

OVG Manchester:

Appendix 2.3 –Scoping Opinion Summary of Comments and Responses

Appendix 2.3 EIA Scoping Opinion – Summary of Comments and Responses

Comment	Response	Responsibility
General Comments		
Any subsequent Environmental Statement should reflect the points raised by the consultation bodies where this reflects the requirements of the Regulations.	Each consultant has reviewed the consultation comments as noted below and provided a response confirming how the chapter has been updated / amended or a justification for why it does not need to be updated / amended against the relevant comment.	All
The Environmental Statement should summarise scoping responses and how they are addressed or not.	As above, this summary table is appended to Chapter 2 of the Environmental Statement, as Appendix 2.3 EIA Scoping Opinion – Summary of Comments and Responses.	DRE
The scoping report is based on parameters; should these change a further scoping assessment should be undertaken if the scope of the ES needs to reflect this. Confirmed parameters: indoor arena of 65,000 sq.m., building height up to 40m AOD and total capacity of 23,500.	The parameters identified within the EIA Scoping Report are still relevant for the purposes of the planning application. These are reflected in the application drawings, Design and Access Statement, and accommodation schedule.	Populous
The submitted Environmental Statement should consider any alternatives in terms of design, technology, location, size and scale and an indication of the main reasons for the options chosen, including a comparison of environmental effects.	Populous and ME Engineers to confirm any alternative options that were considered in terms of technology within the scheme and reasons for final selection including reference to environmental effects. DRE to circulate current draft of alternatives section and identify any further information required from Buro Happold / ME Engineers / Planit regarding comparison of environmental effects.	All
The Environmental Statement should be laid out clearly with minimum use of technical terms and provide a realistic description of likely significant effects. It should be comprehensible to the specialist and non-specialist alike. It should be concise with supporting technical information in appendices.	The Environmental Statement meets these requirements and a non-technical summary is included to provide a summary of the EIA, which is comprehensible by non-specialists.	DRE

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Technical chapters should identify whether mitigation measures: a) avoid impacts; reduce the magnitude of impacts; or, compensate for loss through unavoidable impact.	Each technical consultant has reviewed their respective chapters and updated the mitigation section to specifically reference the type of mitigation that is incorporated for both construction and operational phases. This is also summarised within the summary table of mitigation measures, which is appended to Chapter 16 Summary of Residual Effects, as Appendix 16.1 Summary of Mitigation Measures.	All
Mitigation measures should not be developed in isolation as they may relate to more than one aspect of the environment. The Environmental Statement should set out the mitigation measures and any residual effects. The anticipated effectiveness of mitigation should be addressed and only mitigation that is deliverable (technically and financially viable) and that the applicant can deliver should be included. A section should be included in the Environmental Statement in which mitigation measures are collated and presented as an integrated package.	Mitigation measures have been developed by the client and EIA team in collaboration. A summary table of mitigation measures is appended to Chapter 16 Summary of Residual Effects, as Appendix 16.1 Summary of Mitigation Measures. This includes the following: • The anticipated effectiveness of the proposed mitigation. • Areas where mitigation overlaps or is integrated and the consideration given to the intra-effects of the potential environmental effects. • Confirmation that each of the mitigation measures proposed are technically and financially viable, and deliverable. • How mitigation will be monitored.	All
The structure of the Environmental Management and Monitoring Plan should be outlined in the Environmental Statement.	A summary table of mitigation measures is appended to Chapter 16 Summary of Residual Effects, as Appendix 16.1 Summary of Mitigation Measures. This table indicates how effects and mitigation will be monitored.	All
All specialist chapters should be cross-referenced to other relevant disciplines with consideration of interactions between the different aspects of the environment.	A chapter called Type 1 Cumulative Effects, which sets out the anticipated cumulation of effects between the environmental disciplines, is included within the Environmental Statement as Chapter 17 Type 1 Cumulative Effects.	All
Each technical chapter should include a description of the forecasting methods used to identify the effects and any difficulties encountered.	Each technical chapter includes a description of the forecasting methods and any difficulties encountered. These are identified under	All

