



Union (T2), Water Street, Manchester – Scoping Report

Environmental Impact Assessment (EIA) Screening and Scoping Report

March 2020

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1 Introduction

- 1.1 This Environmental Impact Assessment (EIA) Screening and Scoping Report has been prepared in respect of the proposals for the development of Union (formerly known as T2), located within the St. John's Masterplan with Water Street and Manchester Goods Yard (as approved under PP.: 121511/FO/2018) to the east, Factory (as approved under PP.: 119890/VO/2018) to the south, the River Irwell to the west, and the Victoria and Albert Hotel located to the north.
- 1.2 The term 'Proposed Development' used within this Report refers to all stages of construction and the operation of the development.
- 1.3 This Screening and Scoping Report is submitted to Manchester City Council as a request for a Scoping Opinion under Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. In accordance with Regulation 15, paragraph 2, this report contains:
 - A brief description of the nature and purpose of the Proposed Development and of its possible effects on the environment.
 - A plan sufficient to identify the land enclosed at Appendix 1.
- 1.4 For clarification, this forthcoming application seeks to supersede the T2 proposal of the previous application (as approved under PP.: 114723/FO/2016).

EIA Requirements

- 1.5 The EIA process is the mechanism by which development proposals are appraised in relation to the environmental criteria as well as socio-economic, engineering and technical considerations. The EIA process defines the context of the Proposed Development and examines the issues considered pertinent.
- 1.6 The purpose of the EIA is to establish both the nature of the Proposed Development and the environment within which it is likely to take place in order to identify likely significant effects on the environment that may arise. This is also undertaken by comparing the existing situation at the start of the work (baseline) with the situation once the Proposed Development is in place.
- 1.7 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 require that any proposed development falling within the description of a 'Schedule 2 development' within the meaning of the Regulations, will be subject to an EIA where such development is likely to have 'significant' effects on the environment by virtue of such factors as its nature, size or location (Regulation 4(2)).
- 1.8 The Proposed Development falls under the category of "Infrastructure Projects – Urban Development Projects" (Schedule 2, 10, (b)) as described in the Regulations. The applicable threshold above which EIA is likely to be required 5 hectare (ha) or if the development includes more than 150 dwellings. The indicative thresholds and criteria state that:

"In addition to the physical scale of such developments, consideration should be given to the potential increase in traffic, emissions and noise. EIA is unlikely to be required for the redevelopment of land unless the new development is on a significantly greater scale than the previous use, or the types of impact are of a markedly different nature or there is a high level of contamination."
- 1.9 The Proposed Development comprises up to 372 co-living units (sui generis), occupants' amenity space, gym (Use Class D2), flexible commercial space (Use Classes A1, A2, A3 and A4), co-working space (Use Class B1(a)), landscaping, access and other associated works.
- 1.10 Given the nature of the Proposed Development, an EIA is considered appropriate to test the likely significant effects of the Proposed Development. The Applicant therefore proposes to submit an Environmental Statement (in relation to certain topic areas where there is likely to be a significant effect of the environment) in support of the planning application.

Purpose of the Scoping Report

- 1.11 The process of identifying likely significant effects on the environment which should be addressed by the EIA is termed 'scoping' and the results are presented as a Scoping Report.

- 1.12 Regulation 15 of the EIA Regulations set out the requirements for obtaining a scoping opinion from the relevant planning authority.
- 1.13 This Scoping Report sets out the framework within which the Environmental Statement ('ES') will be produced and the topic areas and information that will be contained within the document. It is issued to Manchester City Council ('MCC') for circulation to Statutory Consultees and other organisations who are invited to express their views on the proposed scope of the EIA, or suggest additional issues which may be considered to be of significance. The views expressed by Statutory Consultees will then be used by the LPA to inform the formal Scoping Opinion.
- 1.14 The LPA is required to respond to a formal request for a Scoping Opinion within five weeks of registering receipt.
- 1.15 The EIA team, as set out in Table 1.1, will be co-ordinated and lead by Deloitte Real Estate.

Table 1.1: EIA Project Team

Topic	Assessment Carried Out By
Air Quality	Hilson Moran
Daylight and Sunlight	Watts Group
Historic Built Environment	Heritage Architecture
Noise and Vibration	Sandy Brown
Townscape and Visual Impact	Chris Burnett Associates
Wind Microclimate	Urban Microclimate

- 1.16 Sustainability and the impact of the Proposed Development on climate change is an integral part of the design process and will also be considered throughout the EIA. Further standalone reports explaining the approach to sustainability policy objectives will accompany the application for planning permission.
- 1.17 The remainder of this report is structured as follows:
- Section 2: Site Description and Proposed Development
 - Section 3: Planning Policy Context
 - Section 4: EIA Methodology
 - Section 5: ES Chapters

2 Site Description and Proposed Development

Site Description

- 2.1 The proposed development Site (referred to hereafter as 'the Site') is in Manchester City Centre located within the St. John's Masterplan with the under construction Factory (as approved under PP.: 119890/VO/2018) to the south, and the Victoria and Albert Hotel located to the north, River Irwell to the west, and Water Street and the under construction Manchester Goods Yard (as approved under PP.: 121511/FO/2018) to the east. There is also currently a live planning application for the site known as 'T1', on the opposite side of Water Street.
- 2.2 The Site currently comprises a construction compound, associated with the delivery of the Manchester Goods Yard and T1, pursuant to a previous application (Planning Permission Reference: 114385/FO/2016) and therefore no buildings, structures or trees currently exist on Site. Uses immediately surrounding the Site include hotel uses, office uses, and retail and leisure spaces currently in operation within the St. John's Masterplan. The Site is currently accessed from Water Street.
- 2.3 As per the Environment Agency Flood Map, the Site is generally located in Flood Zone 2, but does sit near to the River Irwell that is characterised as a Flood Zone 3 and therefore creates further adjoining areas of Flood Zone 2 to the south.
- 2.4 There are no statutorily Listed Buildings within the Site but there are a number of Listed Buildings nearby and it is located within the Castlefield Conservation Area. The nearest Listed Buildings are the Victoria and Albert Hotel (Grade II), which is located 50m to the north of the Site, the Bonded Warehouse (Grade II) 50m to the south; and the Museum of Science and Industry, which is 60m south of the Site comprises five listed buildings, two of them are Grade I Listed (1830 Warehouse and Ticket Office).
- 2.5 A Site plan is provided at **Appendix 1**.

Regeneration Context

- 2.6 The Site comprises previously developed land located entirely within the Castlefield Conservation Area and within the former ITV Quay Street Estate in Manchester City Centre. The Site forms part of a wider Masterplan and Strategic Regeneration Framework ("the SRF") for the area, which is known as St John's.
- 2.7 The Site is located to the south of the Spinningfields commercial district of Manchester City Centre; an exemplar of City Centre economic regeneration. Castlefield is predominantly to the south of the Site, an established residential district, set within the City's legacy of industrial infrastructure and buildings, and infused with leisure, retail and heritage attractions.
- 2.8 The St John Street district lies to the east of the Site, a mixed-use district characterised by Georgian buildings used as residences and space for professional businesses including legal, accountancy and medical professions.
- 2.9 Immediately beyond the St John Street district is the south Deansgate area, which comprises retail facilities, leisure attractions and the City Centre's conference facilities. To the north of the Site is the Grade II Listed Victoria and Albert Hotel and to the west, the River Irwell, with hotels and office uses located on the other side of the river.
- 2.10 There are a number of current mixed-use regeneration initiatives underway on the Salford side of the River Irwell, including Wilburn Basin, Salford Central and Middlewood Locks (mixed use schemes including office, retail and residential).
- 2.11 The wider Site is currently accessed by vehicles and pedestrians from Water Street and New Quay Street.

St. John's and Enterprise City

2.12 The SRF has established a vision and set of development principles for the Site focused on the following key areas:

- To deliver a best-in-class city centre neighbourhood; a place to live, work and play; a place for enterprise and innovation; for culture, entertainment and leisure; a unique proposition for Manchester that will raise its international profile and set it apart from its peer cities.
- Development that is fully integrated both functionally and physically with the city centre and adjoining city centre neighbourhoods.
- To re-establish Manchester's tight-knit urban grain and create a meandering network of public spaces and complementary range of uses.
- A form of development that retains and reutilises the Site's key heritage assets and integrates those features into the new urban form.
- A series of existing and new public landscaped spaces will be created that support a new network of routes and linkages which connect the different parts of the Site to its neighbours and the River Irwell, as well as anchoring the major buildings.
- A scale of building form that in height and plan extends the scale of the St. John's Street district across the Site. To the west of the Site, adjacent to the River Irwell, there is the potential to introduce taller, elegant residential buildings.

2.13 The Enterprise City concept has been developed as a long-term partnership between Aviva and Allied London to establish a media and tech creative hub within St John's. It is the key anchor for St. John's and will underpin all that happens on the estate.

2.14 Enterprise City will comprise a unique offering of multi-studios for TV, film and music recording/production, entertainment, places to start a retail brand, a restaurant or a café, all anchored on 21st Century workspace infrastructure.

Regional Strategic Context

2.15 Manchester's ambition and vision for the city for the next decade is to be in the top flight of world-class cities by 2025. It is one of the fastest growing cities in Europe and by 2025 its population is expected to exceed of 600,000, which represents a 7.6% increase on 2015 levels. This growth in population will be supported by employment growth, which is expected to see an 11% increase between 2014 and 2024 and add 42,600 jobs to the economy during this 10 year period.

2.16 Residential development in the City Centre therefore has a key role to play in the city achieving this aspiration. The City Centre performs a number of key functions for both the city and the Greater Manchester City Region and is a driver of economic growth through an increasingly popular residential centre and its associated access to work, leisure facilities and high quality public transport connections. A number of key documents that reflect this are as follows:

- The Greater Manchester Strategy (2016)
- Draft Greater Manchester Spatial Framework (2016)
- One Manchester: The Manchester Strategy (2016)
- Manchester City Centre Strategic Plan (2016)

2.17 In addition to the above documents that offer an overall strategic objective for both the city and the wider region, the St. John's Strategic Regeneration Framework (2015 and 2017 update) supports the redevelopment of the Site for residential development.

Planning History

2.18 The approved planning permissions of relevance on Site and permitted in St. John's more broadly are set out in the table below.

Table 2.1: Planning History

Name and PP Reference	Description	Status
Union T1 – PP. Ref.:	Full Planning Permission for the erection of 32 storey plus two basement level mixed use building (Sui Generis), comprising co-living units, amenity space, gym and flexible commercial space, landscaping, access and other associated works. This application is to be delivered by the same developer and will operate as a pair of buildings.	Awaiting validation
Central Village and T1 – PP. Ref.: 114385/FO/2016	Demolition of existing buildings and structures to enable construction of a 36 storey residential building (Class C3) with retail uses at ground floor (Classes A1/A2/A3/A4), an 8 storey mixed use building comprising workspace (B1), with retail uses (Classes A1/A2/A3/A4) and residential live/work uses, and two levels of basement parking for 465 cars and cycle hub storage, together with new public realm, landscaping, provision of external seating areas, access and other associated works	Implemented and Under Construction
Manchester Goods Yard and No.1 Grape Street – PP. Ref.: 121511/FO/2018	Erection of two buildings comprising: 11 storey mixed use building (including ground and mezzanine) comprising workspace (Use Class B1), with retail uses at ground and mezzanine levels (Use Class A1/A2/A3/A4 and / or D2) and rooftop amenity spaces known as Manchester Goods Yard; and, a further 10 storey mixed use building (including ground) comprising workspace (Use Class B1), with retail uses at ground level (Use Class A1/A2/A3/A4 and / or D2) known as No.1 Grape Street, above two levels of basement parking for 391 cars and cycle storage, together with new public realm, landscaping, provision of external seating areas, access and other associated works.	Implemented.
St. John's Place – PP. Ref.: 109660/FO/2015/C1	Demolition of existing buildings and structures, including Albert Shed and Globe and Simpson Building, to enable the construction of four buildings comprising : hotel use (Class C1) and residential use (Class C3) within building 1 (ground floor plus 51 storeys); hotel use (Class C1) within building 2 (ground floor plus 7 storeys); residential use (Class C3) within building 3 (ground floor plus 17 storeys); and, residential use (Class C3) within building 4 (ground floor plus 3 storeys), providing a total of 387 residential units; retail use (Class A1) or Financial and Professional Services use (Class A2) or Restaurant and Cafe use (Class A3) or Drinking Establishment use (Class A4) at the lower floors of all buildings, together with associated external seating areas; creation of new public realm and landscaping, riverside walkway, car and cycle parking, access arrangements and highways works, rooftop plant, and other associated works.	Part superseded by Globe and Simpson proposals.
St. John's Place (Globe and Simpson) – PP. Ref.: 121721/FO/2018	Erection of a 9 storey building (including ground) comprising workspace (Use Class B1) and flexible commercial floorspace at ground level (Use Class A1, A3 and / or B1), referred to as Building 2, above basement level for car and cycle parking, together with new public realm, landscaping, provision of external seating areas, access and other associated works.	Implemented.

