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WASTE RESOURCE MANAGEMENT



FUSION STUDENTS

DEANSGATE SOUTH

SCOPING REPORT

OCTOBER 2020

DATE ISSUED:	October 2nd 2020
JOB NUMBER:	GM11393
REPORT NUMBER:	REP-001
VERSION:	V1.2
STATUS:	Final

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DEANS GATE SOUTH

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1 INTRODUCTION

- 1.1.1 This Scoping Report has been prepared on behalf of Fusion Students (the Applicant) in support of a request for a formal Scoping Opinion under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations), Regulation 15, regarding a proposed development of student accommodation (the Proposed Development) on land off Deansgate, Manchester (the Site).
- 1.1.2 This report sets out the proposed scope of the Environmental Impact Assessment (EIA) being undertaken in respect of the Proposed Development. As required by Regulation 15, the report includes the following information:
- a plan sufficient to identify the land (Appendix A);
 - a description of the nature and purpose of the development, including its location and technical capacity (Section 2); and
 - an explanation of the likely significant effects of the Proposed Development on the environment (Sections 3 – 9).
- 1.1.3 In addition, this report includes information on the proposed methodologies to assess potentially significant environmental effects, and, where relevant, potential mitigation measures that may be implemented.

2 DESCRIPTION OF THE SITE AND PROPOSED DEVELOPMENT

2.1 The Application Site

- 2.1.1 The Site is located in Manchester city centre at the junction of Chester Road / Bridgewater Viaduct (A56) and Deansgate. The relevant planning authority is Manchester City Council (MCC).
- 2.1.2 The Site is bound by Chester Road / Bridgewater Viaduct (A56) to the north, Deansgate to the south and residential apartments (Deansgate Quay) to the east.
- 2.1.3 The Site is approximately 0.06ha in size and comprises a roughly triangular area of previously developed land. The Site was cleared in the early 2000s and currently consists of areas of hardstanding and low quality vegetation. There is a wall on the southern boundary of the Site, adjacent to Deansgate, which acts as a retaining wall in the south-east corner of the Site.
- 2.1.4 Vehicular access to the Site is off Deansgate, however this access is currently closed, and the Site is enclosed by temporary hoarding.
- 2.1.5 There are no designations within the Site. Castlefield Conservation Area is adjacent to the north of the Site and there are a number of Grade II listed buildings in the surrounding area.
- 2.1.6 The Site Location Plan and Existing Site Plan are included at Appendix A and Appendix B respectively.

2.2 Planning History

- 2.2.1 In December 2015, a full planning application (ref. 10730/FO/2015/C1) was submitted for the proposed development of a residential-led mixed use scheme on the Site. The proposed scheme comprised the construction of a 13-storey building including 53 apartments, a commercial unit, and associated car parking, landscaping and access. MCC confirmed within a Screening Opinion that an EIA would not be required, but a range of environmental surveys and assessments were undertaken and submitted in support of the application. The application was granted approval in March 2016.
- 2.2.2 In March 2017, an application (ref. 115591/FO/2017) was submitted to amend the approved development at the Site. Intrusive ground investigations at the Site identified constraints which would prevent the construction of the basement level as proposed within the approved scheme and as such the applicant sought to reconfigure the building design accordingly. The applicant also proposed to amend the approved elevations. As the siting, height, scale, and mass of the scheme remained unchanged

it was concluded that the Screening Opinion remained valid. A small number of environmental assessments were updated where necessary. The amended scheme was granted approval in June 2017.

- 2.2.3 In January 2018, an application (ref. CDN/18/0048) was submitted to discharge conditions of the approved development. Partial approval was granted, however discharge of the condition relating to surface water drainage was refused due to insufficient information.

2.3 The Proposed Development

- 2.3.1 It is proposed to develop a student accommodation building. The development description for the application will be as follows:

Full planning permission for the part-demolition of a retaining wall and erection of a 27 storey student accommodation building to form around 514 student residential bedrooms and ancillary amenity space.

- 2.3.2 It is not proposed to include any parking provision or vehicular access within the scheme.
- 2.3.3 It is proposed that the scheme will be designed to achieve a BREEAM Excellent rating. The current energy strategy allows for the installation of a PV array on the roof of the building to provide betterment of Building Regulations.
- 2.3.4 The building will also include a roof terrace, for which a Landscape Management Plan will be produced to provide mitigation and enhancement opportunities, such as bird boxes and habitat/roosting support for localised species.
- 2.3.5 The current Proposed Ground Floor Plan is included at Appendix C for information. However please note that the designs are still in development and therefore subject to change.

2.4 Requirement for EIA

- 2.4.1 Due to the size and scale of the current proposals and following a review of the requirements for similar developments in the surrounding area, it is considered likely that an EIA will be required.
- 2.4.2 As such an EIA will be undertaken, and an Environmental Statement (ES) prepared and submitted in support of the application, on a voluntary basis.

3 PROPOSED SCOPE OF THE ENVIRONMENTAL STATEMENT

3.1 Introduction

- 3.1.1 The EIA will be undertaken in accordance with the EIA Regulations, with regard to Schedule 4 which sets out the information for inclusion within an Environmental Statement (ES).
- 3.1.2 Information relating to the scope of each of the technical chapters of the ES, together with a preliminary summary of baseline information and the potential significant effects related to each of these aspects, is provided in Sections 3 – 9 of this report. Details relating to the non-technical chapters, and the technical aspects to be ‘scoped out’ of the ES, are provided below.
- 3.1.3 A Non-Technical Summary will be produced as a separate standalone document.

3.2 Non-Technical Chapters

- 3.2.1 The following non-technical chapters will be included within the ES.
- **Introduction:** This chapter will outline the background to the application and provide a brief overview of the proposals.
 - **Approach and Scope:** This chapter will detail the requirement for EIA; the scope of the ES and how it was determined; any consultation undertaken; and the schemes to be considered within the cumulative assessment.
 - **Site Description:** This chapter will describe the location of the Proposed Development and provide a broad overview of the current state of the Site and surrounding area. Detailed baseline information will be provided within the relevant technical chapter.
 - **Development Description:** This chapter will describe the Proposed Development, including a description of the proposed construction and operational phase activities (to the extent available at the time).
 - **Consideration of Alternatives:** This chapter will describe any reasonable alternatives studied by the Applicant, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.
 - **Summary of Residual and Cumulative Effects:** This will form the final chapter of the ES and will summarise the residual significant effects and the cumulative effects identified within the technical chapters of the ES.

- 3.2.2 The ES will be prepared by competent experts and will be accompanied by a statement outlining the relevant expertise and/or qualifications of these experts.
- 3.2.3 The ES will also be accompanied by a reference list detailing the sources used for the descriptions and assessments included in the environmental statement.

Cumulative Effects

- 3.2.4 In accordance with Schedule 4 of the EIA Regulations, the ES will consider potential significant effects arising from the cumulation of effects with other existing and or/approved projects. It is proposed that the ES will consider the following schemes, set out within Table 3.1, within the assessment of cumulative effects.

Table 3.1: Schemes for consideration within cumulative impact assessment

Scheme	Description	Status
Castle Wharf 113870/FO/2016	Construction of two residential apartment buildings with ancillary amenity facilities for residents including a gym, landscaped terrace and swimming pool, new public realm and landscaping including two new pedestrian connections to the Castlefield basin from Chester Road, basement car parking and related highway, access, servicing and associated works.	Under construction
Crown Street Phase 1 119806/FO/2018	Erection of two tall buildings (51 storeys and 21 storeys) comprising 664no residential units (use class C3) and commercial space (A1, A3 or D1), provision of two levels of basement parking, alterations to surface level car park, landscaping, highway alterations, access and associated works.	Under construction
325 - 327 Deansgate 125804/FO/2019	Demolition of existing buildings and structures on-site and erection of 22-storey building comprising apart-hotel (Use Class C1) with flexible commercial uses at ground floor and within existing viaduct arches (Use Class A1, A2, A3, A4, D2), access, landscaping and other associated works.	Planning permission not yet implemented
Land Bound By Silvercroft Street, Crown Street, And The Mancunian Way 126668/FO/2020	Full planning permission for the erection of two 52-storey residential buildings (Use Class C3) each incorporating a podium accommodating residential amenity facilities and ground floor and first floor commercial units (Use Classes A1, A2, A3, or D1), private and public basement car parking, landscaping and a public park, servicing and access arrangements, highways improvements, and associated works (Phases A, B, and D). Outline planning permission (with all matters reserved) for an educational facility (Use Class D1) (Phase C).	Planning permission not yet implemented
Transition 116850/FO/2017	Demolition of the existing buildings on the site and construction of three residential buildings, 32, 26 and 18 storeys in height, comprising a total of 399 residential units (C3) and 50 retirement living units (C2) with roof top ancillary restaurant; 675 sq.m of commercial floor space (Use Classes A1, A2, A3, A4, B1, D1 or D2); associated car and cycle parking within a basement level; public realm and landscaping; access and servicing arrangements; and other associated works.	Planning permission not yet implemented
Deansgate Square 111719/FO/2016/C1	Construction of four residential buildings, ancillary amenity building for residents accommodating a tennis court, swimming pool and gym facilities (Use Class C3), ground floor retail units (Use Classes A1, A2, or A3), amenity space for residents within residential buildings, new public realm and landscaping, basement car parking and related highway, access, servicing, engineering and associated works.	Under construction

Table 3.1: Schemes for consideration within cumulative impact assessment

Scheme	Description	Status
River Street 118683/FO/2017 And 122211/NMC/2018	<u>118683/FO/2017</u> Demolition of the existing structure and construction of a part 32, part 10 and part 5 storey building comprising 807 student bed spaces (sui generis), amenity space, landscaping, cycle provision and associated highways works <u>122211/NMC/2018</u> Non Material Amendment to planning permission 118683/FO/2017 to allow the removal of the Level 04 plant room and addition of 1 no. Studio Bedroom in its place, resulting in an overall provision of 792 student bed spaces.	Under construction (due to complete Sept 2020)
Plot 9A First Street 121462/FO/2018	Erection of a ground plus sixteen storey building comprising commercial office (Use Class B1); hotel (Use Class C1); standalone flexible, commercial space across part of the ground and first floor (Use Classes A1 (Shops), A2 (Professional and Financial Services), A3 (Restaurants and Cafes), A4 (Drinking Establishments, B1 (offices), and D2 (Gymnasium); flexible ancillary commercial and retail uses at ground and first floor (Use Class B1, A3, A4); basement car park, landscaping and associated works.	Planning permission not yet implemented
Land Bounded By River Street To The North, Plot 10 To The East, Hulme Street To The South And Medlock Street To The West 125833/FO/2019	Erection of a basement plus 11-storey building comprising office accommodation (Use Class B1), flexible commercial space (Use Classes A1 (Shops), A2 (Professional and Financial Services), A3 (Restaurants and Cafes), A4 (Drinking Establishments), B1 (offices), and D2 (Gymnasium), car parking, cycling parking and associated facilities, landscaping, and associated works.	Planning permission not yet implemented
10-12 Whitworth Street West 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.	Planning permission not yet implemented
Axis 106490/FO/2014/C1 And	<u>106490/FO/2014/C1</u> Construction of a lower ground plus 27 storey residential building (Class C3) with associated servicing arrangements, hard landscaping, pedestrian access bridge and associated works.	Under construction

