



Project North Stand

Environmental Statement: Non-Technical Summary

April 2023



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Introduction

1. This Environmental Statement (ES) Non-Technical Summary (NTS) has been prepared in support of development proposals coming forward at the Etihad Campus, Manchester. A Site Location Plan is provided in Figure 1 in the following section.
2. The development proposals seek the extension of the Etihad Stadium North Stand alongside an expanded, covered 'City Square' and associated development components (comprising food and drink facilities, workspace, a new club shop and club museum plus a hotel) to support activity levels and the wider amenity offer of the Etihad Campus (the "Proposed Development"). Full details of the Proposed Development can be found within Chapter 4 of this NTS.
3. The application is submitted to Manchester City Council ('MCC') by Manchester City Football Club Ltd ('the Applicant').
4. This ES NTS sets out the findings of an Environmental Impact Assessment ('EIA') carried out in respect of the development of the Site.
5. The EIA has been carried out in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (as amended) ('the EIA Regulations') and best practice guidance.
6. The Non-Technical Summary (NTS) is a standalone document and is required under the EIA Regulations.

Purpose of the Environmental Impact Assessment and Non-Technical Summary

7. The purpose of an EIA is explained by the Government in the National Planning Practice Guidance at paragraph 002 (Reference ID: 4-002-20140306), which sets out:
"The aim of Environmental Impact Assessment is to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process."
8. In simple terms, an EIA is an information gathering exercise in relation to the effect that the Proposed Development may have on the local environment when compared to the existing conditions. These are typically carried out on projects of a large scale.
9. Conducting an EIA is a systematic process, which leads to a final report, the ES.
10. This NTS is designed to be read on its own. It explains the environmental implications of the Proposed EIA Development to the public, informing them, and allowing them to decide whether they would like more detail on the Proposed Development.
11. More information and greater technical details are available in the Environmental Statement (ES). The ES is a separate document which has been submitted as part of the planning application. Please see the section on "Availability of Environmental Statement" within this NTS for details on how and where to view the ES.

Environmental Impact Assessment Process

12. The first step is understanding if the Proposed Development meets the criteria set out within legislation, which means that further consideration should be given to if it comprises an EIA development. The legislation sets out different 'schedules' of projects and how the EIA should be carried out.
13. A Proposed Development may then go through a 'Screening' and/or a 'Scoping' process. This is the process whereby an Applicant may submit a request to the Local Planning Authority for a formal opinion as to whether they consider the Proposed Development to be meet the criteria for an EIA and, if so, what technical topics it considers to be relevant to the EIA.

14. If an EIA is determined to be required, the Applicant will prepare an ES, which sets out the findings from the technical assessments undertaken. The ES is then submitted to the Local Planning Authority as part of an application for Planning Permission.

Assessment Methodology

Scoping

15. An EIA Screening and Scoping Report was prepared by Deloitte with input from the technical consultant team for the project. The EIA Screening and Scoping Report was submitted to Manchester City Council ('MCC') as the Local Planning Authority on 6 March 2023. A formal scoping opinion was received on 12 April 2023.

Technical Topics not included in the Environmental Impact Assessment

16. The Scoping process identified a number of technical topics where significant environmental effects as a result of the Proposed Development would be unlikely and would not be assessed further within the EIA process.
 - Agricultural Circumstances
 - Archaeology
 - Aviation
 - Ecology and Nature Conservation
 - Heritage
 - Daylight and Sunlight
 - Electronic Interference
17. Further information detailing why each of these technical topics were scoped out of the EIA can be found in **Appendix 2.1** of the ES (Volume 2).

Approach to Technical Studies

18. Various technical studies were commenced at an early stage in the development process. The findings of the baseline (existing) environmental studies have played an important role in the design of the Proposed EIA Development by defining the environmental sensitivities, constraints and opportunities associated with the EIA Site.
19. Design team reviews, attended by members of the project team, were held throughout the pre-application process. These reviews provided a valuable forum for the exchange of information and ensured that the design team was fully aware of the environmental constraints and opportunities, and of the interactions between disciplines. Meetings were also held with Manchester City Council as the Local Planning Authority, as well as pre-application discussions with technical consultees.
20. The technical studies have been undertaken in accordance with current best practice. Specific guidance used is referenced within each of the respective technical chapters, with a reference list at the end of each chapter.
21. The technical studies undertaken within the ES have been progressed in a transparent, impartial and unbiased way with equal weight attached, as appropriate, to beneficial and adverse effects. Where possible, this has been based upon quantitative and accepted criteria together with the use of value judgements and expert interpretations.

Who has been involved in the EIA process?

22. The EIA process has involved communication and collaboration between the applicant, Deloitte LLP, MCC, the project team (shown in **Table 1**), statutory consultees and the public.

Table 1 – Project Team

Topic	Assessment carried out by
Town Planning, EIA Coordination, Socio-Economic	Deloitte LLP
Architect	Populous
Air Quality	Buro Happold
Construction Management	Potential Contractors
Greenhouse Gas Emissions	Buro Happold
Flood Risk and Drainage	Buro Happold
Ground Conditions	Buro Happold
Human Health	Enfusion
Noise and Vibration	Buro Happold
Townscape and Visual Impact	Planit-IE
Traffic and Transport	Arup
Wind Microclimate	Buro Happold
Lighting	ME Engineers

What were the results of the EIA?

23. The following sections summarise the methodology used in determining the likely significant effects of the Proposed Development and summarise the outcomes of the EIA.
24. This section is organised into technical subjects. Greater detail can be found in the relevant chapters of the Environmental Statement (6 to 16) and their technical appendices.
25. The technical topics are those elements of the environment considered likely to experience significant effects and therefore assessed in the EIA.
26. With regard to the assessment for each topic, the subsequent sections discuss:
 - Methodology and scope;
 - Baseline conditions;
 - Likely significant effects of the Proposed EIA Development;
 - Mitigation;
 - Cumulative effects with other developments; and
 - Likely 'residual' effects following mitigation.
27. A summary of proposed mitigation measures and residual effects is also included in Chapter 17 of the ES Volume 1.