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	the sub-headings "Assessment Methodology and Significance Criteria" and "Limitations and Assumptions" within each technical chapter.	
The significance of the site in regional terms should be reflected throughout the ES; the chapters must consider impacts of the proposed development on the local context, Regional Centre together with Manchester City Centre, north west region and national context (where appropriate) to determine any wider significant environmental effects.	Each topic assessment inherently consider impacts, not just at a local scale, but at regional and national scale if relevant.	All
Topics Scoped Out		
Archaeology – archaeology can be scoped out provided the planning application is supported by an appropriate report that supports the conclusions in the EIA Scoping Request.	Copies of previous archaeological investigation (as submitted with the EIA Scoping Request), together with note from Salford Archaeology and GMAAS are submitted with the planning application to demonstrate that no further archaeological investigation is required. This information forms part of Appendix 2.1 (EIA Scoping Request), 2.2 (EIA Scoping Opinion) and Appendix 2.5 Salford Archaeology Email.	DRE
Built Historic Environment – the topic can be scoped out provided that the application is supported by an appropriate heritage assessment that includes mitigation. The canal network should be identified as a non-designated heritage assets.	A standalone heritage assessment has been prepared submitted with the planning application. The Heritage Statement concludes that the proposed development will result in less than substantial harm to the special architectural and historic interest of one listed building and two registered parks and gardens. Beyond the embedded mitigation of the scheme design, no further mitigation is identified as being necessary. The canal network is not considered to be a non-designated heritage asset; however, the heritage assessment has clearly described its role (and the significance of the listed structures located along the canal towpath) and as necessary assessed the impact of the Proposed Development upon its significance.	DRE
Climate Change – cannot be scoped out.	A Climate Change Chapter is included within the Environmental Statement as Chapter 15 Climate Change.	Buro Happold

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Daylight and Sunlight – a daylight, sunlight and overshadowing assessment can be scoped out provided that the application is supported by an appropriate assessment that includes mitigation.	A standalone daylight, sunlight and overshadowing assessment has been prepared by Buro Happold and is submitted with the planning application. The conclusions of the report identify that the Proposed Development results in negligible impacts on existing sensitive receptors (dwellings and amenity spaces) and negligible cumulative impact. As such, no mitigation measures are required.	Buro Happold
Ecology – an ecological assessment can be scoped out provided that the application is supported by an appropriate ecological assessment that includes mitigation. The assessment should include consideration of the landscape planting present off Alan Turing Way and the pedestrian route crossing the canal. Clarification should be provided as to the reference to woodland management plan, as there is no woodland within the site. If it relates to woodland adjacent to the canal, this information should form part of the application.	A standalone Ecological Assessment is submitted with the planning application. This document is a mitigation report with the Ecological Appraisal (including Phase 1 habitat survey), therefore it inherently addresses the mitigation of the project. The Ecological Assessment includes an up-to-date habitat map covering all areas within the red line boundary. No woodland management plan is referenced in the Ecological Assessment. The project does not include any woodland management. The Ecological Appraisal makes a recommendation for scrub removal and allowing trees to establish on the canal.	Buro Happold
Television, FM Radio and DAB - can be scoped out on the basis that the application is supported by an appropriate standalone report that includes mitigation.	Television, FM and DAB Survey Report has been prepared by SCS Technologies and is submitted with the planning application as a standalone report. Mitigation measures in the event that the Proposed Development causes interference with these elements are set out at page 36 of the report.	SCS Technologies
Human Health - cannot be scoped out.	As agreed at a meeting with the Local Planning Authority on 04/02/2002, potential effects arising as a result of Human Health, including beneficial effects, are considered within each of the technical chapters and are summarised within Chapter 17 Type 1 Cumulative Effects.	All

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Topics Scoped In		
<u>Air Quality:</u>		Buro Happold
Potential construction effects should consider any impacts from use of plant and equipment, as well as emissions from construction vehicles and construction worker vehicles in and around the site.	Environmental Statement Chapter 6 Air Quality considers construction effects including potential impacts from use of plant and equipment as well as emissions from construction vehicles and construction worker vehicles in and around the site – both through assessment impacts and addressed in mitigation measures section.	
Consideration of potential odours and likely impact on air quality – the applicant would need to decide the most appropriate methodology.	The only potentially odourous emissions would come from any proposed kitchen extract. Any such extract should demonstrate compliance with Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems, which may be enforced through planning condition. The ventilation strategy and design aligns with the Manchester City Council document GD03 and the DEFRA Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems (which was withdrawn in 2017, but has not yet been replaced and is specifically referenced in GD03). Generally speaking all catering systems within the Proposed Development are provided with: - Grease baffles. - UV filtration. - HELP filtration. - Carbon filtration.	