Table 3.1: Schemes for consideration within cumulative impact assessment

Scheme	Description	Status
115351/NMC/2017	<u>115351/NMC/2017</u> Non-Material Change to planning consent ref:106490/FO/2014/C1 (Construction of a lower ground plus 27 storey residential building (Class C3) with associated servicing arrangements, hard landscaping, pedestrian access bridge and associated works) including lowering the building parapet, revisions to glazing details, providing new parallel opening vents, increased depth of soffit and lowering of second floor cladding profile, height reduction of media screen, sub-station and door repositioning, alteration to column design, deletion of apartment bedroom, reconfiguration of bin store and amendment to the feature profile detail.	
Viadux 115871/FO/2017 And 126868/JO/2020	<u>115871/FO/2017</u> Erection of a 40 storey building to form 375 residential apartments (Use Class C3a) and the erection of a 14 storey building for form offices (Use Class B1) (31,756 sqm) together with ground floor commercial space (Use Class A1, A3 or A4) (1010 sqm) with associated enclosed service yard, public realm including staircase and lift to connect with viaduct, car and le parking, landscaping and other associated works. <u>126868/JO/2020</u> Variation of planning conditions 2, 3, 21, 24, 25, 29, 30, 31, 32, 36 and 38 of planning permission 115871/FO/2017 (amended by 126604/NMC/2020) to allow for a reduction in overall height of the building by 2.5 metres, changes to the number and type of structural interventions into the listed arches, modification and alteration to the bridge over Great Bridgewater Street, alterations to the ground floor layout including enlargement of residents lobby together with re-location of the cycle store and reduction in car parking, alterations to the upper floor layout to remove 3 bedroom apartments and elevational alterations to main facade of the residential tower to modify the fin arrangement together with alteration to the podium with the introduction of perforated panels.	Under construction
Potato Wharf 114999/FO/2017	Erection of two residential buildings (Use Class C3) with a link building, comprising 191no apartments, residential amenity areas, car parking, bicycle parking, public realm and landscape works, access and servicing arrangements, and associated works, following demolition of the existing buildings and plant.	Under construction
Land Bounded By Arundel Street, Ellesmere Street,	Erection of a part 8 and 9 storey building located on Arundel Street and Worsley Street, a part 11 and 23-storey residential building located on the Mancunian Way and refurbishment and conversion of the existing DOT Building to form 355 residential apartments	Planning permission

Table 3.1: Schemes for consideration within cumulative impact assessment

Scheme	Description	Status
The A57 (M) Inner Ring Road (Mancunian Way) And Worsley Street 123261/FO/2019	in total (Use Class C3a) together with commercial uses (Use Classes A1, A2, B1, D1 and D2) along with associated car parking, cycle parking, access, landscaping and other associated work.	not yet implemented

3.3 Aspects to be Scoped Out

- 3.3.1 Specific chapters will not be included for the following topics, as it is considered that these will be addressed sufficiently elsewhere within the ES or planning application, and/or the Proposed Development is unlikely to result in significant environmental effects relevant to these topics.

Demographics, Socio-Economics and Health

- 3.3.2 The socio-economic impacts of the proposed student accommodation scheme at Deansgate South on the local, Manchester City Centre and wider Greater Manchester population will be largely positive.
- 3.3.3 The scheme will create a new resident population of students who are engaged and investing in the City's universities for at least one academic year. As adult students in predominantly single person rooms, there will be very limited additional pressure on the capacity of local childcare, primary or secondary school provision.
- 3.3.4 Whilst classified as in "full time education", many of the resident students are likely to contribute to the local economy through participation in part-time, term time and/or seasonal employment. Given the good accessibility of the Site by sustainable means, and relatively low levels of student car ownership, the majority of these roles are likely to be within the city. In turn, the new population will support a vibrant and viable local community through the generation of footfall and an increase in local expenditure on food, social and other living expenses. Those choosing not to work will not be eligible for claiming Job Seekers Allowances given education status, thus limiting the financial burden on the state.
- 3.3.5 It is likely that on completion of their higher education, a significant proportion of the resident students will remain within Manchester and the wider North West region, going on to attain full time employment and utilising their newly acquired skills and qualifications, to contribute to Manchester's economic growth aspirations through the generation of Gross Value Added (GVA) and spend to the local economy, particularly within higher value target growth sectors.
- 3.3.6 There will be additional quantitative benefits of the proposed scheme during the construction phase of development in the form of private sector investment in a long term derelict site; construction jobs creating additional GVA in the local economy and the potential for up skilling; and additional spend in both the local area from construction workers and in the building contracts and materials supply chain which often tends to be regional given weight and volume constraints.

- 3.3.7 Whilst there may be some negative health impacts in the form of dust, noise and vibrations during the construction phase of development and as additional demand on local health provision such as GP's and dentists on occupation of the scheme, these will be mitigated against as far as possible and are considered to be outweighed by the opportunities for encouraging healthy lifestyles that will be factored into the design of the scheme. In addition, air quality and noise effects (and the associated impacts on population and human health) will be assessed separately within the relevant chapters of the ES.
- 3.3.8 The health benefits of high-quality housing such as that proposed are well documented and the remediation and regeneration of a long-term vacant site will significantly enhance the local physical environment.
- 3.3.9 In conclusion, it is not considered that the proposals are likely to result in significant adverse effects on population and human health, beyond those already being considered elsewhere within the ES. As such a specific Population and Human Health ES chapter has been scoped out of further consideration within the EIA.
- 3.3.10 A Socio-Economic Assessment will be undertaken and submitted as standalone report with the planning application.

Biodiversity

- 3.3.11 A Preliminary Ecological Appraisal (PEA) of the Site was undertaken in August 2020, including a desk study and an extended Phase 1 habitat survey. The PEA identified the following ecological features may be subject to adverse effects in the absence of mitigation:
- Bats; and
 - Nesting Birds.
- 3.3.12 The PEA identified a number of potential roosting features (PRFs) on the boundary wall of the Site and suitable foraging habitat nearby. There are also recent records of common pipistrelle *Pipistrellus pipistrellus* and pipistrelle species *Pipistrellus sp* roosts and other field records within 2km of the Site. A bat survey was subsequently undertaken at the Site, including a desk study, preliminary roost assessment and bats presence/absence survey.
- 3.3.13 No bats were recorded emerging from the PRFs during the dusk emergence survey. Low levels of common pipistrelle activity were recorded during the survey. As no

roosts were identified, the demolition works proposed on Site are unlikely to result in any impacts to bats and no mitigation is required.

- 3.3.14 Recommendations to avoid adverse impacts to nesting birds have been made by avoiding the nesting season for vegetation clearance. If this is not possible nests will be identified and protected until the nesting attempt is complete.
- 3.3.15 Inclusion of integral bat boxes on new buildings is recommended to enhance roosting opportunities for bats on site.
- 3.3.16 With the above avoidance and mitigation proposals in place, the proposed development can be delivered in conformity with planning policy and legislation relating to nature conservation.
- 3.3.17 In conclusion, it is not considered likely that the proposal will result in significant adverse effects on biodiversity and as such this topic has been scoped out of further consideration within the EIA.
- 3.3.18 The PEA and bat survey will be submitted as standalone reports with the planning application.

Land Contamination

- 3.3.19 In support of the previous planning applications for the Site, a Phase 1 (Desk Study) Investigation of the Site was undertaken in November 2015 and an intrusive Ground Investigation of the Site was undertaken in February 2017. These investigations identified potential sources of ground contamination as a result of the site's historic use as a petrol filling. However, it was concluded that this contamination is not particularly complex or unusual and land contamination matters could be adequately controlled via appropriate planning conditions.
- 3.3.20 An up-to-date site investigation will be undertaken in support of the current proposals in order to confirm the extent of any contamination and any remediation works which may be required. It is considered that, as for the previous planning application, land contamination matters could be adequately controlled via appropriate planning conditions.
- 3.3.21 In conclusion, it is not considered likely that the proposal will result in significant adverse effects in relation to ground or contamination matters and as such this topic has been scoped out of further consideration within the EIA.

Water Resources

- 3.3.22 As set out above, a site investigation will be undertaken to identify potential contamination risks and any remediation works that may be required. In addition, a Construction Environmental Management Plan will be produced and adhered to in order to ensure pollution prevention and control measures are implemented as necessary during the construction of the proposed development. As such it is not considered that the Proposed Development will result in a significant adverse impact on water quality.
- 3.3.23 The Site is not at high risk of flooding, however a Flood Risk Assessment will be undertaken which will inform the drainage design for the Proposed Development to ensure flood risk within the Site or surrounding area is managed appropriately.
- 3.3.24 In conclusion, it is not considered likely that the proposal will result in significant adverse effects in relation to water resources and as such this topic has been scoped out of further consideration within the EIA.

Climate

- 3.3.25 The EIA Regulations state that an EIA should consider potential climate related effects. It is considered that these comprise the impact of the Proposed Development on the climate (i.e. greenhouse gas (GHG) emissions) and the impact of climate change on the Proposed Development.
- 3.3.26 As for any development, the Proposed Development will result in GHG emissions and these are unavoidable. It is not considered that the GHG emissions of the Proposed Development will be significantly different from other proposals of a similar nature and scale as the Proposed Development will be constructed, at a minimum, in accordance with relevant regulations, with betterment of Building Regulations being achieved where possible. The scheme will be designed to achieve a BREEAM Excellent rating. The current energy strategy allows for the installation of a PV array on the roof of the building and low energy LEDs throughout the accommodation. Where possible, improvements will be made to facades to increase insulation and reduce heat loss.
- 3.3.27 In addition, the scheme is located in a sustainable location in Manchester City Centre and will be a zero-car development, reducing the level of operational GHG emissions in comparison to an equivalent scheme that includes parking provision.
- 3.3.28 The Proposed Development could potentially be affected by the impact of climate change, including increased risk of extreme weather events and flooding. However,

resilience to extreme weather events will be incorporated within the design process, and the Proposed Development will be constructed in accordance with relevant regulations and guidance. In addition, a Flood Risk Assessment will be undertaken which will consider the risk of potential extreme flood events as a result of climate change.

- 3.3.29 In conclusion, it is not considered that the Proposed Development is likely to result in significant adverse effects on climate, and it is considered that the risk of the Proposed Development being significantly affected by climate change is being considered sufficiently elsewhere within the ES.

Archaeology

- 3.3.30 In support of the previous planning application at the Site an Archaeological Desk Based Assessment (DBA) was undertaken in October 2015. This concluded that there is low potential for any buried remains of archaeological interest to survive in-situ, due to the extensive disturbance to below-ground levels caused during the previous development at the Site. The DBA concluded that further archaeological investigation of the Site would not be required.

- 3.3.31 Based on the conclusions of the previous DBA, and the extensive disturbance cause to the Site through its previous development, it is not considered likely that the proposals will result in significant adverse effects on any buried archaeology and as such the topic has been scoped out of further consideration within the EIA.

Waste

- 3.3.32 A Waste Management Plan will be produced setting out details for refuse storage and management, confirming that the proposals will be in line with MCC standards. The Applicant is working towards a zero-waste environment as part of the transition to a sustainable economy, including use of the “waste hierarchy” (waste prevention, re-use, recycling, recovery and finally disposal as a last option) as a guide to sustainable waste management. It is proposed that the building Waste Store will contain a 20sqm allowance for recycling to encourage better waste management by the occupants.
- 3.3.33 It is not considered likely that the proposals will result in significant adverse effects on the environment as a result of waste and as such the topic has been scoped out of further consideration within the EIA.

Transport

- 3.3.34 The proposals represent zero car development in a highly sustainable location, where a range of amenities are accessible within a short travel distance by non-car modes. There is consequently no requirement for students residing at the proposed facility to operate a car at the daily level. Moreover, it shall be a term of the lease that any resident shall not operate a vehicle within 3-kilometres of the site or else risk their lease being terminated. This is a widely used requirement in the industry and one which the Applicant would accept as a condition of any planning permission being granted.
- 3.3.35 In view of the absence of car parking opportunities, the development would have only very limited traffic impact potential comprising only very infrequent maintenance visits by van and weekly refuse collections undertaken by private contract. The associated traffic effects of the development would therefore not be so great as to constitute a material impact, let alone a potentially significant environmental impact.
- 3.3.36 It is, however, proposed to support the planning application with a Transport Statement and Framework Travel Plan. Together, the reports shall identify the non-car travel credentials afforded by the site's location (informed by a bespoke accessibility model), ways in which the proposal would be compliant with current policy, and requisite management measures, including the refuse collection and student drop-off / collection strategies.
- 3.3.37 In conclusion, it is not considered likely that the proposals will result in significant adverse transport related effects on the environment and as such the topic has been scoped out of further consideration within the EIA.

