

Appendix 5.1

EIA SCOPING REPORT



NOTE

Jackson's Row Developments Ltd (hereinafter referred to as 'the Applicant') is seeking to construct a major development proposal known as St Michael's, Jackson's Row, Manchester, UK

The planning application for the development was originally registered in January 2017. Following feedback, the decision was taken to revise the scheme. Revised plans and documents were submitted in November 2017 and the development was granted planning permission in June 2018.

Through the detailed design process, a number of relatively minor improvements to the original scheme have been identified; these will also provide technical and functional improvements through the next stage design process. The Applicant wishes to progress these proposed changes, which are considered to require amendments to the original scheme, through a Section 73 application.

An Environmental Statement, produced in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011, was submitted in support of the Approved Development in 2017. The 2017 Environmental Statement comprised three volumes, as follows:

Volume 1: Main Text and Figures;
Volume 2: Technical Appendices;
Volume 3: Non-Technical Summary

With reference to Volumes 1 and 2 of the 2017 Environmental Statement, it has been decided that rather than updating and re-submitting the entire Volumes in support the Section 73 application, an 'Addendum' to the 2017 Environmental Statement should be submitted. This is because the Proposed Amendments to the scheme are minor in nature and the potential to affect the environmental assessment is limited.

This Environmental Statement Volume 2 (2017) appendix formed part of the application package for the June 2018 approved scheme and remains valid.

REPORT N° 70010278

JACKSON'S ROW

ENVIRONMENTAL IMPACT ASSESSMENT SCOPING REPORT

FEBRUARY 2016

JACKSON'S ROW

ENVIRONMENTAL IMPACT ASSESSMENT SCOPING REPORT

Jacksons Row Development Limited

Project no: 70010278
Date: February 2016

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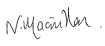
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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 WSP | Parsons Brinckerhoff has been instructed by Jacksons Row Development Limited (JRDL) to produce an Environmental Impact Assessment (EIA) Scoping Report in support of a detailed planning application for a mixed use development in the form of two buildings (hereafter referred to as the 'Proposed Development') on Jackson's Row, Manchester (hereafter referred to as the 'Site'). The EIA Scoping Report has been prepared in accordance with Regulation 13 of the Environmental Impact Assessment (England and Wales) Regulations 2011 (Statutory Instrument 1824) (as amended 2015) (hereafter referred to as the 'EIA Regulations 2011 (as amended 2015)').
- 1.1.2 WSP | Parsons Brinckerhoff is part of a wider team which includes MAKE (architects), Counter Context (communications consultant) and Heritage Architecture Ltd (heritage consultant).
- 1.1.3 This Chapter sets out the requirement for EIA, together with the structure and objectives of the EIA Scoping Report.

1.2 REQUIREMENT FOR EIA

- 1.2.1 We understand that initial discussions with Manchester City Council (MCC) have confirmed the requirement for EIA in accordance with the *EIA Regulations 2011 (as amended 2015)*. Although the project does not exceed the relevant exclusion thresholds and criteria for Schedule 2 (10b) Urban Developments, which following the changes in April 2015 are either i) more than 1 hectare of urban development; ii) more than 150 dwellings or iii) overall exceedance of 5 hectares, it is assumed that MCC have determined the need for EIA based on the new development being on a '*significantly greater scale than the previous use*' and the need to take a precautionary approach as a stakeholder. Whilst it is understood that the Site lies within a Conservation Area, this is not deemed as a '*sensitive area*' under Section 2 (1) of the *EIA Regulations 2011 (as amended 2015)*.
- 1.2.2 Given that the development has been determined as 'EIA development', the detailed planning application will be accompanied by an Environmental Statement (ES).

1.3 OBJECTIVES OF THE EIA SCOPING REPORT

- 1.3.1 This Scoping Report supports a formal request for a Scoping Opinion from MCC to agree the scope of the EIA and the information to be contained within the ES.
- 1.3.2 This EIA Scoping Report outlines the scope of the EIA and the information to be contained within the ES in accordance with Regulation 13 of the *EIA Regulations 2011 (as amended 2015)*. In line with Regulation 13, this Report contains the following:
- A plan sufficient to identify the land in question (**Figures 1, 2, 3, 4 and 5**); and
 - A brief description of the nature and purpose of the development and of its possible effects on the environment (**Chapters 3, 4 and 6 - 15**).

1.3.3 In addition, the EIA Scoping Report (and its associated appendices) has taken into account the EIA Regulations 2011 (as amended 2015) and the Planning Practice Guidance (PPG)¹, and provides information on the following:

- Description of the existing Site and surrounds;
- Outline description of the Proposed Development;
- The approach to the EIA and content of the ES;
- Determination of the 'insignificant' environmental topics and effects which can be formally 'scoped out', supported by a suitable technical evidence base; and
- Determination of the key potentially significant environmental effects to be addressed within the ES (topic by topic) and outline of the assessment methodology to be employed.

1.3.4 This approach ensures that the subsequent ES is concise and focused on the key potentially significant environmental effects.

1.4 STRUCTURE OF THE EIA SCOPING REPORT

1.4.1 **Chapter 2** details the approach to the EIA, including consultation, consideration of alternatives, cumulative effects, design solutions and mitigation measures, further iterative scoping and the format of the ES. **Chapter 3** provides a description of the existing baseline conditions; and **Chapter 4** presents an outline description of the Proposed Development (upon which the EIA Scoping Report is based).

1.4.2 **Chapter 5** outlines the insignificant topic areas and the associated evidence base. These topics will not form part of the ES.

1.4.3 **Chapters 6-15** outline the technical scope of the ES. For each of the topic areas, the following is provided:

- Sensitive receptors;
- Insignificant effects (where identified);
- Potentially significant effects (for both the site preparation, earthworks and construction (the 'construction phase') and operational phases);
- Proposed methodology for assessment (including surveys, modelling, nature of assessment and key legislation, standards or guidance to be followed); and
- Limitations (where appropriate).

1.4.4 The technical topics that will be considered within the ES are:

- Noise and Vibration (**Chapter 6**);
- Air Quality (**Chapter 7**);
- Townscape and Visual (**Chapter 8**);
- Cultural Heritage (**Chapter 9**);
- Wind (**Chapter 10**);
- Daylight, Sunlight and Overshadowing (**Chapter 11**).

¹ Department for Communities and Local Government (2014) Planning Practice Guidance

- Biodiversity (**Chapter 12**);
- Waste (**Chapter 13**); and
- Socio-economics (**Chapter 14**).

1.4.5 The approach to cumulative effects is outlined in **Chapter 15**.

1.4.6 **Chapter 16** provides a summary of the EIA Scoping Report, with **Table 16.1** identifying all the potentially significant effects to be assessed within the ES.

2 APPROACH TO EIA

2.1 INTRODUCTION

- 2.1.1 The ES will be produced in accordance with Schedule 4 of the *EIA Regulations 2011 (as amended 2015)* and the PPG. The EIA will consider all potentially significant environmental effects at all sensitive receptors.
- 2.1.2 The planning application and ES will be supported by an overarching **Transport Statement (TS)** and **(Framework) Travel Plan ((F)TP)**, an **Archaeological Desk-Based Assessment (ADBA)**, a **Biodiversity Assessment**, a **Flood Risk Assessment (FRA)**, **Drainage Strategy**, **Geo-environmental Desk Study** and **Regeneration Statement** which will be submitted as standalone documents. These documents are to be read in conjunction with the ES.

2.2 BASELINE CONDITIONS

- 2.2.1 Environmental effects as a result of the Proposed Development will be described in the ES in relation to the extent of changes to the existing baseline environment. The baseline environment will comprise the existing environmental characteristics and conditions, based upon surveys undertaken and information available at the time of the assessment.
- 2.2.2 The baseline conditions for the purpose of the ES will be as of November 2015. There may be a slight variance across the ES depending on the use of existing data obtained through other sources which represents a baseline scenario early than November 2015, but this will be clearly outlined within the technical components of the ES.
- 2.2.3 It should be noted that, in relation to the noise and vibration assessment, potential effects will not be considered as a deviation from the baseline situation, but will be based on the likelihood of predicted thresholds / agreed levels (with MCC) being met or exceeded.

2.3 SIGNIFICANCE CRITERIA

- 2.3.1 The assessment of potential effects for each of the technical topics will take into account the environmental effects during the construction and operational phases of the Proposed Development. The following criteria will be taken into account when determining whether effects are significant and the level of significance of the potential effects:
- Relevant legislation and planning policy;
 - International, national, regional and local standards;
 - Probability of occurrence of effect;
 - Geographical extent of potential effect;
 - Magnitude and complexity of the effect;
 - Sensitivity / value / importance of the receiving environment or receptor;
 - Duration (short – up to 1 year, medium – 1 to 10 years, or long-term – over 10 years), frequency and reversibility of effect (temporary / permanent);
 - Inter-relationship between effects (both cumulatively and in terms of potential effect interactions); and
 - The results of consultation.

- 2.3.2 The significance of an effect is assessed by looking at what the changes will be against the existing baseline as a result of the Proposed Development. The method for assessing significance of effect varies between topics but in principle will be based on the environmental value (or sensitivity / importance) of a receptor and the magnitude (degree of change from baseline conditions) of the effect.
- 2.3.3 Best practice and guidance requires that certain technical disciplines are required to follow different criteria for determining significance and where this is the case this will be outlined for the specific technical disciplines in the ES Chapters.
- 2.3.4 Summary effect tables that summarise the significant effects associated with each of the environmental topics will be prepared at the end of each technical component which will outline sensitive receptors, mitigation measures and residual effects. A distinction will be made between direct and indirect; short, medium and long-term; permanent and temporary; and positive and negative effects. Cumulative effects will be considered within a separate chapter (**Chapter 15**).

2.4 CONSULTATION

- 2.4.1 As part of the EIA process, consultation will be undertaken with a range of statutory and non-statutory consultees including:
- Manchester City Council (MCC) (environmental health officer, and landscape, highways, ecology, flood risk and archaeology officers);
 - Environment Agency;
 - Natural England;
 - Greater Manchester Ecology Unit;
 - Historic England;
 - Greater Manchester Archaeological Advisory Service; and
 - United Utilities and Statutory Undertakers.

2.5 CONSIDERATION OF ALTERNATIVES

- 2.5.1 Schedule 4, Part 1 of the *EIA Regulations 2011 (as amended 2015)* states that an ES should include:
- ‘an outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for the choice made, taking into account the environmental effects’.**
- 2.5.2 Early consideration of potential alternatives to the Proposed Development will ensure minimisation of risks and challenges at a later stage, and could also help to avoid potential environmental effects. The ES will therefore consider the main alternatives studied by the applicant, in terms of the nature, scale and design principles / parameters.

2.6 CUMULATIVE EFFECTS

- 2.6.1 Schedule 4, Part 1 of the *EIA Regulations 2011 (as amended 2015)* states that an ES should include:
- ‘a description of the development, including in particular.... A description of the likely significant effect of the development on the environment which should cover...cumulative...effects of the development’.**

- 2.6.2 The ES will include a qualitative assessment of cumulative effects comprising the consideration of two types of cumulative effects:
- Effect interactions (the interaction and combination of effects of the Proposed Development affecting the same receptor); and
 - In-combination interactions (the interaction and combination of environmental effects from the Proposed Development and other committed developments affecting the same receptor).
- 2.6.3 Refer to **Chapter 15** of this EIA Scoping Report for further details on the approach to the assessment of cumulative effects.

2.7 DESIGN SOLUTIONS AND MITIGATION MEASURES

- 2.7.1 Schedule 4, Part 1 of the *EIA Regulations 2011 (as amended 2015)* states that an ES should include:
- a description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- 2.7.2 As part of the iterative design process, the Proposed Development will evolve to take account of environmental constraints. As such, a 'Design Solutions and Assumptions' section will be included within the 'Assessment of Effects, Mitigation Measures and Residual Effects' section of each ES topic which will clearly identify the main assumptions that have been taken into consideration within the pre-mitigation assessment scenario of each phase of the Proposed Development. Where there are standard measures, and the confidence of their inclusion is high (e.g. those controlled by other legislation), these will also be taken into consideration within the pre-mitigation assessment.
- 2.7.3 The mitigation measures section will outline those additional measures over and above the measures considered above. These will be summarised in **Chapter 15: Summary of Environmental Commitments** of the ES.

2.8 SCOPING THE ASSESSMENT

- 2.8.1 Whilst this EIA Scoping Report seeks to establish the overall framework for the EIA in relation to the technical topics and associated effects, iterative re-scoping will be undertaken through the EIA process and reported in the ES. The aim of the environmental package of work is to assist with designing out environmental impact.

2.9 FORMAT OF THE ES

- 2.9.1 The ES will comprise three volumes:
- **Volume 1: Main Text and Figures;**
 - **Volume 2: Technical Appendices;** and
 - **Volume 3: Non-Technical Summary.**
- 2.9.2 The proposed format and structure of the ES is provided in **Appendix A** of this EIA Scoping Report.

3 DESCRIPTION OF SITE AND SURROUNDINGS

- 3.1.1 The 0.95 hectare Site is located within Manchester City Centre on Jackson's Row. The Site is bound by Southmill Street to the east, Jackson's Row to the north and Bootle Street to the South which provides both vehicular and pedestrian access. The location of the Site is illustrated in **Figure 1**. The planning application boundary is shown in **Figure 2** and represents the planning application boundary. The National Grid Reference for the approximate centre of the Site is SJ 83663 98054.
- 3.1.2 The Site is currently occupied by the old Greater Manchester Police station (which is no longer in use), the Sir Ralph Abercrombie Inn, the Manchester Reform Synagogue and car parking facilities. The City Police headquarters were officially opened in July 1937, and closed fully in 2014. The Sir Ralph Abercromby public house is thought to have been constructed during the early decades of the 19th century, and has been used by the local public ever since. The Jackson's Row Reform Synagogue was opened in November 1953 and is currently still in use.
- 3.1.3 The Site is located within an urban setting, and is surrounded entirely by buildings which are being used either as office space or bar / restaurants. The topography is such that there is around a 4m fall across the Site as Jackson's Row heads to the west towards Deansgate.
- 3.1.4 There are no statutory designated ecological sites within or immediately bordering the Site. There is one Special Area of Conservation (SAC) within 10km of the Proposed Development, which is the Rochdale Canal SAC located approximately 6.1km to the northeast of the Site. Three Sites of Special Scientific Interest (SSSI) are located within 10km of the Proposed Development. These include the Rochdale Canal SSSI; the Hollinwood Branch Canal SSSI located 7.5km to the northeast, and the Huddersfield Narrow Canal SSSI located 10km to the east. There are also a number of Local Nature Reserves (LNR) and Registered Parks and Gardens within 10km of the Site. There are three Sites of Biological Importance (SBI) within 2km of the Site; the River Irwell SBI is located approximately 1.3km northwest of the Site; the Ashton Canal SBI is located approximately 1.2km east of the Site; and the Rochdale Canal, Stott's Lane – Duchie Street Basin SBI is located approximately 1.4km northeast of the Proposed Development.
- 3.1.5 The Site is dominated by man-made habitats such as buildings and hardstanding. There are limited areas of semi-natural habitat present including ornamental shrubs and scattered trees. Such habitats are considered to be common within the local context and unlikely to be of significant value for any protected or notable species. Breeding birds and bats have the potential to be present on Site.
- 3.1.6 The Site is located within the Urban Mersey Basin Natural Area. The Site is not located within a Greenbelt area. There are no Local Nature Reserves, Country Parks or National Parks located within 2km of the Proposed Development.
- 3.1.7 The Site lies within Deansgate Conservation Area, and although it contains no assets of cultural heritage value, the Site is immediately bordered by a number of Grade II Listed Buildings: Lloyds House is located to the north, Elliott House to the northwest, Onward Buildings to the west, Albert Memorial and Harvester House to the south, Lancashire House to the southeast, Friends Meeting House to the east, and 1-5 Central Street, Albert Chambers and Memorial Hall to the northeast. In summary, within a 2km radius of the Proposed Development, there are 13 Grade I Listed Buildings, and 577 Grade II Listed Buildings. There are also two scheduled monuments within 2km. The Hanging Bridge Immediately South of Manchester Cathedral is located approximately 690m northeast of the Site, and Remains of eastern wall of the Roman Fort are located approximately 548m southwest.

