	1	20	0
Nuovo Apartments	190	176	10	4	0
113 Newton Street	19	11	1	3	4
4 Little Lever Street	32	4	3	1	24
50-58 Spear Street	4	1	3	0	0

Address	Total No. of windows	No. of windows that meet BRE Guidelines Negligible	Below BRE Guidelines - Magnitude of Change		
			Minor	Moderate	Major
5 Warwick Street	11	11	0	0	0
The Sorting House	50	16	24	7	3
Total	477	294	91	56	36

Table 10.7 – Summary of NSL Daylight Results

Address	Total No. of Rooms	No. of rooms that meet BRE Guidelines Negligible	Below BRE Guidelines - Magnitude of Change		
			Minor	Moderate	Major
39 Great Ancoats Street	4	4	0	0	0
44 Great Ancoats Street	3	1	0	1	1
41 - 45 Great Ancoats Street	90	90	0	0	0
Derros Building	11	11	0	0	0
Hudson Building	21	19	2	0	0
Nuovo Apartments	34	29	0	1	4
113 Newton Street	8	4	1	2	1
40 Little Lever Street	14	5	1	2	6
50-58 Spear Street	4	0	2	0	2
5 Warwick Street	10	10	0	0	0
The Sorting House	36	31	0	2	3
Total	235	204	6	8	17

Table 10.8 – Summary of Annual Sunlight Results

Address	Total No. of Rooms	No. of rooms that meet BRE Guidelines Negligible	Below BRE Guidelines - Magnitude of Change		
			Minor	Moderate	Major
41 - 45 Great Ancoats Street	35	35	0	0	0
Derros Building	6	6	0	0	0
Hudson Building	9	8	0	0	1
Nuovo Apartments	12	12	0	0	0
113 Newton Street	4	4	0	0	0
40 Little Lever Street	2	2	0	0	0
5 Warwick Street	4	4	0	0	0
The Sorting House	5	5	0	0	0
Total	77	76	0	0	1

Table 10.9 – Summary of Winter Sunlight Results

Address	Total No. of rooms	No. of rooms that meet BRE Guidelines Negligible	Below BRE Guidelines - Magnitude of Change		
			Minor	Moderate	Major
41 - 45 Great Ancoats Street	35	35	0	0	0
Derros Building	6	6	0	0	0
Hudson Building	9	9	0	0	0
Nuovo Apartments	12	12	0	0	0
113 Newton Street	4	4	0	0	0
40 Little Lever Street	2	2	0	0	0
5 Warwick Street	4	4	0	0	0
The Sorting House	5	5	0	0	0
Total	77	77	0	0	0

10.69 In situations where the construction of the Proposed Development would result in VSC, NSL and APSH alterations to the windows and rooms within a property which are all within the BRE guidelines, the effect of the Proposed Development upon the daylight and sunlight amenity to that property is considered to be negligible (not significant).

10.70 Of the 11 properties assessed, the effect of the Proposed Development upon the following property would be negligible (not significant):

- 5 Warwick Street

10.71 In accordance with the significance criteria described above, the effect upon the daylight amenity within the 2 properties listed in Table 10.10 is considered to be minor adverse (not significant). The sunlight effect upon these 2 properties is negligible (not significant)

Table 10.10: Properties with a Minor Adverse Daylight and Negligible Sunlight effect
Properties with a Negligible Daylight and Sunlight effect

39 Great Ancoats Street	41-45 Great Ancoats Street
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10.72 The remaining seven properties are discussed in detail below:-

44 Great Ancoats Street

Daylight

10.73 A total of 6 windows serving 3 rooms of unknown usage were assessed for daylight within this building.

10.74 Owing to its location immediately adjacent to the Site, the 3 Site facing rooms in this property will experience changes in daylight amenity (VSC & NSL) which range from moderate to major adverse in significance.

10.75 It should be borne in mind, however, that all of these rooms have low baseline daylight amenity values due to their dense urban location and, as such, the changes resulting from the construction of the Proposed Development present themselves disproportionately when expressed in percentage of baseline terms.

10.76 Changes of the levels described above are to be expected considering the location of this property in a developing city centre location and its proximity to the Site. The relationship between the Site and its neighbours is commensurate with that of other proximate sites that have recently been developed and, as such, the identified effects and daylight levels are to be expected and have, evidently, previously considered acceptable.

10.77 The overall effect of the Proposed Development upon the daylight amenity within this property is, therefore, considered to be **moderate adverse (significant)**.

Sunlight

10.78 There are no rooms material for consideration in sunlight terms as there are no windows orientated to within 90° of due south.

Derros Building**Daylight**

- 10.79 A total of 20 windows serving 11 rooms were assessed for daylight within this building.
- 10.80 Any changes in daylight amenity (VSC & NSL) to 2 (18%) of the 11 rooms assessed will be fully BRE compliant. The effect upon daylight amenity within these 2 rooms is therefore considered to be negligible (not significant) as, in accordance with the BRE's decision chart, the daylighting within these rooms is unlikely to be significantly affected.
- 10.81 In accordance with the significance criteria described above, the effect upon the daylight amenity within the 7 (64%) of the remaining 9 rooms is considered to be minor adverse (not significant).
- 10.82 The remaining 2 (18%) rooms are each served by 4 windows of which 2 serving each room will experience VSC changes which breach BRE Guidance to a minor to moderate extent. All 4 windows serving each room will, however, retain VSC levels of between 17.3% & 25.4% against the BRE recommended 27% for windows in a suburban location. These are very good levels of retained VSC and, as such, with each room served by 4 windows, the rooms will also continue to benefit from daylight distribution (NSL) to 75% and 97% of their respective areas. The effect upon the daylight amenity within these 2 rooms is therefore considered to be minor adverse (not significant).
- 10.83 The overall effect of the Proposed Development upon the daylight amenity within this property is considered to be **minor adverse (not significant)**.

Sunlight

- 10.84 A total of 6 rooms were assessed for sunlight within this building on the basis that they have one or more windows orientated to within 90°
- 10.85** Any changes to the sunlight amenity within the 6 rooms will be fully BRE compliant. The effect upon sunlight amenity within this property is therefore considered to be **negligible (not significant)**.

Hudson Building**Daylight**

- 10.86 A total of 21 windows serving 21 rooms were assessed for daylight within this building.
- 10.87 In accordance with the significance criteria described above, the effect upon the daylight amenity within the 20 (95%) of the 21 rooms is considered to be minor adverse (not significant).
- 10.88 The window serving the remaining room will experience a change in VSC which would be moderate adverse in significance and no change in NSL. The window will, however, retain a very reasonable in context VSC level of 17.6% and 100% of the

room will continue to benefit from daylight distribution (NSL). The effect upon the daylight amenity within this room is therefore considered to be minor adverse (not significant).

- 10.89 The overall effect of the Proposed Development upon the daylight amenity within this property is considered to be **minor adverse (not significant)**.

Sunlight

- 10.90 A total of 9 rooms were assessed for sunlight within this building on the basis that they have one or more windows orientated to within 90°.
- 10.91 Any changes to the sunlight amenity within the 8 of the 9 rooms will be fully BRE compliant. The effect upon sunlight amenity within these 8 rooms is therefore considered to be negligible (not significant).
- 10.92 The remaining room will experience a change in annual sunlight amenity which would be major adverse in significance. The room will however retain annual sunlight amenity of 24% against the BRE recommended 25% and winter sunlight amenity of 7% against the BRE recommended 5%.
- 10.93 These are very good levels of retained APSH considering the urban location of this property and, therefore, the effect upon the sunlight amenity within this room is considered to be minor adverse (not significant).
- 10.94 The overall effect of the Proposed Development upon the sunlight amenity within this property is considered to be **minor adverse (not significant)**.

Nuovo Apartments

Daylight

- 10.95 A total of 190 windows serving 34 rooms were assessed for daylight within this building.
- 10.96 Any changes in daylight amenity (VSC & NSL) to 24 (71%) of the 34 rooms assessed will be fully BRE compliant. The effect upon daylight amenity within these 24 rooms is therefore considered to be negligible (not significant) as, in accordance with the BRE's decision chart, the daylighting within these rooms is unlikely to be significantly affected.
- 10.97 In accordance with the significance criteria described above, the effect upon the daylight amenity within the 4 (12%) of the remaining 10 rooms is considered to be minor adverse (not significant).
- 10.98 There is 1 living room served by 14 windows of which 2 will experience changes in VSC which are of moderate adverse significance. The remaining 12 windows will, however, experience no or fully BRE compliant VSC changes with those windows that are affected retaining VSC levels of between 22.1% to 22.6% against the BRE recommended 27% for a suburban location.
- 10.99 These are very good levels of retained VSC and, as such, with each room served by 14 windows, the room will also continue to benefit from daylight distribution (NSL)

to 99.8% of its area. The effect upon the daylight amenity within this room is therefore considered to be minor adverse (not significant).

- 10.100 The remaining 5 rooms (a column of bedrooms) will all experience VSC and/or NSL changes which are of minor to major adverse significance. The reason for this is because the windows and rooms all have low baseline values. This means that the no greater than 4% absolute VSC changes caused by the construction of the Proposed Development present themselves disproportionately when expressed in percentage of baseline terms.
- 10.101 In view of the isolated number of rooms affected, the small actual VSC changes to their windows and the fact that these rooms are all bedrooms, which have a lower expectation for daylight amenity by virtue of their usage, the overall effect of the Proposed Development upon the daylight amenity within this property is considered to be **minor adverse (not significant)**.

Sunlight

- 10.102 A total of 12 rooms were assessed for sunlight within this building on the basis that they have one or more windows orientated to within 90°
- 10.103** Any changes to the sunlight amenity within the 12 rooms will be fully BRE compliant. The effect upon sunlight amenity within this property is therefore considered to be **negligible (not significant)**.

113 Newton Street

Daylight

- 10.104 A total of 19 windows serving 8 rooms were assessed for daylight within this building.
- 10.105 In accordance with the significance criteria described above, the effect upon the daylight amenity within 1 (13%) of the 8 rooms is considered to be minor adverse (not significant).
- 10.106 There are 4 living rooms served by 3 or 4 windows of which 1 will experience changes in VSC which are of moderate to major adverse in significance. The remaining windows will, however, experience no or no greater than a 0.5% VSC change with those windows that are affected retaining VSC levels of between 15% to 25% against the BRE recommended 27% for a suburban location.
- 10.107 These are very good levels of retained VSC for a property in an urban location and, as such, with each room served by 3 or 4 windows, the rooms will also continue to benefit from daylight distribution (NSL) to between 67.5% and 99.6% of their respective areas. The effect upon the daylight amenity within these 4 rooms is therefore considered to be minor adverse (not significant).
- 10.108 The remaining 3 rooms are all bedrooms that are recessed into the courtyard facing the Site. These rooms will, as a consequence of their low baseline levels of daylight amenity due to their location and the construction of the Proposed Development, experience VSC changes of major adverse significance and NSL changes that are of moderate to major in significance.

- 10.109** In view of the isolated number of rooms affected and the fact that these rooms are all bedrooms, which have a lower expectation for daylight amenity by virtue of their usage, the overall effect of the Proposed Development upon the daylight amenity within this property is considered to be **minor adverse (not significant)**.

Sunlight

- 10.110 A total of 4 rooms were assessed for sunlight within this building on the basis that they have one or more windows orientated to within 90°
- 10.111** Any changes to the sunlight amenity within the 4 rooms will be fully BRE compliant . The effect upon sunlight amenity within this property is therefore considered to be **negligible (not significant)**.

40 Little Lever Street

Daylight

- 10.112 A total of 32 windows serving 14 rooms were assessed for daylight within this building.
- 10.113 All 14 rooms are served by multiple windows with at least one of those windows facing the Site.
- 10.114 For the 7 rooms served only by Site facing windows, the construction of the Proposed Development will cause major changes to both the VSC levels and NSL levels of these rooms.
- 10.115 The remaining 7 rooms all have at least one window which does not face the site and, as such, those windows will experience VSC changes which are either BRE compliant or minor. The windows facing the Site will all experience major VSC changes.
- 10.116 Consequent to having a mitigating window, these 7 rooms will experience either BRE compliant or minor NSL changes and retain daylight distribution (NSL) to between 69.1% and 99.4% of their areas.
- 10.117 Changes of the levels described above are to be expected considering the location of this property in a developing city centre location and its proximity to the Site. The relationship between the Site and its neighbours is commensurate with that of other proximate sites that have recently been developed and, as such, the identified effects and daylight levels are to be expected and have, evidently, previously considered acceptable.
- 10.118 The overall effect of the Proposed Development upon the daylight amenity within this property is, therefore, considered to be **moderate adverse (significant)**.

Sunlight

- 10.119 A total of 2 rooms were assessed for sunlight within this building on the basis that they have one or more windows orientated to within 90°

- 10.120 Any changes to the sunlight amenity within the 2 rooms will be fully BRE compliant . The effect upon sunlight amenity within this property is therefore considered to be **negligible (not significant)**.

50-58 Spear Street

Daylight

- 10.121 A total of 4 windows serving 4 rooms were assessed for daylight within this building.
- 10.122 In accordance with the significance criteria described above, the effect upon the daylight amenity within 2 (50%) of the 4 rooms is considered to be minor adverse (not significant).
- 10.123 The windows serving the remaining 2 rooms will experience minor changes in VSC. The rooms will, however, experience major adverse changes in NSL, which is due to the relatively small absolute changes being a large percentage of their low baseline levels as a result of their enclosed locations.
- 10.124 In view of the no greater than minor VSC changes and the fact that these rooms are bedrooms, which have a lower expectation for daylight amenity by virtue of their usage, the effect of the Proposed Development upon the daylight amenity within these rooms is considered to be minor adverse (not significant).
- 10.125** The overall effect of the Proposed Development upon the daylight amenity within this property is considered to be **minor adverse (not significant)**.

Sunlight

- 10.126 There are no rooms material for consideration in sunlight terms as there are no windows orientated to within 90° of due south.

The Sorting House

Daylight

- 10.127 A total of 50 windows serving 36 rooms were assessed for daylight within this building.
- 10.128 Any changes in daylight amenity (VSC & NSL) to 9 (25%) of the 36 rooms assessed will be fully BRE compliant. The effect upon daylight amenity within these 9 rooms is therefore considered to be negligible (not significant) as, in accordance with the BRE's decision chart, the daylighting within these rooms is unlikely to be significantly affected.
- 10.129 In accordance with the significance criteria described above, the effect upon the daylight amenity within 20 (56%) of the remaining 27 rooms is considered to be minor adverse (not significant).
- 10.130 There are 3 split-level flats that are served by windows that are on a single level. These windows will experience VSC changes of minor to moderate significance. The windows will, however, retain very reasonable VSC levels of 19.5% to 21.2% against the BRE recommended 27% for windows in a suburban location.

- 10.131 As a result of the split-level configuration of these 3 rooms, the working plane in the room sits uncharacteristically low compared to the windows location. As a result, the baseline NSL levels are very low and so the relatively small absolute NSL changes caused by the construction of the Proposed Development, present themselves disproportionately as being of moderate to major significance.
- 10.132 In view of the levels of retained VSC to the windows serving these rooms, the effect of upon the daylight amenity is considered to be minor adverse (not significant).
- 10.133 There are 2 dual aspect rooms which each have a secondary window which faces directly onto Griffin House, which is only a few meters away to the northwest. As a result, the secondary windows have very low levels of sky visibility (1.6% and 8.5% against the BRE recommended 27%) due to their very oblique view of the sky.
- 10.134 Construction of the Proposed Development will result in moderate changes in VSC to the main windows serving these rooms and major changes to the secondary windows. These major changes are, however, disproportionate to the level of actual change due to their low baseline values.
- 10.135 On the basis that the main windows will retain very reasonable (18.9% and 21.4% VSC levels against the BRE recommended 27% for a suburban location) and both rooms will retain daylight distribution (NSL) to 68.4% and 91.9% of their respective areas, the effect upon the daylight amenity to these 2 rooms is considered to be minor adverse (not significant).
- 10.136 There is a level 4 LKD whose windows will experience minor VSC changes. The room will experience a moderate NSL change but retain daylight distribution to 59.1% of the rooms. The effect of the Proposed Development upon the daylight amenity of this room is, therefore, considered to be minor (not significant).
- 10.137 The remaining room is a kitchen whose only window also faces onto Griffin House. The room's baseline levels of daylight amenity are, therefore, very low (4.3% VSC & 11.3% NSL). As a result the small actual changes caused by the Proposed Development (2.8% VSC and 0.6 sqm NSL) present themselves disproportionately as major. In reality this room is likely to be artificially lit when in use and, therefore, these changes are unlikely to be noticeable. The effect upon the daylight amenity within this room is, therefore, also considered to be minor adverse (not significant).
- 10.138 The overall effect of the Proposed Development upon the daylight amenity within this property is considered to be **minor adverse (not significant)**.

Sunlight

- 10.139 A total of 5 rooms were assessed for sunlight within this building on the basis that they have one or more windows orientated to within 90°
- 10.140 Any changes to the sunlight amenity within the 5 rooms will be fully BRE compliant. The effect upon sunlight amenity within this property is therefore considered to be **negligible (not significant)**.

Additional Mitigation / Enhancement Measures

- 10.141 Despite some isolated but significant effects being identified, no additional mitigation measures are proposed.
- 10.142 This is on the basis that the relationship between the Site and its neighbours is commensurate with that of other proximate sites that have recently been developed and, as such, the identified effects and daylight levels are to be expected and have, evidently, previously considered acceptable.

Residual Effects

- 10.143 On the basis that no mitigation measures are proposed, the Residual Effects of the Proposed Development on the Daylight and Sunlight amenity of the neighbouring sensitive receptors remain as per the Operational Phase effects identified earlier in this chapter, and summarised in the table below:

Table 10.11 Residual Effects Summary

Description of Effect & Sensitive Receptor	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Reduction in Daylight Amenity				
39 Great Ancoats Street	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
44 Great Ancoats Street	None Proposed	Moderate Adverse - Significant	None Proposed	Moderate Adverse - Significant
41-45 Great Ancoats Street	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
Derros Building	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
Hudson Building	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
Nuovo Apartments	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
113 Newton Street	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
40 Little Lever Street	None Proposed	Moderate Adverse - Significant	None Proposed	Moderate Adverse - Significant
50-58 Spear Street	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
5 Warwick Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant

Description of Effect & Sensitive Receptor	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
The Sorting House	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
Reduction in Sunlight Amenity				
41-45 Great Ancoats Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
Derros Building	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
Hudson Building	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
Nuovo Apartments	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
113 Newton Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
40 Little Lever Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
5 Warwick Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
The Sorting House	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant

Conclusions

- 10.144 The effect of the Proposed Development on the daylight and sunlight amenity of the neighbouring receptors has been assessed as part of this chapter.
- 10.145 Following an inspection of the Site and the buildings in the vicinity, the following neighbouring buildings have been identified as relevant receptors for effect assessments:-
- 39 Great Ancoats Street
 - 44 Great Ancoats Street
 - 41-45 Great Ancoats Street
 - Derros Building
 - Hudson Building
 - Nuovo Apartments
 - 113 Newton Street
 - 40 Little Lever Street
 - 50-58 Spear Street
 - 5 Warwick Street
 - The Sorting House
- 10.146 A 3D model has been created and technical analysis undertaken within it to establish the levels of daylight and sunlight amenity as they currently exist (the baseline condition) and following the Proposed Development (the proposed condition).
- 10.147 We have also undertaken analysis of the daylight and sunlight levels following construction of the Proposed development, to also include other development sites that are in the proximity of the properties surrounding the Site, this is to establish the cumulative impact on the surrounding properties.
- 10.148 A total of 477 windows facing the Site serving 235 rooms within the 11 buildings listed below were assessed for VSC and NSL (daylight) and 77 rooms were assessed for APSH (sunlight) within the 8 buildings which are material for consideration in sunlight terms ie their windows are orientated to within 90 degrees of due south.
- 10.149 The majority of the receptors that were assessed will experience, overall, negligible or minor adverse effects impacts on their daylight and/or sunlight amenity. These impacts are Not Significant.
- 10.150 44 Great Ancoats Street and 40 Little lever Street will experience moderate adverse effects on their daylight amenity, which are Significant, and negligible effects on their sunlight amenity, which are Not Significant.
- 10.151 No mitigation measures are proposed for these significant effects on the basis that the relationship between the Site and its neighbours is commensurate with that of other proximate sites that have recently been developed and, as such, the identified

effects and daylight levels are to be expected and have, evidently, previously considered acceptable.

Assessment of Cumulative Effects

10.152 Assessment of cumulative effects has been made through completion of technical analysis, to the same methodology set out above.

10.153 A list of planning approved developments in the wider area is provided in the table below. The list is extensive but having researched and considered the location and massing of these other property developments, many of them are not considered to be close enough to the Site for their massing to have any material cumulative daylight and sunlight impact on any of the neighbouring buildings considered as part of this Chapter.

10.154 The massing of the following neighbouring approved property developments is, however, considered to be potentially in close enough proximity to the Site and the neighbouring receptors to justify a cumulative review:-

- 1 Port Street;
- 1 NQ; and
- 9 Larard's Still.

Table 10.12 Cumulative Sites

Site Ref.	Application No.	Distance and Direction	Proposal	Scoped-in / Scoped-out	Justification
1.	132489/FO/2021	150m south east	Erection of a part-33, part-11, part 9 part 7 storey residential building	Scoped-in	Tall enough to potentially alter the assessment results
2.	135675/FO/2022	150m south east	Erection of two residential apartment buildings comprising Block 1 - part 9, part 10 storeys and Block 2 - 12 storey building	Scoped-in	Tall enough to potentially alter the assessment results
3.	135662/FO/2022	400m south east	Erection of a 20 storey building to create a 154 bedroom hotel	Scoped-out	Too far away to materially alter the assessment results
4.	119801/FU/2018	400m south east	Retention of existing use of former residential building (Use Class C3) as an 84 suite apart hotel	Scoped-out	Too far away to materially alter the assessment results
5.	128911/FO/2020	400m south east	Erection of 9 storey residential building	Scoped-out	Too far away to materially alter the assessment results
6.	120149/FO/2018	400m south east	Erection of 7 to 8 storey residential	Scoped-out	Too far away to materially alter the assessment results
7.	115178/FO/2017	330 south east	Erection of 2 linked buildings ranging in height from 8 to 10 storeys to provide residential accommodation	Scoped-out	Too far away to materially alter the assessment results

Site Ref.	Application No.	Distance and Direction	Proposal	Scoped-in / Scoped-out	Justification
8.	117280/FO/2017	60m west	Erection of a five-storey building to provide 6 no. residential apartments	Scoped-out	Too small and far away to materially alter the assessment results
9.	134953/FO/2022	115m west	erection of new 10 storey building to incorporate retained elements, to create aparthotel and ground floor commercial uses	Scoped-in	Tall enough to potentially alter the assessment results
10.	N/A	180m south west	Full-pedestrianisation and redevelopment of Stevenson Square	Scoped-out	No increase or decrease in massing that would materially alter the assessment results
11.	127538/FO/2020	280m south west	Erection of 11 storey building on site of 67 Piccadilly, as a hotel	Scoped-out	Too far away to materially alter the assessment results
12.	TBC	440m south	12-16 Piccadilly	Scoped-out	Too far away to materially alter the assessment results
13.	137346/FO/2023	410m north west	Erection of a part 5, part 10 storey building comprising residential apartments and townhouses,	Scoped-out	Too far away to materially alter the assessment results

Likely Residual Cumulative Effects and their Significance

10.155 This section reports upon the effects of the Proposed Development in combination with the following consented neighbouring developments:

- 1 Port Street (massing only);
- 1 NQ (massing only); and
- 9 Larard's Still (massing only).

10.156 The same 477 windows facing the Site serving 235 rooms within 11 buildings were assessed for VSC and NSL (daylight) and 77 rooms were assessed for APSH (sunlight) within the 8 buildings which are material for consideration in sunlight terms ie their windows are orientated to within 90 degrees of due south.