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	The Proposed Development is not considered to be likely to give rise to significance environmental effects in relation to odour and on the basis set out above is scoped out of the EIA.	
The Environmental Statement should consider both the Rochdale and Ashton Canal as receptors and their users as sensitive receptors to construction dust and emissions from construction vehicles.	This is addressed at paragraph 6.93 of Environmental Statement Chapter 6 Air Quality.	
Likely impacts on air quality from climate change require consideration, including to the extent that the proposed development will contribute towards greenhouse gases in the construction and operational phase, and the impact at local, regional and national scale (if applicable).	Environmental Statement Chapter 6 Air Quality assesses the impact of air pollutants including NO₂, NO_x and particulate matter as required by IAQM and DEFRA guidance and standards. Greenhouse gas emissions are not considered within this chapter, but are assessed within Environmental Statement Chapter 15 Climate Change.	
<u>Ground Conditions:</u>		
A Coal Mining Risk Assessment is required to support this chapter; the findings of the risk assessment should be used to inform the layout of the development and identify any mitigation measures.	A Coal Mining Risk Assessment is appended to Environmental Statement Chapter 7 Ground Conditions as Appendix 7.2.	Buro Happold
The full process of ground investigation, risk assessment, options, appraisals and preparation of a mitigation and remediation strategy will be required with the planning application.	An Interpretative Report based on ground investigation findings is appended to the Environmental Statement Chapter as Appendix 7.3. The process of ground investigation is detailed in Section 4.2 of the Interpretive Report. A Preliminary Risk Assessment is presented in Chapter 3 of Interpretive Report. A Geo-environmental Risk Assessment is presented in Chapter 12 of Interpretive Report. Recommendations for foundation design are presented in Chapter 6 of the Interpretive Report. Mitigation measures are set out in the Mitigation Measures section (paragraph 7.90) of the Environmental Statement Chapter 7 Ground Conditions. The Interpretative Report provides all the factual information from the site investigation, and includes geo-environmental analysis, risk	

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	assessment and provides recommendations at the end. Frequently on brownfield sites such as this, a Remediation Strategy is required following the findings of the interpretative report. A Remediation Strategy outlines the mitigation methods in line with the risk assessment from the interpretative report. The Strategy should then be implemented by the Contractors and the remediation works (including waste management) reported within a Verification Report in line with standard good practice. A Remediation Strategy will form part of the Stage 4 technical design and work and it is proposed that there should be a planning condition attached to any Decision Notice requiring submission of the Remediation Strategy prior to commencement of development.	
Receptors in both the risk and impact assessments should include human health, below ground culverts and groundwater, surface water and ecology.	Receptors considered within Environmental Statement Chapter 7 Ground Conditions include: construction workers, off site users/users of neighbouring land, groundwater, controlled waters (River Medlock and Ashton Canal), built environment, flora and fauna. The River Medlock has been assessed as a receptor. The culvert structure has not been assessed as a receptor as there is no plausible contaminant linkage between the ground and the culvert structure during the construction and operation of the Proposed Development. This is due to the distance from the site. An assessment to the River Medlock has been included, assessing migration of contamination through permeable strata to the river and likewise for the neighbouring canal (via surface water run-off).	
The ES should consider the impact on the canal corridor from the fact of the site's elevated position, including consideration of conceptual models and potential mitigation.	The canal corridor is assessed as a receptor as part of the sections on controlled water – Ashton Canal – at paragraphs 7.61 – 7.67 of the Environmental Statement Chapter 7 Ground Conditions.	
The assessment should consider boaters using the canal navigation as receptors during construction.	Boaters are assessed as a receptor as part of the sections regarding on off-site users/users of neighbouring land at paragraphs 7.60 of the Environmental Statement Chapter 7 Ground Conditions.	