Wind Microclimate

- 3.3.38 The Proposed Development could potentially have an effect on the wind environment of the Site and its surroundings as compared to the baseline conditions. Therefore, a Wind Microclimate assessment will be undertaken and submitted with the planning application. The assessment will be based on a 3D model covering an area of approximately 350m radius from the site and will pay particular attention to open spaces, building entrances and pedestrian routes to determine the level of compliance with the recommended safety and comfort standards.
- 3.3.39 The methodology will combine the use of Computational Fluid Dynamics (CFD) modelling to predicted air flow patterns and wind velocities around the Proposed Development, the use of wind data from the Met Office, provided through their Virtual

Met Mast service, and recommended comfort and safety standards (the Lawson Criteria). The wind assessment will inform mitigation options to avoid potential significant adverse effects.

3.3.40 In conclusion, it is not considered likely that the proposals will result in significant adverse effects on the wind environment and as such the topic has been scoped out of further consideration within the EIA.

Risks of Major Accidents and/or Disasters

3.3.41 The 2017 Regulations state that an EIA should consider the vulnerability of the development to risks of major accidents and/or disasters, relevant to the project concerned.

3.3.42 'Risk' can be defined as 'the likelihood of an impact occurring, combined with effect or consequence(s) of the impact on a receptor, if it does occur'; a 'Major Accident' can be defined as 'events that threaten immediate or delayed serious damage to human health, welfare and/or the environment'; and a 'Disaster' can be defined as 'naturally occurring extreme weather events (e.g. storm, flood, temperature) or ground-related hazard events (e.g. subsidence, landslide, earthquake) with the potential to cause an event or situation. Disaster and natural disaster are often used interchangeably.

3.3.43 Owing to the nature of the Proposed Development, it is considered that the likelihood of it resulting in/causing an event to occur that threatens (either immediate or delayed) serious damage to human health, welfare and/or the environment is low. The vulnerability of the Proposed Development to naturally occurring extreme weather events (i.e. flooding, storms and extreme temperatures) and/or ground related hazard events, (e.g. subsidence, earthquakes and ground contamination) that could lead to an event or situation is very low.

3.3.44 Table 3.2 below sets out the accidents and disasters of relevance to the Proposed Development (based on the location of the Site and proposed land use), and how these will be mitigated.

Table 3.2: Consideration of major accidents and/or disasters	
Major accident/disaster type	Description
Extreme weather events	The Proposed Development could be damaged by extreme weather events (exacerbated by climate change), including storms, snow, ice and heatwaves. However, resilience to extreme weather events will be incorporated within the

Table 3.2: Consideration of major accidents and/or disasters	
Major accident/disaster type	Description
	design process, and the Proposed Development will be constructed in accordance with relevant regulations and guidance.
Flooding	The Site is not at a high risk of flooding, however the reduction in permeable area as a result of the Proposed Development could exacerbate this risk. A Flood Risk Assessment will be produced, which will inform the drainage design for the Proposed Development to ensure flood risk within the Site or surrounding area is managed appropriately. The drainage will be designed to accommodate potential extreme flood events as a result of climate change.
Contamination risk	There is a risk of contamination to ground and water during construction and operation of the Proposed Development. An assessment of this risk will be undertaken, and mitigation measures will be recommended where required.
Transport accidents	The proposals represent zero car development and as such are unlikely to have a material impact on traffic flows. However, a Transport Assessment and Framework Travel Plan will be prepared, identifying measures to increase safety where necessary.

3.3.45 Based on the above, it is not considered that the Proposed Development is likely to result in any significant adverse effects on the environment deriving from the vulnerability of the Proposed Development to the risk of major accidents and/or disasters (relevant to the Proposed Development)

4 NOISE

4.1 Introduction

- 4.1.1 A noise assessment will be undertaken by Apex Acoustics Ltd and will be included as a chapter within the ES.

4.2 Legislation and Policy Context

- 4.2.1 The assessment will be carried out with due regard to the following guidance:
- National Planning Policy Framework (NPPF), 2018;
 - Noise Policy Statement for England;
 - National Planning Practice Guidance (NPPG), 2014;
 - British Standard 8233:2014: Sound Insulation and Noise Reduction for Buildings;
 - British Standard 5228: Code of Practice for Noise and Vibration Control on Construction and Open Sites;
 - British Standard 4142:2014: Methods for rating and assessing industrial and commercial sound; and
 - Manchester City Council – Planning & Noise: Technical Guidance, 2015.

4.3 Baseline Conditions

- 4.3.1 The baseline noise levels at the existing noise sensitive receptors and at the proposed building façade location will be measured in accordance with BS7445, at final locations to be agreed with the local authority.
- 4.3.2 The noise climate across the site is likely to be dominated by local road traffic on the A56, and there could be some noise from nearby construction works during the time of any noise surveys.

4.4 Key Receptors and Potential Impacts

- 4.4.1 Potential noise and vibration impacts during the construction and operational phases to be addressed by the ES are as follows:
- Noise and vibration impacts arising from construction processes affecting noise sensitive receptors;
 - Noise impacts to future residents within the site from existing transport or industrial related noise sources; and

- Noise impacts to existing and future receptors from mechanical building services plant and operations of the non-residential buildings associated with the new development.

4.4.2 Noise from operational changes in traffic flows due to the development will not be considered as it is a zero car development.

4.5 Proposed Scope and Methodology of the Assessment

Baseline measurements

4.5.1 The existing residual and background noise environment for daytime and night-time periods will be measured. The measurements will include simultaneous broadband, spectral and statistical data that also satisfies the requirements of BS 7445.

4.5.2 Where suitable safe access is available, unattended long term measurements will be undertaken at the noise sensitive locations, over a minimum period of 24 hours. The measurements will record audio so that dominant noise sources can be identified for unattended periods.

Construction noise and vibration assessment

4.5.3 Likely noise and vibration levels during site works will be predicted from the information provided by the client and noise data and methodology within BS 5228-1: 2014. Predicted noise levels will be reviewed and significance will be determined based on fixed noise limits as per the methodology Annex E of BS 5228-1.

4.5.4 If the proposed details indicate a noise impact that does not satisfy the limits, a scheme for the mitigation of the noise may be required. Potentially mitigating features include re-siting or re-directing the noise producing plant, barriers, screens, and limiting time and duration of operation.

Assessment of site suitability

4.5.5 The noise impact on the proposed site will be calculated with proprietary acoustic environmental noise modelling software, Cadna/A. The model will include the shielding effect of the existing and proposed buildings.

4.5.6 Daytime $L_{Aeq,16\text{ hr}}$, night time $L_{Aeq,8\text{ hr}}$ and night time maximum, $L_{AF,max}$ levels will be determined, on which the acoustic risk to residents will be assessed and the sound insulation design will be based.

- 4.5.7 Commentary will be provided on the site suitability for housing and the potential to achieve the internal and external noise limits described in BS 8233. Any commercial sound source will be assessed in accordance with BS4142 and local authority guidance.
- 4.5.8 Guidance will be provided on the acoustic implications for potential ventilation strategies, in accordance with the current Part F of the Building Regulations.

Assessment of operational noise from the new development

- 4.5.9 The impact of noise sources associated with the site operations, including internal and external fixed plant, will be assessed and guidance will be provided on appropriate noise limits or mitigation requirements.

4.6 Consultation

- 4.6.1 The survey and assessment methodology will be discussed with the local authority, to agree the general approach and to ensure it is appropriate for the local authority's requirements.

5 AIR QUALITY

5.1 Introduction

- 5.1.1 An Air Quality assessment will be undertaken by Ensafé Consultants and will be included as a Chapter within the ES.

5.2 Baseline Conditions

- 5.2.1 Existing air quality conditions in the vicinity of the Site have been reviewed and detailed below.
- 5.2.2 As required by the Environment Act (1995), the Greater Manchester Combined Authority (GMCA), on behalf of Manchester City Council (MCC), has undertaken review and assessment of air quality within the city. This process has indicated that annual mean Nitrogen Dioxide (NO₂) concentrations exceed the relevant Air Quality Objectives (AQO) at specific areas throughout the city. As such, an Air Quality Management Area (AQMA) has been declared and is described as:

"Greater Manchester AQMA - This is the part of the Greater Manchester Combined Authority AQMA located within the Manchester City Council area.

- 5.2.3 The Site is located within the GMCA AQMA. As such, there is the potential for future residents to be exposed to elevated pollutant concentrations, as well as to cause impacts within an area of existing poor air quality.
- 5.2.4 MCC has concluded that concentrations of all other pollutants considered within the Air Quality Strategy (AQS) are currently below the relevant AQOs and as such no further AQMAs have been designated.

Air Quality Monitoring

- 5.2.5 Monitoring of pollutant concentrations is undertaken by MCC using continuous and periodic methods throughout their area of administration, a review of the most recent data indicated that there is currently one automatic analyser within the vicinity of the Proposed Development. Table 5.1 presents the latest ratified year of monitoring data. Exceedances of the relevant AQO are highlighted in **bold**. Monitoring of particulate matter with an aerodynamic diameter of less than 2.5µm (PM_{2.5}) is not currently undertaken by MCC in the vicinity of the Site.

Table 5.1: Automatic Monitoring Results					
ID	Site Name		Site Type	Annual Mean Concentration ($\mu\text{g}/\text{m}^3$)	
				2019 NO ₂	2019 PM ₁₀
MAN1	Manchester Road	Oxford	Kerbside	59	26

5.2.6 As shown in Table 5.1, the annual mean AQO for NO₂ was exceeded in recent years at the Oxford Road automatic site. Exceedances are likely due to the roadside location adjacent to an arterial road within an AQMA. It should be noted this monitoring location is classified as a Kerbside site and as such will only be considered further in context of the baseline assessment and not used for model verification purposes. This is in accordance with LAQM (TG16) which suggests that the inclusion of Kerbside location within the verification procedure may lead to an over-adjustment of modelling at roadside sites. This may then lead to inaccuracies during the modelling of potential exposure across the Proposed Development and potential impacts at nearby sensitive receptor locations.

5.2.7 MCC utilises passive diffusion tubes to monitor NO₂ concentrations throughout the city. A review of the latest diffusion tube monitoring data indicated two representative of the site. Monitoring results from recent years are summarised in Table 5.2. Exceedances of the relevant AQO are shown in **bold**.

Table 5.2: MCC Diffusion Tube Monitoring Results					
ID	Site Name	Site Type	Annual Mean Concentration ($\mu\text{g}/\text{m}^3$)		
			2017	2018	2019
MA77	Hewitt Street	Urban Background	39.2	N/A	43.7
MA97	Chester Road	Roadside	N/A	N/A	32.3

5.2.8 Salford City Council (SCC) also undertake Air Quality monitoring within 1km of the Site. A review of the latest data indicated two diffusion tube monitoring locations representative of the site. Recent results from these locations are shown in Table 5.3, with exceedances of the relevant AQO highlighted in **bold**.

Table 5.3: Salford City Council Diffusion Tube Monitoring Results					
ID	Site Name	Site Type	Annual Mean Concentration ($\mu\text{g}/\text{m}^3$)		
			2016	2017	2018
SA60	SA60 Regent Road	Roadside	40.7	40.2	36.7
SA81	SA81 Regent Road	Urban Traffic	N/A	N/A	46.4

5.2.9 As shown in Table 5.2 and Table 5.3 there were exceedances of the annual mean AQO for NO₂ at all but one monitoring location in recent years. Exceedances are likely due to their roadside and urban locations within an AQMA.

5.2.10 The closest passive diffusion tube monitor is located at Hewitt Street (MA77), approximately 280m east of the Site. This location is classified as an Urban Background site and is situated a similar distance to arterial roads as the Proposed Development. This location will provide a suitable representation for baseline concentration at the application site, as well as to be considered for model verification process.

5.2.11 Monitoring locations MA97, SA60 and SA81 are situated similar distances from arterial roads as the Proposed Development. These locations will provide suitable representation to sensitive receptor locations and will also be considered for model verification process.