Table 10.13 – Summary of VSC & NSL Daylight Results – Proposed Development Only

ADDRESS	VERTICAL SKY COMPONENT WINDOW					NO SKY LINE ROOM				
	TOT	PASS	LOSS (%)			TOT	PASS	LOSS (%)		
			20-30	30-40	40+			20-30	30-40	40+
39 Great Ancoats Street	11	1	2	8	0	4	4	0	0	0
44 Great Ancoats Street	6	0	0	1	5	3	1	0	1	1
41 - 45 Great Ancoats Street	113	66	40	7	0	90	90	0	0	0
Derros Building	20	8	7	5	0	11	11	0	0	0
Hudson Building	21	0	1	20	0	21	19	2	0	0
Nuovo Apartments	190	176	10	4	0	34	29	0	1	4
113 Newton Street	19	11	1	3	4	8	4	1	2	1
40 Little Lever Street	32	4	3	1	24	14	5	1	2	6
50-58 Spear Street	4	1	3	0	0	4	0	2	0	2
5 Warwick Street	11	11	0	0	0	10	10	0	0	0
The Sorting House	50	16	24	7	3	36	31	0	2	3
TOTALS	477	294	91	56	36	235	204	6	8	17

Table 10.14 – Summary of VSC & NSL Daylight Results – Proposed Development & Cumulative Schemes

ADDRESS	VERTICAL SKY COMPONENT WINDOW					NO SKY LINE ROOM				
	TOT	PASS	LOSS (%)			TOT	PASS	LOSS (%)		
			20-30	30-40	40+			20-30	30-40	40+
39 Great Ancoats Street	11	1	2	8	0	4	4	0	0	0
44 Great Ancoats Street	6	0	0	1	5	3	1	0	1	1
41 - 45 Great Ancoats Street	113	66	40	7	0	90	90	0	0	0
Derros Building	20	8	7	5	0	11	11	0	0	0
Hudson building	21	0	0	21	0	21	19	2	0	0

ADDRESS	VERTICAL SKY COMPONENT WINDOW					NO SKY LINE ROOM				
	TOT	PASS	LOSS (%)			TOT	PASS	LOSS (%)		
			20-30	30-40	40+			20-30	30-40	40+
Nuovo Apartments	190	176	10	4	0	34	29	0	1	4
113 Newton Street	19	11	1	3	4	8	4	1	2	1
40 Little Lever Street	32	4	3	1	24	14	5	1	2	6
The Sorting House	50	15	25	7	3	36	31	0	2	3
50-58 Spear Street	4	1	3	0	0	4	0	2	0	2
5 Warwick Street	11	11	0	0	0	10	10	0	0	0
Totals	477	293	91	57	36	235	204	6	8	17

10.157 The following properties will experience the same levels of VSC & NSL change from the Proposed Development in combination with the consented neighbouring developments as they would from the Proposed Development in isolation:-

- 39 Great Ancoats Street - **(Minor Adverse – Not Significant);**
- 44 Great Ancoats Street - **(Moderate Adverse – Significant);**
- 41 - 45 Great Ancoats Street - **(Minor Adverse – Not Significant);**
- Derros Building - **(Minor Adverse – Not Significant);**
- Nuovo Apartments - **(Minor Adverse – Not Significant);**
- 113 Newton Street - **(Minor Adverse – Not Significant);**
- 40 Little Lever Street - **(Moderate Adverse – Significant);**
- 50-58 Spear Street - **(Minor Adverse – Not Significant);** and
- 5 Warwick Street - **(Negligible – Not Significant).**

10.158 The cumulative effect assessment of the above properties therefore remains the same as described above for the Proposed Development in isolation.

Hudson Building

10.159 One window will experience an additional 0.8% absolute VSC change when the Proposed Development is assessed in combination with the consented neighbouring developments. As a result, the level of VSC change moves from the 20-30% to the 30-40% bracket. This small absolute change does not, however, change the minor adverse effect assessment of this room.

10.160 The cumulative effect assessment of this property therefore remains the same as described above for the Proposed Development in isolation **(Minor Adverse – Not Significant)..**

The Sorting House

10.161 One window will experience an additional 4.3% absolute VSC change when the Proposed Development is assessed in combination with the consented neighbouring developments. As a result, the level of VSC change moves from the

BRE compliant to the 20-30% bracket. This small absolute change increases the effect assessment of this room from negligible to minor adverse.

10.162 Despite this change, the cumulative effect assessment of this property remains the same as described above for the Proposed Development in isolation (**Minor Adverse – Not Significant**).

Table 10.15 – Summary of APSH Sunlight Results – Proposed Development Only

ANNUAL PROBABLE SUNLIGHT HOURS								
ROOM			ANNUAL (%)			WINTER (%)		
ADDRESS	TOTAL	PASS	20-30	30-40	40+	20-30	30-40	40+
41 - 45 Great Ancoats Street	35	35	0	0	0	0	0	0
Derros Building	6	6	0	0	0	0	0	0
Hudson Building	9	8	0	0	1	0	0	0
Nuovo Apartments	12	12	0	0	0	0	0	0
113 Newton Street	4	4	0	0	0	0	0	0
40 Little Lever Street	2	2	0	0	0	0	0	0
Spear Street	4	4	0	0	0	0	0	0
The Sorting House	5	5	0	0	0	0	0	0
TOTALS	77	76	0	0	1	0	0	0

Table 10.16 – Summary of APSH Sunlight Results – Proposed Development & Cumulative Schemes

ANNUAL PROBABLE SUNLIGHT HOURS								
ROOM			ANNUAL (%)			WINTER (%)		
ADDRESS	TOTAL	PASS	20-30	30-40	40+	20-30	30-40	40+
41 - 45 Great Ancoats Street	35	35	0	0	0	0	0	0
Derros Building	6	6	0	0	0	0	0	0
Hudson building	9	7	0	0	2	0	0	0
Nuovo Apartments	12	12	0	0	0	0	0	0
113 Newton Street	4	4	0	0	0	0	0	0
40 Little Lever Street	2	2	0	0	0	0	0	0
The Sorting House	5	5	0	0	0	0	0	0
Spear Street	4	4	0	0	0	0	0	0
TOTALS	77	75	0	0	2	0	0	0

10.163 The following properties will experience the same levels of APSH change from the Proposed Development in combination with the consented neighbouring developments as they would from the Proposed Development in isolation:-

- 41 - 45 Great Ancoats Street - **(Negligible – Not Significant)**;
- Derros Building - **(Negligible – Not Significant)**;
- Nuovo Apartments - **(Negligible – Not Significant)**;
- 113 Newton Street - **(Negligible – Not Significant)**;
- 40 Little Lever Street - **(Negligible – Not Significant)**;
- The Sorting House - **(Negligible – Not Significant)**;
- 50-58 Spear Street - **(Negligible – Not Significant)**; and
- 5 Warwick Street - **(Negligible – Not Significant)**.

10.164 The cumulative effect assessment of the above properties therefore remains the same as described above for the Proposed Development in isolation.

Hudson Building

10.165 There will be one additional 4th floor room which will experience a change in sunlight amenity which breaches BRE Guidance. Both affected rooms will, however, retain 23% and 24% total APSH levels against the BRE recommended 25% and 6% and 10% winter APSH against the BRE recommended 5%.

10.166 Therefore, when the Proposed Development is assessed in combination with the consented neighbouring developments, there will one additional room which is affected to a minor adverse extent compared the effect to the Proposed Development in isolation.

10.167 The cumulative effect assessment of this property therefore remains the same as described above for the Proposed Development in isolation **(Minor Adverse – Not Significant)**.

References

- ⁱ Building Research Establishment - Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2022
- ⁱⁱ National Planning Policy Framework (2023)
- ⁱⁱⁱ National Planning Practice Guidance

11. Wind Microclimate

Introduction

- 11.1 This chapter assesses the effects of the Proposed Development on Wind Microclimate in relation to pedestrian comfort and safety. In particular, it considers the potential wind microclimate effects and likely effects of the proposed development on the following:
- Undesirable wind speeds at ground and raised levels of the site, surrounding buildings and nearby areas of public realm during the construction phase; and
 - Undesirable wind speeds at ground and raised levels of the site, surrounding buildings and nearby areas of the public realm during the operational phase.
- 11.2 The chapter describes the methods used to assess the likely significant effects, the baseline conditions currently existing at the site and surroundings, the potential direct and indirect effects of the development arising from unsuitable or strong winds, the mitigation measures required to prevent, reduce, or offset the identified significant effects and the residual effects.

Assessment Methodology and Significance Criteria

CFD Testing

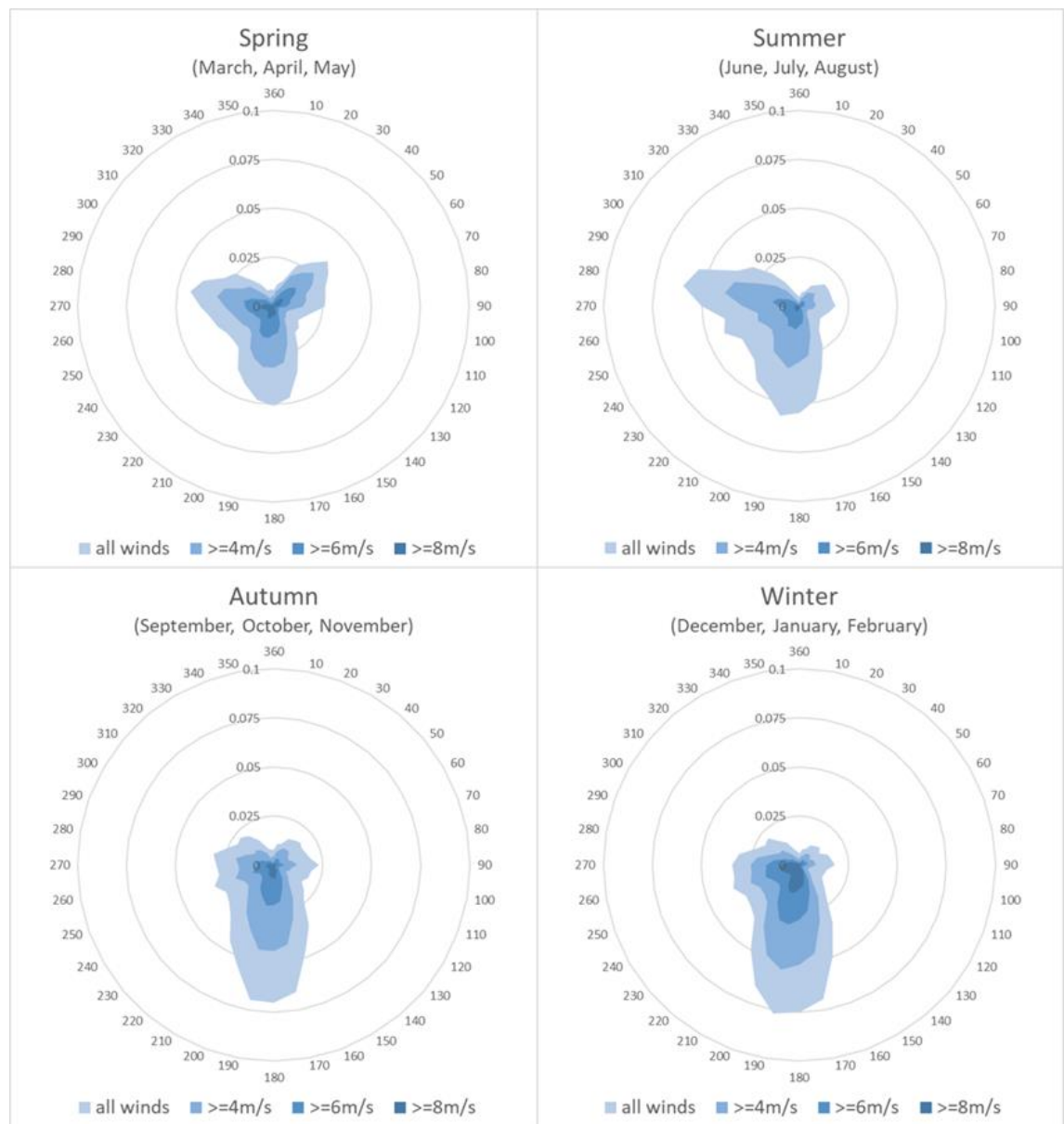
- 11.3 Wind microclimate conditions have been established using a 3D model, extending 400m radius from the Site, tested using high resolution Computational Fluid Dynamics (CFD).
- 11.4 CFD is a digital modelling technique, which simulates the effect of wind for the built environment. The air is divided into hundreds of millions of “cells”, within which the equations of motion are solved.
- 11.5 A suitable atmospheric boundary layer (to accurately capture the effect of local buildings and terrain on atmospheric wind speeds and turbulence) was generated.
- 11.6 A 3D model of the Proposed Development was included in the CFD model and wind speeds were measured on and around the site to determine the strength and frequency of pedestrian level wind speeds.
- 11.7 Wind speeds on and around the site were measured at 1.5m above any surfaces expected to be used for pedestrian activity, to determine the conditions at and around the site. The model was run at full scale from 18 wind angles, spaced using 10° or 30° increments such that no sector contributes more than 10% of the annual wind.
- 11.8 The wind microclimate effects are assessed annually and seasonally. The windiest season (typically the winter months of December, January and February) are reported as this is when the strongest winds are expected, summer conditions (June,

July, August) are reported as this is the season when pedestrian usage of outdoor spaces is expected to be highest.

Meteorological Conditions

- 11.9 On-site and local wind speeds measured through the CFD modelling were combined with 30 years-worth of weather data for Manchester International Airport, corrected for terrain local to the airport and the application site, to obtain annual and seasonal frequency and magnitude of wind speeds across the model. This allows the 'grading' of the pedestrian level winds according to the Lawson Comfort Criteria, which are explained later in this section of the chapter.
- 11.10 Seasonal wind roses for the airport are shown in Figure 11.1. These show that dominant wind direction is from the south.

Figure 11.1 Seasonal Wind Roses for Manchester International Airport (1990-2021)



- 11.11 Correction factors have been applied to take into account the different extended surroundings of the application site relative to the airport, and their influence on the wind conditions. Land surrounding airports is typically flat and open, to minimize wind turbulence for aircraft. The local atmospheric boundary layer of the wind will be different to that at the application site.
- 11.12 The correction factors between the airport (measured 10m above ground) and the application site (at a reference height of 120m) are shown in Table 11.1. These correction factors help to translate wind conditions measured at the airport, to the application site. It should be noted that the terrain analysis has been performed using sectors of 30°, which is presented in the below table.

Table 11.1 Site Wind Correction Factors

Direction	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°	330°
Correction Factor	1.46	1.46	1.42	1.39	1.32	1.30	1.31	1.30	1.31	1.39	1.55	1.40

Lawson Comfort Criteria

- 11.13 Effects were assessed through comparison of measured wind conditions against the Lawson Comfort Criteria.
- 11.14 The Lawson Criteria is recognised guidance used universally across the UK to assess the impact of the proposed development on wind flows in public spaces. Lawson devised a scale for assessing the suitability of wind conditions in the urban environment based upon threshold values of wind speed and frequency of occurrence. This guidance will be used to inform the assessment. The commonly used London Docklands Development Corporation (LDDC) method of the Lawson Criteria is set out in Table 11.2 and Table 11.3 below.

Table 11.2 Lawson Comfort Criteria (LDDC variant)

Comfort Category	Mean Wind Speed (5% exceedance)	Description
Sitting	4m/s	Acceptable for outdoor sitting use (e.g. cafes, benches, balconies)
Standing	6m/s	Acceptable for main building entrances, pick-up / drop-off points and bus stops
Walking (leisure)	8m/s	Acceptable for strolling
Walking (business)	10m/s	Acceptable for external pavements, walking purposefully without lingering
Uncomfortable	>10m/s	Not comfortable for regular pedestrian access

Table 11.3 Lawson Safety Criteria (LDDC Variant)

Safety Category	Mean Wind Speed (2hrs/year exceedance)	Description
No Safety Exceedance	<15m/s	No significant risk of strong winds for any users.
S15 (distress)	>15m/s	Unsafe for frail individuals, or cyclists
S20 (safety)	>20m/s	Wind conditions considered unsafe for all users

Target Wind Conditions

- 11.15 For a typical mixed-use urban area within which the site is located, the desired wind microclimate would typically need to have areas acceptable for sitting, standing (including at entrances of buildings) and walking use. Table 11.1 and Table 11.2 set out the description of the comfort categories to classify wind conditions.
- 11.16 The target is for the majority of thoroughfares to be suitable for leisure walking. Localised regions of business walking can be tolerated as a transitory pedestrian will pass through them relatively quickly, but an extensive region of business walking is not acceptable.
- 11.17 Within roadways, business walking is acceptable as these areas will only be used by people undertaking high energy activities such as cycling or brisk walking to cross the road. Uncomfortable conditions are not acceptable in pedestrianised areas.
- 11.18 The areas immediately outside any building entrances should be suitable for standing use during the windiest season to provide a “buffer” between the still conditions in interior spaces and the general thoroughfare.
- 11.19 Bus stops, tram stops or railway platforms would be targeted to be suitable for standing, as pedestrians would be expected to dwell in these spaces for a longer duration than a general thoroughfare. There are, however, none of these locations within the study area.
- 11.20 Amenity areas are targeted to be suitable for a mixture of standing and sitting in summer conditions.

Strong Winds

- 11.21 Any areas which show up as either subject to strong winds (defined as when there is either a distress exceedance or a safety exceedance in accordance with Table 11.2) or uncomfortable (during the windiest season) will require mitigation, unless they are in locations where pedestrian access can be controlled in the event of strong winds. This applies to all thoroughfares (for pedestrians) and roads (for cyclists) around the Proposed Development.

Test Scenarios

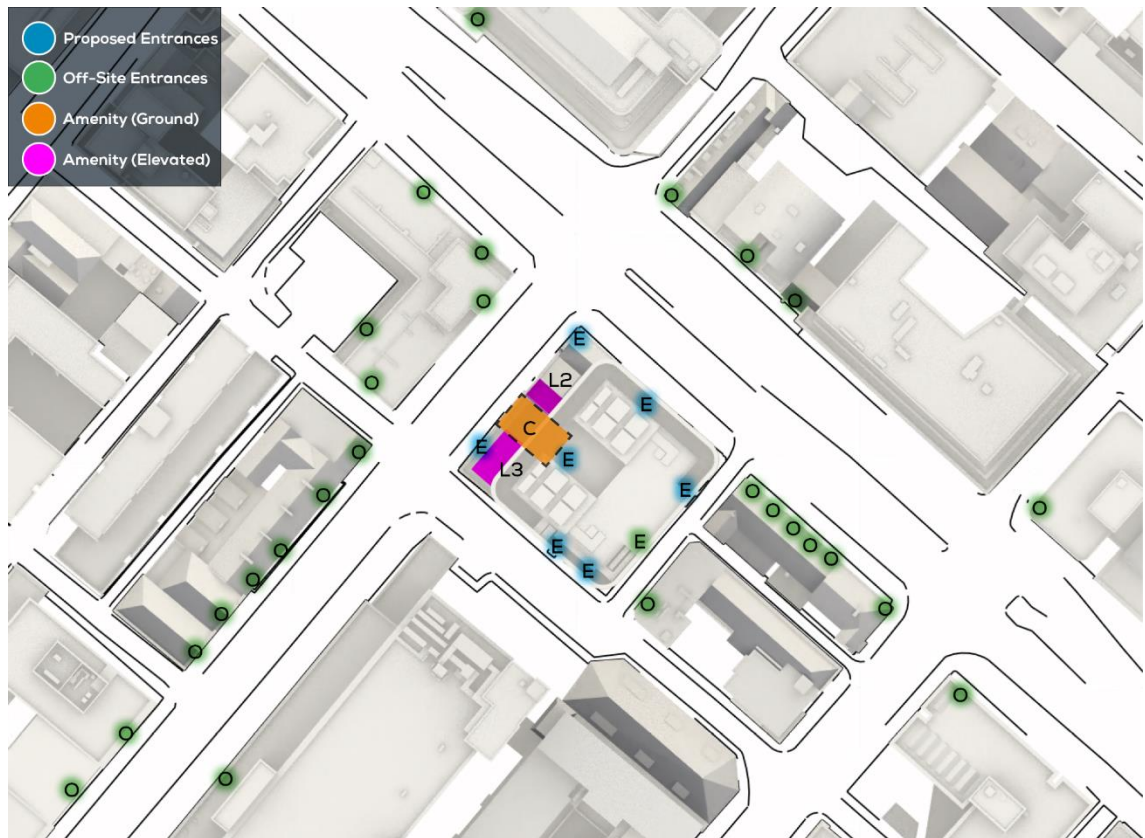
- 11.22 The following scenarios were tested as part of the assessment:

- Scenario 1: Baseline for site and surrounds;

- Scenario 2: Proposed development in baseline surrounds; and
- Scenario 3: Proposed development in cumulative surrounds.

Identification of Sensitive Receptors

- 11.23 Receptors are identified according to the expected pedestrian activities for different areas in the Site and surrounding area. All receptors are considered of high sensitivity to pedestrian comfort and strong winds, as these can render a space unusable or pose a risk to the safety of pedestrians or cyclists.
- 11.24 The following sensitive receptors have been identified, and are shown in Figure 11.2:
- General thoroughfares and roadways;
 - Entrances to the proposed development (marked E on Figure 11.2);
 - Off-site entrances (marked O on Figure 11.2);
 - Proposed courtyard amenity at ground floor within the site (marked C on Figure 11.2); and
 - Proposed roof terraces at levels 2 and 3 within the site (marked L2 and L3 on Figure 11.2).

Figure 11.2 Sensitive Receptors**Characterisation of Effect**

- 11.25 Any adverse effects (for strong winds and comfort) are categorised as significant, as these will require mitigation in order to achieve suitable comfort and safety conditions. Any beneficial effects for strong winds will be categorised as significant, as this will reduce the overall wind safety risk for the area. Any negligible (for strong winds and comfort) or beneficial effects (for comfort) will have suitable conditions for the intended use without mitigation, so are not classed as significant.

Significance Criteria

- 11.26 Beneficial effects are those where conditions are calmer than required for the intended use. Adverse effects are those where conditions are windier than required for the intended use, or there is a risk to safety due to strong winds. The scale of wind effects is defined as set out below:
- Major Beneficial: wind conditions are three categories calmer than required;
 - Moderate Beneficial: wind conditions are two categories calmer than required;
 - Minor Beneficial: wind conditions are one category calmer than required;
 - Negligible / No Effect: wind conditions are those required;
 - Minor Adverse: wind conditions are one category windier than required;

- Moderate Adverse: wind conditions are two categories windier than required; and
 - Major Adverse: wind conditions are three categories windier than required.
- 11.27 Additionally, any risk to pedestrian safety due to strong winds is classified as a Major Adverse effect.
- 11.28 All wind effects will be either site or local effects. For the purposes of this study, a site effect is classified as one which is measured within the site red line boundary, a local effect is one which is measured elsewhere in the study area (the study area being the area shown in Figure 11.2).
- 11.29 All effects for the completed and operational Proposed Development will be permanent effects, any effects during construction will be temporary effects. All wind effects are direct effects resulting from the impact of the Proposed Development on the local wind environment.

Assumptions / Limitations

- 11.30 The accuracy of the results is dependent upon the accuracy of the architectural CAD used to construct the model.
- 11.31 There is an inherent assumption that on-site wind speeds will scale linearly with the measured wind speeds at the airports.
- 11.32 It is assumed that, during the construction process, wind conditions will gradually change from the Baseline Conditions to the conditions for the Completed Proposed Development.
- 11.33 It is assumed that on-site activity during construction will be able to withstand a higher category of pedestrian comfort level than for the Completed Proposed Development.

Consultation

- 11.34 No wind microclimate specific consultation has been undertaken with regards to this project.

Baseline Conditions**Characterisation of the Baseline**

- 11.35 A CFD scenario (Scenario 1) consisting of the existing site within existing surrounds was tested to establish baseline conditions.
- 11.36 Figure 11.3 shows winter comfort for Scenario 1. Figure 11.4 shows summer comfort for Scenario 1. Figure 11.5 shows strong winds for Scenario 1.

Pedestrian Comfort

- 11.37 General thoroughfares and roadways range between suitable for sitting, standing and leisure walking in winter and for sitting and standing in summer. This is suitable for the intended use.
- 11.38 The principal off-site entrances (marked O in results figures) range between suitable for sitting or standing in all seasons. This is suitable for the intended use.

Strong Winds

- 11.39 There are no regions of strong winds (exceeding 15m/s for more than 0.025% annually) within the study area for the baseline scenario.

