



Environmental Statement Volume 2: Appendices

At Former Particular Baptist Chapel,
35 Rochdale Road, Manchester

On behalf of City Point Residences Ltd

February 2025

Appendices (Volume 2)

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1.1 SCOPING REPORT



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Environmental Impact Assessment – Scoping Report

At Former Particular Baptist Church,
35 Rochdale Road, Manchester

On behalf of [City Point Residences Ltd](#)

October 2024

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1. INTRODUCTION

- 1.1 This report presents a request to Manchester City Council to adopt an Environmental Impact Assessment (EIA) Scoping Opinion for a residential-led development proposed at land known as the Former Particular Baptist Church at 35 Rochdale Road, Manchester, hereafter referred to as the 'site'.
- 1.2 This EIA Scoping Report has been prepared in order to obtain an Environmental Impact Assessment Scoping Opinion from the Council in accordance with Part 4 of the Town and Country Planning (EIA) Regulations 2017 (as amended) hereafter referred to as 'the EIA Regulations'.
- 1.3 The applicant intends to submit a full planning application in late autumn 2024. A full description of the proposed development, including the anticipated quantum, is provided in Section 3 of this report.
- 1.4 A number of environmental baseline studies, assessments and reports have commenced and are at various stages of production. These studies have informed this report where appropriate and support the conclusions of this Scoping report with technical input. The final environmental reports will be submitted as part of the full planning application to be made available in due course. A proposed list of documents to support the planning application is provided at Appendix B.
- 1.5 Under Part 4 Regulation 15(2), the applicant making the scoping request must provide the following information:
- A plan sufficient to identify the land;
 - A brief description of the nature and purpose of the development, including its location and technical capacity;
 - An explanation of the likely significant effects of the development on the environment; and
 - Such other information or representation as the person making the request may wish to provide or make.
- 1.6 Regulation 15(5) requires the planning authority to adopt a Scoping Opinion within 5 weeks of receiving the request for a Scoping Opinion from the applicant.

Regulation 15(6) requires the authority to take into account the following information:

- a. any information provided by the applicant about the proposed development;
- b. the specific characteristics of the particular development;
- c. the specific characteristics of development of the type concerned;
and
- d. the environmental features likely to be significantly affected by the development.

REQUIREMENT FOR ENVIRONMENTAL IMPACT ASSESSMENT

- 1.7 The EIA Regulations set out projects that require an EIA in Schedule 1, and projects that may require an EIA are set out in Schedule 2. The proposed development is not Schedule 1 development.
- 1.8 Schedule 2 relates to development, other than exempt development, of a description mentioned in column 1 of the table in Schedule 2 of the EIA Regulations, where *“Any part of the development is to be carried out in a sensitive area; or any applicable threshold or criterion in the corresponding part of column 2 of that table is respectively met or exceeded”*.
- 1.9 With regards to the first criteria for a Schedule 2 development, according to the EIA Regulations, a “sensitive area” relates to any of the following:
 - “Land notified under section 28(1) (sites of special scientific interest) of the Wildlife and Countryside Act 1981;
 - A National Park within the meaning of the National Parks and Access to the Countryside Act 1949;
 - The Broads;
 - A property appearing on the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage;

- A scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979;
- an area of outstanding natural beauty designated as such by an order made by Natural England under section 82(1) (areas of outstanding natural beauty) of the Countryside and Rights of Way Act 2000 as confirmed by the Secretary of State; or
- A European site"

1.10 The site itself does not contain any of the designations outlined above, therefore it does not constitute a sensitive area.

1.11 The proposed development falls under Category 10b (infrastructure projects) of the table set out in Schedule 2. The following criteria set out in Column 2 of Schedule 2 apply:

- "The development includes more than 1 hectare of urban development which is not dwellinghouse development; or
- The development includes more than 150 dwellings; or
- The overall area of the development exceeds 5 hectares."

1.12 The proposed development does not exceed any of these thresholds.

1.13 Planning Practice Guidance (PPG) (2016, as amended) clarifies that it should not be presumed that developments below the relevant thresholds could never give rise to significant effects. Each development must be considered on its merits.

1.14 Following pre-application discussions with senior officers at the Council, it is accepted that an Environmental Statement is required.

CONSULTATION TO DATE

1.15 The project team have engaged in pre-application discussions with the Council and these continue to progress. A detailed planning application will be submitted to the Council in late autumn 2024.

- 1.16 Public consultation has begun prior to submitting this scoping report, well in advance of any planning application. Feedback received as a result of the consultation exercise will be compiled and reported on within the final Environmental Statement.

STRUCTURE OF THE SCREENING REPORT

- 1.17 The remaining sections of this Screening Report are set out as follows:
- **Section 2** describes the site, surrounding area and the proposed development;
 - **Section 3** sets out the planning policy framework;
 - **Section 4** describes the overall approach and methodology for the EIA at a high level;
 - **Section 5** sets out which environmental topics will not require detailed assessment and are therefore scoped out of the EIA;
 - **Section 6** provides a description of the environmental topics that are to be addressed by the EIA; and
 - **Section 7** provides the conclusions of this report that constitutes the formal scoping request made to the Council for a Scoping Opinion.