Name and PP Reference	Description	Status
T2 – PP. Ref.: 114723/FO/2016	Demolition of existing buildings and structures to enable construction of 36 storey residential tower (Class C3) with retail uses at lower floors (Classes A1, A2, A3 and A4), new public realm, landscaping including the first phase of Riverside Park and Walkway, provision of external seating areas, car and cycle parking, access arrangements and other associated works.	Implemented.
Factory – PP. Ref.: 119890/VO/2018	City Council Development of a new flexible arts and events space comprising a range of activities including theatre, music, dance, art, other performance and non-performance related events, exhibitions and conferences (Sui Generis) with ancillary facilities including retail exhibitions and conferences (Sui Generis) with ancillary facilities including retail and bar uses (Use Classes A1 and A3), offices, administrative and back of house functions (Use Class B1), training and educational facilities (Use Class D1), servicing and access arrangements, highways works, creation of new public realm, removal of 4 trees, cycle parking and provision of new plant and associated works. Demolition of the Starlight Theatre, existing workshop and other structures and perimeter wall and alterations to the Grade II listed Colonnaded Railway Viaduct. (Amendment of application ref no 114294/VO/2016 approved in January 2017).	Implemented.
OGS – PP. Ref.: 118040/FO/2017	Part redevelopment and part refurbishment of the Site, following demolition of existing buildings and structures, including the Annex Building fronting Atherton Street, the Administration Block and Security Lodge fronting Quay Street, Mechanical Workshop areas and Stores to the rear of Studio 8, former Staff Welfare Suite to the rear of Studios 2 and 6, to allow the erection of 10 storey residential and office building (use Class C3 / B1) comprising 22 residential units with rooftop pool, ground floor retail units (Use Class A1, A2 or A3) and amenity space; conversion of Studios 2, 6, 8 and 12 to event spaces and filming studios (Sui Generis); conversion of the existing Granada House building into a hotel (Use Class C1) with associated private members club (Sui Generis); restaurant and cafe use (Use Class A3) and drinking establishment uses (Use Class A4); erection of a new single storey rooftop bar / restaurant associated with the hotel and private members club; erection of 4 storey modular office building the rear of Granada House; inclusion of a Combined Heat and Power (CHP) Energy Centre; creation of temporary car parking to the rear of Granada House; works associated with access and servicing of the wider development, and associated public realm and landscaping works.	Implemented.

- 2.19 A full list of all baseline and cumulative developments both within and beyond the boundary of St. John's are set out in Appendix 2 of this EIA Scoping Report for agreement with the Local Planning Authority.
- 2.20 The previous application on the site has been implemented. The Environmental Statement approved under that application represents the most up to date approved EIA of the Site.
- 2.21 The Proposed Development subject to this EIA will supersede the original T2 proposals, approved under Planning Permission 114723/FO/2016. The application will be supported by a full standalone EIA considering the Proposed Development.

The Proposed Development

2.22 The Proposed Development would involve the construction of a new 35 storey building plus basement, to accommodate up to 372 co-living units (806 beds), public and private amenity space and ground floor commercial space.

2.23 In summary, the proposed development comprises:

Table 2.2: Development Parameters

Measurement	Approved
Proposed Site Area	Up to 0.4 ha.
Proposed Development	Full Planning Permission for the erection of c. 34 storey building including ground and mezzanine floors and two basement levels, comprising up to 372 co-living units (Sui Generis), occupants' amenity space, gym (Use Class D2), flexible commercial space (Use Classes A1, A2, A3 and A4)), coworking space (Use Class B1(a)), landscaping, access and other associated works.
Development Footprint	Up to 877 sq. m (GEA)
Development Floorspace	Up to 30,905 sq. m (GEA)
Development Height	Up to 144m from ground
Car and Cycle Parking Spaces	Car Parking Spaces – 0 Cycle Parking Spaces – up to 388 spaces

3 Scope, Structure and Consultation

Scope

- 3.1 The intention of this Scoping Report is to enable the team to determine which technical disciplines are pertinent to the Proposed Development and the scope of assessment required in order for any likely significant effects on the environment to be addressed as part of the EIA process.
- 3.2 The information presented in the ES will be provided in accordance with Schedule 4 of the EIA Regulations and will include:
- A description of the Proposed Development;
 - An outline of the main alternatives studied;
 - A description of the aspects of the environment likely to be significantly affected by the proposals;
 - A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment;
 - A non-technical summary; and
 - An indication of any difficulties encountered by the Applicant in compiling the required information.
- 3.3 The introductory chapters for the ES will provide the following information:
- An introduction to the ES in a legislative and the Site specific context;
 - Description of the Site and proposals;
 - Alternatives considered and project design evolution;
 - EIA methodology;
 - Construction methodology and programme;
 - ES Structure; and
 - Details of the EIA project team.
- 3.4 The geographical coverage of the EIA will be determined by a number of factors including:
- The physical extent of work;
 - The nature of the baseline environment, including the location of sensitive receptors;
 - The distance over which effects will be significant; and
 - The presence and type of “pathways” along which impacts may be spread.

Issues to be Scoped Out of the EIA

- 3.5 It is considered that the following disciplines will not likely give rise to significant effects on the environment and would therefore not require inclusion in the ES. An explanation for each discipline is given below.

Agricultural Circumstances

- 3.6 The Site is entirely on brownfield land so there would be no likely significant effects with respect to agriculture. This discipline can therefore be scoped out of the EIA.

Archaeology

- 3.7 The Site has been subject to a desk-based study that has assessed the potential below-ground archaeological resource (provided at Appendix 3). The following presents a brief overview of the baseline conditions, the

significance of archaeological remains within the Site, and a method statement for assessing the impact of development on these sites of archaeological interest.

- 3.8 The Site does not contain any designated heritage assets, such as scheduled monuments or listed buildings, and it does not form part of a registered park and garden or battlefield, although it does lie within the Castlefield Conservation Area. The Site does have potential to contain below-ground archaeological remains that may merit preservation by record if they are directly affected by the Proposed Development. Of particular interest are the sites of an 18th-century warehouse and quayside features associated with the Mersey & Irwell Navigation, late 18th-century workers' housing, and a section of the Salford Junction Canal and associated water-management infrastructure, which are all considered to be of at least local/borough significance. The potential for archaeological remains deriving from any earlier periods is considered to be low due to the intensive development of the area from the late 18th century onwards.
- 3.9 The scoping assessment of the Site has concluded that the Proposed Development, in the absence of any mitigation, had potential to cause minor harm to non-designated heritage assets, assuming that earth-moving works will be required across the Site. Whilst there is some potential for below-ground remains of local/borough importance, it is unlikely that the predicted impact of development will be significant, and it would be appropriate for archaeological issues to be 'scoped out' of an Environmental Statement for the Proposed Development.
- 3.10 It was concluded in the desk-based assessment, however, that it would be appropriate to undertake some intrusive archaeological investigation in advance of development. This should be targeted in particular on the sites of an 18th-century warehouse and quayside features associated with the 18th-century Mersey & Irwell Navigation, late 18th-century workers' housing, and a section of the Salford Junction Canal and associated water-management infrastructure.
- 3.11 In the first instance, intrusive archaeological investigation should aim to establish the extent and significance of buried remains via a programme of 'strip, map and record' excavation, which would enable a strategy to be devised that would allow any remains of particular interest to be recorded archaeologically. This approach has been agreed with the Greater Manchester Archaeological Advisory Service, and a Written Scheme of Investigation for an appropriate scheme of initial trenching in the Site has been submitted and approved.

Aviation

- 3.12 The height of the Proposed Development is a storey shorter than previously approved on Site and the previously approved proposal did not consider there to be any significant effects in relation to aviation. On this basis, it is considered likely that there would be no significant effects with respect to aviation. The relevant consultation will be undertaken with respect to the National Aviation Transport Society (NATS) and Manchester Airport Group. This discipline can therefore be scoped out of the EIA.

Climate Change

- 3.13 The proposals will have an impact on climate change during the operational phase of the development through the emission of greenhouse gasses. Sustainability measures have informed the design process from the outset, including climate change mitigation and energy usage.
- 3.14 An Energy Strategy and Environmental Standards Statement will be submitted alongside the planning application, outlining this process in greater detail including an assessment of the energy efficiency of the buildings and use of low carbon technologies.
- 3.15 It is not considered that the Site or the proposal is particularly vulnerable to climate change. Any impacts of climate change on the wind microclimate will be considered as part of the wind assessment. The Site is located adjacent to Flood Zone 3 and the Flood Risk Assessment that will support the application will fully consider the impacts of climate change.
- 3.16 It is not considered that the proposals will result in any likely significant effects to climate change. The Proposed Development's effects on climate change and climatic factors for individual topics will be considered within the relevant chapters of the ES.

Ecology

- 3.17 The Site has very limited ecological potential. An Ecological Appraisal of the Site, prepared for the previous application, is provided at Appendix 4 of this Report.

- 3.18 In the context of the Site boundary, landscaping will be introduced to provide an additional ecological benefit to the Site. Compared to the baseline, this will result in a biodiversity net gain and on this basis no significant impacts in relation to ecology are likely.

Electronic Interference

- 3.19 Tall buildings and structures can disrupt wireless and broadcast reception by physically blocking the wanted signal or reflecting signals from the sides of the structure. However, in the United Kingdom, TV signals were switched over to a digital only format between 2008 and 2012 and are less susceptible to interference. The Proposed Development is not considered to significantly disrupt telecommunications operations. Therefore, significant effects are not considered likely.
- 3.20 A TV and Radio Reception Survey will be conducted in order to assess the baseline reception conditions and to identify and mitigate potential impacts on the reception of broadcast services for local residents. It is therefore considered that the assessment of electronic interference can be scoped out of the EIA.

Ground Conditions

- 3.21 A Preliminary Site Assessment was undertaken for the previous proposals on the same site. On this basis and acknowledging the work undertaken to date, it is considered that the proposals will result in positive effects on ground conditions associated with the construction phase of development given the removal of any identified contamination during the proposed basement excavation and will therefore not give rise to significant environmental effects.
- 3.22 As significant impacts are not anticipated, an ES chapter on Ground Conditions is not considered to be required. A copy of the previously prepared Phase 1 Preliminary Site Assessment Report is enclosed in Appendix 5 of this Scoping Report.

Human Health

- 3.23 The proposal is located in an urban environment and the immediate environs are characterised by both low rise and high rise residential and commercial development that is typical of the city centre, namely Spinningfields including Left Bank and the wider Castlefield area.
- 3.24 There will be some short term impacts to human health during the construction phase with the potential for accidental spillages, dust and noise and vibration. These will be considered and mitigation will be proposed as part of a Construction Management Plan submitted with the Planning Application.
- 3.25 During the operational phase, the proposal could potentially have impacts on health as a result of introducing a residential receptor to the wider development's traffic movements, associated air quality and noise impacts. These potential impacts will be fully considered and mitigation will be proposed as part of the relevant ES chapters and supporting technical reports, such as the Ventilation Strategy, Acoustic Report and tree planting.

Socio-economics

- 3.26 The socio-economic effects will be considered in detail as relevant as part of the supporting Planning Statement for the application.
- 3.27 The proposals may create some short-term employment during the construction phase, however the effect is not considered to be significant. The proposed uses would create long-term employment opportunities during the operational phase, the effect of which would be positive but not significant. Similarly, while the proposals would be economically and socially beneficial through the delivery of new accommodation, for example in terms of additional Council Tax receipts and local expenditure, these are not of a significant scale.
- 3.28 Therefore, likely significant effects on the environment with respect to socio-economic issues are not anticipated during either the construction or operational stages and it is considered that an ES chapter is not required.

