Deloitte.

Phase 1B Former BBC Site, Oxford Road, Manchester

Environmental Impact Assessment (EIA) Scoping Report

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1 Introduction

1.1 This Environmental Impact Assessment (EIA) Scoping Report has been prepared on behalf of Oxford Property Trading Limited (OPTL) and Bruntwood in respect of the proposed development on land on the north western part of the site formerly occupied by the BBC at Oxford Road, Manchester and land to the south east of the Former BBC Site ("the Site").

1.2 The Proposed Development comprises Phase 1B of development of the Former BBC Site Development Masterplan ("the Masterplan"), which was endorsed by Manchester City Council's Executive Committee in April 2015. This phase of development encompasses five separate planning applications which seek Full Planning Permission for:

1. Public Realm and Pavilion – a significant area of public green space at the heart of the masterplan. The Green (as the central green space will be known) is c.94m long and c.43m wide. Beneath 'The Green' is a space which has been designed to be as flexible as possible and its uses will be developed over time as part of the broader strategy for across the Site, but may include commercial retail/food and drink uses and/or community uses.

2. Two new Commercial Office Buildings fronting Oxford Road – circa. 42,317 sq. m of B1 commercial floorspace within one 14 storey building and one 18 storey building. Ground floor commercial (retail, restaurants etc.) uses will activate the buildings and contribute to the space being created around the buildings but also critically add to the streetscene and activity along Oxford Road – a major commercial corridor at the heart of the city centre.

3. A new Residential Building – circa.408 apartments for the Private Rented Sector in one part 14 storey, part 34 storey building. Again, ground floor commercial uses will create activity and provide amenity for new and existing residents and businesses in the area.

4. One further Residential Building creating circa.266 apartments for the Private Rented Sector within a 14 storey building, with ground floor commercial uses.

5. A circa 1,000 space Multi-storey Car Park within a 10 storey building with ground floor commercial uses. This will act as a public car park, serving the needs of a wide area.

1.3 This Scoping Report is submitted to Manchester City Council ("the Council") as a request for a Scoping Opinion under Regulation 13 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (as amended). In accordance with Regulation 13, paragraph 2, this report contains:

- A plan sufficient to identify the land; and
- A brief description of the nature and purpose of the development and of its possible effects on the environment.

Definitions

1.1 References to the Site, Proposed Development and "Phase 1B" refer to the second phase of development to be progressed within the Former BBC Site Masterplan and covered by the five planning applications to be submitted to MCC in January 2016 by Bruntwood and OTPL.

1.2 References to "Phase 1A" refer to the first phase of development. Vita (Man 2) Ltd (a wholly owned subsidiary of Select Property Group) have submitted a planning application to MCC for 708 serviced apartments in two buildings (one 12 storey, one part 13, part 17 storey) with ground and mezzanine floor ancillary areas including reception, residents' hub and amenities, plus commercial units (Use Class A1, A2, A3, A4, B1, D2) and associated access, landscaping and cycle parking facilities. The application is currently under consideration.

1.3 References to the Former BBC Site, Masterplan Site and the Masterplan refer to the wider BBC masterplan area being progressed by OTPL.

EIA Requirements

1.4 The EIA process is the mechanism by which development proposals are appraised in terms of environmental criteria, in addition to socio-economic, engineering and technical considerations. The EIA process defines the context of the Proposed Development and examines the issues considered pertinent.

1.5 The purpose of the EIA is to establish the nature of the development and the environment on which it is likely to take place to identify likely significant effects on the environment that may arise, by comparing the existing situation at the start of the work (baseline) with the situation once the proposals are in place.

1.6 The Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2011 require that any proposed development falling within the description of a 'Schedule 2 development' within the meaning of the Regulations, will be subject to an EIA where such development is likely to have 'significant' effects on the environment by virtue of such factors as its nature, size or location (Regulation 2(b)).

1.7 The proposed development falls under the category of "Infrastructure Projects" (Schedule 2, 10, (b)) as described in the Regulations. The applicable threshold above which EIA is more likely to be required is 0.5 hectare (ha). The Site area is approximately 1.39 ha. The indicative thresholds and criteria state that:

"In addition to the physical scale of such developments, consideration should be given to the potential increase in traffic, emissions and noise. EIA is unlikely to be required for the redevelopment of land unless the new development is on a significantly greater scale than the previous use, or the types of impact are of a markedly different nature or there is a high level of contamination".

Purpose of the Scoping Report

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

1.9 Regulation 13 of the EIA Regulations sets out the requirements for obtaining a scoping opinion from the relevant planning authority.

1.10 This Scoping Report sets out the framework within which the ES will be produced and the topic areas and information that will be contained within the document. Statutory Consultees are invited to express their

views on the proposed scope of the EIA, or suggest additional issues which may be considered to be of significance.

1.11 Section 2 of this report provides a site description and outlines the nature of the demolition proposals. Section 3 sets out the scope and structure of the ES and details those to be consulted. Section 4 provides details of the proposed EIA methodology to be used in assessing the proposals. Section 5 sets out the key issues that will be addressed by the EIA.

2 Site Description and Development Proposals

Site Context

2.1 Manchester is characterised by a compact City Centre and the Site is within walking distance of the city's economic, civic, cultural and leisure offer.

2.2 To the south west of the Site, which also forms part of the wider Masterplan Site, is the Manchester Technology Centre (Oxford House). This building remains in active office use with commercial units located on the ground floor.

2.3 The Mancunian Way fly-over is situated along the Site's southern boundary and creates a barrier between the Site and the main University campuses further south. There are a number of car parks and sports pitches located under the Mancunian Way. Overall, the appearance is of a fragmented and poorly landscaped urban grain.

2.4 To the east of the Site, on the eastern bank of the River Medlock are located residential apartments within Princess House and Montana House, both rising to approximately 12 storeys. Together these blocks accommodate c.130 apartments.

2.5 To the east of the Princess Street boundary is the former UMIST campus, which is now known as the Sackville Street campus (or North Campus) of the University of Manchester. Princess Street bridges the River Medlock, a tributary of the River Irwell.

2.6 To the west of the Site is Oxford Road, which contains a mixture of uses and buildings. There are also a number of hotels within the immediate vicinity of the Site on Oxford Road, including the Grade II* Listed Palace Hotel and a new Holiday Inn Express. The Grade II Listed Dancehall Theatre located on Oxford Road overlooks the Masterplan Site from the west.

2.7 To the north of the Site, Charles Street has a mix of building heights and uses, including a number of public houses and bars to the eastern end, and residential use at its junction with Oxford Road. The Grade II listed Lass O'Gowrie pub is located north of the Site on Charles Street. Further Grade II and Grade II* Listed buildings are located further north on Princess Street and Whitworth Street West.

2.8 The Site is not within a Conservation Area but the border of the Whitworth Street Conservation Area lies to the north on the Whitworth Street.

2.9 A Site Location Plan is provided at Appendix 1.

Site Description

2.10 Four of the five planning applications (for the PRS, commercial office and public realm/pavilion developments) are located in the central and north western part of the Masterplan Site. This area is bound

by vacant land that forms part of the Masterplan Site to the east, Oxford Road to the west, Brancaster Road to the south and Charles Street to the north.

2.11 The first stage of an endorsed delivery strategy for the entire Masterplan area was to prepare the Masterplan Site ahead of main construction works. These Site Enabling Works commenced in October 2015 and will take approximately six months to complete. By early 2016 the Masterplan Site will be a cleared, secure environment capable of accepting development. The Site will have been re-graded and development platforms created for each building.

2.12 As the Enabling Works will have completed prior to the Proposed Development commencing, the baseline conditions considered in this assessment will assume that these works have taken place.

2.13 The fifth application (MSCP) comprises land in the south eastern part of the masterplan, with a site area of approximately 0.53 hectares. It is bounded by Cloak Street to the north, Princess Street to the east, the Mancunian Way to the south and, Oxford House to the west.

2.14 The area currently accommodates Armstrong House with a small allocation of surface level car parking. Prior to the commencement of development a prior notification application will be issued to the Local Planning Authority for the demolition of Armstrong House, as such the baseline conditions considered in this assessment will assume that these demolition works have already taken place.

Proposals

2.15 The Proposed Development assessed as part of this EIA is submitted across five separate applications for Planning Permission as follows:

1. Public Realm and Pavilion – a significant area of public green space at the heart of the masterplan. The Green (as the central green space will be known) is c.94m long and c.43m wide. Beneath 'The Green' is a space which has been designed to be as flexible as possible and its uses will be developed over time as part of the broader strategy for across the Site, but may include commercial retail/food and drink uses and/or community uses.

2. Two new Commercial office Buildings fronting Oxford Road – circa. 42,317 sq. m of B1 commercial floorspace within one 14 storey building and one 18 storey building. Ground floor commercial (retail, restaurants etc.) uses will activate the buildings and contribute to the space being created around the buildings but also critically add to the streetscene and activity along Oxford Road – a major commercial corridor at the heart of the city centre.

3. A new Residential Building – circa.408 apartments for the Private Rented Sector in one part 14 storey, part 34 storey building. Again, ground floor commercial uses will create activity and provide amenity for new and existing residents and businesses in the area.