2. SITE AND SURROUNDINGS

THE EXISTING SITE

- 2.1 The proposed development site is c. 800sqm and is located within North Manchester, approximately 188m from the city centre boundary. The site comprises the former Particular Baptist Church and its curtilage which includes a car park to the north-eastern side. The plot is also known as 35 Rochdale Road. It is edged by Rochdale Road to the south-east; Sharp Street to the north-east; and Dyche Street to the north-west. The adjacent plot to the south-west is vacant and has consent for the development of a Travelodge.

THE SURROUNDING AREA

- 2.2 The area surrounding the site accommodates a range of uses including residential, hotel and commercial. Scales vary from the six storey residential apartments on Dyche Street to the 19 storey residential apartments opposite the site to the southern side of Rochdale Road.
- 2.3 There is a Co-op convenience foodstore 160m from the site. The site is less than 200m from the closest part of the city centre which offers a range of employment, leisure, retail and services.
- 2.4 Bus stops on Rochdale Road are adjacent to the site, with services into the city centre, to Manchester Royal Infirmary, Bury Interchange, Middleton Bus Station and North Manchester General Hospital. The site is 400m from Shudehill bus station and 800m from Manchester Victoria Railway station.

DESIGNATIONS

- 2.5 There are no ecology or environmental designations covering the site and it predominantly consists of built form and hardstanding. There are no trees on the site or on adjacent sites that could be affected by the development.
- 2.6 The site is located within the Air Quality Management Area which covers Manchester city centre. There is potential for the exposure of future occupants to poor air quality and for emissions generated by the site during operation to increase pollution levels in this sensitive area.

- 2.7 The site is located in Flood Risk Zone 1.
- 2.8 The site is not protected by any built heritage designations; it does not contain any statutorily listed buildings, nor does it lie within a Conservation Area. At the time of writing, the Council do not have a local list of heritage assets, however the existing building is considered to be a non-designated heritage asset due to its local historic and architectural interest.

PLANNING HISTORY

- 2.9 The planning history of the site is limited. Consent was granted in August 2024 for the temporary change of use of the premises from place of worship to storage and distribution (ref 139072/FO/2024).

THE PROPOSED DEVELOPMENT

- 2.10 At present, the proposed development described here should be considered to be indicative only and will develop further during the design process and whilst the EIA is progressed.
- 2.11 The Scoping Report provides a mechanism for consulting on and agreeing the content and methodology of the ES at an early stage in the process. Definition of the scope is dependent upon the current state of knowledge about the design of the proposed development and how it is proposed to be implemented.

PROPOSALS FOR THE SITE

- 2.12 It is proposed that full planning permission is sought for a residential-led development of 23 storeys, providing up to 135 dwellings (Use Class C3) and with a separate commercial unit forming part of the ground floor. Amenity areas are to be incorporated. The proposals involve the partial retention of the church including its front elevation and partial returns. The intention is to retain and/or rebuild the barrel vaulting and ideally the roof structure also.

2.13 The draft description of development is:

“Partial demolition of rear of existing building and erection of residential tower of 23 storeys comprising up to 135 dwellings with ground floor commercial unit (Use Class E) with associated works”.

2.14 Appendix A provides the Site Location Plan.

2.15 Detailed development plans and a Design and Access Statement submitted in support of the detailed planning application will establish detailed information about the design of the proposed development.

DEMOLITION AND CONSTRUCTION

2.16 The construction phase is to include demolition and site enabling works.

2.17 It is anticipated that the development could commence during Q3 2025 following the grant of planning permission and the construction programme would take 18 months.

QUANTUM OF DEVELOPMENT

2.18 The proposed development includes up to 135 residential apartments (Use Class C3); a ground floor commercial unit of approx. 90 sqm.; and indoor and outdoor residents' amenity spaces.

2.19 The proposed development will take the form of single building of 23 storeys in height.

2.20 The proposed development will be car-free, reflecting its sustainable location, proximity to the City Centre and accessibility by public transport.

3. PLANNING POLICY FRAMEWORK

- 3.1 A planning policy context chapter will be included within the ES to assess the proposals against relevant planning policy. Each of the technical chapters contained within the ES will include references to relevant national, regional and local planning policy and guidance document as relevant.

NATIONAL PLANNING POLICY

- 3.2 The ES will have regard to the National Planning Policy Framework (NPPF) (December 2023), which sets out the Government's planning policies for England and how these should be applied.
- 3.3 The ES will also have regard to the Planning Practice Guidance (PPG) where relevant. The PPG is a web-based resource which brings together planning guidance on various topics into one place.

LOCAL AND REGIONAL PLANNING POLICY AND GUIDANCE

- 3.4 The ES will have regard to the planning policies set out in the Council's Local Development Framework Core Strategy Development Plan (July 2012) that are relevant to the proposed development and the saved policies of the Unitary Development Plan for the City of Manchester (1995).
- 3.5 The ES will also have regard to the Places for Everyone Plan (2024) which is a joint document forming part of the statutory development plan for the nine PfE authorities including Manchester.
- 3.6 Other supplementary planning documents that may be relevant to the proposed development include the Guide to Development in Manchester Supplementary Planning Document and Planning Guidance adopted April 2007; and Providing for Housing Choice – Supplementary Planning Document and Planning Guidance adopted September 2008.