Transport and Traffic

- 3.29 The IEA Guidelines states that, in Scoping out the extent of the assessment, two broad principles could be used as a screening process to delimit the scale and extent of any Transport and Traffic EIA assessment. Those rules are:

Rule 1: Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%)

Rule 2: Include any other specifically sensitive areas where traffic flows have increased by 10% or more.

- 3.30 The Site previously gained planning approval for a 36 storey tower and 305 residential units as part of the 'T2' planning permission (Ref.: 114723/FO/2016).
- 3.31 This planning application was supported by a Transport Assessment, Travel Plan and Waste and Servicing Strategy documents prepared by Vectos and formed part of the ES submitted with the 2016 planning application.
- 3.32 These assessments were based on traffic modelling that was undertaken by TfGM using agreed trip forecasts and traffic growth assumptions and tested the highway network at 2017 and 2032 levels. That Baseline Assessment modelled the traffic generated by the former use as Granada Studios, which provided parking for around 1100 cars. Specific traffic forecasts for Tower 1 were made to predict its individual traffic movements by service vehicles, taxis and residents' cars that would be parked in the Manchester Goods Yard basement car park.
- 3.33 The nature of construction is expected to be similar to that of the approved scheme and is not expected to result in a change in the number or type construction vehicles as previously assessed and approved. As described in the previous assessment, construction vehicles are only present on the highway for a limited time period during the construction those HGVs or other construction vehicles tend to be spaced out over the course of a working day and would generally be timed to avoid the background peak traffic periods.
- 3.34 An updated traffic model has been developed by TfGM that assesses the implications of traffic from St Johns along with Factory and the proposed Prohibition of Driving Order for Water Street. That model also accounts for recently approved highway interventions in the City Centre that will in general reduce traffic flows. While the traffic implications of development are negligible as there is no parking provision, this model will be used to provide traffic flow forecasts for the Noise and Air Quality Assessments.
- 3.35 A Construction Management Plan has been agreed in principle and would be put in place and agreed with the local highway authority to route vehicles away from sensitive locations (such as residential properties) where possible and employs good practice measures (such as wheel washing, driver safety training) to limit any adverse impact on vulnerable road users and sensitive receptors.

Water Resources, Drainage and Flood Risk

- 3.36 A Flood Risk Assessment (FRA) and Surface Water Drainage Statement, referenced AR/NAK/3233/JULY 2015 has been prepared by ROC Consulting in August 2016 for the St Johns Masterplan. Subsequently, a Drainage Strategy, referenced SJQ099-CUR-00-XX-RP-C-92001-V02 has been prepared by Curtins Consulting in May 2019, which develops the St John's masterplan drainage strategy.
- 3.37 Based on the proposed Flood Risk and Drainage Strategy, it is considered that the proposals will result in minor adverse effects to flood risk during the construction phase of development but will short term in nature and will therefore not give rise to significant environmental effects. These impacts have been considered as part of the previous application, and mitigation agreed as part of the Flood Risk Assessment and Drainage Strategy documents supporting those applications. This information will be resubmitted as part of this application. Similarly, the proposal is unlikely to give rise to any significant environmental effects during its operational phase of development due to the site wide Flood Mitigation Strategy and Drainage Strategy being implemented on site.
- 3.38 The previously submitted Flood Risk Assessment approved as part of planning application references 114385/FO/2016 and 121511/FO/2018, the Flood Risk Assessment and Surface Water Drainage Statement, referenced AR/NAK/3233/JULY 2015 and Drainage Strategy, referenced SJQ099-CUR-00-XX-RP-C-92001-V02 are provided within Appendix 7.
- 3.39 Any potential impacts during either the construction or operational phase of the development has therefore been considered, and so this discipline can therefore be scoped out of the EIA.
- 3.40 The assessment identifies the following key mitigation for the masterplan, which are relevant to the Site:
- The Flood Risk Assessment bases the benchmark for protection on the Environment Agency detailed hydraulic model 1 in 100yr plus climate change water level of 26.600m AoD. Typical freeboard of 600mm is normally applied to development; however, the FRA confirms that a freeboard of 300mm can be applied because of the confidence in the modelling predictions. As such, the preferred ground floor levels for any new buildings is 26.900m AoD.

- The ground floor levels for Vita Tower 2 site are set at 26.900m AoD and the basement is accessible only by the ground floor with no access available via other plots and therefore the basement is protected up to a level of 26.900m AoD.
- The levels strategy should also be developed so that all landscaped areas are profiled as such, that they convey water away from the building and into lower lying areas served by the site surface water drainage network.
- Further flood risk considerations which will be necessary as development progresses includes preparation of a flood warning and emergency response plan for areas located within Flood Zone 2.
- The part of the site that lies within The Flood Zone 3 is the existing basin to the River Irwell. The area is to be water compatible and levels within Flood Zone 3 areas are to be maintained therefore no mitigation measures required.

- 3.41 A separate foul and surface water system is proposed and will be retained as a private network. The foul drainage from the building will be connected to the existing public combined sewer in Water Street, east of the site.
- 3.42 All drainage within basements are proposed to be suspended below the ground floor slab and discharged to the private drainage network at high level. All drainage required at basement level are to be drained to sumps and pumped into the gravity drainage system and is designed as part of the above ground drainage systems.
- 3.43 The proposed foul outfall is to be submitted and approved by United Utilities under Section 106 Agreement.
- 3.44 A separate foul and surface water system is proposed and will be retained as a private network.

Scoping Summary

- 3.45 Table 3.1 provides a summary of the scoping exercise undertaken and the technical disciplines that will be considered within the ES. It also identifies what supplementary technical reports will be prepared and submitted as standalone documents in support of the application.

Table 3.1: Scoping Exercise

	ES Chapter	Non EIA Assessment	Consultant
Air Quality	✓		Hilson Moran
Archaeology		✓	Salford Archaeology
Climate Change		✓	Deloitte
Daylight and Sunlight	✓		Watts
Ecology		✓	ERAP
Electronic Interference		✓	G-Tech Surveys
Ground Conditions		✓	Curtins
Heritage	✓		Heritage Architecture
Human Health			N/A
Noise and Vibration	✓		Fisher Acoustics
Socio-Economic Issues		✓	Deloitte
Traffic and Transport		✓	Vectos
Townscape and Visual Impact	✓		Chris Burnett Associates

ES Chapter		Non EIA Assessment	Consultant
Water Resources, Drainage and Flood Risk		✓	Curtins
Wind Microclimate	✓		Urban Microclimate

Cumulative Effects Assessment

- 3.46 An assessment of the cumulative effects of the proposals will be included within the ES. An assessment of committed developments including those with recent planning permissions and those expected to come forward in the near future has been undertaken. There is no agreed or standard threshold for how far the assessment should go and therefore a professional judgement has been taken regarding which schemes to highlight, taking into consideration the Site's location.
- 3.47 Whilst an extant and implemented planning permission for a residential tower exists on the Site (under Planning Permission Ref. 114723/FO/2016), to ensure a robust and conservative assessment, this has not been factored into the baseline. The comparative results of that approval and the Proposed Development will be discussed in the ES as appropriate.
- 3.48 The original T1 extant consent has been implemented and is on site, so will be presented as part of the baseline. The proposed development currently under determination by the LPA will be presented in the cumulative.
- 3.49 Full details of the developments to be included as part of the cumulative assessment are included at **Appendix 2**.
- 3.50 The Applicant seeks the agreement from the Local Authority to the scope of committed developments and invites guidance on any additional schemes not listed.

Consultation

- 3.51 A process of stakeholder consultation has already commenced with regard to the Proposed Development. Members of the project team have met with senior officers from the Local Planning Authority.
- 3.52 In addition, the project team will consult the following stakeholders prior to submitting the planning application:
- Manchester City Council;
 - Greater Manchester Police;
 - Transport for Greater Manchester (TfGM);
 - Canal and Rivers Trust;
 - Environment Agency (EA);
 - Highways Agency;
 - Historic England
 - Greater Manchester Archaeological Advisory Service (GMAAS);
 - Manchester Airport Safeguarding Team; and
 - United Utilities.

4 EIA Methodology

- 4.1 The EIA will assess both the construction and operational phases of the Proposed Development.
- 4.2 The ES is anticipated to comprise two volumes, the first of which will set out the findings with respect to each of the environmental disciplines that have been examined as part of the EIA. Volume 2 will include all the supporting documents and technical appendices relating to the chapters. A Non-Technical Summary ('NTS') will also be produced and will form a standalone document.
- 4.3 Each ES chapter will follow the headings set out below to ensure the final document is transparent, consistent and accessible:
- Introduction
 - Policy Context
 - Assessment Methodology and Significance Criteria
 - Baseline Conditions
 - Identification and Evaluation of Key Effects
 - Mitigation Measures
 - Cumulative Effects
 - Summary.
- 4.4 Each chapter sub-heading is explained in further detail below.

Introduction

- 4.5 This section will introduce the assessment discipline and the purpose for which it is being undertaken.

Policy Context

- 4.6 This section will include a summary of national, regional and local policies of relevance to the environmental discipline and assessment. Relevant legislation will be summarised where applicable.

Assessment Methodology and Significance Criteria

- 4.7 This section will provide an explanation of methods used in undertaking the technical study with reference to published standards, guidelines and best practice. The application of significance criteria will also be discussed.
- 4.8 It will also outline any difficulties encountered in compiling the required information.

Baseline Conditions

- 4.9 This will include a description of the environment as it is currently and as it is expected to change given the project were not to proceed (i.e. 'do-nothing' scenario). The method used to obtain this information will be clearly identified. Baseline data will be collected in such a way that the importance of the particular subject area to be affected can be placed in its context and surroundings so that the effects of the proposed changes can be predicted.
- 4.10 To ensure a robust assessment, proposals have been considered against existing site conditions; however, as there is an implemented planning permission on the site, each chapter has included a qualitative consideration of what the impact is against that potential future baseline.

Identification and Evaluation of Likely Significant Effects

- 4.11 This section will identify the likely significant effects on the environment resulting from the Proposed Development.
- 4.12 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the effects can be positive or negative. The criteria to be used in carrying out this process are detailed below.

Prediction of Impact Magnitude

4.13 The methodology for determining the scale or magnitude of change caused by the impact is set out below.

Table 4.1: Methodology for Assessing Magnitude of Change

Magnitude of Change	Criteria for assessing magnitude of change caused by an impact
Major	Total loss or major/substantial alteration to key elements/features of the baseline conditions such that the post development character/composition/attributes will be fundamentally changed.
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character/composition/attributes of the baseline condition will be similar to the pre-development circumstances/situation.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

Prediction of Receptor Sensitivity

4.14 The sensitivity of a receptor is based on the relative importance of the receptor using the scale set out below.

Table 4.2: Methodology for Determining Sensitivity

Sensitivity	Examples of Receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

Assessment of Effect Significance

4.15 Effect significance will be calculated using the matrix in Table 4.3. This illustrates the interaction between impact magnitude and receptor sensitivity.

Table 4.3: Effect Significance Matrix

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate - Minor Adverse/Beneficial
Moderate	Major - Moderate	Moderate – Minor	Minor

Magnitude	Sensitivity		
	High	Moderate	Low
	Adverse/Beneficial	Adverse/Beneficial	Adverse/Beneficial
Minor	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor - Negligible
Negligible	Negligible	Negligible	Negligible

Mitigation Measures

- 4.16 Adverse effects will be considered for mitigation and specific mitigation measures put forward, where practicable. Mitigation measures considered may include modification of the project, compensation and the provision of alternative solutions as well as pollution control. The extent of the mitigation measures and how these will be effective will be discussed. Where the effectiveness is uncertain or depends upon assumptions about operating procedures, data will be introduced to justify the acceptance of these assumptions.
- 4.17 The approach to mitigation will follow best practice guidance, which suggests a hierarchical approach. The UNEP EIA Training Resource Manual (2002) advises that impacts should ideally be:
- Avoided; if not
 - Minimised; and or
 - Compensated.
- 4.18 Three 'types' of mitigation are characterised in IEMA's Special Report – The State of Environmental Impact Assessment Practice in the UK (2011):
- EIA influence at design stage;
 - Standard construction practices for minimising effects; and
 - Follow-up actions for implementation post-consent.
- 4.19 Clear details of when and how the mitigation measures were carried out, or will be carried out, are to be given within the Environmental Statement. When certainty of impact magnitude and/or effectiveness of mitigation over time exists, monitoring programmes will be proposed to enable subsequent adjustment of mitigation measures, as necessary.
- 4.20 The opportunity for enhancement measures will also be considered where appropriate.