- 3.1.8 Publicly available data from the British Geological Society indicates that the underlying superficial deposits comprise Glacial Till across the entirety of the Site with the underlying solid geology comprising the Chester Pebble Beds Formation (Sandstone).
- 3.1.9 The Site is not located within any Nitrate Vulnerable Zones or groundwater protection zones. The underlying bedrock geology and superficial deposits are classified as a Principal Aquifer and a Secondary A Aquifer respectively. The Site is within an urban area so the groundwater vulnerability is designated as being high by the Environment Agency.
- 3.1.10 There are no water abstraction licenses within or within close proximity to the Site. The Site is not located within surface water safeguard zones. There is one historic landfill (Wilburn Street) located approximately 950m southwest of the Site. There are no active landfills within 1km of the Site. Furthermore, there have been no recorded instances of pollution within close proximity to the Site.
- 3.1.11 According to the Environment Agency website, the Site is located within Flood Risk Zone 1 which indicates there is less than a 0.1 per cent (1 in 1000) chance of flooding occurring each year. The nearest area of Flood Zone 2 is approximately 500m to the northeast and the nearest area of Flood Zone 3 is approximately 420m to the northeast. According to the Environment Agency website, there are no main surface watercourses within the Site or the immediate surrounding area. The Rochdale Canal and Rivers Irwell are located approximately 0.44 km south, 0.49 km northwest from the Site boundary respectively.
- 3.1.12 There are a number of local bus stops and services, the closest stop being on Peter Street. Manchester runs a free Metroshuttle bus service, with all three routes stopping within 120m of the Site. These routes allow connection to Deansgate, Piccadilly Train Station and Castlefield, and connection to private bus routes which run throughout Greater Manchester. The nearest railway station, Deansgate Station, is approximately 400m south of the Site.
- 3.1.13 The Site and surrounding area lies within the Greater Manchester Air Quality Management Area (AQMA), which covers large areas of Manchester City Council.

4

OUTLINE DESCRIPTION OF THE PROPOSED DEVELOPMENT

4.1 PROPOSED LAND USE AND QUANTUM

- 4.1.1 The detailed planning application for the Proposed Development is for a mixed use development comprising residential dwellings (C3), hotel (C1), synagogue (D1), gym and spa (D2), a number of restaurants and bars (A3 and A4), retail provision (A1) and office space (B1). Furthermore, the Proposed Development comprises public realm areas, rooftop garden amenity space and elevated gardens, revised access, car parking, landscaping and pedestrian routes through the Site. The Site area comprises 5,600 m², and would be cleared of existing uses prior to development.
- 4.1.2 The Proposed Development would comprise the following:
- 200 bed 5 Star Hotel;
 - 83,000 sq.ft. of office accommodation;
 - 31,000 sq.ft. of leisure/retail;
 - 280,000 sq.ft. of residential;
 - 200 basement parking spaces; and
 - The new Manchester Reform Synagogue.

4.2 BUILDING HEIGHTS

- 4.2.1 The buildings would be sculpted at the top to form a curve over the top levels and the roof gardens.

BUILDING A

- 4.2.2 Building A is the shorter of the two buildings at 21 storeys and 100m. This building would comprise approximately 120,000 sq ft (19 floors) of commercial office space with retail space at ground floor and a café / bar / bistro at roof level alongside a roof garden. There would also be a dedicated plant floor immediately beneath the roof level.

BUILDING B

- 4.2.3 Building B is the taller of the two buildings at 31 storeys and 129m. The upper ground level would house a hotel entrance and lobby, as well as a new Manchester Reform Synagogue (led by a separate design team). The conference space, bars and restaurants would be accessed at the podium level (Level 2). Levels 2 to 12 would comprise the 5* hotel (with conference facilities), with level 13 being a skybar / restaurant.
- 4.2.4 Levels 14 – 24 would comprise a series of apartments. And levels 25 to 29 would contain high-end larger lateral apartments, duplexes and a penthouse. Level 30 would be a dedicated plant floor with a roof garden at the top for use by the residents.

- 4.2.5 The shared surface to the northeast of the Site would provide landscaping as well as access for vehicles required to drop off visitors to the hotel within Building B. Pedestrian routes would be provided to enable access to the raised podium to the southwest of the site that would comprise the retail and dining outlets. The podium would also provide a space for people to congregate and a bandstand to provide an entertainment space.

4.3 PROPOSED PHASING

- 4.3.1 It is assumed that the construction phase will commence in 2016 and extend for 2 years.
- 4.3.2 It is assumed that demolition and earthworks would be implemented across the Site prior to the commencement of the construction of the two buildings. It is assumed during demolition, that all existing buildings on the Site, including the Public House, Synagogue and Police Station, will be lost.

4.4 PROPOSED EARTHWORKS AND EXCAVATION EXTENTS

- 4.4.1 There is likely to be excavation across the developable areas within the Site to a maximum depth of 13m. It is understood that piling would not be required. It is anticipated that groundwater will be encountered for the lower levels of the excavation and dewatering will be required.
- 4.4.2 As part of the Proposed Development, there would be basement excavation works to develop the double / triple level basement. A retaining perimeter wall is proposed as part of the foundation works.

4.5 PROPOSED DRAINAGE STRATEGY

- 4.5.1 The site wide drainage system would be designed and developed in accordance with the following design guides and statutory requirements:

- BS EN 752:2008 – Drain and sewer systems outside buildings;
- Sewers for Adoption, 7th Edition; and
- CIRIA C697 – The SUDS Manual.

FOUL WATER DRAINAGE

- 4.5.2 Each building site would require dedicated foul drainage systems. Subject to approval and the submission of formal applications the foul drainage would discharge to the public sewer network un-restricted via a gravity drainage installation. Where foul drainage is required below the level of the public sewer network foul pumping stations would be incorporated.
- 4.5.3 The final point of connection to the public sewer network would be subject to discussions with United Utilities. Each new sewer connection would connect to the public combined sewer location in Water Street.

SURFACE WATER DRAINAGE

- 4.5.4 The surface water drainage system would pick up the above ground connections at various locations within the basement and discharge to the River Irwell (subject to approvals) via a system of below slab drainage access chambers.
- 4.5.5 In order to limit the rate of surface water runoff, the drainage system would incorporate various Sustainable Drainage Systems (SuDS) to restrict and treat surface water run-off. These features would be used to treat, convey and store water run-off from impermeable areas, for example in the Podium Roof Garden to temporarily store rainfall.

4.6 PROPOSED ACCESS AND CIRCULATION

- 4.6.1 The Proposed Development would be accessed by vehicles via Bootle Street which borders the Site to the south and extends in an east-west direction from two simple priority controlled junctions, one with Deansgate and the other with Mount Street.
- 4.6.2 Bootle Street is a two way road 270m in length with a carriageway width of approximately 4.2m within close vicinity of the Site. Signage is currently provided upon entering Bootle Street from Deansgate which indicates that vehicles are entering the 20mph City Centre Zone. Bootle Street is currently partially lit with continuous footways present on both sides of the carriageway which vary between 0.5m and 2.5m in width. The road is currently subject to a 20mph speed limit adjacent to the location of the proposed site access. It is proposed that 196 car spaces would be available within the basement once the Proposed Development is in operation. 54 of these spaces are proposed to be allocated to the synagogue. Access to the basement car park is proposed via Bootle Street as well as a loading bay area and a cycle storage area.
- 4.6.3 The proposal includes measures to promote sustainable travel patterns, including the introduction of pedestrian and cycle routes. Pedestrian access is proposed from Bootle Street to the south, Southmill Street to the east and Jackson's Row to the north. In addition to the existing adjacent footpath network, a large additional 'public space' is also proposed in the northeast corner of the Proposed Development.

5

INSIGNIFICANT TOPICS

5.1 INTRODUCTION

- 5.1.1 As part of the EIA process and based on the information available to date, there are a number of topics for which it is considered an assessment within the EIA is not justified and have therefore been 'scoped out'. These topics will not form part of the ES.
- 5.1.2 Those topic areas which are not considered significant are:
- Agriculture;
 - Transport and Access;
 - Flooding, Hydrology and Water Resources;
 - Ground Conditions, Hydrogeology and Contamination; and
 - Artificial Lighting.

5.2 AGRICULTURE

- 5.2.1 The Proposed Development would be located in its entirety upon previously developed land. Therefore, its implementation would not involve the loss of agricultural land or affect farm businesses during the construction and operation phases.
- 5.2.2 The 'best and most versatile agricultural land' is defined as Grades 1, 2 and 3a by the National Planning Policy Framework (NPPF) and PPG. This is the land which is determined to be most flexible, productive and efficient in response to inputs and which can best deliver future crops for food and non-food uses such as biomass, fibres and pharmaceuticals. Grades 3b, 4, and 5 are used to classify land that is of moderate quality to very poor quality.
- 5.2.3 The available ALC mapping (1:250,000) scale produced by the Ministry of Agriculture, Fisheries and Food (MAFF) shows that the whole of the Site is classified as Urban.
- 5.2.4 Based on the evidence to date, effects related to agriculture are considered insignificant at this stage and therefore will not be assessed within the ES.

5.3 TRANSPORT AND ACCESS

- 5.3.1 The Proposed Development is located within a city centre environment with numerous retail and leisure facilities, where HGV movements are common. In this context, it is considered there is unlikely to be a significant increase in HGV movements as a result of the Proposed Development, assuming that there would be no more than 25 HGV's operating per day. HGV demand to / from the Site is therefore anticipated to be negligible and there are not expected to be noticeable effects on congestion. It is also assumed that the construction of the Proposed Development would generate approximately 1,327 employees travelling to the Site. However, again considering the city centre context and that the activities would span 2 years of construction; such additional movements are not considered to be significant.

- 5.3.2 It is proposed that development operational traffic would utilise the local road network in Manchester City Centre to gain access to the Site, including Southmill Street, Jackson's Row and Bootle Street. An initial assessment of this local road network and the transport facilities within walking distance of the Site has demonstrated that it is in a highly sustainable and accessible location given a large number of facilities (i.e. destinations) are located within the Chartered Institution of Highways and Transportation (CIHT) recommended walking distance in Manchester City Centre. There are consequently significant opportunities for sustainable modes of travel for future residents and employees of the Proposed Development.
- 5.3.3 There are approximately 70 parking spaces contained on the existing Site and, once complete, the Proposed Development is expected to contain approximately 200 parking spaces. An analysis of the Proposed Development, including its size, development mix and proposed parking provision, has shown that the anticipated development traffic during operational phases is unlikely to have a significant effect on the operation of the junctions at the Site, and would not cause any significant congestion. In addition, the proposals include measures to promote sustainable travel patterns and a significant percentage of journeys to and from the Site are assumed to be taken by modes of transport other than private car.
- 5.3.4 Following a review of all relevant policy and guidance, it is considered that the Proposed Development conforms to local and national transport planning policy. A **Transport Statement (TS)** will be produced to support the ES and the planning application, and a **(Framework) Travel Plan (FTP)** produced to ensure sustainable transport development. The likely number of operational traffic movements associated with the Proposed Development will be set out within the TS together with any identified delivery vehicle movements.
- 5.3.5 Based on the evidence to date, effects relating to traffic and transport are considered insignificant at this stage and therefore will not be considered within the ES.

5.4 FLOODING, HYDROLOGY AND WATER RESOURCES

- 5.4.1 The Site is not located within the vicinity of the coast, nor in a tidal estuary, and therefore the risk of such flooding is low. The Environment Agency's Reservoir Flood Map also shows that the Site is not in an area that would be inundated with flood waters due to catastrophic failure of reservoir dams. The Site is located within Flood Risk Zone 1, which is considered to be at low risk of flooding, and there would not be a significant change in the permeability of the ground due to the presence of existing hardstanding on the Site. A drainage strategy would be implemented to mitigate any surface water flood risk. Run-off would be managed by the collection of surface water and discharge from the Site. This would reduce any flood risk on-site. The Manchester Salford and Trafford Councils Level 2 Hybrid SFRA (2011) Groundwater Flooding Map indicated that the Site is neither at risk from groundwater flooding nor in an area at risk of groundwater rebound. Although it is understood that the site involves construction of two basements floors, it is assumed that the construction of these structures alone would not significantly alter the risk of groundwater flooding at this location. Therefore, the potential increase in flood risk to construction workers and future Site users and third parties is considered to be insignificant.
- 5.4.2 During the construction phase, there would be a number of activities which could reduce surface water quality with respect to physical contaminants. These include: installation of temporary drainage and service diversions / installations; site clearance; and materials handling, storage, stockpiling, spillage and disposal etc. The construction activities may lead to the disturbance and mobilisation of physical contaminants (i.e. dust, sediments and muds). However, there are no open watercourses within the Site or its vicinity, and a surface water drainage system would be implemented, together with SuDS to restrict and treat surface water run-off. There would also be a sediment control system that would ensure no sediments enter any wider connections. Based on the assumption that flows would be controlled and attenuated as part of the drainage system, potential increase in sediment loading entering surface watercourses and drainage features is considered to be insignificant.

- 5.4.3 The drainage strategy would also be implemented during the operational phase of the Proposed Development. As the majority of the Site would be occupied by built form and hard-standing, there is anticipated to be a low volume of physical contaminants (sediment) which could potentially be entrained in surface water run-off over hard standing and landscaping areas and discharged to surface water receptors. Furthermore, the Proposed Development includes for covered car-parking which should reduce the risk of pollutant transport. The potential effects of changes to physical contamination (i.e. sedimentation) entering surface water bodies and drainage features during the operational phase are therefore considered to be insignificant.
- 5.4.4 It is anticipated that the increase in potable water demand in relation to the wider water resources and capacity would not be significant in the context of current water demand within the city centre. In addition, non-potable water demand would also be minimised by the use of water recycling. It is assumed that the existing infrastructure would be able to handle any increase in demand. However, financial contribution to the supplier (United Utilities) may be required to upgrade the current supply system accordingly, although this in itself is not an environmental consideration.
- 5.4.5 It is also anticipated that the increase in foul flows in relation to the foul sewerage capacity would not be significant. There are no permitting limits for the Site in terms of foul water discharge. The Site benefits from a combined sewer system therefore there is not anticipated to be significant effects upon sewer capacity.
- 5.4.6 A **Flood Risk Assessment (FRA)** and a **Drainage Strategy** will be produced to support the ES and the planning application.
- 5.4.7 Based on the evidence to date, effects relating to flooding, hydrology and water resources are considered insignificant at this stage and therefore will not be considered within the ES.

5.5 GROUND CONDITIONS, HYDROGEOLOGY AND CONTAMINATION

- 5.5.1 The Site is located within a city centre location. Historical mapping indicates the Site has had land use classes C3 / D2 / A4 / B1 for a number of years. There is no evidence to suggest any previous industrial activity has been undertaken on the Site which could have resulted in the release of pollutants into the ground. The Site is expected to be underlain by a shallow layer of Made Ground, which is assumed to be removed as part of the Proposed Development (including basement excavations). Any contaminants are therefore expected to be removed, and the potential exposure of future Site users and third parties to contamination during the operational phase is considered to be insignificant.
- 5.5.2 Due to historic non-hazardous uses and previous excavation activity on the Site, it is not expected that there will be any effects of ground gas on the Proposed Development. Furthermore, there are no areas of concern such as historic landfills or mining activities within close proximity to the Site that could pose any potential risk. However, if any potential effects were to arise from ground gas, they will be appropriately mitigated prior to the construction phase and through following construction best practice measures. Therefore, the potential risk of hazardous ground gas during the construction and operation phases is considered to be insignificant.
- 5.5.3 The presence of unstable and compressible ground would be identified prior to the construction phase. As such, appropriate earthworks or design measures would be implemented to negate any effects during the construction and operational phases. Following implementation of design measures and monitoring, the potential risks from unstable and compressible ground as a result of the Proposed Development are considered to be insignificant.

- 5.5.4 During construction it is anticipated that the basement and foundations work may expose the underlying sandstone bedrock. Furthermore, it is anticipated that groundwater may be encountered for the lower levels of the excavation and dewatering will be required. A Construction Environmental Management Plan (CEMP) will be in place that will control activities with a potential to cause contamination to prevent discharges to the groundwater and sandstone.
- 5.5.5 During the operational phase of the Proposed Development there is potential for localised spillage of fuel, which may be carried to the underlying aquifers and surface water drainage system. However, the Proposed Development would implement an appropriate drainage strategy. Contaminants from fuel spillages which are likely to occur on areas of hard-standing (car parking areas) would be subject to a controlled drainage scheme and therefore would minimise contaminants reaching groundwater and surface water features. Furthermore, proposed car parks would be under cover and not subject to weather, which would further reduce the risks of contaminant transport. Therefore, the potential release / migration of contamination from accidental spillages on groundwater and surface water receptors are considered to be insignificant.
- 5.5.6 A **Geo-environmental Desk Study** will be produced to support the ES and the planning application.
- 5.5.7 Based on the evidence to date, effects relating to ground conditions, hydrogeology and contamination are considered insignificant at this stage and therefore will not be considered within the ES. This has been agreed by an Environmental Health Officer of MCC.

5.6 ARTIFICIAL LIGHTING

- 5.6.1 The Site is currently lit and is likely to be classified as an E4 Environmental Zone ('i.e. an area of high district brightness') due to its location within Manchester City Centre with high levels of night-time activity². Sources of existing lighting include street lighting on the roads along the Site boundary, bulkheads fixed on the Bootle Street side of Greater Manchester Police Station building and fugitive light spill from the surrounding buildings.
- 5.6.2 Potential sensitive receptors to light spill and glare include residential properties and users of the local road and footpaths surrounding the Site. However, these receptors are already subjected to a brightly lit environment. As such, a significant deviation from the existing baseline conditions associated with the additional artificial lighting during the construction and operational phases is considered unlikely.