Figure 11.3 Winter Comfort for Scenario 1 (Existing Site with Existing Surrounds)

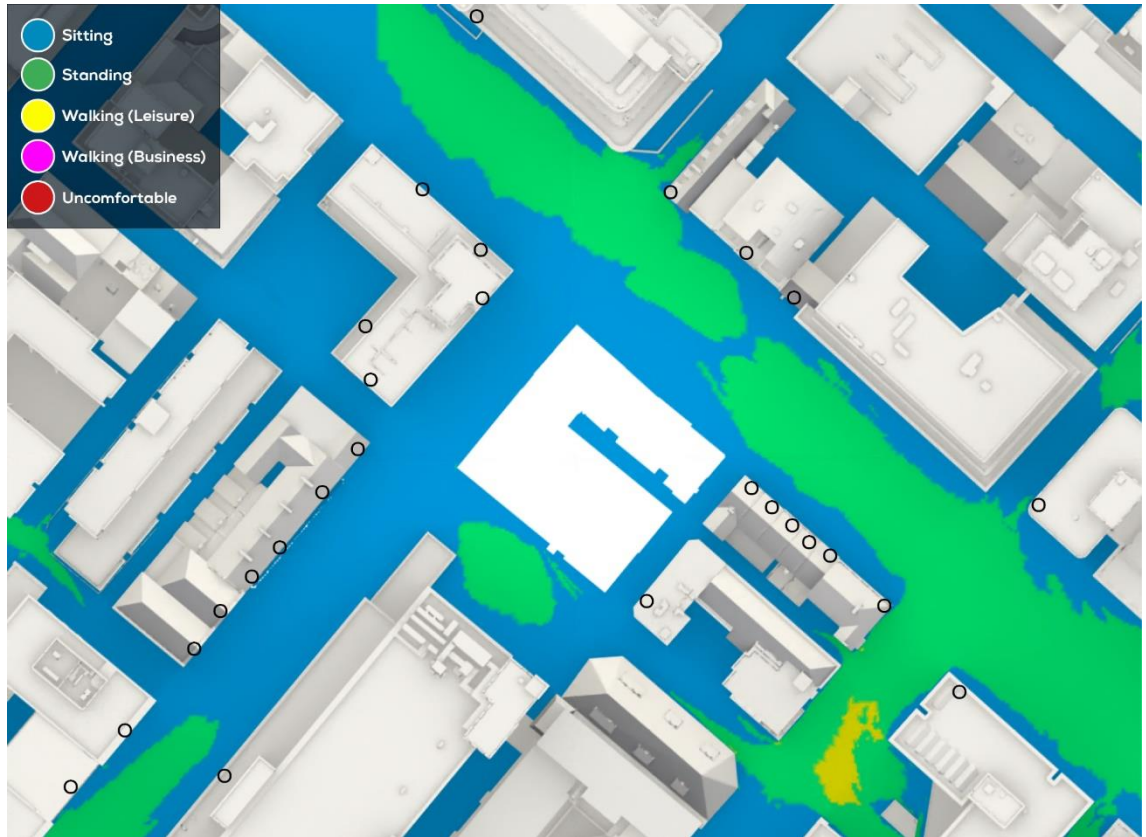


Figure 11.4 Summer Comfort for Scenario 1 (Existing Site with Existing Surrounds)

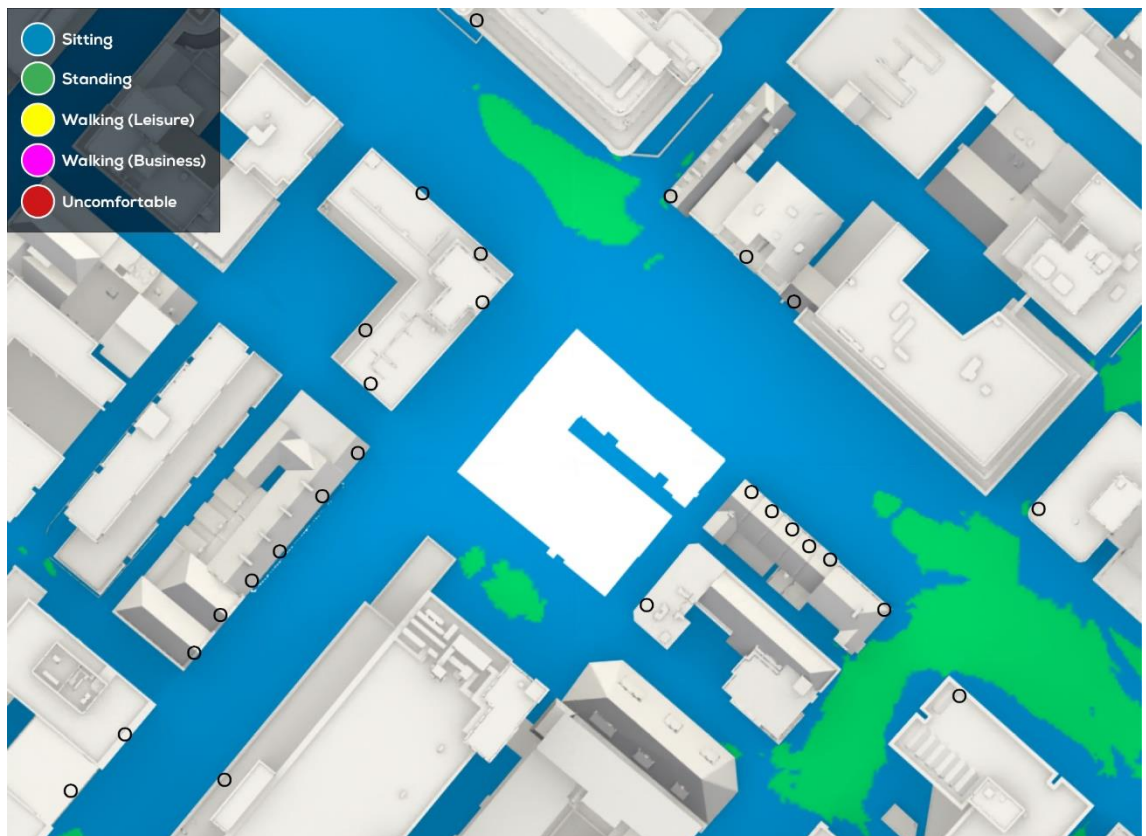
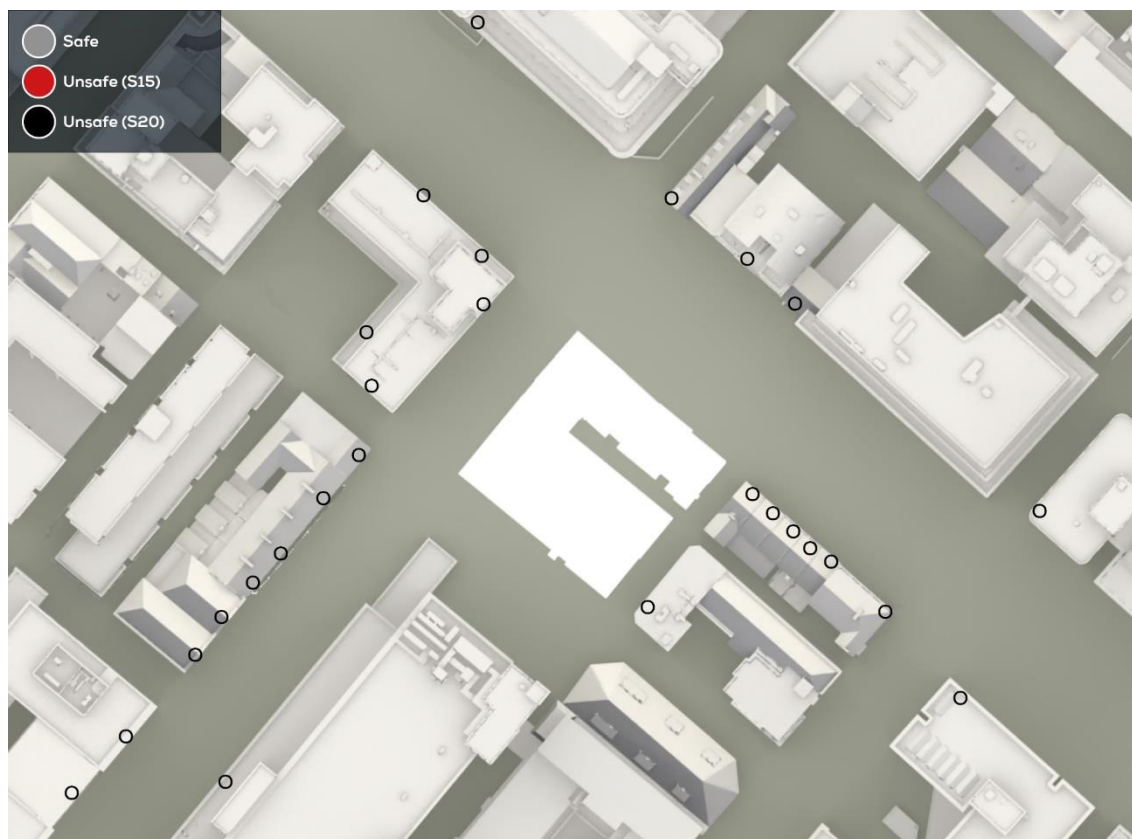


Figure 11.5 Strong Winds for Scenario 1 (Existing Site with Existing Surrounds)

Embedded Mitigation

Demolition and Construction

- 11.40 There are no embedded mitigation measures with regards to the demolition and construction phase.

The Completed and Operational Development

- 11.41 There are no embedded mitigation measures with regards to the completed and operational development.

Assessment of Likely Significant Effects

Demolition and Construction

- 11.42 During construction, conditions will gradually change from the baseline conditions to conditions for the completed and operational development. Therefore, construction effects can be inferred from the effects due to the completed and operational development.
- 11.43 As all wind effect for the completed and operational development are negligible, all demolition and construction wind effects will also be **Negligible (not significant)**.

The Completed and Operational Development

- 11.44 A CFD scenario (Scenario 2) consisting of the proposed development within existing surrounds was tested to establish operational wind effects.
- 11.45 Figure 11.6 shows winter comfort at ground level for Scenario 2. Figure 11.7 shows summer comfort at ground level for Scenario 2. Figure 11.8 shows strong winds at ground level for Scenario 2.
- 11.46 Figure 11.9 shows winter comfort at terrace level for Scenario 2. Figure 11.10 shows summer comfort at terrace level for Scenario 2. Figure 11.11 shows strong winds at terrace level for Scenario 2.

Pedestrian Comfort

- 11.47 General thoroughfares and roadways range between suitable for sitting, standing and leisure walking in winter and for sitting and standing in summer. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.48 The entrances to the proposed development (marked E in results figures) range between suitable for sitting or standing in all seasons. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.49 The principal off-site entrances (marked O in results figures) range between suitable for sitting or standing in all seasons. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.50 The proposed ground floor courtyard amenity space (marked C in results figures) is suitable for sitting in all seasons. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.51 The proposed terrace level amenity space at level 2 is suitable for sitting in all seasons. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.52 The proposed terrace level amenity space at level 3 is suitable for standing in winter and a mixture of sitting and standing in summer. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.

Strong Winds

- 11.53 There are no regions of strong winds (exceeding 15m/s for more than 0.025% annually) at any accessible location, either at ground or terrace levels, within the study area for scenario with the proposed development and existing surrounds. This is a **Negligible wind effect (not significant)**.

Figure 11.6 Winter Comfort for Scenario 2 (Proposed Development with Existing Surrounds)

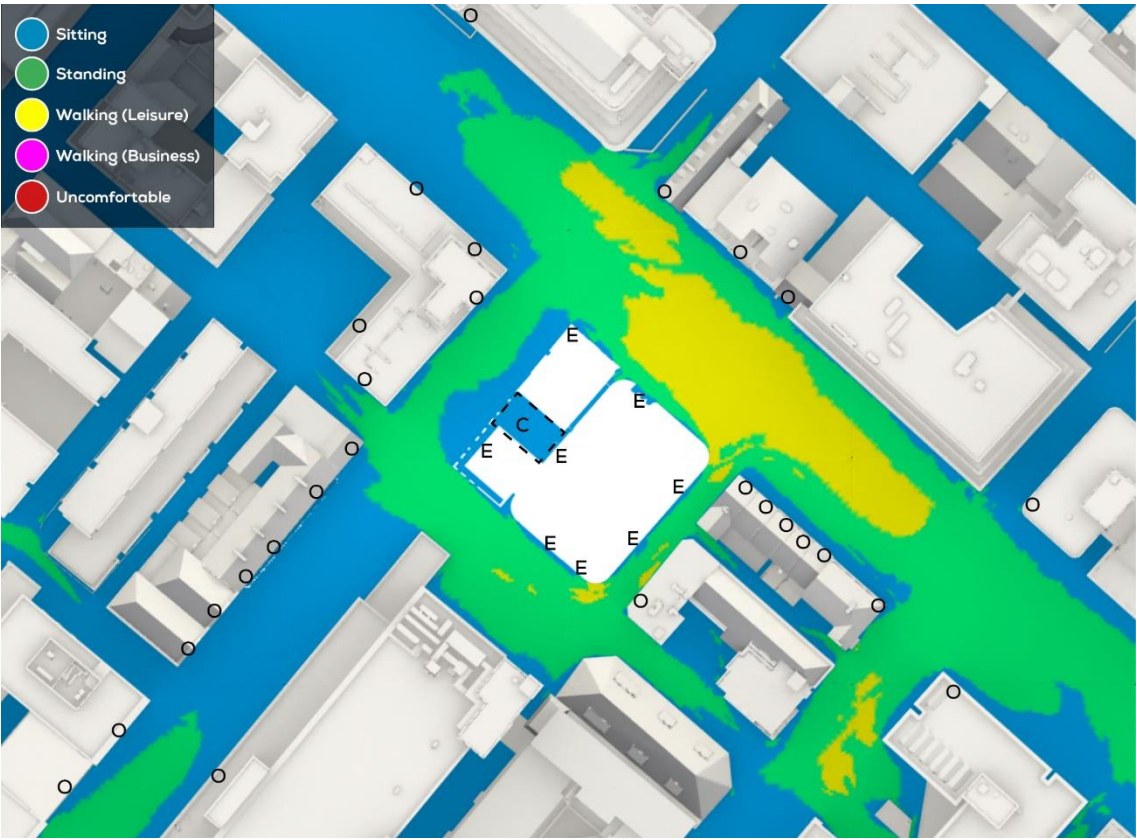


Figure 11.7 Summer Comfort for Scenario 2 (Proposed Development with Existing Surrounds)

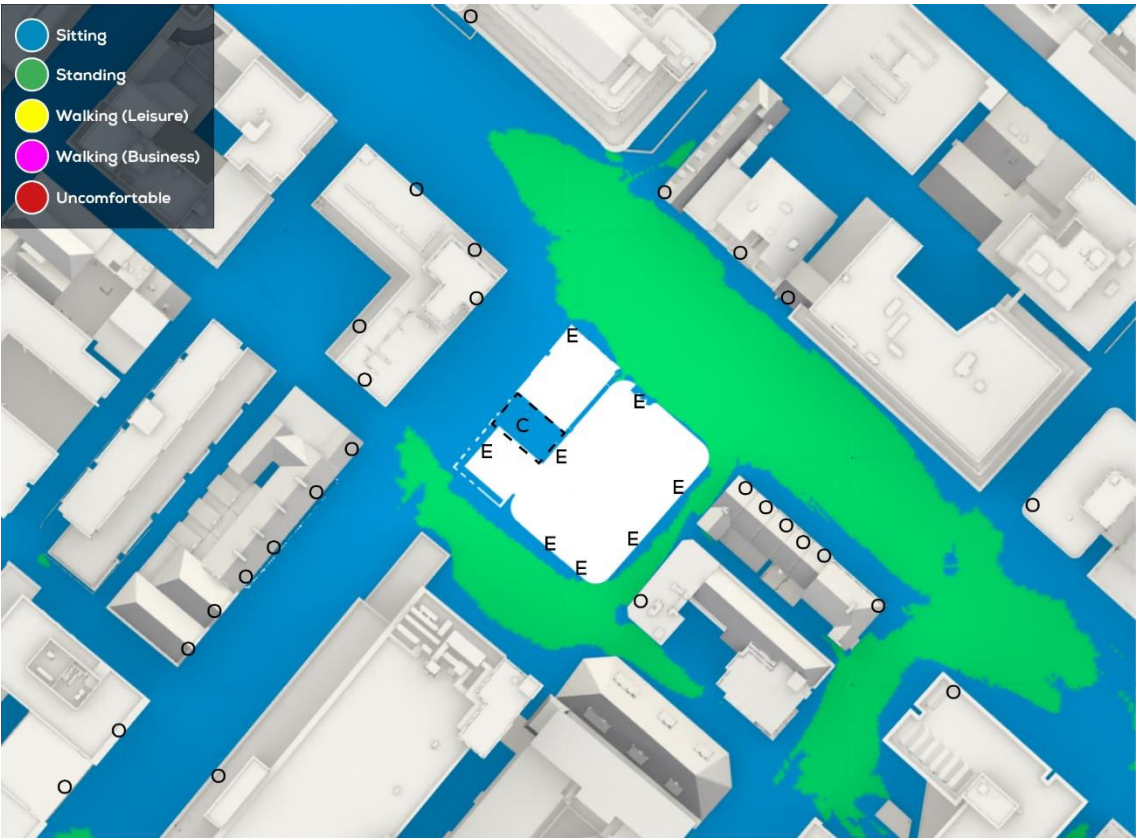


Figure 11.8 Strong Winds for Scenario 2 (Proposed Development with Existing Surrounds)

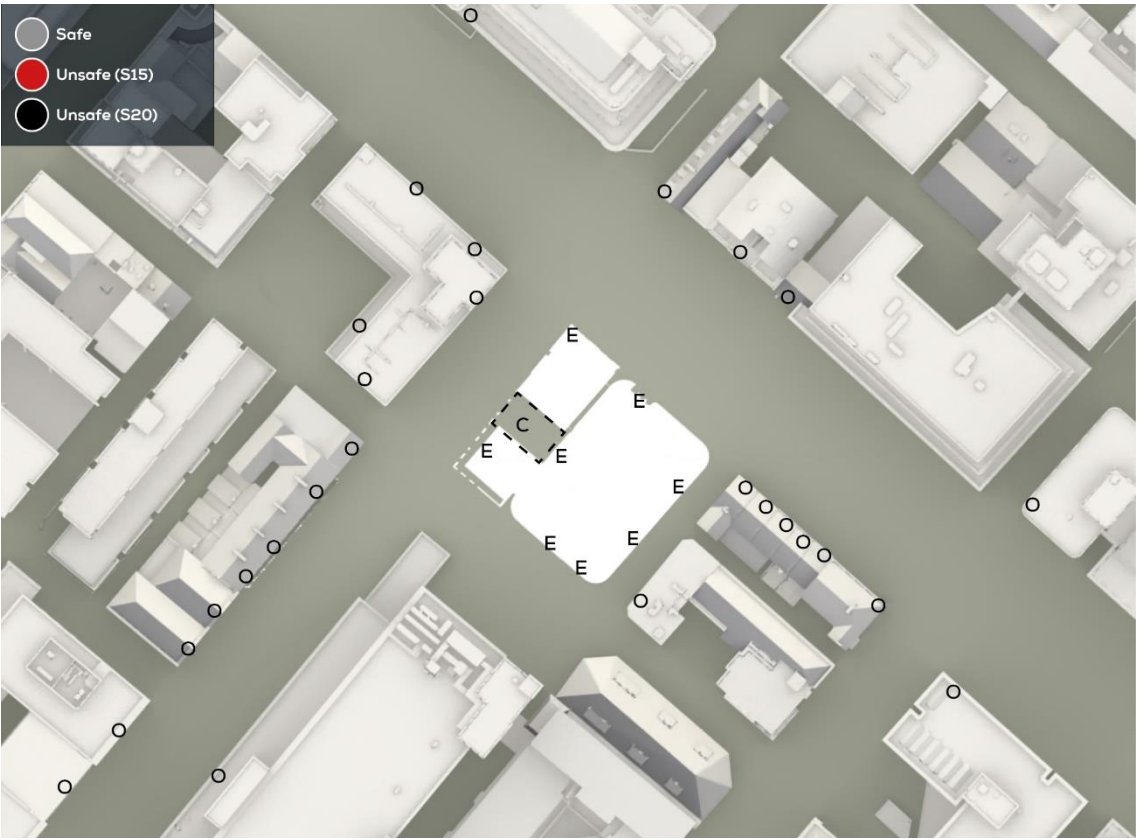


Figure 11.9 Winter Comfort at Terrace Level for Scenario 2 (Proposed Development with Existing Surrounds)

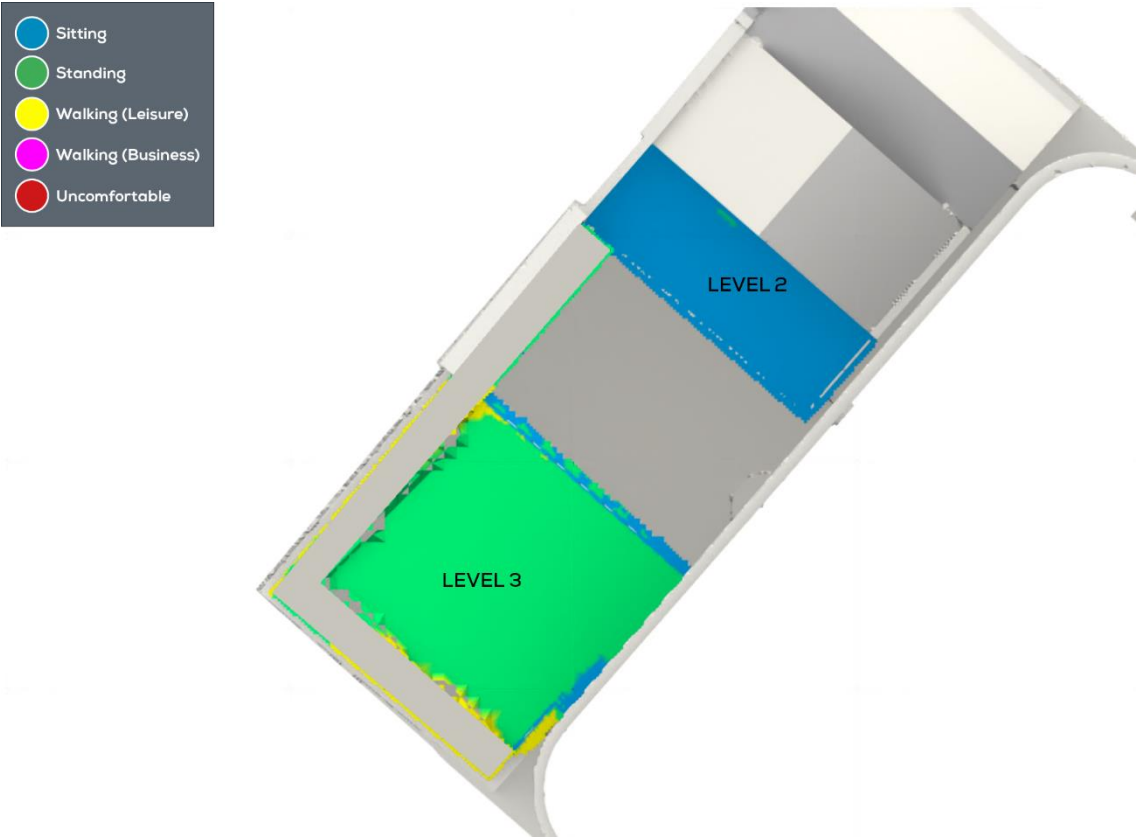


Figure 11.10 Summer Comfort at Terrace Level for Scenario 2 (Proposed Development with Existing Surrounds)

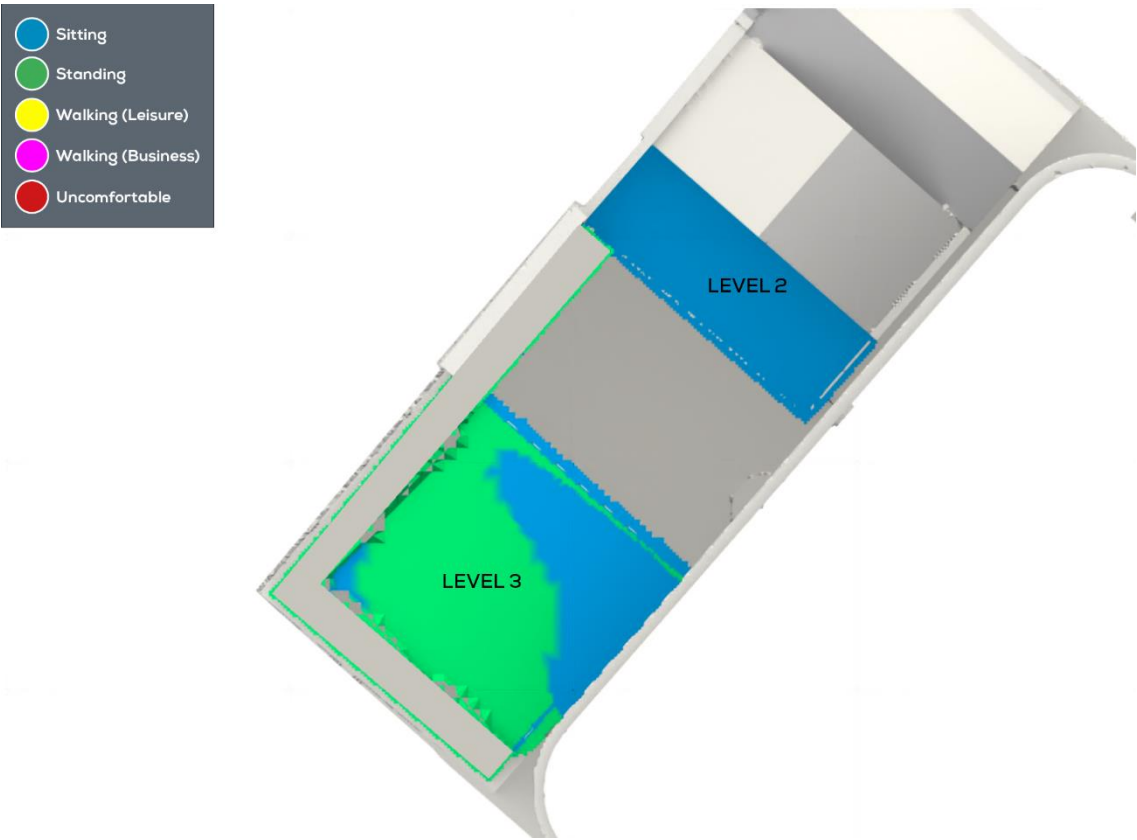


Figure 11.11 Strong Winds at Terrace Level for Scenario 2 (Proposed Development with Existing Surrounds)



Additional Mitigation / Enhancement Measures

Demolition and Construction

- 11.54 No additional wind mitigation/enhancement measures are required.