SITE ALLOCATIONS AND DESIGNATIONS

- 3.7 The site is not allocated nor is it located within an area covered by a Strategic Regeneration Framework. It is adjacent to Zone A of the New Cross area, which is

located on the opposite side of Rochdale Road, and benefits from a Neighbourhood Development Framework document.

4. PROPOSED APPROACH TO EIA

PURPOSE

- 4.1 The purpose of an EIA is to predict the effect of a proposed development on its surrounding environment and, where appropriate, to identify, evaluate and develop methods to mitigate significant effects.
- 4.2 An EIA is conducted by establishing baseline conditions for a number of topic areas and comparing these with the conditions that are predicted to occur were the scheme to be constructed and operated, to identify likely changes in environmental conditions. Environmental effects on sensitive and valued receptors (e.g. people, built resources and natural resources) as a result of the changes are then predicted and their significance determined.
- 4.3 The output of the EIA is an ES that is submitted with the planning application. A robust ES will allow the planning authority to make an informed decision on the scheme in terms of its environmental effects.

SCOPE OF THE ASSESSMENT

Technical Scope

- 4.4 The range of environmental topics to be addressed in the ES is referred to as the technical scope. Schedule 4 of the EIA Regulations notes that an ES should describe the *“factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing) water (for example hydro-morphological changes, quantity, and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape”*.
- 4.5 The following topics are those considered for inclusion in the Environmental Impact Assessment. The proposed scope and methodology of each chapter is set out in Section 5.

- Daylight and Sunlight

- Greenhouse Gas Emissions
- Heritage
- Socio-Economics
- Townscape and Visual Impact Assessment
- Wind Microclimate
- Air Quality

4.6 A number of topic areas are proposed to be scoped out of the ES. These are set out in Section 5.

Geographic Scope

4.7 The EIA covers the physical extent of the site as shown in Appendix A. The influence of predicted impacts can extend beyond the immediate site boundary. Where relevant, the geographic scope of each proposed topic area is set out within the scope of each topic area.

Temporal Scope

4.8 The temporal scope for the proposed development is considered to include enabling works including demolition, construction works and the operation of the proposed development.

4.9 As set out in Section 2, it is anticipated that the development could commence during 2025, and be complete in 2027. The programme for the construction works will be confirmed within the ES and will be assessed appropriately as part of the technical assessments.

Baseline and Future Baseline Scenario

4.10 The existing baseline conditions will be reviewed, including the identification of existing receptors (2024).

4.11 The future baseline is the year of completion (without the proposed development in place). This baseline will describe how environmental conditions may change if

no development on the site came forward by the time the proposed development is anticipated to be fully operational. Consideration of such a baseline will allow for an appreciation of how environmental conditions could change over time without the proposed development in place, and whether any receptor sensitivities could change (for example, become more sensitive). There will also be a review of any future receptors approved in the way of a separate planning consent.

CUMULATIVE SCOPE

4.12 The potential cumulative impacts of the development in association with other development, both during construction and on completion, will be included where relevant as required by Schedule 4, Part 5, Paragraph 4(e) of the EIA Regulations.

4.13 As a threshold, the developments that will be considered within the assessment of inter-project cumulative effects are:

- Those submitted for planning via a planning application, permitted/with a resolution to grant permission or under construction;
- Schemes within c. 300m of the site, roughly within the bounds of Oldham Road to the south, the railway line to the north, Hinton Street to the east and Dantzie Street to the west; and
- Those schemes with 100 or more residential units or 10,000 square metres or greater Gross External Area (GEA).

4.14 Table 4.1 provides the list of proposed cumulative developments.

Table 4.1: Proposed Cumulative Developments

Site Name	App ref.	Description	Status and programme
Approved			
Land Bound By Gould Street, Williamson Street, Bromley Street And Bilbrook Street Manchester M4 4DD	139811/ NMC/ 2024	Erection of 9 buildings ranging from 8 to 34 storeys in height to form 1202 residential apartments (Use Class C3a) and ground floor commercial uses (Use Class E) (192 sqm) together with associated car parking, new vehicular and pedestrian access, public realm,	Application approved December 2023

		landscaping and other associated works following demolition of existing structures and buildings Subsequent NMA ref 128248/FO/2020 approved April 2024	
87 Rochdale Road Manchester M4 4HY	136574/ NMC/ 2023	Original application consented February 2022 for the erection of a part 11, part 13 storey building to form residential apartments (Use Class C3a) together with the erection of two blocks of 3 storey duplexes (Use Class C3a) to form 237 residential homes in total with associated commercial floor (Use Class E) (132 sqm), basement car parking, landscaping and public realm, and associated engineering and infrastructure works following demolition of existing buildings and structures Subsequent NMA ref 131708/FO/2021 approved March 2023	Application approved February 2022
25 Rochdale Road Manchester M4 4HT	127537/ FO/ 2020	Erection of a 11 storey 229 bedroom hotel (Use Class C1) with ancillary ground floor bar / restaurant together associated public realm and other associated works, approved October 2020 Subsequent NMA ref 138248/NMC/2023, approved October 2023	Confirmation of lawful start ref 138365/LE/2023, dated December 2023

4.15 The status of each of the schemes will be reviewed again prior to the preparation of the ES. If any of these developments are deemed to be fully constructed, occupied and operational at the time of the ES, they will instead be considered as part of the baseline assessment, as opposed to a cumulative scheme.