5.2.12 The results detailed in Table 5.2 and Table 5.3 provide an indication that pollutant concentrations adjacent to the Site may exceed the annual mean AQO for NO₂. Detailed modelling will be required in order to assess the potential risk of on-site exposure to elevated pollutant concentrations.

Background Pollutant Concentrations

5.2.13 Predictions of background pollutant concentrations on a 1km by 1km grid basis have been produced by DEFRA for the entire of the UK to assist Local Authorities (LAs) in their Review and Assessment of air quality. The Site is located in grid square NGR: 383500, 397500. Data for this location was downloaded from the DEFRA website for the purpose of this assessment and is summarised in Table 5.4; for the baseline year (2019) and future year (2024).

Table 5.4: Predicted Background Pollutant Concentrations		
Pollutant	Predicted Background Concentration (µg/m ³)	
	2019	2024
NO ₂	39.9	31.3
NO _x	26.1	21.3
PM ₁₀	13.5	12.7
PM _{2.5}	8.7	8.1

5.2.14 As shown in Table 5.4, background concentrations do not exceed the relevant AQOs. Comparison with the monitoring results provided in Table 5.2 and Table 5.4 indicate the influence of road vehicle exhaust emissions have upon roadside pollutant concentrations. It should be noted that the monitoring results provided in Table 5.2

and Table 5.4 provide a robust representation of likely pollutant concentration in the vicinity of the Site.

5.2.15 Diffusion Tube MA77 will not be used as a background for the site as its location in close proximity to an arterial road results in a likely overestimation of background pollutant concentrations.

5.2.16 It should be noted that background concentrations for 2019 will be used in preference to predicted background concentrations for the development opening year (2024). This is to ensure a conservative but may lead to overestimate actual pollutant concentrations during the operation of the proposals.

5.3 Method of Assessment

Legislation, Guidance and Policy

5.3.1 The following legislation, guidance and policy documents will be considered and adhered to during the preparation of the Air Quality Chapter:

- European Union (EU) Directive 2008/50/EC;
- The National Planning Policy Framework (NPPF), updated on 19th February 2019);
- The National Planning Practice Guidance (NPPG), chapters produced on 6th March 2014;
- Section 82 of the Environment Act (1995) (Part IV);
- The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Vol 1 (March 2011);
- The Air Quality Standards (Amendment) Regulations (2016);
- Department for Environment, Food and Rural Affairs (DEFRA) guidance Local Air Quality Management Technical Guidance (TG16), 2018;
- Guidance on the Assessment of Dust from Demolition and Construction, Institute of Air Quality Management (IAQM), v1.1, June 2016; and
- Land-Use Planning and Development Control: Planning for Air Quality, Environmental Protection UK and IAQM, January 2017.

Construction Phase

5.3.2 During the construction phase of the Proposed Development there is the potential for air quality effects as a result of fugitive dust emissions associated with demolition, earthworks and construction, and track-out activities on the Site. It is proposed to

assess these qualitatively in accordance with the IAQM Construction Methodology 2016. The methodology provided within this guidance document is widely regarded as an example of best practice and results are accepted throughout the UK.

Operational Phase

- 5.3.3 The operational phase of the Proposed Development is likely to introduce new residents to poor air quality, as predicted from the review of baseline Air Quality conditions. Potential air quality effects across the Proposed Development will therefore be assessed on a quantitative basis. This will be undertaken by calculating NO₂, PM₁₀ and PM_{2.5} levels across the Proposed Development using the ADMS-Roads dispersion modelling software. It should be noted that the ADMS modelling software is widely accepted within the UK by the Local Authorities, the Environment Agency and DEFRA.
- 5.3.4 The assessment of operational phase impacts will consider the following development scenarios:
- Scenario A: Existing baseline, for verification purposes against latest 2019 MCC and SCC ratified Air Quality Monitoring data; and
 - Scenario B: Anticipated Do something 2024 Opening Year baseline plus, predicted traffic flows associated with the development, highways, public realm; inclusive of committed developments listed in Table 3.1 (should the proposal be completed).
- 5.3.5 The Proposed Development has the potential to impact on existing air quality as a result of road traffic exhaust emissions, such as NO₂, PM₁₀ and PM_{2.5} associated with vehicles travelling to and from the site. A screening assessment will be undertaken using the criteria contained within the EPUK and IAQM guidance documents to determine the potential for trips generated by the Proposed Development to affect local air quality.
- 5.3.6 The EPUK and IAQM guidance document states the following criteria to help establish when an air quality assessment is likely to be considered necessary:
- Proposals that will cause a change in Light Duty Vehicle (LDV) flows of more than 100 AADT within or adjacent to an AQMA or more than 500 elsewhere; and
 - Proposals that will cause a change in Heavy Duty Vehicle (HDV) flows of more than 25 AADT within or adjacent to an AQMA or more than 100 elsewhere.
- 5.3.7 Should the above criteria not be met, the EPUK and IAQM guidance document considers air quality impacts associated with the scheme to be not significant and no

further assessment is required. Conversely, should the criterion be exceeded it may be deemed necessary that further assessment is required.

Assessing the Significance of Effects

5.3.8 The significance of potential effects will be determined based on the predicted magnitude of change in pollutant concentrations and the criteria provided within the Environmental Protection UK (EPUK) and IAQM guidance document "Land-Use Planning & Development Control: Planning for Air Quality (2017).

5.3.9 Table 5.5 presents the AQOs detailed within the relevant legislation, which will be considered further during the Chapter, to inform on-site exposure risk.

Table 5.5: Air Quality Objectives		
Pollutant	AQO	
	Concentration ($\mu\text{g}/\text{m}^3$)	Averaging Period
NO ₂	40	Annual mean
	200	1-hour mean; not to be exceeded more than 18 times a year
PM ₁₀	40	Annual mean
	50	24-hour mean; not to be exceeded more than 35 times a year
PM _{2.5}	25	Annual mean

Cumulative Assessment

5.3.10 The Air Quality chapter will consider potential cumulative effects of the Proposed Development and other major developments in the area. The scope of the projects to be included in the cumulative assessment will be governed by the Transport Statement. The anticipated committed developments are outlined in Table 3.1.

5.3.11 Depending on the outcomes of the assessment, there may be a requirement to produce a mitigation strategy in order to reduce potential effects to an acceptable level. This would be based on best practice guidance and an assessment of residual effects following the implementation of any suggested control methods would be provided.

5.4 Summary of Assessment Scope

5.4.1 Table 5.6 provides a summary of potential effects which would be assessed within the Air Quality ES chapter.

Table 5.6: Summary of Assessment Scope			
Receptor	Impact	Potential Effect	Scoped In/Out
Existing Residential	Construction Dust	Reduced levels of amenity	Scoped In
Existing Residential	Road Vehicle Traffic Exhaust Emissions	Impact on existing air quality conditions	Scoped In
Existing Residential	Construction Dust	Reduced levels of amenity	Scoped In
AQMA	Road Vehicle Traffic Exhaust Emissions	Impact on existing air quality conditions	Scoped In
Proposed Residential	Road Vehicle Traffic Exhaust Emissions	Introduction of new residents into an AQMA	Scoped In
Proposed Residential	Road Vehicle Traffic Exhaust Emissions associated with trip generation from the site	Reduced levels of amenity	Scoped In

6 TOWNSCAPE AND VISUAL

6.1 Introduction

- 6.1.1 A detailed Townscape and Visual Impact Assessment (TVIA) will be prepared by Bidwells UDS team and will be included as a chapter within the ES.
- 6.1.2 This section of the EIA Scoping Report provides an overview of the proposed methodology that will be applied to the TVIA and initial considerations on the likely significant effects.

6.2 Study Area

- 6.2.1 Given the Site's location within the dense urban fabric of Manchester, it is proposed for the TVIA study area to include a 1km radius from the Site's centre. This study area would encompass relevant townscape features, such as:
- The City Centre character area as well as the Central Area of Change, representing distinct townscape characters;
 - Castlefield Conservation Area, including several listed buildings; and
 - Cheshire Ring Canal Walk and The Salford Trail, which run respectively along the Manchester Ship Canal and the Bridgeway Canal.
- 6.2.2 Although the existing built form is likely to provide substantial screening to the proposed development, the proposal might be visible from locations outside the identified study area. It is therefore proposed that the Zone of Theoretical Visibility (ZTV) map resulting from the proposal would be used to select the viewpoints to assess the visual impact, which might extend beyond 1km radius.

6.3 Baseline Conditions

- 6.3.1 The TVIA includes townscape and visual baselines. In both cases, the work produced is a result of desk-based study and site visit observations.
- 6.3.2 The townscape baseline aims to understand and identify the character of the study area including the specific elements, features and aesthetic factors that define it. Ultimately, such understanding provides substantial evidence to the definition of the townscape value of the study area.
- 6.3.3 On the other hand, the visual baseline is concerned with the visibility of the development, identification of the visual receptors and of the representative viewpoints.

6.4 Key Receptors and Potential Impacts

6.4.1 Based on the available development parameters, it is expected that the proposals would have some townscape and visual impact. The significance of the resulting effects would be subject to the final layout, massing and height details.

6.4.2 The proposal is likely to result in some significant effects, as per EIA definition (see detailed methodology in Appendix D), particularly concerning visual receptors in close proximity of the Site. The viewpoints, which will be selected in discussion with the local authority, will represent views experienced by different receptors at different distances and angles from the Site.

6.4.3 Considering the strong and diverse urban character within the study area, as well as the continuing evolution of the Manchester townscape, it is unlikely that significant effects will be identified on the townscape receptors within the study area. These receptors include:

- Manchester skyline;
- The townscape setting of Castlefield Conservation Area; and
- The character of the City Centre Strategic Character Area.

6.4.4 It should be noted that the above assumption on likely significant effects and the proposed receptors are based on a high-level, preliminary review of the Site's context. Further, considerations on both TVIA aspects will be needed once the townscape and visual baseline conditions are further investigated and detailed.

6.5 Approach and Method

6.5.1 The TVIA will be prepared in accordance with the guidelines as set out in 'Guidelines for Landscape and Visual Impact Assessment: Third Edition', (GLVIA3) published by the Landscape Institute and the Institute of Environmental Management and Assessment. However, given the urban nature of the context of the Site, the GLVIA3 approach is applied with reference to townscape impact rather than landscape impact. The term townscape is, in fact, used to encompass all the urban and landscape characteristics of the Site and its context.

6.5.2 In accordance with the GLVIA3 approach to assessment, there are two key effects to be considered in the eventual preparation of the full TVIA report:

- Townscape Effects relate to changes in the fabric, character and quality of the urban landscape. These include direct impacts such as loss of vegetation and

additional built form, or indirect impacts such as changes to tranquillity. Townscape effects do not need to be solely visible.

- Visual Effects relate to specific changes in views and the effects on visual receptors (e.g. users of public rights of way or recreational facilities). Changes to the visual setting of protected cultural heritage features are also considered (e.g. Scheduled Monuments, Listed Buildings and Conservation Areas).

6.5.3 A detailed methodology of how the appraisal of townscape and visual effects is carried out can be found in Appendix D.

References

6.5.4 The proposed methodology for undertaking the TVIA will follow available best practice and guidance, namely:

- 'Guidelines for Landscape and Visual Impact Assessment', (GLVIA3) produced by the Landscape Institute with the Institute of Environmental Management and Assessment (Third Edition, 2013);
- 'Visual Representation of Development Proposals'. Technical Guidance Note 06/19, by the Landscape Institute (17 September 2019);
- 'Townscape Character Assessment', Technical Information Note 05/2017, by the Landscape Institute (5 December 2017);
- 'Residential Visual Amenity Assessment' (RVAA), Technical Guidance Note 2/19, by the Landscape Institute (15 March 2019); and
- 'Design Manual for Roads and Bridges: Volume 11', Section 3 Environmental Assessment Techniques (August 2009).

6.5.5 The desk-based study related to the baseline information will include the following documents:

- Ordnance Survey 1:10,000 scale Application Site-centred digital raster map;
- National Planning Policy Framework (February 2019);
- Manchester City Council Core Strategy (2012);
- Local Development Framework: Strategic Level City-wide Urban Characterisations for Core Strategy;
- Multi-Agency Geographic Information for the Countryside (MAGIC): Web-based interactive GIS mapping site (www.magic.gov.uk); and

- Aerial photography: Google Maps (<http://maps.google.co.uk>).