The Completed and Operational Development

- 11.55 No additional wind mitigation/enhancement measures are required.

Residual Effects

- 11.56 As no further mitigation measures are proposed, the residual effects will be the same as those stated above. Residual effects are summarised in Table 11.4.

Table 11.4 Residual Effects Summary

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Construction				
Thoroughfares & Roadways	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Off-site entrances	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Strong winds	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Operation				
Thoroughfares & Roadways	N/A	Negligible (not significant)	N/A	Negligible (not significant)
On-site entrances	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Off-site entrances	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Proposed ground floor amenity spaces	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Proposed terrace level amenity spaces	N/A	Negligible (not significant)	N/A	Negligible (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Strong winds	N/A	Negligible (not significant)	N/A	Negligible (not significant)

- 11.57 As shown in Table 11.4, all residual effects relating to wind during construction and operation of the Proposed Development are Negligible, which is not significant.

Conclusions

- 11.58 A Computational Fluid Dynamics (CFD) based wind assessment was performed of the Proposed Development with both existing and cumulative surrounds.
- 11.59 No embedded or additional wind mitigation measures were required.
- 11.60 Wind conditions were suitable for all thoroughfares, roadways, proposed entrances, off-site entrances, proposed ground level amenity and proposed terrace level amenity.
- 11.61 All wind effects are **negligible (not significant)**.

Assessment of Cumulative Effects

Approach

- 11.62 An additional CFD scenario as tested to ascertain the impact of local cumulative schemes. Those schemes which were considered as part of the assessment are set out in Table 11.5.
- 11.63 The following schemes were considered sufficiently advanced to be included within the baseline surrounds:
- Spear Street (117280/FO/2017); and
 - Stephenson Square Redevelopment (N/A)
- 11.64 The following schemes were only included as part of the cumulative surrounds:
- One Port, Street (132489/FO/2021);
 - 1NQ (135675/FO/2022);
 - Hilson Motto (135662/FO/2022);
 - Eider House (115178/FO/2017);
 - 9 Larard's Still (134953/FO/2022); and
 - 67 Piccadilly (127538/FO/2020)

Table 11.5 Cumulative Sites

Site Ref.	Application No.	Distance and Direction	Proposal	Scoped-in / Scoped-out	Justification
1.	132489/FO/2021	150m south east	One Port, Street	Scoped-in	
2.	135675/FO/2022	150m south east	1 NQ	Scoped-in	
3.	135662/FO/2022	400m south east	Hilton Motto	Scoped-in	
4.	119801/FU/2018	400m south east	40 Laystall Street	Scoped-out	Outside of study radius
5.	128911/FO/2020	400m south east	32-34 Laystall Street	Scoped-out	Outside of study radius
6.	120149/FO/2018	400m south east	Lomax	Scoped-out	Outside of study radius
7.	115178/FO/2017	330 south east	Eider House	Scoped-in	
8.	117280/FO/2017	60m west	Spear Street	Scoped-in	
9.	134953/FO/2022	115m west	9 Larard's Still	Scoped-in	
10.	N/A	180m south west	Stevenson Square redevelopment	Scoped-in	
11.	127538/FO/2020	280m south west	67 Piccadilly	Scoped-in	
12.	TBC	440m south	12-16 Piccadilly	Scoped-out	Outside of study radius
13.	137346/FO/2023	410m to north west	Phoenix Ironworks	Scoped-out	Outside of study radius

Likely Residual Cumulative Effects and their Significance

Construction

- 11.65 During construction, conditions will gradually change from the baseline conditions to conditions for the completed and operational development. Therefore, construction effects can be inferred from the effects due to the completed and operational development.
- 11.66 As all cumulative wind effects for the completed and operational development are negligible, all cumulative demolition and construction wind effects will also be **Negligible (not significant)**.

The Completed and Operational Development

- 11.67 A CFD scenario (Scenario 3) consisting of the proposed development within cumulative surrounds was tested to establish operational wind effects.
- 11.68 Figure 11.12 shows winter comfort at ground level for Scenario 3. Figure 11.13 shows summer comfort at ground level for Scenario 3. Figure 11.14 shows strong winds at ground level for Scenario 3.
- 11.69 Figure 11.15 shows winter comfort at terrace level for Scenario 3. Figure 11.16 shows summer comfort at terrace level for Scenario 3. Figure 11.17 shows strong winds at terrace level for Scenario 3.

Pedestrian Comfort

- 11.70 General thoroughfares and roadways range between suitable for sitting, standing and leisure walking in winter and for sitting and standing in summer. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.71 The entrances to the proposed development (marked E in results figures) range between suitable for sitting or standing in all seasons. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.72 The principal off-site entrances (marked O in results figures) range between suitable for sitting or standing in all seasons. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.73 The proposed ground floor courtyard amenity space (marked C in results figures) is suitable for sitting in all seasons. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.74 The proposed terrace level amenity space at level 2 is suitable for sitting in all seasons. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.
- 11.75 The proposed terrace level amenity space at level 3 is suitable for a mix of standing and leisure walking in winter and a mixture of sitting and standing in summer. This is suitable for the intended use and is a **Negligible wind effect (not significant)**.

Strong Winds

- 11.76 There are no regions of strong winds (exceeding 15m/s for more than 0.025% annually) at any accessible location, either at ground or terrace levels, within the

study area for scenario with the proposed development and existing surrounds. This is a **Negligible wind effect (not significant)**.

Figure 11.12 Winter Comfort for Scenario 3 (Proposed Development with Cumulative Surrounds)

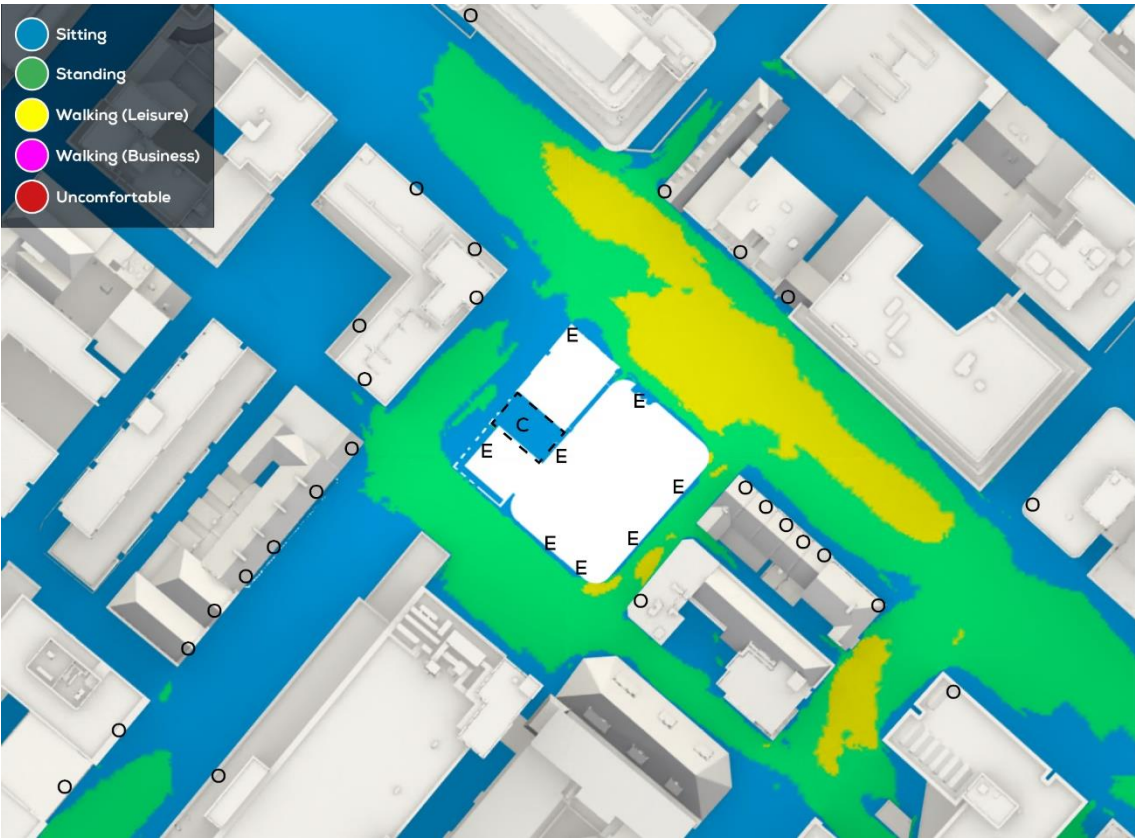


Figure 11.13 Summer Comfort for Scenario 3 (Proposed Development with Cumulative Surrounds)

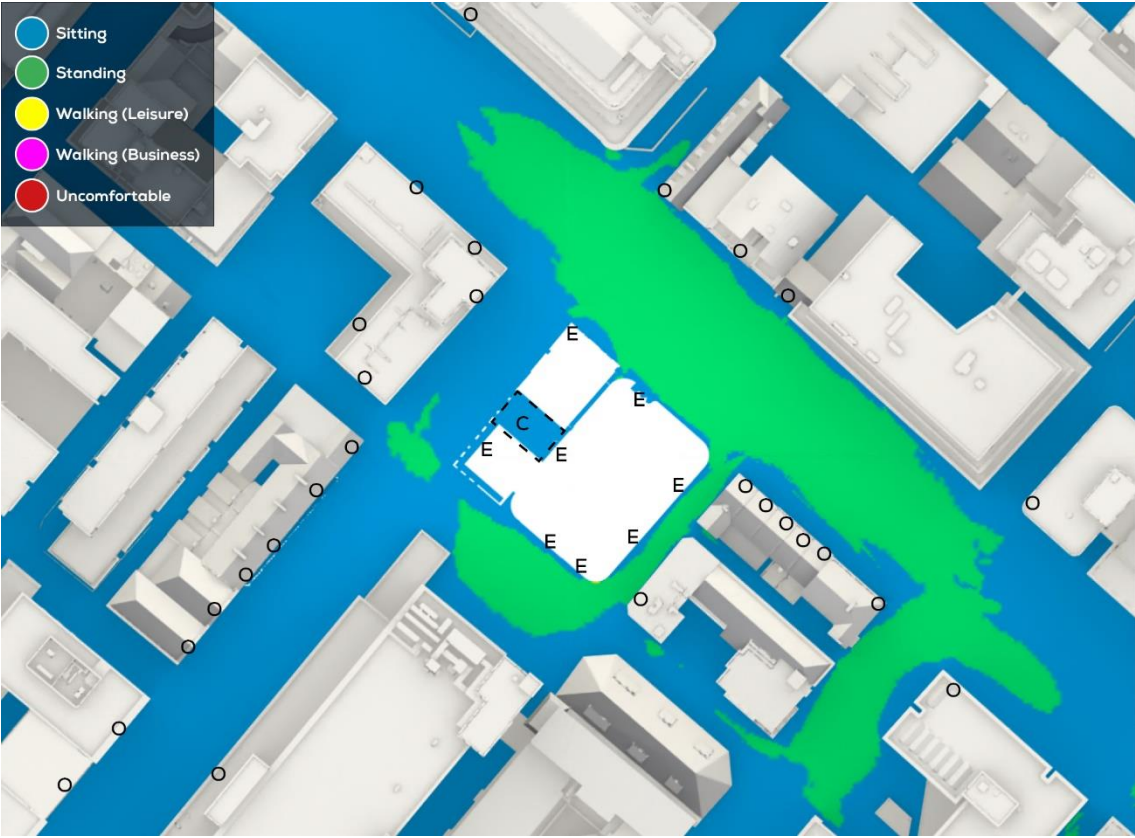


Figure 11.14 Strong Winds for Scenario 3 (Proposed Development with Cumulative Surrounds)

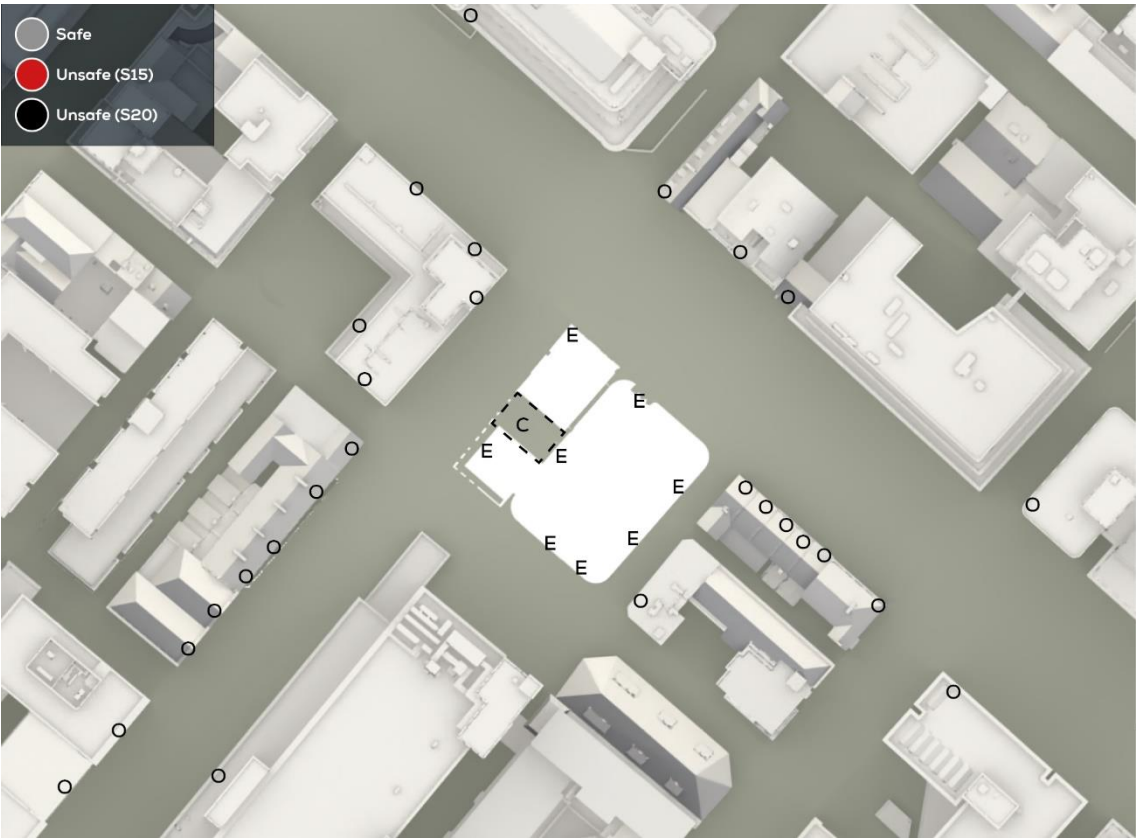


Figure 11.15 Winter Comfort at Terrace Level for Scenario 3 (Proposed Development with Cumulative Surrounds)

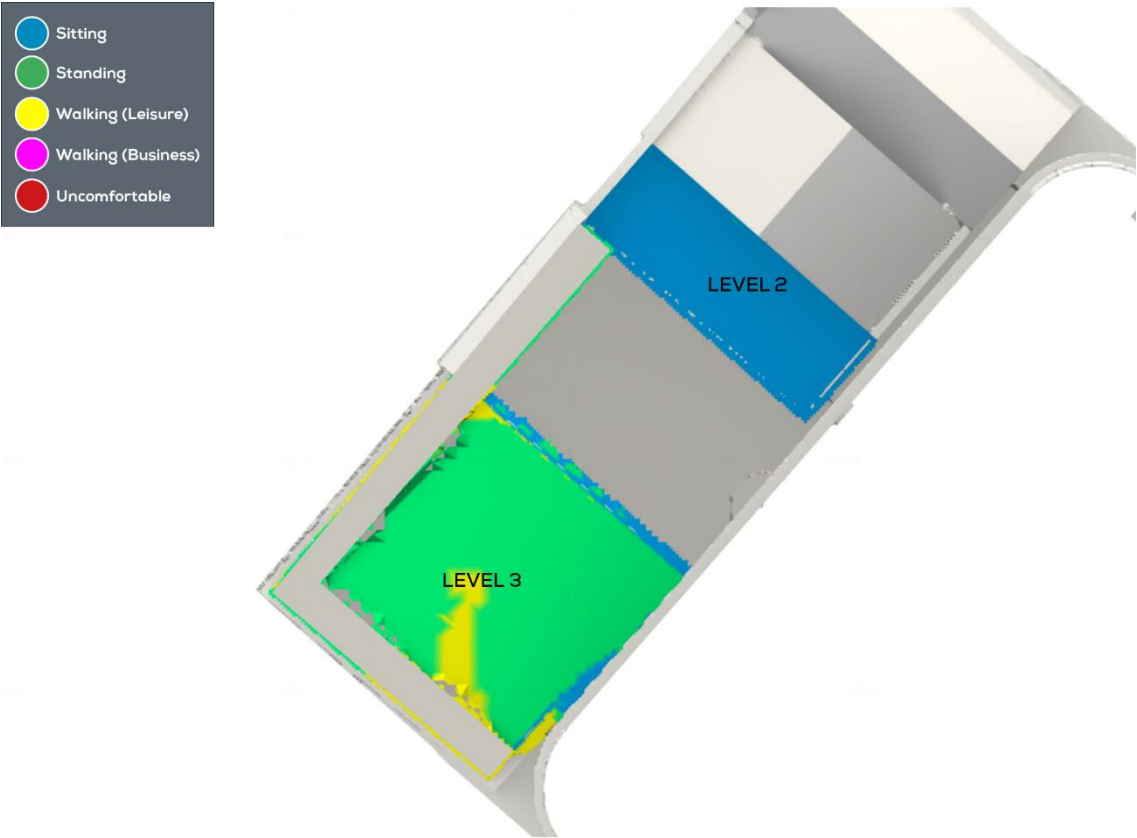


Figure 11.16 Summer Comfort at Terrace Level for Scenario 3 (Proposed Development with Cumulative Surrounds)

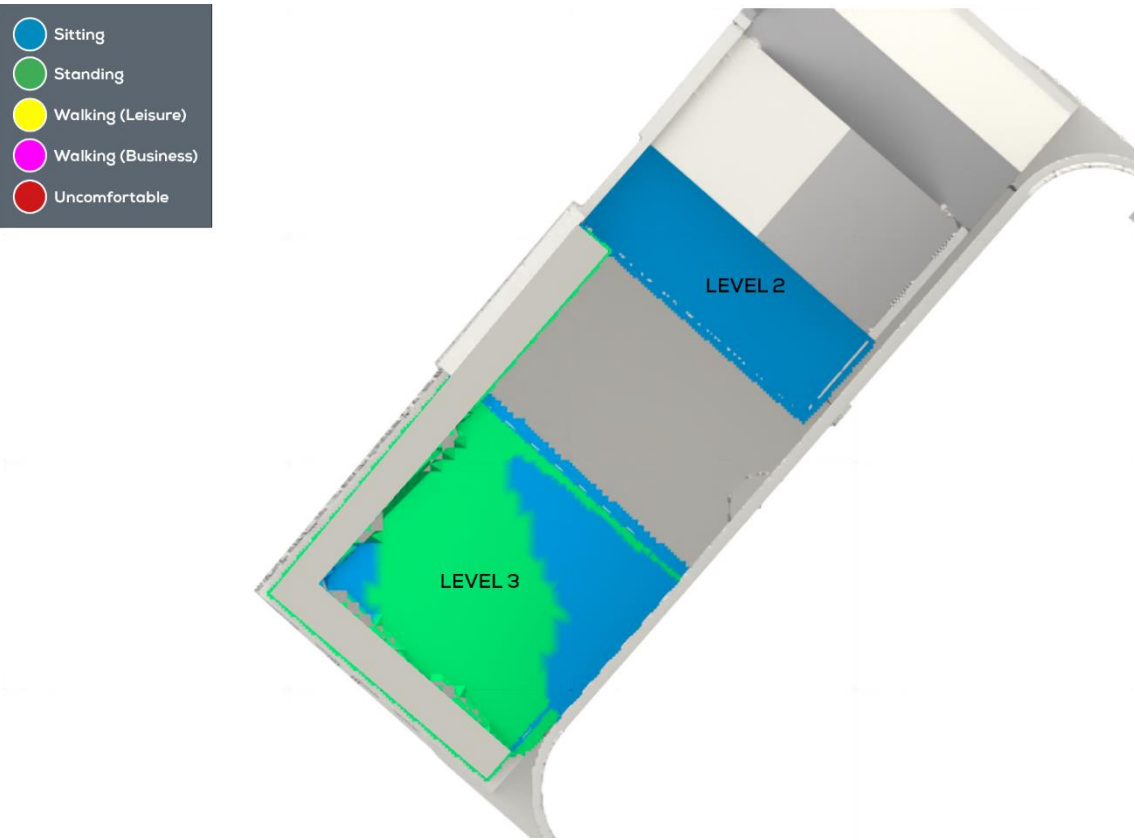


Figure 11.17 Strong Winds at Terrace Level for Scenario 3 (Proposed Development with Cumulative Surrounds)



12 Human Health

Introduction

- 12.1 This Chapter of the ES comprises an assessment of the Human Health related effects associated with the proposed development. It focuses on the likely impacts during the construction and operational phases to human health receptors both on and off-site. The assessment has been undertaken by RJK Consulting.
- 12.2 The Chapter also describes the methods used to assess the effects; the baseline conditions currently existing at the site and surrounding area; the mitigation measures required to prevent, reduce or offset any significant adverse effects; cumulative effects and the likely residual effects.

Planning Policy Context

- 12.3 A detailed planning policy review is provided at Appendix 12.1.
- 12.4 A series of Citywide challenges are set out in the Core Strategy. These need to be overcome for the Council to achieve its sustainable community strategy, including:
- Reducing worklessness and deprivation.
 - Improving the skills of residents to meet the job opportunities.
 - Reducing contribution to and mitigating effects of climate change.
 - Creating neighbourhood focus, facilities and identity.
 - Providing a choice of high quality safe and sustainable lifetime homes and neighbourhoods for a growing population.
 - Removing health inequalities and enabling more healthy lifestyles.
 - Improving access to employment and education.
 - Reducing congestion on the roads, improving the reliability of public transport and reducing overcrowding.
 - Improving the quality of air and water.
 - Reducing the area of contaminated land and facilitating the re-use of previously developed land.
 - Continuing to ensure that development is of a consistently high quality.
 - All of the above challenges are in some way linked to the health and well-being of the residents in Manchester.
- 12.5 These challenges are set out at the beginning of the assessment as they frame the planning and development process and link to human health determinants in Manchester.