² Institute of Lighting Professionals (2011) Guidance Notes for the Reduction of Obtrusive Light

- 5.6.3 During the construction phase, floodlighting / security and health lighting installations associated with on-going working areas, where equipment is stored and safety hazards may be present. However, a Construction Environmental Management Plan (CEMP) will be prepared and agreed with MCC prior to the commencement of works. As part of the CEMP, the detailed measures will be implemented to minimise light spill and glare to nearby sensitive receptors. It is assumed that operational lighting installations will be designed to relevant British Standards (including BS 5489-1: 2013 'Code of practice for the design of road lighting: Lighting of roads and public amenity areas')³ and will take account of the ILP 'Guidance Notes for the Reduction of Obtrusive Light'⁴. Any illuminated signs would be designed to meet the ILP 'PLG05 'The Brightness of Illuminated Advertisements''⁵. As such, any increase in light spill and glare is unlikely to be significant.
- 5.6.4 It is considered that any new lighting installations will be operational prior to occupation of future residential properties and therefore it is not anticipated that future residential receptors will experience a change from baseline conditions. In addition, it is expected that the lighting installations associated with the Proposed Development will be designed to best practice guidance, including British Standard (BS) 5489-1:2013⁶. Adherence to these standards will ensure that any nuisance or disturbance associated with operational lighting installations will be minimised as far as is practicable. Therefore, disturbance and / or nuisance to future residential receptors is not considered further within this Chapter.
- 5.6.5 The Proposed Development would introduce additional artificial lighting installations. However, due to its location within a vibrant night-time city centre environment containing numerous high-rise lit buildings in the Deansgate area the potential effects upon night-time views are unlikely to be significant.
- 5.6.6 The Proposed Development is not considered to contribute significantly to sky glow due to the observed sky glow from the Manchester. Given the subjective nature of sky glow, is it difficult to quantify the potential effects due to a number of variables, including that sky glow is measured as a percentage change. Furthermore, as outlined above, it is assumed that best practice guidance will be adopted, which includes the requirement to minimise upwards light emitted and contributions towards sky glow.
- 5.6.7 Based on the evidence to date, effects relating to nuisance from lighting, i.e. an assessment of lighting from light spill and glare on residential properties, and effects upon night-time views and sky glow are considered insignificant at this stage and therefore will not be considered within the ES. As a precautionary measure and assuming bats could be present at the Site, the potential increase in lighting within the Site associated with the construction and operational phases on this light sensitive species will be assessed within **Chapter 12: Biodiversity**. Changes in the setting of designated and non-designated heritage assets is assessed in **Chapter 9: Cultural Heritage**.

5.7 RIGHTS TO LIGHT

- 5.7.1 In relation to the 'Right to Light' under the Prescription Act 1832, the legal implications of this will be addressed separately within the **Right to Light Report**. As such, it is not considered within the ES.

³ BS 5489-1: 2013 'Code of practice for the design of road lighting: Lighting of roads and public amenity areas'

⁴ ILP (2011) Guidance Notes for the Reduction of Obtrusive Light

⁵ ILP (2015) PLG05 The Brightness of Illuminated Advertisements

⁶ BS 5489-1: 2013 'Code of practice for the design of road lighting: Lighting of roads and public amenity areas'

6 NOISE AND VIBRATION

6.1 SENSITIVE RECEPTORS

6.1.1 The following sensitive receptors (potentially including residential and office uses, together with building facades) will be assessed within the ES:

- Sensitive receptors located within the Deansgate Conservation Area;
- Sensitive receptors located on Southmill Street to the East;
- Sensitive receptors located on Jackson's Row to the north; and
- Sensitive receptors located on Bootle Street / Peter Street to the South.

6.2 INSIGNIFICANT EFFECTS

- Based on a review of the information available to date, as presented in the EIA Scoping Report, it is not expected that future operational levels of vibration would be significant at existing sensitive receptors. Therefore, operational vibration is not considered significant and will not be assessed within the ES;
- The construction phase of the Proposed Development is likely to generate no more than 25 HGV vehicle movements per day (as discussed in **Section 5.3**). The additional HGV vehicle movements to and from the Site are anticipated to be minimal in context of the existing traffic flows on the surrounding local road network. Notwithstanding the potential increase in the composition of HGV's on the surrounding local road network, the potential changes in existing road traffic noise at noise sensitive receptors from construction phase development generated traffic noise, if any, are expected to be insignificant and will not be assessed within the ES.
- Once operational, resident and staff vehicle movements to and from the Site are expected to be limited (as discussed in **Section 5.3**). Therefore, the potential changes in existing road traffic noise at existing and proposed local residents from development generated traffic noise and disturbance, if any, are expected to be insignificant and will not be assessed within the ES.

6.3 POTENTIALLY SIGNIFICANT EFFECTS

CONSTRUCTION PHASE

- Disturbance to sensitive receptors from noise generated by on-site (non-traffic) construction activities; and
- Disturbance to sensitive receptors from vibration generated by any non-traffic construction activities likely to be particularly vibration generative.

OPERATIONAL PHASE

- Disturbance to existing sensitive receptors and future proposed noise sensitive uses from noise generated by the fixed plant / goods delivery noise and entertainment noise; and
- Disturbance to future proposed noise sensitive uses from the prevailing noise environment (e.g. existing road traffic, existing fixed plant on nearby buildings and existing entertainment from surrounding premises).

6.4 PROPOSED METHODOLOGY FOR ASSESSMENT

6.4.1 The following methodology for assessment is proposed:

- Baseline Noise Survey to establish the prevailing background noise environment at locations considered representative of existing and proposed local receptors. It is proposed that long term, continuous measurements will be undertaken over a representative 24-hour period that would be subject to periodic attendance. Should there be unforeseeable problems establishing suitably secure measurement locations, fully attended shorter term measurements would be undertaken over selected daytime and night-time periods. Precise measurement locations would be agreed during further discussions with the Environmental Health Department of MCC and would be subject to access. The baseline noise survey would be undertaken by staff fully competent in the measurement of environmental noise in accordance with *BS 7445: Description and measurement of environmental noise (Part 1: 2003 Guide to quantities and procedures; Part 2: 1991 Guide to the acquisition of data pertinent to land use and Part 3: 1991 Guide to application to noise limits)*. All equipment used to undertake the noise survey would be calibrated and conform to Type 1 specification according to *BS 61672:2013 Electroacoustics. Sound level meters*;
- The levels of construction noise that are likely to be experienced at each of the identified sensitive receptors and for each phase of the construction works will be predicted using the methodology set out in *British Standard 5228:2009+A1:2014 Code of practice on noise and vibration control on construction and open sites: Part 1: Noise (BS 5228-1)*. Suitable assessment criteria will be derived, based on the guidance contained within BS 5228-1. The magnitude of effect will be determined through a comparison of the predicted levels of construction noise with the adopted criteria. Advice regarding best practice methods to minimise construction noise would be provided, including limits on the hours of working;
- Vibration generated from construction activities also has the potential to cause disturbance and, at very high levels can also cause cosmetic damage, and in some extreme cases structural damage. Subject to discussion with the Environmental Health Department of MCC, a qualitative assessment of vibration would be undertaken drawing on the historic ground-borne vibration data presented within *BS 5228:2009+A1:2014 Code of practice on noise and vibration control on construction and open sites: Part 2: Vibration (BS 5228-2)* and drawing on the acceptable guidance criteria also presented in this document for human exposure and building damage;
- Operational noise levels resulting from the fixed plant aspects of the Proposed Development at existing noise sensitive receptors will be predicted based on the plant and equipment proposed, where available. The assessment will follow the guidance set out in BS 4142: 2014 Methods for rating and assessing industrial and commercial sound (BS 4142), and other relevant guidance;
- Entertainment noise associated with the mixed uses of the Proposed Development at existing noise sensitive receptors will be assessed where necessary. As part of the assessment, further consultation will be undertaken with the Environmental Health Department of MCC to agree the proposed approach and relevant guidance upon which appropriate limits are to be based; and
- The assessment of baseline noise levels across the Site and any mitigation required for proposed noise sensitive uses will be undertaken in order to determine the requirements to ensure achieving the appropriate noise criteria as outlined in BS 8233:2014 Guidance on sound insulation and noise reduction for buildings (BS 8233), the World Health Organisation (WHO) document Guidelines for Community Noise, 1999 and other relevant guidance.

6.5 LIMITATIONS AND ASSUMPTIONS

- 6.5.1 Due to limited construction information available at this stage (prior to appointment of contractors), the assessment of construction related activities would be based on data presented within BS 5228 and our experience of typical construction activities for the type of development proposed rather than precise selection of equipment.
- 6.5.2 The noise assessment of operational phase effects associated with the mixed use area (such as fixed plant, delivery activities and entertainment noise) will be based on the information available at the time of preparing the ES. It is anticipated that precise details of the operation of the mixed use area and fixed plant associated may not be available at this time and therefore noise level limits would be determined based on the guidance agreed with Environmental health of MCC. The setting of fixed noise limits would be based on the baseline survey data, with every reasonable measure taken to minimise uncertainty.

7

AIR QUALITY

- 7.1.1 The proposed scope and method of assessment set out below has been agreed by an Environmental Health Officer of MCC.

7.2 SENSITIVE RECEPTORS

- 7.2.1 The following sensitive receptors will be assessed within the ES:

- Sensitive receptors located on Southmill Street to the East;
- Sensitive receptors located on Jackson's Row to the North; and
- Sensitive receptors located on Bootle Street / Peter Street to the South.

- 7.2.2 In addition, sensitive receptors adjacent to any additional roads affected by increased traffic emissions during the construction and operational phases will also be considered.

7.3 INSIGNIFICANT EFFECTS

- It is anticipated that dust and particulate matter (PM₁₀ and PM_{2.5}) emissions produced through demolition and construction activities would be controlled through the implementation of a CEMP. This CEMP would include prevention measures, such as screening stockpiles of material, deployment of windbreak netting and dampening exposed soils as appropriate, and set out requirements for ongoing monitoring and liaison with the local community and MCC. Therefore, effects of dust and PM₁₀ emissions are not considered to be significant and will not be assessed within the ES;
- It is anticipated that during construction, there will be no more than 25 HGV movements per day. As the Site is within the Greater Manchester Air Quality Management Area (AQMA), MCC utilises guidance published by Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) in May 2015 to determine the requirement for an air quality assessment. This guidance sets out a number of criteria, including the change in traffic on local roads. The threshold for assessment of HGVs within an AQMA is A change of Heavy Duty Vehicle (HDV; HGVs and buses) flows of more than 25 Annual Average Daily Traffic (AADT). Therefore, the threshold is not exceeded and effects are not considered to be significant and will not be assessed within the ES;
- In accordance with guidance provided by the Institute of Air Quality Management (IAQM)⁷ an initial search has been undertaken for designated ecological sites within proximity to the Site. This search has identified that the closest international or nationally designated site (the Rochdale Canal SAC) is located 6.1km to the northeast of the Site. Due to this distance, habitat degradation associated within construction dust and exhaust emissions is considered insignificant and will not be assessed within the ES;
- With regards to the potential effects of emissions from operational traffic on designated habitats, the Design Manual for Roads and Bridges (DMRB)⁸ provides relevant guidance. Significant air quality effects would potentially be experienced at ecological receptors located within 200m of roads where daily traffic flows change by 1,000 (as Annual Average Daily Traffic (AADT)) or more, or Heavy Goods Vehicles (HGVs) flows change by 200 AADT or more. Once completed, the Proposed Development is expected to contain approximately 200

⁷ IAQM (2014) Guidance on the assessment of dust from demolition and construction

⁸ HA, (2007). DMRB: Volume 11, Section 3, Part 1: Air Quality. HA 207/07

parking spaces, indicating daily traffic flow changes of well below the 1,000 AADT limit. In addition, the closest designated habitat is located 6.1km to the northeast. Consequently, it is considered unlikely that there would be any significant effects at ecological receptors as a result of the operation of the Proposed Development; and

- At this stage A3 and A4 uses are proposed within the Development along with other planning uses. Although there is the potential for odorous emissions due to these proposed uses, it is anticipated that any emissions would be minimised through adoption of design measures consistent with those set out in Defra's Control of Odour and Noise from Commercial Kitchen Exhaust Systems guidance and would be subject to additional approvals.

7.4 POTENTIALLY SIGNIFICANT EFFECTS

7.4.1 The Site lies within the Greater Manchester AQMA which has been declared by MCC for exceedences of the annual mean nitrogen dioxide objective. According to the EPUK and the IAQM guidance to determine the requirement for air quality assessment, the thresholds for within an AQMA is:

- A change of Light Duty Vehicle (LDV; cars and vans) flows of more than 100 AADT.

7.4.2 Once operational, the increase in on-site car parking (of approximately 130 spaces) is likely to generate more than 100 additional car movements per day. Consequently, there is a risk that additional traffic generated during the operational phase may significantly affect air quality within proximity to the Site. The following potentially significant effects will therefore be considered within the ES:

OPERATIONAL PHASE

- Increase in pollutant concentrations (NO₂, PM₁₀ and PM_{2.5}) as a result of exhaust emissions arising from operational traffic on local air quality at sensitive residential receptors.

7.5 PROPOSED METHODOLOGY FOR ASSESSMENT

7.5.1 The following methodology for assessment is proposed:

- A desk based assessment will be undertaken to determine the baseline local air quality within the study area, drawing upon monitoring carried out by MCC, and information provided within their Air Quality Review and Assessment reports; and
- A quantitative assessment of the effects of emissions from traffic associated with the operation of the Proposed Development will be undertaken using the ADMS Roads detailed dispersion model. This modelling will make use of mapped background concentration data provided by Defra and traffic data relevant to the Proposed Development. The potential effects will be assessed in relation to the National Air Quality Objectives, established by the Government to protect human health. The significance of effects will be determined using the most recent guidance issued by the IAQM and EPUK in 2015.

7.6 LIMITATIONS AND ASSUMPTIONS

7.6.1 All modelling has associated uncertainties as it relies upon input data which is uncertain in itself (e.g. traffic predictions come from modelling), and therefore any future year assessment will include assumptions (in particular relating to vehicle fleet composition and emissions). In order to reduce uncertainty, model verification will be carried out, where possible, which relies on the availability of appropriate monitoring data within the study area.

8 TOWNSCAPE AND VISUAL

8.1 SENSITIVE RECEPTORS

8.1.1 The following sensitive receptors will be assessed within the ES:

- Site character;
- Adjacent local townscape features and character areas; and
- Views from public receptors (including residential) to the north, south, east and west of the Site.

8.2 INSIGNIFICANT EFFECTS

- Visual receptors located further than 3km from the Site boundary are considered to be so distant (due to intervening built form, vegetation and topography) that the Proposed Development would not have a significant effect on the character or quality of the views. Potentially significant effects on visual receptors will be limited to within a 3km radius;
- Townscape character receptors located further than 2km from the Site boundary are considered to be so distant (primarily due to the intervening built form), that the Proposed Development would not have a significant effect on the character or quality of the townscape character. Potentially significant effects on townscape character will be limited to within a 2km radius; and
- The Site is dominated by man-made habitats such as buildings and hardstanding, and there are limited areas of semi-natural habitat present including ornamental shrubs and scattered trees. Such habitats are considered to be common within the local context. As a result, potential loss of vegetation is not considered to be significant and will not be assessed in the ES. Furthermore, it is considered that a tree survey to BS5837 '*Trees in relation to design, demolition and construction*' (2012) is not required.

8.3 POTENTIALLY SIGNIFICANT EFFECTS

CONSTRUCTION PHASE

- Change to local townscape character due to the presence of machinery, hoardings, scaffolding, tower cranes, earthworks, stockpiles and construction activities within the Site;
- Change in visual amenity; and
- Change in urban grain height and massing.

OPERATIONAL PHASE

- Change to local townscape character due to new built form and landscaping;
- Change in visual amenity; and
- Change in urban grain height and massing.

8.4 PROPOSED METHODOLOGY FOR ASSESSMENT

8.4.1 The following methodology for assessment is proposed:

- A desk based review of existing information, including planning documents, character assessments, aerial photographs and OS data, will be undertaken in order to determine the

current street patterns, landscape features and local landscape character within and surrounding the Site;

- Surveys of the Site and the surrounding area will be undertaken to confirm the study area and ZTV of the Proposed Development, and to determine / confirm the baseline (inclusive of photographs from proposed viewpoints);
- Landscape is characterised by dividing the study area into geographical areas which have readily identifiable characteristics in common. These characteristics may include topography; other natural characteristics such as waterways; patterns of land use; urban grain; and building form. Landscape effects can be defined as the changes in the fabric, character and quality of the landscape as a result of a development through direct effects upon specific landscape elements as well as subtler effects upon the overall patterns of elements that give rise to landscape character and regional and local distinctiveness. A qualitative assessment of the effects upon landscape character will be undertaken based upon analysis of desk-based review and Site visit
- A qualitative assessment of effects on local visual amenity will be undertaken through analysis of the Site from strategic, publicly accessible viewpoints, such as roads and areas of public open space. The assessment will consider the direct effects of the Proposed Development upon views of the townscape through intrusion or obstruction and overall effect on visual amenity, be it degradation or enhancement. The aim of the visual assessment is to evaluate the sensitivity of the visual receptors and the effect of the Proposed Development upon them by to establishing the visibility level of the Proposed Development in a series of representative views. Inevitably this method of assessment involves an element of subjective but professional judgement;
- Assessments of the effects on townscape character and visual amenity will take into account the size (or scale) of each potential effect as a predicted deviation from the baseline conditions during the construction phase and operational phase;
- Assessment will be undertaken in accordance with the 'Guidelines for Landscape and Visual Impact Assessment' published by the Landscape Institute and Institute of Environmental Management and Assessment, 3rd edition (2013); and
- It is anticipated that verified views / photomontages will be required to inform the Visual Assessment.