4. One further Residential Building creating circa.266 apartments for the Private Rented Sector within a 14 storey building, with ground floor commercial uses.

5. A circa 1,000 space Multi-storey Car Park within a 10 storey building with ground floor commercial uses. This will act as a public car park, serving the needs of a wide area.

Table 2.1: Phase 1B Proposed Uses, Floorspaces and Heights (all figures approximate)

	PRS Building 5 and 6	PRS Building 7&8	Commercial Building 2 and 4	Pavilion / Public Realm	MSCP	TOTAL
Residential	408	266	0	0	0	**674**
Office			42,317 sq.m			**42,317 sq.m**
Ground floor commercial "Retail" units	1,500 sq.m	1,737 sq.m	2,853 sq.m	1,765 sq.m	1,162 sq. m	**15,107 sq. m**
Car Park	n/a	n/a	n/a	n/a	c. 1,000 spaces	**c. 1,000 spaces**
Heights	Part 16 / Part 36 storeys	16 storeys	Building 2: 18 storeys Building 4: 14 storeys	Pavilion building at half basement level	10 storeys	

2.16 The Proposed Development also includes the following works to the local highways:

- Junction improvements to Oxford Road / Charles Street to be included as part of the planning application for PRS buildings 5 and 6 to facilitate the right-turn of traffic onto Charles Street from Oxford Road
- Junction improvements to create access into the MSCP from Princess Road / Upper Brook Street

2.17 The five planning applications cumulatively comprise phase 1B and will essentially be delivered, subject to planning, as one project albeit with slightly staggered start and end dates. It is therefore appropriate to consider the potential environmental impacts of all five planning application proposals as a whole in one EIA.

	PRS Building 5 and 6	PRS Building 7&8	Commercial Building 2 and 4	Pavilion / Public Realm	MSCP
Estimated Start Date	Q3 2016	Q3 2016	Q3 2016	Q2 2017	Q3 2016
Estimated Completion Date	Q3 2019	Q1 2019	Q3 2018	Q2 2018	Q1 2018

3 Scope, Structure and Consultation

Scope

3.1 A scoping exercise has been carried out in order to determine the likely significant effects on the environment that may arise as a result from the Proposed Development. This process has enabled the team to determine which technical disciplines are pertinent to the proposals and the scope of assessment required in order for any likely significant effects on the environment to be addressed as part of the EIA process.

3.2 This process has taken account of the proposed demolition activities, relevant planning policy, knowledge of the Site, and the professional opinion of the project team.

3.3 The information presented in the ES will be provided in accordance with Schedule 4 of the EIA Regulations and will include:

- A description of the demolition proposals;
- An outline of the main alternatives studied;
- A description of the aspects of the environment likely to be significantly affected by the proposals;
- A description of the likely significant effects of the development on the environment;
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment;
- A non-technical summary; and
- An indication of any difficulties encountered by the applicant in compiling the required information.

3.4 The introductory chapters of the ES will provide the following information:

- An introduction to the ES in a legislative and site specific context;
- Description of the site and proposals;
- Alternatives considered and project design evolution;
- EIA methodology;
- Demolition methodology and programme;
- Stakeholder engagement;
- ES structure; and
- Details of the EIA project team.

3.5 The geographical coverage of the EIA will be determined by a number of factors including:

- The physical extent of work;
- The nature of the baseline environment, including the location of sensitive receptors;
- The distance over which effects will be significant; and
- The presence and type of “pathways” along which impacts may be spread.

Environmental Disciplines Scoped Out

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

Ecology and Nature Conservation

3.7 A Phase 1 Ecological report and Bat survey was prepared by Penny Anderson Associates, qualified ecologists and Members of the Chartered Institute of Ecology and Environmental Management, in July 2015.

3.8 The Extended Phase 1 Habitat Survey highlighted no areas of habitat or nature conservation interest. The plant species list was much reduced with all plant species recorded being common and typical of disturbed ground associated with sites dominated by hardstanding and buildings. No non-native invasive Schedule 9-listed plants were observed across the Site.

3.9 Habitats on the Site were considered to be of low value to foraging and commuting bats.

3.10 Some limited potential for nesting birds was identified on Site. However, no active or disused birds' nests were observed. The habitats on Site were not considered suitable for use by nesting or foraging black redstart (a species known to nest in central Manchester). A copy of the Phase 1 Habitat Survey, that covers the whole Masterplan Site, is included at Appendix 2.

3.11 It is not therefore considered that there will be any significant impacts upon ecology and nature conservation and this discipline can therefore be scoped out of the EIA.

Archaeology

3.12 A Desktop Archaeological Assessment was carried out with regards to the Masterplan Site by Pre Construct Archaeology (included at Appendix 3). The report concluded that the Site lies within an area that was intensively developed primarily to house the industrial workforce from the early 19th century, and early buildings survived on parts of the site up until the 1970s when the BBC complex was developed. The potential for encountering remains of early 19th- to 20th-century date is therefore very high across the Masterplan Site, and particularly in areas not truncated by the former BBC building.

3.13 As part of the Enabling Works application, a trial-trench evaluation across land to the north of Brancaster Road and Cloak Street has been partially completed. This confirmed extensive truncation from the BBC development within the area of Site where Buildings 5/6 of Phase 1B are proposed, but the survival of archaeology within the Phase 1A area which had been less intensively developed in the 20th century. During the recent implementation of the Enabling Works, archaeological mitigation work in Zone 1A has recorded the remains of 19th century workers dwellings.

3.14 The evaluation demonstrated that the area of Building 12, within Phase 3 of the proposed development, had no archaeological potential, and therefore the Greater Manchester Archaeological Advisory Service (GMAAS) have confirmed no further interest in this part of Site. This lack of potential was largely due to the presence of a large pond which had been in-filled by the early 19th century and hindered later development of this location.

3.15 The area to the north of Brancaster Road, within which Buildings 2/4 (office), 7/8 (PRS) and 'The Green' are partially located, has yet to be evaluated by trial-trenching. This work will take place in early 2016 as part of the Enabling Works package. If archaeological survival is demonstrated and mitigation work required, this will be incorporated into the subsequent groundworks programme.

3.16 The proposed Building 14 (MSCP) within Phase 1B has yet to be investigated by trial-trenching. This part of Site is to the south of the position of the pond and therefore the ground here would have been more suitable for later development, as shown from historic maps. This area therefore still carries archaeological potential.

3.17 In order to understand the archaeological potential of the parts of the Phase 1B Site which have yet to be investigated, a trial-trench evaluation will proceed in the area to the north of Brancaster Road as part of the ongoing Enabling Works (under Application Ref.109657). It is also proposed that trial-trenching will take place across the proposed footprint of Building 14 – although the reach of this evaluation may be heavily dictated by the current road system which occupies much of the area.

3.18 Should important remains be unearthed which are threatened by the Proposed Development and further work necessary, it is expected that the requirement for such work to the north of Brancaster Road can be implemented under the planning consent for the Enabling Works package as has successfully been the case in Zone 1A.

3.19 Should important remains be unearthed which are threatened by the Proposed Development and further work necessary, it is expected that the requirement for such work within the Building 14 area of Phase 1B can be secured by condition attached to any planning consent for the Phase 1B package.

3.20 Further work may entail open area excavation of the site and/or archaeological monitoring of intrusive groundworks during the early phases of groundworks.

3.21 Based upon the sound archaeological knowledge of the Site which currently exists, it is considered that any potential archaeological remains can be identified and appropriately mitigated as part of the ongoing Enabling Works and later prior to the proposed construction phase for Building 14. This discipline can therefore be scoped out of the EIA.

Aviation

3.22 Whilst the development incorporates a number of tall buildings it is only PRS building 5 that exceeds the 90m AOD aviation safeguarding threshold. It is not therefore predicted that the other buildings will give rise to significant health and safety impacts with regards to aviation. With regard to building 5 Manchester Airport Group and Barton Aerodrome have been contacted for consultation advice. Barton Aerodrome has confirmed via email dated 23 November 2015 and Manchester Airport via email dated 9 December 2015 (included at Appendix 4) that the development will not interfere with its safety systems. This discipline is therefore scoped out of the EIA.

Light Spillage and Solar Glare

3.23 The Proposed Development would not involve activities that could create solar glare and affect motorists' or train drivers' vision. The Proposed Development would not emit bright light to the atmosphere and all site lighting would be compliant with the Institution of Lighting Engineers' standards. Working hours are anticipated to be normal, that is between 08.00 and 18.00 Monday to Friday and between 08:00 and 13:00 on Saturdays. Therefore, it is considered that this discipline can be scoped out of the EIA.