Significance of Effects

28. The likely effects of the Proposed EIA Development have been classified according to their significance.

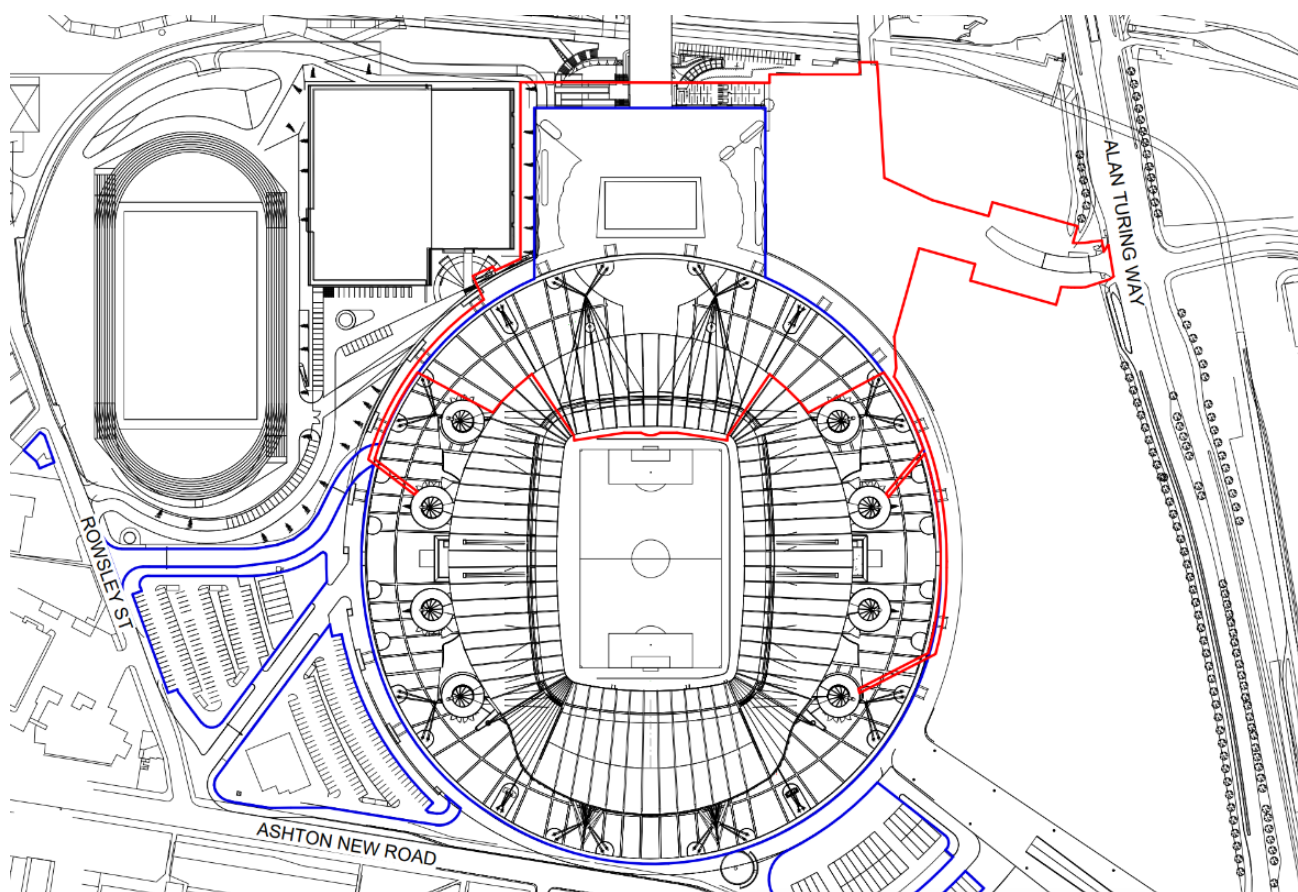
29. Significance is determined as a function of both the scale (magnitude) of change from the existing (baseline) environment and the sensitivity of environmental receptors, such as population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between these factors. Chapter 2 of the ES Volume 1, EIA Methodology, describes this process in greater detail.
30. This serves as a useful guide for specialists to assess effect significance. Where discipline-specific methodology has been applied that differs from these generic criteria, this has been clearly explained within the relevant ES Chapters Volume 1 (6 to 16).

Description of the Proposed Development

Where is the EIA Site?

31. The Site is located in the Etihad Campus in East Manchester, as identified on the Site Location Plan in **Figure 1**. It sits within the Ancoats and Beswick Ward, however the Clayton and Openshaw Ward is located to the east of the Site along Alan Turing Way, whilst Miles Platting and Newton Heath Ward is located circa 400m to the north of the Site.
32. The Site is bound by Joe Mercer Way and the Etihad Campus tram stop to the north. The National Squash centre borders the Site to the west, whilst the area to the east of the Site comprises a surface car park. To the south, the Site is bounded by the remainder of the Etihad Stadium.

Figure 1 – Site Location Plan



What is being proposed?

33. The description of development is as follows:

“Alterations to the Etihad Stadium North Stand and adjoining land to provide an overall increase in Stadium capacity, hospitality, and concourse facilities available for use both during and outside of event days, an ancillary TV Studio (Sui Generis), a Roof-Walk Attraction (Use Class F1(c)) and the following 3 interrelated building components:

1. *Construction of a new 9-storey 391 bed hotel (Class C1) with a further 10 suites provided within the North Stand of the Etihad Stadium for hotel or hospitality space (Class C1 / Sui Generis); and a restaurant at Level 1 (Class C1 / Class E).*
2. *Construction of an 8-storey building comprising: a new Club Shop and Ticket Office (Class E) at Ground and Level 1, City Museum at Level 2, Leisure Attraction at Level 3 (Class F1(c)); and workspace (Class E) at Levels 4, 5, 6 and 7.*
3. *A new covered City Square fan zone and flexible event space.*

Ground Floor commercial, leisure, food and drink use (Class E and/ or drinking establishment (Sui Generis)) will be provided within each of the interrelated buildings adjoining the proposed square. The proposals include landscaping and public realm works, servicing and access arrangements, and other associated works.”

34. **Table 2** sets out the application proposals for the Proposed Development:

Table 2 – Development Quantum

Parameter	Proposed Development
Site Area (Hectares)	3.5
Height (storeys)	Commercial: 8 (Ground plus 7) Hotel: 9 (Ground plus 8)
Height AOD (m)	North Stand: 124.59 Commercial: 91.05 Hotel: 92.55
Floor Space (NIA) (sq. m)	North Stand: 13,786 Commercial building Total: 7,149 comprising: • Club Shop Level 00 and 01: 1,332 • Ticket Office Level 00; • Museum Level 02: 642 • Leisure Experience Level 03: 996 • Workspace Levels 04, 05, 06 and 07: 3,936 • Back of House, Plant and Storage: 243 Hotel: 12,394 Flexible Hotel / Hospitality Suites: 349 City Square fan zone and flexible event space: 2,778
North Stand Capacity	Existing gross capacity: 54,048 Net additional seats: 7,910 Total seating within Etihad Stadium: 61,958
Hotel Rooms	391 guest rooms 10 further flexible hotel / hospitality suites within the North Stand.

35. Further information on the Proposed Development can be found within Section 4 of the ES and the Design and Access Statement prepared by Populous.

What is located on the EIA Site at the moment?

36. The EIA Site comprises approximately 3.5 hectares and includes the North Stand of the Etihad Stadium and associated structural supports, the fan zone with canopies, F&B provision and Club Shop to the north of the Stadium, the landscaped area to the east of the National Squash Centre, the Etihad Stadium Metrolink queuing zone (for the west bound platform) and hardstanding.
37. The Site also includes a vehicular route to connect to Alan Turing Way to the east, which currently comprises surface car parking. A servicing route loops around the Etihad Stadium and runs through the Site east to west to the immediate north of the North Stand.
38. The Site is bound by Joe Mercer Way and the Etihad Campus tram stop to the north. The National Squash centre borders the Site to the west, whilst the area to the east of the Site comprises a surface car park. The Site is bounded to the south by the remainder of the Etihad Stadium.
39. Further to the north is the Ashton Canal, which comprises of towpath and cycle path routes linking the Site to Manchester City Centre, elsewhere in East Manchester and further afield.
40. To the north of the Ashton Canal is the under-construction Co-op Live arena, which was granted Planning Permission on 23 Oct 2020 and is currently under construction (Ref. 126431/FO/2020). The Manchester Tennis and Football Centre is located further to the north-west of the Site, beyond the Ashton Canal.
41. Further to the west is the Manchester Regional Arena, with the railway line segregating this from the industrial estate further to the west.
42. Further to the east of Alan Turing Way are two nine storey residential apartment buildings, with a number of two-storey residential properties located beyond this in Clayton. The Eastlands District Centre is located further to the south-east, adding a positive contrast to and supporting the clusters of sports and entertainment facilities in this area.
43. Philips Park, with Philips Park Cemetery located to the north of the Park, are located to the north-east of the Site and Alan Turing Way and are separated by the River Medlock.
44. Ashton New Road bounds the wider Etihad Campus to the south, with the area beyond this comprising a number of residential properties in Bradford and Beswick.
45. The Site is not located within the Greater Manchester Air Quality Management Area (AQMA), albeit Alan Turing Way, to which the Site connects to, is located to the east of the Site.
46. There are no statutory or non-statutory ecological designations within the Site. The Site is however located immediately adjacent to the Ashton Canal SBI. Clayton Vale Local Nature Reserve is also located 734m to the northeast of the Site but separated by Alan Turing Way.
47. The Site is not located within a Conservation Area and does not contain any designated or non-designated heritage assets. There are five Grade II Listed buildings and/or within a 500m radius of the Site.
48. According to the Environment Agency's Flood Map, the Site is located within Flood Zone 1, demonstrating a low risk of flooding. The Site is located within the Critical Drainage Area prescribed by Manchester, Salford and Trafford Councils Strategic Flood Risk Assessment.