8.5 LIMITATIONS AND ASSUMPTIONS

- 8.5.1 The visual envelope for the Proposed Development will be prepared on the basis of a desk based review, ZTV (using bare earth data only) followed by Site survey work and professional judgement.

9

CULTURAL HERITAGE

9.1 SENSITIVE RECEPTORS

9.1.1 The following sensitive receptors will be assessed within the ES:

- Potential buried archaeological remains from the prehistoric through to the medieval period;
- Setting of individual listed buildings in the vicinity of the Site both inside and outside the boundary of the Deansgate Conservation Area;
- Setting of unlisted buildings (considered to be non-designated heritage assets) within the Deansgate Conservation Area; and
- Character and appearance of the Deansgate Conservation Area and surrounding conservation areas.

9.2 INSIGNIFICANT EFFECTS

- It is anticipated the surface water strategies would ensure there is no net change in the water content of top / subsoil across the Site or the wider area. Therefore, the likelihood of effects on buried archaeological assets beyond the Site boundary are low and insignificant and will not be assessed within the ES;
- It is intended that any effects to potential buried archaeological remains would be entirely mitigated in advance of, or during the course of, the construction phase. As such, there are not considered to be any significant effects on archaeological remains during the operational phase, and this will not be assessed within the ES; and
- There are not considered to be any significant effects upon those unlisted heritage assets within the Deansgate Conservation Area and individual listed buildings in the vicinity which are not visible from and do not have views of the Proposed Development. Only those with views of the Proposed Development will be assessed.

9.3 POTENTIALLY SIGNIFICANT EFFECTS

CONSTRUCTION PHASE

- Loss or disturbance of potential buried archaeological remains;
- Change in setting of listed buildings in the vicinity of the Proposed Development both inside and outside the Deansgate Conservation Area; and
- Change in setting of non-designated heritage assets within the Deansgate Conservation Area.

OPERATIONAL PHASE

- Change in setting of listed buildings in the vicinity of the Proposed Development both inside and outside the Deansgate Conservation Area; and
- Change in setting of non-designated heritage assets within the Deansgate Conservation Area.

9.4 PROPOSED METHODOLOGY FOR ASSESSMENT

9.4.1 The following methodology for assessment is proposed:

- The assessments will follow the methodology outlined in the Design Manual for Roads and Bridges (DMRB)⁹, the Institute for Archaeologists (IfA) Standard and Guidance for Historic Environment Desk-Based Assessments (2012), and Historic England Advice Notes. They will be in accordance with the Planning (Listed Buildings & Conservation Areas) Act 1990, National Planning Policy Framework (NPPF) and MCC Core Strategy Policies;
- An Archaeological Desk Based Assessment will be undertaken, in addition to supplementary documentary research and review of historic environment data. This will be included as an appendix to the ES;
- A Heritage Statement will be prepared, drawing upon site survey work, map regression analysis, and archival research to establish the interest and significance of the built heritage assets affected. The assessment in the ES will then report the potentially significant effects and outline any means by which such effects may be mitigated, such as a programme of Building Recording prior to the development; and
- These qualitative assessments will draw upon the baseline survey information outlined above. Potential effects resulting from the construction and operational phases of the Proposed Development will be assessed and reported in terms of their significance on the cultural heritage resource.

9.5 LIMITATIONS

- 9.5.1 A desk based assessment is reliant on data from the National Monuments Record (NMR) and the local Historic Environment Record database (HER). This consists of secondary information derived from varied sources. It is assumed that this data, as well as that derived from other secondary sources, is reasonably accurate but errors can occur.
- 9.5.2 It is also possible that previously unrecorded archaeological sites will have survived within the Site for which no known data is currently available.
- 9.5.3 In addition, due to the buried and invisible nature of below-ground archaeological sites, there is an element of uncertainty regarding the survival, condition, nature and extent of the known sites identified.

⁹ Highways Agency (now Highways England) DMRB Volume 11 Section 3 Part 2 HA208/07 Cultural Heritage

10 WIND

10.1 SENSITIVE RECEPTORS

10.1.1 The following sensitive receptors will be assessed within the ES:

OFFSITE RECEPTORS

- Pedestrians along pedestrian routes on Southmill Street, Jackson's Row, Bootle Street and Deansgate;
- Users of building entrances to adjacent buildings; and
- Users of nearby existing public open spaces such as Albert Square and Abraham.

ON SITE RECEPTORS

- Open spaces at ground level such as the main building forecourt on Jackson's Row; and
- Podium gardens and roof terraces.

10.2 INSIGNIFICANT EFFECTS

- Downwash effects as a result of adverse wind effects resulting from large flanking facades facing the prevailing wind. Buildings of high massing also tend to create increased windiness around their corners, extending to the opposite side from the wind direction, due to pressure differences; and
- Pedestrian / user discomfort from narrow passageways at ground level which can cause a funnelling effect of wind.

10.3 POTENTIALLY SIGNIFICANT EFFECTS

OPERATIONAL PHASE

- Reduction in the safety of pedestrians as a result of an increase in wind speeds;
- Pedestrian discomfort as a result of localised zones of acceleration. These effects will vary according to the intended use for each area. For example, an area designed to function as an outdoor café should have a wind environment which is suitable for the more sedentary activities of sitting and standing;

10.3.1 Modelling and design is currently underway and therefore all or some of these potential effects may be designed out prior to design freeze. Should effects be designed out, a standalone wind assessment will be produced to demonstrate the results of the modelling and wind levels experienced.

10.4 PROPOSED METHODOLOGY FOR ASSESSMENT

10.4.1 The following methodology for assessment is proposed:

- The methodology adopted for the assessment will combine the use of Computational Fluid Dynamics (CFD) to predict air flow patterns and wind velocities around the Site, the use of wind data from the nearest suitable meteorological station and the recommended comfort and safety standards (the Lawson Criteria). The Lawson Criteria comprises 4 categories for pedestrian comfort and a single category for pedestrian safety. These categories are grouped according to the level of wind speed and frequency. Each receptor will be classified and assessed according to these categories;

- A quantified assessment of the existing wind environment at the Site will be used to establish the 'Baseline Scenario'. Baseline conditions will be measured and compared according to the Lawson Comfort Criteria. To determine the significance of the effect on the wind environment, we will identify the change between the baseline conditions with the Proposed Development and make reference to the Lawson Comfort Criteria; and
- A further scenario includes the consented developments to determine the cumulative effects (refer to **Chapter 15 Cumulative Effects** of this EIA Scoping Report for further information).

10.5 LIMITATIONS

- 10.5.1 The assessment will be reliant upon the interpretation and assessment of secondary data derived from varied sources. It is assumed that this data is accurate although errors can occur. The wind model will include all relevant buildings and structures but as a worst case scenario will exclude trees and landscape features.
- 10.5.2 The proposed study covers wind effects at pedestrian level but excludes façade pressure wind loads, inputs to structural engineering, internal airflows within the building or effects on vehicles and waterways.

11 DAYLIGHT, SUNLIGHT AND OVERSHADOWING

11.1 SENSITIVE RECEPTORS

11.1.1 The following sensitive receptors will be assessed within the ES:

- Windows to habitable rooms where the occupants have a reasonable expectation of natural light, including primarily the residential properties surrounding the Site such as those on Peter Street, Bootle Street Jackson's Row, Lloyds Street and Mulberry Street; and
- Public open spaces.

11.2 INSIGNIFICANT EFFECTS

- Increased overshadowing to public open spaces and private gardens and open spaces.

11.3 POTENTIALLY SIGNIFICANT EFFECTS

OPERATIONAL PHASE

- Loss of natural light (daylight and sunlight) to adjacent properties; and

11.3.1 Modelling and design is currently underway and therefore all or some of these potential effects may be designed out prior to design freeze. Should effects be designed out, a standalone daylight, sunlight and overshadowing assessment will be produced to demonstrate the results of the modelling and wind levels experienced.

11.4 PROPOSED METHODOLOGY FOR ASSESSMENT

11.4.1 The following methodology for assessment is proposed:

11.4.2 The assessments will be undertaken following the guidance given in the BRE's '*Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice*' also known as the '*BRE Guide*'. The BRE Guide provides criteria and methods for calculating daylight and sunlight upon the Proposed Development and upon existing surrounding properties. Following criteria outlined in the BRE guidance, deviation from the baseline scenario will be measured according to four categories of effect, ranging from negligible to high. In terms of scenarios, three will be considered:

- Baseline Scenario, which is the existing condition of the Site in terms of daylight and sunlight to surrounding properties;
- The Proposed Scenario, which is the same as baseline scenario, but replaces the existing buildings with the Proposed Development; and
- The Cumulative Scenario, which is the same as the Proposed Scenario, but with the inclusion of relevant cumulative schemes around the Site (refer to **Chapter 14: Cumulative Effects** of this EIA Scoping Report for further information).

11.5 LIMITATIONS AND ASSUMPTIONS

- 11.5.1 The assessment will be reliant upon the interpretation and assessment of secondary data derived from varied sources. It is assumed that this data is accurate although errors can occur.
- 11.5.2 The proposed Daylight, Sunlight & Overshadowing studies conform to standard UK planning requirements but do not represent a Rights to Light survey.

12 BIODIVERSITY

- 12.1.1 The proposed scope and method of assessment set out below has been agreed by an Principal Ecologist at Greater Manchester Ecology Unit on behalf of MCC.

12.2 SENSITIVE RECEPTORS

- 12.2.1 The following sensitive receptors will be assessed within the ES:

- Protected and notable species that the Site has potential for, including breeding and nesting birds and bats.

12.3 INSIGNIFICANT EFFECTS

- There are no statutory designated ecological sites within or immediately bordering the Site. There is one Special Area of Conservation (SAC) (Rochdale Canal SAC) located 6.1km to the northeast. The Site does not share any contiguous or complimentary habitat with the SAC, and the SAC's primary classification is for its aquatic vegetation community (the SAC is not protected for bat or bird species). Given the distance between the SAC and the Site, there is unlikely to be a significant increase in recreational pressure from new residents, or deterioration in surface or groundwater (refer to **Section 5.4** and **Section 5.5** of this EIA Scoping Report). Therefore, potential effects on the statutory designated site are not anticipated to be significant and will not be assessed within the ES. Habitat Regulations Assessment (HRA) Screening is therefore not considered necessary;
- A review of available information identified three non-statutory sites (SBI's), within 2km of the Site. However, there is no connecting or complimentary habitat between the Site and these sites and therefore potential effects are not anticipated to be significant and will not be assessed within the ES;
- A review of the available information within the local area has found no suitable habitat or records for protected species other than breeding birds and bats. Refer to **Appendix C: Biodiversity Assessment**. Therefore, effects on other protected species are not considered significant and will not be assessed within the ES.

12.4 POTENTIALLY SIGNIFICANT EFFECTS

CONSTRUCTION PHASE

- Disturbance and loss of breeding birds and bats.

12.5 PROPOSED METHODOLOGY FOR ASSESSMENT

- An internal building inspection will be undertaken to fully assess potential for roosting bats and inform any further survey if required. The internal building survey will be undertaken in accordance with Bat Conservations Trust's '*Bat Surveys: Good Practice Guidelines 2nd Edition*' (Hundt, 2012) and English Nature's '*Bat Workers Manual 3rd Edition*' (Mitchell-Jones et al, 2004);
- Potential effects will be assessed and reported in terms of their significance for the integrity and conservation status of breeding birds and bats; and

- The assessment will be prepared in accordance with The Conservation of Habitats and Species Regulations (2010), The Wildlife and Countryside Act (as amended) (1981), The Countryside and Rights of Way Act (2000) and Natural Environment Rural Communities Act (2006). The assessment will follow IEEM's guidelines on Ecological Impact Assessment¹⁰.

12.6 LIMITATIONS

- 12.6.1 The assessment will be reliant upon the interpretation and assessment of secondary data derived from varied sources. It is assumed that this data is accurate although errors can occur.

¹⁰ IEEM (2006) Guidelines for Ecological Impact Assessment

13 WASTE

- 13.1.1 The proposed scope and method of assessment set out below has been agreed by an Environmental Health Officer of MCC.

13.2 SENSITIVE RECEPTORS

- 13.2.1 The following sensitive receptors will be assessed within the ES:

→ Waste treatment, disposal and recycling facilities.

13.3 INSIGNIFICANT EFFECTS

- The management of waste produced during the operational phase of the Proposed Development will be considered and addressed through the design process and a **Waste Management Strategy** to ensure it is managed in a way to minimise environmental effects in accordance with legislation, guidance and local targets. Therefore, effects of operational waste are not considered significant, and will therefore not be considered in the ES. The project team will comprise a waste specialist to provide advice on space for storage and collection facilities etc. When considered against the wider waste generation of Manchester, the percentage increase in waste generation is not considered to be significant and would be managed in accordance with MCC's Waste Storage and Collection Guidance for New Developments document; and
- The increases in noise, dust and visual intrusion associated with the transportation of construction waste materials from the Site to waste treatment and disposal facilities will be assessed appropriately within the relevant environmental components of the ES (**Chapter 6: Noise and Vibration, Chapter 7: Air Quality** and **Chapter 8: Townscape and Visual**), and will therefore not be considered in the ES.

13.4 POTENTIALLY SIGNIFICANT EFFECTS

CONSTRUCTION PHASE

- Increase in solid waste generation from demolition, excavation and construction materials and increase in demand for local waste treatment and disposal facilities.

13.5 PROPOSED METHODOLOGY FOR ASSESSMENT

- 13.5.1 The following methodology for assessment is proposed:

- A review of national legislation and regional and local waste policies will be undertaken to determine and confirm what requirements will be expected for waste and recycling provision. This will also include a review of MCC waste guidance;
- Demolition waste will be quantified at a high level by estimating building dimensions and applying relevant material benchmarks obtained through a desk-based research activity;
- Earthworks waste, in the absence of excavation figures, will be estimated by determining the 'worst case' volume of material to be removed;
- An assessment of waste streams generated during the construction phase of the Proposed Development will be undertaken using applicable construction waste arisings benchmark data from the Building Research Establishment (BRE). Opportunities for reducing, reusing, segregation and recycling of waste materials, together with an assessment of any residual waste streams, will be identified; and

- Consideration will be given to the potential effect on the capacities of local waste management infrastructure i.e. landfill sites, materials recovery facilities and other waste treatment facilities for waste materials generated during the construction and operational phases.

13.6 LIMITATIONS AND ASSUMPTIONS

- 13.6.1 The volume and type of demolition and construction waste can only be estimated at this stage as the construction methodology to be used by the Principal Contractor (and their sub-contractors) is not yet known. The method of construction used is one of the primary factors in waste generation; and
- 13.6.2 Waste benchmarking information obtained from the BRE is dependent on the accuracy of existing input data.

14 SOCIO-ECONOMICS

14.1 SENSITIVE RECEPTORS

14.1.1 The following sensitive receptors will be assessed within the ES:

- Local economic receptors, i.e. residents of working age and companies in the local area; and
- Local community receptors, i.e. users of the synagogue and those travelling within and using the area.

14.2 INSIGNIFICANT EFFECTS

- With regard to educational provision within the MCC, projections show that there would be a shortfall of Year 7 places in secondary schools within the borough from 2016/17, and further reception and primary school places would be required from 2014/15. As the operational phase of the Proposed Development is assumed to start in 2017, any demand on educational services from new residents would put further pressure on available school places. However, once operational, the Proposed Development would comprise a mixture of high-end apartments, of which 36% would only contain one bedroom, which may be unsuitable for most families. Furthermore, according to Salford City Council (SCC) within Greater Manchester, new build apartments are expected to have a negligible child yield of 0.01¹¹. Therefore, due to the type and mix of residential units, it is unlikely that there would be a significant child yield associated with the Proposed Development, and it is considered there would not be a significant effect upon available educational services. These effects will therefore not be assessed within the ES;
- With regard to healthcare services available within the area, there are 17 GP surgeries located within a 2km radius of the Proposed Development which are all accepting new patients¹². Therefore, given the availability of GP services within the borough, the increase in demands for healthcare facilities due to the new residents of the Proposed Development is not considered to be significant and will not be assessed within the ES; and
- The potential for disturbance and amenity of residents during construction will be considered in other chapters, e.g. **Chapter 6: Noise and Vibration** and **Chapter 8: Townscape and Visual**.