Agricultural Circumstances

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

Scoping Summary

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

Table 3.1: Environmental Statement Scoping Summary

	ES Chapter	Non-EIA Assessment	Consultant
Planning Policy Context	✓	✓	Deloitte
Socio-Economic Issues	✓	X	Deloitte
Visual Impact & Townscape	✓	X	Planit-IE
Heritage Impact	✓	X	Heritage Architecture
Wind Microclimate	✓	X	BMT
Ecology and Nature Conservation	X	✓	Penny Anderson Associates
Traffic & Transport	✓	X	Curtins
Noise & Vibration	✓	X	Fisher Acoustics
Air Quality	✓	X	RPS
Ground Conditions	✓	X	Curtins
Water Resources, Drainage & Flood Risk	✓	X	Curtins
Daylight & Sunlight	✓	X	Matthews & Goodman
Light Spillage and Solar Glare	X	X	N/A
Electronic Interference	✓	X	Pager Power
Agricultural Circumstances	X	X	N/A
Archaeology	X	✓	Pre-Construct Archaeology

Cumulative Effects Assessment

3.26 The following committed or expected developments have been identified and will be considered as part of the cumulative effects assessment.

Wider Masterplan Site

3.27 The Proposed Development comprises the second phase (Phase 1B) of the comprehensive redevelopment of the Masterplan Site. As discussed in Section 2, the Council's Executive endorsed Bruntwood's concept masterplan for the site in April 2015. This proposed a comprehensive, employment-led mixed use redevelopment of the site including commercial office space; other business/research space; a new residential neighbourhood; ground floor retail and leisure space; and a series of public realm interventions that would see the Site becoming a vibrant new district, legibly connecting in to the wider city centre fabric.

3.28 In July 215, the Executive also endorsed a Delivery Strategy and Phasing Plan for the Masterplan Site. This strategy sets out plans to develop approximately 75% of the Masterplan Site within the next four years and

the whole Masterplan Site within eight years. It is therefore considered reasonable to assume that the wider Masterplan will be delivered within the lifespan of the Proposed Development.

3.29 Consequently, the cumulative impact of the Proposed Development together with the remainder of Masterplan will be considered within each technical chapter of the ES. As the remainder of the Masterplan area is indicative only at this stage i.e. it does not form part of any application for planning permission, its effects will be considered qualitatively.

Other Committed Developments

3.30 An assessment of committed developments including those with recent planning permissions and those expected to come forward in the near future has been undertaken. There is no agreed / standard threshold for how far the assessment should go, therefore a professional judgement has been taken regarding which schemes to highlight, taking into consideration to high density city centre location. The key applications are noted below and will be considered as part of the wider cumulative assessment.

1. 105505/FO/2014/C1 - Development comprising 282 residential apartments (Use Class C3) in building ranging in height from 5 to 29 storeys with ground floor commercial uses (Class A1 (Shop), Class A2 (Financial and Professional Services, Class B1 (Office) or Class D1 (Non Residential Institutions)), basement parking for 75 vehicles the completion of a new pedestrian connection between Cambridge Street and Great Marlborough Street, landscaping and new areas of public realm, environmental improvements and associated highways and engineering works. On land Bounded by The River Medlock, River Street & Cambridge Street Manchester M1 5BZ.

2. 109384/DEM/2015/C1 - Demolition of seven buildings. On land Bounded by Booth Street East, Upper Brook Street, Oxford Road and Grosvenor Street Ardwick Manchester.

3. 109831/FO/2015/N2 - Proposed erection of 26 new residential dwellings with associated car parking, landscaping and boundary treatments (amended layout and siting from houses previously approved under application (101664/FO/2013/N2). Land On Lockton Close, Clare Street, Grosvenor Street, Penfield Close And Litcham Close, Ardwick.

4. 109953/DEM/2015/C1 - Demolition of Faraday Building and associated structures.

   110319/FO/2015/C1 - Proposed erection of a 3 storey research and development building (Use Class B1 (b)), providing laboratories with ancillary offices and conference facilities, cycle parking, refuse and storage area, public realm, landscaping and associated works. Faraday Building And Identified Associated Structures, Sackville Street, M1 3NJ.

5. 106677/LP/2014/C1 - Application for the lawful use of premises as Use Class C3 (dwellinghouses) to accommodate 114 apartments. At Bracken House, Charles Street, Manchester, M1 7BD.

6. 103013/FO/2013/C1 - Addition of two storeys to create 3 apartments. At Montana House, 136 Princess Street, Manchester, M1 7AF.

7. 106576/P3JPA/2014/C2 - Prior approval for Change of use from Class B1 (Offices) to Class C3 (residential) comprising 31 apartments (2x 3 bed, 23x 2 bed and 6 x 1 bed). Salisbury House, Granby Row, Manchester, M1 7AH.

8. 110346/FO/2015/C2 - Erection of two residential buildings (Building 1 comprising 14 storeys plus plant space and Building 3 comprising 13 storeys plus plant space) to provide 238 residential units (Use Class C3) and one hotel building (Building 2 comprising 11 storeys plus plant space) (Use Class C1), with ground floor commercial uses (Class A1 (Shop), A3 (Restaurant and Cafe) and D1 (Non Residential Institution Use) and new public space with related access, servicing, landscaping and

associated works with parking for 273 vehicles, 126 cycles and 24 motorcycles within 4 levels of existing basement car park.

9. 110055/FO/2015/C1 - Development comprising the erection of 1no. 12 floor serviced apartment building (Sui Generis) (Building 10) (384 units) with ground floor ancillary areas including reception, residents hub and associated facilities and 1no. part 14 floor part 18 floor serviced apartment building (Sui Generis) (Building 11) (220 units) with ground and mezzanine floor ancillary areas including reception, residents hub and amenities, plus commercial units (Use Class A1, A2, A3, A4, B1, D2) and associated access, landscaping and cycle parking facilities to include landscaping to Brancaster Road. Former BBC Site Oxford Road Manchester M60 7HB

3.31 A map illustrating the location of these developments can be found at Appendix 5.

3.32 The Applicant seeks the agreement from the Local Authority to the scope of committed developments and invites guidance on any additional schemes not listed.

Consultation

3.33 A process of stakeholder consultation has already commenced with regard to the Proposed Development.

3.34 Members of the project team have met with senior officers from the Local Planning Authority (LPA) to discuss the Proposed Development. Further meetings will take place with MCC including further consultation with the LPA, Historic England and with Highways officers.

3.35 In addition, a public exhibition where details of the proposals were displayed were held on the 15 and 17 December 2015. Local residents, stakeholders, Councillors, adjoining owners and occupiers, and other interested parties invited to provide their comments in relation to the Proposed Development. In addition, meetings have been held with Places Matter, Greater Manchester Police, Transport for Greater Manchester and the Environment Agency.

3.36 A Statement of Consultation will be submitted with the application and will provide further detail on consultation undertaken.

4 EIA Methodology

4.1 The EIA will assess both the construction and operational phases of the Proposed Development.

4.2 The ES is anticipated to comprise two volumes, the first of which will set out the findings with respect to each of the environmental disciplines that have been examined as part of the EIA. Volume 2 will include all the supporting documents and technical appendices relating to the chapters. A Non-Technical Summary (NTS) will be produced and form a standalone document.

4.3 Each ES chapter will follow the headings set out below to ensure the final document is transparent, consistent and accessible.

- Introduction;
- Policy Context;
- Assessment Methodology and Significance Criteria;
- Baseline Conditions;
- Identification and Evaluation of Key Effects;
- Mitigation Measures;
- Cumulative Effects;
- Residual Effects; and
- Summary.

4.4 Each chapter sub-heading is explained in further detail below.

Introduction

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

Policy Context

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

Assessment Methodology and Significance Criteria

4.7 This section will provide an explanation of methods used in undertaking the technical study with reference to published standards, guidelines and best practice. The application of significance criteria will also be discussed.

4.8 It will also outline any difficulties encountered in compiling the required information.

Baseline Conditions

4.9 This will include a description of the environment as it is currently and as it is expected to change given the project were not to proceed (i.e. 'do-nothing' scenario). The method used to obtain this information will be clearly identified. Baseline data will be collected in such a way that the importance of the particular subject area to be affected can be placed in its context and surroundings so that the effects of the proposed changes can be predicted.

Identification and Evaluation of Likely Significant Effects

4.10 This section will identify the likely significant effects on the environment resulting from the Proposed Development.

4.11 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the effects can be positive or negative. The criteria to be used in carrying out this process are detailed below.

Prediction of Impact Magnitude

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

Table 4: Methodology for Assessing Magnitude of Change

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

Prediction of Receptor Sensitivity

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

Table 5: Methodology for Determining Sensitivity

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

Assessment of Effect Significance

4.14 Effect significance will be calculated using the matrix in Table 6. This illustrates the interaction between impact magnitude and receptor sensitivity.

Table 6: Effect Significance Matrix

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

Mitigation Measures

4.15 Adverse effects will be considered for mitigation and specific mitigation measures put forward, where practicable. Mitigation measures considered may include modification of the project, compensation and the provision of alternative solutions as well as pollution control. The extent of the mitigation measures and how these will be effective will be discussed. Where the effectiveness is uncertain or depends upon assumptions about operating procedures, data will be introduced to justify the acceptance of these assumptions.