Why is this development coming forward?

49. The area has been identified as a key regeneration priority by the City Council, with the New East Manchester Corporation Ltd being formed in 1999 to guide the regeneration of the area ahead of the Commonwealth Games in 2002. Subsequently a number of regeneration initiatives have looked to build upon the success of the Commonwealth Games, first as the City of Manchester Arena and then as the home-ground of Manchester City Football Club.
50. Since 2002, the Etihad Stadium has been the beacon of regeneration for East Manchester. The pace of economic growth within Manchester over the last ten years along with the ongoing investment from the City Council, the Abu Dhabi United Group and other partners, such as Sport England, has strengthened the focus of the Etihad Stadium and its environs as a focus for new investment and job growth in East Manchester.
51. This has included the delivery of the City Football Academy, which transformed 75 acres of reclaimed former industrial land into the world's leading training ground and one of the world's best elite performance facilities.

Together with the expanded Etihad Campus' existing array of sports and community facilities, the project has delivered jobs and training opportunities for local residents and a new community hub incorporating sports and education facilities, in addition to the Manchester Institute of Health and Performance (MIHP), which is a world-class centre for scientific research, analysis and treatment.

52. Central to the long term vision for the Etihad Campus and the wider area has been the ambition to establish it as a place to drive forward the development of a globally competitive sport, leisure and recreation offer. Over the last 15 years the loss of the opportunity for Manchester to host the first Regional Casino, aligned with the deep economic recession of 2008 and 2009, thwarted any opportunity for the Etihad Campus to fulfil that long term ambition to host a globally competitive leisure and recreation offer.
53. In planning policy terms, the Site was identified in Manchester's UDP (1995) – Sub Area 7 – Sportcity Saved Policy EM11 as: "a major focus for regeneration activity on previously developed land. It is located in a strategic position at the heart of East Manchester with excellent infrastructure and proposed infrastructure links to the City Centre, adjacent areas and the national motorway network." It goes on to state that: "the area fronting the Alan Turing Way is suitable for a mix of uses including a hotel, leisure and other commercial uses."
54. In MCC's Manchester Core Strategy 2012 it is set out that East Manchester remains a major economic driver and centre of employment for the City and the conurbations and has a number of key advantages including good vehicle access, good public transport linkages and the availability of large flexible sites.
55. Core Strategy Policy EC7 specifically identifies the Etihad Campus as a location "suitable for a major sports and leisure visitor destination with complementary commercial, retail and hotels." The vision is to broaden the activities in the area to ensure development opportunities secure the wider regeneration of the surrounding area and deliver maximum benefits for the community.
56. The Council's ambitions to develop the Site is further stated in the Eastlands Regeneration Framework ('ERF') where the Site as being situated in the 'Etihad Campus', a place to drive forward the development of a globally competitive sport, leisure and recreation offer. The Site is identified by the ERF for two uses – commercial zone to the east and sport and innovation zone to the west. The Site has therefore been identified for better utilisation and is considered appropriate for development.
57. Fundamentally, the Proposed Development delivers on long standing development plan objectives that are further supported by other material considerations. The Proposed Development will bring further and more regular footfall and activity to the Site, not only during match-days but as an all year-round visitor destination and boost economic and social activity within the area. The Proposed Development will also be supporting environmental and social improvements on site and up to a regional scale.

Who has been consulted?

58. Pre-application engagement has been undertaken with MCC officers, the Local Planning Authority (LPA), Local Ward Councillors, Etihad Campus partners, Historic England, Greater Manchester Police (GMP) Secure by Design team, Greater Manchester Archaeological Advisory Service (GMAAS), MCC Highways, Transport for Greater Manchester (TfGM), MCC Environmental Health, Manchester City Football Club fans including City Matters, local residents, businesses, and the general public.
59. Public engagement was undertaken through a two-phase consultation process. The first phase of consultation with local residents, Manchester City Fans and businesses took place from 12 December 2022 to 9 January 2023 announcing that the Applicant were undertaking feasibility studies to explore the concepts that could form part of a future stadium development. The process invited comments on what people would like to see at the Etihad Stadium and welcomed feedback about the established framework principles that have been used to guide investment and development across the Etihad Campus over the past decade.
60. The second phase of consultation provided another opportunity for public engagement with more detailed proposals for each of the schemes and took place between 27 February 2023 and 26 March 2023.
61. Throughout the duration of the public consultation period, members of the public had access to the public consultation website, which provided details of the site history, Campus context, project objectives and emerging scheme proposals. The website also provided visitors with the opportunity to provide any comments or raise questions, which have been responded to by the project team during the pre-application period. A press release regarding the consultation was also distributed which was picked up by numerous media outlets.

62. The evolution of the scheme has been influenced by the findings of public consultations. Further information on this process and the feedback gained is available in the Statement of Consultation submitted in support of the planning application.

What will the redevelopment process involve?

63. Broadly, the construction process Proposed Development will involve:
- Laying foundations;
 - Building of the new structures;
 - External works and hard and soft landscaping;
 - Phased completion of public realm;
 - Phased completion of communal external space and links;
 - Completion of internal finishes to communal space; and,
 - Internal fit out of the main structures.
64. Machinery used during redevelopment will consist of standard demolition and construction plant, and will include plant items such as: excavators, concrete crushing plant, mobile cranes, compacting and vibrating mechanical plant, wheel washing and road sweeping equipment.
65. The Site will be secured and surrounded with hoardings to ensure public safety and mitigate adverse environmental effects during construction.

How long will it take?

66. The total construction programme will span a period of up to three years within which there will be elements of ground works, foundations, frame construction, façade cladding and internal fit out. The Proposed Development is anticipated to be delivered in a single phase with a Site Improvement Works contract to prepare the Site.
67. In terms of planned delivery programme and proposed timeline, the current plan see works commencing in Q3 2023, and with a target completion date for Q4 2025. These dates have been used for the basis of technical assessments.
68. These are indicative construction programmes and the Applicant highlight that there are multiple risks involved in the development process. The Applicant notes that this programme may ultimately be extended in the event delays caused by sustained periods of poor weather, unexpected ground conditions or other abnormals, volatility in economic and housing markets, political uncertainty, and the availability of funding.
69. The programme is based upon normal working hours in line with Manchester City Council Guidance of 7.30hrs to 1800hrs Monday to Friday and 0800hrs to 1400hrs on Saturdays.
70. On Sundays and Bank holidays noisy working will generally not be planned. On some occasions there are certain operations that maybe required to proceed during these periods, for example tower crane erection and dismantling. These will be infrequent and will be agreed with the Environmental Health Officer (EHO) and local residents will be notified in advance. The frequency of these will vary and respond to demand. Access to the Site will be permitted 30 minutes prior to working day commencing with noise being kept to a minimum for the first half hour of each day.
71. The Applicant acknowledges the close proximity of the neighbouring properties and as such will endeavour at all times to ensure the working hours are adhered to in order to protect their amenity.

