

Echo Street, Manchester
Volume 4: Non-Technical Summary (NTS)

April 2023

Turley

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Client

iQ Student Accommodation

April 2023

1. Introduction

What is an Environmental Statement and Non-Technical Summary?

- 1.1 This document, the Non-Technical Summary (NTS), is part of the Environmental Statement (ES) that has been prepared and submitted in support of the detailed planning application for the proposed Purpose-Built Student Accommodation (PBSA) development at Echo Street in Manchester (the 'Proposed Scheme'). The planning application has been submitted on behalf of iQ Student Accommodation, who are the 'Applicant'.
- 1.2 A previous planning application was submitted on Site in 2017 for a similar project. However, this planning application is for a new project which will replace the previous planning permission on Site.
- 1.3 Details of the Proposed Scheme are provided in **Section 2**.
- 1.4 The ES, comprising of **Volumes 1 – 4**¹, submitted in support of the planning application, has the status of a 'material consideration' during the determination of the planning application by Manchester City Council (MCC), who are the determining authority² of the planning application. The ES is the

output of the Environmental Impact Assessment (EIA) process undertaken in accordance with the 'EIA Regulations'³.

- 1.5 The purpose of EIA and the ES is to assess and report the 'likely significant effects' of the Proposed Scheme on the environment, so that they can be taken into account by MCC when deciding whether to grant permission for the planning application.
- 1.6 In line with the EIA Regulations, the ES should include a non-technical summary of the information presented within the ES. As defined in the Planning Practice Guidance (PPG)⁴, the non-technical summary should be written in '*plain English*', so as to ensure that the findings reported in **Volume 1: Main Text and Figures** (and where applicable **Volume 2: Technical Appendices**) can be easily understood by non-experts (i.e., the general public).
- 1.7 The EIA Regulations have various requirements of what needs to be reported in the ES (and thus summarised in the NTS), which are set out in **Appendix 1**, alongside where that information is located in this document to ensure clarity that regulatory requirements have been met.

¹ Volume 1: Main Text and Figures; Volume 2: Technical Appendices; Volume 3: Environmental Management Plan; and Volume 4: Non-Technical Summary.

² This is the local planning authority who the Application is submitted to. They decide whether or not to grant planning permission.

³ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (SI 2017/571).

⁴ PPG, Paragraph 035, Reference ID: 4-035-20170728.

What does this NTS include?

1.8 As mentioned above, the NTS provides the summary of the EIA process and outputs of assessments, specifically covering the following key aspects:

- An overview of the Proposed Scheme and what it includes (**Section 2**);
- Outline of the 'EIA Process' and the approach taken for this specific project (**Section 3**);
- The existing relevant baseline conditions of the Site and surrounding area (**Section 4**), as EIA is focused on the 'changes' caused by the Proposed Scheme;
- A summary of the outputs of the technical assessments undertaken to determine the 'effects' of the Proposed Scheme and if they are significant (**Section 5**); and
- Synopsis of the evaluation of 'cumulative effects' of the Proposed Scheme and with other projects (**Section 6**).

What Happens Next?

1.9 The ES has been submitted to MCC in support of the planning application and is now with MCC for determination, which follows the general process outlined within **Extract 1**. The process of determination of the planning application (once validated) is 16 weeks. MCC can request an extension to this period, if agreed in writing with the Applicant.

1.10 The ES (**Volumes 1 – 3**) has been submitted in digital format and is available on the MCC planning portal website (**Box 1**). Hard copies of the ES will be made available by MCC, with their locations advertised. Further details on the location and accessibility of these hard copies can be obtained from MCC (**Box 1**).

1.11 Electronic copies of the ES can be requested from Turley at a fee of £15 (digital file) using the contact details within **Box 1**.

Box 1: Contact Details

Manchester City Council

Address:

Town Hall Extension
Albert Square
Manchester
M2 5DB

Tel: 0161 234 4490

Email: building.control@manchester.gov.uk

Planning Portal Website: <https://pa.manchester.gov.uk/online-applications/>

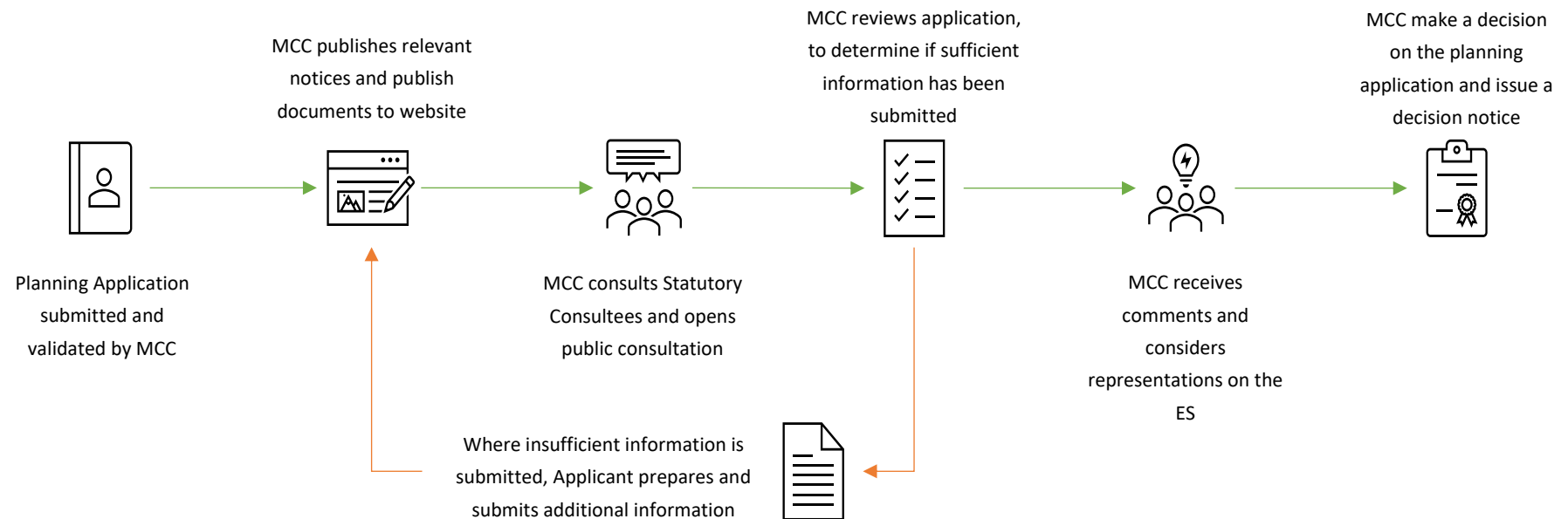
Turley (EIA Team)

Address:

1 New York Street
Manchester
M1 4HD

Tel: 0161 233 7676

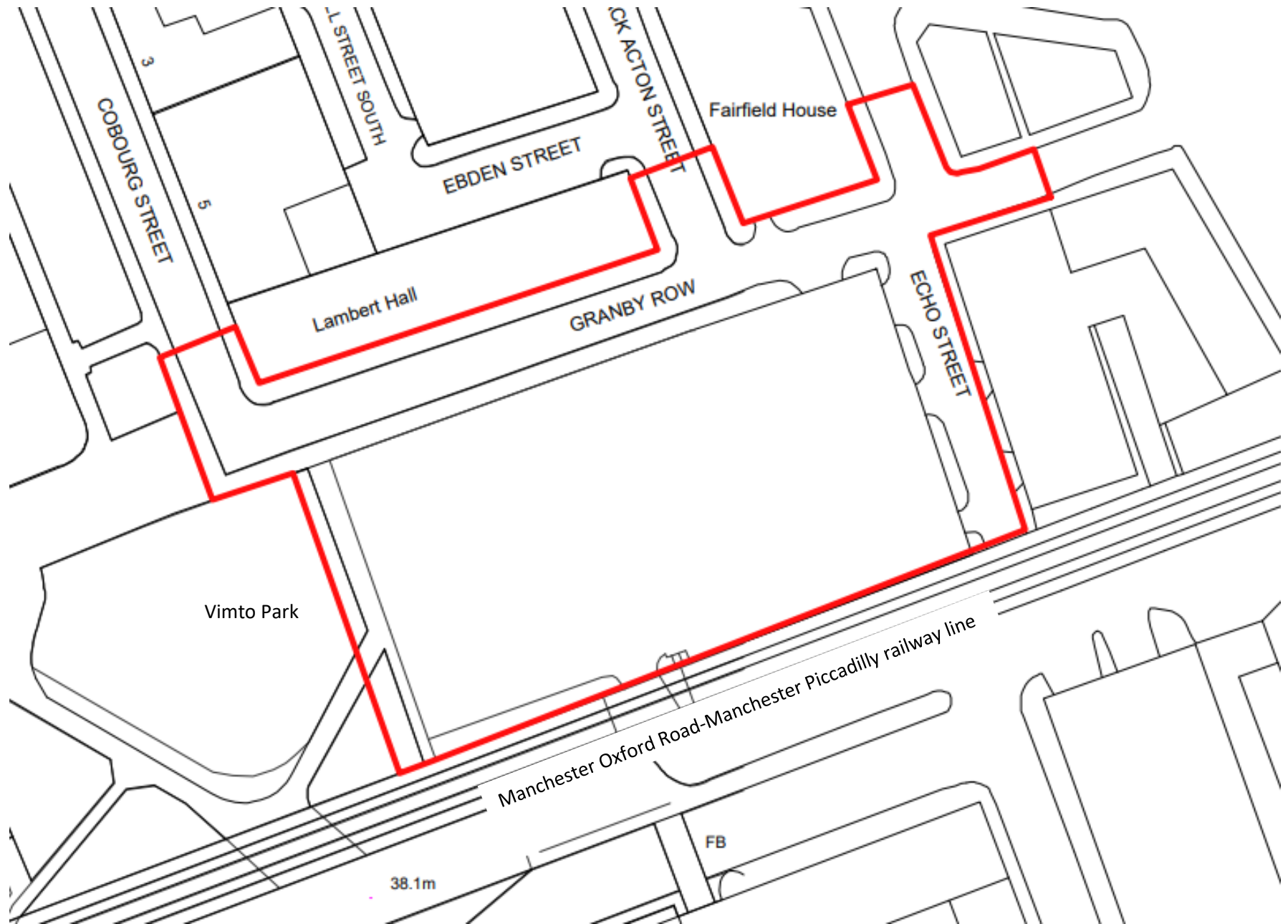
- 1.12 During the determination of the planning application members of the public have an opportunity to comment on the planning application via the MCC planning portal website (**Box 1**).



Extract 1: Overview of the determination of planning application process

2. The Proposed Scheme

- 2.1 The Applicant is seeking planning permission for a new PBSA development.
- 2.2 The Site of the Proposed Scheme is shown on **Extract 2**. The Site is approximately 0.5 hectares and has been cleared of all buildings and trees, which has been implemented through the previous permission. Some basement and piling works have also been implemented as part of the previous permission on Site.
- 2.3 Further details on the Site and surrounding area are presented in **Section 4**.
- 2.4 As shown on **Extract 2**, the Site is bound by Vimto Park to the west, the Manchester Oxford Road-Manchester Piccadilly railway line to the south, the A6 London Road to the east, and Lambert House, Fairfield Hall and the Bulls Head pub to the north.
- 2.5 The planning application submitted is termed a 'detailed' planning application. Therefore, the assessments were based on a series of 'detailed' drawings of the Proposed Scheme and a description which defined the Proposed Scheme considered across all technical assessments within the ES. This approach to the environmental assessment is discussed further in **Section 3**.



Extract 2: Site Location Plan

- 2.6 The key characteristics of the Proposed Scheme, specifically the details assessed within the ES, are set out below.

Proposed Land Use and Quantum

- 2.7 Land use, a term used within planning application, describes what categories of 'uses' are being proposed. Land uses are categorised by the Town and Country Planning (Use Classes) Order 1987 (as amended).

- 2.8 The maximum parameters with respect to land uses and corresponding quantum (i.e. the amount of floorspace of the land use) proposed for the Proposed Scheme is:

- Purpose Built Student Accommodation – 1,224 units (Use Class Sui Generis).

Proposed Building Heights

- 2.9 The Proposed Scheme will form of three interlinked blocks (Blocks A – C), which will increase in height away from Vimto Park.
- 2.10 The maximum height of proposed built form is shown on **Extract 3**, with proposed buildings being up to 28 storeys (excluding basement and a trolley system which will be in place on the roofs).

Access

- 2.11 Vehicular access to the Site will be from Echo Street. Pedestrian and cyclist access will be from Echo Street/Granby Row and Vimto Gardens.

- 2.12 As part of improvements to public realm, eight on street parking spaces will be provided along Granby Row, two of them being wheelchair accessible. This will be a reduction from the 13 spaces which are currently there at present.

- 2.13 Cycle parking for the Proposed Scheme will be provided within a secure and covered cycle store, providing long stay spaces. Short-stay cycle spaces will also be provided within the public realm.

Landscape and Biodiversity Strategy

- 2.14 Landscaping / open space will be provided in the private courtyards between the main blocks and the public realm surrounding the building (Granby Row and Echo Street).
- 2.15 The works to the public realm will focus on pedestrian use, including general resurfacing, with lowered kerbs, widening of the pavement and localized tree planting along Granby Row extending to the boundary with Vimto Park.
- 2.16 The works to the courtyards will include multi stem shade tolerant species, on raised planters, complemented with lightweight furniture and catenary lights. In addition, one of the courtyards will provide means of escape from the central block, and feature a bike shed with a ramp leading to Echo Street.

Drainage Strategy

- 2.17 The proposed surface water drainage will not increase the runoff rate and will include an allowance for climate change in

accordance with relevant guidance⁵. Sustainable Drainage Systems (SuDS) will be incorporated into the surface water drainage network, in accordance with CIRIA 753 – The SuDS Manual⁶ where practical.