4.16 As a matter of good practice, an EIA should ordinarily consider those schemes that have been submitted for planning ahead of the scheme being assessed. In doing so, each ES submitted to the local authority will present a cumulative effects assessment which evolves as each application comes forward. However, it is acknowledged that in some instances certain schemes are submitted at a very similar time and we would therefore welcome feedback in this regard from the Council i.e. on any other schemes anticipated for planning submission in Q4 2024 that should be considered in the inter-project cumulative effects assessment.

- 4.17 As part of the scoping opinion, we request that the Council agree the cumulative developments to ensure the assessment meets expectations.

DEFINING SIGNIFICANCE

- 4.18 The ES will report on those environmental effects arising from the proposed development that are considered likely to be significant. There is no statutory definition for what is significant, but in many cases, there are accepted methods for quantifying effects and determining the threshold of significance.
- 4.19 Where a more qualitative approach is needed, a significant effect can be defined for the purposes of the assessment as an effect which, either in isolation or combination with others, should be taken into account in the decision-making process. Where there are professional institute-specific guidelines for assessment methodologies, these will be followed and are briefly set out under the relevant disciplines in Section 6 of this report. Where there is no specific guidance, there will be a consistent approach to determination and in terminology, as set out below.
- 4.20 Receptor sensitivity will be defined as high, moderate, low or negligible and magnitude of change will be defined as large, medium, small or negligible. Significance of effect will then be determined using the following matrix. The classification of the effect will also consider the permanence, duration, frequency, direct, adverse, neutral or beneficial effect.
- 4.21 A significant effect is one which is judged as moderate or major. Where there is a level of subjectivity, professional opinion will be used by the assessment author.

Table 4.2: Matrix for determining effect significance

	Receptor Sensitivity/Importance			
Magnitude of change/impact	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Minor	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

MITIGATION AND RESIDUAL EFFECTS

- 4.22 During the EIA, there will be an ongoing design process to ensure that mitigation of any likely environmental effects is designed in to the proposed development.
- 4.23 Proposals for mitigation will consider the following hierarchy:
1. Avoidance of significant effect;
 2. Reduction of the impact;
 3. Finding a way to reverse/repair the effect; and
 4. As a last resort, compensation.
- 4.24 The residual effects will then be assessed using the same matrix as above, taking account of any mitigation proposed. Assuming mitigation applied, effects will then be classified as not significant (generally effects considered minor or negligible) or still significant (generally effects considered to be moderate or major). The residual effects will be presented within each individual topic chapter and summarised in a chapter entitled residual effects and conclusions.

CUMULATIVE EFFECTS

- 4.25 Cumulative effects are the combined effects of several development schemes in conjunction with the proposed development, which may on an individual basis be non-significant but may cumulatively have a significant effect.
- 4.26 Cumulative effects can occur either as interactions between multiple effects of the proposed development on one receptor (intra-project effects) or through the effect of multiple development schemes on a receptor (inter-project effects).
- 4.27 The effects presented within each technical chapter will be reviewed to identify the potential for interactive effects and therefore cumulative effects. Where there is more than one effect on a particular receptor, the cumulative effect will be determined and if found to be significant, further mitigation will be proposed if necessary. This review of intra-project cumulative effects will be set out in the Cumulative Effects ES chapter.
- 4.28 Only residual impacts classified as being of minor, moderate or major significance will be considered in relation to the potential for the combined effects of individual

impacts. Residual impacts of negligible significance will be excluded from the assessment of their combined effects by virtue of their definition.

DEVELOPMENT ALTERNATIVES

- 4.29 The EIA process provides an opportunity to influence the design evolution of a development taking potential environmental constraints and opportunities into consideration before a final decision is taken on design. The ES will include a chapter considering the main alternatives in the design process.
- 4.30 Planning policy at all levels recognises the need for housing of a range of types particularly on brownfield sites within the urban area. This is reflected in the NPPF, Places for Everyone and the Manchester Core Strategy. As such, a detailed assessment of the need for the housing use and consideration of alternative sites is not considered necessary for the scope of this EIA.
- 4.31 It is proposed that the alternatives and design evolution section of the ES will consider the 'do nothing' option, which assumes the continuation of the site as a vacant building. Secondly, an 'alternative designs' scenario will summarise the evolution of the submitted design proposal.