6.6 Consultation

- 6.6.1 No formal consultation to discuss the scoping of the TVIA has been undertaken so far. However, it is intended to carry out further consultation with the relevant officers at Manchester City Council regarding the viewpoints and townscape receptors selections and approach to the assessment of the significance of effects, including requirements for technical visualisations and cumulative assessment.

7 BUILT HERITAGE

7.1 Introduction

7.1.1 The EIA will identify any likely significant effects of the Proposed Development on visible, above-ground built heritage, in this case specifically listed buildings, Conservation Area/s, and non-designated heritage assets.

7.1.2 The assessment of built heritage will be undertaken by Bidwells.

7.2 Baseline Conditions

7.2.1 There are no Statutorily Listed Buildings, Registered Parks and Gardens or non-designated heritage assets within the Site.

7.2.2 The Site is located adjacent to the Castlefield Conservation Area. The Conservation Area was designated on 13th October 1979 and was extended in 1985 to include the area bounded by Ellesmere Street, Hulme Hall Road and the River Irwell. It is one of the largest Conservation Areas in Manchester. The designation recognises a part of city that was at the heart of dramatic industrial growth in the 18th and 19th centuries, focussed on the canal basin and railway lines.

7.3 Key Receptors

7.3.1 There are a number of listed buildings within the vicinity of the site; however, those whose settings may be regarded as being potentially affected by the proposed development are listed below:

- Bridgewater Canal Offices (Grade II);
- Artingstalls Auctioneers (Castlefield Congregational Chapel) (Grade II);
- Merchants Warehouse (Grade II);
- Middle Warehouse (Grade II);
- Floodgate on East side of Knott Mill Bridge (Grade II);
- Boundary Stone on Knott Mill Bridge (Grade II);
- G-Mex (Manchester Central Convention Complex) (Grade II*);
- Manchester South Junction and Altrincham Railway Viaduct (Grade II);
- Deansgate Station (Grade II);
- Deansgate Goods Station and Attached Carriage Ramp (Grade II*);
- 235-291 Deansgate (Grade II); and

- Castlefield Information Centre (Grade II).

7.3.2 There are also a number of non-designated buildings located within close proximity of the site and which may have a relationship with it:

- Dukes 92 Bar, 8 - 25 Castle St;
- Bass Warehouse, 4 Castle Street;
- Eastgate, 2 Castle Street;
- The Atlas Bar, 376 Deansgate;
- 4 Jordan Street;
- 5-7 Constance Street;
- 1 Constance Street/10a Little Peter Street;
- 8-12 Hewitt Street/21 Little Peter Street; and
- 357-361 Deansgate.

7.3.3 Consideration has also been given to the setting of assets further afield where the proposals may be considered to impact on them. Where impacts have been discounted as a result of this assessment, no further analysis has been made of these assets.

7.4 Potential Impacts

7.4.1 Impacts on built heritage assets during the construction and development process can be derived from a number of activities. These impacts may be direct (physical) impacts to on-site assets, or indirect effects on the setting of off-site assets. These impacts may include:

- Site set-up works, including contractors compound set-up and associated temporary services, levelling work and other preparatory groundworks including remediation for Unexploded Ordnance and chemical contaminants;
- Construction including demolition, earthworks, foundation excavation or pile installation, service installation, road construction and visual impacts resulting from construction cranes and building activity;
- Landscaping, including ground reduction or levelling and creation of attenuation tanks and ponds; and

- The visual, acoustic, traffic and other effects of the completed development on the significance or setting of built and historic landscape heritage assets.

7.5 Assessment Approach and method

7.5.1 An assessment of the significance of the identified heritage assets in accordance with NPPF paragraph 189, and an impact assessment in relation to the potential impacts of the proposals will be undertaken. The results of these assessments will be set out within the ES chapter. A Heritage Statement will also be prepared and appended to the ES chapter.

7.5.2 The Built Heritage ES chapter and Heritage Statement will include details of the following:

- A site visit;
- A review of cartographic and archival evidence for the Site and relevant assets;
- An examination of national, regional and local planning policies in relation to the built heritage and historic landscape;
- An assessment of the significance of the identified heritage assets;
- An assessment of the potential impacts of the proposals on the identified heritage assets; and
- Relevant listed building List Entries.

8 DAYLIGHT AND SUNLIGHT

8.1 Introduction

8.1.1 An assessment of the likely significant effects arising from the Proposed Development on the daylight, sunlight and overshadowing will be undertaken by GIA and included within the ES.

8.1.2 The ES chapter will present an assessment of the potential effects of the Proposed Development on daylight, sunlight and overshadowing which will be identified through desk-based research and site surveys. The approach proposed in this Scoping Report has been informed by published best practice guidance.

8.2 Baseline Conditions

8.2.1 Baseline studies are currently being undertaken by GIA. The baseline assessment will review the current daylight and sunlight conditions within each of the surrounding residential properties, along with the sunlight availability to the surrounding amenity areas.

8.3 Legislative and Policy Context

8.3.1 The assessment will be carried out with due regard to the following:

- National Planning Policy Framework 2018;
- Manchester Core Strategy (2012 – 2027);
- Guide to Development in Manchester Supplementary Planning Document and Planning Guidance (Adopted April 2007);
- Building Research Establishment (BRE) 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice', Second Edition, 2011; and
- British Standard (BS) 8206-2:2008: 'Lighting for Buildings – Part 2: Code of Practice for Daylighting'.

8.4 Assessment Methodology and Significance Criteria

Methodology for Determining Baseline Conditions and Sensitive Receptors

Key Receptors

8.4.1 The BRE Guidelines suggest that residential properties have the highest requirement for daylight and sunlight and states that:

“the guidelines are intended for use for rooms in adjoining dwellings where light is required, including living rooms, kitchens and bedrooms.”

8.4.2 The following properties will be considered due to their proximity to the Site, and their use:

- Deansgate Quay;
- North Tower, Deansgate Square; and
- Castle Wharf.

8.4.3 Other adjacent residential properties have been considered and due to the distance and orientation from the proposed development, they are unlikely to be affected, so they have not been assessed in detail.

Methodology for Determining Demolition and Construction Effects

8.4.4 Owing to the evolving and changing nature of demolition and construction activities, and as effects during these phases will gradually increase to the potential effects identified for the completed Proposed Development, the assessment of potential effects during demolition and construction of the Proposed Development on daylight and sunlight to surrounding properties will not be modelled. Instead, a qualitative assessment will be undertaken using professional judgement and experience.

Methodology for Determining Operational Effects

8.4.5 The following approaches will be undertaken to assess the effect on the sensitive receptors of surrounding properties when the Proposed Development is completed and operational:

Daylight:

- Vertical Sky Component (VSC); and
- No Sky Line (NSL) Method.

Sunlight:

- Annual Probable Sunlight Hours.

Outline Approach for Daylight and Sunlight

8.4.6 The technical analyses carried out to inform the daylight, sunlight, and overshadowing, assessment will be undertaken by creating a digital three-dimensional (3D) model of the existing Site and Proposed Development.

- 8.4.7 The 3D model uses Waldram Diagrams to establish the VSC and 3D geometric calculations for daylight distribution. This model (which is orientated to north by the use of Ordnance Survey (OS) information) enables the path of the sun to be tracked throughout the year to establish the shadow cast by the existing and proposed buildings and thus calculate the sun hours on ground in each scenario.
- 8.4.8 Only those surrounding residential properties which have windows facing towards the Site will be included in the assessment. If a nearby residential property has no windows facing the Site, these properties would not be affected by the Proposed Development in terms of light.

Daylight

Vertical Sky Component (VSC) Method

- 8.4.9 The VSC method of assessment is defined in the BRE Guidelines as the:

“ratio of that part of illuminance at a point on a given vertical plane that is received directly from a CIE standard overcast sky, to illuminate on a horizontal plane due to an unobstructed hemisphere of this sky”.

- 8.4.10 This ratio is the percentage of the total unobstructed view that is available, once obstructions (e.g. the Proposed Development), are placed in front of the point of view.
- 8.4.11 The assessment is calculated from the centre of a window on the outward face and measures the amount of light available on a vertical wall or window following the introduction of visible barriers, such as buildings. The VSC has been calculated by using a 'Waldram Diagram'.
- 8.4.12 The Waldram Diagram is effectively a snapshot is taken from that point of the sky in front of the window, together with all relevant obstructions to it, i.e. the buildings. For calculation purposes, trees may be ignored unless they form dense continuous belts.
- 8.4.13 The maximum VSC value is almost 40% for a completely unobstructed vertical wall or window. In terms of assessment criteria, the BRE Guidelines state that:

“if the VSC, with the development in place, is both less than 27% and less than 0.8 times its former value, occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window may appear more gloomy and electric lighting will be needed more of the time”.

No Sky Line (NSL) Method

- 8.4.14 The BRE Guidelines provide that where room layouts are known, the effect on the daylight distribution can be calculated by plotting the NSL. In terms of the surrounding receptors, it has not been possible to obtain room layouts for all of the properties and therefore layouts have been assumed where information is not available.
- 8.4.15 The NSL method is a measure of the distribution of daylight at the 'working plane' within a room. The 'working plane' means a horizontal 'desktop' plane 0.85m in height for residential properties. The NSL divides those areas of the working plane which can receive direct sky light from those which cannot. If a significant area of the working plane lies beyond the NSL (i.e. it receives no direct sky light), then the distribution of daylight in the room will be poor and supplementary electric lighting may be required.
- 8.4.16 The potential effects of daylighting distribution in an existing building can be found by plotting the NSL in each of the main rooms. For houses, this will include living rooms, dining rooms and kitchens. Bedrooms should also be analysed, although they are less important. The BRE Guidelines identify that if the area of a room that does receive direct sky light is reduced to less than 0.8 times its former value, then this would be noticeable to its occupants.
- 8.4.17 BS 8206 Part 2 states (para 5.7) that the:

"uniformity of daylight is considered to be unsatisfactory if a significant part of the working plane (normally more than 20%) lies behind the no-sky line".

- 8.4.18 Therefore, it is implied that an NSL of at least 80% would be considered satisfactory.
- 8.4.19 In regards to deep rooms which are lit by windows on one side, the BRE Guidelines state (para. 2.2.10):

"If an existing building contains rooms lit from one side only and greater than 5 m deep, then a greater movement of the no sky line may be unavoidable."

Sunlight

Annual Probable Sunlight Hours (APSH) Method

- 8.4.20 Sunlight is measured using a sun indicator which contains 100 spots, each representing 1% of APSH. Therefore, where no obstruction exists the total annual probable sunlight hours would amount to 1486 and therefore each spot equates to 14.86 hours of the total annual sunlight hours.

8.4.21 The number of spots is calculated for the Baseline and Proposed Development scenarios during the year and also during the winter period, and a comparison made between the two. This provides a percentage of APSH for each of the time periods for each window assessed.

8.4.22 The BRE Guidelines note that:

“In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day, but especially in the afternoon.”

“all main living rooms of dwellings...should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun”.

“If the main living room to a dwelling has a main window facing within 90° of due north, but a secondary window facing within 90° of due south, sunlight to the secondary window should be checked.”

“...a south facing window will, in general, receive most sunlight, while a north facing one will receive it only on a handful of occasions. East and west facing windows will receive sunlight only at certain times of day”.

8.4.23 In regards to existing surrounding receptors, the BRE Guidelines provide that a window may be adversely affected if a point at the centre of the window receives for the whole year, less than 25% of the APSH, including at least 5% of the APSH during the winter months (21st September to 21st March) and less than 0.8 times its former sunlight hours during either period, and if there is a reduction in total APSH which is greater than 4%.

8.4.24 BS 8206 Part 2 (section 5.2) states that:

“Provided that the entry of sunlight is properly controlled, it is generally welcome in most buildings in the UK. Dissatisfaction can arise as much from the permanent exclusion of sunlight as from its excess. The provision of sunlight is important in dwellings, particularly during winter months. Sunlight is especially valued in habitable rooms used for long periods during the day.”