Cumulative Effects

- 4.21 Two types of cumulative effect will be assessed:
- Type 1 - Cumulative effects are the interactions between effects of the demolition and redevelopment works on a single receptor.
 - Type 2 - Cumulative effects are those that arise from incremental changes caused by other past, present or reasonably foreseeable actions together with the demolition and redevelopment works.
- 4.22 The cumulative effects of the proposals and the identified committed developments will be assessed. Should revised proposals on other plots on the St John's masterplan, of relevance to the assessment within this EIA, be submitted for planning approval then these may be considered as part of the cumulative assessment, subject to agreement with the Local Planning Authority.
- 4.23 A list of known committed developments is set out at Appendix 2. The Council are requested to review and comment on this list in their Scoping Opinion.

Residual Effects

- 4.24 The residual effects, i.e. the effects of the proposals assuming implementation of proposed mitigation, will be determined. The residual effects represent the overall likely significant effect of the development on the environment having taken account of practicable/available mitigation measures.

5 Environmental Statement Chapters

- 5.1 Under each section topic, a summary of the content of the section, the methodology and scope of assessment is given. Where relevant, the assumptions of the assessment are described. Current relevant legislation or recognised guidance for individual assessments will be adhered to, where necessary.

Policy Context

- 5.2 The ES will refer to the Local and the National Planning Policy Framework (and any associated guidance available) with reference to all environmental, social and economic policies of relevance to the Proposed Development.

Air Quality

- 5.3 Hilson Moran was established in 1977 as an engineering consultancy, which provides services including sustainability and air quality advice. The assessment was carried out by a member of the IES and IAQM who has experience of undertaking air quality assessment including preparation of Environmental Statement chapters.
- 5.4 Given the nature of the proposals, it is considered likely that an air quality ES Chapter would be required to support the EIA. A summary of the existing baseline air quality conditions in the vicinity of the Proposed Development and details regarding the scope and methodology followed for the assessment have been provided.

Baseline Conditions

- 5.5 The Greater Manchester Combined Authority (GMCA) have declared an Air Quality Management Area ("AQMA") which covers Manchester City Centre and extends along the main arterial traffic routes in the city and around Manchester Airport. The pollutant declared for the AQMA is annual mean NO₂, with the source identified as a mixture of road types.
- 5.6 The most recent air quality progress report for Greater Manchester concluded that:
- Long-term trends have shown that there has been an improvement in air quality, but areas still remain above the air quality objective for the annual mean NO₂;
 - The assessment of monitoring data shows that real time monitoring data for the NO₂ annual mean objective broadly confirms the existing AQMA boundaries;
 - Exceedances were noted at several roadside monitoring sites, with measurements from Greater Manchester's diffusion tube network confirming locations that continue to be above the annual mean NO₂;
 - There were no exceedances of the hourly NO₂ objective;
 - Real time monitoring data for PM₁₀ shows that annual average objectives are not exceeded and are following a downward trend;
 - Reporting of SO₂, CO and C₆H₆ has been discontinued as previous assessment indicated no exceedances.
- 5.7 NO₂ concentrations are monitored by both automated and non-automated monitoring sites in Manchester. A summary of the annual mean NO₂ concentrations and the number of 1-hour mean exceedances recorded (automated surveys only) are provided in Table 5.1.
- 5.8 Automated survey results from the Manchester Piccadilly and Oxford Road demonstrate exceedances of the annual mean and 1-hour mean objectives between 2013 and 2018, with the exception of annual mean concentrations at Piccadilly in 2013, 2015 and 2017 where compliance was achieved.
- 5.9 The results from the closest non-automated monitoring site at Regent Road indicated that annual mean concentrations exceed the AQS objective in 2017. Monitoring data from Trinity Way (SA27) indicated

compliance between 2013 and 2017, no data was collected in 2018. Monitoring data from Trinity Way (SA39) indicated compliance between 2013 and 2015, but recorded exceedances of the annual mean AQS objective in 2016 and 2017 - no data was collected in 2018.

Table 5.1: Monitoring Results for NO₂ against Standards and Objectives (µg/m³)

Year	Monitoring Objective	Automated Surveys		Non-Automated Surveys		
		Oxford Road	Piccadilly	Salford SA27 (Trinity Way)	Salford SA39 (Trinity Way)	Salford SA60 (Regent Rd)
2013	Annual Mean Concentration	55	39	36.5	37.5	-
	Number of 1-hour Mean Exceedances	0 (138)*	0 (97)*	-	-	-
2014	Annual Mean Concentration	68	40	36.5	39.7	-
	Number of 1-hour Mean Exceedances	14	2	-	-	-
2015	Annual Mean Concentration	66	39	35.4	38.5	-
	Number of 1-hour Mean Exceedances	60	1	-	-	-
2016	Annual Mean Concentration	66	40	39	46.8	-
	Number of 1-hour Mean Exceedances	90	0	-	-	-
2017	Annual Mean Concentration	65	36	37.2	42.1	41.2
	Number of 1-hour Mean Exceedances	6	1	-	-	-
2018	Annual Mean Concentration	65	62	-	-	-
	Number of 1-hour Mean Exceedances	6	2	-	-	-

* If the data capture for the full year is less than 90%, the 99.8th percentile of hourly means (in brackets) is a useful predictor of possible exceedance of the Air Quality Objective.

****Bold** indicates an exceedance of the relevant AQS objective.

5.10 Particulate concentrations are monitored by automated monitoring sites in Manchester. A summary of the annual mean PM₁₀ and PM_{2.5} concentrations and the number of 24-hour mean exceedances for PM₁₀ recorded are provided in Table 5.2. In general, the PM₁₀ concentrations at Oxford Road are higher than those recorded at Manchester Piccadilly, but both monitoring sites recorded concentrations below the relevant AQS objectives. Similarly, the number of 24-hour mean exceedances of PM₁₀ concentration is consistently higher at Oxford Road, however there are no recorded exceedances of the AQS objective. Measured concentrations of PM_{2.5} were below the AQS objectives between 2013 and 2018.

Table 5.2 - Automated Monitoring Results for Particulate Matter against Standards and Objectives (µg/m³)

Year	Monitoring Objective	PM ₁₀		PM _{2.5}
		Oxford Road	Piccadilly	Piccadilly
2013	Annual Mean Concentration	31	22	12
	Number of 24-hour Mean Exceedances	21	7	-
2014	Annual Mean Concentration	28	20	12
	Number of 24-hour Mean Exceedances	18	5	-
2015	Annual Mean Concentration	28	20	10
	Number of 24-hour Mean Exceedances	25	3	-

Year	Monitoring Objective	PM ₁₀		PM _{2.5}
		Oxford Road	Piccadilly	Piccadilly
2016	Annual Mean Concentration	27	20	10
	Number of 24-hour Mean Exceedances	16	3	-
2017	Annual Mean Concentration	27	20	8
	Number of 24-hour Mean Exceedances	15	3	-
2018	Annual Mean Concentration	30	21	11
	Number of 24-hour Mean Exceedances	15	2	-

***Bold** indicates an exceedance of the relevant AQS objective.

5.11 Defra provides guidance on locations where the air quality objectives should apply. Table 5.3 and professional judgement would be used to select receptors where likely significant exposure to pollutant concentrations during the construction and operational phases may occur.

Table 5.3 – Examples of where the Air quality Objectives may or may not apply

Averaging Period	Objectives Should Apply	Objectives Should Not Apply
Annual mean	All locations where members of the public might be regularly exposed. Building facades of residential properties, schools, hospitals, care homes etc.	Building facades of offices or other places of work where members of the public do not have regular access. Hotels, unless people live there as their permanent residence. Gardens of residential properties. Kerbside sites (as opposed to locations at the building façade), or any other locations where public exposure is expected to be short term.
24-hour mean	All locations where the annual mean objective would apply, together with hotels. Gardens of residential properties.	Kerbside sites (as opposed to locations at the building façade), or any other locations where public exposure is expected to be short term.
1-hour mean	All locations where the annual mean and 24 -hour mean objectives apply. Kerbside sites (for example, pavements of busy shopping streets) Those parts of car parks, bus stations and railway stations etc. which are not fully enclosed, where members of the public might reasonably be expected to spend one hour or more. Any outdoor locations where members of the public might reasonably expected to spend one hour or longer.	Kerbside sites where the public would not be expected to have regular access.
15-minute mean	All locations where members of the public might reasonably be exposed for a period of 15 minutes or longer.	

Method of Assessment

5.12 The air quality assessment would be undertaken in accordance with the following legislation:

- The Air Quality (England) Regulations 2000 - Statutory Instrument 2000 No.928;
- The Air Quality (England) (Amendment) Regulations 2002- Statutory Instrument 2002 No.3043;
- The Air Quality Standards (Amendment) Regulations 2016- Statutory Instrument 2016 No. 1184;
- The Environment Act 1995; and,
- The Environmental Protection Act 1995.

5.13 The air quality assessment would be undertaken in accordance with the following policy:

- Ministry of Housing, Communities and Local Government (2019) National Planning Policy Framework;
- Department for Environment, Food and Rural Affairs (Defra) and the Devolved Administrations (2007) Air Quality Strategy for England, Scotland, Wales and Northern Ireland;
- Manchester City Council (2012) Manchester's Local Development Framework Core Strategy Development Plan Document; and,
- Greater Manchester Combined Authority (2016) Greater Manchester Air Quality Management Plan 2016 - 2021.

5.14 The air quality assessment would be undertaken in accordance with the following guidance:

- Department of Communities and Local Government (DCLG) (2019) National Planning Practice Guidance;
- Defra (2018) Part IV The Environment Act 1995 and Environment (Northern Ireland) Order 2002 Part III, Local Air Quality Management Technical Guidance (TG16). Defra, London;
- Environmental Protection UK and Institute of Air Quality Management (2017) Land Use Planning & Development Control: Planning for Air Quality. Version 1.2, Updated January 2017;
- Institute of Air Quality Management (2016). Guidance on the Assessment of Dust from Demolition and Construction. Version 1.1, Updated June 2016;
- Air Quality Consultants Calculator Using Realistic Emissions for Diesels (CURED) (December 2017); and,
- Air Quality Consultants, Deriving Background Concentrations of NO_x and NO₂ for use with 'CURED V3A' (May 2019).

5.15 The baseline air quality assessment will be undertaken in the following way:

- Consultation with the Environmental Health Officer (EHO) at MCC to agree the scope of the assessment and the methodology to followed;
- Review the latest review and assessment reports from MCC and the air quality data in the vicinity of the Site;
- Review existing air quality monitoring and baseline concentrations in the vicinity of the Site using Defra and the GMCA;
- Undertake a desk study to determine the extent for which traffic data (construction and operational) is likely to be required to undertake a detailed road traffic assessment;
- Undertake a screening assessment to determine the requirement for detailed air modelling of any proposed onsite combustion plant for the provision of heating and hot water; and
- Undertake a desk study to confirm the locations of nearby existing receptors that may be sensitive to changes in local air quality.

Construction Phase Assessment

5.16 A qualitative construction phase assessment will be undertaken to determine the impact on local air quality in terms of dust/particulate (PM₁₀) generation during the construction phase. This assessment will be undertaken in accordance with the Institute of Air Quality Management (IAQM): Guidance on the Assessment of Dust from Demolition and Construction (version 1.1, 2016 update).

5.17 The assessment will consider the following four construction stages: demolition, earthworks, construction and trackout. The assessment will identify the risk of dust/particulate matter having an adverse impact on local air quality at existing receptors and the mitigation required to minimise the impacts described.

5.18 A qualitative assessment of emissions from construction vehicles accessing and leaving the Site will be undertaken. The assessment will follow the current Defra LAQM.TG(16) and Environmental Protection UK (EPUK) & IAQM: Land-Use Planning & Development Control: Planning For Air Quality (version 1.2, 2017). If following a review of the likely construction traffic, a detailed assessment is required, this would be undertaken using ADMS Roads dispersion model.