Alternative Options

72. The EIA Regulations require the ES to identify the main alternatives that were considered during the design process.
73. The Proposed Development has been influenced by a range of factors, including location, surrounding land use and input from MCC, Statutory and Non-Statutory Consultees and other stakeholders.
74. This Chapter reviews the principal land use and siting options explored and the reasoning for the selection of the current design for the Proposed Development which forms the subject of assessment within the ES.
75. This Chapter considers the following four options in the context of the existing Development Brief:
 - The ‘do nothing’ alternative where the Proposed Development is not progressed;
 - Alternative Locations for the Proposed Developments;
 - Alternative uses for the Site
 - Alternative Design/layout for the Proposed Development in the context of the design evolution.

The ‘Do Nothing’ Alternative

76. The “do nothing” scenario has been discounted due to the long-established aspiration to turning the Etihad Campus into a beacon of regeneration and an all year round visitor destination of national significance. The Proposed Development will better utilise the Site and bring about a range of benefits to the area. The Proposed Development is considered a suitable use of the Site given its highly accessible location connected with sustainable mode of transports, and the longstanding success enjoyed by the Etihad Campus.
77. Fundamentally, the Proposed Development delivers on long standing development plan objectives that are further supported by other material considerations. In the “do nothing” scenario, there would be a clear missed opportunity to build on these existing strengths to deliver the social and economic benefits and catalyse future development at the Campus.

Consideration of Alternative Use

78. In planning policy terms, the Site is already identified in Manchester’s Unitary Development Plan (1995) – Sub Area 7 – Sportcity Saved Policy EM11 as: “a major focus for regeneration activity on previously developed land. It is located in a strategic position at the heart of East Manchester with excellent infrastructure and proposed infrastructure links to the City Centre, adjacent areas and the national motorway network.” It goes on to state that: “the area fronting the Alan Turing Way is suitable for a mix of uses including a hotel, leisure and other commercial uses.”
79. Manchester's Core Strategy (2012) builds on this by identifying the Etihad Campus as a location “suitable for a major sports and leisure visitor destination with complementary commercial, retail and hotels.”
80. Further to the adopted Core Strategy, the 2017 ERF specifically identified the Site as being in an area where development should encourage activity all-year round through uses such as retail and hotels and uses which may also serve the evening economy. The ERF identified part of the Site as being in an area where additional office space is needed and shape the area as a conglomerate of businesses of similar sports nature.
81. The proposed uses, and more specifically the Proposed Development is therefore considered appropriate for the Site and is supported by the local planning policy framework. On this basis no alternative uses are considered further as part of this ES.
82. Therefore, the “alternative uses” scenario has been discounted.

Consideration of Alternative Location

83. The Proposed Development delivers on the vision for the Etihad Campus as set out within UDP Saved Policy EM11, Core Strategy Policy EC7, and within the ERF (2017). Building on the significant progress to date and that to be realised in 2023 through the completion of Co-op Live, the Proposed Development enhances the Etihad

Campus' reputation as a sports and leisure visitor destination of national significance, providing supplementary commercial, retail, and hotel offerings that will act as a catalyst for the expansion of a year-round world-class sports and entertainment destination. This would not be achieved in an alternative location.

Design Evolution

84. The Design and Access Statement, prepared by Populous, which accompanies this application addresses the design evolution of the Proposed Development in detail.
85. The brief was to extend the north stand in a way that complements the existing iconic stadium design, creates the atmosphere / fan experience and delivers the capacity numbers consistent with the extant uses. The design has evolved in terms of layout of the hotel and office element, height, mass and orientation and the compact site required an equally compact and efficient design response, one that respects the surrounding sport and entertainment campus parameters, and the existing neighbourhood residential and commercial activities. Integration to the Campus also required a sensitive approach to merging the hard and soft landscaped approaches to existing routes, creating new dwell spaces and activation opportunities where they take best advantage of aspect, outlook and connectivity.
86. The proposals brought forward are of the highest architectural quality. An extensive team of the world's leading stadium designers have been brought together to deliver world-class development proposals for Manchester. The facilities aim to be the best in class across all areas of the design to deliver unique experiences for everyone who visits the venue.
87. For further details please refer to the Design and Access Statement submitted alongside this ES.

Construction Management and Phasing

88. The Construction (Design and Management) Regulations 2015 will apply to this project and all appropriate controls and systems will be in place to comply with the standards of the Regulations and associated guidance.
89. It is important to acknowledge the Proposed Development and the potential impacts that may arise during the construction stage. Separate Construction Management Plan's (CMP) have been formed for the North Stand and Commercial Building and the hotel as they are proposed to be constructed by separate contractors. Two potential contractors are in close discussion and will work together to ensure minimal impacts on locality.
90. In terms of planned delivery programme and proposed timeline, the current plan is as follows:
- Planning Submission Q2 2023.
 - RIBA Workstage 4 Q1 2023.
 - Contract Award Q3 2023.
 - Site Mobilisation Q3 2023.
 - Completion Q4 2025.
91. The works will be undertaken in a single phase. A separate planning application has been submitted for Site Improvement Works (SIW) to prepare the Site. The works included within this application include:
- Site clearance.
 - Service diversions.
 - Mine Grouting Works.
 - Temporary Concourse Alterations.
 - Fan route establishment.
 - Site establishment.
92. A detailed programme of construction activities and sequencing will be provided by the proposed contractors as part of the detailed CMP.
93. The following narrative explains this methodology and timescales envisaged at the time of the planning application. More detailed proposals will be developed once the contractors are appointed and prior to commencement on-site. This will include preparation of detailed plans to incorporate Construction Management, Construction Phase Health and Safety, Environmental Management as well as Site Waste Management, Logistics and Traffic Management.
94. Every stage of the project will be pre-risk assessed and appropriate controls applied, subcontractors will be pre-vetted and will be subject to extensive pre contract requirements of information transfer and risk assessment.
95. A fundamental aspect of the Principal Contractor's role is the development of a Construction Management Plan, which will take account of all known risks, which have been identified at pre-construction stage by the Principal Designer/CDM Consultant, the Design Team and also through site investigations.
96. The Construction Management Plan will describe arrangements and procedures for managing these key risk areas in more detail, as well as any future risk, and also the resources, including personnel, which will be applied to the scheme and will ensure the Health and Safety of all those working on or affected by the project works.
97. The Principal Contractor will have an on-going process of monitoring health and safety standards throughout its organisation. This is normally done directly (on -site) by the Site management team through regular inspections, toolbox talks etc., and via the risk assessment process both during the completion of risk assessments and then by

monitoring the effectiveness of risk control measures, which have been implemented. Site managers will also undertake regular reviews of safety on -site, including any accidents or incidents and any matters raised will be dealt with accordingly.

98. Health and safety are also incorporated as a fundamental aspect of the overall project review. The Applicant will appoint a Principal Contractor that can demonstrate competency in the management and execution of Health and Safety. The Principal Contractor will work closely with the Principal Designer at this early stage of the project and will influence the detailed design to remove construction and residual safety risks.
99. At the earliest opportunity (prior to commencement of construction operations), the Principal Contractor will enter into dialogue with all relevant parties, including neighbours to ensure there is effective co-ordination throughout all stages of the build.

Air Quality

What is Air Quality?