“Interiors in which the occupants have a reasonable expectation of direct sunlight should receive at least 25% of probable sunlight hours (see 2.10.2). At least 5% of probable sunlight hours should be received during the winter months, between 21 September and 21 March. Sunlight is taken to enter an interior when it reaches one or more window reference points.”

8.4.25 Therefore, an assessment of sunlight is only required for living rooms that face within 90 degrees of due south.

Significance of Effects

8.4.26 The BRE Guidelines provide the criteria in Table 8.1 below to calculate daylight and sunlight impact assessments. This is used to calculate the significance of effects on nearby receptors.

Table 8.1: BRE Guidelines	
Method	BRE Criteria
VSC	A window may be adversely affected if its VSC measured at the centre of the window is less than 27% and less than 0.8 times its former value.
NSL	A room may be adversely affected if the daylight distribution (NSL) is reduced beyond 0.8 times its existing area.
APSH	A window may be adversely affected if a point at the centre of the window received for the whole year, less than 25% of the APSH including at least 5% of the APSH during the winter months (21st September to 21st March) and less than 0.8 times its former sunlight hours during either period, and for existing neighbouring buildings, if there is a reduction in total APSH which is greater than 4%.

Significance Criteria

Daylight and Sunlight Magnitude of Effect

8.4.27 For daylight and sunlight, the BRE Guidelines outline the approach within the accompanying Appendix I, in terms of assigning criteria to assess the effects (para I3-I8) :

“Adverse impacts occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is required...The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied.”

“Where the loss of skylight or sunlight fully meets the guidelines, the impact is assessed as negligible or minor adverse. Where the loss of light is well within the guidelines, or only a small number of windows or limited area of open space lose light (within the guidelines), a classification of negligible impact is more appropriate. Where the loss of light is only just within the guidelines and a larger number of windows or open space are affected, a minor adverse impact would be more appropriate, especially if there is a particularly strong requirement for daylight and sunlight in the affected building or open space.”

“Where the loss of skylight or sunlight does not meet the guidelines in this book, the impact is assessed as minor, moderate or major adverse. Factors tending towards a minor adverse impact include:

- Only a small number of windows are affected;*
- The loss of light is only marginally outside the guidelines;*
- An affected room has other sources of skylight or sunlight; and*
- The affected building only has a low level of requirement for skylight or sunlight.”*

8.4.28 The classification of major adverse is documented within Paragraph 7 of the BRE Guidelines:

“Factors tending towards a major adverse impact include:

- a large number of windows are affected;*
- the loss of light is substantially outside the guidelines;*
- all the windows in a particular property are affected; and*
- the affected indoor spaces have a particular strong requirement for skylight or sunlight, e.g. a living room in a dwelling”.*

Beneficial impacts occur when there is a significant increase in the amount of skylight and sunlight reaching an existing building. Beneficial impacts should be worked out on the same principals as adverse impacts.”

8.4.29 Therefore, best practice guidance and professional judgment will be used to determine any impacts based on the guidance set out in Appendix I of the BRE Guidelines. Potential effects will be identified as beneficial, adverse or negligible, and their magnitude of effects will be set out as Minor, Moderate and Major.

8.4.30 The initial numerical criteria for determining the magnitude of effect is based on percentage alterations, as set out in Table 8.2 below.

Table 8.2: Determining Magnitude of Effect	
Magnitude of Effect	Percentage Alteration
Major	40%+
Moderate	30-39.9%
Minor	20-29.9%
Negligible	0-20%

Sensitivity of Identified Receptor

- 8.4.31 It is important that the location and nature of the Proposed Development site and surrounding is considered when determining the significance of any impacts identified. The BRE Guide is very clear that the targets provided are not mandatory. This scope and view should also be followed through to the sensitivity of the surrounding receptors. There should be an expectation that a higher degree of obstruction is inevitable in an area which has been identified as having clear development potential under the Strategic Planning Framework.
- 8.4.32 For these reasons, the surrounding receptors may have a lower sensitivity to change than those located in less dense areas. Sensitivity classification will be assigned on how the proposed receptor is able to accommodate or adapt to the effect of the Proposed Development and will be based on professional judgement and the scope of the BRE Guide.

Significance of Effects

- 8.4.33 The significance of any identified environmental effects will be determined by the assessment of their magnitude against their sensitivity. Table 8.3 below illustrates how the sensitivity of the receptors and the magnitude of any effect combine to confirm significance.

Table 8.3: Significance of Effects			
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

8.4.34

- 8.4.35 When assigning significance criteria for daylight and sunlight effects, professional judgement will be used. Consideration will be given to the proportion of rooms/windows affected, as well as the percentage alterations, absolute changes, sensitivity of the receptor, and any other relevant factors, such as there may be mitigating factors such as location and nature of development, balconies, overhangs or design features which may also affect the determination of assigning the criteria.

Cumulative Assessment

8.4.36 Schemes under construction and with planning consent but not under construction have been included in the baseline, in line with the BRE Guide, and so no separate technical assessment of the cumulative impact will be required.

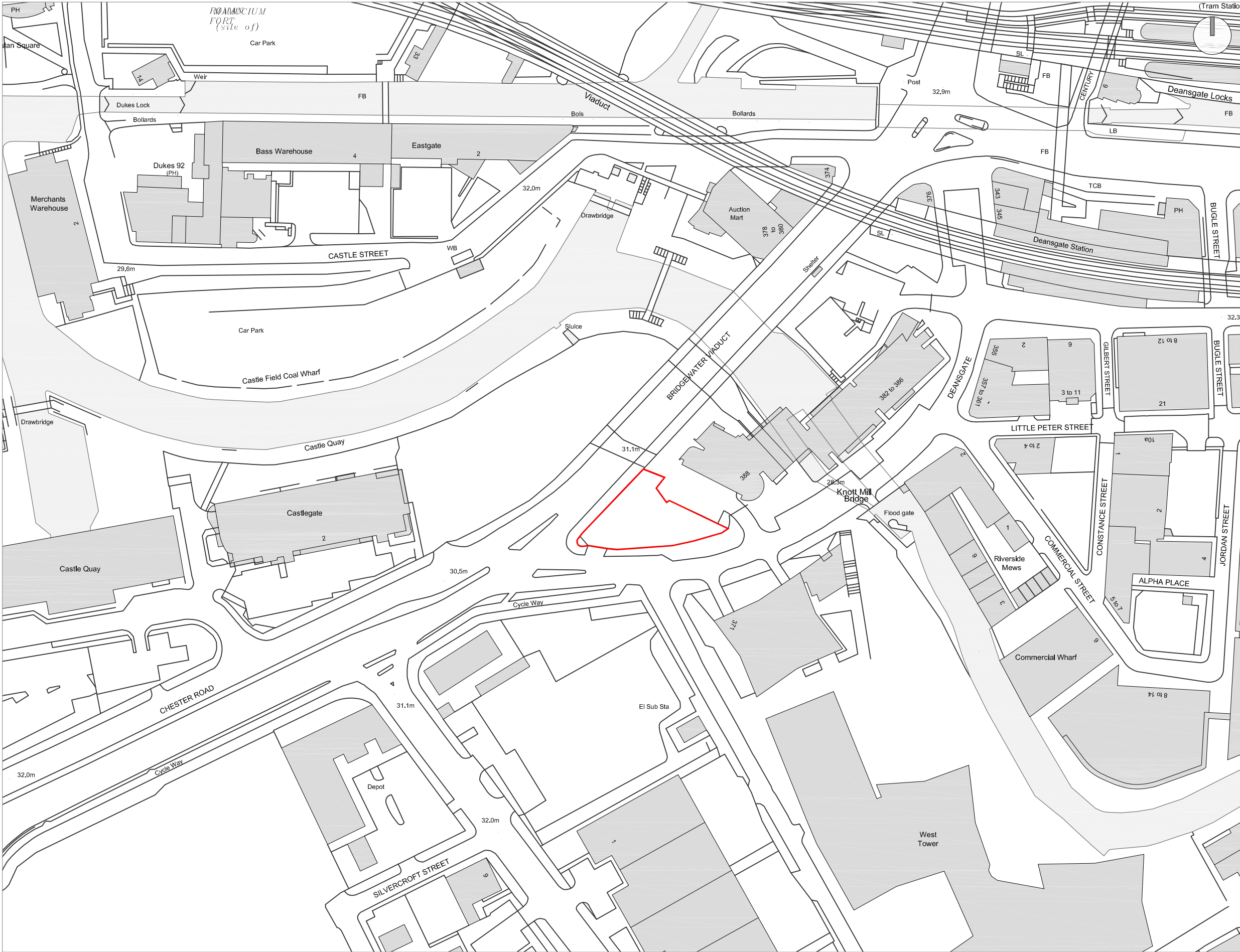
9 SUMMARY

9.1.1 This Scoping Report has been produced to inform MCC of the proposed scope of the ES. In summary it is proposed that the ES will include the following chapters:

1. Introduction;
2. Approach and Scope;
3. Site Description;
4. Development Description;
5. Consideration of Alternatives;
6. Noise;
7. Air Quality;
8. Townscape and Visual;
9. Built Heritage;
10. Daylight and Sunlight; and
11. Summary of Residual and Cumulative Effects.

Appendix A

Site Location Plan



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Figured dimensions only to be taken from this drawing. DO NOT SCALE. All contractors must visit the site and be responsible for checking all setting out dimensions and notifying the architect of any discrepancies prior to any manufacture or construction work.

NOTES:

KEY:

- Site Boundary
- Site Area: 665 sqm

REV	DATE	NOTES	CHK
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Client

FUSION STUDENTS

Project

DEANSGATE SOUTH
MANCHESTER

Drawing Title

EXISTING
SITE LOCATION PLAN

Drawn	Checked	Paper Size	Scale	Date
CMc	ML	A3	1:1250	AUG 2020
Project No.			Drawing No.	Revision
20269			0200	00

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Appendix B

Existing Site Plan

Figured dimensions only to be taken from this drawing. DO NOT SCALE.
All contractors must visit the site and be responsible for checking all setting
out dimensions and notifying the architect of any discrepancies prior to any
manufacture or construction work.