Operational Hours

- 2.18 Due to its residential nature, the Proposed Scheme will be in operational use 24 hours a day / 7 days a week.

Lighting Strategy

- 2.19 New external lighting will be provided for health and safety and security. All new lighting installations within the Site will be subject to a series of best practice lighting principles, relating to the design and installations of all proposed lighting, which are governed by industry standards (i.e. British Standards) and guidance (i.e. from the Institute of Lighting Professionals)⁷. Adherence to these specific standards and guidance ensures that light pollution arising from the Proposed Scheme is suitably controlled to not give rise to nuisance experienced by nearby residential receptors.

Energy Strategy

- 2.20 The building is being proposed as an all-electric building. The communal areas at ground floor level will be served by an air

source heat pump simultaneous heating and cooling Variable Refrigerant Volume system.

- 2.21 The sustainability strategy has a strong focus on a fabric first approach⁸ to limit building energy consumption and carbon emissions through consideration of the performance of the building envelope and aiming to reduce solar gains and heat losses to levels commensurate with good practice benchmarks.
- 2.22 The building is intended to be robust and durable with design service life with energy usage during the life of the building being of primary concern in the design. The building is to be designed to meet local planning policy in terms of energy usage and carbon emissions.

Other Operational Strategies

- 2.23 Several additional operational strategies will be implemented as part of the Proposed Scheme, in relation to waste, utilities, as well as crime prevention principles. These strategies have all been prepared in line with relevant best practice or technical guidance / legislation / regulation. As such, issues such as flood risk (on and/or off-site) will be controlled, waste managed and recycled where possible and opportunities of crime reduced.

⁵ Flood Risk assessments: climate change allowances (2022). Available at: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

⁶ CIRIA (2015). The SuDS Manual C753. Available at: https://www.ciria.org/CIRIA/Memberships/The_SuDs_Manual_C753_Chapter_s.aspx

⁷ Full details of all relevant standards and guidance are set out within **Volume 1: Chapter 4: Development Specification**.

⁸ I.e. maximising the performance of the buildings materials and components before using mechanical/electrical systems.



Extract 3: Side Elevation View of the Proposed Scheme

Construction of the Proposed Scheme

- 2.24 Site preparation and construction of the Proposed Scheme is anticipated to commence in 2024, with the construction being completed over 2 years. The Proposed Scheme is anticipated to be fully operational in 2026, opening for the 2026/27 academic year.
- 2.25 The construction stage will include various phases or works, including but not limited to; works to form appropriate accesses; implementation of construction compound and facilities; erection of structures and implementation of landscaping.
- 2.26 A commitment has been made to adopt a series of environmental management best practices to avoid, offset and reduce environmental effects associated with the construction. These measures will be provided within the Construction Environmental Management Plan (CEMP) and submitted to MCC for approval⁹ in advance of construction activities occurring. A Framework CEMP has been submitted with the Application. These measures are derived from best practice measures or technical specific guidance / recommendations. As such, these measures are 'tried and tested' to effectively mitigate construction related environmental effects.
- 2.27 The measures committed to within the CEMP cover:

- General health and safety practice, site security and crime prevention measures;
- The management of construction related traffic;
- Dust suppression / management and control of non-road mobile machinery emission in line with defined standards;
- In addition, a communication strategy with local community will be set out in relation to dust and air quality;
- Management of noise in line with Control of Pollution Act 1974 and other best practice measures;
- Appropriate siting, use and control of temporary construction lighting;
- Management of construction activities in and around key retained or created ecological habitat in line with correct British Standards and best practice measures;
- Adoption of waste management strategies and practices in line with the waste hierarchy principles; and
- The management of soils and materials, including adoption of measures to control potential pollution events occurring.

⁹ The CEMP will be maintained and updated (as required) throughout the construction process

Reasonable Alternatives

- 2.28 The EIA Regulations require “*a description of the reasonable alternatives studied by the developer*”, including in relation to alternative sites; design; technology or a do nothing scenario. Alternatives sites were not considered, as the applicant is not in control of any other sites, and alternative technology aspects was not considered relevant to the Proposed Scheme, as the nature of the uses proposed does not relate directly to specific technologies. As such, only an evaluation of alternative design was considered.
- 2.29 The design of the Proposed Scheme evolved in response to studies, surveys and modelling, which took account the environmental constraints and opportunities of the Site. Alternative designs that were considered and informed the final design include:
- Alternative configurations of the blocks to improve efficiency and break up the massing to reduce visual effects and ensure coherency within the surrounding context;
 - Height chosen to increase across the three blocks away from Vimto Park and match the wider context; and
 - Change to a red brick façade approach to link in with the surrounding context.

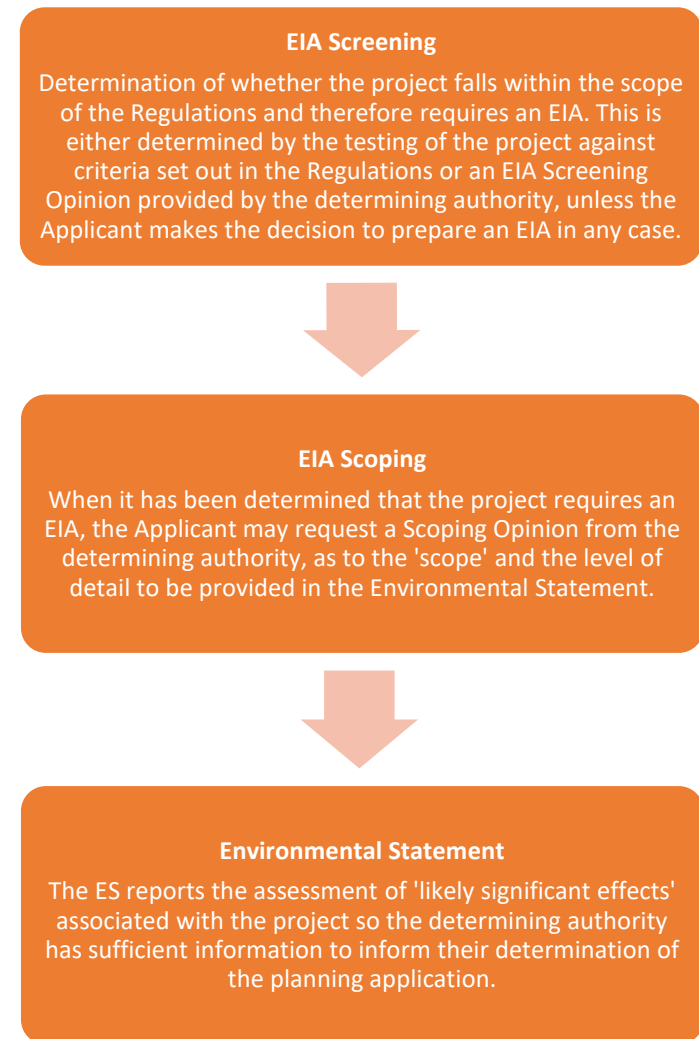
3. The EIA Process and Approach

The EIA Process

- 3.1 The aim of EIA is to protect the environment by ensuring that a determining authority (in this case MCC) when deciding whether to grant planning permission for a project, does so in the full knowledge of the likely significant environmental effects of the project and takes them into account in the decision-making process.
- 3.2 As such, EIA is a tool to assess and report likely significant environmental effects.
- 3.3 The EIA process generally comprises a series of steps, which are summarised in **Extract 4**. It should be noted that the first step (Screening) is not mandatory, and the second stage (Scoping) is voluntary. For this project the Scoping and Environmental Statement stages of the EIA process were completed.