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The ES should consider impacts of construction work in close proximity to the waterway infrastructure, which has the potential to affect its structural integrity.	The following statement has been inserted into ES Chapter 7 Ground Conditions: <i>During construction there is a potential for the structural integrity of Ashton Canal to be impacted based on earthwork activities and design of the Proposed Development. However, appropriate consultation will be undertaken with the Canal and Rivers Trust to show the structural integrity will not be compromised by any aspect of the development works. The sensitivity is negligible, and the magnitude of the potential impact is negligible, resulting in negligible significance.</i>	
<u>Socio-Economic Impacts:</u> - The ES Chapter should consider the significance of economic effects on a number of catchment areas including the immediate context, Manchester City Centre, north west region and national context (where appropriate). - Significance of these impacts on existing and future businesses, uses and employees, together with tourism and leisure economies should be examined together with cumulative effects. - Any significant impacts on other leisure uses / destinations should be examined, including Manchester Arena, O2 Apollo, M&S Bank Arena Liverpool, First Direct Arena Leeds, Arena Birmingham & Resort World Arena and any other national arena that could be affected by the development. - The likely sensitive receptors should be expanded to include local, regional and national supply chains. - The impact on local labour in the regional centre, city wide and north west requires consideration, including construction and operational phases.	As agreed at a meeting with the Local Planning Authority on 04/02/2020, in respect of the potential effects arising in relation to other leisure uses and destinations, the Environmental Statement Chapter 8 Socio-Economic Impacts has been updated to cross-reference and summarise the work undertaken by PwC and Ekosgen, which is also appended to Chapter 8 Socio-Economic Impacts as Appendix 8.1 Market Assessment Volume 1 and 2. This includes identification of both adverse and beneficial effects. The section on local employment assesses the requested geographical scales; this is considered at paragraphs 8.76 – 8.106.	Buro Happold
<u>Light Spill:</u>	Each of the identified sensitive receptors are included within the assessment set out in Environmental Statement Chapter 9 Lighting; light spill is contained within a short distance from the site boundary	ME Engineers

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- The residential properties along Alan Turing Way, canal corridor, nearby listed buildings, Philips Park and Alan Turing highway network are the sensitive receptors - The proposed development should be assessed in terms of how it would contribute to the level of illumination in the area. - The impact of the LED lighting to the façade on Philips Park, safety of the using Alan Turing Way and canal corridor should be assessed. - The lighting to the canal corridor and impacts should be consider in the context of ecological impacts.	and will not affect any listed buildings around the Proposed Development. The assessment set out in Environmental Statement Chapter 9 Lighting is on the basis of how the existing baseline would change as a result of the lighting scheme. A Highways Safety Report (prepared by Curtins) has been prepared and is submitted as Appendix 9.2. The report concludes that the façade lighting imposes no underlying road safety issues and would present a low risk to road safety (paragraph 7.2.1). From the habitats and species identified in the desk study and the habitat survey within the Ecology Assessment (prepared by Buro Happold), lighting could potentially affect the bats that use the Ashton Canal corridor for roosting, foraging and commuting (paragraphs 2.1 and 2.2). Ashton Canal has been identified as a sensitive area in the lighting report (paragraph 3.4) and the the light spill on this area has been calculated (paragraph 5.3).	
<u>Noise and Vibration:</u>		Buro Happold
The ES should consider impacts arising from plant and equipment during construction and operational phases	Environmental Statement Chapter 10 Noise & Vibration, paragraphs 10.44 to 10.51 consider plant and equipment impacts during construction. Paragraphs 10.69 to 10.77 consider the impacts during operation.	
Potential vibration impact during construction to residential properties and canal corridor and infrastructure needs to be assessed.	Potential vibration impact during construction to residential properties and canal corridor and infrastructure have been assessed and included in the Environmental Statement Chapter 10 Noise & Vibration.	
The assessment needs to consider the potential noise impact of pedestrians using the canal towpath to access the proposed development (including when there are multiple events) and set out management /mitigation	The following paragraph is included in Environmental Statement Chapter 10 Noise & Vibration: <i>10.70 Furthermore, it can be seen in Figures 10-4 and 10-5 that crowd noise impact on the canal corridor is likely to be localised. As such,</i>	