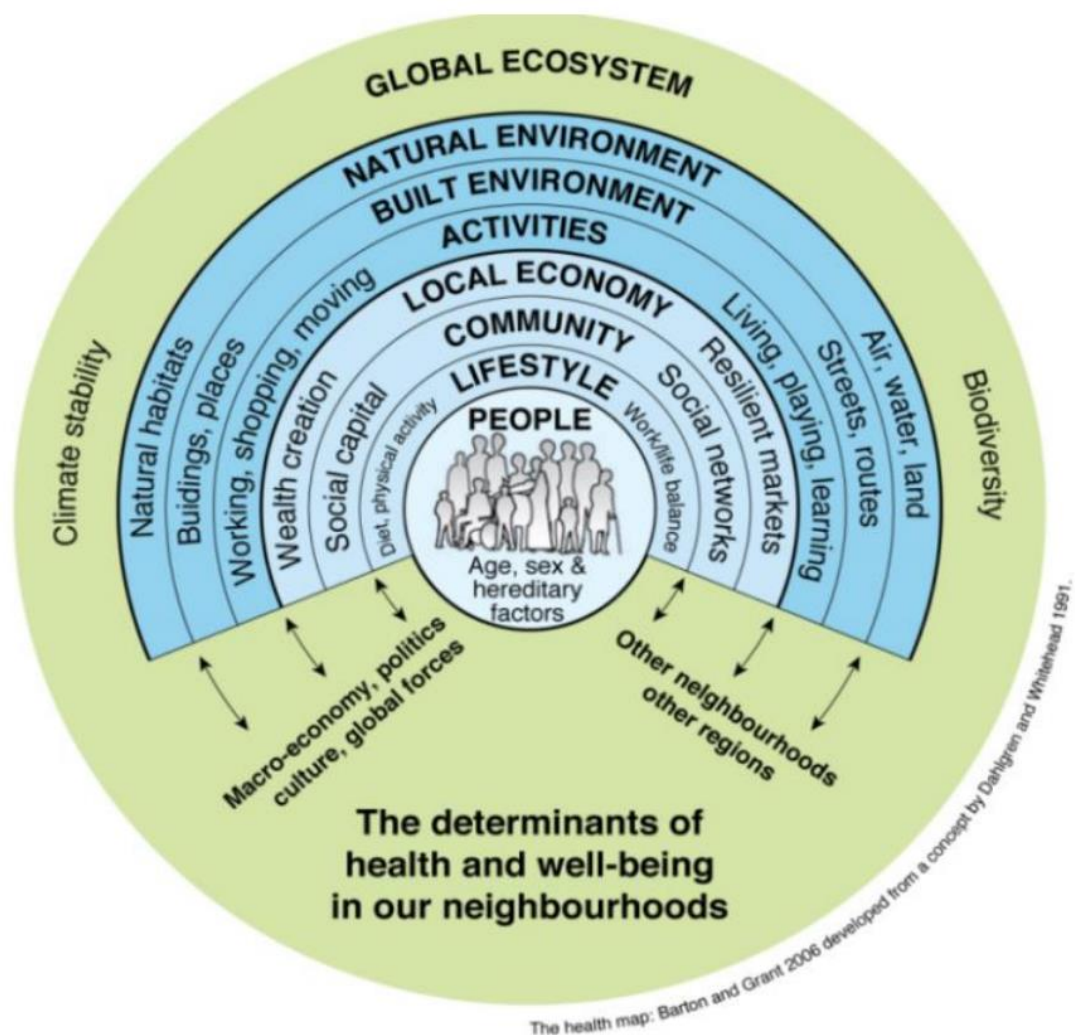
Assessment Methodology and Significance Criteria

- 12.6 Human Health in an ES Chapter will broadly follow the expected methodology for a Health Impact Assessment ("HIA"). HIA is a systematic approach to identify the differential health and wellbeing impacts, both positive and negative, of projects and plans. The assessment of health is particularly concerned with the distribution of certain effects within a population, as different groups are likely to be affected in different ways. It therefore looks at how health and social determinants might be affected by a proposed development.
- 12.7 The aim of HIAs is to support and add value to the decision-making process by providing a systematic analysis of the potential impacts, as well as recommending opportunities, where appropriate, to mitigate negative impacts and reduce health inequalities.

Determinants for Health

- 12.8 Dahlgren and Whitehead developed the determinants for health model which identified a range of influences on health, providing a broad overview of the links with the planning system. This was further developed by Barton and Grant in 2006. These are illustrated in Figure 12.1.

Figure 12.1: Determinants for Health



Methodology

- 12.9 MCC does not have a Supplementary Planning Document which provides guidance when undertaking HIAs, nor is there a standard methodology when undertaking human health ES Chapters. The NHS Healthy Urban Development Unit (“HUDU”) have, however, prepared a series of guidance notes to guide the process of undertaking HIAs. These include the Rapid Health Impact Assessment Tool (Fourth Edition, October 2019); and Healthy Urban Planning Checklist (April 2017).
- 12.10 The HUDU checklist interprets the health determinants into a set of themes which can be used to assess development proposals:
- Healthy housing.
 - Active travel.
 - Healthy environment.
 - Vibrant neighbourhoods.
- 12.11 The HUDU guidance recognises that there are generally three types of HIAs, desktop; rapid; and full. Based on the type of development proposed, its scale, the existing site conditions and the likely effects, it is considered the most appropriate approach is a rapid appraisal as part of the ES.

Scope of the Assessment

- 12.12 The criteria used in the HUDU planning checklist will be utilised to determine the likely baseline considerations for the development:
- Housing quality and design.
 - Access to healthcare services and other social infrastructure.
 - Open space, nature and biodiversity.
 - Pollutants and neighbourhood amenity.
 - Accessibility and active transport.
 - Crime reduction and community safety.
 - Access to healthy food.
 - Access to education, training and employment opportunities.
 - Social cohesion and lifetime neighbourhoods.
 - Minimising the use of resources.
 - Climate change.
 - Health inequalities.

12.13 The principal health related impacts which have been reviewed as part of this assessment and the wider planning application documents include:

- **Townscape and Visual:**
 - Construction and operational effects to townscape characters areas and visual receptors.
- **Wind:**
 - Operational impacts on the local wind environment.
- **Daylight, Sunlight and Overshadowing:**
 - Operational impacts on existing and committed residential properties.
- **Socioeconomics:**
 - A review of fiscal and social effects associated with the construction and operational phases of development.
- **Air Quality:**
 - Construction phase dust impacts to construction workers and off-site receptors.
 - Operational phase emissions generated by the building's erection and operation.
 - The suitability of the site for future site users from an air quality perspective.
- **Noise:**
 - Construction noise impacts on existing residential receptors.
 - The existing noise climate effects on future site users.
 - Operational noise effects associated with plant and non-residential uses.
- **Ground Conditions:**
 - Construction phase impacts associated with contaminated material affecting construction site workers and off-site sensitive receptors. '

12.14 The baseline review assessment confirms whether a technical discipline has been scoped-in or out of the assessment, subject to the likelihood for significant human health effects.

Baseline

12.15 The HUDU themes include a series of assessment criteria which form the basis of the assessment. As such, the ES Chapter will include a baseline assessment of the site and surrounding area. Due to the nature of the datasets available, the geographical scope of the assessment will comprise a mix of the site, the Lower Super Output Area ("LSOA") (Manchester 055D), ward data, MCC's administrative area, the North West Region and England. Once the baseline has been established,

the impacts of the proposed development against the themes set out above will be undertaken.

12.16 The receptor groups identified include:

- Construction workers.
- Existing off-site residents.
- Existing off-site non-residential uses.
- Future on site users.

Impact Assessment

12.17 Based on the assessment criteria, its relevance to the proposed development is established. After which the potential health impact is determined. The health impact will take into account any mitigation which is secured by design (embedded mitigation) or through further mitigation which is secured by condition on the decision notice.

Significance of Effects

- 12.18 IEMA have prepared a guidance document to assist in determining the significance of health related effects in the EIA. As the assessment focuses on the environmental impacts on human health receptors, the significance of effects will align with the findings of the technical assessments undertaken to support the planning application, and will therefore generally follow the methodology for each technical assessment to determine the sensitivity of a receptor, magnitude of effect and likely significance.
- 12.19 IEMA have, however, prepared a generic health significance framework that will be also be utilised to inform the findings of the assessment and identify mitigation measures where significant impacts are anticipated.

Table 12.1: Health Sensitivity Methodology Criteria

Category/Level	Indicative criteria
High	High levels of deprivation (including pockets of deprivation); reliance on resources shared (between the population and the project); existing wide inequalities between the most and least healthy; a community whose outlook is predominantly anxiety or concern; people who are prevented from undertaking daily activities; dependants; people with very poor health status; and/or people with a very low capacity to adapt.
Medium	Moderate levels of deprivation; few alternatives to shared resources; existing widening inequalities between the most and least healthy; a community whose outlook is predominantly uncertainty with some concern; people who are highly limited from

Category/Level	Indicative criteria
	undertaking daily activities; people providing or requiring a lot of care; people with poor health status; and/or people with a limited capacity to adapt.
Low	Low levels of deprivation; many alternatives to shared resources; existing narrowing inequalities between the most and least healthy; a community whose outlook is predominantly ambivalence with some concern; people who are slightly limited from undertaking daily activities; people providing or requiring some care; people with fair health status; and/or people with a high capacity to adapt.
Very Low	Very low levels of deprivation; no shared resources; existing narrow inequalities between the most and least healthy; a community whose outlook is predominantly support with some concern; people who are not limited from undertaking daily activities; people who are independent (not a carer or dependant); people with good health status; and/or people with a very high capacity to adapt.

Table 12.2: Health Magnitude Methodology Criteria

Category/Level	Indicative criteria
High	High exposure or scale; long-term duration; continuous frequency; severity predominantly related to mortality or changes in morbidity (physical or mental health) for very severe illness/injury outcomes; majority of population affected; permanent change; substantial service quality implications.
Medium	Low exposure or medium scale; medium-term duration; frequent events; severity predominantly related to moderate changes in morbidity or major change in quality-of-life; large minority of population affected; gradual reversal; small service quality implications.
Low	Very low exposure or small scale; short-term duration; occasional events; severity predominantly related to minor change in morbidity or moderate change in quality-of-life; small minority of population affected; rapid reversal; slight service quality implications.
Very Low	Negligible exposure or scale; very short-term duration; one-off frequency; severity predominantly relates to a minor change in quality-of-life; very few people affected; immediate reversal once activity complete; no service quality implication.

Table 12.3: Significance of Effect Criteria

Category/Level	Indicative criteria
Major	<p>Changes, due to the project, have a substantial effect on the ability to deliver current health policy and/or the ability to narrow health inequalities, including as evidenced by referencing relevant policy and effect size (magnitude and sensitivity levels), and as informed by consultation themes among stakeholders, particularly public health stakeholders, that show consensus on the importance of the effect.</p> <p>Change, due to the project, could result in a regulatory threshold or statutory standard being crossed (if applicable).</p> <p>There is likely to be a substantial change in the health baseline of the population, including as evidenced by the effect size and scientific literature showing there is a causal relationship between changes that would result from the project and changes to health outcomes.</p> <p>In addition, health priorities for the relevant study area are of specific relevance to the determinant of health or population group affected by the project.</p>
Moderate	<p>Changes, due to the project, have an influential effect on the ability to deliver current health policy and/or the ability to narrow health inequalities, including as evidenced by referencing relevant policy and effect size, and as informed by consultation themes among stakeholders, which may show mixed views.</p> <p>Change, due to the project, could result in a regulatory threshold or statutory standard being approached (if applicable).</p> <p>There is likely to be a small change in the health baseline of the population, including as evidenced by the effect size and scientific literature showing there is a clear relationship between changes that would result from the project and changes to health outcomes.</p> <p>In addition, health priorities for the relevant study area are of general relevance to the determinant of health or population group affected by the project.</p>
Minor	<p>Changes, due to the project, have a marginal effect on the ability to deliver current health policy and/or the ability to narrow health inequalities, including as evidenced by effect size of limited policy influence and/or that no relevant consultation themes emerge among stakeholders.</p>

Category/Level	Indicative criteria
	<p>Change, due to the project, would be well within a regulatory threshold or statutory standard (if applicable); but could result in a guideline being crossed (if applicable).</p> <p>There is likely to be a slight change in the health baseline of the population, including as evidenced by the effect size and/or scientific literature showing there is only a suggestive relationship between changes that would result from the project and changes to health outcomes.</p> <p>In addition, health priorities for the relevant study area are of low relevance to the determinant of health or population group affected by the project.</p>
Negligible	<p>Changes, due to the project, are not related to the ability to deliver current health policy and/or the ability to narrow health inequalities, including as evidenced by effect size or lack of relevant policy, and as informed by the project having no responses on this issue among stakeholders.</p> <p>Change, due to the project, would not affect a regulatory threshold, statutory standard or guideline (if applicable).</p> <p>There is likely to be a very limited change in the health baseline of the population, including as evidenced by the effect size and/or scientific literature showing there is an unsupported relationship between changes that would result from the project and changes to health outcomes.</p> <p>In addition, health priorities for the relevant study area are not relevant to the determinant of health or population group affected by the project.</p>

Table 12.4: EIA Significance Matrix

		Sensitivity			
		High	Medium	Low	Negligible
Magnitude	High	Major	Major / moderate	Moderate / minor	Minor / negligible
	Medium	Major / moderate	Moderate	Minor	Minor / negligible
	Low	Moderate / minor	Minor	Minor	Negligible
	Negligible	Minor / negligible	Minor / negligible	Negligible	Negligible

- 12.20 Those effects identified as major will be significant. Moderate effects could be both significant and not significant. The determination of significant or not significant will be case specific based on the conclusions of the technical assessments.

Information Sources

- 12.21 The assessment will utilise the findings of technical assessments undertaken to support the planning application, and a suite of online government datasets, including (but not limited to):

- Air Quality Assessment.
- Daylight & Sunlight Assessment.
- Energy & Sustainability Statement.
- Flood Risk Assessment & Drainage Strategy.
- Noise Assessment.
- Phase 1 Ground Investigation Report.
- Transport Statement and Travel Plan.
- Wind Assessment.

- 12.22 No primary research or surveys have been undertaken, and the assessment is based on published information which is considered an appropriate level of assessment based on the proposals.

Limitations

- 12.23 The latest published data available will be used throughout the assessment. However, the baseline demographics are constantly evolving and therefore the impacts identified relate to the proposed development sought for approval and the current demographics established at the point this assessment has been completed.
- 12.24 The 2021 Census has been undertaken; however, not all of the datasets are available for interrogation yet. Therefore, the latest data available for the relevant baseline criterion has been used.

Baseline Conditions

Existing Site Use

- 12.25 The site is approximately 0.16 hectares in size and comprises a parcel of previously developed land with 8no buildings currently on the site including takeaways and a restaurant.

Existing Residential Receptors

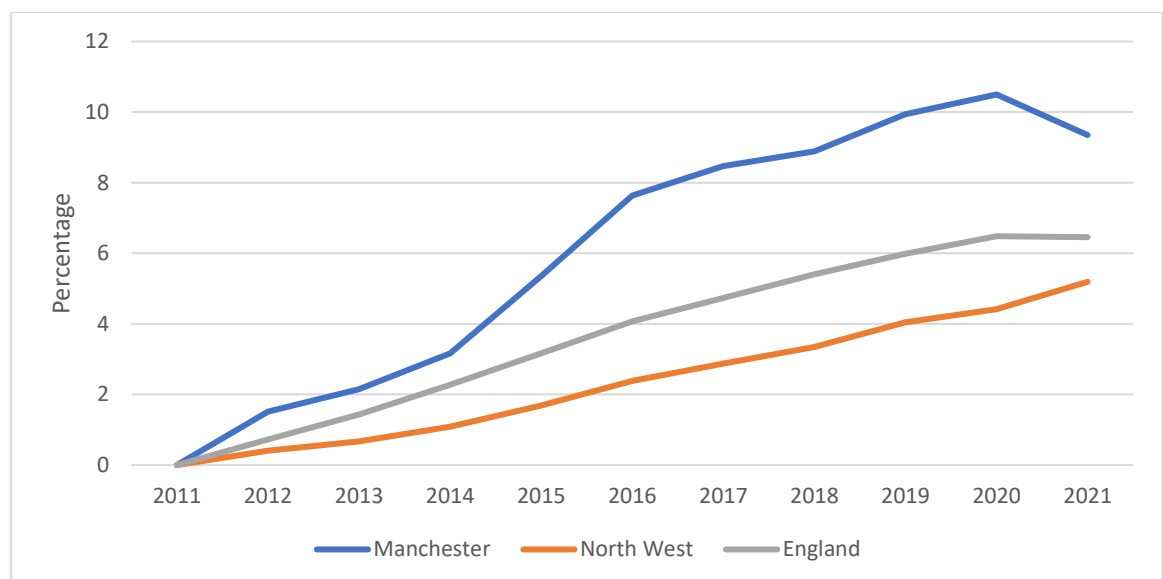
- 12.26 There are no residential receptors on site. The nearest existing residential properties are located on Great Ancoats Street c.25m north of the site. To the immediate west of the site is a hotel which would also be sensitive to the effects of

development, albeit to a lesser extent than that of permanent residential accommodation.

Population

- 12.27 In 2011, the resident population in Manchester was 502,900. This has increased to 549,900 in 2021, representing a 47,000 (9.3%) increase in residents over a ten year period. Comparatively, the North West increased from 7,056,000 to 7,422,300 (5.19%); and England from 53,107,200 to 56,536,400 (6.46%) over the same time period. This level of growth in Manchester is significantly above the region and national context, as illustrated in Figure 12.2.

Figure 12.2: Population Change, 2011-2021

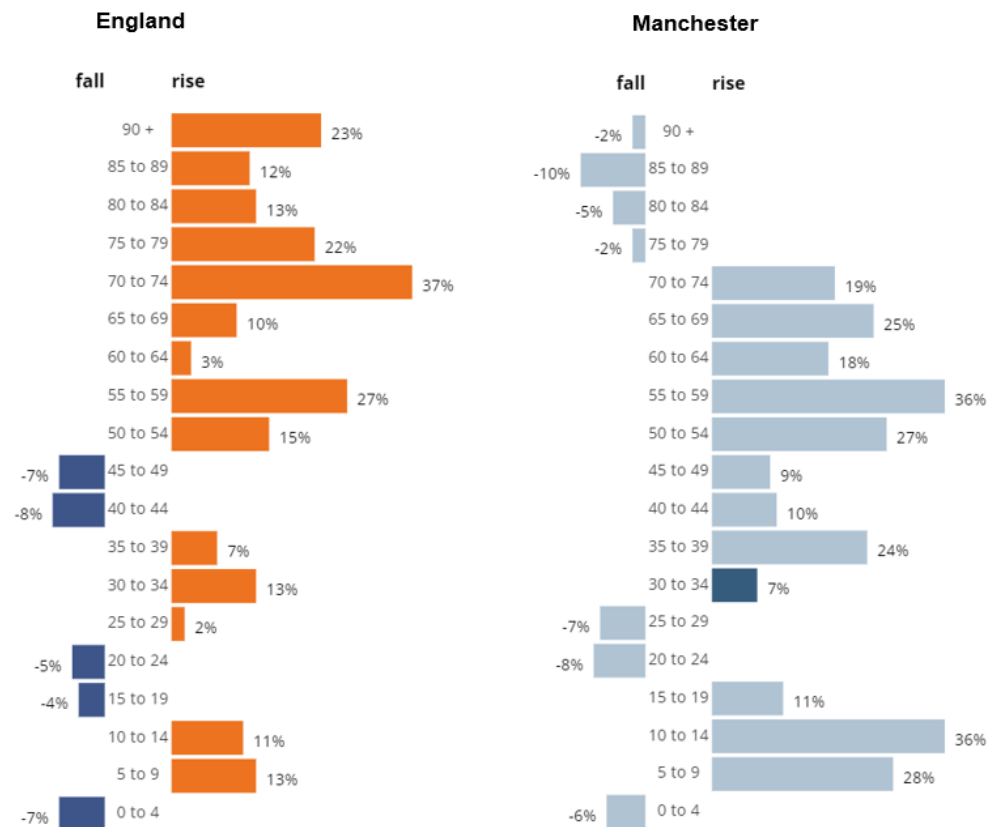


- 12.28 Based on 2021 census data, there is broadly an even split of males and females in Manchester, 273,200 and 276,600 respectively. In 2021, Manchester had a population density of 4,772 residents per square km. This is significantly above that of the North West (525.8) and England (433.5). Manchester is the most densely populated of the 39 local authority areas in the North West.
- 12.29 Manchester has seen a good deal more growth in the younger age brackets when compared with the regional and national population. There has been just under 17% growth in the 0-14 age bracket, whilst comparatively the working age population (15-64) only increased by 7.89% in Manchester. There is a markedly reduced proportion of growth in retirees (65+) in Manchester (9.72%) when compared with the North West (18.37%) and England (20.10%). This is detailed in Table 12.5 and further illustrated in Figure 12.3.
- 12.30 Manchester's proportionate increase in young people is likely testament to the strong levels of growth in the City over the past ten years, specifically through the provision of housing and employment to support new and growing families.

Table 12.5: Age Profile, 2011 v 2021

Age Range	2011	2021	No. Change	% Increase
Manchester				
0-14	91,815	107,283	15,468	16.84%
15-64	363,768	392,487	28,719	7.89%
65+	47,544	52,167	4,623	9.72%
Total	503,127	551,937	48,810	9.70%
North West				
0-15	1,236,664	1,305,134	68,470	5.53%
15-64	4,644,358	4,725,945	81,587	1.75%
65+	1,171,155	1,386,318	215,163	18.37%
Total	7,052,177	7,417,397	365,220	5.17%
England				
0-15	9,372,010	9,838,977	466,967	4.98%
15-64	34,979,917	36,249,768	1,269,851	3.63%
65+	8,660,529	10,401,303	1,740,774	20.10%
Total	53,012,456	56,490,048	3,477,592	6.55%

Figure 12.3: Population Change (%) by Age Group in England and Manchester (2011 v. 2021)



Health Characteristics of the Population

12.31 The health of residents in Manchester is generally worse than the national average. A detailed summary of various health related statistics are set out in Table 12.6 which allow the following conclusions to be drawn:

- The health of residents in Manchester is generally worse than the national average. The life expectancy for both males and females is below that of the North West and England. The trend is, however, improving over time.
- The mortality rate in Manchester is significantly above that of England, standing at 48% higher. Similarly the proportion of residents mortality attributed to cancer and cardiovascular diseases is significantly above that of the North West and England.
- Alcohol related conditions and smoking prevalence is worst in Manchester.
- Infant mortality rates are markedly higher in Manchester (7.0) when compared with the North West (4.5) and England (4.0).
- Poverty is higher in Manchester. 34.8% of households are within 'relative low income' households which have incomes below 60% of the mean average in that year. This is used to look at how changes in income for the lowest income households compare to change in incomes near the average. 24.8% of households are within 'absolute low income' households which have incomes

60% below the average in 2010/11, adjusted for inflation. It is used to look at how changes in income for the lowest income households compare to the changes in the cost of living.