4.16 The approach to mitigation will follow best practice guidance, which suggests a hierarchical approach. The UNEP EIA Training Resource Manual (2002) advises that impacts should ideally be:

I. Avoided; if not

II. Minimised; and/or

III. Compensated.

4.17 Three 'types' of mitigation are characterised in IEMA's Special Report – The State of Environmental Impact Assessment Practice in the UK (2011):

- EIA influence at design stage;
- Standard construction practices for minimising effects; and
- Follow-up actions for implementation post-consent.

4.18 Clear details of when and how the mitigation measures were carried out, or will be carried out, are to be given within the Environmental Statement. When certainty of impact magnitude and/or effectiveness of mitigation over time exists, monitoring programmes will be proposed to enable subsequent adjustment of mitigation measures, as necessary.

4.19 The opportunity for enhancement measures will also be considered where appropriate.

Cumulative Effects

4.20 Two types of cumulative effect will be assessed:

- *Type 1* - Cumulative effects are the interactions between effects of the demolition and redevelopment works on a single receptor.
- *Type 2* - Cumulative effects are those that arise from incremental changes caused by other past, present or reasonably foreseeable actions together with the demolition and redevelopment works.

4.21 The cumulative effects of the Proposed Development and the identified committed developments will be assessed. A list of known committed developments is set out at paragraph 3.30. The Council are requested to review and comment on this list in their Scoping Opinion.

Residual Effects

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

5 Environmental Statement Chapters

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

Policy Context

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

Socio-Economic Issues

Introduction

5.3 This chapter of the ES would assess the likely significant effects of the Proposed Development with respect to the socio-economic environment.

5.4 The assessment will consider direct and indirect construction phase (temporary) and operational phase (permanent) effects on the local and regional environment.

5.5 The study area for assessment will be defined on two levels:

- Likely effects on the Site and immediate surrounds, representing the 'Site' scale;
- Likely effects on the area within a 7-mile radius of the Site, representing the 'local-sub regional' scale.

5.6 A 7-mile radius study area is considered suitable for a densely populated urban area, and is based on advice set out by English Partnerships[1]. As more information emerges, the study area for assessment may be redefined to better suit the characteristics of the local environment.

5.7 Socio-economic effects of the Proposed Development are anticipated to include the following topics:

- Population;
- Employment;
- Local expenditure;
- Education and training;
- Healthcare;
- Crime; and
- Open space, recreation and amenity.

[1] English Partnerships (October 2008), Additionality Guide Third Edition

Baseline Conditions

5.8 Baseline data will be gathered to ascertain the socio-economic characteristics of the study area.

5.9 These will be gathered from a range of recognised sources, such as the Office for National Statistics 2011 Census, Labour Force Survey, and Experian Micromarketer. Data relating to schools within the catchment area and their capacity will be sourced from the Department for Education[2] or requested from the relevant departments of MCC.

5.10 The most up to date data will be used where available; the Local Authority is invited to comment on any relevant sources of information to inform the assessment. Data for both the county and for the city region will be considered.

Method of Assessment

5.11 The assessment will utilise both quantitative and qualitative methods to consider baseline characteristics and likely impacts. Regard will be given to policy guidance and strategies within the wider area where relevant.

5.12 There are no specific technical criteria to classify the significance of socio-economic effects. Therefore, professional judgement will be applied to consider effects in terms of their overall impact on the study area at various scales.

Summary of Assessment Scope

5.13 The table below summarises the potential socio-economic effects which have been scoped in to be assessed in the ES.

Receptor	Impact	Potential Effect
Population and Housing	Increased number population in the area during construction and operation Provision of new housing units during operation	Long term increases in local population Greater pressure on local housing availability Reduced pressure on local housing availability
Employment	Increased employment opportunities during construction and operation	Short and long term increases in employment
Local Expenditure	Increased expenditure during construction and operation	Greater flow of revenue into the local and sub-regional economy
Healthcare	Increase in local population during operation requiring access to healthcare services	Increased pressure on healthcare infrastructure
Education and Training	Increase in local population during operation requiring access to education services	Increased pressure on educational infrastructure
Open Space and Recreation	Increase in local population during construction requiring access to open space amenities	Increased pressure on open space and recreational infrastructure
Crime	Improved design and lighting associated with the scheme	Reduction in local crime rates

5.14 The Private Rented Sector residential units will be developed by Oxford Property Trading Ltd (the Joint Venture between Bruntwood and Select Property Group) and managed by Affinity Living – Select Property Group's PRS brand. Like all Select Property Group brands, the focus of Affinity Living is understanding the people who are going to be living in the accommodation and how they are going to interact with it.

[2] http://www.education.gov.uk/edubase/home.xhtml

5.15 Affinity Living is principally aimed at Generation Y (22-35 year olds) and aims to create a place which encourages a community to flourish. The brand has informed the building design and operational model. Spaces inside and out have been designed to encourage social interaction and shared experiences.

5.16 The proposed layout and nature of the PRS apartments are not conducive for large-scale occupancy by families. Therefore the proposed Operational phase effects on education have been scoped out of the assessment.

Heritage

Introduction

5.17 This chapter of the ES will assess the potentially significant effects of the Proposed Development on the environment with respect to Heritage.

Baseline Conditions

5.18 Whilst the Site contains no known Heritage Assets, there are two Grade II Listed Buildings within the immediate vicinity, the Lass O'Gowrie public house (mid-19th century, exact date unknown) on Charles Street and the Dancehouse Theatre (1930) on Oxford Road. Beyond this there are a number of buildings within the immediate vicinity of the Site which are considered to be Undesignated Heritage Assets of some merit. These include a brick and terracotta warehouse of 1912 on Charles Street, two small mid-19th century industrial buildings to either side of the junction between Charles and Princess Streets, and a substantial early 20th century commercial building at the junction between Charles Street and Oxford Road.

5.19 Within the wider context, around 100m to the north of the Site lies the Whitworth Street Conservation Area which has a proliferation of high quality late 19th century commercial buildings. Many of these are individually Listed, the closest to the Site being Manchester House (Grade II) and Asia House (Grade II*) on Princess Street, alongside Lancaster House and India House (both Grade II*) on Whitworth Street. Of particular interest is the Palace Hotel on Oxford Road, formerly the Refuge Assurance Company Offices (Grade II*, Alfred Waterhouse 1891) with its distinctive terracotta-faced tower. Falling outside the Conservation Area to the west is Oxford Road Station (Grade II, 1958 - 60) a highly unusual laminated timber shell railway station.

Method of Assessment

5.20 A full Baseline Study will be undertaken. The existing Heritage Assets within the vicinity of the Site will be assessed including the Listed Buildings, Conservation Area and Undesignated Heritage Assets noted above, in order to establish their existing characteristics setting aside any effects from the Proposed Development.

5.21 The known, and perceived, Cultural Heritage Resource (and Potential) of the Site and the surrounding area will be summarised and assessed in the light of the Baseline Study.

5.22 Relevant central and local government legislation and guidance protecting the existing Heritage Assets will be summarised and interpreted in the context of the Site, including the NPPF, National Planning Policy Guidance (NPPG), Manchester Core Strategy and relevant published Historic England advice notes.

5.23 The impact of the Proposed Development upon each Heritage Asset will be assessed in detail within the parameters required by the NPPF. In particular, the effect of the Proposed Development upon the significance of each Heritage Asset, and the level of harm caused as a result, will be established.

5.24 A Visual Impact Assessment will be undertaken in order to establish the nature of the existing views of the various Heritage Assets around the Site and the degree of change to these views incurred by the Proposed Development. The viewpoints chosen will be agreed with the local authority and Historic England.

5.25 The possible impact of the Proposed Development upon the Cultural Heritage Resource (and Potential) of the Site will be summarised and discussed.

5.26 Suitable mitigation measures will be noted with the intention of reducing any harm from the Proposed Development to the existing Heritage Assets, and to the wider Cultural Heritage Resource (and Potential) of the Site.

Summary of Assessment Scope

5.27 The table below summarises the Heritage impacts of the Proposed Development and whether they have been scoped in to be assessed within the ES.

Receptor	Impact	Potential Effect	Scoped In / Out
Listed Buildings	Potential impact on setting of Listed Buildings in the vicinity of the Site	Damage to setting of nearby Listed Buildings	✓
Conservation Area	Potential impact on the character and appearance of the Conservation Area in the vicinity of the Site	Damage to character and appearance of nearby Conservation Area	✓
Undesignated Heritage Assets	Potential impact on the setting of selected undesignated heritage assets in the vicinity of the Site	Damage to setting of nearby undesignated heritage assets	✓

Traffic and Transport

Introduction

5.28 This chapter of the ES will assess the likely significant effects of the Phase 1B proposals on the environment with respect to traffic and transportation.

5.29 Historically, the northern part of the Site was the location of the BBC's Manchester HQ building before the broadcaster moved to MediaCityUK. Following demolition of the building, the Site was used as a pay and display surface car park, operated by Total Car Parks Ltd. This lease was terminated and the site became vacant at the end of July 2015.

5.30 Whilst the car park could formally accommodate in the region of 550 vehicles it is understood from traffic surveys undertaken in July 2015 that almost 700 vehicles were on site at certain times of the day.