Operational Phase Assessment

- 5.19 During the operational phase, emissions arising from vehicles and any on-site combustion plant have the potential to affect local pollution levels, both within and surrounding the Proposed Development.
- 5.20 A quantitative road traffic assessment will be undertaken to consider the impact of development generated road traffic on NO₂, PM₁₀ and PM_{2.5} concentrations during the operational phase at existing and future receptor locations. The detailed assessment would be undertaken using ADMS Roads dispersion model.
- 5.21 If required a detailed assessment of any on-site combustion plant will be undertaken to consider the impact of the NO_x emissions associated with the Proposed Development during the operational phase at existing and future receptor locations. The detailed assessment will be undertaken using ADMS 5.2 dispersion model.
- 5.22 To compare the emissions generated from the Proposed Development with the relevant AQS objectives, the process contributions associated with development generated road traffic and any combustion plant emissions have to be combined with the relevant background concentrations.
- 5.23 Where appropriate, model verification will be undertaken for both the road traffic and combustion plant elements. Consultation with the EHO at MCC will be undertaken to agree the relevant monitoring data and guidance to be used when undertaking model verification.
- 5.24 To determine the impact of the Proposed Development at existing and future receptor locations the Environmental Protection UK (EPUK) & IAQM: Land-Use Planning & Development Control: Planning for Air Quality (version 1.2, 2017) will be used.
- 5.25 Where necessary suitable mitigation measures to reduce any adverse impacts or the exposure of new occupants to poor air quality will be identified.

Summary of Assessment Scope

- 5.26 A summary of the assessment scope is presented in Table 5.4 below.

Table 5.4 – Summary of Assessment Scope

Receptor	Impact	Potential Effect	Scoped In / Out
Human Receptors – Construction Phase	Slight/Moderate	Significant (without mitigation)	In
Human Receptors – Operational Phase	Slight/Moderate	Significant (without mitigation)	In

Daylight and Sunlight

- 5.27 Founded in 1967, Watts are a specialist property consultancy providing consultancy services and surveys, across a wide range of projects and industry sectors. Tom Kibblewhite is a chartered building surveyor and joined Watts in 2003 and will lead the preparation of the EIA in respect of Daylight and Sunlight.
- 5.28 Given the height and massing of the development and the nearby sensitive receptors and public realm, it is considered that an ES chapter regarding daylight and sunlight amenity will be necessary and the assessment of this will be undertaken as stated below.

Baseline Assessment

- 5.29 The baseline conditions have been established in the prior EIA for the consented St John's application, most recently updated by PP Ref.: 114723/FO/2016. The properties surrounding the proposed John's masterplan have been laser scanned and an AutoCad 3D model has been created through this process.
- 5.30 The proposed massing of the implemented St John's masterplan has been created in a 3D Model and the baseline of the assessment considers the cleared T2 site as a starting point.

Method of Assessment

- 5.31 BRE Report 209 "Site Layout Planning for Daylight and Sunlight – a guide to good practice" sets out methods for assessing the impact of a proposed scheme on the daylight and sunlight enjoyed by adjoining buildings and open areas. The assessment will be undertaken in accordance with the BRE Report 209. This document

is a guide for building designers, their client, consultants and planning officials and is less intended to be used as an instrument of planning policy.

5.32 The analysis of daylight will be via the vertical sky component (VSC) and daylight distribution (DD) as set out in the BRE 209 report.

5.33 The analysis of sunlight will be via the annual probable sunlight hours (APSH) as set out in the BRE Report 209.

Summary of Assessment Scope

5.34 The ES chapter will provide a comparative daylight and sunlight amenity study on the impact of the revised T1 proposals on those residential or hotel properties surrounding the Masterplan Site.

Table 5.5: Sunlight Scope

Receptor	Impact	Potential Effect
Marriott Hotel Water Street	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
Premier Inn Irwell Steet	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
10-18 Leftbank	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
Bauhaus Little John Street	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
Great John Street Hotel Great John Street	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
Rossetti Place Lower Byrom Street	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
33-39 Culvercliff Walk	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
2-8 Rozel Square	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
10-16 Rozel Square	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
18-24 Rozel Square	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
26-32 Rozel Square	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
34-36 Rozel Square	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
1-7 Rozel Square	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
MOSI Air and Space Gallery	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.

Receptor	Impact	Potential Effect
MOSI Great Western Warehouse	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
MOSI Power Hall	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
MOSI Station Building	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
MOSI 1830 Warehouse	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
73-83 Liverpool Road	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
91-93 Liverpool Road	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
101 Liverpool Road	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
The Castlefield House	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
2-36 Potato Wharf	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.
1-25 Woollam Place	Daylight and Sunlight amenity	No change or decrease in daylight and sunlight amenity.

Historic Built Environment

Introduction

5.35 This chapter assesses the likely significant effects of the Proposed Development on the historic built environment resource in and around the Site.

The built heritage resource will be addressed through a baseline study to identify all potential receptors (designated heritage assets) which might be affected by the Proposed Development.

Baseline Conditions

5.36 Within an approximate 250m radius of the Site there are a number of built heritage assets including:

- POWER HALL OF MUSEUM OF SCIENCE AND INDUSTRY - Grade: II (List Entry Number: 1291458)
- 123, LIVERPOOL ROAD - Grade: II (List Entry Number: 1200804)
- OLD WAREHOUSE TO NORTH OF FORMER LIVERPOOL ROAD RAILWAY STATION - Grade: I (List Entry Number: 1282991)
- FORMER LIVERPOOL ROAD RAILWAY STATION STATION MASTERS HOUSE - Grade: I (List Entry Number: 1291477)
- RAILWAY BRIDGE OVER RIVER IRWELL TO FORMER LIVERPOOL ROAD STATION - Grade: I (List Entry Number: 1270603)
- TWO BOLLARDS AT WEST END OF ST JOHNS PASSAGE - Grade: II (List Entry Number: 1291330)
- ST JOHNS COLLEGE OF FURTHER EDUCATION - Grade: II (List Entry Number: 1282969)
- COLONNADED RAILWAY VIADUCT AT FORMER LIVERPOOL ROAD GOODS DEPOT - Grade: II (List Entry Number: 1200805)
- IRWELL STREET BRIDGE (THAT PART IN SALFORD CIVIL PARISH) - Grade: II (List Entry Number: 1386141)
- RAILWAY VIADUCT LINKING BRIDGE OVER IRWELL TO LIVERPOOL ROAD STATION - Grade: II (List Entry Number: 1254726)
- FORMER COMMERCIAL HOTEL - Grade: II (List Entry Number: 1219418)
- FORMER GRAPE STREET RAILWAY BONDED WAREHOUSE - Grade: II (List Entry Number: 1457402)
- MANCHESTER MUSEUM OF SCIENCE AND INDUSTRY, FORMER LOWER BYROM STREET WAREHOUSE - Grade: II (List Entry Number: 1283016)
- RAILWAY VIADUCT OVER RIVER IRWELL LEADING TO LOWER BYROM STREET WAREHOUSE - Grade: II (List Entry Number: 1254829)
- The Castlefield Conservation Area

Method of Assessment

5.37 The Historic Built Environment impact assessment will be undertaken in general accordance with or with reference to the following legislation, policy and guidance:

- Planning (Listed Buildings & Conservation Areas) Act 1990
- National Planning Policy Framework (NPPF) Conserving and enhancing the historic environment (2019);
- Manchester Core Strategy (2012) *Policy CC9 Design and Heritage*;
- Historic England guidance: Conservation Principles Policies and Guidance (2008);
- Historic England's Good Practice Advice Note 2: Managing Significance in Decision-Taking in the Historic Environment (2015);
- Historic England's Good Practice Advice Note 3: The Setting of Heritage Assets (2015);
- Historic England's Advice Note 1: Conservation Areas (2016);
- Historic England's Advice Note 2: Making Changes to Heritage Assets (2016); and
- Historic England's Advice Note 4: Tall Buildings (2015).
- Historic England's Advice Note 12: Statements of Heritage Significance (2019)

5.38 The receptors will be valued and the impact on them assessed giving a significance of effect.

5.39 The chapter will include a visual impact assessment. Previously, 17 viewpoints were agreed with Historic England (2017) to assess the potential visual impact of a taller tower on the Site. Of these 17 agreed views, only those where the Proposed Development would be visible will be assessed. These are views 1, 6, 7, 8, 15, 19, 22, 33, 34, 35 & 55.

5.40 In order to predict the magnitude and significance of visual impact the following criteria will be considered:

- the sensitivity and proximity of receptors;
- the nature of the existing views;
- the degree of change to existing views and visibility of the proposed development; and
- the availability and amenity of alternative views.

5.41 The chapter will:

- Summarise the relevant central and local government legislation protecting the Historic Built Environment resource at the Site;
- Summarise the known and perceived Cultural Heritage potential of the site and the surrounding area;
- Describe the potential impacts to the Historic Built Environment resource as a result of the Proposed Development; and
- Outline suitable mitigation measures to deal with the Historic Built Environment potential where affected by the Proposed Development.

Summary of Assessment Scope

5.42 The Table below summarises the Historic Built Environment receptors and potential effects that have been scoped in to be assessed in the Environmental Statement.

Table 5.6 Heritage Scope

Summary of Assessment Scope

Receptor	Impact	Potential Effect	Scoped In / Out
Listed Building	Visual impact on the setting	Beneficial or adverse effect on architectural or historic interest of the listed building	In
Conservation Area	Visual impact on character and appearance	Beneficial or adverse effect on the character and appearance of the conservation area	In

Noise and Vibration

5.43 This assessment will consider the likely impact of noise and vibration from the proposed development on the St. John's Site on the surrounding noise sensitive receptors during the construction and operational phases. Where necessary, mitigation measures will be assessed and recommended to minimum the impact of noise and vibration.

Baseline Conditions

5.44 The site currently comprises a site compound, associated with the delivery of Manchester Goods Yard and therefore no buildings, structures or trees currently exist on Site. Uses immediately surrounding the Site include hotel uses, office uses, retail and leisure spaces that are currently in operation around the St. John's Masterplan.

5.45 Unattended noise surveys have previously been undertaken at the Site to determine the existing noise levels in the vicinity of the Site and nearby noise sensitive premises. This noise survey was undertaken in 2014, which represents the most accurate understanding of the site conditions prior to redevelopment taking place. Any readings that take place now would not be an accurate reflection of the site conditions, given demolition and construction activities taking place on site.



5.46 Existing nearby sensitive premises (NSPs) are shown above and are summarised as follows:

- NSP1 refers to the Marriott Victoria and Albert Hotel on Water Street.
- NSP2 and NSP4 refer to residential buildings along Lower Byrom Street and Atherton Street and the Great John Street hotel.
- NSP3 refers to various residential buildings along Liverpool Road. The Museum of Science and Industry (MOSI) adjacent to the south side of the Site provides partial screening to these residences from the Site.
- NSP5 relates to the Left Bank Apartments to the north of the Site on New Quay Street.
- NSP6 relates to Manchester College to the north of the Site on Quay Street. The Manchester College Site is considered to be noise sensitive during the daytime.
- NSP7 refers to The Museum of Science and Industry (MOSI), and it is considered to be a noise sensitive premise during the daytime.
- NSP8 refers to The Slate Yard residential development alongside the River Irwell

Method of Assessment

- 5.47 Potential noise and vibration effects during the construction works and the completed development to be addressed in the ES will include:
- Temporary noise and vibration nuisance because of enabling and construction works – associated with daytime and (if required) nighttime works;
 - Noise nuisance to existing surrounding sensitive receptors from road vehicle movements generated during the demolition, enabling and construction works - associated with daytime and (if required) nighttime works;
 - Noise generated from building services plant;
 - Noise egress from commercial uses such as amplified sound
 - Noise from vehicles once the Proposed Development is operational; and
 - The cumulative operational impacts associated with this and other proposed schemes within the locality will be established and assessed. This will principally be in relation to building services noise, any increases in road traffic along local roads, and the control of commercial noise egress with the assessments undertaken in line with the methods outlined in the following chapter.
- 5.48 The noise and vibration impact assessment will be undertaken with reference to the following standards and guidance documents:

- 'Planning & Noise, Technical Guidance', Manchester City Council
- World Health Organisation 'Guidance for Community Noise' (1999)
- National Planning Policy Framework (NPPF) (2019)
- Noise Policy Statement for England (NPSE)
- BS 5228 – Noise and vibration control on construction and open sites
- BS 7385 – Evaluation and measurement for vibration in buildings
- BS 6472 – Guide to evaluation of human exposure to vibration in buildings: Part 1 – Vibration sources other than blasting
- BS 4142 – Methods for rating and assessing industrial and commercial sound
- BS 8233 – Guidance on sound insulation and noise reduction for buildings
- BS 7445 – Description and measurement of environmental noise
- Calculation of Road Traffic Noise, Department of Transport (1988)
- ANC Guidelines: Measurement and Assessment of Ground borne Noise and Vibration (2001)
- IEMA 'Guidelines for Noise Impact Assessment' (2014)
- Environmental Protection Act (EPA) [Sections 79 and 80]
- Control of Pollution Act (CoPA) [Sections 60 and 61].