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measures. This should include both the canal ecology and users as receptors.	<i>crowd noise is likely to be up to 5 dB above the baseline noise measurement of LAeq 51 dBA at ST-1 within a 10 m of large groups (approx. 200No.) of people. This is considered a small magnitude of effect according to operational noise criteria.</i>	
Noise outbreak, including entertainment noise, from the proposed development during the operational phase must be assessed and mitigation identified where necessary. This should include the cumulative impact with other events at Etihad.	Environmental Statement Chapter 10 Noise & Vibration, paragraphs 10.52 to 10.68 address this comment.	
<u>Townscape and Visual Impact:</u> - The ES should consider wider views further south from Piccadilly Railway, which has uninterrupted views towards the Etihad Campus. - It is not considered Viewpoints 5 and 6 give a full indication of the likely impact on the canal as a receptor. Additional viewpoints should be added to capture further along the towpath from the listed flight lock and viewpoints should be provided from locks 5, 6 and 7 on the Ashton Canal. - Viewpoint 1 and 3 should include the cumulative impact of the north stand of the Etihad Stadium in line with the extant planning permission.	The guidelines state that <i>"the viewpoints used need to cover as wide a range of situations as is possible, reasonable and necessary to cover the likely significant effects"</i>. Planit-IE have confirmed that it is not possible to photograph and survey viewpoints on a live railway line, therefore photomontages cannot be produced to illustrate the visual impact of the Proposed Development from this location. Confidence in any visual assessment from the railway line would therefore be 'low'. The sensitivity of visual receptors leaving Piccadilly Station by train would not be assessed as 'high'. To give rise to a significant environmental effect, the magnitude of change from this viewing location would need to be major, which is highly unlikely as from this location the development would be viewed as one element within a much bigger urban context. Therefore, in accordance with the methodology, travelling views from the railway line have not been considered in the assessment. Lock 6 is immediately adjacent to the site frontage and therefore would not form a suitable location for a photograph to be taken that would be in accordance with the guidance set by the Landscape Institute due to the proximity of the viewpoint to the site. Viewpoint 6 of the TVIA provides a representative viewpoint from the canal towpath and includes lock 7.	Planit-IE

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	Lock number 5 is not identified as having listed status by historic England. Whilst lock 5 is likely to afford views of the proposed development, the pedestrian approach (view 5) is considered to be a more appropriate viewpoint location in this vicinity as it forms a major pedestrian approach experienced by a high numbers of viewers, and is considered to be a sensitive view due to the strong cultural associations associated with this route. All photomontages illustrate the Proposed Development, and the cumulative development (the north stand) where visible. The cumulative development is shown in views 1 and 3 by a red wireline.	
<u>Traffic and Transport:</u>		Buro Happold
Due to the scale of the development, a full and comprehensive transport will be required to inform this chapter. The baseline traffic assessment should specifically consider the effect of the development on capacity of the highway network in and around the site.	A transport assessment is submitted as Appendix 12.1 to the ES. Additional reports are submitted for information in respect of the strategic transport position, these include: - Etihad Campus Strategic Vision: Transport and Movement – prepared by Arup. - Etihad Campus Movement and Transport Strategy: Transport Assessment – prepared by Arup. - The Etihad Campus Strategic Sustainability Framework – prepared by Hillbreak.	
Given the potential for multiple large scale events across Manchester taking place at the same time, it is essential that the traffic assessment considers the cumulative impact of events across the Etihad Campus together with events in the City Centre (for example Manchester Arena), FC United Football Club and the O2 Apollo.	The approach that was used to assess transport impacts is considered appropriate and was agreed with MCC at the pre-development consultation stage before baseline surveys and assessment work commenced. The applicant continues to liaise with Manchester City Council and Transport for Greater Manchester to agree an achievable and appropriate scope of assessment. This includes areas beyond the originally agreed geographical scope area. The outcome of this exercise is presented in Appendix 12.1 (Transport Assessment Addendum).	