PROPOSED STRUCTURE OF THE ES

- 4.32 The ES for the proposed development will comprise the following documents:
- Environmental Statement Volume 1: Main Document
 - Environmental Statement Volume 2: Appendices
 - Environmental Statement Volume 3: Non-Technical Summary
- 4.33 Volume 1 will be structured into the following chapters.
- **Chapter 1:** Introduction, prepared by Zerum
 - **Chapter 2:** The Site, prepared by Zerum
 - **Chapter 3:** Alternatives and Design Evolution, prepared by Zerum
 - **Chapter 4:** The Proposed Development, prepared by Zerum

- **Chapter 5:** Planning Policy, prepared by Zerum
- **Chapter 6:** Methodology, prepared by Zerum
- **Chapter 7:** Daylight/Sunlight, prepared by WSP
- **Chapter 8:** Greenhouse Gas Emissions, prepared by Buro Happold
- **Chapter 9:** Heritage, prepared by Stephen Levrant Heritage Architecture
- **Chapter 10:** Townscape and Visual Impact Assessment, prepared by RBMP
- **Chapter 11:** Socio-Economics, prepared by Buro Happold
- **Chapter 12:** Wind, prepared by WSP
- **Chapter 13:** Air Quality, prepared by Redmore Environmental
- **Chapter 14:** Cumulative and Interactive Effects, prepared by Zerum
- **Chapter 15:** Residual Effects and Conclusions, prepared by Zerum

5. NON-SIGNIFICANT ISSUES TO BE SCOPED OUT

- 5.1 This section of the EIA Scoping Report describes the topics that do not have the potential for significant environmental effects to arise from impacts associated with the proposed development, and consequently are proposed to be scoped out of the EIA. These topics may be supported by standalone reports to support the planning application. A full list of proposed reports is provided at Appendix B.

AVIATION

- 5.2 The site is within an urban area in the fringe of Manchester City Centre, where there are many other existing buildings of a similar or taller height. The proposed development is 23 storeys, and is therefore unlikely to be an aviation safeguarding challenge.

ARCHAEOLOGY

- 5.3 Based on the information within the Greater Manchester Historic Environment Record, supplemented by historic mapping and documentary research carried out by Orion Heritage, the study site is considered to have a low potential for archaeological remains dating to all periods. It is likely that any archaeological deposits would be of local importance only.
- 5.4 It is therefore considered that this topic can be scoped out of the ES. An Archaeological Desk-Based Assessment prepared by Orion Heritage will support the planning application.

ECOLOGY

- 5.5 Due to the site's characteristics and location, it has limited potential to support protected species and there are no protected or sensitive habitats on the site or within its immediate vicinity. There are no statutory or non-statutory nature conservation designations on the site. There are unlikely to be any direct or indirect impacts from the proposed development on any statutory designated sites during construction and operational phases. The proposed development will therefore not have significant environmental impacts.
- 5.6 A bat survey has been undertaken to support the planning application.

FLOOD RISK AND DRAINAGE

- 5.7 The site is located entirely within Flood Risk Zone 1 as defined by the Environment Agency Flood Risk Map for Planning. The site is below 1 hectare and therefore a Flood Risk Assessment is not required to support the planning application.
- 5.8 Due to the size of the site and given that the proposals do not exceed Schedule 2 thresholds, it is expected that the project would not have significant effects on the environment. A drainage strategy will be submitted to support the planning application as a standalone report.

GROUND CONDITIONS

- 5.9 The ground conditions of this project are considered unlikely to lead to significant environmental effects due to the size of the site. This topic can be excluded from the ES and evidence provided in a standalone report to support the planning application.

HIGHWAYS

- 5.10 SK Transport have been instructed to advise on the transport implications of the proposal, and have prepared the following inputs which comprise the Transport Assessment Scoping Report.
- 5.11 This Transport Assessment (TA) Scoping Report has been prepared to set out the method that will be used to assess the development for the planning application. The TA Scoping Report has been prepared in line with the guidance/policy set out in the following documents:
- Chartered Institution of Highways & Transportation (2019), Better planning, Better transport, Better places
 - Department for Levelling Up, Housing & Communities (2023), National Planning Policy Framework
 - Department for Levelling Up, Housing & Communities (2023), Planning Practice Guidance
 - Greater Manchester Combined Authority (2024), Places for Everyone Joint Development Plan 2022 to 2039
 - Manchester City Council (2007), The Guide to Development in Manchester SPD

- Manchester City Council (2012), Core Strategy
- Transport for Greater Manchester (2013), Transport for Sustainable Communities
- Transport for Greater Manchester (2017), Greater Manchester Transport Strategy 2040
- TRICS (2023), TRICS Good Practice Guidance 2024

5.12 Consideration is also given to the environmental effects of the proposed development as part of the EIA Scoping submission. The assessment has been undertaken in line with the following guidance:

- Institution of Environmental Management and Assessment (2023), Environmental Assessment of Traffic and Movement (Rev07).

Development Proposal

5.13 The development comprises of a residential block with up to 135 apartments and circa 90sqm of commercial space.

5.14 The principal entrances to the building are provided from Rochdale Road with secondary access points to the cycle and bin stores provided from Dyche Street.

5.15 The applicant will fund the reinstatement of any redundant access points and the re-surfacing of footways bounding the site.