The EIA Process

- 3.4 The EIA Regulations specify that EIA must “*identify, describe and assess the direct and indirect significant effects*” of the Proposed Scheme on a number of ‘factors’. These factors, generally broken down into specific sensitive receptors, have been considered/assessed within a number of technical topics and appraised at each stage of the EIA process.



Extract 4: Steps in EIA process

EIA Screening

- 3.5 As indicated in **Extract 4**, the purpose of the EIA Screening process is to establish if the Proposed Scheme for which consent is being sought is considered 'EIA Development', principally due to the presence of likely significant effects.
- 3.6 The project team considered the potential for likely significant effects at the outset of the project. For a number of topics, likely significant effects were unable to be ruled out, and given the previous application was an EIA Development, it was therefore considered the Proposed Scheme was an EIA Development.
- 3.7 As such, the EIA Screening process was not completed and the project moved forward to the EIA Scoping stage.

EIA Scoping

- 3.8 The EIA Scoping process, informed by a series of baseline studies, undertook a preliminary assessment in order to identify technical topics and/or specific effects which were considered 'not significant'. This process was used to 'scope' the ES, thereby ensuring only those topics and/or effects that were likely to be significant would be subject to further assessment and reported as part of the ES.
- 3.9 The EIA Scoping process, culminating in an EIA Scoping Report¹⁰ submitted to MCC, proposed scoping out the following

¹⁰ The EIA Scoping Report has been submitted with the ES, as **Volume 2, Appendix 2.1**.

technical topics because no likely significant effects were anticipated.

- Air Quality;
 - Archaeology;
 - Biodiversity;
 - Flood Risk, Drainage and Water Environment;
 - Ground Conditions;
 - Lighting;
 - Major Accidents and/or Disasters;
 - Traffic and Access;
 - TV Reception; and
 - Waste.
- 3.10 The EIA Scoping Opinion¹¹ from MCC largely confirmed the scoping approach set out within the EIA Scoping Report, though requested further evidence regarding construction traffic. This was provided in the form of a Construction Logistics Plan which was appended to the ES (see **Volume 2, Appendix 2.3**).

¹¹ The EIA Scoping Opinion has been submitted within the ES, as **Volume 2, Appendix 2.2**.

3.11 As such, the ES has reported the assessment of '*likely significant effects*' for the following technical topics:

- Socio-Economics and Human Health;
- Climate Change;
- Built Heritage;
- Townscape and Visual;
- Daylight, Sunlight, Overshadowing and Solar Glare;
- Wind Microclimate; and
- Noise and Vibration.

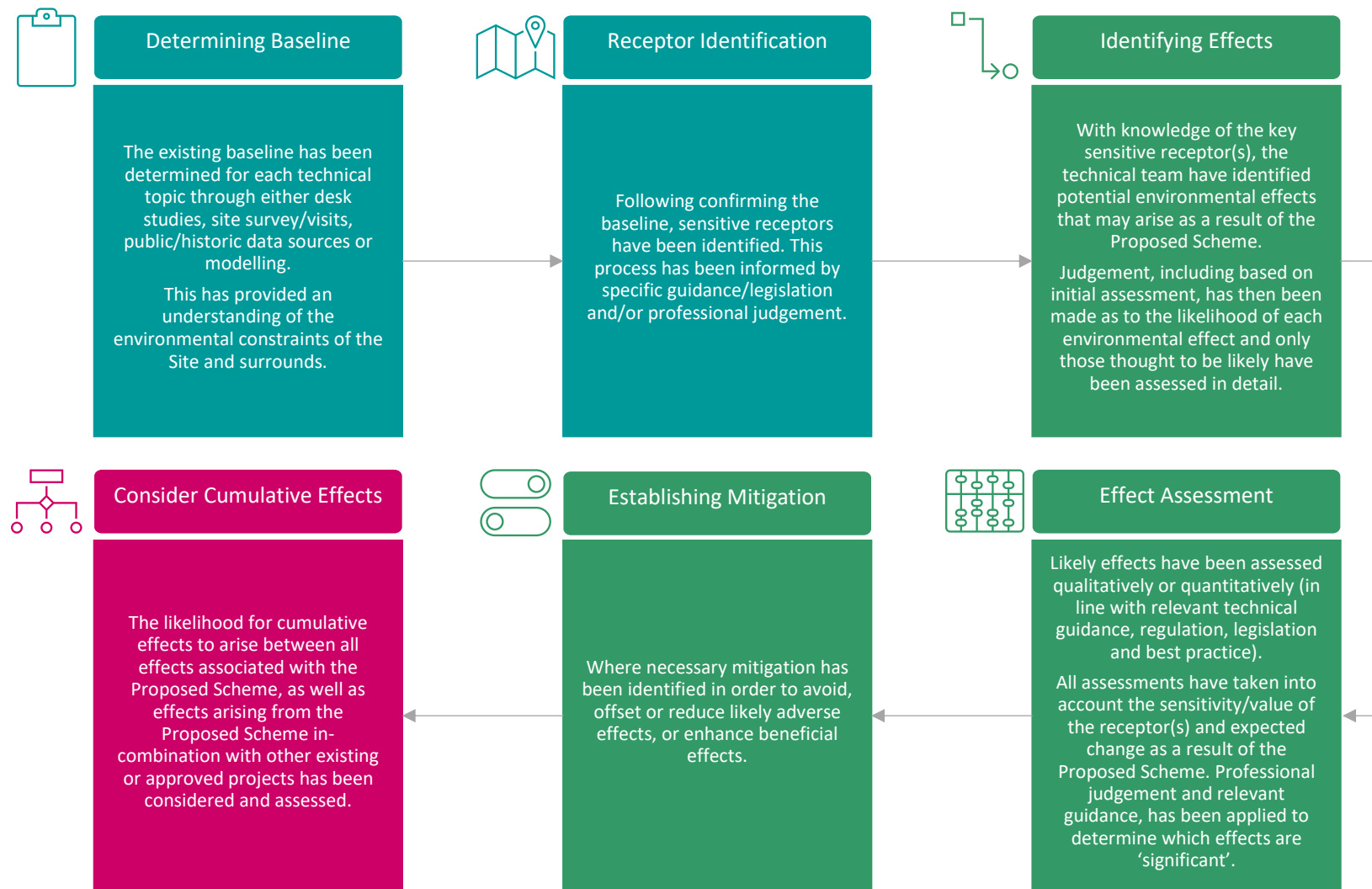
3.12 The precise approach to the assessment of likely significant effects varies somewhat between the various technical topics, reflecting relevant industry and technical guidance/regulations. The adopted methodology for each technical topic was confirmed through the EIA Scoping process. The methodologies adopted are clearly outlined for each technical topic within **Volume 1** of the ES.