- 5.49 The existing baseline conditions at the Site will be determined by reference to previous noise survey work. The potential effects of the Proposed Development on the surrounding area, and on nearby noise sensitive premises, will be assessed by calculation with respect to the relevant criteria.
- 5.50 The construction noise and vibration assessment will be based on the guidance given in BS 5228:2009 Noise and Vibration Control on Construction and Open Sites and BS 7385 Evaluation and Measurement for Vibration in Buildings, Part 2: Guide to Damage Levels from Ground-borne Vibration.
- 5.51 Identification of potentially sensitive noise and vibration receptors on and surrounding the Site and categorisation of the 'sensitivity' in accordance with EIA terminology, as illustrated in Table 5.4.

Sensitivity of receptor	Description
High	Residential properties, hotels and hostels
Moderate	Commercial, health care and educational buildings

Table 5.4: Receptor sensitivity

- 5.52 The magnitude of impact shall be defined in accordance with recognised noise and vibration guidance and corresponding EIA terminology as referenced in Chapter 4 of this report (Major, Moderate, Minor, Negligible).
- 5.53 In terms of nature and scale of effects, effects will be defined as either adverse, beneficial or neutral in nature.
- 5.54 The scale of effects will refer to guidance within the Noise Policy Statement for England (NPSE), the

5.55 decision making includes identifying whether the overall effect of the noise exposure generated by a development is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level. The definitions for the different effect levels are outlined below:

- Significant Observed Adverse Effect Level (SOAEL): The level of noise exposure above which significant adverse effects on health and quality of life occur
- Lowest Observed Adverse Effect Level (LOAEL): The level of noise exposure above which adverse effects on health and quality of life can be detected
- No Observed Effect Level (NOEL): The level of noise exposure below which no effect at all on health or quality of life can be detected.

5.56 Typically, effects (either before or after mitigation) that are major or moderate in scale shall be considered as 'significant effects' i.e., exceeds the LOAEL. The exception to this will be temporary non-permanent sources where a moderate effect would be considered acceptable as it does not exceed the SOAEL.

Construction Phase

5.57 Significance criteria for assessing the effect of construction plant noise and vibration are based broadly on the guidance set out in BS 5228-1&2: 2009 'Code of practice for noise and vibration control on construction and open Sites', and are presented in Table 5.5.

Effect category	Daytime Noise Levels	Vibration Levels
Negligible	Lower than existing ambient L_{Aeq} , or greater than the existing ambient L_{Aeq} but less than the threshold noise level (dependent on existing ambient noise levels).	Peak particle velocity (PPV) less than 0.14 mm/s.
Minor Adverse	Greater than existing ambient L_{Aeq} and between the threshold noise level and threshold noise level +5 dB (dependent on existing ambient noise levels).	PPV regularly exceeding 0.14 mm/s, but less than 0.2 mm/s.
Moderate Adverse	Greater than the threshold noise level +5 dB (dependent on existing ambient noise levels) but for no more than 10 days in any month.	PPV regularly exceeding 0.2 mm/s, but less than 1.0 mm/s.

Table 5.5: Significance criteria for assessing construction noise and vibration

Operational Phase

5.58 The operational noise affects will be assessed with respect to the baseline measurements and where appropriate the baseline for the development year.

5.59 For the assessment of noise associated with road traffic, reference will be made to the Calculation of Road Traffic Noise (CRTN). Further advice is also given in the Design Manual for Roads and Bridges (DMRB) for road traffic noise assessment. Significance criteria for assessing the traffic noise are presented in Table 4, which is based on the IOA / IEMA 'Guidelines for Noise Impact Assessment.'

5.60 For the assessment of building services noise, reference will be made to the use of BS 4142:2014+A1:2019. Criteria for the assessment are set in accordance with BS 4142 and the Institute of Acoustics (IOA) / Institute of Environmental Management and Assessment (IEMA) 'Guidelines for Noise Impact Assessment'.

Effect Category	Increase in noise level (dB)	Description
Negligible	<1	Noise increase is unlikely to be discernible
Minor Adverse	1.0 to 2.9	A slight increase in noise levels may be perceived in affected buildings and outdoor recreational areas
Moderate Adverse	3 to 4.9	Increase in noise levels is likely to be noticeable in affected buildings and outdoor recreational areas
Major Adverse	>5	Increase in noise level is likely to be clearly perceivable and could have a significant impact on the continued use of a building

Table 5.6: Significance criteria for assessing noise impact.

Summary of Assessment Scope

- 5.61 The key considerations associated with the noise and vibration impact of the development are summarised in Table 5.7.
- 5.62 The impact of these on each of the nearby noise sensitive premises discussed above will be considered in the noise and vibration chapter of the ES.

Receptor	Impact	Potential Effect
Dwellings within the proposed development	Noise impact of changes in road traffic levels due to the new development	Permanent effects on human activity and health (e.g. annoyance, speech communication, sleep disturbance). Any potential effects will be mitigated via the facade design of dwellings within the development.
	Noise impact of new external fixed plant items associated with the development	Permanent effects on human activity and health (e.g. annoyance, speech communication, sleep disturbance). Any potential effects will be mitigated via the facade design of dwellings within the development and the design of new external fixed plant items associated with the development.

	Noise impact of any amplified music associated with the development	Permanent effects on human activity and health (e.g. annoyance, speech communication, sleep disturbance). Any potential effects will be mitigated via the facade design of dwellings within the development and any premises with amplified music associated with the development.
	Cumulative noise impact in conjunction with other developments in the area.	Permanent effects on human activity and health (e.g. annoyance, speech communication, sleep disturbance). Any potential effects will be mitigated via the facade design of dwellings within the development.
Existing and proposed nearby dwellings	Noise and vibration impact of temporary construction activities	Temporary effects on human activity and health (e.g. annoyance, speech communication, sleep disturbance). Any potential effects will be mitigated or controlled via the construction noise and vibration assessment.
	Noise impact of temporary construction traffic	Permanent effects on human activity and health (e.g. annoyance, speech communication, sleep disturbance). Any potential effects will be mitigated or controlled via

Table 5.7: Summary of Noise and Vibration Assessment Scope

Townscape and Visual Impact

Introduction

5.63 In the Townscape and Visual Impact ES Chapter, effects will be assessed as a function of both the magnitude of the impact or change and the sensitivity of the townscape resource or visual receptor affected. The adopted method of Townscape Appraisal (TA) has been devised to address the specific effects likely to result from a development of the scale, nature and location of the Proposed Development. The methodology draws upon the following established best practice guidance:

- Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA) (Landscape Institute) (LI) and Institute of Environmental Management & Assessment (IEMA), 2013; and
- Townscape Character Assessment, Technical Information Note 05/2017.

5.64 Photographs from representative viewpoints will be produced based on the following guidance published by the Landscape Institute in October 2019:

- Technical Guidance Note Advice Note 06/19 Visual Representation of Development Proposals

5.65 Geographical data sets will be created to test the theoretical visibility of the Proposed Development, which will be used to inform the visual assessment and field surveys.

- 5.66 The study area is proposed to be set at a distance of 1.5km around the site, beyond which it is not considered that effects on landscape character or visual amenity will be likely to result from the proposed development. This is in line with GLVIA (paragraphs 5.2 and 6.2).

Baseline Conditions

- 5.67 Townscape impacts can arise from the addition of, or changes to, physical features in the townscape, which affect its character. The townscape assessment addresses the impacts of the Proposed Development on townscape character and resources. The contribution of conservation areas to the townscape and the way they could be affected by the Proposed Development are discussed in this chapter.
- 5.68 The assessment of townscape impacts is structured around the identification of distinct blocks of townscape defined through homogeneity of scale, materials, land use, heritage, street pattern, open space, amongst other factors.

Existing Site

- 5.69 The Site is bounded by Water Street to east, New Quay Street and the river Irwell to the west. It forms part of the St John's masterplan area. Uses immediately surrounding the Site include hotel uses, office uses, retail and leisure spaces currently in operation around the St. John's Masterplan. The Factory is a multi-use cultural and arts space that is currently under construction to the south of the site.

Zone of Visual Impact

- 5.70 The zone of visual impact will cover much of the western and southern sides of Manchester City centre and the edge of Salford. This includes Castlefield and the Great Jackson Street Framework area and is an integral part of the St Johns Masterplan

Method of Assessment

- 5.71 The Institute of Environmental Management and Assessment (IEMA) / Landscape Institute 'Guidelines for Landscape and Visual Impact Assessment' (3rd Ed., 2013) will be used as the principal source of guidance for the methodology for this assessment. The Historic England Advice Note (no.4) on Tall Buildings, which supersedes the 2007 guidance, will also be used as relevant guidance. A Zone of Theoretical Visibility (ZTV) map will be produced using Lidar data superimposed onto a 10K map to provide an indication of the Proposed Developments' visibility.
- 5.72 A number of 'representative viewpoints' have been selected as a result of previous studies on the same site and of similar scale, all within the identified Zone of Visual Impact and ZTV identified above. These will inform the assessment of the effect of the Proposed Development on townscape character, views and visual receptors in more detail and on a comprehensive basis, taking in short, medium and long range views from publicly accessible viewpoints. Receptors fall into two categories: Townscape receptors and Visual Receptors.

Townscape: Sensitivity of Receptor and magnitude of change

- 5.73 The sensitivity of a townscape receptor is an expression of its ability to accommodate the Proposed Development. Sensitivity is a judgement based on a combination of the susceptibility of the type of change or development proposed and the value attached to the townscape. Susceptibility indicates the ability of a defined townscape receptor to accommodate the proposed development "without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies." (GLVIA, 3rd version, para 5.40). Susceptibility is evaluated for each receptor type. The overall sensitivity of each townscape receptor would be rated within the range of High-Medium-Low and would be informed by combining the susceptibility and townscape value.
- 5.74 The magnitude of a townscape effect is assessed in terms of its size or scale, the geographical extent of the area influenced by that effect, and its duration and degree of reversibility and would be rated within the range of Major-Moderate-Minor-Negligible-No Change

Visual: Sensitivity of receptor and magnitude of change

- 5.75 In terms of assessing the baseline visual sensitivity, key factors to consider are the type of view and the likely numbers and types of viewers (the visual receptors). The type of view and the number of viewers are described in the following terms
- Glimpsed (i.e. in passing)/ Filtered/Oblique / Framed /Open Views; and
 - Few/Moderate / Many Viewers

5.76 The value attached to views has regard to a number of factors, including:

- Recognition through planning designations or heritage assets; and
- The popularity of the viewpoint, its appearance in guidebooks, literature or art, on tourist maps and the facilities provided for its enjoyment.

5.77 The GLVIA identifies that the susceptibility of visual receptors to changes in views and visual amenity is a function of:

- The occupation or activity of people experiencing the view at a particular location; and
- The extent to which their attention or interest may therefore be focused on the views and visual amenity they experience at particular locations.

5.78 The assessment of receptor sensitivity is rated on the scale High-Medium-Low and combines judgements on the susceptibility of the receptor to the specific type of development proposed and the value attributed to that receptor. The magnitude of a visual effect is assessed in terms of its size or scale, the geographical extent of the area influenced and its duration and degree of reversibility and will be rated within the range of Major-Moderate-Minor-Negligible-No Change.