5.16 The building line is set back and footways widened on the frontages providing access to the site to provide the following minimum widths:

- Rochdale Road: 4.5m
- Dyche Street: 2.5m

5.17 The Sharp Street footway is retained at its existing width (1.5m) which is the absolute minimum width permitted by the Department for Transport's (DfT) guidance as it allows a wheelchair and walker to pass each other (Department for Transport (2021), Inclusive Mobility). As noted above, the footway will be resurfaced and the redundant access point reinstated, so the development will provide a material betterment on the pedestrian route.

- 5.18 The development will provide cycle parking spaces at a rate of 50% in a store at the ground floor of the building. Visitor cycle parking will be provided externally (two sheffield stands). In line with Department for Transport (DfT) guidance the short-stay, visitor cycle parking will be uncovered (Department for Transport (2020), Cycle Infrastructure Design LTN 01/20).
- 5.19 The site is car free and no car parking will be provided on site for residents. The appropriateness of the site for car free living is considered later in the report.
- 5.20 The Council's parking policy allows Blue Badge holders to park for free and unlimited duration in street parking bays across the city. There are parking spaces on Sharp Street and on Dyche Street that could be used by Blue Badge holders. It is also understood that the consented hotel development (ref: 127537/FO/2020) to the west of the site will modify the street parking bays on Dyche Street to provide two disabled parking bays and a loading bay.
- 5.21 The refuse store is located on the Dyche Street frontage. Refuse and service activity will be focused on this frontage and will be able to utilise the changes to the TRO proposed by the hotel development, which includes the provision of a white lined loading bay. If the hotel development does not come forward then the applicant will fund the required changes to the TRO to replicate the loading bay proposal.
- 5.22 A Travel Plan will be included with the TA for the planning application. The Travel Plan will outline measures that will be used to support and provide for active and sustainable trip making. The Travel Plan will also set out delivery and servicing strategy measures.

Baseline Context

Site Location

- 5.23 The site location is shown on Figure 5.1.
- 5.24 The site sits within the city centre boundary. The site is bounded to the north-west by Dyche Street, to the north-east by Sharp Street, to south-east by the A664 (Rochdale Road) and by a consented hotel development (ref: 127537/FO/2020).



Figure 5.1: Site Location

[source: [OpenStreetMap Foundation](#) licensed under the [Open Database License](#)]

Baseline Site use

- 5.25 The site is currently occupied by a former Baptist Church building (Use Class: F.1 Place of Worship) and the building has a floor area of circa 400sqm. The building is currently vacant.
- 5.26 There are two vehicle accesses to the site, with primary access taken from Sharp Street and secondary access taken from Dyche Street.
- 5.27 A planning application was lodged in 2024 for the temporary use of the site for industrial uses (Use Class: B2 and B8) under planning reference 139072/FO/2024. Vehicle access to the temporary use is retained from Sharp Street. The planning application was granted consent in August 2024.

Transport Network Audit

- 5.28 Dyche Street is located on the northwestern boundary of the site and provides a one-way route from Sharp Street to Ludgate Street. Dyche Street has a 5.5m wide carriageway and 1.7m footway on the site boundary. Build-out features are in place on the route outside the site to calm traffic. The road is street lit and is subject to a 20mph speed limit.
- 5.29 Sharp Street is located on the northeastern boundary of the site and provides a two-way link from Rochdale Road. In the vicinity of the site, Sharp Street is 5.5m wide carriageway and a 1.5m footway on the site side of the road. The road is street lit and is subject to a 20mph speed limit. Sharp Street meets Dyche Street at a priority junction with tactile paving and dropped kerbs.
- 5.30 Rochdale Road (A664) is located on the southeastern boundary of the site and is one of the Key Route Network routes into Manchester city centre. Close to the site, Rochdale Road provides two lanes of traffic in each direction and has 2.6m and 3m wide footway on the site side of the road. The road is street lit and is subject to a 30mph speed limit. Access to Sharp Street is provided from a priority junction from Rochdale Road. Tactile paving and dropped kerbs are provided at the junction.
- 5.31 65m to the northeast of the site a signalised crossing is provided at the Rochdale Road/Thompson Street junction. 75m to the southwest of the site signalised crossing facilities are in place at the junction of Rochdale Road/Addington Street.

Traffic Regulation Order Review

- 5.32 TRO controls are in place on Dyche Street and Sharp Street in the form of double yellow line controls and street parking bays. The street parking bays are restricted to two hours stay between 8am and 6pm (Monday – Friday) and 8am to 12.30pm (Saturday). There are no loading restrictions on Sharp Street and Dyche Street.
- 5.33 As noted earlier, the consented hotel to the southwest of the site will modify the TRO on Dyche Street to provide two disabled parking bays and a loading bay.

Road Safety Data

- 5.34 The TfGM database has been used to establish collision patterns over the most recent five-year period available (<https://www.gmtu.gov.uk/gmaccidents/>). The

TfGM database states that the current data is five years to 31st December 2023 and that the next update is due in June 2024. At the time of writing this Note the database had not been updated.

- 5.35 The database shows that there have been no collisions on Dyche Street or Sharp Street. A single collision was recorded at the junction of Sharp Street/Rochdale Road. The collision was classified as slight.