3.13 Nonetheless an overarching approach, required by the EIA Regulations that covers all technical topics is set out in **Extract 5**. The steps within **Extract 5** are colour coded, with the subsequent sections of this NTS following a similar colour coding, allowing readers to understand how each step within the assessment approach (**Extract 5**) has been completed as part of the ES.

Environmental Statement

3.14 As set out within **Section 1** the purpose of EIA and the ES is to assess and report the '*likely significant effects*' of the Proposed Scheme on the environment. On this basis the summary of the technical assessments presented within this NTS (**Section 5**) concludes with respect to if an effect was considered '*significant*' or '*not significant*'.

3.15 Furthermore, where the determination of '*significant*' or '*not significant*' is linked to the implementation of specific mitigation, this proposed mitigation has been noted as part of the summary within **Section 5**.



Extract 5: Overview of EIA process

4. Determining the Baseline

- 4.1 As set out within **Extract 5**, in order to determine the environmental effects of the Proposed Scheme it was necessary to establish the existing characteristics of the Site and surrounding area (i.e., the existing baseline conditions).
- 4.2 As such, a summary of relevant baseline information for the various technical topics scoped into the assessment are provided below¹².

Context

- The Site is located within the administrative area of Manchester City Council;
- The Site is bound by Vimto Park to the west, the Manchester Oxford Road-Manchester Piccadilly railway line to the south, the A6 London Road to the east, and Lambert House, Fairfield Hall and the Bulls Head pub to the north; and
- The Site is cleared of all buildings and trees, which has been implemented through the previous permission. Some basement and piling works have also been implemented as part of the previous permission on Site.

¹² Baseline data for topics scoped out have not been set out and was provided in full as part of the EIA Scoping Report (included as **Volume 2, Appendix 2.1** and **Volume 1, Chapter 3**).

Socio-Economics and Human Health

- Economic activity rates amongst the working-age population of the local impact area of Manchester (72%) is lower than within the Greater Manchester Combined Authority (GMCA) area (75%) and across Great Britain as a whole (78%). The employment rate in Manchester amongst the working age population, at 67%, is also lower than in the GMCA (72%) and Great Britain (75%);
- Manchester accommodates a total of 422,000 workforce jobs, which is approximately 30% of the 1.4 million jobs accommodated in the GMCA; and
- In 2022/23 there were 26,830 purpose-built student accommodation bed spaces available to students in Manchester, making it the fourth largest student accommodation market in the UK. There was a 'demand pool' of 54,725 students in 2021/22, leaving 27,895 students requiring a bedspace and unable to access a PBSA bedspace in 2021/22.

Climate Change

- Due to its vacant nature, the Site was assumed to not release any Greenhouse Gas (GHG) emissions at present; and
- In comparison, in 2020 the MCC administrative area emitted 2,186,763 tonnes CO₂, Greater Manchester

emitted 11,842,065 tonnes CO₂, and North West England emitted 41,921,900 tonnes CO₂.

Built Heritage

- There are a number of heritage assets in the surrounding area, though those that may be potentially affected by the Proposed Scheme are:
 - Whitworth Street Conservation Area – this is a broad area with varied heritage interest;
 - London Road Police and Fire Station – a Grade II* listed building approximately 70m north of the Site.

Townscape and Visual

- The Site lies within the North Campus Character Area within Manchester City Centre, as set out within Manchester City Centre Strategic Plan. The area is currently characterised by a mix of building types and public spaces of varying quality. Modern development sits alongside historic industrial buildings;
- The Mayfield and Piccadilly areas to the east are also subject to large scale regeneration proposals as well as the recent redevelopment within the Kampus character area to the north of the Proposed Scheme which incorporates uses such as residential, restaurant and commercial space;
- The Site is generally flat with small level changes; and

- There are a number of areas with views of the Site within the surrounding context.

Daylight, Sunlight, Overshadowing and Solar Glare

- There are a total of 491 windows facing the Site serving 302 rooms within five buildings in the surrounding area. Overall these are expected to achieve a moderate level of daylight and sunlight as a result of the city centre context of the Site, the lack of buildings on Site and the height and density of built form in the immediate locality;
- Vimto Gardens currently receives direct sunlight to 95.79% of it's area; and
- As the Site is cleared, there will be no solar glare reflections from the Site.

Wind Microclimate

- The baseline scenario for wind microclimate represents the current built form of the Site and surroundings, which is a cleared Site surrounded by built form, and how this influences the wind environment; and
- The current wind environment of the Site and surrounding area meets the recommended criteria for pedestrian safety and is suitable for pedestrian comfort.

Noise and Vibration

- Sound levels on Site are dominated by railway noise and general road traffic on Granby Row, the A6 and surrounding road network.

Natural Evolution of the Site

- 4.3 The EIA Regulations require the provision of, as far as reasonably possible, as estimation of the future natural evolution of the Site (i.e., future baseline) were the Proposed Scheme not to go ahead (i.e., no development scenario).
- 4.4 It was determined that the future baseline would be broadly as existing for built heritage; townscape and visual; daylight, sunlight, overshadowing and solar glare; wind microclimate; and noise and vibration.
- 4.5 For socio-economics and human health, there is anticipated to be more of a change in future baseline due to changes to employment and local economy. There is also anticipated to be a reduction in greenhouse gas emissions associated with the net zero target set by the government.

5. Effects of the Proposed Scheme

- 5.1 A summary of the assessment in the ES and the identified 'likely significant effects' reported within **Volume 1: Main Text and Figures**, taking each topic in turn, is provided below.
- 5.2 The summary is reflective of the scope of assessments, as discussed within **Section 3** and therefore technical topics or effects 'scoped out' have not been discussed. Assessments within **Volume 1** have considered effects arising from the construction and operational stages of the Proposed Scheme, however, where the text only considers a single stage this is due to that fact that effects associated with the other stage where also 'scoped out'.
- 5.3 As with the requirements of the Non-Technical Summary, to be written in plain English, the summaries of assessment presented below are not overly detailed and parties interested in understanding the specifics of an assessment process or output are directed to **Volume 1**.
- 5.4 The overall outputs of the EIA process are as follows:
- During construction, there are 4 effects, none of which are significant; and
 - During operation there are 15 effects, 3 of which are significant. The 3 significant effects are all beneficial.
- 5.5 A summary of the technical topics is provided in the table, where:

- No significant effects were identified – denoted by ✖;
- Significant adverse effects were identified – denoted by ✔;
- Significant beneficial effects were identified – denoted by ✔; and
- A mixture of significant adverse and beneficial effects were identified – denoted by ✔ (albeit not used on this occasion).