5.31 Due to the combination of the Site's city centre location and the 'car free' nature of the office, PRS and public realm/pavilion, it is considered that these elements of the Proposed Development will not result in a significant impact in traffic and transportation terms.

5.32 The fifth planning application comprises a Multi Storey Car Park (MSCP) of approximately 1,000 spaces. This quantum of development requires greater consideration.

5.33 On this basis, it is considered appropriate to undertake an assessment of the associated environmental impacts for the Proposed Development.

Baseline Conditions

5.34 In terms of accessibility, the Site relates well to all city centre destinations and opportunities for access on foot are high. The site is well served by mainline train services, bus corridor routes, and the cycle network.

5.35 As would be expected for a city centre site, existing high levels of accessibility mean that residents and employees will have good opportunities for sustainable trip making from the outset. There is already a high pedestrian footfall in the area, and so high quality pedestrian facilities exist as a result.

5.36 Vehicular access to the previously-operated surface car park was provided from four locations, with two on Brancaster Road and two on Charles Street. All access points took the form of priority controlled T-junctions.

5.37 Pedestrian access to the car park was available from the same locations, and footways are provided along Brancaster Street and Charles Street.

5.38 Armstrong House and its associated parking is accessible via Brancaster Road from the west or Cloak Street from the east.

5.39 Personal Injury Accident (PIA) data has been obtained from TfGM for the most recent five year period available (between 01/02/10 and 31/01/15). There have been a total of 53 accidents recorded in the latest five year period available, comprising 48 slight, three serious and two fatal collisions.

5.40 There is nothing to suggest there is an unusual safety issue from the breakdown in accidents. Furthermore following a thorough review of the records, it is not considered that there is a safety issue that is likely to be exacerbated by the proposed development.

5.41 As changes to the Oxford Road Bus Priority Package proposed by MCC are likely to result in major reassignment of traffic, it is not possible to undertake traffic counts on the roads surrounding the Site to determine baseline conditions in the usual way.

5.42 Instead, Curtins has had to commission Transport for Greater Manchester (TfGM) to extract traffic flow information from a PARMICS microsimulation model which considers 2016 traffic flows following the implementation of the BPP.

5.43 All forecasted traffic flows used in the ES will therefore be based on a PARAMICS model maintained and operated by MCC.

5.44 Baseline arrival and departure trip profiles associated with the proposed MSCP will be generated by factoring the existing trips from the previous car park uses on site.

Method of Assessment

5.45 A Transport Assessment will be submitted with the application. This will include a review of the existing situation, an assessment of accessibility by sustainable modes of travel, details of traffic forecasting and highway impact and a review of relevant transport planning policy.

5.46 Also within the document, the following four junctions will be assessed as agreed with Manchester City Council (MCC) Highways and Transport for Greater Manchester (TfGM) during a meeting on 29th October 2015:

- Oxford Road/Charles Street;
- Charles Street/Princess Street;
- Proposed MSCP Access; and
- Brook Street/Grosvenor Street.

5.47 Capacity assessments will consider the junctions above under two scenarios; accounting for the proposed Bus Priority Package (BPP) without development traffic, and the proposed BPP with development traffic.

5.48 A Framework Travel Plan will also form part of the planning applications and seeks to build on the excellent sustainable location of the site and promote existing facilities. The Framework measures will seek to maximise the sustainable access potential of the Site and further reduce the traffic impact of the Proposed Development on the local environment.

5.49 Notwithstanding the above, further assessments in line with Guidelines for the Environmental Assessment of Road Traffic, Institute of Environmental Assessment (IEA) (1993) would be undertaken. The Traffic and Transportation chapter would refer to the following effects:

- Severance;
- Driver delay;
- Pedestrian delay;
- Pedestrian amenity;
- Accidents and safety; and
- Hazardous loads.

5.50 Each of the above will be assessed in line with the Guidelines for the Environmental Assessment of Road Traffic.

5.51 The Traffic and Transportation chapter will refer to the produced Transport Assessment and Framework Travel Plan where appropriate.

Summary of Assessment Scope

5.52 The table below summarises the traffic and transport impacts and whether they have been scoped in to be assessed in the ES.

Receptor	Impact	Potential Effect	Scoped In / Out
Existing traffic on the local highway network in the vicinity of the site	Driver delay, accidents and safety and hazardous loads	May affect operation. Mitigation may be proposed to reduce impact. May require alterations to proposed works.	✓
Pedestrians and cyclists on the existing highway network	Severance, pedestrian delay, pedestrian amenity and accidents and safety	May affect the attractiveness of walking/cycling. Public realm works are being provided to address this. Further mitigation may be proposed to reduce impact.	✓
Public Transport users	Driver delay	May affect the attractiveness of public transport. Mitigation may be proposed to reduce impact. May require alterations to proposed works.	✓
Commercial and residential properties adjacent to the local highway network	Severance, driver delay, pedestrian delay, pedestrian amenity, accidents and safety and hazardous loads	May affect local stakeholders during the construction phase. Mitigation may be proposed to reduce impact during the construction phase.	✓

Flood Risk, Drainage and Water Resources

Introduction

5.53 This chapter of the ES would assess the likely significant effects of the Proposed Development of the Phase 1B area of the site on the environment with respect to Flood Risk, Drainage and Water Resources.

Baseline Conditions

5.54 The site is approximately 3.22 hectares in size and has been identified as classified as within Flood Zones 1, 2 and 3a indicating that the risk of flooding from rivers and sea is low in Flood Zone 1 areas, medium in Flood Zone 2 areas and High in Flood 3a areas.

5.55 The flood zone extents for the wider masterplan are derived from modelled flood level data taken from the River Medlock Study 2009 provided by the Environment Agency and compared with the site topography. The northern and eastern areas of the wider masterplan site; where topography is lowest are classified as within Flood Zones 2 and 3a. Within the extents of Phase 1B only minor areas along the northern boundary are classified as Flood Zone 3a.

5.56 The River Medlock is located immediately along the eastern boundary of the site, which is the source of flooding to the site determining the flood zone classifications.

5.57 Due to the identified flood zone categories within the site boundary and the size of the site, a flood risk assessment will be required to be undertaken. The flood risk assessment should assess all potential sources of flooding including: tidal, fluvial, surface water, groundwater, sewers and infrastructure failure.

5.58 The sources of flooding considered to be the most risk to the site are fluvial, reservoir, groundwater and surface water flooding downstream from the site.

5.59 The sources of flooding considered to be low risk to the site are tidal flooding, canal flooding, surface water flooding to the site and sewer and highway drainage flooding.

Method of Assessment

5.60 The ES chapter will be based on the Flood Risk Assessment and Drainage Strategy which will incorporate a thorough review of baseline information collected from a range of sources including Environment Agency data, Strategic Flood Risk Assessment for Manchester, Phase 1 Detailed Desk Study report and Site Specific Ground Investigations.

5.61 The Flood Risk Assessment scope will be undertaken in accordance with National Planning Policy Framework document (NPPF) which provides technical guidance on how flood risk should be assessed during the planning and development process. The intention is to ensure that development-planning decisions are made in a manner that delivers sustainable development in terms of current and future flood-risk.

5.62 The scope of the Flood Risk Assessment and mitigation measures will be agreed with the Environment Agency. Surface water run-off and sustainable drainage techniques will be agreed with Manchester City Council Lead Local Flood Authority (LLFA). Mitigation measures with suitable construction techniques and environmental best practice will be incorporated.

Summary of Assessment Scope

5.63 The table below summarises the Flood Risk, Drainage and Water Resources impacts and whether they have been scoped in to be assessed in the ES.

Receptor	Impact	Potential Effect	Scoped In / Out
Proposed development site and site end user	Flood Risk	Damage and risk to site and end user	✓
Local Watercourses	Pollution	Damage to water quality and wildlife	✓
Water Supply and Sewer Infrastructure	Pollution	Damage to Water Quality	✓
Groundwater Quality	Pollution	Damage to groundwater	✓

Wind Microclimate

Introduction

5.64 This chapter of the ES would assess the likely significant effects of the proposed works on the environment with respect to the pedestrian comfort and safety levels, in the context of its proposed usage. The key issues for consideration include:

- Probability of local wind speeds exceeding comfort and safety threshold levels
- Focussing on pedestrian ingress/egress locations
- Focussing on areas where pedestrian are expected to spend significant amount of time in

Baseline Conditions

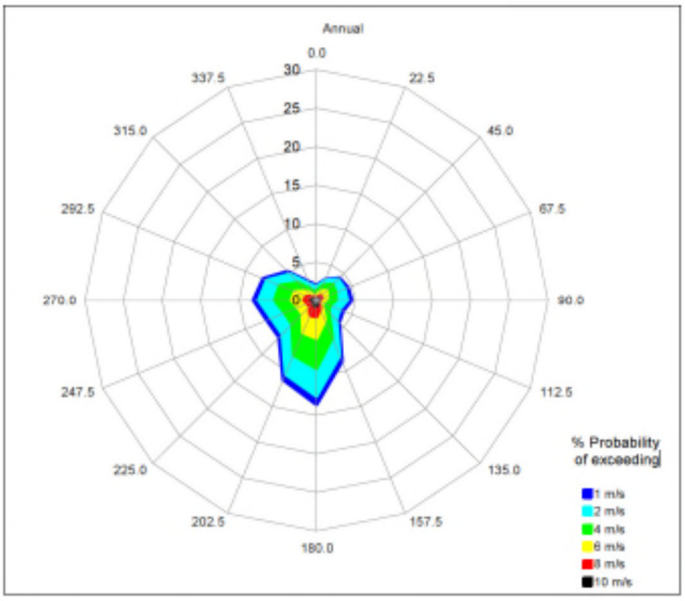
5.65 BMT Fluid Mechanics Limited will gather baseline climate information to determine the characteristics of the site in respect of generic wind properties. Thereafter Baseline Conditions will be established via boundary layer wind tunnel testing, and assessed in accordance with the industry standard Lawson criteria for pedestrian comfort and safety.