Table 12.6: Manchester's Health Profile (* Mortality figures based on per 100,000 population)¹

No.	Indicator	Manchester		North West (value)	England (value)
		Count	Value		
Life Expectancy and Causes of Death					
1.	Life expectancy at birth (Male, 1 year range) 2022	-	75.7	77.7	79.3
2.	Life expectancy at birth (Female, 1 year range) 2022	-	79.9	81.7	83.2
3.	Under 75 mortality rate from all causes 2022*	1,700	507.7	410.4	342.3
4.	Under 75 mortality rate from all cardiovascular diseases 2022*	375	117.5	97.2	77.8
5.	Under 75 mortality rate from cancer 2022*	492	158.2	135.0	122.4
6.	Suicide rate 2020 – 22*	168	11.7	11.8	10.3
Injuries and Ill Health					
7.	Killed and seriously injured (KSI) casualties on England's roads 2022	184	111.6	94.0*	94.5*
8.	Emergency Hospital Admissions for Intentional Self-Harm 2021/22*	870	143.8	190.2	163.7
9.	Hip fractures in people aged 65 and over 2022/23*	325	648	620	558
10.	Percentage of cancers diagnosed at stages 1 and 2, 2021	843	54.9%	53.5%	54.4%
11.	Estimated diabetes diagnosis rate 2018	-	77.2%	81.1%	78%
12.	Estimated dementia diagnosis rate (aged 65 and over)	2,598	70.0%	66.9%	63.0%
Behavioural Risk Factors					
13.	Admission episodes for alcohol-specific conditions - Under 18s 2018/19 - 20/21	135	35.7	40.3	29.9

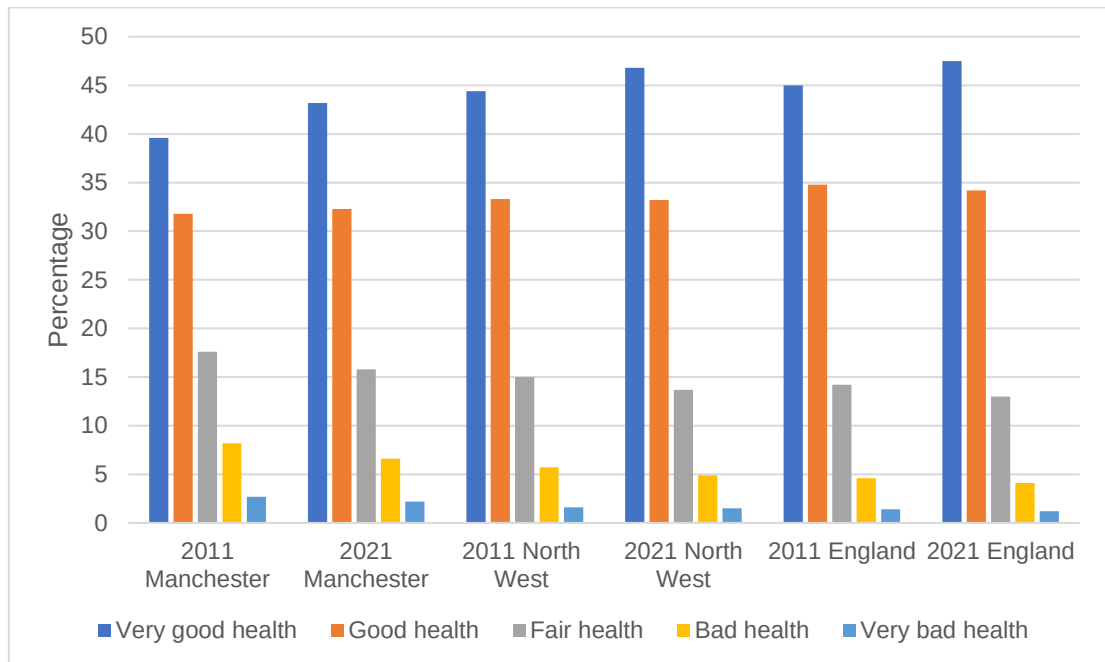
¹ <https://fingertips.phe.org.uk/profile/health-profiles> (Accessed 7 August 2023).

No.	Indicator	Manchester		North West (value)	England (value)
		Count	Value		
14.	Admission episodes for alcohol-related conditions (Narrow) 2021/22	2,286	554	511	494
15.	Smoking Prevalence in adults (18+) - current smokers (APS) 2022	-	17.3%	13.4%	12.7%
16.	Percentage of physically active adults 2021/22	-	63.6%	65.2%	67.3%
17.	Percentage of adults (aged 18 plus) classified as overweight or obese 2020/21	-	59.9%	66.7%	63.8%
Child Health					
18.	Under 18s conception rate / 1,000, 2021	143	14.6	16.4	13.1
19.	Smoking status at time of delivery 2022/23	415	9.2%	10.3%	8.8%
20.	Baby's first feed breastmilk (previous method) 2018/19	4,520	64.8%	62.4%	67.4%
21.	Infant mortality rate 2020 - 22	139	7.0	4.5	4.0
22.	Year 6: Prevalence of obesity (including severe obesity) 2022/23	1,955	29.2%	23.8%	22.7%
Wider Determinants of Health					
23.	Children in relative low income families (under 16s) 2021/22	39,545	34.8%	23.7%	19.9%
24.	Children in absolute low income families (under 16s) 2021/22	28,123	24.8%	16.6%	15.3%
25.	Percentage of people in employment 2022/23	268,200	68.2%	73.6%	75.7%
26.	Violent crime - hospital admissions for violence (including sexual violence) 2018/19 - 20/21	1,225	66.2	61.6	41.9
27.	Winter mortality index Aug 2021 - July 2022	130	11.4%	8.2%	8.1%
28.	New STI diagnoses (excluding chlamydia aged under 25) per 100,000 2021	3,700	673	330	403
29.	TB incidence (three year average) 2018 - 20	350	21.0	6.6	7.8

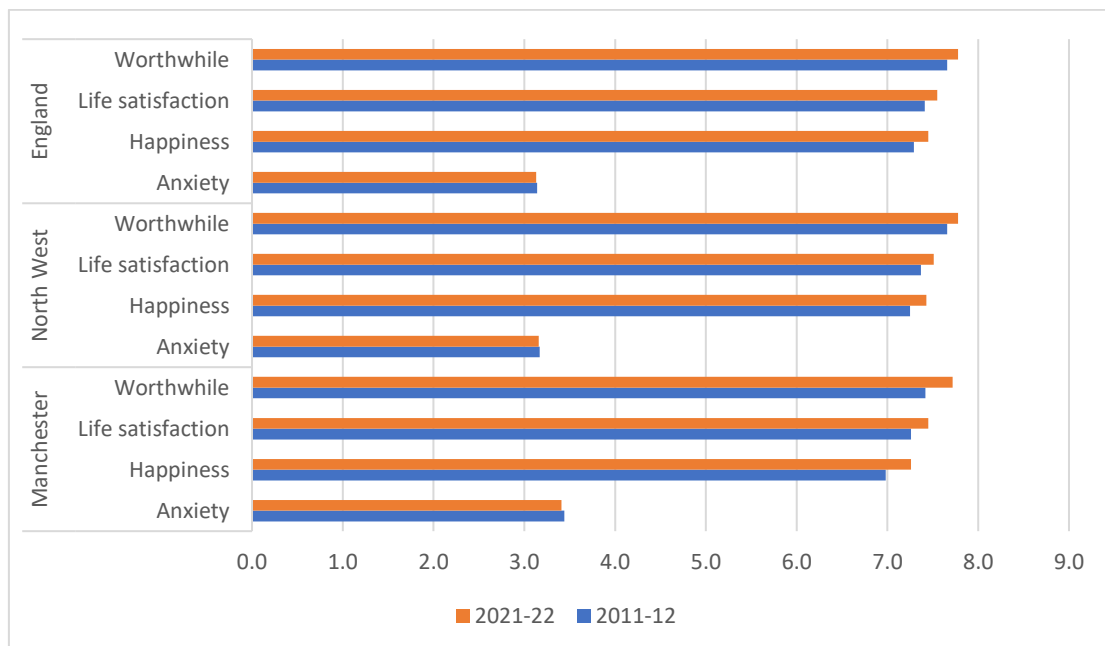
Indicator value types:

- 1,2 - Life expectancy, years.
- 3,4,5 - Directly age-standardised rate per 100,000 population aged under 75.
- 6 - Directly age-standardised rate per 100,000 population aged 10 and over.
- 7 - Crude rate per 100,000 population.
- 8 - Directly age-standardised rate per 100,000 population.
- 9 - Directly age-standardised rate per 100,000 population aged 65 and over.
- 10 - Proportion - % of cancers diagnosed at stage 1 or 2.
- 11 - Proportion - % recorded diagnosis of diabetes as a proportion of the estimated number with diabetes.
- 12 - Proportion - % recorded diagnosis of dementia as a proportion of the estimated number with dementia.
- 13 - Crude rate per 100,000 population aged under 18.
- 14 - Directly age-standardised rate per 100,000 population.
- 15,16,17 – Proportion.
- 18 - Crude rate per 1,000 females aged 15 to 17.
- 19,20 – Proportion.
- 21 - Crude rate per 1,000 live births.
- 22 – Proportion.
- 23, 24,25 – Proportion.
- 26 - Directly age-standardised rate per 100,000 population.
- 27 - Ratio of excess winter deaths to average of non-winter deaths.
- 28 - Crude rate per 100,000 population aged 15 to 64 (excluding Chlamydia).
- 29 - Crude rate per 100,000 population.

- 12.32 Despite the health issues highlighted in Table 12.6, the health of residents in Manchester has generally improved over the 10 year period since 2011. 43.2% of residents registered very good health, up from 39.6% in 2011. The level is still below that of the North West (46.8%) and England (47.5%) in the 2021 census. The increased proportion of residents experiencing good health has led to a corresponding decline in poor health. Only 8.8% of residents in 2021 recorded bad or very bad health in Manchester, down from 10.9% in 2011. This is still some way off that of the North West (6.4%) and England (5.3%) in 2021.

Figure 12.4: Self-Reported Health of Usual Residents (2011 v. 2021)

12.33 The Census measures personal well-being in the UK. This estimates life satisfaction, a feeling that the things done in life are worthwhile, happiness and anxiety. Each of these measures are scored out of 10, with 10 being the highest score. Manchester has consistently scored worse than the North West and England during the 2011 census, but only at a marginal rate as illustrated in Figure 12.5.

Figure 12.5: Personal Well-being (2011 v. 2021)

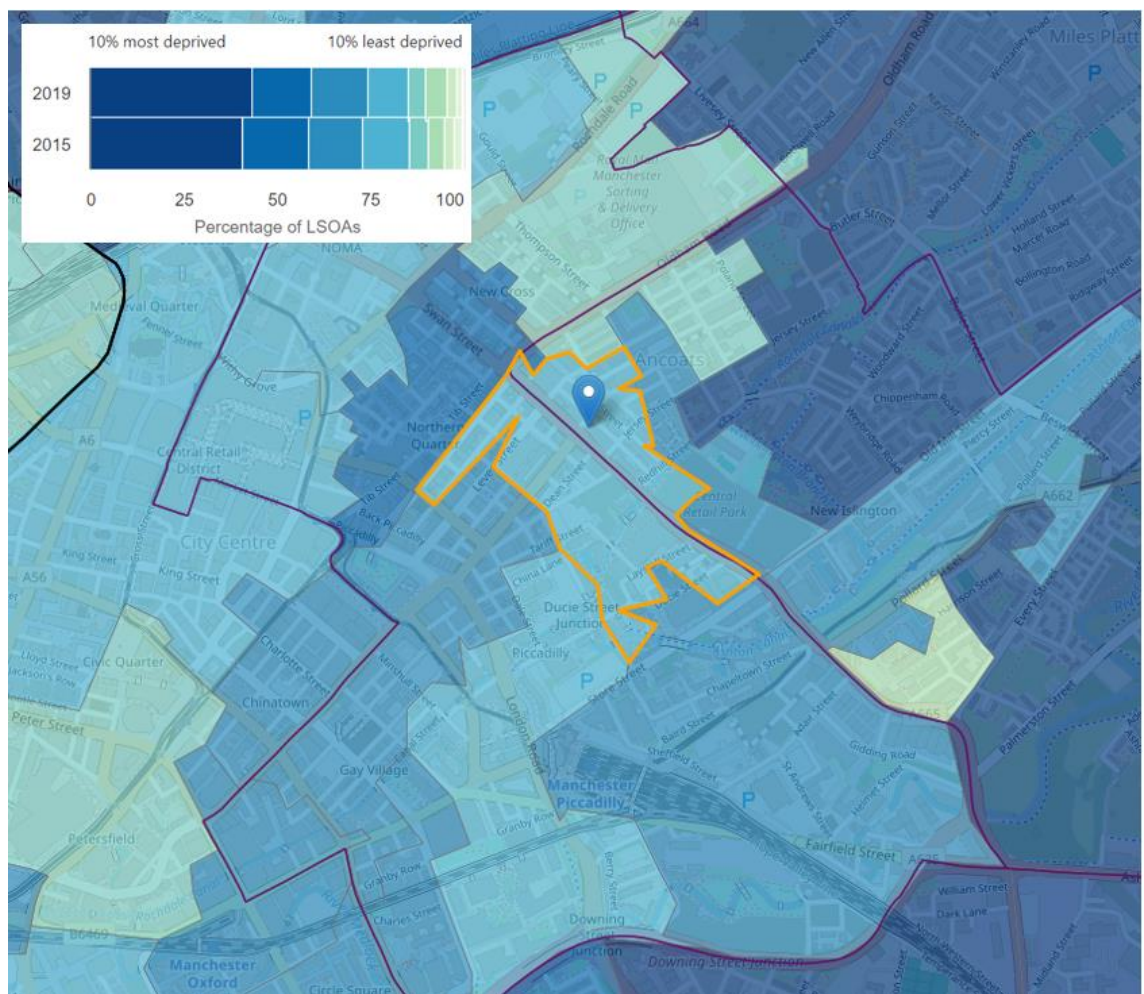
Deprivation

12.34 The latest indices of deprivation was published in September 2019. The statistics measure relative levels of deprivation in 32,844 small areas or neighbourhoods called LSOAs. Deprivation is measured across seven domains including income;

employment; health deprivation and disability; education, skills and training; crime; barriers to housing and services; and living environment.

- 12.35 The site is located in LSOA Manchester 055D and its extent is shown in Figure 12.6 below. In 2019, the LSOA was ranked 10,952 out of 32,844 LSOAs in England, where 1 is the most deprived. LSOA 055D has observed slightly lower levels of deprivation when compared with the 2015 survey, which identified a rank of 10,895. This is amongst the 40% most deprived neighbourhoods in the country.
- 12.36 The site is located within an area subject to mixed levels of deprivation. To the east is Manchester 013D (Miles Platting & Newton Heath) ranked 487, whilst to the north is Manchester 054B (Piccadilly) ranked 13,409.

Figure 12.6: IMD 2019 Map



Economic Activity and Unemployment

- 12.37 Based on the most recent ONS data, around 303,800 residents in Manchester are economically active. Between 2013 and 2023, the number of economically active residents in employment increased from 250,100 to 303,800, a 21.5% increase. However, at present the proportion of economically active residents in Manchester (75.9%) is still behind that of the North West (77.2%) and England (78.9%).
- 12.38 Approximately 14,600 residents are considered to be economically active and unemployed in Manchester, representing 4.7% of the population. Again this is

above that of the North West (3.6%) and England (3.8%). Of those residents which are economically inactive (94,600) in Manchester, 14,200 (15%) want to secure employment.

- 12.39 Manchester's largest occupation for its residents is defined as professional occupations, amounting to 126,000 residents. When combined with associate professional occupations, this represents 59.3% of employment in the City. Significantly above that of the North West (42%) and England (42%). The proportion of managers, directors and senior officials is lower in Manchester (4.9%) compared with the North West (9.9%) and England (11%) respectively.

Table 12.7: Employment by Occupation (October 2022 – September 2023)

Occupation	Manchester	North West	England
1: Managers, directors and senior officials	4.9%	9.9%	10.9%
2: Professional occupations	42.8%	27.0%	27.3%
3: Associate professional occupations	16.5%	15.0%	14.8%
4: Administrative and secretarial occupations	8.2%	10.6%	9.7%
5: Skilled trades occupations	#	7.5%	8.6%
6: Caring, leisure and other service occupations	5.9%	8.4%	7.8%
7: Sales and customer service occupations	5.5%	6.3%	6.0%
8: Process, plant and machine operatives	4.0%	5.6%	5.4%
9: Elementary occupations	9.1%	9.5%	9.3%

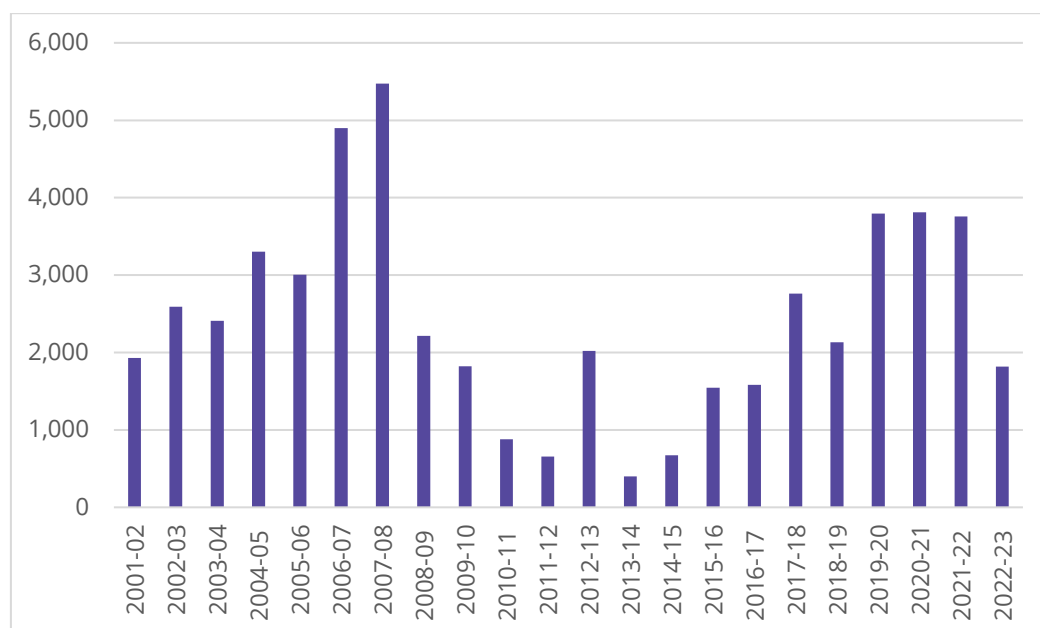
- 12.40 In June 2023, 23,795 residents are claiming universal credit in Manchester. This amounts to 6.2% of the residents aged 16-64 and is above that of the North West (4.2%) and England (3.8%). Manchester scores better when it comes to job density, equating to 1.25 (478,000 jobs in total), whereas the North West and England sit at 0.84 and 0.88 respectively.
- 12.41 The Inter-Departmental Business Register has tracked the number of enterprises and local units between 2013 and 2023. During this time, the number of enterprises in Manchester increased from 13,855 to 22,835, a 65% increase over ten years. Whereas the North West (29%) and England (27%) are significantly behind Manchester. Similarly, the number of local units significantly increased from 18,870 to 27,995, a 48% increase over the same time period. Again the North West (23%) and England (23%) are significantly behind that of Manchester.

Housing

- 12.42 The Government publishes live data on housing supply, including the net additional dwellings for each local authority. During the monitoring period of 2001/02 and

2021/22, Manchester completed 53,760 net additional dwellings within the City. This equates to a rough average of 2,500 new homes per annum.

Figure 12.7: Net Additional Dwellings in Manchester (2001/02 – 2021/22)



- 12.43 The Greater Manchester Strategic Housing Market Assessment (“SHMA”) (January 2019) estimated that, based on household projections, Manchester should deliver 23,826 new homes between 2018 and 2028, equating to 2,383 homes per annum.

Social Infrastructure²

Education Provision

- 12.44 Local Education Authorities (“LEAs”) have a statutory duty to secure sufficient school places within their area. The school that any particular child attends is a parental choice subject to availability of capacity at the selected school. It is always subject to the overriding requirements of any published admission criteria that the school has, as well as the appeals procedure for individual pupils.
- 12.45 The Home to School Travel and Transport Guidance is largely derived from the Education and Inspections Act 2006. The Act states that the statutory walking distances are 2 miles for children under 8 and 3 miles for children aged 8 and over. When looking at current school provision around the site the current capacity of primary schools has been taken from a 2-mile radius and secondary schools from a 3-mile radius.
- 12.46 Whilst the proposals do not generate a pupil yield in themselves, it is useful to understand the availability of education establishments within proximity of potential sites of employment and the sustainable mix of uses within an area i.e. the co-location of jobs, housing and services and facilities.

² Measurements taken from postcode ‘M1 1FJ’.

Primary Schools

- 12.47 There are a total of 42 primary schools within a 2-mile radius of the site. The below table reviews the capacity of each school against the number of pupils on the roll. Out of the nearest 20 primary schools reviewed, there is clearly capacity within the surrounding area. Note the figures exclude Co-Op Academy Medlock as no roll data is available.

Table 12.8: Primary School Capacity

School	Distance from Site	Capacity	No. of Pupils on Roll	Surplus / Deficit
Co-Op Academy New Islington	0.26 miles	420	382	38
St Patrick's RC Primary School	0.5 miles	250	196	54
Abbott Community Primary School	0.54 miles	240	239	1
St Anne's RC Primary School	0.68 miles	218	227	-9
Park View Community Primary	0.9 miles	459	407	52
Co-Op Academy Medlock	0.96 miles	500	Unknown	N/A
St Malachy's RC Primary School	1.02 miles	242	230	12
Saviour CofE Primary School	1.08 miles	210	160	50
Cheetwood Primary School	1.13 miles	210	224	-14
St Chad's Roman Catholic Primary School, a Voluntary Academy	1.16 miles	240	231	9
Ashbury Meadow Primary School	1.16 miles	494	488	6
The Friars Primary School	1.16 miles	450	391	59
St Philip's Church of England Primary School	1.18 miles	210	199	11
The Cathedral School of St Peter and St John RC Primary	1.19 miles	240	216	24
St Philip's CofE Primary School	1.29 miles	250	233	17
Oasis Academy Temple	1.36 miles	709	703	6
St Wilfrid's RC Primary School	1.37 miles	210	225	-15
St Augustine's CofE Primary School	1.37 miles	240	220	20
Unity Community Primary	1.38 miles	420	325	95
CofE School of the Resurrection	1.39 miles	210	212	-2

School	Distance from Site	Capacity	No. of Pupils on Roll	Surplus / Deficit
Total		5,922	5,508	414

Secondary Schools

- 12.48 There are a total of 18 secondary schools within a 3-mile radius of the site. The below table provides a review of capacity against the number of pupils on the roll for the 10 nearest secondary schools with available roll data.

Table 12.9: Secondary School Capacity

School	Distance from Site	Capacity	No. of Pupils on Roll	Surplus / Deficit
Eden Boys' Leadership Academy, Manchester	0.89 miles	800	627	173
Eden Girls' Leadership Academy, Manchester	1 mile	800	625	175
Trinity CoFE High School	1.29 miles	1500	1506	-6
Manchester Communication Academy	1.41 miles	1200	1224	-24
The East Manchester Academy	1.57 miles	1000	1012	-12
Co-op Academy Belle Vue	1.67 miles	1200	217	983
Dean Trust Ardwick	1.77 miles	1200	1292	-92
Manchester Academy	1.81 miles	1170	1090	80
The Albion Academy	2.01 miles	875	892	-17
Oasis Academy MediaCityUK	2.21 miles	1150	960	190
Total		10,895	9,445	1,450

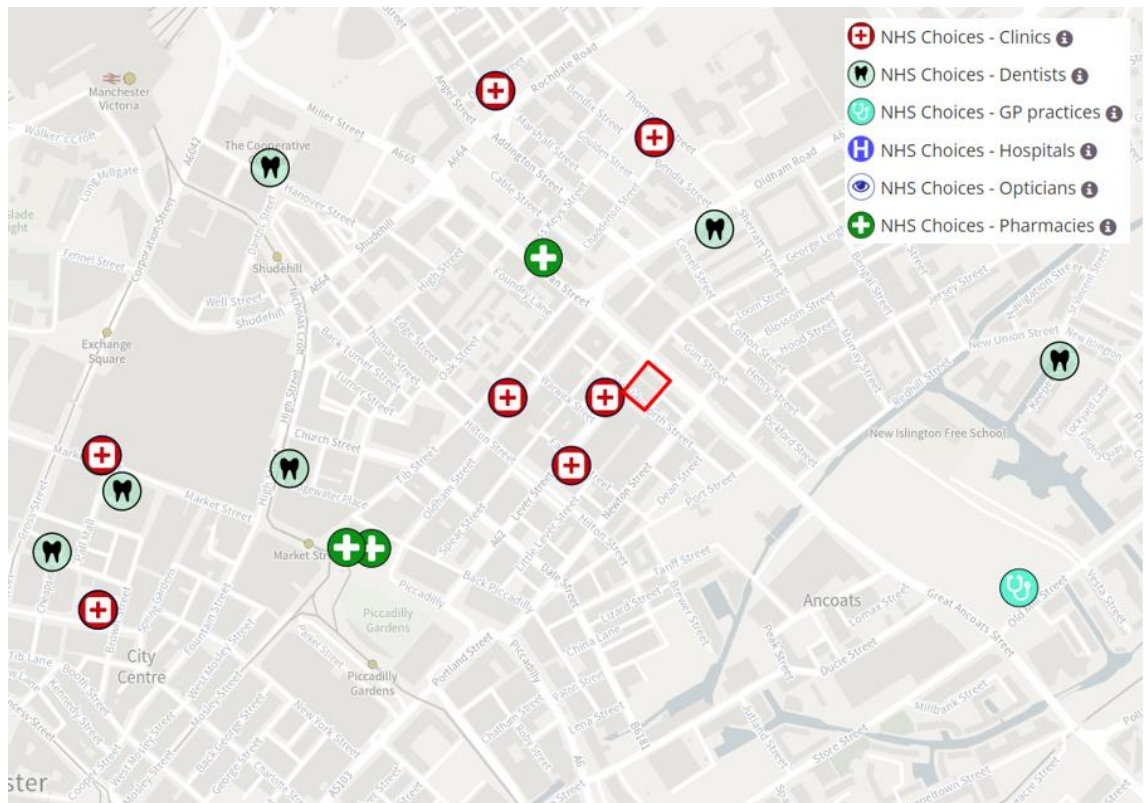
Healthcare Provision

- 12.49 According to the NHS Choices website, there are seven GP practices within 1 mile of the site. All practices are accepting new patients.