Technical topic	Significant effects?
Socio-economics and human health	✔
Climate Change	✖
Built Heritage	✖
Townscape and Visual	✔
Daylight, Sunlight, Overshadowing and Solar Glare	✖
Wind Microclimate	✖
Noise and Vibration	✖

Socio-Economics and Human Health

What effects were considered?

5.6 The following effects were considered in **Chapter 6: Socio-Economics and Human Health**:

- Employment generated during the construction stage; and
- Provision of Purpose-Built Student Accommodation (PBSA).

What receptors were considered?

- Local labour force (the people who work in construction); and
- Students requiring accommodation.

What did the assessments identify?

- 5.7 A total of 230 net additional full time positions could be generated each year across Greater Manchester during the construction period, inclusive of 90 jobs in the MCC. This is anticipated to have a beneficial but not significant effect on employment opportunities for the local labour force due to the scale of the Proposed Scheme.
- 5.8 The delivery of 1,224 new PBSA bedspaces by the Proposed Scheme would represent a 4.6% increase on the 26,830 PBSA bedspaces currently available in Manchester. This represents a significant beneficial effect on the provision of PBSA in

Manchester, as it provides PBSA for the surplus students who need it.

Climate Change

What effects were considered?

5.9 The following effects were considered in **Chapter 7: Climate Change**:

- GHG Emissions during construction; and
- GHG Emissions during operation.

What receptors were considered?

- Global climatic system.

What did the assessments identify?

- 5.10 The construction of the Proposed Scheme is anticipated to release greenhouse gas emissions into the atmosphere from a range of activities such as the manufacture of construction materials and products, the transport of the materials and waste on- and off-site, and the treatment of residual construction waste amongst others. The effects from construction upon the global climatic system are expected to be adverse but not significant, due to the scale of the Proposed Scheme and measures to be included in the Construction Environmental Management Plan (CEMP) to reduce greenhouse gas emissions¹³.
- 5.11 The operation of the Proposed Scheme is expected to result in greenhouse gas emissions from the generation of energy

¹³ For example measures to reduce waste arisings.

consumed by the proposed dwellings and amenity space. The effect of this upon the global climatic system is anticipated to be adverse but not significant. Measures have been incorporated into the design of the Proposed Scheme to reduce greenhouse gas emissions, such as the Proposed Scheme being all electric, with no fossil fuels to be used, and provision of 100% low energy lighting.

Built Heritage

What effects were considered?

5.12 The following effects were considered within **Chapter 8: Built Heritage**:

- Change to the character and appearance of the Whitworth Street Conservation Area during construction and operation; and
- Change to the setting of the London Road Police and Fire Station Grade II* listed building during construction and operation.

What receptors were considered?

- Whitworth Street Conservation Area; and
- London Road Police and Fire Station (Grade II* listed building)

What did the assessments identify?

5.13 Although the location of construction stage activities within the Whitworth Street Conservation Area would have a direct adverse effect on the character and appearance of the area, this effect is not considered to be significant.

5.14 As a result of intervening built form and the distance of London Road Police and Fire Station from the Site, construction stage activities will not be visible from the listed building, and so whilst adverse, the effect of construction stage activities is not anticipated to be significant.

5.15 During operation the Proposed Scheme is likely to become prominent in the local townscape due to its height, although the Proposed Scheme delivers a development that will reverse the current vacant nature of the Site which fragments the area. Considering this, the effect is negligible and not significant.

5.16 The Proposed Scheme during operation will alter the setting of the London Road Police and Fire Station. Due to the highly urbanised and complex context surrounding the London Road Police and Fire Station, the building is considered to be able to tolerate a considerable level of change without its heritage interests being affected. The Proposed Scheme will not conceal or impede views of the station, and so the effect will be negligible and is not considered to be significant.

Townscape and Visual

What effects were considered?

5.17 The following effects were considered in **Chapter 9: Townscape and Visual**:

- Changes to townscape character within the site context during operation;
- Changes to topography and site levels during operation; and

- Changes to the character, composition and amenity of views during operation.

What receptors were considered?

- The Site and wider townscape character area of the North Campus Townscape Character Area;
- Topography and site levels; and
- Selected viewpoints where there was potential for likely significant effects¹⁴.

What did the assessments identify?

- 5.18 The Proposed Scheme is anticipated to have a significant beneficial effect upon changes to townscape character within the site context, as the new buildings proposed on Site will introduce new elements that achieve a good fit with and complement the North Campus townscape character area.
- 5.19 The effect of the Proposed Scheme on changes to topography & site levels is also anticipated to be beneficial, but will not be significant. This is because the Proposed Scheme will work with the existing levels, reducing severance and improve the pedestrian environment.
- 5.20 The Proposed Scheme will result in the introduction of new buildings on Site which will be noticeable in certain views. Due to the design of the buildings, including the increase in height away from Vimto Park, the landscaping provided and

¹⁴ Piccadilly Station main entrance; Piccadilly Station taxi rank, Fairfield Street; Piccadilly Station platform 13 and 14; Sculptural wall, London Road; View west

architectural design of the building, the visual effects of the Proposed Scheme will be beneficial. For views from Piccadilly Station main entrance; Piccadilly Station taxi rank, Fairfield Street; Piccadilly Station platform 13 and 14; Sculptural wall, London Road and View west along Granby Row the beneficial effects are considered to be significant. For the views from Vimto Park; University of Manchester, Altrincham Street and Granby Row / Samuel Ogden Street the beneficial effects are not considered to be significant.

Daylight, Sunlight, Overshadowing and Solar Glare

What effects were considered?

- 5.21 The following effects were considered in **Chapter 10: Daylight, Sunlight, Overshadowing and Solar Glare**:
- Reduced daylight and sunlight amenity during operation;
 - Reduced sunlight amenity (overshadowing) during operation;
 - Solar glare impacting visibility of road users at sensitive locations such as intersections and junctions during operation; and
 - Solar glare impacting visibility of train drivers during operation.

along Granby Row; Vimto Park; University of Manchester, Altrincham Street; and Granby Row, Samuel Ogden Street.

What receptors were considered?

- Lambert House;
- Fairfield House;
- Warehouse One;
- Stonebridge House;
- London Road Fire Station;
- Vimto Park; and
- Selected viewpoints within 500m of the Site where the Proposed Scheme is visible.

What did the assessments identify?

- 5.22 The new buildings on Site have the potential to block daylight and sunlight from surrounding receptors. The assessment of daylight and sunlight is completed using modelling of the existing Site and Proposed Scheme to establish the daylight and sunlight that will be experienced from the windows of surrounding receptors.
- 5.23 During operation, the effect of the Proposed Scheme upon reduced daylight and sunlight amenity at the relevant receptors identified above (Lambert House; Fairfield House; Warehouse One; Stonebridge House; and London Road Fire Station) was concluded to be adverse but not significant. This is because the majority of windows assessed would experience acceptable levels of daylight and sunlight, in accordance with Building Research Establishment guidelines.