14.3 POTENTIALLY SIGNIFICANT EFFECTS

CONSTRUCTION PHASE

- Direct employment opportunities for local population;
- Indirect and induced employment associated with spending in the local economy by contractors and contracts placed with suppliers;
- Displacement of users of the synagogue; and
- Displacement of users of the public house.

¹¹ Salford City Council (2010) Projections of Child Yield from New Residential Development
<http://www.salford.gov.uk/corestrategy/iw/LA-LA01-Projections-of-Child-Yield-from-New-Residential-Development.pdf>

¹² National Health Service (NHS) Choices Website Available at: <http://www.nhs.uk/Pages/HomePage.aspx>

OPERATIONAL PHASE

- Direct employment opportunities for local population;
- Indirect and induced employment associated with spending in the local economy by employees and contracts placed with suppliers and contractors;
- Spending from the new community, and users of hotel and offices, and associated benefits to local economic receptors;
- Delivery of the high quality public realm and new infrastructure while maintaining and enhancing the existing heritage character; and
- Improved community connectivity within and around the Site.

14.4 PROPOSED METHODOLOGY FOR ASSESSMENT

14.4.1 The following methodology for assessment is proposed:

- A review of the socio-economic policies relevant to the area, location and nature of the Proposed Development;
- A desk-top review of available baseline information on current relevant socio-economic conditions in the study area, primarily using data from the Office of National Statistics (ONS) and the Local Authority;
- A desk-top review of the objectives contained within the **Regeneration Statement**;
- Quantitative assessment modelling will be undertaken to determine construction employment effects, using standard ratios of employment to output, dependent on the known value of the construction;
- There is no standard methodology for the assessment of indirect and induced employment associated with spending in the local economy by employees and contracts placed with suppliers and contractors. This assessment will therefore be qualitative;
- There is no standard methodology for the assessment of the effects of the displacement of users of the Public House or Synagogue. This assessment will therefore be qualitative;
- Qualitative assessment of effects relating to spending from the new community will be undertaken by evaluating the quantum of proposed uses against the average household spend;
- Qualitative assessment of delivery of the high quality public realm and new infrastructure while maintaining and enhancing the existing heritage character, looking at how the design is integrated with and links effectively with neighbouring areas, and knits the urban fabric together;
- Qualitative assessment of connectivity within and around the Site, assessing public links and permeability through the Site, and how the Proposed Development creates a cohesive estate and removes existing barriers to connectivity and permeability; and
- Assessment of the effects of the Proposed Development on strategic regeneration within Manchester City Centre, with reference to Manchester City Councils Regeneration Objectives, and the objectives contained within the **Regeneration Statement**.

14.5 LIMITATIONS AND ASSUMPTIONS

- 14.5.1 There are no published standards or guidance that exist for undertaking socio-economic assessments. As a result, this assessment is based on professional experience and judgement.

15 CUMULATIVE EFFECTS

15.1 OVERVIEW

- 15.1.1 The cumulative effects section of the ES will assess the potential for significant cumulative environmental effects as a result of the Proposed Development. Cumulative effects comprise the combined effects of reasonably foreseeable human induced changes within a specific geographical area and over a certain period of time, and can be both direct and indirect.
- 15.1.2 The ES will include a qualitative assessment of the following types of cumulative effects:
- Effect interactions (the interaction and combination of effects of the Proposed Development affecting the same receptor); and
 - In-combination effects (the interaction and combination of environmental effects of the Proposed Development with other developments and activities affecting the same receptor).

15.2 PROPOSED METHODOLOGY FOR ASSESSMENT

- 15.2.1 There is no widely accepted methodology or best practice for the assessment of cumulative effects although there are a number of various guidance documents available. The following approach will be adopted for the assessment of cumulative effects based on previous experience, the types of receptors being assessed, the nature of the Proposed Development under consideration and the information available to inform the assessment.

IN-COMBINATION EFFECTS

- 15.2.2 Through analysis of MCC's online planning portal, committed developments (and other proposed developments for which planning applications have been submitted and which may have common receptors and phases), within 500m of the Site, have been identified. These are presented in **Table 14.1** below.

Table 14.1: Other developments in the surrounding area to be considered within the ES and their current status

REFERENCE NUMBER(S)	DESCRIPTION	ADDRESS	RECEIVED	STATUS
109246/FO/2015/C1	Part redevelopment and part refurbishment of the site to include erection of 8 storey office building (Use Class B1) with rooftop pool and amenity space	Granada House Atherton Street Manchester M3 3GS	18 Jun 2015	Application Pending Decision
110078/FO/2015/C1	Demolition of existing buildings on-site. Erection of basement plus ground plus 11 storey office building with flexible retail units (Use Class A1, A2, A3, A4) at ground floor level, access and landscaping and associated works.	123 Deansgate Manchester M3 2BY	17 Sep 2015	Application Pending Consideration
109161/FO/2015/C1	Demolition of existing building and redevelopment of the site for the erection of an eight storey building comprising offices (class B1), with shop (Use Class A1), financial and professional institution (Use Class A2) or restaurant/cafe (Use Class A3) uses on the ground floor,	11 York Street Manchester M2 2AW	10 Jun 2015	Application Pending Decision

REFERENCE NUMBER(S)	DESCRIPTION	ADDRESS	RECEIVED	STATUS
	together with basement car and cycle parking, related highway works, public realm improvements and associated works.			
111003/FO/2016/C1	Demolition of existing building at 10 - 12 Whitworth Street West, and redevelopment of the site for a new 35 storey residential building (Use Class C3) comprising 327 apartments, with associated residents' services, facilities and communal spaces: servicing, highways, public realm and associated works.	10-12 Whitworth Street West Manchester M1 5WY	22 Apr 2015	Application Pending Decision
109241/FO/2015/C1	Demolition of outbuildings, the adjoining former stables building and external fire escape (as shown on drawing ref. 901 PLS-03) to facilitate the conversion and refurbishment of the lower ground, upper ground and first floors of the Bonded Warehouse for the following uses: retail (Class A1), market (Class A1), restaurant (Class A3), bar (Class A4) offices (Class B1)	Bonded Warehouse Grape Street Manchester M3 3JE	18 Jun 2015	Application Pending Decision
109466/FO/2015/C1	Demolition of existing buildings and structures including Stage 1, Coronation Street set and Lot, The Stables and Stage 2 Extension as defined on plan ref 7331-A-G110_XP-UG to enable the construction of nine mixed use blocks for retail use (A1, A2 and A3) and workspace/office (B1) on the lower floors, with residential above (C3), together with creation of new public realm, landscaping, car and cycle parking, access arrangements and associated works.	Former Studio Space On Land Bounded By Grape Street To The North, Lower Byrom Street To The East, MOSI To The South With Liverpool Road Beyond And The Bonded Warehouse And Stage 2 To The West With Water Street Beyond Manchester	13 Jul 2015	Application Pending Decision

- 15.2.3 The assessment of in-combination effects will be undertaken in accordance with the requirements of the EIA Regulations 2011.
- 15.2.4 An overview of the planned developments and supporting environmental information will be gathered for use in the assessment of cumulative effects. Where such information is not available within the documents supporting each planning application, a high level appraisal using publically available sources will be undertaken to inform the assessment of in-combination effects.
- 15.2.5 Each technical chapter of the ES will ensure consideration of the identified developments, once finalised through consultation with MCC, to determine the potential significant cumulative effects.

EFFECT INTERACTIONS

- 15.2.6 The assessment of effect interactions will be approached from the perspective of changes in baseline conditions at specific sensitive receptors based on information in the technical chapters of the ES. A matrix of effect interactions will be formulated for the Proposed Development corresponding to the construction and operational phases.
- 15.2.7 The common sensitive receptors will be identified throughout the ES and will be outlined alongside their residual effect per technical discipline. This will enable a qualitative assessment of the overall significance of the interactions of effects to the common sensitive receptors identified.
- 15.2.8 The common sensitive receptors identified within this EIA Scoping Report that are proposed for consideration within the ES are outlined in **Table 14.2** below.

Table 14.2: Common receptors to be considered within the ES

COMMON RECEPTOR	TECHNICAL TOPICS WHERE COMMON RECEPTORS ARE TO BE CONSIDERED
→ Local townscape features and character areas including the Deansgate Conservation Area; → Sensitive receptors located within the Deansgate Conservation Area; → Sensitive receptors located on Southmill Street to the East; → Sensitive receptors located on Jackson's Row to the north; → Sensitive receptors located on Bootle Street / Peter Street to the South; and → Public receptors nearby to the Proposed Development.	■ Noise and Vibration (Chapter 6); ■ Air Quality (Chapter 7); ■ Townscape and Visual (Chapter 8); ■ Cultural Heritage (Chapter 9); ■ Wind (Chapter 10); and ■ Daylight, Sunlight and Overshadowing (Chapter 11).

15.3 LIMITATIONS AND ASSUMPTIONS

- 15.3.1 The assessment of effect interactions resulting from the Proposed Development will be focused on the residual effects from the construction and operational phases following the implementation of mitigation measures. It will be assumed that identified mitigation measures would be incorporated or adopted to mitigate any negative effects resulting from the Proposed Development.
- 15.3.2 The assessment of in-combination effects will be based on the interpretation and assessment of data provided by third parties.

16 SUMMARY

16.1.1 **Table 15.1** presents a summary of all the insignificant effects to be scoped out of the ES and potentially significant effects identified in the EIA Scoping Report that will be assessed in the ES.

Table 15.1: Summary of scope of insignificant and potentially significant effects

TECHNICAL TOPIC AREA WITHIN THE ES	INSIGNIFICANT EFFECTS	POTENTIALLY SIGNIFICANT EFFECTS	
		CONSTRUCTION PHASE	OPERATIONAL PHASE
Noise and Vibration	- Potential disturbance to surrounding local residents during the construction phase due to HGV movements; - Vibration levels during the operational phase; and - Potential disturbance to existing and proposed local residents from development generated traffic noise during the operational phase.	- Disturbance to sensitive receptors from noise generated by on-site construction activities; and - Disturbance to sensitive receptors from vibration generated by any construction activities likely to be particularly vibration generative.	- Disturbance to existing sensitive receptors and future proposed noise sensitive uses from noise generated by the fixed plant / goods delivery noise and entertainment noise; and - Disturbance to future proposed noise sensitive uses from the prevailing noise environment (e.g. existing road traffic, existing fixed plant on nearby buildings and existing entertainment from surrounding premises).
Air Quality	- Dust and PM¹⁰ / PM^{2.5} emissions during the construction phase; - Habitat degradation of designated ecological sites from dust and exhaust emissions during construction and operational phases; - Nuisance from odorous emissions; and - Increase in pollutant concentrations (NO₂, PM¹⁰ and PM^{2.5}) as a result of exhaust emissions arising from construction traffic on local air quality at sensitive residential receptors.		Increase in pollutant concentrations (NO₂, PM¹⁰ and PM^{2.5}) as a result of exhaust emissions arising from operational traffic on local air quality at sensitive residential receptors.
Townscape and Visual	Visual receptors located further than 3km from	Change to Site and surrounding character due to the presence of machinery, hoardings,	Change to Site and surrounding character due

TECHNICAL TOPIC AREA WITHIN THE ES	INSIGNIFICANT EFFECTS	POTENTIALLY SIGNIFICANT EFFECTS	
		CONSTRUCTION PHASE	OPERATIONAL PHASE
	- the Site boundary; ■ Townscape character receptors located further than 2km from the Site boundary; and ■ Loss of existing vegetation on-site.	- scaffolding, tower cranes, earthworks, stockpiles and construction activities; ■ Change in visual amenity; and ■ Change in urban grain height and massing.	- to new built form and landscaping; ■ Change in visual amenity; and ■ Change in urban grain height and massing.
Cultural Heritage	■ Potential effects on buried archaeological assets beyond the Site boundary; ■ Potential effects on archaeological remains during the operational phase; and ■ Potential effects upon unlisted heritage assets within the Deansgate Conservation Area and individual listed buildings in the vicinity which are not visible from the Proposed Development, and from which the Proposed Development cannot be seen.	■ Loss or disturbance of potential buried archaeological remains; ■ Change in setting of listed buildings in the vicinity of the Proposed Development both inside and outside the Deansgate Conservation Area; and ■ Change in setting of non-designated heritage assets within the Deansgate Conservation Area.	■ Change in setting of listed buildings in the vicinity of the Proposed Development both inside and outside the Deansgate Conservation Area; and ■ Change in setting of non-designated heritage assets within the Deansgate Conservation Area.
Wind	■ Downwash effects as a result of adverse wind effects resulting from large flanking facades facing the prevailing wind; and ■ Pedestrian / user discomfort from narrow passageways at ground level.	■ None.	■ Reduction in the safety of pedestrians as a result of an increase in wind speeds; and ■ Pedestrian discomfort as a result of localised zones of acceleration.
Daylight, Sunlight and Overshadowing	■ Increased overshadowing to public open spaces and private gardens and open spaces.	■ None.	■ Loss of natural light (daylight and sunlight) to adjacent properties.
Biodiversity	■ Disturbance or deterioration to statutory and non-designated sites; and ■ Potential effects on protected species (aside from breeding birds and bats).	■ Disturbance and loss of breeding birds and bats.	■ None.
Waste	■ Increase in the volume of operational solid waste and increase in demand for local waste treatment and disposal facilities.	■ Increase in solid waste generation from excavation and construction materials and increase in demand for local waste treatment and disposal facilities.	■ None.

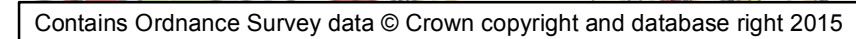
TECHNICAL TOPIC AREA WITHIN THE ES	INSIGNIFICANT EFFECTS	POTENTIALLY SIGNIFICANT EFFECTS	
		CONSTRUCTION PHASE	OPERATIONAL PHASE
Socio-economics	- Potential effects on healthcare services; - Potential effects on educational services; and - Potential effects on public open space.	- Direct employment opportunities for local population; - Indirect and induced employment associated with spending in the local economy by contractors and contracts placed with suppliers; - Displacement of users of the synagogue; and - Displacement of users of the public house.	- Direct employment opportunities for local population; - Indirect and induced employment associated with spending in the local economy by employees and contracts placed with suppliers and contractors; - Spending from the new community, and users of hotel and offices, and associated benefits to local economic receptors; - Delivery of the high quality public realm and new infrastructure while maintaining and enhancing the existing heritage character; and - Improved community connectivity within and around the Site.