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Geographical scope of the surrounding network and junction assessment should be extended to include: Rochdale Road to the north, Ashton New Road extending to the M60 in the east, Hyde Road to the south and entirety of the City Centre and the ring road. This scope should also be used for the construction assessment.	The approach that was used to assess transport impacts is considered appropriate and was agreed with MCC at the pre-development consultation stage before baseline surveys and assessment work commenced. The applicant continues to liaise with Manchester City Council and Transport for Greater Manchester to agree an achievable and appropriate scope of assessment. This includes areas beyond the originally agreed geographical scope area. The outcome of this exercise is presented in the Appendix 12.1 (Transport Assessment Addendum).	
A full multi modal model is required to identify impact of the development on trip generation, parking levels, public transport and sustainable modes. This should incorporate existing travel survey data by MCFC. It is essential that this model is realistic and suggests appropriate and deliverable mitigation measures where it is clear and necessary to make interventions to improve safety, efficiency and capacity of the highway network and public transport and other infrastructure.	This has been undertaken and is described in Environmental Statement Chapter 12 Traffic and Transport and Appendix 12.1 Transport Assessment and Transport Assessment Addendum. Parameters for the multi -modal model are described in sections 5 and 6 of the Transport Assessment.	
The site is situated within an existing controlled residents parking zone (RPZ). A review of the RPZ is required in the context of impact of traffic arising from the development including where current and new vehicles associated with the development wider Etihad Campus would park.	This has been undertaken and is described in Environmental Statement Chapter 12 Traffic and Transport and Appendix 12.1 Transport Assessment. Review of the RPZ is undertaken in Section 3 of the Transport Assessment. Proposed interventions/mitigation relating to the RPZ are included in the Transport Assessment at Section 7 and will continue to be refined.	
Potential construction and operational effects of the development should include the impact of cycling as well as pedestrians.	This has been undertaken and is described in Environmental Statement Chapter 12 Traffic and Transport and Appendix 12.1 Transport Assessment, paragraph 12.135 and paragraphs 12.146 – 12.148.	
A travel plan incorporating actions aimed at encouraging sustainable travel during both the construction and operational phases of the development is an essential component and effects should be evaluated through the ES.	A travel plan is submitted as Appendix 12.2 to the Environmental Statement Chapter 12 Traffic and Transport.	

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Operational impacts on sustainable transport and routes is an essential part of the ES (for example bus, rail, tram, cycling and permeability / walking routes and any other infrastructure). The significance of the impacts as a result of the development on the local context and City Centre is essential.	This has been undertaken and is described in Environmental Statement Chapter 12 Traffic and Transport, section 12.139 – 12.162 and Appendix 12.1 Transport Assessment and Transport Assessment Addendum.	
Reference should be made to the likely impacts on the canal towpath usage given it provides as direct, traffic free route to the site from the City Centre. Evidence suggests that there is a significant uplift in usage when football matches are played at the Etihad Stadium. As part of considering likely impacts, consideration should be given to whether the towpath is fit for purpose in order to safely accommodate the uplift in usage associated with the development together with any cumulative impacts from usage across the Etihad Campus.	This has been undertaken and is described in Environmental Statement Chapter 12 Traffic and Transport and Appendix 12.1 Transport Assessment and Transport Assessment Addendum.	
Air quality, climate change and human health impacts should be measured within this chapter of the ES as part of the incorporation of measures from the travel plan and any other mitigation measures to support public transport and other infrastructure. This would also need to demonstrate that car parking and the capacity of the highway network is not exacerbated beyond the existing baseline conditions within the regional and city centre during construction and operation of the development.	This has been undertaken and is described in Environmental Statement Chapter 12 Traffic and Transport, section 12.138 and 12.161 and Appendix 12.1 Transport Assessment and Transport Assessment Addendum. Impacts on air quality as a result of traffic generated by the Proposed Development are considered in the Environmental Statement Chapter 6 Air Quality.	
<u>Water Quality and Drainage:</u>		Buro Happold
- The River Medlock is a designated main river, which flows into the culvert of the site. Site investigations should be informed by a full structural survey to establish the existing culverts condition, depth, size and location. - A full Flood Risk Assessment should be submitted, which should include consideration of the impact of climate change, together with details on the culvert and risks of flooding in the event of collapse.	To date BuroHappold have not carried out a structural survey of the culvert, as despite the fact that the red line boundary for planning crosses the culvert, the applicant is not the riparian landowner. BuroHappold are aware of the alignment of the culvert identified by the EA's data and a drainage survey previously provided, which shows the alignment of the culvert under Barking Street. This information is represented in the Flood Risk Assessment submitted as technical appendix 13.1.	