- 5.24 The effect of overshadowing was considered on Vimto Park, as an adjacent amenity area. The Proposed Scheme is anticipated to have a negligible effect upon reduced sunlight amenity (overshadowing) which will not be significant, as with the Proposed Scheme in place, Vimto Park would still experience direct sunlight to 95.79% of its area.
- 5.25 Due to the material of the façade of the Proposed Scheme, there is the potential for sunlight to reflect off it and cause solar glare, which may disturb road users and train drivers. The majority of receptors assessed were assessed to not experience a significant effect, though at this stage there was the potential for some adverse effects. A detailed glazing assessment will be undertaken, which will be secured through the planning process, and outline the measures to avoid significant effects. This would likely include low reflection glazing within the Proposed Scheme where needed. This will resolve the effects to all receptors, ensuring no significant effects.

Wind Microclimate

What effects were considered?

- 5.26 The following effects were considered in **Chapter 11: Wind Microclimate**:
- Potential changes to the wind microclimate from the Proposed Scheme outside of the Site during operation; and
 - Potential changes to the wind microclimate from the Proposed Scheme within the Site during operation.

What receptors were considered?

- Existing pedestrian street-level and open amenity spaces receptors within 500m from the Site; and
- Accessible balconies, roof terraces and new amenity spaces within the Proposed Scheme.

What did the assessments identify?

- 5.27 The Proposed Scheme has the potential to change the environmental wind environment on and surrounding the Site due to the presence of new buildings changing the wind flow/speeds.
- 5.28 3D modelling of the Site and surrounding area with and without the Proposed Scheme was undertaken to determine if there would be any exceedances of best practice safety and comfort thresholds of wind speed.
- 5.29 The design of the Proposed Scheme has included a porous vertical screen which acts as a gate. This is mitigation to control the potential wind microclimate effects, and the 3D modelling confirmed this would keep wind to a suitable level for the receptors modelled. Therefore, there was considered to be no significant wind microclimate effects.

Noise and Vibration

What effects were considered?

- 5.30 The following effect was considered in **Chapter 12: Noise and Vibration**:
- Plant noise during operation.

What receptors were considered?

- Barnes Wallis Building;
- Fairfield Hall;
- Joule Library;
- Lambert Hall;
- MacDonald Hotel;
- Maths @ Science West Building;
- Pendulum Hotel;
- Renold Building; and
- Vimto Park.

What did the assessments identify?

- 5.31 The Proposed Scheme will require plant and equipment, such as boilers and transformers, to allow it to be operational.
- 5.32 During operation, the impact of plant noise upon nearby receptors is anticipated to be negligible adverse and not significant. This is because the difference between the rating level the plant should operate at (i.e. the noise it will cause), is less than the existing background noise levels at the receptors.
- 5.33 The plant and equipment will be designed and selected to not exceed noise limits at sensitive receptors.

6. Cumulative Effects

- 6.1 It is a requirement of the EIA Regulations for the EIA to assess the 'cumulative' effects arising from the Proposed Scheme.
- 6.2 There is no standard set methodology for the assessment of cumulative effects, but it is common (and in accordance with accepted guidance) for two types of cumulative effects to be considered, namely:
- **Effect Interactions** – which considers different effects within the project itself affecting the same receptors, either within the Site or in the local area; and
 - **In-Combination Effects** – which considers effects from the Proposed Scheme alongside those from other existing or approved projects impacting upon a common receptor.
- 6.3 For both types of cumulative effects there needs to be a 'common receptor'. By this it is meant that the same receptor is considered in either two or more topics (for effect interactions) or by the Proposed Scheme and another existing or approved project (for in-combination effects). If there is an absence of a common receptor it is considered that a cumulative effect does not occur.

- 6.4 Identifying, interpreting and communicating cumulative effects can often be technical and complicated, making it difficult to explain the outputs in 'plain English'. However, the process and outputs are set out below.

Effect Interactions

Approach

- 6.5 The evaluation of effect interactions first looks to combine all of the effects assessed within all technical chapters and 'categorise' them into 'receptor groups'. By sorting all effects into receptor groups, the potential for an effect interaction to occur can be identified.
- 6.6 The receptors groups are based on the list of 'factors' that are specified within the EIA Regulations, that an ES should report the likely significant effects upon¹⁵. Often the receptors considered within the technical assessments will fall within one of the receptor groups.
- 6.7 Once collated in tabular form, it is clear where a receptor group is experiencing multiple effects associated with the Proposed Scheme and thus there is then considered the 'potential' for an effect interaction. Following this initial sorting process, the specific effects are examined in greater detail and the specific individual receptors assessed to confirm a common receptor.

¹⁵ Population, human health, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and landscape

Evaluation Results

- 6.8 During both the construction and operational stages the Population and Human Health receptor group was identified to be the only group that may experience an effect interaction due to the residual effects reported.
- 6.9 For the construction stage Population and Human Health effects were limited to the beneficial socio-economic effect of generation of employment and the adverse effect of reduced daylight and sunlight amenity and increased solar glare. The potential effect interactions were not considered to be greater than reported individually (and not significant – see **Section 5**) due to the different spatial scales the effects are reported on (i.e. local receptors vs receptors comprising whole geographical areas); the varying levels of the daylight, sunlight and solar glare effects throughout the construction stage (i.e. effects increased as the massing on Site increases); the effects being both beneficial and adverse; and none of the construction stage effects being significant in isolation.
- 6.10 During the operational stage, residual effects to the Population and Human Health receptor group were in relation to the beneficial provision of PBSA (socio-economic effect); the beneficial change to the character, composition and amenity of views; and the adverse effects from reduced daylight and sunlight and increased solar glare. It was considered that the operational effect interactions would not be greater than the effects reported individually (and not significant, except where considered significant for the Proposed Scheme in isolation – see **Section 5**) due to the different spatial scales the receptors will experience effects on (e.g. local receptors vs wider spread

out receptor groups); a lack of overlap of some specific receptors; the effects being both beneficial and adverse; and the limited residual effects reported.