100. Air quality refers to the level of pollutants and other harmful substances present in the air. For a new development, air quality refers to the impact that the construction and operation of the development will have on the local air quality. This includes considering the emissions generated by the development and their potential effects on the surrounding environment and community.

What has been Assessed?

101. This chapter of the ES has assessed the impact of the Proposed Development on air quality for surrounding receptors, as well as the exposure of future Site users to air pollution. Both construction and operational phases of the Proposed Development have been considered in the assessment.
102. Local authority air quality monitoring indicates that baseline air pollutant concentrations exceed national air quality objectives at several roadside locations. The main source of pollution in the area is road traffic emissions. Although the majority of the Site is not located within the air quality management area (AQMA), a small eastern portion of the Site is located within the AQMA declared along Alan Turing Way A6010 and Ashton New Rd A662.
103. Impacts due to construction dust have been assessed qualitatively following the Institute of Air Quality Management guidance (IAQM). Dispersion modelling has been conducted to assess the impact of the Proposed Development on air quality at surrounding receptor locations resulting from traffic generated by the Proposed Development. Consideration has also been given to potential impacts of the combustion plant associated with the Proposed Development.
104. The construction dust assessment indicates a medium risk of dust soiling could result from earthworks and construction. Applying the proposed mitigation techniques will ensure that emissions during the construction phase are minimised with the aim of ensuring that any residual impacts will be not significant.
105. The Proposed Development's heating and hot water demand will be met predominantly by emission-free heat pumps, which will not impact local air quality. While a number of emergency diesel generators are proposed, owing to their limited hours of operation, any impact on air quality is likely to be negligible.
106. The impact of operational traffic associated with the Proposed Development is predicted to be negligible at all existing receptors. Concentrations of all pollutants modelled (NO₂, PM₁₀, and PM_{2.5}) marginally increase at the majority of existing receptors due to operational traffic flow; however, this increase is less than 0.5% of the relevant air quality objectives, and thus demonstrates a negligible impact.
107. A suite of mitigation measures is proposed to minimise dust and emissions during the construction of the Proposed Development. These should be included in the construction management plan which has been prepared for the Proposed Development (see ES Appendix 5.1).
108. There is no requirement for mitigation during operation of the Proposed Development due to the air quality impacts being not significant.
109. Any residual effects related to air quality during the construction and operation of the Proposed Development are anticipated to be not significant.

Greenhouse Gas Emissions

What is greenhouse gas (GHG) emissions and climate change?

110. The assessment of GHG Emissions and Climate Change looks at the emissions of GHGs (typically measures in carbon dioxide equivalent (CO₂e)) from the Proposed Development during construction and operation, and what measures can be undertaken to mitigate these impacts. The receptor for this assessment is global atmospheric GHG emission concentrations.

What has been Assessed?

111. During the construction phase of the Proposed Development, GHG emissions associated with the following sources have been considered:
- GHG emissions associated with the material extraction, transportation and manufacturing of construction products; and,
 - GHG emissions associated with product delivery to site and the construction / installation process.
112. During the operation phase of the Proposed Development, GHG emissions associated with the following sources have been considered:
- GHG emissions associated with the operation of the built asset over its entire lifecycle, from practical completion to the end of its service life;
 - GHG emissions associated with the estimated total operational energy;
 - GHG emissions associated with operational water consumption; and,
 - GHG emissions associated with the demolition and disassembly of the Proposed Development.
113. In line with best practice guidance, it is considered that any development will produce GHG emissions that contribute to climate change, and that this has the potential to lead to significant effects.

What is the Effect of the Proposed Development on Greenhouse Gas Emissions and Climate Change?

114. The assessment has demonstrated that the Proposed Development would result in moderate adverse, long term effects on the global atmosphere.
115. Mitigation measures are proposed to reduce the GHG emissions from the Proposed Development at all stages (construction and operation), and these have the potential to reduce the effects; however, the impacts on the global atmosphere will remain long term.
116. In conclusion, this assessment has indicated that the potential environmental effects resulting from GHG emissions to the global atmosphere due to the construction and operation of the Proposed Development are predicted to be minor to moderate adverse, and long term. This is in line with best practice advice which states that emissions from any development have the potential to make significant contributions to GHG emissions in the global atmosphere and contribute to climate change.

Flood Risk and Drainage

What is Flood Risk and Drainage?

117. The flood risk and drainage ES chapter has assessed the potential water impacts of the Proposed Development and what measures can be undertaken to mitigate anticipated negative impacts. A flood risk assessment (FRA) and a drainage strategy have been prepared for the Proposed Development, which provide detailed information on how surface water and foul water will be managed to ensure that water quality, flood risk and sewerage infrastructure capacity are not compromised.

What has been assessed?

118. The Proposed Development has been assessed with respect to water quality, water resources and flood risk and considers the effects of the Proposed Development during construction and operation. The following receptors have been considered:
- The River Medlock
 - The Ashton Canal
 - Water supply infrastructure
 - Foul drainage capacity
 - Surface water drainage capacity
 - Site users

What is the effect of the Proposed Development on Flood Risk and Drainage?

119. During construction, all effects are deemed to be major or minor adverse. Effects on the water quality of the River Medlock and the Ashton Canal, effects on surface water drainage capacity and effects on site users in terms of flooding are deemed to be negligible. Effects relating to water supply are deemed to be minor adverse. Mitigation measures during the construction phase shall be implemented through a Construction Management Plan (CMP).
120. During the operation phase of the Proposed Development, a surface water drainage scheme shall be implemented based on best practice, in which the entirety of the proposed impermeable surfaces is to be captured and positively drained through an appropriate Sustainable Drainage System. This, alongside the proposed foul water strategy, is set out within the drainage strategy.
121. Based on this approach, residual effects associated with water quality, surface water drainage capacity and flood risk to residents are deemed to be non-significant. Effects on water quality in the River Medlock and the Ashton Canal, and effects on site users in terms of flood risk are deemed to be negligible. Residual effects associated increased foul water discharge are deemed to be minor adverse.

Ground Conditions

What are Ground Conditions?

122. The Ground Conditions Chapter of the ES presents the findings of an assessment of the likely significant effects of the Proposed Development on the ground engineering of the site and surrounding area. This Chapter also describes the methods used to assess these impacts; the existing baseline conditions; the proposed mitigation measures required to prevent, reduce or offset any significant adverse impacts; and the likely residual impacts after these methods have been adopted.
123. When establishing the ground conditions at the site, consideration is given to the geological, geoenvironmental, hydrological and hydrogeological conditions present that may result in potential contamination risks for the Proposed Development. Pollutant pathways are identified, and where a pollutant linkage exists an appropriate assessment has been carried out.

What has been assessed?

124. The Proposed Development has been assessed with respect to Ground Conditions and considers the effects of the Proposed Development during earthworks and construction as well as when it is operational. In the UK, the assessment of risk from contamination is based on consideration of the conceptual site model and follows the “source-pathway-receptor” approach. If one of these three elements (source, pathway or receptor) is absent, it is considered that there is no risk of harm. If, however, there is considered to be a linkage between any given source and any given receptor, then a risk-based approach is used to assess the significance or impact of the linkage.
125. Consideration has been given to the 2014 extant planning permission; the ground conditions at the site will not have altered significantly since this time as there have been no substantial development activities site and it has been covered with hardstanding preventing any downward migration of any introduced contamination.

What is the effect of the Proposed Development relating to Ground Conditions?