5.66 Illustrated below is the wind climate to be expected at the site based on long-term wind climate data obtained by BMT from the UK Met Office. The wind data from the weather station at the Manchester Weather Centre has been transposed to the site, accounting for the general upwind terrain for each wind direction.

5.67 The illustration indicates the annual frequency, direction and speed of winds, at a height of 60 metres above the local ground level, at the proposed development site.

5.68 The most frequent winds at the site blow from south round to west throughout the year.

5.69 Prevailing strong winds will be the most common cause of problematic wind comfort conditions due to strong ground level wind acceleration around buildings.



A figure to show the annual frequency, direction and speed of winds, at a height of 60 metres above the local ground level, at the proposed development site

Method of Assessment

5.70 The assessment of environmental wind flows in the built environment lies outside the scope of BS EN 1991-1-4:2005, the current European Standard for wind actions on structures, which focuses on wind loading issues. In addition, there are no books or engineering methods from which reliable assessments of the complex environmental wind flows that shape the pedestrian level wind conditions can be derived and numerical / computational methods such as computational fluid dynamics do not readily apply to turbulent wind flows in the built environment.

5.71 As a result, a purposely-designed boundary layer wind tunnel study will be used to provide a reliable quantification of the pedestrian level wind environment at the following key locations:

- Pedestrian access routes
- Entrances
- Waiting areas
- Recreational spaces

5.72 The study will determine the probability of local wind speeds exceeding comfort and safety thresholds for a range of common pedestrian activities via model-scale boundary layer wind tunnel testing for a full range of wind directions. The threshold wind speeds will be based on the industry standard Lawson criteria.

5.73 Based on the Lawson Criteria, pedestrian safety is assessed for both the ‘general public’ and the ‘able-bodied’. For the former, a wind speed of 15 metres-per-second occurring once per year is considered unsafe, with the potential to destabilise the less able members of the public, including the elderly, children, and cyclists. For the latter who are more likely to be capable of defending themselves against extreme pedestrian level winds, a higher threshold of 20 metres-per-second occurring once per year is thus considered unsafe.

5.74 With regards to pedestrian comfort, suitability is assessed based on the proposed usage of the sites tested. The assessment takes full account of seasonal variations in wind conditions and pedestrian activities. For example, conditions for recreational activities focus on summer, but also consider spring and autumn, whilst

conditions for pedestrian thoroughfare, access or waiting (example bus stops) consider all seasons, with winter usually being the critical season.

Summary of Assessment Scope

5.75 In summary, a wind microclimate assessment will be undertaken, with a wind microclimate chapter prepared for the ES. Supporting information will be presented in the form of a full technical report which will be appended to the ES. The assessment of the wind microclimate will be based on the results from a series of wind tunnel tests.

5.76 The assessment will be undertaken in line with local, regional and national planning policy. Furthermore the wind microclimate will be benchmarked against the well-established Lawson Comfort & Safety Criteria which have been previously used to assess the wind microclimate on many urban developments across the UK.

5.77 The table below summarises the wind microclimate impacts (safety and comfort levels) and whether they have been scoped in to be assessed in the ES.

Receptor	Impact	Potential Effect	Scoped In / Out
Pedestrian ('general public') Safety	Safety issues concerning the general public	Should sites tested found to be unsafe, mitigation schemes may be proposed	✓
Pedestrian ('able-bodied') Safety	Safety issues concerning the able-bodied	Should sites tested found to be unsafe, mitigation schemes may be proposed	✓
Pedestrian Comfort – Outdoor Seating	Comfort levels concerning long periods of sitting such as for an outdoor café	Should sites tested found to be uncomfortable, mitigation schemes may be proposed	✓
Pedestrian Comfort - Entrances, Waiting Areas, and Shop Fronts	Comfort levels concerning pedestrian ingress/egress at a building entrance, or short periods of sitting or standing such as at a bus stop, taxi rank, meeting point, etc.	Should sites tested found to be uncomfortable, mitigation schemes may be proposed	✓
Pedestrian Comfort - General Leisure (Excluding seating areas)	Comfort levels concerning leisure uses excluding long periods of outdoor sitting such as a park, children's play area, etc.	Should sites tested found to be uncomfortable, mitigation schemes may be proposed	✓
Pedestrian Comfort - Thoroughfares	Comfort levels concerning access to and passage through the development and surrounding area	Should sites tested found to be uncomfortable, mitigation schemes may be proposed	✓

Daylight, Sunlight & Shadowing

Introduction

5.78 This chapter of the ES would assess the likely significant effects of the Proposed Development on the environment with respect to :

- Daylight impacts of the proposed Development on habitable rooms within existing immediately surrounding residential property (The Quadrangle, Princess House, Montana House, Bracken House and 7, Oxford Place).
- Sunlight assessment in respect of the principle habitable rooms within existing immediately surrounding residential property.

- Overshadowing in respect of areas of public realm which it is proposed be delivered as part of the Proposed Development.

Baseline Conditions

5.79 The site was historically the home of the BBC in the North and was quite densely occupied by a variety of medium rise buildings. These buildings were demolished circa. 2012 and the Site has subsequently been used on a temporary basis for surface car parking. The current use as a cleared site is both transient and unrepresentative of the density of development to be expected of a location; therefore it is proposed to adopt the pre 2012 scenario where the Site was occupied by the former BBC complex as the baseline conditions for assessment. Consideration will also be given to the relative scale of impacts benchmarked to those which would be brought about by a hypothetical 'mirror' image development of comparable height and massing to the buildings subject to analysis but located on the site of the proposed Phase 1B development at an equivalent distance from the site boundaries.

Method of Assessment

5.80 The method of assessment will be in accordance with BRE Guidelines for the amenity requirements for daylight and sunlight for residential development (Site Layout Planning for Daylight and Sunlight – a Guide to Good Practice) Second Edition 2011.

Daylight analysis methodology

- **Stage 1:** Identify rooms which either do not overlook the Proposed Development or clearly sit comfortably within a 25° rule of thumb for the potential for good light.
- **Stage 2:** Windows to rooms not satisfying the above criteria would be subject to VSC [Vertical Sky Component] analysis.
- **Stage 3:** Supplemental NSC [No Sky Contour] analysis would be undertaken in respect of selected rooms in the event of it being considered that having available that additional level of analysis assisted in better illustrating the significance of impacts.

Sunlight analysis methodology

- Assessment will be undertaken in respect of window openings providing light to the main living room within an apartment that face within 90° of due south.
- Where an apartment is served by more than one such window opening, assessment would ordinarily be undertaken in respect of the window serving the main living area.
- The criteria for assessment would be:
  - Whether sunlight is enjoyed for at least 25% of the annual probable sunlight hours
  - Whether 5% of the annual probable sunlight hours would be received during the winter months (21st September – 21st March)

Overshadowing methodology

- Assessment will be undertaken in respect of open spaces to be created as part of the proposed development.

- The criteria for assessment would be the proportion of open space prevented by buildings from receiving sunlight on 21st March.

Summary of Assessment Scope

5.81 The table below summarises the townscape, built heritage and visual impacts and whether they have been scoped in to be assessed in the ES.

Receptor	Impact	Potential Effect	Scoped In / Out
The Quadrangle, Hulme Street	Daylight Sunlight	Changes in daylight levels to habitable rooms Sunlight levels for principal living space in apartments having main window openings serving that space facing within 90° of due south	√ √
Montana House, Princess Street	Daylight Sunlight	Changes in daylight levels to habitable rooms Sunlight levels for principal living spaces in apartments with main window openings serving that space facing within 90° of due south	√ √
Princess House, Princess Street	Daylight Sunlight	Changes in daylight levels to habitable rooms Sunlight levels for principal living spaces in apartments having main widow openings serving that space facing within 90° of due south	√ √
Bracken House, Charles Street	Daylight Sunlight	Changes in daylight to habitable rooms Sunlight levels for principal living spaces in apartments having main window openings serving that space facing within 90°of due south	√ √
7, Oxford Place	Daylight Sunlight	Changes in daylight to habitable rooms Sunlight levels for principal living spaces in apartments having main window openings serving that space facing within 90° of due south	√ √
Open Space	Overshadowing	Overshadowing analysis in respect of areas of public realm immediately surrounding the Proposed Development	√

Television Interference

Introduction

5.82 This chapter of the ES would assess the likely significant effects of the Proposed Development on terrestrial television reception in the surrounding areas. The key issues for consideration are:

- Which transmitter(s) are serving the surrounding areas; and
- The likely interference zones associated with the relevant transmitter(s) for the Proposed Development.