Accessibility Assessment

Active Travel Routes

- 5.36 Figure 3.1 shows the active travel network serving the site from the TfGM website (<https://tfgm.pindarcreative.co.uk>).
- 5.37 The principal building entrance is provided from Rochdale Road, with secondary access points to the cycle store and bin store provided from Dyche Street. The bounding footways providing access to the building will be widened as part of the development. Tactile paving and dropped kerbs are provided at side road junctions and signalised crossing facilities are in place on Rochdale Road 65m to the northeast of the site and 75m to the southwest of the site. Tactile paving and dropped kerbs are in place at the Dyche Street/Sharp Street and Sharp Street/Rochdale Road junctions.
- 5.38 Figure 3.1 shows that the streets to the north of the site are all 20mph zones and therefore create a suitable environment for active travel modes. Access from the site can be gained to formal cycle routes on Angel Street, Rochdale Road (N), Dantzic Street, Aspin Street and the Ring Road.

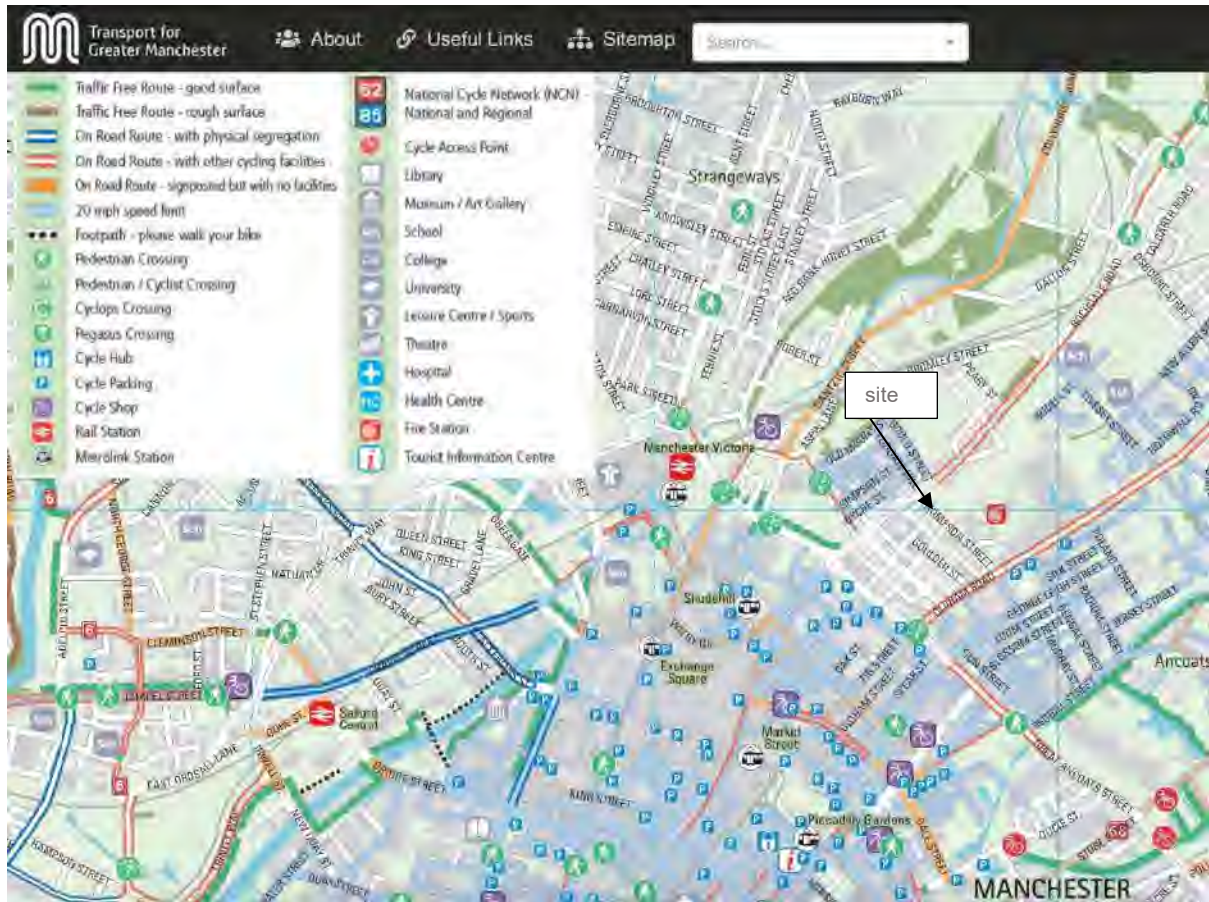


Figure 5.2: Cycle Network

[source: Transport for Greater Manchester]

5.39 Figure 5.3 shows an extract from the Mapping GM website of Bee Network proposals in the area (<https://mappinggm.org.uk/bee-network/>). This shows that a new route will be provided from the Cheetham Hill Road to New Islington via Gould Street just northeast of the site.

5.40 The site is also located within the Cycle Hire Scheme Zone (<https://beryl.cc/scheme/greater-manchester>). Bikes are operated by Beryl and are available to hire via a dedicated phone app. The scheme provides pedal bikes and e-bikes across Manchester, Salford, and Trafford.