Earthworks and Construction

126. Summary of non-significant construction effects:
- Effects on flora;
 - Degradation of water quality within the Secondary A Aquifer;
 - Degradation of water quality within the River Medlock; and,
 - Degradation of water quality within Ashton Canal.
127. On-site human receptors are the construction workers engaged in below ground site work during the earthworks and construction phase of the Proposed Development. There is a potential for these personnel to be exposed to contamination by dermal contact with and ingestion of contaminants in the soil, inhalation of soil derived dust or ingestion of contaminated surface water run-off or perched water/groundwater. The effect significance has been assessed as moderate adverse without mitigation. Implementation of a suitable health and safety regime and standard good construction practice (i.e., appropriate PPE) will provide the necessary mitigation reducing the effect significance to negligible.
128. Off-site human receptors are the users/visitors of neighbouring land. There is a potential for these people to be exposed to contaminants via windblown dust during construction. The effect significance has been assessed as moderate adverse without mitigation. Implementation standard good construction practice (i.e., dampening down) will provide the necessary mitigation reducing the effect significance to negligible.
129. There is limited potential for residual contamination and/or the natural strata to affect the integrity of below ground concrete and/or for any residual contamination to permeate any in-ground plastic water supply pipework of neighbouring properties during construction. The effect significance has been assessed as minor adverse without mitigation. Through appropriate investigation, assessment and design (i.e., appropriate concrete design class and water supply pipework) the effect significance is reduced to negligible.

Operation

130. Summary of non-significant operational effects:

- Effects on future site users; and
- Effects on flora.

131. On-site human receptors are the users/visitors of the Proposed Development. Following development, future site users/visitors are most unlikely to be exposed to any residual contamination, due to the nature of the Proposed Development with limited potential for human contact with soil/sediment. There is a potential for ground gas to ingress into enclosed spaces within the Proposed Development. The effect significance to future site users / visitors has been assessed as moderate adverse without mitigation. The ground gas regime will be assessed as part of the on-going ground investigation and any remedial measures will be implemented as part of the design, reducing the effect significance to negligible.

Residual Effects

132. There are limited potential risks to people and the environment associated with the Proposed Development and the ground conditions on-site during the construction phase. Mitigation measures, informed by site investigations and defined in the Remediation Strategy and contractor's method statements will ensure appropriate design and construction. On completion of the Proposed Development, all potential operational effects are assessed to be negligible, and no supplementary measures are therefore considered necessary.

Cumulative Effects

133. The committed developments schemes within the vicinity of the Proposed Development are over 500m from the site. They are all consented; therefore, if they go ahead, they will be subject to the same legislation and policy as the Proposed Development and will follow standard planning requirements. There are no plausible scenarios where the Proposed Development would affect the surrounding committed developments beyond the assessment presented within this Chapter.

Human Health

What is Human Health?

134. Human health and well-being are affected by a complex interaction of multiple factors, such as access to health and social care, healthy food, freedom from pollution to air/land/water, access to open and green space, reducing crime and fear of crime, and availability of housing, employment, and other services including recreation, amenity, sports and leisure. Health is not just absence of disease but rather a combination of a person's physical, mental, and social well-being. This interaction of different factors can be organised into themes for healthy urban living.

What has been Assessed?

135. A checklist of topics that are relevant to development proposals was used to help identify the factors that may be significant for health and wellbeing. The factors which were scoped as significant in terms of their contribution to human health and well-being are air quality, climate change, flood risk, ground conditions, noise and vibration, townscape and visual impacts, traffic and transport, wind microclimate and external lighting. A summary of the relevant findings were taken from the impact assessments of each factor. Consideration was also given to the economic and crime impact assessments, as well as studies for waste management, and daylight/sunlight, and the plans for the wider regeneration of the Etihad Campus area.
136. For most of the relevant topics, the findings were similar to those that were predicted for the Proposed Development that has an extant planning permission from 2014; however, the additional buildings in the current enhanced Proposed Development provide additional screening and reduce likely noise impacts.

What is the Effect of the Proposed Development on Human Health

137. Potential environmental impacts associated with air quality, climate change, flood risk, ground conditions, noise, visual, traffic and transport, and wind microclimate have been mitigated such that they are not significant for the health and wellbeing of the users and visitors of the proposed development, nor for the nearby communities.
138. Overall, the potential environmental impacts for human health and wellbeing have been assessed and there are no significant residual adverse effects predicted. There will be no significant adverse effects on community amenity, including crime, fear of crime and community safety. External lighting effects are negligible. Overall, likely effects are beneficial for health and wellbeing associated with neighbourhood amenity factors. Impacts on sunlight for open spaces was found to be negligible. A new Waste Management Strategy is proposed with improved efficiencies such that there will be beneficial effects. Townscape character and visual amenity can affect health and wellbeing. These factors were integrated into the iterative design such that mitigation measures for any adverse effects were embedded through the design process and overall, effects are beneficial.
139. Accessibility to amenity services, sports, recreational and leisure facilities is important for health and wellbeing. The Proposed Development will enhance the available facilities with beneficial effects for visitors, local residents and communities. Active travel is vital for health and wellbeing - the encouragement and facilitation for sustainable movement, including for cycling and walking, will have beneficial effects for users, visitors and local residents. The connections with the wider sustainable travel network are likely to have further benefits beyond the local area and contribute to links between communities. The enhancements to biodiversity and open/green space will encourage access and use with further beneficial effects for health and wellbeing for users, visitors and local residents.
140. Employment and training are important for health – the Proposed Development will create a significant number of jobs and many of these jobs will be taken up by local residents, helping to generate increased economic activity and retain skilled people within the area. Together with plans for skills training, likely effects for employment and training on health and wellbeing will be beneficial.

Noise and Vibration

What is Noise and Vibration?

141. This assessment considers the potential effects of noise and vibration associated with the construction and operation of the Proposed Development, and, where required, how these can be mitigated to comply with the relevant government and local authority planning policy.
142. The assessment has predicted emissions from various sources of noise that will be added or altered due to the presence of the Proposed Development, then assessed the results by considering the value of those noise levels, or what the change in noise levels due to the Proposed Development is predicted to be. The assessments have been informed by appropriate standards and guidance documents.

What has been Assessed?

143. The Proposed Development has been assessed with respect to the potential effects caused by noise and vibration associated with its construction and operation. Several different sources of noise and vibration have been considered.
144. These sources are the construction of the Proposed Development, including the construction related traffic travelling on the roads around the Site, the changes in noise during events at the Proposed Development (i.e., football matches, concerts and use of the fan zone), and the changes in road traffic due to operation of the Proposed Development. Noise from these sources has been predicted based on appropriate data and, in the case of event noise, verified using measurements of noise taken during events.
145. As sufficient detail on any new external fixed plant is not available, target noise levels have been defined based on the results of a baseline noise survey undertaken around the Site, which will be referred to in the specification and design of any plant to be installed as part of the Proposed Development to avoid any adverse or significant effects from this source.
146. For event noise, a qualitative consideration of the likely effects from the Proposed Development compared with those from the scheme approved in 2014, which included a similar expansion of the north stand, has also been undertaken.
147. Sources that have not been considered in the assessment include vibration from operation of the Proposed Development as no significant vibration is expected to be generated, and changes in road traffic during event days as the Proposed Development includes no additional parking and it is understood that the roads are already at capacity at these times, so no additional traffic would be expected.

What is the Effect of the Proposed Development on Noise and Vibration?

148. The assessment of noise and vibration has demonstrated that no significant or otherwise adverse effects are expected from either construction or operation of the Proposed Development.
149. The Proposed Development is predicted to result in significant beneficial residual effects due to the reduction of event noise from use of the fan zone at the north of the stadium and from concerts. In both cases, this is due to the increased screening from the new structures to be constructed.
150. While the need for any specific mitigation measures has not been identified, construction noise and vibration will be mitigated and minimised as far as is practicable using methods such as the selection of quieter items of plant and localised screening around noisier activities where possible.