Table 12.10: GP Capacity

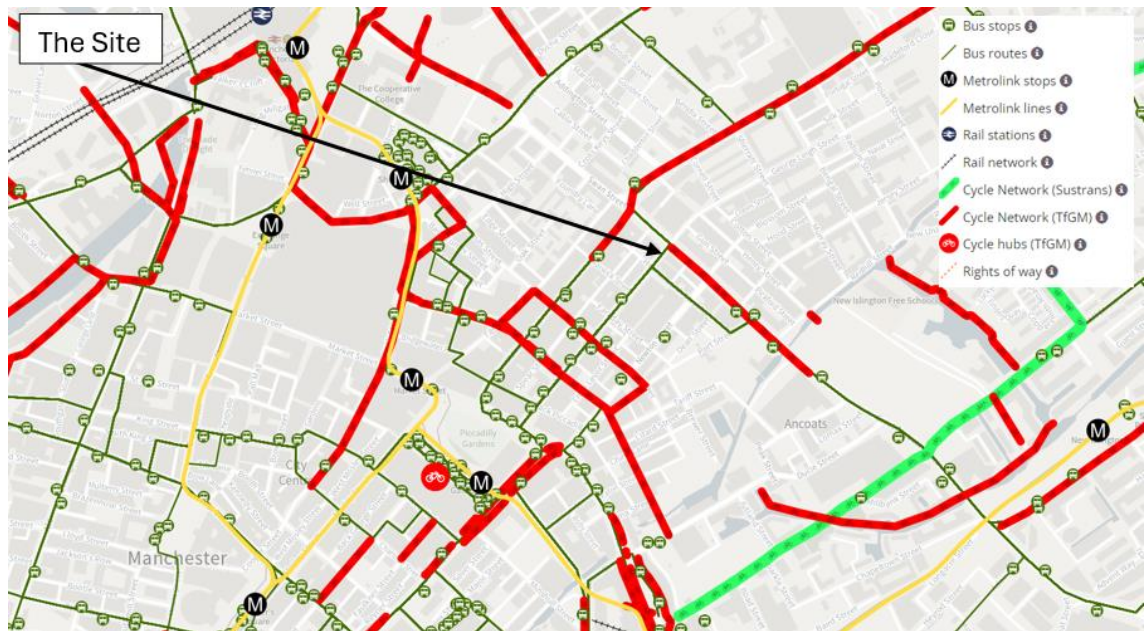
GP	Distance from Site	Status
Ancoats Urban Village Medical Practice	0.4 miles	Accepting new patients
City Health Centre	0.5 miles	Accepting new patients
New Islington Medical Centre	0.5 miles	Accepting new patients
The Doc's Surgery	0.6 miles	Accepting new patients
MP Victoria Mill	0.8 miles	Accepting new patients Accepts out of area registrations
Whitley Road Medical Centre	0.9 miles	Accepting new patients
Blackfriars	0.9 miles	Accepting new patients Accepts out of area registrations

- 12.50 According to the NHS Choices website, there are nine dental practices within 1 mile of the site. Five of the nine practices are accepting new patients, including adults and children. The status is based on the latest updates by the NHS and therefore the practice statuses may differ slightly based on the most recent patient roll data.
- 12.51 There are a number of pharmacies within the immediate vicinity of the site, the nearest of which is Superdrug located a 8-minute walk (c. 550m) southwest of the site. The nearest hospital offering A&E services is Manchester Royal Infirmary located c.2.6km south of the site.

Figure 12.8: Healthcare Services

Sustainable Transport

- 12.52 Greater Manchester has also developed a tool known as Greater Manchester Accessibility Levels ("GMAL"). This provides a detailed and accurate measure of the accessibility of a location to both the conventional public transport network (i.e. bus, metrolink, rail) and Greater Manchester's Local Link (flexible transport service), taking into account walk accessibility time and service availability. The GMAL is attributed a score between 1 and 8, with 1 being the lowest level of accessibility and 8 the highest level. The site is identified as having a GMAL of 8, the highest score of accessibility which is achievable. This is testament to the site's highly sustainable and accessible nature, combined with its proximity to key transport services. The below figure illustrates the various walking, cycling and public transport infrastructure available within the site's vicinity.

Figure 12.9: Sustainable Transport Infrastructure

Crime

- 12.53 The Greater Manchester Police record crime within the local area. The site is located within the Northern Quarter administrative area for crime recording. Over the past 12 months (February 2023 – January 2024), there has been one recorded crimes in the Northern Quarter area³.

Environmental Considerations

Air Quality

- 12.54 An Air Quality Assessment has been undertaken by BWB in support of the planning application.
- 12.55 The site is located within the Manchester City Council Air Quality Management Area ("AQMA"). This has been designated due to exceedances in Nitrogen Dioxide.

³ The accuracy of the dataset may require validating by GMP.

Ground Conditions

- 12.63 A ground conditions assessment has been undertaken by Soil Technics as part of the planning application.
- 12.64 Potential risks from contamination have been identified which would require further investigation to progress the development. Whilst potential risks have been highlighted, these are typical of most brownfield sites. Ground investigation will be required to assess potential contamination linkages and to progress the development post planning.
- 12.65 Therefore, as no significant effects have been identified, ground conditions related effects to human receptors are not considered further within this assessment.

Flood Risk

- 12.66 A Flood Risk Assessment and Drainage Strategy has been undertaken by AKT II Ltd as part of the planning application.
- 12.67 The site is located within Flood Zone 1 and therefore not at risk of flooding from fluvial sources. The site is also not subject to surface water flooding.
- 12.68 Therefore, as no significant effects have been identified, flood risk and drainage related effects to human receptors are not considered further within this assessment.

Wind

- 12.69 A wind assessment has been undertaken by GIA as part of the EIA.
- 12.70 Generally thoroughfares and roadways range between suitable for sitting, standing and leisure walking in winter and for sitting and standing in summer. This is suitable for the intended use.
- 12.71 The principal off-site entrances range between suitable for sitting or standing in all seasons. This is suitable for the intended use.
- 12.72 There are no regions of strong winds (exceeding 15m/s for more than 0.025% annually) within the study area for the baseline scenario.

Daylight, Sunlight and Overshadowing

- 12.73 A daylight, sunlight and overshadowing assessment has been undertaken by GIA as part of the EIA.
- 12.74 There are no existing sensitive receptors on site. The principal daylight and sunlight receptors which could be affected by the proposals include:
- 39 Great Ancoats Street.
 - 44 Great Ancoats Street.
 - 41 - 45 Great Ancoats Street.
 - Derros Building.

- Hudson Building.
- Nuovo Apartments.
- 113 Newton Street.
- 40 Little Lever Street.
- 50-58 Spear Street.
- 5 Warwick Street.
- The Sorting House.

Embedded Mitigation

- 12.75 There are no specific human health embedded mitigation measures which have been proposed as part of this assessment. However, the technical assessments which have been undertaken as part of the EIA and standalone technical reports will have recommended a series of embedded measures which can be secured through approval of the application plans or via a suitably worded planning condition.

Assessment of Likely Significant Effects

- 12.76 The EIA has scoped-in a series of technical assessments where significant effects are considered likely to occur, hence their assessment within the EIA process. Therefore, the following assessment only reviews the technical disciplines which form part of the EIA, and specifically those which pertain to human health receptors. The following technical disciplines are therefore reviewed as part of the assessment:

- Townscape and Visual (construction and operation).
- Socio-economics (construction and operation).
- Climate Change (construction and operation).
- Daylight, Sunlight & Overshadowing (operation).
- Wind Microclimate (construction and operation).

Demolition and Construction

Townscape and Visual

- 12.77 A townscape and visual assessment considers the effects to townscape receptors and visual amenity receptors which appreciate a particular view. This has been included in the health assessment as the works could impact human health receptors within the local area. During the demolition and construction phase, the following effects have been identified (those effects shown in bold are significant):

- **Townscape Character Area 1 – Northern Quarter: Moderate-Major Adverse.**
- **Townscape Character Area 2 – Ancoats: Moderate-Major Adverse.**
- Townscape Character Area 3 – New Cross: Negligible.
- Townscape Character Area 4 – New Islington: Minor-Moderate Neutral.

- Townscape Character Area 5 – Piccadilly: Negligible.
- Townscape Character Area 6 – Retail Core: Negligible.
- **Townscape Character Area 7 – NOMA: Moderate Adverse.**
- Townscape Character Area 8 – Lower Irk Valley: Negligible.
- Townscape Character Area 9 – Collyhurst: Negligible.
- **Viewpoint A – Sherratt Street: Moderate Adverse.**
- Viewpoint B – Portland Street: Negligible.
- Viewpoint C – Hanover Street (NOMA): Moderate Neutral.
- **Viewpoint D – Lever Street: Moderate – Major Adverse.**
- **Viewpoint E – Rochdale Canal Path: Moderate Adverse.**
- **Viewpoint F – Great Ancoats Street, at the junction to Oldham Street: Moderate – Major Adverse.**
- **Viewpoint G - Great Ancoats Street, near the corner of Blossom Street: Moderate – Major Adverse.**
- Viewpoint H – Junction of Princess Street and Charles Street: Minor Neutral.
- Viewpoint I – Cross Key Street: Negligible.
- Viewpoint J – Cutting Room Square: Moderate Neutral.
- Viewpoint K – New Islington Marina: Minor – Moderate Neutral.
- Viewpoint L – Edge of Piccadilly Gardens: Negligible.
- Viewpoint M – Rochdale Road: Minor – Moderate Adverse.

Socioeconomics

- 12.78 There will be a number of economic impacts as a result of the construction phase of the development. The calculations are based on the estimated construction costs for the development of £55-65m excluding VAT. The midpoint of £60m has been used.
- 12.79 It is estimated that the scale of the development could support 921 person years of construction related employment, comprising 341 on-site construction job years and a further 580 indirect job years in supporting industries such as specialist suppliers and manufacturing. It is estimated that the Proposed Development could be completed over a 3 year period which implies that there will be 114 construction FTE jobs supported on-site during the build period and a further 193 off-site indirect FTE jobs. The GVA associated with these jobs will be £20.7m per year.
- 12.80 The construction effects could disrupt existing businesses in the local area, resulting in a Moderate Adverse effect (not significant). However, the job creation associated with the construction phase would result in a Moderate Beneficial effect (not significant).

Climate Change

- 12.81 Two principal climate change effects have been identified during the demolition and construction phase. These include the embodied carbon associated with the new building materials which are used to construct the development. The second is greenhouse gas emissions associated with vehicular movements. The potential effects, prior to mitigation, are anticipated to be Moderate Adverse (significant) for both. Post mitigation these have been downgraded to not significant.

Wind Microclimate

- 12.82 During construction, conditions will gradually change from the baseline conditions to conditions for the completed and operational development. Therefore, construction effects can be inferred from the effects due to the completed and operational development.
- 12.83 As all wind effect for the completed and operational development are negligible, all demolition and construction wind effects will also be Negligible (not significant).

Operation

Townscape and Visual

- 12.84 During the operational phase, the following effects have been identified (those effects shown in bold are significant):

- **Townscape Character Area 1 – Northern Quarter: Moderate-Major Adverse.**
- **Townscape Character Area 2 – Ancoats: Moderate-Major Adverse.**
- Townscape Character Area 3 – New Cross: Negligible.
- Townscape Character Area 4 – New Islington: Minor-Moderate Neutral.
- Townscape Character Area 5 – Piccadilly: Negligible.
- Townscape Character Area 6 – Retail Core: Negligible.
- **Townscape Character Area 7 – NOMA: Moderate Adverse.**
- Townscape Character Area 8 – Lower Irk Valley: Negligible.
- Townscape Character Area 9 – Collyhurst: Negligible.
- **Viewpoint A – Sherratt Street: Moderate Adverse.**
- Viewpoint B – Portland Street: Negligible.
- Viewpoint C – Hanover Street (NOMA): Moderate Neutral.
- **Viewpoint D – Lever Street: Moderate – Major Adverse.**
- **Viewpoint E – Rochdale Canal Path: Moderate Adverse.**
- **Viewpoint F – Great Ancoats Street, at the junction to Oldham Street: Moderate – Major Adverse.**
- **Viewpoint G - Great Ancoats Street, near the corner of Blossom Street: Moderate – Major Adverse.**

- Viewpoint H – Junction of Princess Street and Charles Street: Minor Neutral.
- Viewpoint I – Cross Key Street: Negligible.
- Viewpoint J – Cutting Room Square: Moderate Neutral.
- Viewpoint K – New Islington Marina: Minor – Moderate Neutral.
- Viewpoint L – Edge of Piccadilly Gardens: Negligible.
- Viewpoint M – Rochdale Road: Minor – Moderate Adverse.

Socioeconomics

- 12.85 The development will create approximately 11,600 sq m of office space. This is in high demand within Manchester. In addition a further 550 sq m of restaurant space will be created within the existing retained buildings on the site.
- 12.86 A development of this size will create 1,224 direct and indirect jobs based on an employment density of 11 sqm per job for office space and 17.5 for restaurant space. Assuming displacement of 20% in line with national guidance and a multiplier of 1.411 for offices and 1.485 for food service. This will result in total GVA per year of £53.4m.
- 12.87 The development will increase the revenues to MCC through business rates related to the office and space with a total of £1.85m per year in additional taxes to the Council.
- 12.88 This could result in a Moderate Beneficial effect (not significant) to the local economy.

Climate Change

- 12.89 During the operational phase, the potential effects associated with climate change relate to vehicular greenhouse gas emissions, and energy generation and associated greenhouse gas emissions. Both effects are anticipated to be moderate adverse (significant), prior to the implementation of mitigation. Post mitigation these have been downgraded to not significant

Daylight, Sunlight & Overshadowing

- 12.90 An assessment has been undertaken to identify the effects of the Proposed Development in combination with the following consented neighbouring developments:
- 1 Port Street (massing only).
 - 1 NQ (massing only).
 - 9 Larard's Still (massing only).
- 12.91 The potential effects are set out in the below table.

Table 12.11: Daylight and Sunlight Effects

Building	Reduction in Daylight Amenity Effect	Reduction in Sunlight Amenity Effect
39 Great Ancoats Street	Minor Adverse (Not Significant)	N/A
44 Great Ancoats Street	Moderate Adverse (Significant)	N/A
41-45 Great Ancoats Street	Minor Adverse (Not Significant)	Negligible (Not Significant)
Derros Building	Minor Adverse (Not Significant)	Negligible (Not Significant)
Hudson Building	Minor Adverse (Not Significant)	Negligible (Not Significant)
Nuovo Apartments	Minor Adverse (Not Significant)	Negligible (Not Significant)
113 Newton Street	Minor Adverse (Not Significant)	Negligible (Not Significant)
40 Little Lever Street	Moderate Adverse (Significant)	Negligible (Not Significant)
50-58 Spear Street	Minor Adverse (Not Significant)	N/A
5 Warwick Street	Negligible (Not Significant)	Negligible (Not Significant)
The Sorting House	Minor Adverse (Not Significant)	Negligible (Not Significant)

Wind Microclimate

- 12.92 A Computational Fluid Dynamics (“CFD”) scenario consisting of the proposed development within existing surrounds was tested to establish operational wind effects.

Pedestrian Comfort

- 12.93 Generally thoroughfares and roadways range between suitable for sitting, standing and leisure walking in winter and for sitting and standing in summer. This is suitable for the intended use and is a Negligible wind effect (not significant).
- 12.94 The entrances to the proposed development range between suitable for sitting or standing in all seasons. This is suitable for the intended use and is a Negligible wind effect (not significant).
- 12.95 The principal off-site entrances range between suitable for sitting or standing in all seasons. This is suitable for the intended use and is a Negligible wind effect (not significant).

- 12.96 The proposed ground floor courtyard amenity space is suitable for sitting in all seasons. This is suitable for the intended use and is a Negligible wind effect (not significant).
- 12.97 The proposed terrace level amenity space at level 2 is suitable for sitting in all seasons. This is suitable for the intended use and is a Negligible wind effect (not significant).
- 12.98 The proposed terrace level amenity space at level 3 is suitable for standing in winter and a mixture of sitting and standing in summer. This is suitable for the intended use and is a Negligible wind effect (not significant).

Strong Winds

- 12.99 There are no regions of strong winds (exceeding 15m/s for more than 0.025% annually) at any accessible location, either at ground or terrace levels, within the study area with the proposed development and existing surrounds. This is a Negligible wind effect (not significant).

Additional Mitigation / Enhancement Measures

- 12.100 This section sets out any additional mitigation measures which have been identified and can be secured through approval of application plans, through a planning condition or suitable legal agreement such as S106.

Townscape and Visual

- 12.101 A CEMP will implement a series of best practice site management measures to mitigate TVIA effects.

Socioeconomics

- 12.102 Disruption to local businesses will be actively managed and controlled through a CEMP which can be secured by planning condition.
- 12.103 Agreement of a Local Employment Scheme will ensure the employment benefits can be directly attributed to the local area.

Climate Change

- 12.104 During the demolition and construction phase, the principal mitigation measures will include a life cycle assessment of the construction materials used in the build process. In addition, site management and the movement of vehicles will be managed by a Construction Traffic Management Plan ("CTMP") and CEMP.

Wind Microclimate

- 12.105 No measures proposed.

Operation

Townscape and Visual

- 12.106 No additional measures proposed.

Socioeconomics

- 12.107 The developer is committed to increasing the beneficial impacts through promoting local employment through multiple routes including the Greater Manchester Local Enterprise Partnership, local groups and partnerships with Manchester focused job fairs and events.

Climate Change

- 12.108 During the operational phase, a comprehensive Travel Plan will be implemented to encourage future site users to travel to and from the site via sustainable means. With regards to energy generation, the development will include photovoltaic panels and air source heat pumps to reduce emission generation.

Daylight, Sunlight & Overshadowing

- 12.109 No measures proposed.

Wind Microclimate

- 12.110 No measures proposed.

Likely Residual Effects

- 12.111 Overall, following mitigation, the assessments have demonstrated there are very few significant health related effects associated with the development. The significant effects which could impact human health solely relate to townscape and visual receptors; and two existing daylight and sunlight residential buildings (44 Great Ancoats Street and 40 Little Lever Street).
- 12.112 No significant effects – following the implementation of mitigation – have been identified in the following technical areas: climate change; wind microclimate; and socioeconomics.

Table 12.12: Residual Effects Summary

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Construction				
Townscape and Visual				
Townscape Character Area 1 – Northern Quarter	None proposed	Moderate-Major Adverse (significant)	CEMP	Moderate-Major Adverse (significant)
Townscape Character Area 2 – Ancoats		Moderate-Major Adverse (significant)		Moderate-Major Adverse (significant)
Townscape Character Area 3 – New Cross		Negligible (not significant)		Negligible (not significant)
Townscape Character Area 4 – New Islington		Minor-Moderate Neutral (not significant)		Minor-Moderate Neutral (not significant)
Townscape Character Area 5 – Piccadilly		Negligible (not significant)		Negligible (not significant)
Townscape Character Area 6 – Retail Core		Negligible (not significant)		Negligible (not significant)
Townscape Character Area 7 – NOMA		Moderate Adverse (significant)		Moderate Adverse (significant)
Townscape Character Area 8 – Lower Irk Valley		Negligible (not significant)		Negligible (not significant)
Townscape Character Area 9 – Collyhurst		Negligible (not significant)		Negligible (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Viewpoint A – Sherratt Street		Moderate Adverse (significant)		Moderate Adverse (significant)
Viewpoint B – Portland Street		Negligible (not significant)		Negligible
Viewpoint C – Hanover Street (NOMA)		Moderate Neutral		Moderate Neutral
Viewpoint D – Lever Street		Moderate – Major Adverse (significant)		Moderate – Major Adverse (significant)
Viewpoint E – Rochdale Canal Path		Moderate Adverse (significant)		Moderate Adverse (significant)
Viewpoint F – Great Ancoats Street, at the junction to Oldham Street		Moderate – Major Adverse (significant)		Moderate – Major Adverse (significant)
Viewpoint G - Great Ancoats Street, near the corner of Blossom Street		Moderate – Major Adverse (significant)		Moderate – Major Adverse (significant)
Viewpoint H – Junction of Princess Street and Charles Street		Minor Neutral (not significant)		Minor Neutral(not significant)
Viewpoint I – Cross Key Street		Negligible (not significant)		Negligible (not significant)
Viewpoint J – Cutting Room Square		ModerateNeutral		Moderat Neutral
Viewpoint K – New Islington Marina		Minor – Moderate Neutral (not significant)		Minor – Moderate Neutral (not significant)
Viewpoint L – Edge of Piccadilly Gardens		Negligible (not significant)		Negligible (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Viewpoint M – Rochdale Road		Minor – Moderate Adverse (not significant)		Minor – Moderate Adverse (not significant)
Socioeconomics				
Disruption to local area due to movement of materials etc.	N/A	Moderate Adverse (not significant)	CEMP	Negligible (not significant)
Employment gain for construction industry	N/A	Moderate Beneficial (not significant)	N/A	Moderate Beneficial (not significant)
Climate Change				
Embodied Carbon in Construction Materials	N/A	Moderate Adverse (significant)	Whole LCA and review of construction materials during detailed design stage	Minor Adverse (not significant)
Vehicular GHG Emissions	N/A	Moderate Adverse (significant)	Employment of measures within the CTMP	Minor Adverse (not significant)
Wind Microclimate				
Thoroughfares & Roadways	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Off-site entrances	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Strong winds	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Operation				

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Townscape and Visual				
Townscape Character Area 1 – Northern Quarter	Incorporated into building and public realm design	Moderate-Major Adverse (significant)	None proposed	Moderate-Major Adverse (significant)
Townscape Character Area 2 – Ancoats		Moderate-Major Adverse (significant)		Moderate-Major Adverse (significant)
Townscape Character Area 3 – New Cross		Negligible (not significant)		Negligible (not significant)
Townscape Character Area 4 – New Islington		Minor-Moderate Neutral (not significant)		Minor-Moderate Neutral (not significant)
Townscape Character Area 5 – Piccadilly		Negligible (not significant)		Negligible (not significant)
Townscape Character Area 6 – Retail Core		Negligible (not significant)		Negligible (not significant)
Townscape Character Area 7 – NOMA		Moderate Adverse (significant)		Moderate Adverse (significant)
Townscape Character Area 8 – Lower Irk Valley		Negligible (not significant)		Negligible (not significant)
Townscape Character Area 9 – Collyhurst		Negligible (not significant)		Negligible (not significant)
Viewpoint A – Sherratt Street		Moderate Adverse (significant)		Moderate Adverse (significant)
Viewpoint B – Portland Street		Negligible (not significant)		Negligible (not significant)
Viewpoint C – Hanover Street (NOMA)		Moderate Neutral		Moderate Neutral