Appendix A

FIGURES

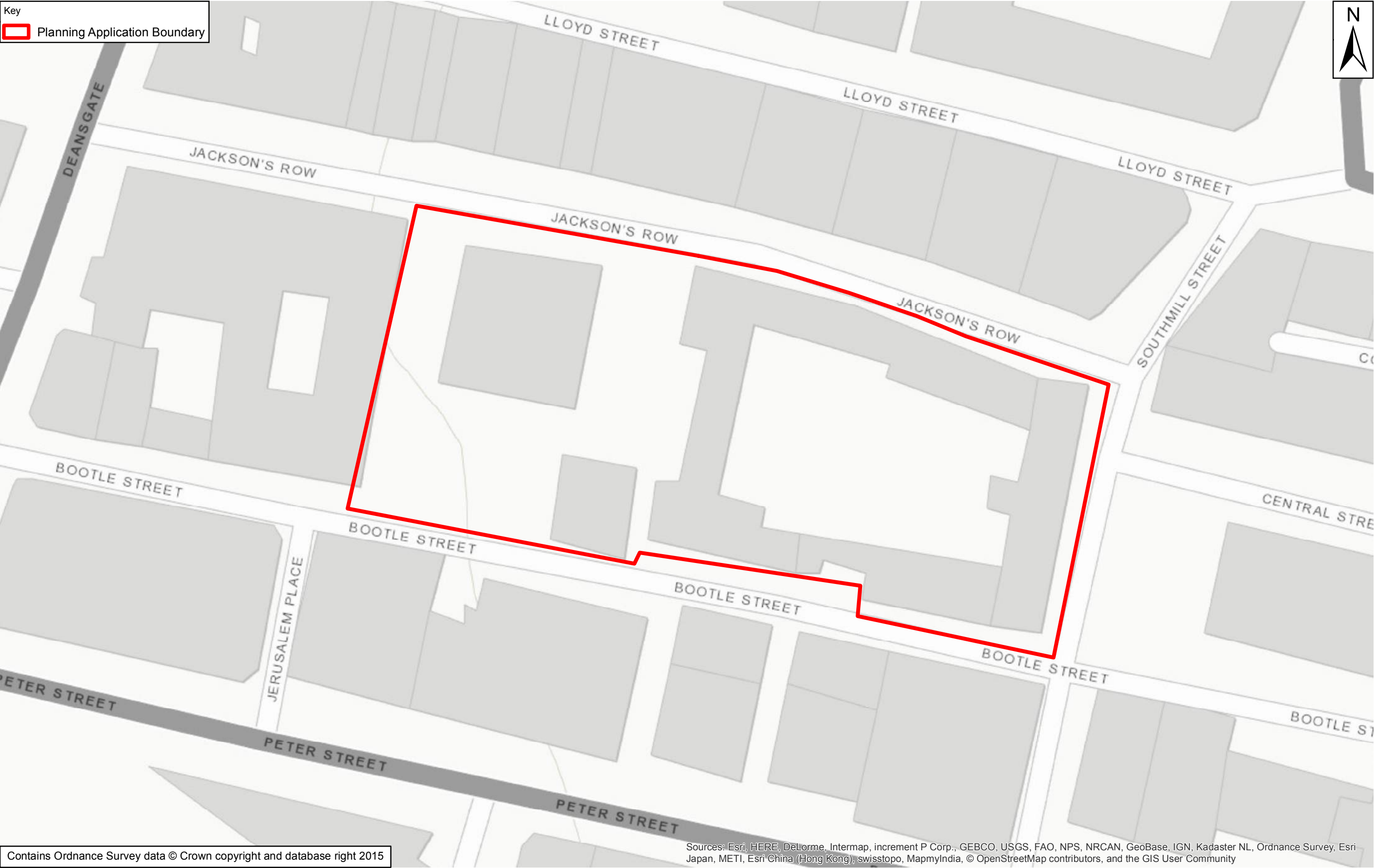
APPENDIX A-1

FIGURE 1 SITE LOCATION PLAN



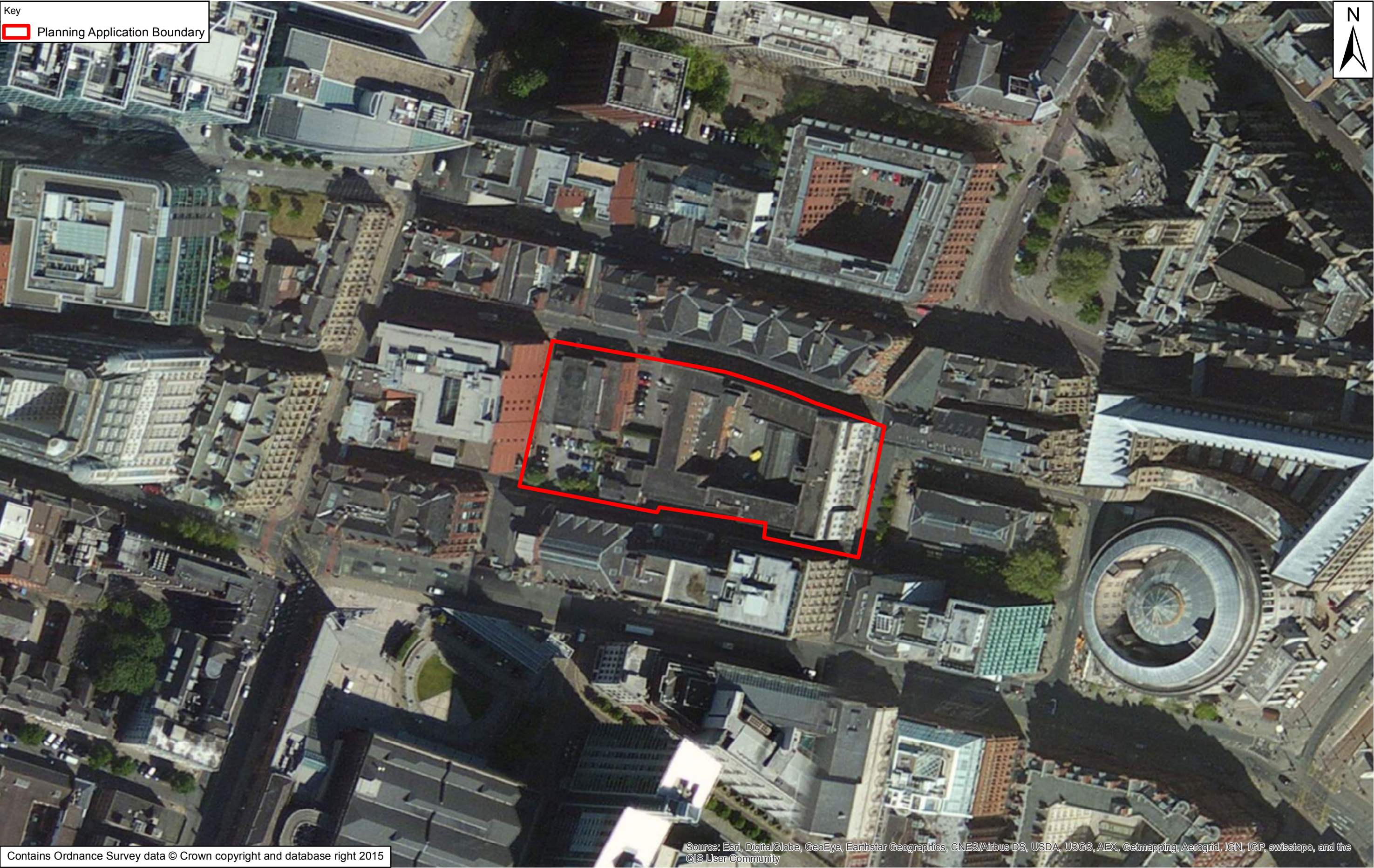
APPENDIX A-2

FIGURE 2 PLANNING APPLICATION BOUNDARY



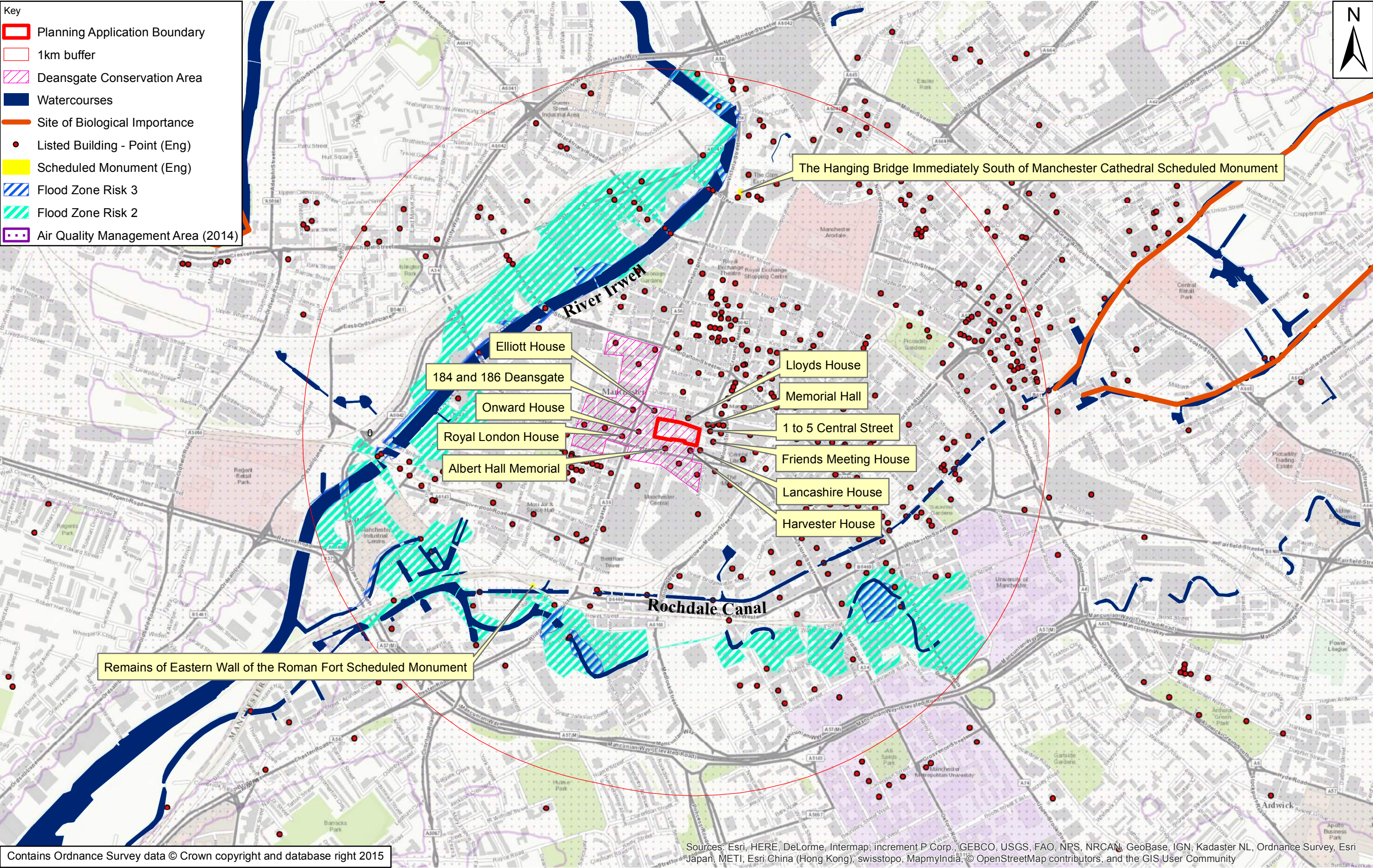
APPENDIX A-3

FIGURE 3 AERIAL VIEW



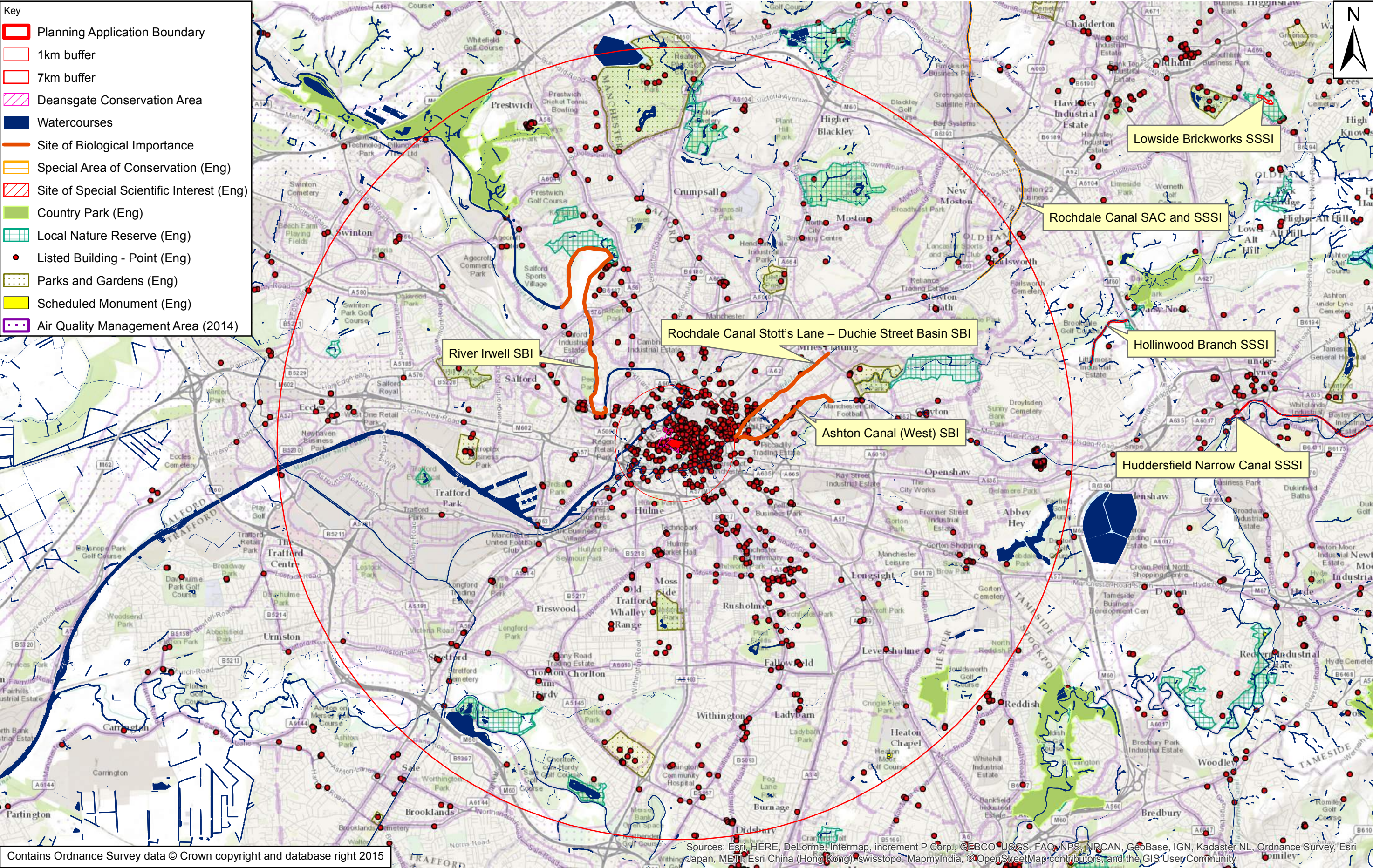
APPENDIX A-4

FIGURE 4 ENVIRONMENTAL CONSTRAINTS PLAN 1KM RADIUS



APPENDIX A-5

FIGURE 5 ENVIRONMENTAL CONSTRAINTS PLAN 7KM RADIUS



Appendix B

STRUCTURE AND FORMAT OF THE ES

STRUCTURE AND FORMAT OF THE ES

VOLUME 1: MAIN TEXT AND FIGURES

- Chapter 1 Introduction
- Chapter 2 Description of the Site and Surrounding Area
- Chapter 3 Description of the Proposed Scheme
- Chapter 4 Consideration of Alternatives
- Chapter 5 Approach to EIA
- Chapter 6 Noise and Vibration
- Chapter 7 Air Quality
- Chapter 8 Townscape and Visual
- Chapter 9 Cultural Heritage
- Chapter 10 Wind
- Chapter 11 Daylight, Sunlight and Overshadowing
- Chapter 12 Biodiversity
- Chapter 13 Waste
- Chapter 14 Socio-economics
- Chapter 15 Cumulative Effects
- Chapter 16 Summary of Environmental Commitments

N.B Each of the above technical chapters (Chapters 6 – 15) will be structured as follows:

- X.1 Introduction
- X.2 Legislation and Guidance
- X.3 Assessment Methodology and Significance Criteria
- X.4 Baseline Conditions
- X.5 Sensitive Receptors
- X.6 Assessment of Effects, Mitigation Measures and Residual Effects
- X.7 References

VOLUME 2: TECHNICAL APPENDICES

VOLUME 3: NON-TECHNICAL SUMMARY

Appendix C

BIODIVERSITY ASSESSMENT

JACKSON'S ROW

BIODIVERSITY ASSESSMENT

OCTOBER 2015

JACKSON'S ROW

BIODIVERSITY ASSESSMENT

Zerum Consult Limited

Biodiversity Assessment

Project no: 70010278
Date: October 2015

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A P P E N D I X B BAT ROOST POTENTIAL ASSESSMENT GUIDANCE
A P P E N D I X C LEGISLATION AND POLICY GUIDANCE

1 INTRODUCTION

1.1.1 WSP | Parsons Brinkerhoff (WSP | PB) was instructed to conduct an Ecological Constraints Appraisal (referred to as a Biodiversity Assessment) on a parcel of land located on Jackson's Row, Greater Manchester (National Grid Reference SJ83663 98054) (herein referred to as the 'Site') prior to the proposed construction of a mixed development (hereafter referred to as the 'Proposed Development'). The Site boundary is shown in **Figure 1** - Site Location Plan.

1.1.2 The Site is located in central Manchester, north of the A57 (M).

1.2 SITE DESCRIPTION AND PROPOSED DEVELOPMENT

1.2.1 The Site comprises of a number of buildings between Jackson's Row and Bootle Street, Greater Manchester, north of Manchester Oxford Road train station. It is within an area of residential and commercial properties. Rochdale Canal and the Rivers Irwell and Tib are located approximately 0.44 km south, 0.49 km northwest and 0.14 km east from the Site boundary respectively.

1.2.2 Within the Site boundary habitats include hardstanding, buildings, ornamental scrub and scattered trees.

1.2.3 The Proposed Development is for two buildings comprising residential dwellings, a hotel, a synagogue, a number of restaurants and bars, retail provisions and office spaces. In addition, it also includes public realm areas, rooftop garden amenity space and elevated gardens, revised access, car parking, landscaping and pedestrian routes through the Site. The Site area comprises 5,600 m², and would be cleared of existing uses prior to development.

1.3 SCOPE OF WORKS

1.3.1 The objectives of this biodiversity assessment are to set out the following:

- Obtain detailed baseline information on the current habitats and ecological features in and around the Site;
- Identify the potential of the Site to support protected or notable habitats or species;
- Identify the presence or potential presence of any protected or notable species whose disturbance may require consent under the Wildlife and Countryside Act, 1981 (as amended) (hereafter 'the WCA') or the Conservation of Habitats and Species Regulations, 2010 (as amended); and
- Identify any requirements for further survey or control measures to be put in place during the construction phase.