Townscape and Visual Impact

What is Townscape and Visual Impact?

152. This assessment assesses the likely townscape and visual impacts of the Proposed Development upon the Site and surrounding area.

What has been Assessed?

153. A total of 8 townscape receptors and 11 visual receptors were identified and considered as part of this assessment.
154. The assessment considered 4 scenarios:
- Scenario 1 – baseline as existing today with committed developments;
 - Scenario 2 – baseline as 2014 extant consent (qualitative assessment);
 - Scenario 3 – baseline plus Proposed North Stand development; and,
 - Scenario 4 – baseline plus Proposed North Stand development and mitigation.
155. All mitigation is embedded, therefore the assessment for scenarios 3 and 4 will be the same.

What is the Effect of the Proposed Development on Townscape and Visual Impact?

Scenario 1

156. When the existing Townscape Baseline is considered against the 9 committed developments, no townscape or Visual receptors have been assessed as having potentially significant effects at the construction and operational phases of development.

Scenario 2

157. The Etihad Stadium is subject to an extant planning permission for an extension to the North Stand of the Stadium, which is located in the same location of the Site. The permission establishes an acceptable scale and nature of change for the Site – and specifically the North Stand element. The Proposed Development seeks a similar scale of change to the stand element, but also introduces additional built form and associated new mix of uses, including a hotel.
158. The predicted effects from the Proposed Development were compared qualitatively with this permission.
159. It is predicted that the additional elements could create additional construction phase impacts to Townscape and Visual receptors due to the increase in built form and extent of construction works on site. The scale of this change is however limited as significant construction works were already envisaged.
160. The additional hotel, leisure and office buildings that project beyond the northern extent of the stadium will introduce new built form beyond that assessed in 2014. Townscape receptors would have additional localised effects, but that these effects in relation to the wider study area would be unchanged. Visual receptors will experience additional effects, particularly in relation to views immediately around the stadium, where the new built form will be particularly prominent. In wider views the additional taller built elements will also be more prominent that increase the visual effects.

Scenario's 3&4

Townscape Effects

161. The assessment predicts that there will be moderately significant townscape effects during the operational phase on townscape character, urban grain, land use, building heights and site character. The effects are predicted to be beneficial in nature, as the proposals reinforce the townscape characteristics of the site and promote the Stadium as a key landmark sporting venue. There was one moderately significant adverse townscape effect during

the construction phase on Site Character, due to a loss of the key Site characteristics and the impact of construction works on the arrival experience into the Stadium through the Site.

162. The assessed effects experienced by townscape receptors were greater than those of the Scenario 1 condition, typically increasing in magnitude from negligible to minor. The townscape receptors for Townscape Character, Land Use and Building Heights experienced an increase in significance from not significance to minor significance.

Visual Effects

163. There are predicted to be moderately significant adverse effects during the construction phase on a total of 1 view (viewpoints 3). This is primarily due to the sensitivity of the view and the proximity of the Proposed Development to the viewpoint. Construction works will affect the appreciation and character of the view; however, the effects are temporary by their nature.
164. No views were predicted to experience adverse effects during the operational phase. This was due to the careful massing of the proposals and visual 'fit' with the existing Stadium. Additional elements extended the influence of this landmark structure, as did the new public realm areas in close range views. View 3 was predicted to experience moderately significant beneficial effects.
165. The assessed effects experienced by visual receptors were predicted to be greater than those of the Scenario 1 condition, increasing in magnitude from negligible to minor/moderate. This is due to the proximity and focus of the viewpoints to the Proposed Development, and the relative distance to the committed developments, which inevitably results in greater predicted effects. Views 1,2,4,5,7, 8 & 10 increased to minor significance, whilst view 3 is predicted to experience an increase in effects from not significant to moderately significant.

Traffic and Transport

What is Traffic and Transport?

166. The Traffic and Transport chapter in this Environmental Statement assesses the potential traffic and highways impact of the development on local transport infrastructure. 'Traffic' refers to the movement of vehicles on roads, while 'Transport' encompasses all modes of travel including walking, cycling, public transport, and private vehicles.

What has been assessed?

167. The proposals for the expansion of the Etihad Stadium North Stand sit within a wider transport and movement strategy for the future development of the Etihad Campus. This strategy seeks to make better use of existing transport infrastructure and promote any additional trips generated to be undertaken by sustainable transport modes.
168. In recent months, Etihad Campus management arrangements, ahead of Co-op Live commencing operation, have translated into an active resilient partnership for the Etihad Campus, with an inclusive governance structure to enable all Campus Stakeholders to work with city authorities and transport operators to holistically deliver Transport and Movement improvements. In the coming years, a key focus of this multi-agency group (i.e., the Campus working group with full support from transport stakeholders / operators) will be placed on promoting timetabled, consistently delivered public transport to get to the City Centre. Then, through multi-agency work, improvements to the promotion, signalling, lighting, security and activation of routes from the City Centre to the Campus will be delivered. As planned regeneration takes place in this part of the city, these routes will become part of the fabric of the built environment.
169. Fundamental to the strategy is the principle that there will be no increase in parking on the site and no measures that would be likely to encourage greater car use to access the Etihad Campus and the surrounding area on a matchday. There are two key components of the strategy that will help to achieve this.
- There will not be an increase in car parking on the site; and
 - An enhanced Resident Parking Scheme will be implemented that operates every day, for longer periods and covering an increased geographic area.
170. These two measures are supported by supporting interventions to promote and increase the use of sustainable transport options to access the Etihad Campus on matchdays including Metrolink, service and dedicated shuttle buses and walking from the city centre.
171. By constraining parking capacity and therefore the ability of visitors to park either on-site or on the surrounding streets, the strategy will discourage people from travelling to the Etihad Campus by car on a matchday. This is, and will continue to be, supported by communication from the Club that all matchday on-site parking must be pre-booked, that there is a revised RPS in operation and directing people to the alternative sustainable transport modes available.
172. As it is not proposed to increase the capacity of the car park at the Etihad Campus, and the enhanced Eastlands Resident Parking Scheme will prevent additional vehicles from parking close to the area, the volume of traffic accessing the site to use the stadium itself would not increase from that already doing so in the baseline conditions. This has also been assessed and approved under previous applications.
173. Indeed, it is anticipated that the additional proposed commercial uses would be likely to spread the arrival and departure of traffic that currently accesses the Etihad Campus on a matchday. This would be likely to have the effect of reducing the peak impacts on the highway network before and after a stadium event.
174. The assessment therefore focuses on the impact of the proposed commercial uses (office and hotel) only as agreed during scoping meetings.
175. In this chapter, the following potential effects of the development on receptors (pedestrians, cyclists, car drivers/passengers etc) along the transport routes anticipated to be used during construction as well as operation have been assessed with regard to the following potential environmental effects:

- Severance
 - Driver Delay
 - Pedestrian and Cyclist Delay
 - Pedestrian and Cyclist Amenity
 - Fear and Intimidation
 - Highway Safety
176. The significance of effect is determined by the sensitivity of the receptor (in this case highway links) and the magnitude of the impact on the receptor. The sensitivity of the receptor is determined by the presence of different groups of people (e.g. people at home children, elderly, and disabled persons pedestrians, cyclists etc). The magnitude of impact is determined by the increase in construction or operational traffic on each highway link, against forecast future baseline of traffic flows.
177. The Traffic and Transport chapter assesses two scenarios to assess the environmental effects of the proposed development, these are:
- Construction Peak Year:
- 2024 Future Baseline – Scenario of baseline network in the year of peak construction
 - 2024 Future Baseline + construction traffic – Scenario of baseline network in the year of peak construction + construction traffic by the proposed development
- Year of Opening:
- 2026 Future Baseline – Scenario of baseline network in the anticipated year of completion
 - 2026 Future Baseline + Future Development - Scenario of baseline network and the proposed development in the anticipated year of completion

What is the effect of the Proposed Development on Traffic and Transport?