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	From review of the survey information and the EA's River Medlock hydraulic model the culvert is approximately 4.5m below ground level at this point. BuroHappold have approached the EA to obtain the results of the most recent visual inspection and the EA suggested that BuroHappold approach the EA's GMMC address for this information. GMMC responded to say that the most recent inspection was carried out on 2 December 2019; however, GMMC were not able to provide information from this recent survey. Further information was sought on the culvert condition from Manchester City Council as the riparian owner and the only information made available was for the River Medlock underneath Alan Turing Way and New Viaduct Street. No information was available for the culvert between these two public highways. As such BuroHappold have re-engaged with the EA to obtain the results of the December 2019 visual survey as this survey is likely to give a clear direction of whether there are any visual defects and/or blockages. BuroHappold are currently liaising with the EA to identify what further information is available. The Flood Risk Assessment for the project has not been able to provide further information on culvert condition due to information not yet being made available from the most recent inspections. BuroHappold have investigated the options for assessing the risk associated with collapse of the culvert. Normally this would be assessed through hydraulic modelling using an EA approved hydraulic model. Discussions with the EA have noted that there are currently significant limitations in the existing River Medlock hydraulic model which complicates the hydraulic modelling of the effect of blockage of the culvert. These include:	

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	• The upstream extent of the hydraulic model for the River Medlock is directly (~50m) upstream of Alan Turing Way. Any changes to the culvert conveyance in order to simulate blockage would result in backwater effects which would impinge on the model inflow. This would not normally be acceptable in the EA model review process. • The model extent doesn't consider the storage that would be available in Philips Park and therefore any model results would not correctly represent the potential increase in flood risk as a result of the blockage. From recent engagement, the EA are considering the approach required to assess the impact of culvert failure as part of the planning process, for example whether there is an alternative manner acceptable to the EA to simulate the effect of culvert blockage which overcomes the limitations described in the points above. Once this methodology has been agreed then BuroHappold will provide an updated estimate of the risk. An Environmental Permit will not be required for any works as part of the planning application as there are no works proposed with 8m of the culvert alignment. The extent of works is understood to be in the order of 40m away from the southern boundary of the culvert.	
• There are areas at high risk of surface water flooding and changes in level may impact on that risk. The site is also in an area at medium to high susceptibility of groundwater flooding. The ES should consider how surface water will be captured, treated and disposed of during construction and operational phases.	This is addressed in the ES Chapter 13 Water Quality, Drainage and Flood Risk, Appendix 13.1 Flood Risk Assessment and Appendix 13.2 Drainage Strategy.	
• There is potential for run-off and discharge during construction, which could impact on the canal and water quality.	The contractor's method statements should ensure water capture and treatment methods are implemented to ensure water quality is not affected during construction. This is specified as a mitigation measure within ES Chapter 13 Water Quality, Drainage and Flood Risk.	