2 METHODOLOGY

2.1 DESKTOP ASSESSMENT

- 2.1.1 A desktop assessment was carried out in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Preliminary Ecological Appraisal' (2013). Records of any protected or notable species, habitats and designated nature conservation sites within a 2 km radius of the Site were obtained and reviewed. This radius was extended to 5 km for bats, as recommended by best practice guidelines (Hundt, 2012) and 10 km for International and European level conservation sites including Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Wetlands of International Importance (Ramsar).
- 2.1.2 The following organisations were contacted regarding records held for protected and/or notable species:
- Great Manchester Ecology Unit (GMEU).
- 2.1.3 Additional information on sites of nature conservation interest was obtained from:
- Natural England – Nature on the map website / Multi Agency Geographical Information for the Countryside (MAGIC) (<http://www.natureonthemap.naturalengland.org.uk/>); and
 - The National Biodiversity Network (NBN) (<http://www.nbn.org.uk/>)

2.2 WALKOVER SURVEY

- 2.2.1 An Ecological Constraints Appraisal is a broad inspection which identifies habitat types present at the Site and evaluates their potential to support protected species. A Site walkover was undertaken on 15th October 2015 by Principal Ecologist Dawn Phythian MCIEEM CEnv, from the publically accessible areas of Site. The habitats within the Site boundary were identified in accordance with the Joint Nature Conservation Committee (JNCC) Phase 1 survey methodology (JNCC, 2010) and notes were taken on any features of interest. The habitats recorded at the Site were also assessed for their potential to support protected or notable species following Chartered Institute of Ecology and Environmental Management guidance (CIEEM, 2013).
- 2.2.2 Any field signs of legally protected or priority species were noted and where no field signs were present an assessment was made of whether any protected or priority species were likely to be present. Features of ecological interest or evidence of protected species were recorded as Target Notes (see **Appendix A**).
- 2.2.3 The buildings and trees on Site were examined to determine if they offered suitable roosting potential for bats. These were then categorised and further surveys were recommended on the bat potential rating of the feature as described within **Appendix B** (as modified from Hundt, 2012).
- 2.3 The surveys also looked for the presence of common invasive species such as Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera*.

2.4 LIMITATIONS TO THE ASSESSMENT

- 2.4.1 An Ecological Constraints Appraisal does not comprise a full botanical assessment of all species present within a Site; therefore species lists are indicative only. Similarly, plant species are not as easily identifiable within areas of short/ low mown grassland habitats. The list of species identified at the Site is therefore unlikely to be comprehensive; however it provides a broad overview of the habitat types and their ecological value.
- 2.4.2 The Site was assessed from publically accessible areas only and the internal courtyards and private areas and roofs were not assessed during the walkover.
- 2.4.3 The baseline conditions described in this report are accurate at the time at which the survey was undertaken. Should considerable time pass (e.g. 2+ years) and/or conditions/land-use on the Site change prior to the commencement of works, it is recommended that an update survey is undertaken.

3 RESULTS

3.1 DESKTOP ASSESSMENT

- 3.1.1 Data older than 10 years has been excluded from the protected species summary as this data is unlikely to provide accurate representation of the species within the study area.

NATURE CONSERVATION SITES

STATUTORY SITES

- 3.1.2 Rochdale Canal Special Area of Conservation (SAC) and Site of Special Scientific Interest is located approximately 6.06 km north east from the Site boundary. The JNCC qualifies this site for protection due to the presence of a significant population of the European Protected Species (EPS) floating water-plantain *Luronium natans* in a botanically diverse waterplant community which also holds a wide range of pondweeds *Potamogeton* spp. This population of *Luronium* is representative of the formerly more widespread canal populations of north-west England.

- 3.1.3 There are no other statutory designated sites located within 2 km of the Site.

NON STATUTORY SITES

- 3.1.4 There are three Sites of Biological Interest (SBIs) located within 2 km of the Site boundary. SBIs are areas designated for protection due to their significant wildlife value and are of country wide importance.

The Rochdale Canal (Stott's Lane Ducie Street Basin) and the Ashton Canal are both designated as SBI's and are located approximately 1.44 km north east and 1.20 km east from the Site boundary. The Rochdale Canal is designated for protection for its floating water plantain population. It is also of note that certain stretches support white-clawed crayfish, which has some legal protection and American pondweed *Potamogeton epihydrus*, a Red Data Book species. In addition, certain stretches of the Ashton Canal also support floating water plantain and the nationally scarce grasswrack pondweed *Potamogeton compressus*; both are UK Biodiversity Priority Species and are designated as Species of Principal Importance under Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006. The River Irwell SBI is located 1.28 km north west from the Site boundary is recognised for its distinctive aquatic species composition.

- 3.1.5 There are no connecting features between the described non statutory sites and the Site.

SPECIES

3.1.6

GMEU provided the following records of protected and notable species.

Table 1. Species records located within 2 km of the Site boundary

SPECIES	CLOSEST RECORD TO SITE	DATE	DISTANCE FROM SITE BOUNDARY	SUITABLE HABITAT PRESENT ON SITE
Birds				
Lapwing <i>Vanellus vanellus</i>	SJ827981	01/06/2012	0.85 km west	✗
Lesser redpoll <i>Carduelis cabaret</i>	SJ823989	27/01/2011	1.57 km north west	✗
Skylark <i>Alauda arvensis</i>	SJ82809803	25/05/2012	0.82 km west	✗
House sparrow <i>Passer domesticus</i>	SJ82499901	16/03/2014	1.48 km north west	✓
Dunnock <i>Prunella modularis</i>	SJ83309839	20/02/2014	0.46 km north west	✓
Peregrine falcon <i>Falco peregrinus</i>	SJ823989	11/09/2010	1.57 km north west	✗
Song thrush <i>Turdus philomelos</i>	SJ82899803	01/04/2014	0.72 km west	✓
Little ringed plover <i>Charadrius dubius</i>	SJ82779811	17/05/2011	0.85 km west	✗
Kingfisher <i>Alcedo atthis</i>	SJ838976	01/02/2013	0.39 km south east	✗
Bullfinch <i>Pyrrhula pyrrhula</i>	SJ82859800	22/04/2014	0.76 km west	✓
Starling <i>Sturnus vulgaris</i>	SJ837961	04/12/2012	0.74 km west	✓
Black redstart <i>Phoenicurus ochruros</i>	SJ83839744	20/06/2011	0.56 km south east	✓
Mammals				
West European Hedgehog <i>Erinaceus europaeus</i>	SJ845972	16/01/2013	1.1 km south east	✗
Badger <i>Meles meles</i>	Confidential	20/09/2011	0.52 km south east	✗
Amphibians/Reptiles				
Common toad <i>Bufo bufo</i>	SJ823987	19/04/2014	1.47 km north west	✗

3.1.7

GMEU provided recent records of the following bat species within 5km of the Site boundary:

- Common pipistrelle *Pipistrellus pipistrellus*;
- Soprano pipistrelle *Pipistrellus pygmaeus*;
- Unknown pipistrelle *sp.*;
- Brown long eared bat *Plecotus auritus*;
- Daubenton's *Myotis daubentonii*;
- Natterer's *Myotis nattereri*;
- Whiskered *Myotis mystacinus*;

- Whiskered/Brandt's *Myotis mystacinus /brandtii*;
- Unknown *myotis* sp.;
- Noctule *Nyctalus noctula*; and
- Unknown bat species *Vespertilionidae* sp.

Table 2. Bat roost records returned within 5 km of the Site boundary

SPECIES	CLOSEST RECORD TO SITE	DATE	DISTANCE FROM SITE BOUNDARY
Common pipistrelle <i>Pipistrellus pipistrellus</i>	SJ83239773	15/08/2012	0.47 km south west
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	SJ82849793	26/06/2013	0.78 km south west
<i>Pipistrellus</i> sp.	SJ83729744	05/06/2008	0.54 km south
Daubenton's Bat <i>Myotis daubentonii</i>	SD798008	13/07/2006	4.70 km north west
Brown long-eared bat <i>Plecotus auritus</i>	SJ87059697	04/07/2011	3.47 km south east
<i>Vespertilionidae</i> sp.	SJ82849793	20/06/2013	0.79 km west

3.1.8 Habitats and species listed under the Greater Manchester Biodiversity Action Plan (BAP) which may be relevant to the Site include:

- Black redstart *Phoenicurus ochruros*;
- Bats; and
- Urban-managed greenspace.

3.2 ECOLOGICAL CONSTRAINTS APPRAISAL

3.2.1 The habitats present on Site consist of buildings, hardstanding, ornamental shrubs and immature trees. Overall the habitats on Site were considered to be of minimal ecological value.

PROTECTED SPECIES

BREEDING BIRDS

3.2.2 The Site contained a number of ornamental hawthorn *Crataegus orientalis* trees; however these were not identified to have any potential to support breeding birds and are therefore not considered to pose a constraint to the Proposed Development.

3.2.3 It should be noted that the nationally protected black redstart has been known to breed in central Manchester over recent years, and species records returned from the data search show that this species has been recorded less than 1 km from the Site boundary. The walk over survey was undertaken in Autumn, and these birds are summer migrants, as such would not be expected to be present on Site. The Site contained a number of flat roofs but with little vegetation and foraging habitat and therefore of low potential for these birds. The Greater Manchester Biodiversity Action Plan (BAP) has a Species Action Plan for this species, it is therefore recommended that design plans for green roofs and buildings take this species into account.

BATS

3.2.4

Three buildings on Site were considered to have potential to support roosting bats, of which their descriptions can be found within **Table 3** below and exact locations detailed in **Figure 2**.

Table 3. Bat roost potential categories for the buildings found within the Site boundary

BUILDING NAME	BUILDING DESCRIPTION	FEATURES WITH BAT ROOST POTENTIAL	BAT ROOST POTENTIAL CATEGORY
Building A	This building is a synagogue. It has three levels with a flat roof and an overlapping felt edge. The building also has metal windows and metal roof single story small rear extension.	Small gaps were noted on the felt roof overlap at both the front and back of the building. There is potential for features on service structures seen on the roof from aerial photographs. Anecdotal evidence provided by the Site caretaker indicated that bats have been seen in vicinity of this area in previous years.	Low – negligible (roof inspection required to identify full potential)
Building B	The Sir Ralph Abercromby public house is of a Victorian build, predominately constructed of brick with a multi-levelled pitched and tiled roof, with wooden sash windows and a single story flat roof extension to rear. One area within the roof was flat.	Features are: • gaps in and adjacent to wooden sash windows on both the upper floors. (moderate potential); • wooden soft boxes with small gaps noted (low potential); • brickwork on the chimney had some damage and missing mortar (low potential); • lifted flashing on roof (low potential); and • lifted tiles and ridge tile gaps on roof (low- moderate potential)..	Moderate
Building C	This building once was used as a police station and is constructed of brick and is stone fronted with multiple stories and a flat roof with a visible concrete lip. The brick and mortar were generally considered to be in good condition and no gaps were identified around the PVC	No features on the building could be seen from external inspection. Possible features could have been present on the roof and within the courtyard however due to visual restrictions; this structure could not be thoroughly assessed.	Unknown until internal inspection.

windows.

INVASIVE SPECIES

- 3.2.5 An established stand of small leaved cotoneaster *Cotoneaster microphyllus* was identified in the centre of the Site (see **Appendix A – TN2**).

OTHER SPECIES

- 3.2.6 No other habitats with potential for protected species were identified on Site and therefore it was considered unlikely that other protected species are a constraint to the Proposed Development.

4 DISCUSSION AND RECOMMENDATIONS

4.1 NATURE CONSERVATION SITES

- 4.1.1 The Site does not share any contiguous or complimentary habitat with the SAC which has been identified within 10km of it. The SAC's primary classification is for its aquatic vegetation community. Given there are no waterbodies on Site, the distance from the Site boundary and the lack of direct connectivity, it is not expected that the Proposed Work on Site will impact on the SAC. Therefore it is possible to exclude the risk of likely significant effects upon it and no further assessment is required. No other statutory or non-statutory sites are likely to be directly or indirectly impacted upon from the Proposed Development due to the distance and lack of connectivity between them and the Site.

4.2 HABITATS

- 4.2.1 The Site is dominated by man-made habitats such as buildings and hardstanding. There are limited areas of semi-natural habitat present including ornamental shrubs and scattered trees. Such habitats are considered to be common within the local context and unlikely to be of significant value for any protected or notable species.

4.3 PROTECTED SPECIES

- 4.3.1 No evidence of protected or notable species was recorded during the survey. However the trees and hedgerow on Site have potential to support nesting birds during the breeding bird season.
- 4.3.2 Buildings and trees on Site were assessed for their potential to support roosting bats. Three buildings on Site were considered to have the potential to support bat roosts (exact locations provided in **Figure 2**).

4.4 RECOMMENDATIONS

BATS

- 4.4.1 Three buildings located on Site have potential to support bats. All bats and therefore, their roosts, are protected under Habitats Regulations (**Appendix C**). As the Proposed Development involves the demolition of the majority of the Site and changes to the roof of the synagogue, to avoid a breach in legislation, further investigations into this potential are required.
- 4.4.2 As full access was not obtained at this stage and given the time of year (outside the bat activity survey season, May- September) it is suggested that a full building inspection is undertaken to fully determine the bat roost potential of the buildings and to determine bat species presence/likely absence within the Site boundary. This survey would be conducted by a licensed bat surveyor and involve internal and external inspections using high powered torches and endoscopes to search internal areas of the roof space to identify whether roosting bats are utilising the roof cavities. As well as physical sights, droppings, urine stains and scratches would also be searched for. The survey would be undertaken in accordance with Bat Conservations Trust's 'Bat Surveys: Good Practice Guidelines 2nd Edition' (Hundt, 2012) and English Nature's 'Bat Workers Manual 3rd Edition' (Mitchell-Jones et al, 2004). A mobile elevated work platform may be required to access the external features on the properties to help with full assessment.

- 4.4.3 Depending on the results of the inspection, further emergence/re-entry surveys may also be required to fully assess the buildings for bat presence/likely absence. Emergence/re-entry surveys (if required following building inspection) must be conducted during the bat active flight period and evenly spaced throughout the period of May to September (with at least one survey in peak season May to August).
- 4.4.4 Given the Site has limited food sources for black redstart; it is not recommended that surveys for these birds are undertaken for this project. No other ecological surveys are required given the current ecological records received for the Site.

INVASIVE SPECIES

- 4.4.5 An established stand of small-leaved cotoneaster was identified in the centre of the Site (See **Appendix A – TN1**). Works should be timed so as to minimise the spread of these species, by working outside of the flowering / seeding periods. Should any of the works directly impact the invasive species, these plants will need to be managed appropriately. Cotoneaster should be removed out of flower when displaying no berries, before being chipped and removed from the site. Cotoneaster plants spread via the berries, which are on the plant during the autumn and winter months. Therefore if this plant is removed or disturbed during the time when the berries are present this could cause the plant to spread. If necessary, removal of this plant should therefore occur during the spring (April – May).

PROTECTION OF BREEDING BIRDS

- 4.4.6 All wild birds are afforded partial protection under Section 1 of the WCA 1981 (as amended), making it an offence, amongst other things, to intentionally or recklessly kill, injure or take a wild bird; take or destroy its eggs; and/or to take, damage, destroy, interfere with or obstruct access to its nest whilst it is in use or being built.
- 4.4.7 The clearance of the buildings any trees and scrub should ideally be carried out outside the bird breeding season i.e. between October and February. If these are to be removed during the bird breeding season (generally considered to be from March-September) then they should be checked to confirm the absence of nesting birds by a suitably qualified ecologist prior to removal. Where nesting birds are encountered, the ecologist should advise on an appropriate buffer to be established within which no works would be conducted until the young have fledged the nest.

ECOLOGICAL ENHANCEMENT

- 4.4.8 The National Planning Policy Framework (NPPF) and Natural Environment and Rural Communities (NERC) Act 2006 place a duty upon public bodies, including planning authorities in England and Wales to promote and enhance biodiversity in all of their functions. Habitats and species of value will therefore need to be considered within the development and landscaping design process.
- 4.4.9 The results of this initial biodiversity assessment suggest that the following should be considered during the early scheme design to minimise potentially adverse ecological effects and realise opportunities to enhance biodiversity:
- Any soft landscaping should take into account local wildlife listed in the Greater Manchester Action Plan and efforts should be made to promote these species;
 - Should any artificial lighting be installed or utilised at night during the Proposed Works then it is recommended that low pressure sodium lamps or high pressure sodium instead of mercury or metal halide lamps is used due to its UV filtration characteristics. This will avoid disturbance to commuting, foraging or roosting bats. Lighting should also be directional to avoid light spill (Bat Conservation Trust & Institute of Lighting Engineers 2008); and

- Given the design includes roof gardens and tall buildings there is opportunity within the design to support the Manchester BAP for black redstart. Therefore it is recommended the design of these features should incorporate favourable habitat such as achievable ledges and foraging opportunity in the planting. This would also have benefits for other birds and provide foraging opportunities for insects and bats.