KEY:

NOTES:

KEY:

Client _____

Appendix C

Proposed Ground Floor Plan

KEY:

— SITE BOUNDARY

STUDENT ACCOMMODATION

-  ONE BED 22 SQM
-  STUDIO 18 SQM
-  SOCIAL STUDIO 15 SQM
-  EN-SUITE 12.5 SQM
-  TWODIO 31 SQM
-  SOCIAL SPACE
-  PLANT / CYCLES / BINS

REV	DATE	NOTES	CHK
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Client

FUSION STUDENTS

Project

DEANS GATE SOUTH
MANCHESTER

Drawing Title

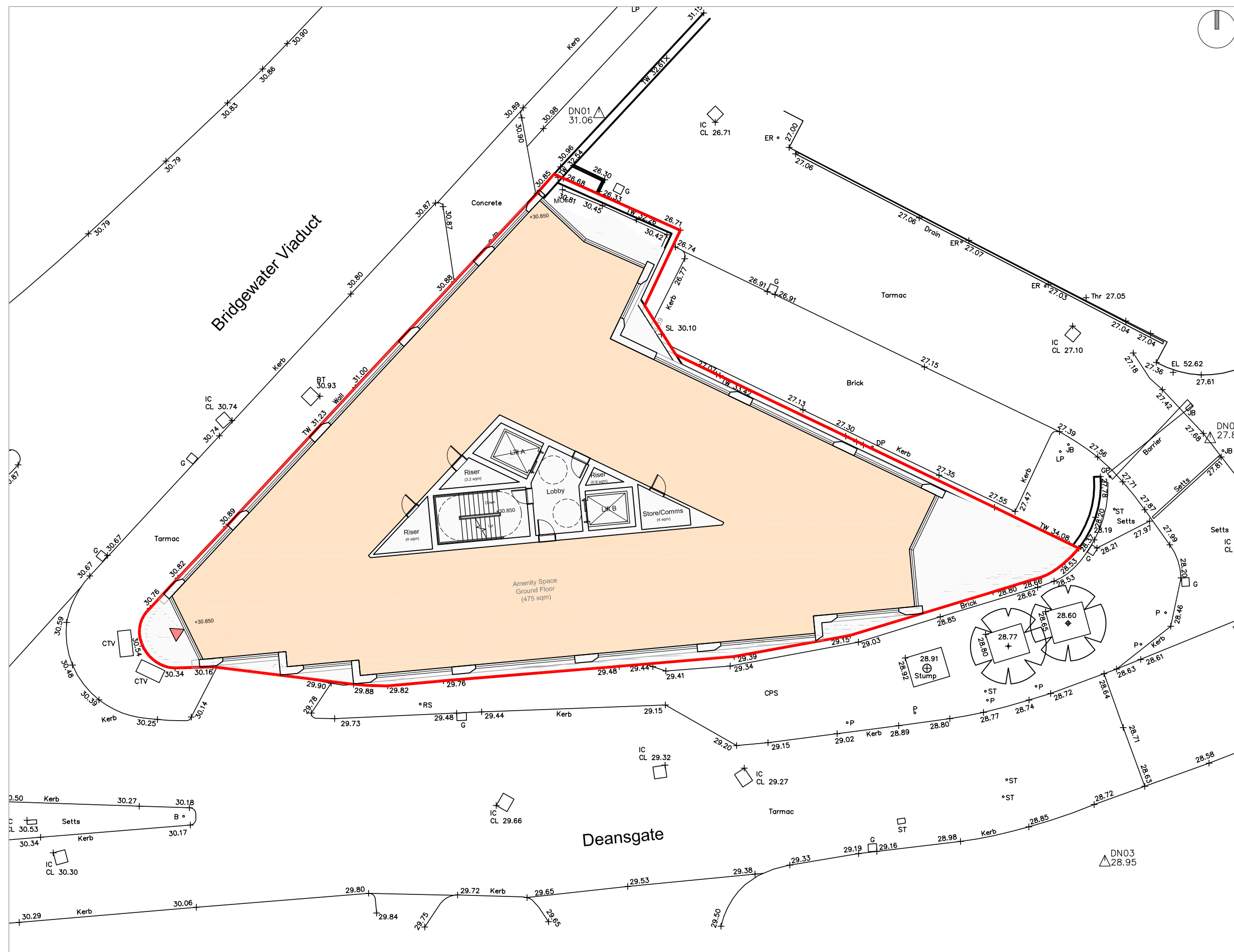
PROPOSED
PLAN
GROUND FLOOR

Drawn	Checked	Paper Size	Scale	Date
CMc	ML	A3	1:200	SEP 2020
Project No.			Drawing No.	Revision
20269			0141	00

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Appendix D

Townscape and Visual Methodology

APPENDIX D

TOWNSCAPE AND VISUAL METHODOLOGY

The assessment will be prepared in accordance with the guidelines as set out in “Guidelines for Landscape and Visual Impact Assessment: Third Edition”, (GLVIA3) published by the Landscape Institute and the Institute of Environmental Management and Assessment. However, given the urban nature of the context of the Site, the GLVIA3 approach is applied with reference to townscape impact rather than landscape impact. The term townscape is in fact used to encompass all the urban and landscape characteristics of the Site and its context.

The ‘Design Manual for Roads and Bridges: Volume 11’ (DMRB), Section 3 Environmental Assessment Techniques (August 2009) is also considered where appropriate. Particularly, reference is made to Chapter 8 ‘Variation for Urban Scheme’ which emphasises the assessment of impact on townscape features.

Similarly, the ‘Residential Visual Amenity Assessment’ (RVAA), Technical Guidance Note 2/19, and the ‘Townscape Character Assessment’, Technical Information Note 05/2017, by the Landscape Institute have been considered in the definition of the assessment criteria presented in Table 1 and 2.

Preparation of this assessment involves the following key stages:

- Baseline survey;
- Identification of sensitive townscape and visual receptors;
- Description and quantification of the changes to the baseline;
- Identification of potential effects;
- Evaluation of the predicted effects; and
- Identification of mitigation measures.

Effects are assessed on townscape receptors, (townscape impact assessment) and visual receptors (visual impact assessment). The significance of effect on a receptor is a function of the sensitivity of the receptor and the magnitude of change caused by the proposed development.

Given the urban context, the density of development may restrict the geographical scope for the townscape effects; the definition of the study area is based on the Townscape Character Assessment and field study. However, the area within which significant effects on view and visual amenity are predicted to occur may be larger, the study area for visual effects is informed by the Zone of Theoretical Visibility mapping.

Viewpoints photography

Consultation with the Local Authority is undertaken to decide the appropriate technical visualisation Types. Unless otherwise stated in the relevant Appendix, appropriate Visualisation Type and AVR have been prepared as per the Landscape Institute guidance (Visual

Representation of Development Proposals, Landscape Institute Technical Guidance Note, 06/19 (TGN 06/19)).

It should be noted that the images taken from the viewpoints illustrate the views from these locations, but there is no substitute for visiting the Site personally to ascertain the views and potential impacts.

Baseline Survey

The baseline survey is carried out to record and analyse the existing townscape characteristics and relevant townscape or landscape policies. The baseline survey will inform the value of the townscape and visual resources within the study area.

The baseline survey includes:

- Desk study to identify the landscape character and likely Zone of Theoretical Visibility (ZTV);
- Research to establish the townscape context including nature conservation interest;
- Site visit/s; and
- An analysis of townscape characteristics in order to understand how they are made up and experienced as well as ascertaining their relative sensitivity.

Assessment of potential effects

The development effects are considered for both townscape and visual receptors. The term 'receptor' is used in landscape and visual impact assessments to mean an element or assemblage of elements that will be directly or indirectly affected by the proposed development. In this instance, townscape receptors are considered due to the urban nature of the Site's context. The baseline survey informs the identification of sensitive receptors.

In both townscape or visual terms, the sensitivity of the receptor is a function of the value and susceptibility to change.

Identification of the value attached to the views is dependent upon the location and context of the viewpoint and viewing opportunities, as illustrated by the viewpoints. Key consideration is the presence of designations or recognition of the particular value of the view in relation to heritage assets, guided books or touristic maps, etc. Visual susceptibility is defined by the occupation or activity of the people experiencing the views at particular locations and by the extent to which their attention or interest may be focused on the views.

Assessing townscape receptor value is a complex task often subjective to the individual due to perception and experience. This includes understanding the value of the townscape receptors for which box 5.1 of the GLVIA3 provides useful factors to aid the identification of the value of landscape; some of these factors are also applicable to townscape value. The DMRB guidance also lists a series of parameters that should be taken into consideration to assess the character and quality of the townscape. It is noted that, while the presence of designations and their hierarchy is an important factor to define the townscape value, this is also dependent on the perceived scenic quality of the area, its distinctiveness, historical and cultural association. Therefore, the absence of designations does not equate to a low value.

It should be noted that tranquillity is also considered, as per GLVIA guidance, to define the townscape receptors value. According to the 'Tranquillity – an Overview' Technical Information Note 01/2017 by the Landscape Institute *'The interpretation of tranquillity is often linked to an*

association or engagement with the natural environment and it is this interpretation that places the term within the realms of landscape related study and research. Tranquillity is commonly associated with ‘wildness’ and ‘remoteness’ but it is widely recognised that none of these terms is synonymous.’ Although the definition seems to contradict the typical characteristics of a townscape (i.e. not remote or wild, but crowded and urbanised) the ‘relative tranquillity in an urban greenspace may be very high, despite intrusion from background traffic noise or the presence of many other people.’ Therefore, tranquillity should be considered and valued where appropriate, considering also that planning policies typically encourage development to maintain or improve the existing level of tranquillity. For the purpose of this TVIA the following criteria are to be considered to establish whether tranquillity is a factor that raises value of the townscape receptors or not:

- Proximity to urban greenspace or countryside;
- Traffic disturbance;
- Noise disturbance;
- Existing uses (i.e. residential, commercial, educational, recreational, etc);
- Tranquillity maps, if available (i.e. CPRE and The Countryside Agency mapping); and
- Hard and softworks balance.

Finally, with regard to the value of townscape receptors, it is considered that recent positions adopted nationally and locally by several public and government bodies declaring the climate change emergency urges assessment works to cautiously include this as a criterion to define receptor values. With the rise of literary evidence supporting the role of green spaces in relation to public health and wellbeing, it appears sensible to consider this parameter as an indicator of the value and distinctiveness of landscape elements within an urban context.

Landscape susceptibility is defined as “the ability of the landscape (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies” (Paragraph 5.40 of GLVIA3). Such definition applies to townscape susceptibility within the TVIA.

The principles to identify visual and townscape receptors sensitivities are set out in Table 1.

Table 1 - Receptors sensitivity

SENSITIVITY	RECEPTOR	CHARACTERISTICS
HIGH	Townscape receptor	Value: Resources of national importance or protected by an Act of Parliament, such as Grade I and Grade II* Listed Buildings. There are strong historic and cultural associations and the receptor makes a positive contribution to the character of the Conservation Area, if any. Distinctive urban landscape features, nationally designated areas as well as Site of Scientific Interest, National Parks, and Scheduled Ancient Monuments with no or limited potential for substitution.

SENSITIVITY	RECEPTOR	CHARACTERISTICS
		The value of such townscape is usually well recognised due to high aesthetic appeal and intact townscape features, with particular consideration for award-winning architecture or landscapes. There is a distinctive and strong sense of place. The buildings' materiality and streetscape are coherent and make an important contribution to the local character. This townscape makes a large contribution to the public's recreational experience and health/wellbeing of the relevant community. Tranquillity is an important feature of the receptor's context and qualities. This receptor or elements of it greatly contribute to mitigating climate change. Susceptibility: The receptor cannot accommodate the Proposed Development without notable consequences for the maintenance of the baseline and/or relevant planning policy
	Visual receptors	Value: The view is valued at a national or regional level. The view is of high scenic quality, often protected by planning designations. It is a visitor destination, or heritage asset, where views of the surroundings are an important contributor to the experience. The townscape aesthetic is visually intact and coherent, there are no detracting/deteriorated features. There are references to the view in literature or art, or the view appears in guidebooks or on tourist maps. It is a strategic location or viewpoint which may attract a large number of viewers. Susceptibility: Communities or residents at home, where views contribute to the setting or visual amenity (primary/main view) of the house or settlement. Travellers on recreational or scenic routes, (including public rights of way) where awareness of views is likely to be high. People who are engaged in outdoor recreation, whose attention or interest is likely to be focussed on the landscape, or on particular views.

SENSITIVITY	RECEPTOR	CHARACTERISTICS
MEDIUM	Townscape receptor	Value: Components of the landscape which are of regional or local importance such as Regional and County Parks or Wildlife Sites; townscape with elements which are protected or valued through local or neighbourhood planning policies, such as conservation areas, protected open space or group of listed buildings. Limited potential for substitution. Limited historic and/or cultural associations. The condition of this townscape is of moderate aesthetic appeal and distinctive features are replicated elsewhere in the local or regional context (i.e. they are not unique). There are detractive elements such as main transport infrastructure or industrial areas. It makes a moderate contribution to the public's recreational experience and health/wellbeing of the relevant community. Tranquillity is not a prevailing feature of the receptor's character and value. This receptor or elements of it contribute moderately to mitigating climate change. Susceptibility: The receptor has some ability to accommodate the Proposed Development. There would be some consequences for the maintenance of the baseline and/or landscape planning policy.
	Visual receptors	Value: The view is valued at a local level. It is mostly frequented by local people. The view is not publicised or signposted. It is reasonably attractive but otherwise unremarkable. There are some detracting features in the views. Susceptibility: Travellers on road, rail, or local paths for which views are not the primary focus, although they do contribute to the setting of the route. In residential visual amenity terms, it is a secondary/periphery view.
LOW	Landscape receptor	Value: Component of the townscape with limited interest, weak or discordant elements and elements of distraction that interfere with the quality of the area. The townscape/features are rarely intact and/or in poor condition, with little or no aesthetic appeal.