Baseline Conditions

5.83 Pager Power carried out a detailed assessment in order to characterise the baseline conditions.

5.84 On-site survey measurements were taken using a mobile extendable10 metre mast and a wideband UHF TV aerial connected to a TV analyser.

5.85 The signal quality and stability was recorded at key locations to the southeast of the Proposed Development for analysis within the context of the modelling.

5.86 The collected data will also allow for a comparison before and after construction of the Proposed Development, if required.

Method of Assessment

5.87 Terrestrial TV transmitters broadcast electromagnetic signals, which are received by aerials connected to television sets. Coverage charts for the main transmitters were reviewed in order to ascertain which TV transmitters were most likely to serve the area. This revealed that the Winter Hill transmitter was predicted to serve locations in the vicinity of the Proposed Development.

5.88 The potential interference zones for the Winter Hill transmitter were constructed in accordance with Ofcom guidelines and practical experience for large building developments. A Shadow Zone extending 5 km to the southeast of the Proposed Development was identified as being at the greatest risk of interference.

5.89 A Reflection Zone was also constructed in accordance with published guidance. Assessment of radio line of sight within the Reflection Zone, combined with previous experience for large building developments, indicated that impacts are highly unlikely outside the Shadow Zone.

5.90 Locations within the potential interference zone were selected for an on-site survey. The survey measured the current signal strength and quality in the areas where interference is the most likely based on potential obstruction of the electromagnetic signals from Winter Hill. A wideband UHF aerial was extended to a height of 10 metres above ground level at six locations within the 5 km shadow zone.

5.91 The survey procedure involved visual observation of TV aerial orientation in order to confirm the transmitter that was serving the area. Following this, the aerial was extended and the signal strength, stability and picture/sound quality were recorded for the available channels at every surveyed location.

5.92 The results of the measurements were considered in conjunction with the survey location within the Shadow Zone in order to determine the likelihood of interference.

Summary of Assessment Scope

5.93 The table below summarises the potential TV impacts and whether they have been scoped in to be assessed in the ES.

Receptor	Impact	Potential Effect	Scoped In / Out
Dwellings within the Shadow Zone receiving terrestrial TV services	Obstruction of TV signals from the Winter Hill transmitter by the Proposed Development.	Disruption of terrestrial TV services at residences to the southeast of the Proposed Development. This is considered possible for locations within 1 km of the Proposed Development.	✓
Dwellings within the Reflection Zone receiving terrestrial TV services	Reflection of TV signals from the Winter Hill transmitter by the Proposed Development.	Disruption of terrestrial TV services in the vicinity of the Proposed Development. Reflection effects are considered highly unlikely.	X

Noise and Vibration

5.94 This chapter will address the potential noise and vibration impacts of construction and operation of the proposed development. Noise impacts will be assessed in accordance with published guidance and, where appropriate, through comparison with the baseline background noise levels generated by current local noise sources, including road traffic. Vibration impacts will be assessed by comparing predicted levels against published absolute standards. Any significant impacts to existing and proposed sensitive receptors will be identified and subsequent mitigation measures will be proposed. Where mitigation measures are proposed, the anticipated residual impacts will also be identified.

Methodology and Scope

5.95 The assessment will consider national policies and relevant local policy documents where applicable.

5.96 The noise assessment will focus on the potential impact upon:

- public places surrounding the site;
- residential properties;
- activities in commercial buildings (e.g. offices/hotels/public buildings);

5.97 Key sensitive receptors are the residents of nearby residential and commercial buildings, including those proposed within the site envelope. Other residential properties could potentially be affected by potential increases in road traffic on the highway network. Identified noise level changes will be assessed in accordance with the Guidelines for environmental noise impact assessment produced by the Institute of Environmental Management and Assessment.

5.98 A baseline noise survey will be carried out at the site boundaries and in the proximity of sensitive receptors such as nearby residential accommodation at Oxford Place, Montana House and Princess House.

5.99 Noise impacts likely to arise during the construction phase will be predicted following the BS 5228[3] methodology. Predicted construction noise levels will then be referenced to the existing noise levels, and relative to target noise levels for specific phases of work. The assessment of significance of predicted changes in the noise environment will be based on the results of the baseline survey.

[3] In particular, BS 5228-1:2009+A1:2014 *'Code of practice for noise and vibration control on construction and open sites. Part 1, Noise'*

5.100 The vibration assessment will focus on construction activities that might potentially impact upon the following:

- residential properties;
- activities in commercial buildings (e.g. offices/hotels)

5.101 The existing noise levels able to impact upon the proposed buildings within the Development will be measured, to enable an assessment of the potential noise impacts to residential units within the development to be undertaken in accordance with the guidance contained in BS8233[4], and World Health Organisation Guidelines on Community Noise[5].

5.102 An assessment of any noise generated by the operation of fixed plant items will be undertaken in accordance with the guidance contained in BS4142[6]. Where details of plant have not been finalised, noise limits will be proposed that new plant should conform to.

5.103 An assessment of potential noise propagation to sensitive receptors from the proposed multi-storey car park will be carried out.

5.104 Construction vibration levels at local sensitive receivers will be predicted based on expected vibration levels of typical plant usage and assessed based on relevant guidelines (BS6472[7] and BS7385[8]).

5.105 The closest rail line to the proposed buildings is located on a viaduct approximately fifty metres from the proposed site and as such the only potential vibration generating source is anticipated to be road traffic. Vibration from road traffic is normally below levels considered to be perceptible to humans. Therefore, the risk of perceptible vibration caused by road traffic is considered to be low in the proposed Development. A vibration study relating to pre-existing sources has therefore been scoped out of the assessment.

Ground Conditions and Contamination

Introduction

5.106 This chapter of the ES would assess the likely significant effects on the environment with respect to Ground Conditions and Contamination.

Baseline Conditions

5.107 Historically the Site has been occupied by terraced properties, schools, a church, garage, warehouses, factories and numerous works including but not limited to printing works, gas meter works and engineering works with numerous streets crossing the site. From the 1970s, the site was cleared of structures and New Broadcasting House was established in the northwest area of the Site, extending westwards, with a slip road and roundabout related to the Mancunian Way in the south eastern corner of the Site.

5.108 A study of the British Geological Survey (BGS) 1:50,000 mapping records (Bedrock and Superficial Editions) for Manchester (Sheet 085) indicates that the Site is underlain by Made Ground (Undivided), Till superficial deposits and Chester Pebble Beds Formation sandstone bedrock. To the south, BGS mapping depicts Glaciofluvial Sheet Deposits comprising sand and gravel.

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[4] BS8233:2014: 'Guidance on *sound insulation and noise reduction For buildings*'
[5] WHO (1999) *Guidelines for Community Noise*. Berglund, B., Lindvall, T. and Schwela, D.H. Eds.. World Health Organization, Geneva
[6] BS4142: 2104: *Methods for rating and assessing industrial and commercial sound*
[7] BS6472: 2008-1: '*Guide to Evaluation of human exposure to vibration in buildings:- Part 1 vibration sources other than blasting.*'
[8] BS7385:1993, '*Evaluation and measurement for vibration in buildings:- Part 2. Guide to damage levels from ground borne vibration*'

5.109 The Site is not within the zone of likely physical influence on the surface from past underground coal workings.

5.110 Both the Radon Atlas for England and Wales, and the Envirocheck Report confirms the Site is in a lower probability radon area, as less than 1% of homes are above the action level. No radon protective measures are necessary in the construction of new dwellings or extensions

5.111 The 1:100,000 Sheet 17 Derbyshire & North Staffordshire Groundwater Vulnerability Map indicates that the site, corresponding with the underlying solid geology, is underlain by Unproductive strata and a Secondary A Aquifer in the superficial deposits and a Principal Aquifer in the bedrock. The Site is not situated within a Source Protection Zone (SPZ); however a SPZIII is located about 86m southwest of the Site. There are 13 groundwater abstractions within a 1000m of the Site. The nearest is about 181m south-west of the site at Lower Chatham Street.

5.112 The nearest surface water feature is the River Medlock a primary river, located 3m adjacent to the north-eastern site boundary, flowing in an westerly direction. There are no surface water abstractions within 1000m of the Site.

5.113 During WWII the Site was situated adjacent to a number of potential bombing targets. Large areas of the Site were cleared immediately after the war, which is likely due to bomb damage leaving the buildings devastated and unrepairable. given the vast amounts of bomb damage recorded within the site, it is considered likely that rubble could have masked UXB entry holes and gone unrecorded.

Method of Assessment

5.114 The assessment will be based on a thorough review of baseline information collected from a range of sources as identified above including a Phase 1 and Preliminary Phase 2 Geoenvironmental report by NX Consulting for a larger site area; and Phase 1 Detailed Desk Study report, Coal Authority report, Detailed Unexploded Ordnance (UXO) Threat and Risk Assessment and a Phase 2 Environmental Appraisal report undertaken or obtained by Curtins Consulting for a larger site area.