Significance of effect

5.79 The objective of the assessment process would be to identify and evaluate the likely significant effects arising from the Proposed Development. Significance indicates the importance or gravity of the effect. Whilst there would be a degree of professional judgement involved in determining the significance of townscape and visual effects, they can broadly be determined by the interaction of the sensitivity of the receptor and the magnitude of change.

5.80 The Townscape and Visual Impact Assessment will be supported by Accurate Verified Representations (AVRs) consisting of rendered images of the Proposed Development accurately superimposed onto baseline photographs which are accurately surveyed from selected viewpoints. The Landscape Institute's Advice Technical Guidance Note Advice Note 06/19 Visual Representation of Development Proposals will be used to inform and guide the methods for production of visualisations.

5.81 Assessments will be made for the baseline year of 2020, during demolition and construction and on completion.

Summary of Assessment Scope

5.82 Table 5.7 summarises the townscape and visual receptors identified for inclusion in the assessment in the ES.

Table 5.7 - Townscape and Visual Impact Assessment Scope

Receptor	Impact	Potential Effect
Townscape character	Townscape impacts	Addition of new elements or features that will influence the character and distinctiveness of the townscape
Visual receptors	Townscape and visual impacts on people	Effects on receptors who are most sensitive and least sensitive to changes in the view dependent on category of receptor

Cumulative Assessment

Intra-relationship of Effects

5.83 The key effect which has the potential to have an intra-relationship is Heritage. Heritage matters are intimately linked to townscape and visual considerations and, although they are dealt with in a separate chapter (Built Heritage) within the ES, they will be considered here as key components of the City fabric and the TVIA.

Inter-relationship of Effects

- 5.84 There are a considerable number of committed developments surrounding and close to the site. Those which are to be included within the assessment will be agreed with MCC council officers and included in the verified views montages to provide a cumulative assessment. Potential impacts upon the receptors, proposed mitigation and residual impacts will also be considered for construction and operation phases.

Proposed Mitigation and Residual Effects

- 5.85 The iterative nature of the design process will result in a certain amount of 'embedded mitigation' to limit the potential impacts of the development at construction and operational stage. Any supplementary mitigation and predicted residual townscape and visual effects will be described within the assessment.

Wind Microclimate

Introduction

- 5.86 This chapter will assess the likely significant effects of the Proposed Development on the pedestrian level wind microclimate in and around the Site.
- 5.87 Wind microclimate will be assessed by Urban Microclimate Ltd. The principal author will be Dr Graeme Flynn, who over a period of more than 19 years in the sector, has been lead wind consultant on several hundred developments across the UK, including the 2015 St Johns masterplan.
- 5.88 The assessment will consider national policies and relevant local policy documents where applicable.

Baseline Conditions

- 5.89 Based on wind climate statistics from Manchester Airport, winds from the southerly quadrant are prevalent. Light to moderate winds from the south and south-south-east are most common, whilst stronger winds more frequently blow from the south-south-west. Winds from the west-south-west also occur frequently, and extreme wind speeds (relevant to pedestrian safety) are most likely to blow from this direction. Northerly winds are generally light and rare, though cold north-easterly winds are common during spring. Wind speeds are generally higher during winter and lower during summer.
- 5.90 The existing, empty, Site is relatively sheltered at low-level from the prevailing southerly winds, but is exposed to the stronger west-south-westerly winds. The resulting suitability of pedestrian level wind conditions, in and around the Site, for existing activities will be assessed in detail based on the methodology outlined below.

Method of Assessment

- 5.91 The wind microclimate assessment will be based on boundary layer wind tunnel testing of a physical scale model. This represents best industry practice, and provides a detailed, robust, quantitative assessment.
- 5.92 The assessment will combine the following elements to determine the probability of local wind speeds exceeding comfort and safety thresholds for a range of common activities based on the Lawson criteria for pedestrian comfort and safety:
- measured pedestrian level wind speeds at key areas in and around the Site, from the model-scale boundary layer wind tunnel testing; and
 - long-term wind frequency statistics transposed from Manchester Airport weather centre to apply directly at the Site.
- 5.93 The industry standard Lawson criteria for pedestrian comfort and safety is widely recognised by Local Authorities as a suitable benchmark for wind assessments.
- 5.94 The model will be constructed at a scale of 1:300 and will cover a full-scale extent of approximately 360 m from the Site. In conjunction with the boundary layer wind tunnel set-up, this will be suitable to simulate the wind flows at the Site.
- 5.95 The following scenarios will be assessed:
- Baseline, comprising the existing empty Site with surrounding developments currently under construction;
 - Proposed Development with existing surrounds (including surrounding developments currently under construction); and

- Proposed Development with cumulative schemes.

- 5.96 The cumulative schemes will include consented future developments of a scale and proximity to the Site with potential for cumulative effects with the Proposed Development.
- 5.97 Mean and gust wind speed measurements will be taken for a full range of wind directions at key locations, including main thoroughfares, entrances and amenity spaces, as well as accessible areas of highest anticipated wind speeds, both within the Site and within the surrounding area out to the extent of potential significant effects.
- 5.98 The significance of any effects will be assessed based on the suitability of wind conditions in each area against the current or planned pedestrian activities, with the sensitivity of receptors considered high. Effects on pedestrian safety would generally be considered of major significance, with marginal exceedances of the safety criteria considered moderate. Effects on pedestrian comfort would be considered moderate to minor. Any effect that does not alter the suitability of wind conditions with respect to current or planned activities would be considered negligible.

Summary of Assessment Scope

- 5.99 Due to the sensitive, recreational activities to be introduced and the potential for the Proposed Development to create accelerated pedestrian level winds, a detailed wind microclimate assessment will be carried out based on boundary layer wind tunnel testing of a physical scale model, in accordance with best industry practice. Where required, mitigation measures will be developed to help ensure an acceptable residual effect in terms of suitability of conditions for planned pedestrian activities in and around the Site.

Table 5.8 Summary of Assessment Scope

Receptor	Impact	Potential Effect	Scoped In / Out
Pedestrians	Introduction of a tall building with potential to create accelerated pedestrian level winds.	Unsuitable wind conditions for planned pedestrian activities, requiring wind mitigation measures to ensure acceptable residual effects.	In
Pedestrians	Introduction of recreational activities, sensitive to pedestrian level wind conditions.	Unsuitable wind conditions for planned pedestrian activities, requiring wind mitigation measures to ensure acceptable residual effects.	In
Pedestrians	Increased shelter to surrounding area.	Enhancement of wind conditions to be suitable for surrounding activities.	In
Pedestrians	Acceleration of pedestrian level winds in surrounding area.	Creation of unsuitable wind conditions for existing or future activities in surrounding area, requiring wind mitigation measures to ensure acceptable residual effects.	In

Appendix 1: Site Location Plan

Appendix 2: Cumulative Developments

Application Reference	Proposal	Date Approved	Map No
Baseline¹			
Manchester Goods Yard and No.1 Grape Street – PP. Ref.: 121511/FO/2018	Erection of two buildings comprising: 11 storey mixed use building (including ground and mezzanine) comprising workspace (Use Class B1), with retail uses at ground and mezzanine levels (Use Class A1/A2/A3/A4 and / or D2) and rooftop amenity spaces known as Manchester Goods Yard; and, a further 10 storey mixed use building (including ground) comprising workspace (Use Class B1), with retail uses at ground level (Use Class A1/A2/A3/A4 and / or D2) known as No.1 Grape Street, above two levels of basement parking for 391 cars and cycle storage, together with new public realm, landscaping, provision of external seating areas, access and other associated works.	December 2018	1
St. John's Place (Globe and Simpson) – PP. Ref.: 121721/FO/2018	Erection of a 9 storey building (including ground) comprising workspace (Use Class B1) and flexible commercial floorspace at ground level (Use Class A1, A3 and / or B1), referred to as Building 2, above basement level for car and cycle parking, together with new public realm, landscaping, provision of external seating areas, access and other associated works.	January 2019	2
OGS – PP. Ref.: 118040/FO/2017	Part redevelopment and part refurbishment of the Site, following demolition of existing buildings and structures, including the Annex Building fronting Atherton Street, the Administration Block and Security Lodge fronting Quay Street, Mechanical Workshop areas and Stores to the rear of Studio 8, former Staff Welfare Suite to the rear of Studios 2 and 6, to allow the erection of 10 storey residential and office building (use Class C3 / B1) comprising 22 residential units with rooftop pool, ground floor retail units (Use Class A1, A2 or A3) and amenity space; conversion of Studios 2, 6, 8 and 12 to event spaces and filming studios (Sui Generis); conversion of the existing Granada House building into a hotel (Use Class C1) with associated private members club (Sui Generis); restaurant and cafe use (Use Class A3) and drinking establishment uses (Use Class A4); erection of a new single storey rooftop bar / restaurant associated with the hotel and private members club; erection of 4 storey modular office building the the rear of Granada House; inclusion of a Combined Heat and Power (CHP) Energy Centre; creation of temporary car	July 2018	3

¹ Baseline schemes are those with planning approval and have commenced development on Site, which will be therefore be considered as part of the baseline.

Application Reference	Proposal	Date Approved	Map No
	parking to the rear of Granada House; works associated with access and servicing of the wider development, and associated public realm and landscaping works.		
Affinity Riverview – PP Ref.: 16/67780/FULEIA	Erection of a 17 storey residential building (Use Class C3), consisting of 188 apartments ground floor residential, amenity areas and commercial units (Use Class A1, A2, A3, A4, B1 and D2), 427sqm floor space, public realm and landscaping, access and servicing arrangements and associated works.	July 2016	4
Factory – PP. Ref.: 119890/VO/2018	City Council Development of a new flexible arts and events space comprising a range of activities including theatre, music, dance, art, other performance and non-performance related events, exhibitions and conferences (Sui Generis) with ancillary facilities including retail exhibitions and conferences (Sui Generis) with ancillary facilities including retail and bar uses (Use Classes A1 and A3), offices, administrative and back of house functions (Use Class B1), training and educational facilities (Use Class D1), servicing and access arrangements, highways works, creation of new public realm, removal of 4 trees, cycle parking and provision of new plant and associated works. Demolition of the Starlight Theatre, existing workshop and other structures and perimeter wall and alterations to the Grade II listed Colonnaded Railway Viaduct. (Amendment of application ref no 114294/VO/2016 approved in January 2017).	July 2018	5
Middlewood Locks – PP Ref.: 06/52762/OUT (subsequently extended by 13/64081/OUTEIA and varied by 14/65457/OUTEIA)	Outline application (access only) for mixed use development comprising 142,697 sq m residential use (Class C1 and C3); 67,773 sq m commercial use (Class B1); and 27,191 sq m leisure/retail use (Class A1, A2, A3, A4 and D2) together with associated uses, car parking, landscaping and infrastructure.	November 2014	6
Plots O, F, I, J – Middlewood Locks 15/67135/REM	Details of reserved matters application for the landscaping of plot O, along the Manchester, Bolton and Bury Canal and the appearance, landscaping, layout and scale of development of plots F, I, J for the erection of buildings ranging in height from 6 to 9 storeys to provide 571 apartments (use class C3) and 1,407sq.m of commercial floorspace (use classes A1, A2, A3, D1); together with associated ancillary facilities, servicing, access, parking, landscaping and public realm, pursuant to outline planning permission 14/65457/OUTEIA.		6a
Plots G+H – Middlewood Locks 16/68904/REM	Details of reserved matters application for the appearance, landscaping, layout and scale of development of plots G & H for the erection of buildings ranging in height from 8 to 10 storeys to provide 546 residential units (use class C3); together with servicing, access, parking,		6b