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Viewpoint D – Lever Street		Moderate – Major Adverse (significant)		Moderate – Major Adverse (significant)
Viewpoint E – Rochdale Canal Path		Moderate Adverse (significant)		Moderate Adverse (significant)
Viewpoint F – Great Ancoats Street, at the junction to Oldham Street		Moderate – Major Adverse (significant)		Moderate – Major Adverse (significant)
Viewpoint G - Great Ancoats Street, near the corner of Blossom Street		Moderate – Major Adverse (significant)		Moderate – Major Adverse (significant)
Viewpoint H – Junction of Princess Street and Charles Street		Minor Neutral (not significant)		Minor Neutral (not significant)
Viewpoint I – Cross Key Street		Negligible (not significant)		Negligible (not significant)
Viewpoint J – Cutting Room Square		Moderate – Major Neutral		Moderate – Major Neutral
Viewpoint K – New Islington Marina		Minor – Moderate Neutral (not significant)		Minor – Moderate Neutral (not significant)
Viewpoint L – Edge of Piccadilly Gardens		Negligible (not significant)		Negligible (not significant)
Viewpoint M – Rochdale Road		Minor – Moderate Adverse (not significant)		Minor – Moderate Adverse (not significant)
Socioeconomics				
Local population	N/A	Minor Beneficial (not significant)	None proposed	Minor Beneficial (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
Local employment	N/A	Moderate Beneficial (not significant)	None proposed	Moderate Beneficial (not significant)
Climate Change				
Vehicular GHG Emissions	Cycle Parking Provision	Moderate Adverse (significant)	Measures within Travel Plan	Minor Adverse (not significant)
Energy Generation	Passive and active design measures to increase efficiency and reduce demand	Moderate Adverse (significant)	Provision of PV panels and ASHPs	Minor Adverse (not significant)
Daylight, Sunlight and Overshadowing				
Reduction in Daylight Amenity				
39 Great Ancoats Street	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)
44 Great Ancoats Street	None Proposed	Moderate Adverse (significant)	None Proposed	Moderate Adverse (significant)
41-45 Great Ancoats Street	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)
Derros Building	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)
Hudson Building	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)
Nuovo Apartments	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
113 Newton Street	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)
40 Little Lever Street	None Proposed	Moderate Adverse - Significant	None Proposed	Moderate Adverse (Significant)
50-58 Spear Street	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)
5 Warwick Street	None Proposed	Negligible (not significant)	None Proposed	Negligible (not significant)
The Sorting House	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)
Reduction in Sunlight Amenity				
41-45 Great Ancoats Street	None Proposed	Negligible (not significant)	None Proposed	Negligible (not significant)
Derros Building	None Proposed	Negligible (not significant)	None Proposed	Negligible (not significant)
Hudson Building	None Proposed	Minor Adverse (not significant)	None Proposed	Minor Adverse (not significant)
Nuovo Apartments	None Proposed	Negligible (not significant)	None Proposed	Negligible (not significant)
113 Newton Street	None Proposed	Negligible (not significant)	None Proposed	Negligible (not significant)
40 Little Lever Street	None Proposed	Negligible (not significant)	None Proposed	Negligible (not significant)
5 Warwick Street	None Proposed	Negligible (not significant)	None Proposed	Negligible (not significant)

Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
The Sorting House	None Proposed	Negligible (not significant)	None Proposed	Negligible (not significant)
Wind Microclimate				
Thoroughfares & Roadways	N/A	Negligible (not significant)	N/A	Negligible (not significant)
On-site entrances	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Off-site entrances	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Proposed ground floor amenity spaces	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Proposed terrace level amenity spaces	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Strong winds	N/A	Negligible (not significant)	N/A	Negligible (not significant)

12.113 Following the implementation of mitigation, these receptors are subject to significant effects:

Demolition and Construction:

Townscape and Visual

- Townscape Character Area 1 – Northern Quarter: Moderate-Major Adverse.
- Townscape Character Area 2 – Ancoats: Moderate-Major Adverse.
- Townscape Character Area 7 – NOMA: Moderate Adverse.
- Viewpoint A – Sherratt Street: Moderate Adverse.
- Viewpoint D – Lever Street: Moderate – Major Adverse.
- Viewpoint E – Rochdale Canal Path: Moderate Adverse.
- Viewpoint F – Great Ancoats Street, at the junction to Oldham Street: Moderate – Major Adverse.

Viewpoint G - Great Ancoats Street, near the corner of Blossom Street:
Moderate – Major Adverse.

Operation:

Townscape and Visual

- Townscape Character Area 1 – Northern Quarter: Moderate-Major Adverse.
- Townscape Character Area 2 – Ancoats: Moderate-Major Adverse.
- Townscape Character Area 7 – NOMA: Moderate Adverse.
- Viewpoint A – Sherratt Street: Moderate Adverse.
- Viewpoint D – Lever Street: Moderate – Major Adverse.
- Viewpoint E – Rochdale Canal Path: Moderate Adverse.
- Viewpoint F – Great Ancoats Street, at the junction to Oldham Street: Moderate – Major Adverse.

Viewpoint G - Great Ancoats Street, near the corner of Blossom Street:
Moderate – Major Adverse.

Daylight, Sunlight and Overshadowing

- 44 Great Ancoats Street – Moderate Adverse.
- 40 Little Lever Street – Moderate Adverse.

Conclusions

12.114 In summary, there are significant human health effects associated with the proposed development principally in relation to Townscape and Visual receptors. The first is during the construction phase as these operations tend to be at odds with the site's setting and the visual amenity of identified receptors. Whilst during operation, the proposals would lead to a number of significant effects on the same

receptors affected during operation. There are two significant adverse daylight and sunlight effects to 44 Great Ancoats Street and 40 Little Lever Street.

12.115 However, these effects need to be balanced against the positive effects of the development. Referring back to the Citywide challenges identified in the Development Plan, the assessment has demonstrated the following with respect to human health:

- **Reducing worklessness and deprivation** – The proposed development creates jobs and opportunities during the construction and operational phase. This will also increase spending in the local economy, thus supporting jobs in the local area indirectly. The creation of jobs will upskill residents and help to tackle the causes and challenges associated with deprivation.
- **Improving the skills of residents to meet the job opportunities** – As per above, and the Applicant has committed to a Local Labour Agreement which include key targets to source employment locally, thus providing opportunities for upskilling and various apprenticeship opportunities.
- **Reducing contribution to and mitigating effects of climate change** – The proposed development delivers a highly energy efficient development in a highly sustainable location. This replaces a series of poorly performing buildings whilst retaining key cultural heritage elements.
- **Creating neighbourhood focus, facilities and identity** – The development provides a blend of uses and spaces to support the needs of the growing economy and the existing community to create a positive and successful mixed-use neighbourhood.
- **Removing health inequalities and enabling more healthy lifestyles** – The development will encourage future site users to walk, cycle or commute via public transport. The creation of jobs in a sustainable location will help address health inequalities in the local area.
- **Improving access to employment and education** – The site provides employment opportunities during construction and operational in a highly sustainable location, with walking, cycling and public transport genuinely realistic alternatives to private car use.
- **Reducing congestion on the roads, improving the reliability of public transport and reducing overcrowding** – The development is car-free and will be a long-term positive step to reduce congestion on the highways network.
- **Improving the quality of air and water** – As above. In addition, the drainage strategy will implement a series of sustainable drainage strategy measures to treat surface water prior to discharging into the network.
- **Reducing the area of contaminated land and facilitating the re-use of previously developed land** – The site comprises previously development land in need of regeneration. The proposals will remediate any contaminated land and re-use a brownfield city centre site.

- **Continuing to ensure that development is of a consistently high quality –**
The design is clearly of the highest quality and is the product of an extensive engagement process with the Council and a series of key stakeholders.

Assessment of Cumulative Effects

12.116 Each of the technical assessments undertaken as part of the EIA have included a cumulative effects assessment. The outcome of the assessment has demonstrated that, in the cumulative scenario, there would be no change to the residual effects previously identified. As such, no further update is presented within this Chapter.

13. Summary of Mitigation and Residual Effects

- 13.1 Both the EIA and the design evolution have been an iterative process. Therefore, many measures to mitigate potential adverse environmental effects have been incorporated into the design of the Proposed Development in order to avoid, reduce or offset negative changes. These measures are 'embedded mitigation' and are presented in Chapter 5: The Proposed Development. They have been accounted for in each of the technical assessments, where relevant (see Chapters 6 - 12).
- 13.2 The residual effects of the Proposed Development have been assessed as part of the EIA and can be described as the effects which remain after the implementation of the embedded and any additional proposed mitigation measures. The residual effects have been identified for each category in the preceding technical chapters (Chapters 6 - 12) and are summarised in Table 13.1. It is expected that the appropriate mitigation measures will be secured through appropriately worded planning conditions. Reference should be made to each technical chapter for the definition of the significance of the effect stated.
- 13.3 Following Table 13.1 is a discussion of the residual effects and a conclusion.

Table 13.1 Summary of Mitigation and Residual Effects

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	Construction				
Townscape and Visual	Townscape Character Area 1: Northern Quarter	Incorporated into the building and public realm design	Moderate Adverse (significant)	Construction mitigation as described in 'Additional Mitigation / Enhancement Measures' above. No "applied" building or landscape mitigation proposed	Moderate Adverse (Significant)
	Townscape Character Area 2: Ancoats		Moderate Adverse (Significant)		Moderate Adverse (Significant)
	Townscape Character Area 3: New Cross		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 4: New Islington		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 5: Piccadilly		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 6: Retail Core		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 7: NOMA		Negligible (Not Significant)		Negligible (Not Significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	Townscape Character Area 8: Lower Irk Valley		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 9: Collyhurst		Negligible (Not Significant)		Negligible (Not Significant)
	Viewpoint A - Sherratt Street		Moderate Adverse (Significant)		Moderate Adverse (Significant)
	Viewpoint B – Portland Street		Negligible (Not Significant)		Negligible (Not Significant)
	Viewpoint C – Hanover Street (NOMA)		Moderate Neutral (Not Significant)		Moderate Neutral (Not Significant)
	Viewpoint D – Lever Street		Moderate – Major Adverse (Significant)		Moderate – Major Adverse (Significant)
	Viewpoint E – Rochdale Canal Path		Moderate Adverse (Significant)		Moderate Adverse (Significant)
	Viewpoint F – Great Ancoats Street, at the junction to Oldham Street		Moderate – Major Adverse (Significant)		Moderate – Major Adverse (Significant)
	Viewpoint G - Great Ancoats Street, near the corner of Blossom Street		Moderate – Major Adverse (Significant)		Moderate – Major Adverse (Significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	Viewpoint H – Junction of Princess Street and Charles Street		Minor Neutral (Not Significant)		Minor Neutral (Not Significant)
	Viewpoint I – Cross Key Street		Negligible (Not Significant)		Negligible (Not Significant)
	Viewpoint J – Cutting Room Square		Moderate Neutral (Not Significant)		Moderate Neutral (Not Significant)
	Viewpoint K – New Islington Marina		Minor – Moderate Adverse (Not Significant)		Minor – Moderate Adverse (Not Significant)
	Viewpoint L – Edge of Piccadilly Gardens		Negligible (Not Significant)		Negligible (Not Significant)
	Viewpoint M – Rochdale Road		Minor – Moderate Neutral (Not Significant)		Minor – Moderate Neutral (Not Significant)
	Operation				
	Townscape Character Area 1: Northern Quarter		Moderate-Major Adverse (significant)		Moderate-Major Adverse (Significant)
	Townscape Character Area 2: Ancoats		Moderate-Major Adverse (Significant)		Moderate-Major Adverse (Significant)
	Townscape Character Area 3: New Cross		Minor		Minor Neutral (Not

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
		Incorporated into the building and public realm design	Neutral (Not Significant)	Construction mitigation as described in 'Additional Mitigation / Enhancement Measures' above. No "applied" building or landscape mitigation proposed	Significant)
	Townscape Character Area 4: New Islington		Minor-Moderate Neutral (Not Significant)		Minor-Moderate Neutral (Not Significant)
	Townscape Character Area 5: Piccadilly		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 6: Retail Core		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 7: NOMA		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 8: Lower Irk Valley		Negligible (Not Significant)		Negligible (Not Significant)
	Townscape Character Area 9: Collyhurst		Negligible (Not Significant)		Negligible (Not Significant)
	Viewpoint A - Sherratt Street		Moderate Adverse (Significant)		Moderate Adverse (Significant)
	Viewpoint B – Portland Street		Negligible (Not Significant)		Negligible (Not Significant)
	Viewpoint C – Hanover Street (NOMA)		Moderate Neutral (Not Significant)		Moderate Neutral (Not Significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	Viewpoint D – Lever Street		Moderate – Major Adverse (Significant)		Moderate – Major Adverse (Significant)
	Viewpoint E – Rochdale Canal Path		Moderate Adverse (Significant)		Moderate Adverse (Significant)
	Viewpoint F – Great Ancoats Street, at the junction to Oldham Street		Moderate – Major Adverse (Significant)		Moderate – Major Adverse (Significant)
	Viewpoint G – Great Ancoats Street, near the corner of Blossom Street		Moderate – Major Adverse (Significant)		Moderate – Major Adverse (Significant)
	Viewpoint H – Junction of Princess Street and Charles Street		Minor Neutral (Not Significant)		Minor Neutral (Not Significant)
	Viewpoint I – Cross Key Street		Negligible (Not Significant)		Negligible (Not Significant)
	Viewpoint J – Cutting Room Square		Moderate Neutral (Not Significant)		Moderate Neutral (Not Significant)
	Viewpoint K – New Islington Marina		Minor-Moderate Adverse (Not Significant)		Minor-Moderate Adverse (Not Significant)
	Viewpoint L – Edge of Piccadilly Gardens		Negligible (Not Significant)		Negligible (Not Significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	Viewpoint M – Rochdale Road		Minor – Moderate Neutral (Not Significant)		Minor – Moderate Neutral (Not Significant)
Built Heritage	Construction				
	Direct impact of the demolition of the following non-designated heritage assets resulting in total loss of their local significance: 40-42 Great Ancoats Street 27 Houldsworth Street and 63 Little Lever Street	N/A	Minor adverse (not significant)	Construction management measures and CEMP	Minor adverse (not significant)
	Indirect impact of the demolition of 18 th and 19 th century development within the Site affecting the appreciation of the historic context of the following heritage assets within the Site: Former Land O'Cakes/Bem Brasil	N/A	Minor adverse (not significant)	Construction management measures and CEMP	Minor adverse (not significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	58 Lever Street 56 Lever Street				
	<p>Indirect impact of the demolition of 18th and 19th century development within the Site affecting the appreciation of the historic context of the following heritage assets outside the Site:</p> <p>Derros Building (grade II listed building)</p> <p>Former Doctor's Surgery (grade II listed building)</p> <p>69-77 Lever Street (grade II listed building) and 4, 6 and 8 Bradley Street (grade II listed building)</p> <p>Crown and Kettle</p>	N/A	Negligible/minor adverse (not significant)	Construction management measures and CEMP	Negligible/minor adverse (not significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	Public House (grade II listed building) 72 to 76 Newton Street (grade II listed building) The City Public House (grade II listed building) Stevenson Square Conservation Area Ancoats Conservation Area Smithfield Conservation Area Hudson Building (non-designated heritage asset)				
	Direct impact on the following non-designated heritage assets within the Site which will be partially obscured by hoarding	N/A	Minor adverse (not significant)	Construction management measures and CEMP	Minor adverse (not significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	and scaffolding during the construction phase reducing the ability to appreciate their significance: Former Land O'Cakes/Bem Brasil 58 Lever Street 56 Lever Street				
	Operation				
	Indirect effect on the significance of the Daily Express Building (grade II* listed building) arising from a reduction in its prominence in a limited number of views.	Design and materiality of the Proposed Development and location of height away from Lever Street.	Minor adverse (not significant)	N/A	Minor adverse (not significant)
	Indirect effect on the significance of Brownsfield Mill (grade II* listed	Design and materiality of the Proposed Development	Negligible adverse (not significant)	N/A	Negligible adverse (not significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	building) arising from it adding to the emerging modern surroundings of the mill.				
	Indirect effect on the significance of the Rochdale Canal Warehouse (grade II* listed building) arising from the Proposed Development breaching its roofline in views of the asset from the towpath.	Design and materiality of the Proposed Development	Minor adverse (not significant)	N/A	Minor adverse (not significant)
	Indirect effect on the significance of Sedgwick Mill including Sedgwick New Mill (grade II listed building) and Decker and Old Mill (grade II* listed building) arising from the Proposed Development interrupting the simple roofline of the	Design and materiality of the Proposed Development	Minor adverse (not significant)	N/A	Minor adverse (not significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	mills in some views from the Ancoats Marina.				
	Indirect effects to the significance of Stevenson Square.	Design and materiality of the Proposed Development and location of height away from Lever Street.	Minor adverse (not significant)	N/A	Minor adverse (not significant)
	Indirect effects to the significance of Ancoats Conservation Area	Design and materiality of the Proposed Development	Minor adverse (not significant)	N/A	Minor adverse (not significant)
	Effect on the significance of Bem Brasil (non-designated heritage asset) arising from the Proposed Development	Retention and restoration of the building and the design of build elements, as set out in the Design and Access Statement.	Minor beneficial (not significant)	N/A	Minor beneficial (not significant)
	Effect on the significance of 58 Lever Street (non-designated heritage asset) arising from the Proposed Development	Retention and enhancement of principal elevation and the design of build elements, as set out in the Design and Access	Minor beneficial (not significant)	N/A	Minor beneficial (not significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
		Statement.			
	Effect on the significance of 56 Lever Street and 25 Houldsworth Street (non-designated heritage asset) arising from the Proposed Development	Retention and enhancement of principal elevations and the design of build elements, as set out in the Design and Access Statement.	Minor beneficial (not significant)	N/A	Minor beneficial (not significant)
Socioeconomics	Demolition and Construction				
	Disruption to local area due to movement of materials etc.	None proposed	Moderate Adverse short-term effect on immediate area, which is Not Significant	Best practice mitigation measures implemented by way of CEMP	Negligible short-term effect on immediate area Not Significant
	Employment gain for construction industry	None proposed	Moderate Beneficial short-term effect on the wider area, which is Not Significant	Nothing additional to embedded mitigation	Moderate Beneficial short-term effect on the wider area Not Significant
	Operational				
	Local population	None proposed	Minor Beneficial effect rating on immediate area,	Nothing additional to embedded mitigation	Minor Beneficial effect rating on immediate area Not Significant

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
			which is Not Significant		
	Local employment	None proposed	Moderate Beneficial long-term effect on immediate area, which is Not Significant	Nothing additional to embedded mitigation	Moderate Beneficial long-term effect on immediate area Not Significant
Daylight, Sunlight & Overshadowing	Construction				
	N/A	N/A	N/A	N/A	N/A
	Reduction in Daylight Amenity				
	39 Great Ancoats Street	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
	44 Great Ancoats Street	None Proposed	Moderate Adverse - Significant	None Proposed	Moderate Adverse - Significant
	41-45 Great Ancoats Street	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
	Derros Building	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
	Hudson Building	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	Nuovo Apartments	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
	113 Newton Street	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
	40 Little Lever Street	None Proposed	Moderate Adverse - Significant	None Proposed	Moderate Adverse - Significant
	50-58 Spear Street	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
	5 Warwick Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
	The Sorting House	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
	Reduction Sunlight Amenity				
	41-45 Great Ancoats Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
	Derros Building	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
	Hudson Building	None Proposed	Minor Adverse – Not Significant	None Proposed	Minor Adverse – Not Significant
	Nuovo Apartments	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	113 Newton Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
	40 Little Lever Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
	5 Warwick Street	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
	The Sorting House	None Proposed	Negligible – Not Significant	None Proposed	Negligible – Not Significant
Wind Microclimate	Construction				
	Thoroughfares & Roadways	N/A	Negligible (not significant)	N/A	Negligible Not significant
	Off-site entrances	N/A	Negligible (not significant)	N/A	Negligible Not Significant
	Strong winds	N/A	Negligible (not significant)	N/A	Negligible Not Significant
	Operation				
	Thoroughfares & Roadways	N/A	Negligible (not significant)	N/A	Negligible (not significant)

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	On-site entrances	N/A	Negligible (not significant)	N/A	Negligible (not significant)
	Off-site entrances	N/A	Negligible (not significant)	N/A	Negligible (not significant)
	Proposed ground floor amenity spaces	N/A	Negligible (not significant)	N/A	Negligible (not significant)
	Proposed terrace level amenity spaces	N/A	Negligible (not significant)	N/A	Negligible (not significant)
	Strong winds	N/A	Negligible (not significant)	N/A	Negligible (not significant)
Climate Change	Construction				
	Embodied Carbon	N/A	Temporary moderate adverse	Whole LCA and review of construction materials during detailed design stage	Temporary minor adverse Not Significant
	Vehicular Emissions	N/A	Temporary moderate adverse	Construction Traffic Management Plan	Temporary minor adverse Not Significant
	Operation				

Category	Description of Effect	Embedded Mitigation	Potential Effect (inc. Significance)	Further Mitigation	Residual Effect (inc. Significance)
	Energy Generation	Passive and active design measures to increase efficiency and reduce demand	0.043 ktCO ₂ e per year (permanent, moderate adverse)	Provision of Solar PV and ASHPs	Permanent minor adverse Not Significant
	Vehicular GHG Emissions	Cycle parking provision	0.22 ktCO ₂ e per year (permanent, moderate adverse)	Measures within Travel Plans	Permanent minor adverse Not Significant
Human Health	All health-related effects are presented under the other disciplines above. There are significant health effects associated with TVIA receptors and daylight effects.				

- 13.4 A comprehensive assessment of the potential effects of the construction and operational phases of the proposed development has been undertaken as part of this EIA to establish the environmental changes associated with the development. The Proposed Development has been designed in accordance with the findings and recommendations of the EIA. Any adverse effects identified through the assessment have been minimised as far as possible through the design process or the application of appropriate mitigation measures. Those effects associated with the construction activities will be controlled by the CMP.
- 13.5 Effects during the demolition and construction period are considered to be short term **minor adverse, negligible** or **minor-moderate adverse** for the majority of impacts and one **moderate beneficial** impact relating to socio economics, which are considered **not significant**. There are some **moderate** and **moderate-major adverse** impacts relating to the townscape and visual amenity of the site. Those **moderate-major** and **moderate adverse** impacts are considered **significant** however construction related impacts are considered temporary and short term.
- 13.6 Potential environmental impacts of the completed development range from **negligible** to **moderate-major adverse**, with the majority of impacts being **negligible** or **minor adverse**, which is **not significant**. However, some significant impacts are expected. The significant effects identified in the ES are found within the Townscape and Visual and Daylight and Sunlight assessments and are summarised below.
- 13.7 Upon completion of the development changes to nearby Townscape Character Areas (TCA) and visual amenity from certain viewpoints are anticipated to lead to significant impacts for the following:

Adverse

- TCA 1 Northern Quarter (Moderate-Major)
- TCA 2 Ancoats (Moderate-Major)
- Viewpoint A Sherratt St (Moderate)
- Viewpoint D – Lever Street (Moderate-Major)
- Viewpoint E Rochdale Canal Path (Moderate)

- Viewpoint F Great Ancoats St at Junction to Oldham St (Moderate-Major)
- Viewpoint G Great Ancoats St at Junction to Blossom St (Moderate-Major)

- 13.8 The impacts upon built heritage are **not significant** during construction or once the development is completed and operational.
- 13.9 Once the development is completed, impacts upon Daylight, Sunlight and Overshadowing will be predominantly **not significant**. However, impacts upon daylight amenity at 44 Great Ancoats Street and 40 Little Lever Street will result in **moderate adverse** impacts which are **significant**.
- 13.10 **Minor** and **moderate beneficial** impacts which are not significant are anticipated in relation to socio economics through provision of direct and indirect job creation and the development contributing to Manchester's economic prosperity.
- 13.11 Although there are anticipated to be some significant adverse impacts as a result of the proposed development, it is important to weigh the potential direct and indirect benefits and improvements which will occur as a result of the proposals. The proposals comprise a high-quality office development with active frontages which has been designed in consultation with the local community and other stakeholders and the proposed development is supported by a cohesive landscaping scheme, which will significantly boost the appearance of the current site.
- 13.12 In summary, the development is in line with the wider strategic regeneration objectives of the Council due to its sustainable location and the reuse of underutilised, previously developed land and buildings. The delivery of the high quality office accommodation will bring about economic benefits.