5.115 Impacts on soils and geology will be assessed in accordance with the guidance given in Planning Policy Statement 23 Planning and Pollution Control (although this document has been formally revoked it can still provide useful guidance) and DEFRA/Environment Agency Publication CLR11 Model Procedures for the Management of Land Contamination, 2004 to develop a robust methodology for assessing and evaluating the significance of effects.

Summary of Assessment Scope

5.116 The table below summarises the Ground Conditions and Contamination impacts and whether they have been scoped in to be assessed in the ES.

Receptor	Impact	Potential Effect	Scoped In / Out
Site end users	Direct contact, ingestion, inhalation (dust and vapours) from contaminated soils	Human health effects	✓
Site end users	Inhalation of explosive, toxic and asphyxiate ground gases	Human health effects	✓
Construction workers	Direct contact, ingestion, inhalation (dust and vapours) from contaminated soils	Human health effects	✓
Construction workers	Direct contact with unexploded ordnance	Human health effects	✓
Groundwater	Pollution	Reduced groundwater quality in	✓

		aquifer and nearby SPZ III	
Surface water	Pollution	Reduced water quality in adjacent River Medlock	✓

Air Quality

Introduction

5.117 This chapter of the ES would assess the likely significant effects of the Proposed Development with respect to air quality.

5.118 This assessment covers the:

- Construction phase – an evaluation of the temporary effects from fugitive construction dust and construction-vehicle exhaust emissions; and the
- Operational phase – an evaluation of
    - The impacts of the development traffic on the local area
    - The impacts on future occupants of the development from their exposure to the prevailing levels of air pollution, which can be a factor in the suitability of the site for its proposed uses.

Baseline Conditions

5.119 The Proposed Development is located within the Greater Manchester Air Quality Management Area (AQMA), designated due to elevated concentrations of nitrogen dioxide (NO_2) attributable to road traffic emissions.

5.120 Existing air quality conditions will be characterised using the findings of Manchester City Council's (MCC) Review and Assessment process, the results of available local monitoring and data available in the Defra maps. Background pollutant concentrations will be derived for use within the dispersion model.

Method of Assessment

5.121 Based on the national Planning Practice Guidance, the air quality assessment will comprise:

1. A risk assessment of dust and emissions during demolition / construction of the Proposed Development, having regard to the Institute of Air Quality Management (IAQM) 'Guidance on the assessment of dust from demolition and construction'.
2. A qualitative assessment of the cumulative construction dust effects.
3. Generic mitigation measures, consistent with the level of risk. These will be drawn from the IAQM guidance.
4. Predictions of future air pollution levels around the site at existing receptors using the detailed dispersion model, ADMS Roads, in the first fully operational year, with and without the proposed development. Cumulative effects will be assessed to the extent that vehicle movements are included in the traffic data provided.
5. Predictions of future air pollution levels at proposed receptors using the ADMS Roads model in the first fully operational year, to establish the environmental suitability of the site. Cumulative effects will be assessed to the extent that vehicle movements are included in the traffic data provided.
6. A description of significance of the illustrated effects using professional judgement and criteria definitions from the Environmental Protection UK (EPUK)/IAQM (May 2015) Land-Use Planning & Development Control: Planning For Air Quality document.
7. Generic mitigation measures to improve air quality during the operational phase, should initial results of the assessment show any adverse air quality effects arising from the proposed development.

Summary of Assessment Scope

5.122 The table below summarises the air quality impacts and whether they have been scoped in to be assessed in the ES.

Receptor	Impact	Potential Effect	Scoped In / Out
Human health and property	Increase in suspended and deposited dust during demolition and construction	Temporary soling of surfaces, particularly windows, cars and laundry	✓
Human health	Change in pollutant concentrations from traffic generated by the proposed development	Increased incidences of cardiovascular diseases, such as strokes and ischaemic heart disease. Development of respiratory diseases, including acute respiratory infections and chronic obstructive pulmonary diseases	✓

Landscape and Visual Assessment

Introduction

5.123 The Landscape and Visual Assessment will be undertaken in accordance with 'The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (2013). It will cover the elements described below.

5.124 Reference will also be made to the recently published Historic England Advice Note 4 – Tall Buildings (December 2015). Though this document does not set out any methodology for assessment, it does set out those areas that should be considered when assessing any tall buildings in the context of established city fabric.

Baseline Conditions

5.125 A description of the existing townscape and visual baseline will be provided in graphic and textual format, and this will cover

- Townscape Character;
- Existing Site Features;
- Existing Townscape/Conservation Designations;
- Existing Public Access/Rights of Way;
- Zone of Visual Influence and Key Visual Receptors;
- Principal Viewpoints

Method of Assessment

5.126 The Landscape and Visual Assessment will be undertaken in accordance with 'The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (2013), and will include the use of computer generated verified photomontages to illustrate visual impact. The term 'landscape' in the context of these particular development proposals will be replaced by 'townscape' given the urban nature of the site. The TVIA will be structured to assess and describe the effects on:

- The existing townscape, including character;
- The visual resource, including a range of viewpoints located across the area of influence;
- Statutory and non-statutory designated landscapes; and
- Cumulative effects with existing, consented and proposed developments for which an application has been submitted

Summary of Assessment Scope

5.127 The significant Townscape and Visual Effects of the proposed development will be identified and assessed in accordance with the LVIA Guidelines. These will cover:

- Townscape Impacts, including;
  - Impact on local townscape character
  - Impact on public access/linkages
  - Impact on existing features, including heritage assets
- Visual Impacts including;
  - Visual Amenity
  - Visual Envelope
  - Key Viewpoints
  - Impact on Skyline
- Mitigation;
  - A summary of the key mitigation measures proposed will be provided and an assessment made of the extent to which they overcome or compensate for any adverse impacts
- Residual Effects;
  - Any remaining adverse impacts that are unable to be mitigated will be highlighted.
- Enhancement Proposals;
  - A summary of any significant landscape and visual enhancement measures arising out of the development will be highlighted.

5.128 The table below summarises the impacts and whether they have been scoped in to be assessed in the ES. A viewpoint plan is included at Appendix 6.

Receptor	Impact	Potential Effect	Scoped In / Out
1. Commuters/Visitors. Oxford Road station grade II listed building	Localised view from a major gateway into the city centre	Assessment of impact in terms of city-wide land marking, skyline, legibility, townscape character and designated buildings.	✓
2. Students/visitors. View north from Oxford Road, adjacent to All Saints Park	Mid-range view along major route, including listed buildings.	Assessment of impact on designated buildings, way-finding, land marking, clustering, skyline	✓
3. Commuters/visitors/residents. View from Albion Street/Deansgate Locks.	Distant view from popular area.	Assessment of impact on way-finding, land marking, clustering, skyline.	✓
4. Commuters/visitors. View from Manchester Central.	Distant view from listed building/conference centre.	Assessment of impact on way-finding, land marking, clustering, skyline.	✓
5. Drivers. View from Mancunian Way	Distant view from major access road	Assessment of impact on way-finding, legibility, land marking, clustering, skyline	✓
6. Visitors/commuters. View from Manchester Central Library	Distant view from major attraction, and designated building.	Assessment of impact on designated buildings, clustering.	✓
7. Visitors/commuters. View from Oxford Road looking south.	Mid-range view from major traffic/pedestrian street.	Assessment of impact on way-finding, legibility, land marking, townscape character, clustering, skyline, designated buildings.	✓
8. Visitors/commuters. View from Oxford Road looking north.	Localised view from major traffic/pedestrian street	Assessment of impact on townscape character and designated buildings, visual amenity and visual envelope.	✓
9. Commuters. View from A34/ Upper Brook Street, travelling	Mid-range view from major traffic route.	Assessment of impact on way-finding, legibility, land marking,	✓

North		clustering, and skyline.	
10. Visitors/residents. View from Junction of A34/Charles street	Localised view.	Assessment of impact on townscape character and designated buildings, visual amenity and visual envelope	✓
11. Residents/students. View from Bonsall Street.	Distant view.	Assessment of impact on way-finding, land marking, clustering, skyline	✓
12. Residents/commuters. View from Chester Street.	Localised view.	Assessment of impact on townscape character and designated buildings, visual amenity and visual envelope	✓
13. Residents/visitors. View from junction of Princess St/Whitworth Street	Mid-range view from popular visitors area	Assessment of impact on townscape character and designated buildings, visual amenity and visual envelope	✓
14. Commuters/Visitors/Residents. Corner of Oxford Street/ Whitworth Street West.	Localised view across designated building and major visitor attraction.	Assessment of impact on townscape character, designated buildings, visual amenity, visual envelope, skyline and clustering.	✓

Appendix 1: Site Location Plan

Appendix 2: Phase 1 Habitat Survey

Appendix 3: Desk based Archaeological Survey

Appendix 4: Aviation safe guarding responses

Appendix 5: Cumulative Development Plan

Appendix 6: Key Viewpoint Location Plan

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