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The ES and any strategy for surface water management during the operational phase should follow the drainage hierarchy. The City Council strongly recommends the use of SuDs, including in the interest of climate change.	This is addressed in the ES Chapter 13 Water Quality, Drainage and Flood Risk and Appendix 13.2 Drainage Strategy	
Presence of made ground is suspected; site investigations and percolation tests in line with BRE 365 Digest should be undertaken to assess feasibility of infiltration to the ground. If not feasible, consideration should next be given to discharge to the watercourse; this would require consent from the EA.	Contaminated ground has been identified on site during detailed ground investigations and therefore infiltration methods are deemed unsuitable. This is confirmed in ES Chapter 13 Water Quality, Drainage and Flood Risk and ES Chapter 7 Ground Conditions, together with Appendix 7.1 Ground Desk Study.	
Any impacts on the canal from drainage or flood risk should be assessed, in terms of water quality and quantity.	There is no direct runoff to the Ashton Canal. Therefore, no impact is anticipated to the water quality of the canal. This is confirmed in ES Chapter 13 Water Quality, Drainage and Flood Risk.	
The ecological, biodiversity and air quality benefits of SuDs should be measured in the ES.	Rainwater harvesting, permeable paving and treatment before discharge through attenuation tanks have been recommended within Appendix 13.2 Drainage Strategy. This approach is unlikely to lead to any benefits to ecology, biodiversity or air quality, which is confirmed within ES Chapter 13 Water Quality, Drainage and Flood Risk.	
<u>Human Health:</u> - Matters of Air Quality, Transport and Traffic, Flood Risk, Wind, Ground Conditions, Noise and Vibration, Lighting and Socio-Economic effects have been scoped in to due potential significant environmental effects. These matters affect human health and therefore the development is likely to give rise to significant effects on human health that should be evaluated. - This should include consideration of air quality, climate change and quality of life, particularly during the construction process when heavy plant, machinery and dust are likely to be generated, together with noise, disturbance, traffic/transport and air quality during operational phase.	All technical consultants have reviewed and confirmed that their chapters properly consider and reference potential impacts to human health. As agreed with the Local Planning Authority at the meeting on 04/02/2020, effects arising on human health (both adverse and beneficial) are summarised within Chapter 16 Type 1 Cumulative Effects.	DRE

Comment	Response	Responsibility
Climate Change • The ES should consider the impact of the development on climate change through the construction and operational phases and the significance of these impacts needs to be considered through a relevant chapter in the ES. • Matters of Air Quality, Transport and Traffic, Flood Risk, Wind, Ground Conditions and Socio-Economic effects have been scoped in to due potential significant environmental effects. These matters affect climate and therefore the development is likely to give rise to significant effects that should be evaluated. • A broader approach and methodology for assessing impact. Impacts and potential mitigation from other technical chapters should feed into this, particularly around management of surface water, waste management, social value, green and blue infrastructure, biodiversity and ecology, travel planning and efficiency of building fabric and use of renewable energy promoting a low carbon development / reducing emissions.	A Climate Change Chapter is included within the Environmental Statement; it is acknowledged that much of the content will be based on technical assessment covered on other reports. The Chapter is based on the following scope of assessment, which was agreed with the LPA at a meeting on 04/02/2020: 1. Operational energy – within scope; this draws from the Energy Statement for regulated energy (Part L calculations) and an estimate of unregulated energy, based on the latest data available. 2. Embodied carbon – within scope; carbon associated with the product and construction stages. In-use, End of Life and Benefits beyond the System Boundary are scoped out of the quantitative assessment but considered qualitatively to set guiding sustainability principles for the design development and construction processes. 3. GHG emissions associated with Transport – not within scope; carbon emissions associated with operational transport have not been assessed as actual modal split is highly dependent on customer and staff behaviour. Instead, a Travel Plan and Transport Assessment is submitted setting out how physical and operational interventions will be adopted to encourage sustainable modes of travel. Emissions will be monitored through the Travel Plan. 4. Climate resilience – a summary of effects in relation to the adaptability of the development to climate change factors from the other Environmental Statement chapters and standalone Sustainability Statement are presented as relevant. In terms of significance of impacts, how these are assessed is an on-going topic of debate in the industry. IEMA guidance is that any GHG is significant, so consequently GHG emissions from new development will automatically be globally significant. However, there is no industry	Buro Happold

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	consistency on interpreting whether it is locally significant. The assessment therefore also includes a conclusion to demonstrate the result within the context of Manchester's carbon budget. The chapter also cross-refers to wider beneficial effects, such as: • Green and Blue Infrastructure. • Socio-economic effects. • Drainage / SUDs.	