SENSITIVITY	RECEPTOR	CHARACTERISTICS
		Lack of designations or distinctive elements. Without historic/cultural association. Resources of local importance with potential for substitution. Makes little or no contribution to the public's recreational experience and health/wellbeing of the relevant community. Tranquillity does not contribute to the quality of the receptor and its context. This receptor or elements of it make little contribution to mitigating climate change. Susceptibility: The receptor has the ability to readily accommodate the Proposed Development without undue consequences for the maintenance of the baseline and/or landscape planning policy.
	Visual receptors	Value: The view is not valued, or is of limited local value. The view is of low aesthetic quality and may detract from the surroundings. It is not a publicly accessible location. Susceptibility: People engaged in activities which do not involve or depend upon the appreciation of views of the surrounding landscape. People at their place of work, whose attention may be focussed on their work or activity, not on their surroundings, and where the setting is not important to the quality of life.

The effects of the proposal are quantified by identifying the magnitude of the change on the townscape and the visual receptors described in the baseline.

The magnitude of change on townscape features and characters includes consideration of the scale and nature of features either removed or introduced, the extent of loss of vegetation and other urban features and the degree to which the townscape character may be altered. The magnitude of townscape effects resulting from the construction and/or the operation of a particular development is categorised as high, medium, low or negligible. In accordance with the approach advocated in Paragraphs 5.48 – 5.52 of GLVIA3, the magnitude of townscape effect considers the size and scale of the change, the geographical extent over which each townscape effects would be felt and their duration and reversibility.

The magnitude of visual effect is gauged by the degree to which specific views would change with the development and the type of viewer. The magnitude of visual effect is categorised as high, medium, low, or negligible which is in accordance with the guidance on the use of word scales that is provided in Paragraph 3.27 of GLVIA3. The magnitude of visual change takes into

account possible changes in a receptor's view caused by the construction and/or operation of the development. This would also depend upon distance, for example, on views of increasing distance the effect becomes less.

The magnitude of visual and townscape effects is generally assessed in relation to size or scale, geographical extent of the area influenced, and duration and reversibility.

Table 2 defines the magnitude of effects on the townscape and visual receptors.

Table 2 - Magnitude of effects

MAGNITUDE OF EFFECTS	RECEPTOR	CHARACTERISTICS
HIGH	Townscape receptor	Size and/or scale: The extent and relative proportion of the urban element(s) to be lost/added would be large and/or the lost/added element(s) make a key contribution to townscape character and/or value. Introduction of new built elements that would be likely to be perceived to be a dominant urban feature. Large scale alteration to the aesthetic and perceptual characteristics of the townscape. The proposal is in great contrast with the receptor key qualities. Geographical extent: Effects would be discernible across a large majority or the entirety of the townscape designation or character area associated to the receptor. Duration and reversibility of effects: Effects of the introduction of new features would be long-term i.e. will last for over 15 years or will be permanent. Loss of townscape features that are irreplaceable or can only be replaced in the long-term.
	Visual receptors	Size and/or scale: A major change or obstruction of a view appearing as a dominant or prominent feature. If effects on the residential visual amenity are considered, the proposal is blocking the only available view from the property or a main/primary view and/or it is overwhelming in all the directions. The proposal causes a substantial change in the skyline introducing a contrasting feature in the otherwise open and/or uninterrupted horizon. The additional feature contrasts with a strong/characteristic urban skyline and detracts from existing landmark buildings. Geographical extent: The receptor is located in close proximity of the development (i.e. the development is visible in the foreground) and therefore this is

MAGNITUDE OF EFFECTS	RECEPTOR	CHARACTERISTICS
		directly/centrally visible and takes a large portion of the view. The view is experience at slow speed (i.e. by pedestrians or cyclists). Duration and reversibility of effects: Effects of the introduction of new features would be long-term i.e. will last for over 15 years or will be permanent.
MEDIUM	Townscape receptor	Size and/or scale: The extent and relative proportion of the urban element(s) to be lost/added would be moderate and/or any lost/added elements make a moderate contribution to townscape character and/or value. Introduction of new built elements that would be likely to be perceived to be a feature. Moderate scale alteration to the aesthetic and perceptual characteristics of the townscape. The proposal is in contrast with some of the receptor key qualities. Geographical extent: Effects would be discernible across a moderate proportion of the townscape designation or character area associated with the receptor. Duration and reversibility of effects: Effects of the introduction of new features would be medium-term i.e. will last for between five and fifteen years. Loss of townscape elements that can be fully replaced within the same period.
	Visual receptors	Size and/or scale: A moderate change or partial view of a new element within the view that may be readily noticed. The change is partly screened, or glimpsed views are available. If effects on the residential visual amenity are considered, the proposal is blocking a secondary view. The proposal causes a noticeable change in the skyline introducing a contrasting feature in the largely uniform horizon. The additional feature contrasts with the urban skyline and detracts from some of the existing landmark buildings. Geographical extent: The receptor is located at some distance from the development which will be visible within a portion of the view.

MAGNITUDE OF EFFECTS	RECEPTOR	CHARACTERISTICS
		The change is obliquely visible and/or appearing as a noticeable feature in the middle ground. The view is intermittent or experienced from a vehicle moving at moderate speed (i.e. speed controlled areas). Duration and reversibility of effects: Effects of the introduction of new features would be medium-term i.e. will last for between five and fifteen years.
LOW	Townscape receptor	Size and/or scale: The extent and relative proportion of the urban element(s) to be lost/added would be minor and/or any lost/added elements make only a minor contribution to townscape character and/or value. Introduction of new elements that would be likely to be perceived to be a small-scale townscape characteristic. Small scale alteration to the aesthetic and perceptual characteristics of the townscape. The proposal is only partially in contrast with the receptor key qualities. Geographical extent: Effects would be discernible across a small proportion of the townscape designation or character area associated to the receptor. Effects are restricted to the close vicinity of the development site. Duration and reversibility of effects: Effects of the introduction of newly built features would be short-term i.e. will last for between one and five years. Loss of townscape elements that can be fully replaced within the same period.
	Visual receptors	Size and/or scale: A low level of change, affecting a small part of the view. The change is largely screened, or few glimpsed views are available. If effects on the residential visual amenity are considered, the proposal is blocking a peripheral view. The proposal causes a small change in the skyline and it is largely integrated with the horizon. Geographical extent: The receptor is located at a considerable distance from the development which will be visible within a limited portion of the view. The changes are obliquely visible and/or appearing in the background.

MAGNITUDE OF EFFECTS	RECEPTOR	CHARACTERISTICS
		The view changes rapidly, i.e. from fast-moving road vehicles or trains. Duration and reversibility of effects: Effects of the introduction of newly built features would be short-term i.e. will last for between one and five years.
NEGLIGIBLE	Townscape receptor	Size and/or scale: The extent and relative proportion of the urban element(s) to be lost/added would be barely perceptible and/or any lost/added elements make a minimal or no contribution to townscape character and/or value. Introduction of new built elements that will be likely to be imperceptible. Minimal alteration to the aesthetic and perceptual characteristics of the townscape. The proposal largely fits within or is in keeping of the receptor key qualities. Geographical extent: Effects would only be discernible within the development site or immediately alongside it. Duration and reversibility of effects: Effects of the introduction of new built elements would last for less than a year. Any loss of townscape elements can be fully replaced immediately.
	Visual receptors	Size and/or scale: A small change to the view. The proposal is substantially screened by intervening features. The proposal has minimal effects on residential visual amenity. The proposal fits within the skyline and/or doesn't introduce prominent features. Geographical extent: The receptor is located at a far distance from the development which will be barely visible within the view. A change to the view that may be obliquely viewed and/or viewed at high speed over short periods and capable of being missed by the casual observer. Duration and reversibility of effects: Effects of the introduction of new built elements would last for less than a year.

The significance of effects on a townscape or visual receptor is a function of the magnitude of the effect and the sensitivity of the receptor. The relationship between the two factors is portrayed in Table C, resulting in the significance level. The potential impacts identified in the TVIA help inform the mitigation measures to be incorporated into the design.

Impacts, as the effects, can be beneficial or adverse. Table C sets out the significance of effects, which are described as beneficial, neutral, or adverse. These are largely professional judgments drawn from the assessment process.

In townscape terms, **adverse** effects are the results of direct loss of essential/distinctive elements that contribute to the characterisation of the Site context. Such loss affects negatively the integrity of the townscape character and designations. An adverse effect could also be caused by means of great contrast between the qualities of the proposal and a valued townscape, such that high-quality architecture is not sufficient to justify the baseline change.

Instead, **beneficial** effects enhance the townscape character and contribute to the value of the Site's context at various scales. In this instance, the contrast with a valued townscape is considered positively as the result of a high-quality design.

In visual terms, the effect is considered **adverse** if there is a loss of visual amenity; on the other hand, should the proposal produce an enhancement or improvement of the visual amenity then the impact is considered **beneficial**.

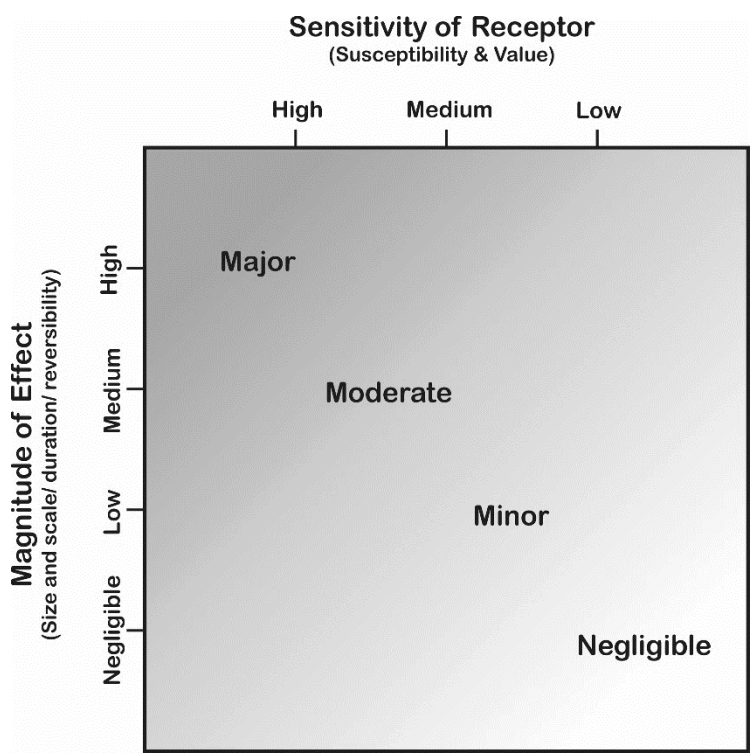
A **neutral** effect would be the result of a development that does not alter in any way the baseline situation or in such way that there is no loss of visual amenity or valued townscape features. This would certainly be the case of development that is not visible or has no townscape effects, therefore when the magnitude of change is considered none.

In line with GLVIA3, the assessment considers possible townscape and visual effects at three stages, which will be included as appropriate based on the case-by-case approach and consultation with the Local Authority:

- During demolition and construction;
- Opening Year (Year 1); and
- Following 15 years of occupation (Year 15).

In terms of the Environmental Impact Assessment Regulations, a 'Major' or 'Major/Moderate' level of significance (Table 3) is considered to be a 'Significant Effect'. In the case of significant adverse effects, efforts will be made to appropriately design the proposal so that the significance of such effects will be prevented or avoided. If the significant adverse effects cannot be completely extinguished at Year 1, then all reasonable efforts should be made to mitigate the remaining townscape or visual effects at Year 15 or pursue off-setting measures.

Table 3 - Significance of landscape/townscape and visual effects



STOKE-ON-TRENT

Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM

Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON

41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

CARDIFF

Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE

Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH

Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW

2 West Regent Street
Glasgow
G2 1RW
Tel: +44 (0)141 433 7210

LEEDS

36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON

Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE

City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO

Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

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