5

CONCLUSION

- 5.1.1 The Ecological Constraints Appraisal undertaken in October 2015 has noted that the buildings on Site have some potential for roosting bats and breeding birds. In addition an invasive plant species was identified on the Site.
- 5.1.2 Further surveys are required to investigate the potential for roosting bats in order to avoid a breach of legislation. Given the time of year and the lack of direct access during the walkover survey to the buildings and their roofs an exhortative inspection of the buildings should be undertaken by a licenced bat worker. These surveys will either confirm the potential and/or presence of bats. It is possible emergence / re-entry surveys may be required in the appropriate surveys season (May to September) but this will be informed by the building inspection.
- 5.1.3 The buildings roofs and the vegetation on Site have potential to support nesting birds and therefore should be removed outside the nesting season (commonly taken to be March to September inclusive). It is considered unlikely that the Proposed Development will impact on protected/notable species or local conservation sites as identified in the study.
- 5.1.4 There is opportunity within the building design plans to provide valuable wildlife habitats within the proposed green spaces as included within the proposed design, including suitable provisions for the locally highlighted black redstart.

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- ODPM Circular 06/2005: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within The Planning System
- The Natural Environment and Rural Communities (NERC) Act (2006).

FIGURES

FIGURE 1 – SITE LOCATION PLAN

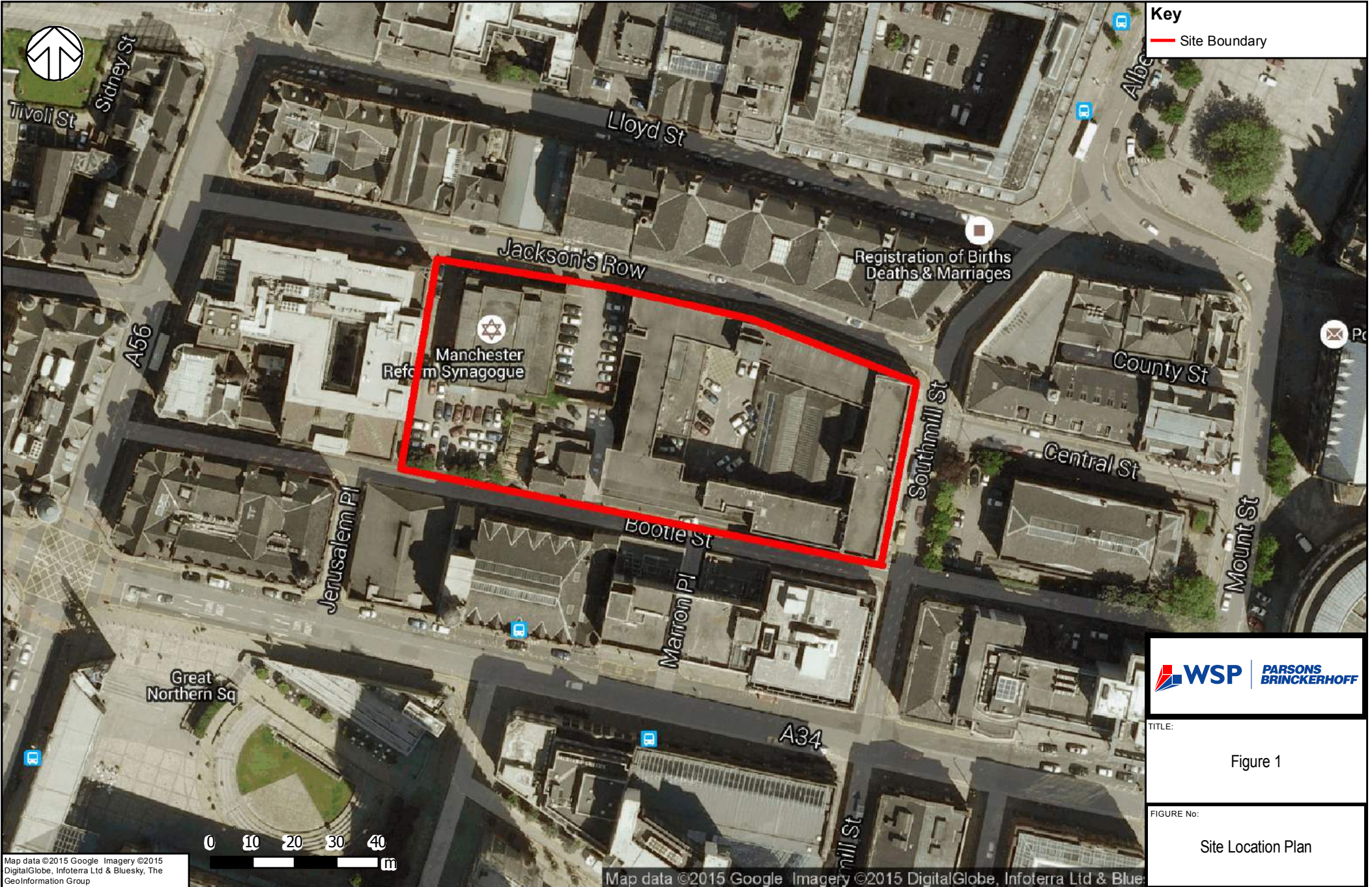
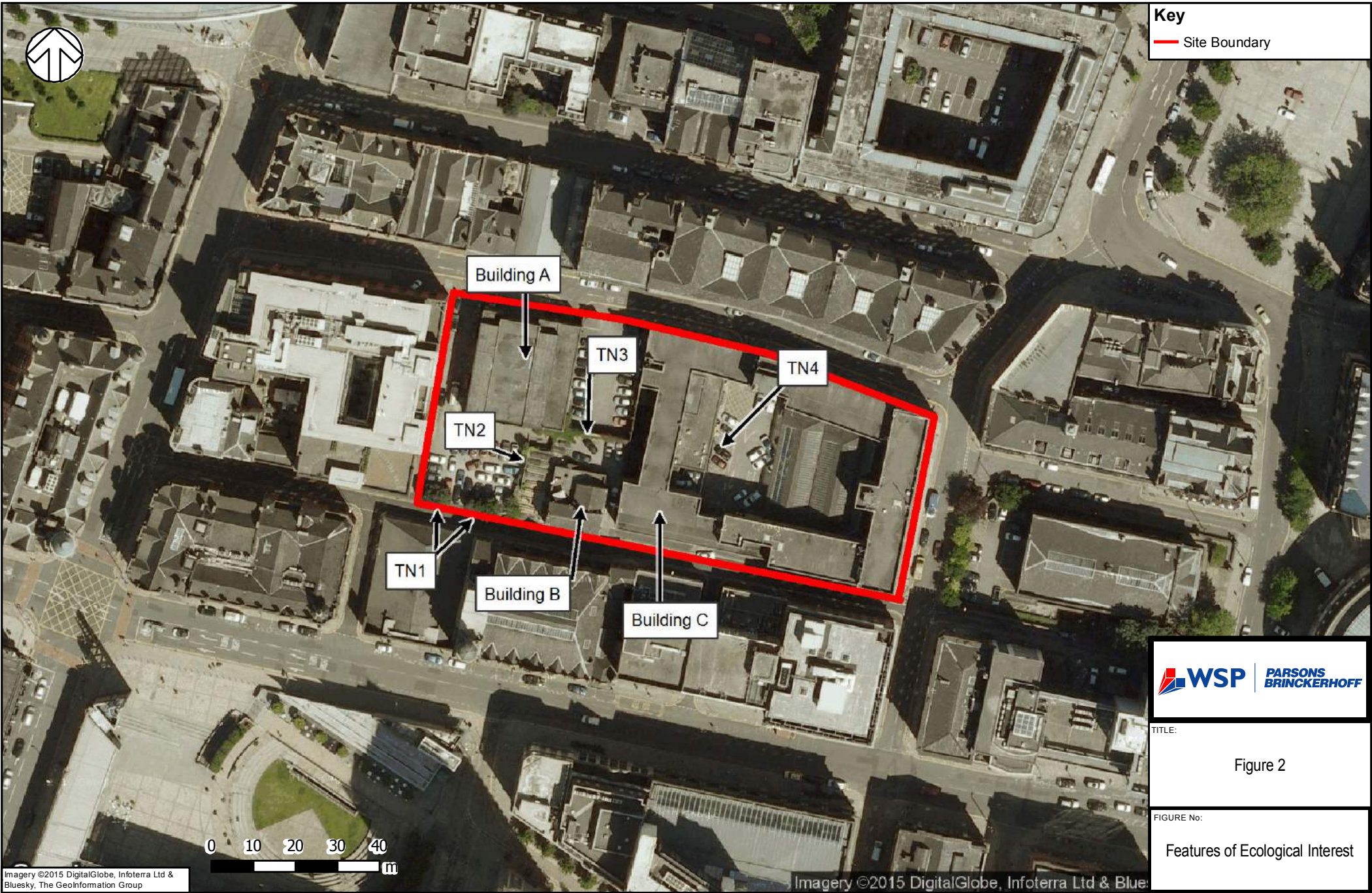


FIGURE 2 – FEATURES OF ECOLOGICAL INTEREST



Appendix A

TARGET NOTES

TARGET NOTE	GRID REFERENCE	DESCRIPTION
1	SJ83619 98007 & SJ83631 98004	Vegetation identified in this area: ■ 5 immature oriental rowan (one densely covered in ivy) ■ The understorey vegetation in is patch bare ground with some perennial rye grass <i>Lolium perenne</i>, chickweed <i>Stellaria media</i> and white clover <i>Trifolium repens</i>. Dumped material was also present in this area.
2	SJ83640 98017	Small leaved cotoneaster was present within this planter. A vegetation planter was also present in this area and contained laurel <i>Laurus</i>, sycamore <i>Acer pseudoplatanus</i>, ornamental rowan <i>Sorbus sp.</i> and ornamental rose <i>Rosa sp.</i>
3	SJ83657 98021	Russian vine <i>Fallopia baldschuanica</i> was seen on the wall located at the back of Building B (the Sir Ralph Abercromby).
4	SJ83688 98020	Buddleia <i>Buddleja sp.</i> was present in cracks present in the courtyard of the Site.

Appendix B

BAT ROOST POTENTIAL ASSESSMENT GUIDANCE

Table 4. Criteria for bat roost potential assessment of a structure (modified from Hundt, 2012)

BAT ROOST POTENTIAL	DESCRIPTION
Confirmed	Building with features confirmed to be used by roosting bats either by historic records (verified appropriately), or evidence recorded during survey.
High	Building exhibits a number of features suitable for use by roosting bats e.g. numerous roosting opportunities such as dark, enclosed roof voids; has a high degree of connectivity with likely navigation routes; and is located within suitable foraging habitat, likely to be noticed by commuting bats.
Moderate	Building exhibits features suitable for use by roosting bats, such as internal and external cavities well insulated from external weather conditions, but is less than ideal in some way. It may be situated in less than ideal habitat, lacking suitable commuting corridors.
Low	Building may have some interest to roosting bats, e.g. external roosting features such as fascia or soffit boards, but is considered to be sub-optimal to the extent that bats would be considered unlikely to use it; or has more suitable features but is in an unsuitable location e.g. isolated from foraging or commuting habitats.
Negligible	Building with little-to-no potential to support bats in an unsuitable location e.g. isolated from foraging or commuting habitats.

Table 2. Criteria for bat roost potential assessment of trees (based on interpretation of Hundt, 2012)

TREE CATEGORY	DESCRIPTION
Confirmed	Tree with features confirmed to be used by roosting bats either by historic records (verified appropriately), or evidence recorded during survey.
High	Tree with highly suitable features capable of supporting larger roosts. The habitat is connected to wider landscape by strong linear features that may be used by commuting bats e.g. river valley, streams and hedgerows.
Moderate	Tree with definite bat roost potential but with only one or two suitable features, or multiple features with the potential to be used by individual/small numbers of bats. Surrounding area includes good quality foraging habitat for bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland; or tree with highly suitable features though its context is less optimal.
Low	Tree with less suitable features capable of supporting individual/small numbers of bats within a sub-optimal location; tree in suitable habitat and of a size and age that elevated surveys are considered likely to result in cracks or crevices being found; or tree with definite bat roost potential which is isolated and within low quality foraging habitat meaning that the presence of a roost is considered less likely.

TREE CATEGORY	DESCRIPTION
Negligible	Tree with no potential opportunities for roosting bats, or very few or minor features in an isolated/unsuitable location such that the presence of a roost is considered highly improbable e.g. isolated from suitable foraging or commuting habitats.

Appendix C

LEGISLATION AND POLICY GUIDANCE

THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2010 (AS AMENDED)

The Conservation of Habitats and Species Regulations 2010 (as amended) consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.

THE WILDLIFE AND COUNTRYSIDE ACT (WCA) 1981 (AS AMENDED)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive.

It complements the Conservation of Habitats and Species (Amendment) Regulations 2011 offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs). Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species. All relevant species specific legislation is detailed later in this Appendix.

THE COUNTRYSIDE AND RIGHTS OF WAY (CROW) ACT 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

THE NATURAL ENVIRONMENT AND RURAL COMMUNITIES (NERC) ACT 2006

Section 40 of the NERC Act 2006 places a duty upon all local authorities and public bodies in England and Wales to have regard to the conservation of biodiversity in their function. Section 41 (England) lists the habitats and species of principal importance to the conservation of biodiversity in England. These species and habitats are a material consideration in the planning process.

NATIONAL PLANNING POLICY FRAMEWORK (NPPF) MARCH 2012

The planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying a number of principles, including (but not limited to) the following:

- if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;
- opportunities to incorporate biodiversity in and around developments should be encouraged;
- proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the

features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest;

- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and
- By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

NATIONAL PLANNING PRACTICE GUIDANCE 2014

The National Planning Practice Guidance (NPPG) was published on 6th March 2014 and introduced revised and updated planning practice guidance.

Advice is provided within the 'Natural Environment' section, which refers the reader to specific guidance; in particular paragraph 016, which states:

"Information on biodiversity impacts and opportunities should inform all stages of development (including, for instance, site selection and design including any pre-application consultation as well as the application itself.

"An ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or inadequate. Pre-application discussion can help scope whether this is the case and, if so, the survey work required.

"Where an Environmental Impact Assessment is not needed it might still be appropriate to undertake an ecological survey, for example, where protected species may be present. Separate guidance is to be published by Defra on statutory obligations in regard to protected species which will replace the advice set out in Circular 06/05: Biodiversity and Geological Conservation.

"Local planning authorities should only require ecological surveys where clearly justified, for example if they consider there is a reasonable likelihood of a protected species being present and affected by development. Assessments should be proportionate to the nature and scale of development proposed and the likely impact on biodiversity. Further guidance on information requirements is set out in making an application.

"Planning conditions, legal agreements or undertakings may be appropriate in order to provide for monitoring and/or biodiversity management plans where these are needed."

ODPM CIRCULAR 06/2005: BIODIVERSITY AND GEOLOGICAL CONSERVATION - STATUTORY OBLIGATIONS AND THEIR IMPACT WITHIN THE PLANNING SYSTEM (CIRCULAR 06/05).

This Circular was prepared to support the now obsolete guidance within Planning Policy Statement 9 (PPS9) and provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. This document will shortly be replaced by guidance set out within NPPG. Of particular note, this document states:

"The potential effects of a development, on habitats or species listed as priorities in the UK Biodiversity Action Plan (BAP), and by Local Biodiversity Partnerships, together with policies in the England Biodiversity Strategy, are capable of being a material consideration in the preparation of regional spatial strategies and local development documents and the making of planning decisions.'

'The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat'.

BATS

All native UK bats are afforded full protection under Section 9 of the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5 of the Act. Under the Act it is an offense to:

- intentionally or recklessly kill, injure or take a wild animal included in Schedule 5 (Section 9.1); and to
- possess or control any live or dead wild animal included in Schedule 5 or any part of, or anything derived from, such an animal (Section 9.2).

It is an offence intentionally or recklessly to:

- damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection (Section 9.4a);
- disturb any such animal while it is occupying a structure or place which it uses for shelter or protection (Section 9.4b); or
- obstruct access to any structure or place which any such animal uses for shelter or protection (Section 9.4c).

It is also an offence to:

- sell, offer or expose for sale, or possess or transport for the purpose of sale, any live or dead wild animal included in Schedule 5, or any part of, or anything derived from, such an animal (Section 9.5a); or
- publish or cause to be published any advertisement likely to be understood as conveying that one buys or sells, or intends to buy or sell, any of those things (Section 9.5b).

Knowingly causing or permitting any of the above acts to be carried out is also an offence.

Bats also receive full protection as European Protected Species under Section 41 of The Conservation of Habitats and Species Regulations 2010 through their inclusion on Schedule 2. Under the Regulations it is an offence to deliberately:

- capture, injure or kill a wild animal of these species;
- disturb such animals; and to
- damage or destroy a breeding site or resting place of such an animal.

It is also an offence to:

- possess or control, transport, sell or exchange or offer for sale or exchange any of these species or any part or derivative of one (if obtained after May 1994).

INVASIVE WEEDS

Schedule 9 of the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) makes it an offence to plant or otherwise cause species such as Japanese knotweed *Fallopia japonica* to grow in the wild.