Application Reference	Proposal	Date Approved	Map No
	landscaping and public realm, pursuant to outline planning permission 16/67987/OUTEIA		
ABC – PP Ref.: 119610/FO/2018	Refurbishment of Astley and Bryrom House including: external reconfiguration and improvement of the building facades; a new entrance and canopy onto Quay Street; single storey roof top extensions; introduction of a pavilion structure and external amenity at rooftop level of the Cooper Building; ground floor changes of use (Use Class A1, A3 and D2); and associated works	July 2018	7
Affinity Riverside - PP Ref.: 16/67779/FULEIA	Demolition of existing buildings, erection of a 35 storey residential building (Use Class C3), consisting of 318 apartments and mezzanine floor, residential amenity areas and commercial unit (Use Classes A1, A2, A3, A4, B1, D2), (404sqm floor space), public realm and landscaping, access and servicing arrangements and associated works, and construction of new entrance to office building	September 2016	8
Gore Street - 15/66415/FUL	Demolition of existing building and redevelopment of Site to provide: three residential buildings ranging from 13 to 22 storeys comprising 364 apartments (Use Class C3) sitting on two storey podiums containing commercial and retail floorspace (727sqm) (Use Classes A1, A2, A3, A4, A5 and/or B1), car parking (104 spaces) and related servicing and plant; eleven townhouses; new access and landscaping and associated works.	August 2017	9
17/70439/REM (Salford)	Details of reserved matters application for access, appearance, landscaping, layout and scale for development of Plot A2 for a Multi-Storey Car Park, associated access and junction works, landscaping and ancillary works pursuant to outline planning permission 16/68325/OUT	September 2017	10a
17/70082/REM (Salford)	Details of reserved matters for access, appearance, landscaping, layout and scale for development of Plot A7 for erection of a 21-storey building to provide 199 apartments (use class C3); together with associated ancillary facilities, servicing, access, landscaping and public realm, pursuant to outline planning permission 16/68325/OUT	September 2017	10b
16/68199/REM (Salford)	Reserved matters application for the access, appearance, landscaping, layout and scale for the development of Plot B5/B6 for erection of an 11 storey building to provide circa 24,400sqm of B1 office floorspace and 833sqm of flexible commercial floorspace with associated ancillary facilities, servicing, access, landscaping and public realm, pursuant to outline planning permission 09/57950/EIAHYB Plot B5/B6 Of The Salford Central Masterplan Regeneration Area Approved Under Permission 09/57950/EIAHYB	October 2016	11a

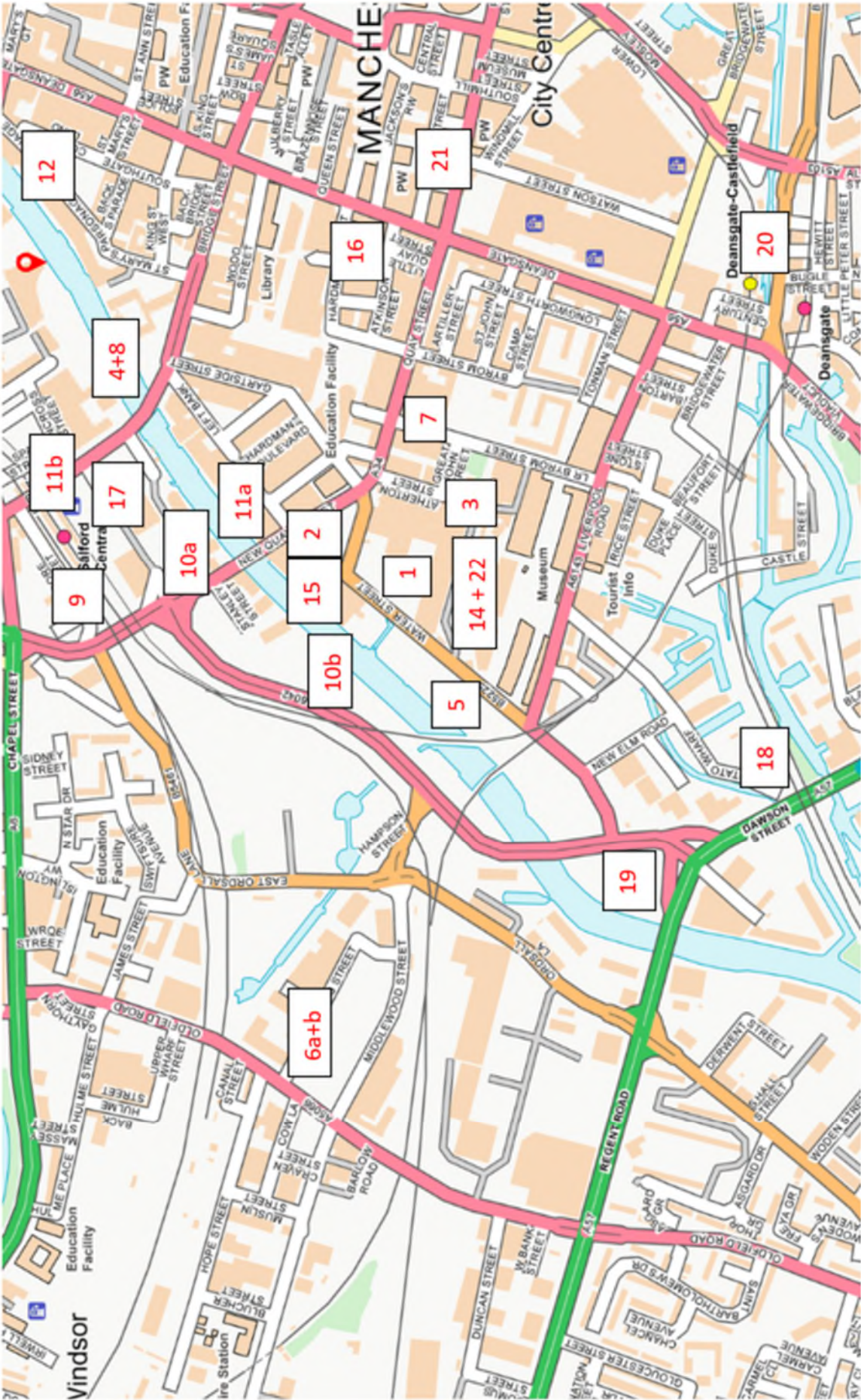
Application Reference	Proposal	Date Approved	Map No
18/71823/FUL (Salford)	Erection of 7-storey office building (Use Class B1a) and formation of parking area within railway arches and pedestrian link between New Bailey and Gore Street, means of access, landscaping, together with ancillary facilities, servicing and public realm, associated localised repair and redecoration of the Southern Railway Viaduct (Grade II* Listed)	July 2018	11b
14/65224/FUL (Salford)	Demolition of existing buildings and redevelopment to create four residential (use class C3) buildings ranging from 13 - 23 storeys creating 995 new dwellings, 1,469sqm ground floor commercial floorspace (flexible use classes A1 to A5, B1, D1, and D2) and ancillary community facility floorspace, 375 car parking spaces, cycling provision and related highway, access, servicing, landscaping, plant and associated works	February 2016	12
T1 - 114385/FO/2016	Demolition of existing buildings and structures to enable construction of a 36 storey residential building (Class C3) with retail uses at ground floor (Classes A1/A2/A3/A4), an 8 storey mixed use building comprising workspace (B1), with retail uses (Classes A1/A2/A3/A4) and residential live/work uses, and two levels of basement parking for 465 cars and cycle hub storage, together with new public realm, landscaping, provision of external seating areas, access and other associated works.	March 2017	13
Cumulative²			
T2 – PP. Ref.: 114723/FO/2016	Demolition of existing buildings and structures to enable construction of 36 storey residential tower (Class C3) with retail uses at lower floors (Classes A1, A2, A3 and A4), new public realm, landscaping including the first phase of Riverside Park and Walkway, provision of external seating areas, car and cycle parking, access arrangements and other associated works.	March 2017	14
St. John's Place – PP. Ref.: 109660/FO/2015/C1	Demolition of existing buildings and structures, including Albert Shed and Globe and Simpson Building, to enable the construction of four buildings comprising : hotel use (Class C1) and residential use (Class C3) within building 1 (ground floor plus 51 storeys); hotel use (Class C1) within building 2 (ground floor plus 7 storeys); residential use (Class C3) within building 3 (ground floor plus 17 storeys); and, residential use (Class C3) within building 4 (ground floor plus 3 storeys), providing a total of 387 residential units; retail use (Class A1) or Financial and Professional Services use (Class A2) or Restaurant and Cafe use (Class A3) or Drinking Establishment use (Class A4) at the lower floors of all buildings, together with associated external seating areas; creation of new public realm and landscaping, riverside walkway, car and cycle parking, access	October 2016	15

² Cumulative schemes are those with Planning Permission but have not yet commenced development.

Application Reference	Proposal	Date Approved	Map No
	arrangements and highways works, rooftop plant, and other associated works. <i>NB – hotel element replaced by 121721/FO/2018</i>		
Invicta House, Atkinson Street – PP Ref.: 116164/FO/2017	Redevelopment of Invicta House for Use Class C1 hotel development comprising 145 no. guestrooms, with ground floor ancillary facilities. Partial demolition of existing building with retention and refurbishment of main facade and erection of a nine storey building to the rear	August 2017	16
Salford Central - PP Ref.: 16/68325/OUT (Salford)	Outline application for the comprehensive phased regeneration of Zone A/C of the Salford Central masterplan area for a residential led (maximum 843 dwellings) mixed use development including tall building (up to 100 metres / 33 storeys) and ground floor commercial units with potential for offices, retail, food and drink, entertainment and leisure uses (Use Classes A1, A2, A3, A4, A5, B1 and D1) together with associated car parking, landscaping and infrastructure.	October 2016	17
19/73721/REM (Salford)	Details of reserved matters for access, appearance, landscaping, layout and scale for development of Plot C1 for the erection of a 23-storey building with associated 6-storey podium block to provide 211 apartments and ground floor commercial uses, together with associated ancillary facilities and servicing pursuant to outline planning permission 16/68325/OUT	Awaiting Decision	17a
Potato Wharf Phase 2 – PP Ref.: 114999/FO/2017	Residential development comprising 191 apartments over two eight storey blocks, as an extension to the existing Potato Wharf development. Block 3 comprises 112 units, with a combination of 1 and 2 bedrooms, plus one 2 bed townhouse; Block 4 comprises 79 units, with a combination of 1 and 2 bedrooms.	April 2017	18
Trinity Islands – PP Ref.: 115107/FO/2017	Construction of a mixed use development comprising two podiums of three storeys and five residential (Class C3) towers of 26, 26, 37, 41 and 67 storeys (including podium heights) connected by a new pedestrian bridge. Retail, commercial, leisure (gym and boat club) and community uses (community gallery and events space)(Use Classes A1, A2, A3, A4 or D2), workspace facilities (Class B1) and an educational facility (Class D1) within the lower floors and podium level together with new riverside walkway, public realm and landscaping (including podium level parks). Two levels of parking for 581 cars and 2,532 bicycles and 200 cycle spaces within the public realm areas.	Resolution to grant Planning Permission (27 July 2017)	19
Great Northern Phase 1 – PP Ref.: 118568/FO/2017	Refurbishment, restoration and re-use of Great Northern Warehouse building as mixed-use development including retail units (Use Classes A1 shop, A3 restaurant/cafe and A4 drinking establishment), gym (Use Class D2), casino (sui	March 2018	20

Application Reference	Proposal	Date Approved	Map No
	generis) and 118 no. residential apartments (Use Class C3), refurbishment, restoration and extension of 223-255 Deansgate Terrace and Goods Yard Entrance to accommodate ground floor retail units (Use Classes A1 shop, A3 restaurant/cafe and A4 drinking establishment) and 24 no. residential apartments (Use Class C3) on upper floors, reconfiguration of Great Northern Square to allow for redeveloped and additional public realm, to include hard and soft landscaping, and formation of Dean Street parallel to Deansgate, together with associated highway works, access, car parking, servicing, rooftop plant, removal of non-original		
St. Michaels – PP Ref.: 114664/FO/2016	Partial demolition of existing buildings. Development up to 171.6m AOD comprising residential (Use Class C3), offices (Use Class B1), hotels (Use Class C1), place of worship (Use Class D1) and leisure/food and drink uses (Classes A1, A3, A4, A5 and D2). Creation of public spaces and new public realm, provision of basement car parking, highway alterations, landscaping and associated works.	June 2018	21
T1 -	Full Planning Permission for the erection of 32 storey plus two basement level mixed use building (Sui Generis), comprising co-living units, amenity space, gym and flexible commercial space, landscaping, access and other associated works³		22

³ This application is currently with the LPA for determination. It has been included as a cumulative scheme as the proposed development will be built out, rather than the extant permission on site.



Appendix 3: Desk Based Assessment

Appendix 4: Ecology Report

Appendix 5: Phase 1 Desk Study



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