178. The assessment of both construction and operational traffic impacts concluded that there were no link locations that are predicted to encounter significant increases in traffic as a result of the development.
179. Therefore, the results of this Assessment have indicated that the potential environmental effects resulting from the increase in traffic generated by the development are predicted to be negligible.
180. The Transport Assessment (ES Appendix 13.1 (Volume 2)) considers in detail the impact of the Proposed Development on the local highway and transport network, including consideration of the way supporters, staff and visitors will travel to the stadium following its expansion, traffic modelling at local junctions and consideration of the Proposed Development's impact on the capacity of public transport services.
181. In doing so, mitigation measures have been identified to encourage people to minimise their use of the car when travelling to the stadium and reduce the impact of additional traffic on local roads. With these mitigation measures in place, the assessment indicates that the local transport network is able to safely accommodate travel for supporters, staff and visitors associated with the Proposed Development.

Wind Microclimate

What is Wind Microclimate?

182. A quantitative assessment of wind effects has been undertaken to compare the baseline conditions with those of the Proposed Development based on wind data local to the site. The effects of introducing a new development can cause beneficial, adverse, or negligible wind effects.

What has been Assessed?

183. A quantitative study has been undertaken to predict and analyse wind conditions for the Proposed Development. The baseline model was produced to determine the reference conditions on the Site. The Proposed Development wind effects were analysed against the baseline by performing a Computational Fluid Dynamics study. The new activities introduced to the Site by the Proposed Development have been considered in the assessment.
184. The criteria used in this study was based on the LDDC version of the Lawson Criteria. Like most criteria used in assessments of pedestrian wind conditions, it relates to a threshold wind speed and a threshold frequency to the suitability of an activity. A Computational Fluids Dynamic assessment was carried out to assess the impact of the Proposed Development on the Site and surrounding area.

What is the Effect of the Proposed Development on Wind Microclimate?

185. Wind conditions on the Site are suitable for the intended activities in most areas, and no safety concerns/failures were found within the Proposed Development.
186. There is a marginal safety exceedance to the southwest of the stadium, this is considered to be a minor adverse effect. This exceedance affects a very small area (approximately 2 sqm) where the safety criteria is predicted to exceed is 15 m/s for 2.0 hours per year, against the target threshold of 1.9 hrs. A conclusion has been reached within the parameters of this assessment that mitigation is not required, based on an understanding of the likelihood of the exceedance corresponding with when there are likely to be people in this area.
187. There were no cumulative schemes identified within the area assessed, therefore no cumulative assessment was required.
188. The areas within the Proposed Development and surrounding areas are likely to be suitable for the planned activities and mitigation is not required. The residual effects predicted are minor adverse, with suitable conditions for the planned activities within the public realm. The addition of the proposed landscaping is likely to improve conditions within the public realm areas of the Proposed Development.

Lighting

What is Lighting?

190. An assessment of the likely significant effects of lighting on local residents amenity .

What has been assessed?

- 191. The proposals include new lighting and screens, which will be located on the outside of the building. In designing the lighting, consideration has been given to existing legislation, policies and guidance and the surrounding environment during construction and operation.
- 192. Receptors that might be affected by the lighting installation have been identified and the effect that lighting might have on them has been described. The effect is measured taking into account an installation designed following good practice guidance. Mitigation have been suggested where needed.

What is the Effect of the Proposed Development on Lighting?

- 193. The Site is located in an industrial urban area, which is surrounded by well lit roads and existing lit structures (e.g. Etihad Stadium). The pathway along Ashton Canal is lit by lighting columns.
- 194. A well-designed installation may control the amount of spill light and light trespass to sensitive receptors. Residential buildings that have direct line of sight to the new building might be affected by a bright façade that will be added to the skyline. Wildlife in the area might also be affected by higher light levels.
- 195. Both of these effects can be minimised by installation of a lighting control system that will dim the lighting depending on daylight.

Socioeconomic

What are Socio-Economics?

196. Socio-economic impacts, in EIA terms, relates to the impact of the Proposed Development on the lives of current or future residents in a geographic area, including the impact on the economy.

What has been assessed?

197. Likely significant effects on socio-economics as a result of the Proposed Development have been considered, including: employment impact on the labour market and additional local spending; and review of other relevant effects such as deprivation and regeneration.
198. There are no defined standards or guidelines for defining socio-economic impacts and the significance of effects. In order to assess the significance of effects, professional judgement has been used to determine the proportionate impact of the Proposed Development in its local and regional context.
199. The socio-economic impact assessment was undertaken using a wide range of information sources, including City Football Group's own data in relation to existing GVA and employment.
200. The principal economic effect of the Proposed Development is considered relative to Manchester (city) and the North West (regional) scale, as these represent the principal labour market catchment areas.

What is the effect of the Proposed Development on Socio-Economics?

201. Construction employment is expected to result in approximately 3,910 FTE direct, indirect and induced temporary jobs created during the construction phases within Greater Manchester, of which 3,347 would be within Manchester, delivering a beneficial effect for the Manchester economy during the construction period.
202. Once in operation, the Proposed Development is estimated to result in a total net increase of 600 additional operational jobs on-site and 2,925 net additional jobs (including full time, part time and casual) once complete when accounting for indirect jobs within the economy, for example through the supply chain and visitor economy. This will deliver a permanent beneficial effect for the Manchester economy.
203. In addition to the creation of employment on-site, the Proposed Development is estimated to attract approximately 1.93 million visitors a year (an additional 270,000) which will generate approximately £35.8m of additional off-site visitor expenditure each year. Overall, the Proposed Development will create an additional £71.7 million of net additional GVA per annum into the Greater Manchester economy. This will create a permanent beneficial effect for the Manchester economy.
204. The Proposed Development will have a beneficial effect on regeneration and deprivation indices, including income and employment. It will significantly improve the fan experience and, in creating a destination that appeals to a broad audience on both match and non-match days, it will enliven the Etihad Campus all-year round. It will also have positive effects on the regeneration objectives within the Development Plan, notably UDP Saved Policy EM11, and Core Strategy Policy EC7, supporting MCC's ambitions to create a year-round world-class sports and entertainment destination at the Etihad Campus.
205. The expansion of the north stand covered by the extant planning permission is similar in size and additional capacity to what is included in the Proposed Development; however, the Proposed Development also includes the provision of other unique uses that are entirely distinctive in their offering, and which are essential for the success of the Etihad Campus and East Manchester. As such, it is considered that the Proposed Development would have a greater level of beneficial socio-economic impact than the previous extant consent.

Availability of Environmental Statement

206. The ES is available for public viewing online via MCC's Public Access website, and during normal office hours at the following address:
- Planning Department
Manchester City Council
Town Hall
Manchester
M2 5DB
207. The ES may be purchased in volumes, the costs for which are set out below:
- Non-Technical Summary - £15
Volume 1: ES Main Text & Figures - £150
Volume 2: ES Appendices - £150
208. For copies of any of the above please contact the North Stand, Etihad Stadium Team at Deloitte:
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