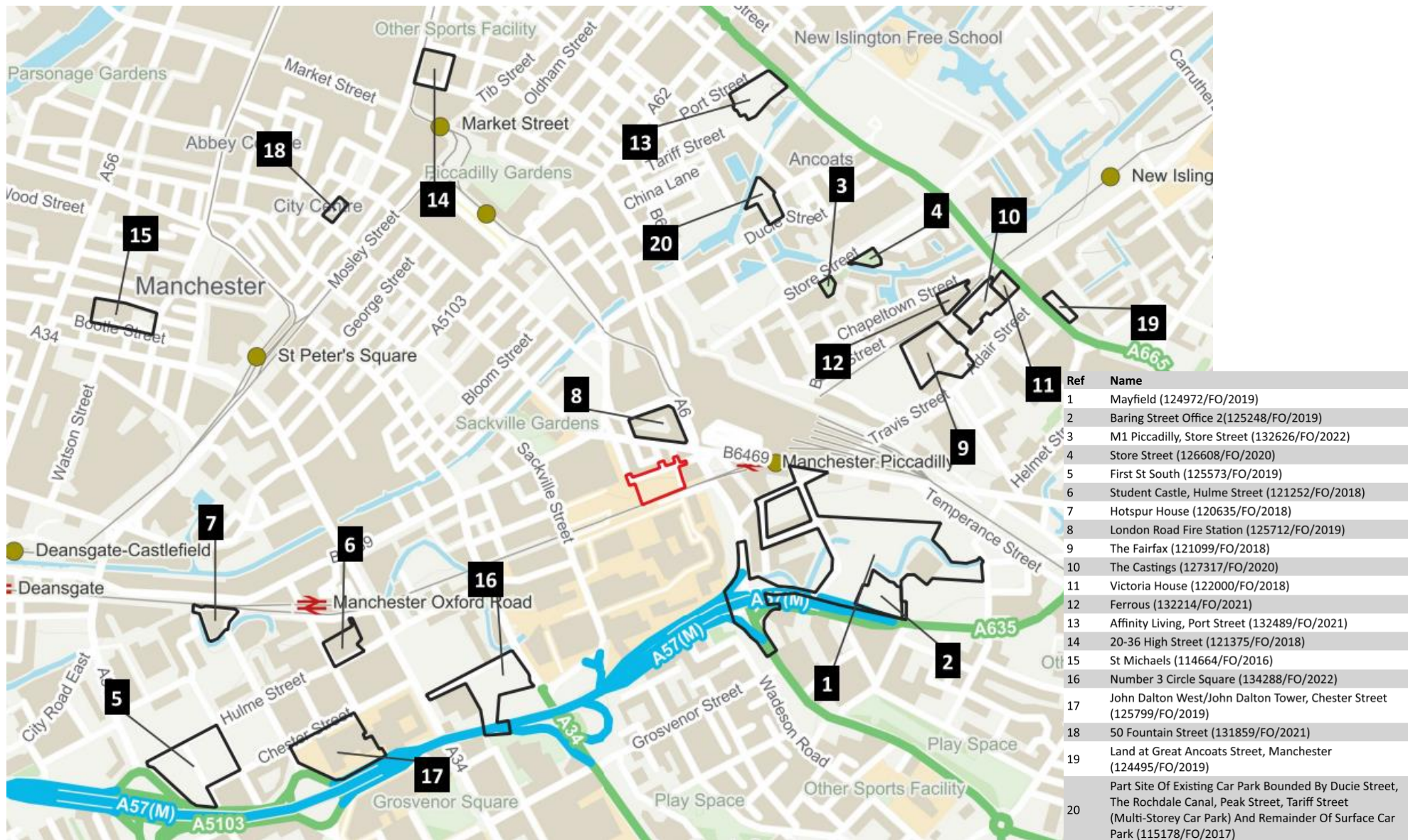
In-Combination Effects Approach

- 6.11 The first stage for this assessment is to identify other existing or approved projects that should be considered in cumulation with the Proposed Scheme. This identification and selection process was completed as part of the EIA Scoping process to ensure agreement with MCC on the existing or approved projects to consider. The approved projects identified and agreed with MCC to be assessed as part of the cumulative effects assessment are shown on **Extract 6**.
- 6.12 The evaluation of in-combination effects is undertaken by each technical topic. The evaluation is informed by technical reports submitted in support of the approved projects, or where this is not available professional judgement is applied. The evaluation is as follows:
- (a) Do the projects share a common receptor, across either the construction and/or operational stages?
 - (b) Does the combined effect of each project together give rise to an effect that is greater than that reported for the Proposed Scheme in isolation?
- 6.13 The evaluation of in-combination effects is normally undertaken qualitatively but some topics use quantitative modelling work that accounts for the other projects.

Evaluation Results

- 6.14 A summary of the evaluation of in-combination effects is provided within the table below, which outlines:
- No in-combination effect was identified – denoted by ×;
 - In-combination effects were identified but determined to be no greater level of effect or significance than that reported for the Proposed Scheme in isolation – denoted by =; and
 - In-combination effects were identified and determined to be a level of effect or significance greater than the Proposed Scheme in isolation – denoted by >.
- 6.15 Where a greater in-combination effect is identified and is considered to be Significant, this has been highlighted in **bold**.

Technical Topic	In-Combination Effect from All Relevant Approved Projects
Socio-economics and human health	> (construction employment) / = (provision of PBSA)
Climate change	×/= (in-combination assessment is inherent within project assessment)
Built heritage	× (due to distance from the Site / urban context of receptors / limited effects reported individually and lack of concurrent timelines)
Townscape and visual	× (due to distance from the Site / lack of visibility / small scale of Approved Projects)
Daylight, sunlight, overshadowing and solar glare	× (no common receptors due to distance of Approved Projects)
Wind microclimate	= (in-combination effects no different to those reported at the project level due to distance of the Approved Projects from the Site)
Noise and vibration	× (no common receptors due to distance of Approved Projects)



Extract 6: Location of Approved Projects

Appendix 1: Regulatory Compliance Checklist

Regulation 18, Paragraph 3 (e) of the EIA Regulations requires “a non-technical summary of the information referred to in sub-paragraphs (a) to (d)” to be provided. Schedule 4, Paragraph 9 of the EIA Regulations requires “A non-technical summary of the information provided under paragraphs 1 to 8” to be provided. For clarity around compliance with the EIA Regulations, the schedule below identifies where the information from paragraphs a to d of Regulation 18a and paragraphs 1 to 8 of Schedule 4 is located in this Non-Technical Summary.

Regulation 18. Environmental Statements	Schedule 4. Information for Inclusion in Environmental Statements	Location of Information in this Non-Technical Summary
(a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development	1. 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.	Section 2: The Proposed Scheme; and Section 4: Determining the Baseline
(d) a description of the reasonable alternatives studied by the developer, which are relevant to the	2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by	Section 2: The Proposed Scheme

Regulation 18. Environmental Statements	Schedule 4. Information for Inclusion in Environmental Statements	Location of Information in this Non-Technical Summary
proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment	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.	
-	3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.	Section 4: Determining the Baseline
-	4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	Section 4: Determining the Baseline; and Section 5: Effects of the Proposed Scheme
(b) a description of the likely significant effects of the proposed development on the environment	5. A description of the likely significant effects of the development on the environment resulting from, inter alia: (a) the construction and existence of the development, including, where relevant, demolition works;	Section 5: Effects of the Proposed Scheme Section 6: Cumulative Effects

(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;

(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;

(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);

(e) 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;

(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;

(g) the technologies and the substances used.

The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(1) and Directive 2009/147/EC(2).

Regulation 18. Environmental Statements	Schedule 4. Information for Inclusion in Environmental Statements	Location of Information in this Non-Technical Summary
-	6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.	Section 5: Effects of the Proposed Scheme
(c) a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment	7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.	Section 5: Effects of the Proposed Scheme
-	8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU(3) of the European Parliament and of the Council or Council Directive 2009/71/Euratom(4) or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.	Section 3: The EIA Process and Approach; and Section 5: Effects of the Proposed Scheme

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