5.41 The existing walking and cycling infrastructure provide opportunities for active trips to/from the site.



Figure 5.3: Bee Network Proposals

[source: Mapping GM]

Public Transport Routes

- 5.42 Figure 5.4 shows TfGM's public transport network map for the local area (<https://tfgm.com/maps>).
- 5.43 The nearest bus stops to the site are located on Rochdale Road. The stops benefit from shelters, seating, timetable information and boarding facilities.
- 5.44 More bus services can be accessed at Shudehill Interchange which is 350m from the site (just under a five-minute walk).

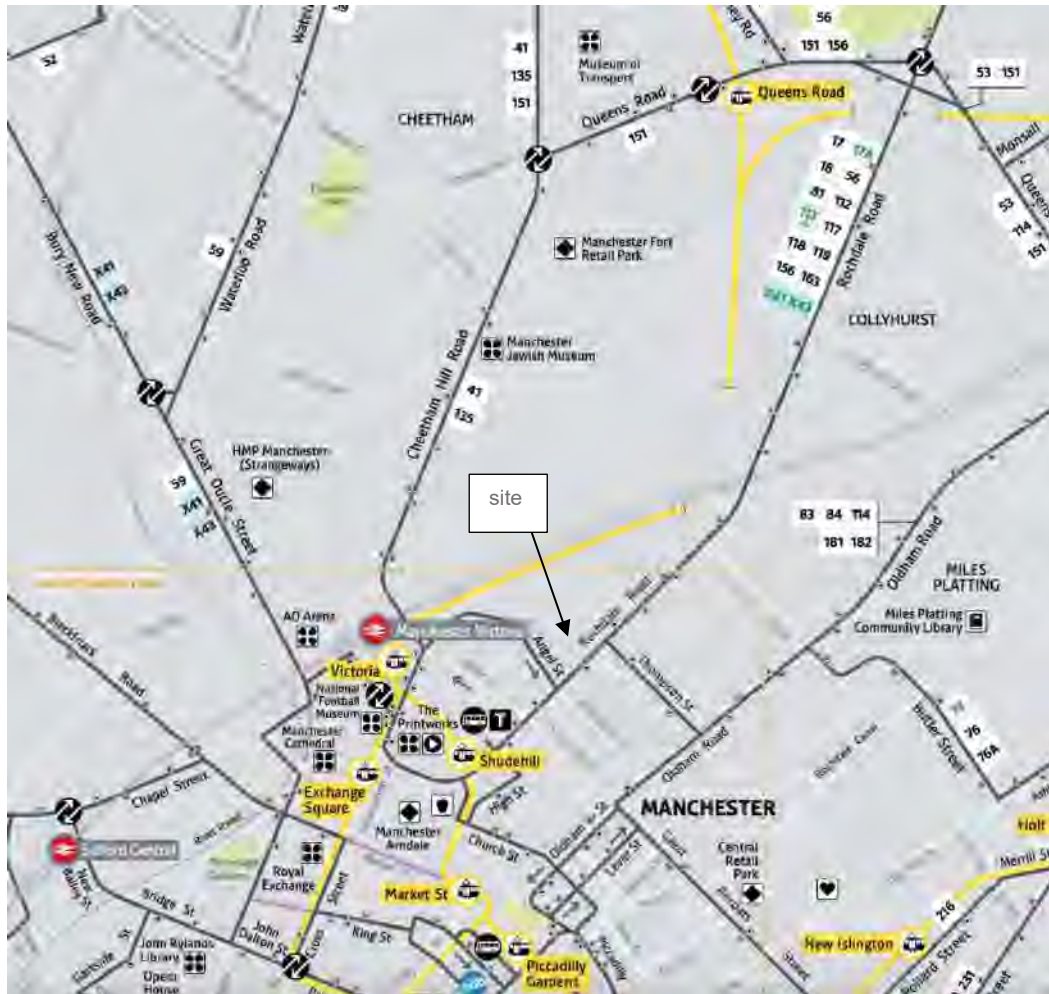


Figure 5.4: Public Transport Network

[source: Transport for Greater Manchester]

5.45 Details of the bus services stopping at the nearest bus stops are provided in Table 5.1. The service details have been replicated from timetables available from the TfGM website at the time of writing this Note (<https://tfgm.com/bus/timetables>).

No.	Route	Monday – Saturday Frequency (minutes)		Sunday Frequency (minutes)	
		Daytime	Evening	Daytime	Evening
17/A	Rochdale – Middleton – Manchester Shudehill	10	10	15	30
18	Middleton – Manchester Infirmary	10	10	15	30
56	Middleton – Manchester Shudehill	30	30	-	-
81	Oldham – Moston – Manchester Piccadilly	10	15	15	30
112	Middleton – Moston – Manchester Piccadilly	15	20	30	30
117	New Moston – Collyhurst – Manchester Piccadilly	60	-	60	60
118	N Manchester Hospital – Moston – Manchester Piccadilly	10	30	15	30
119	Bury – Heaton Park – Manchester Piccadilly	10	20	10	20
156	Middleton – Manchester Shudehill	30	60	60	60
163	Bury – Heywood – Manchester Piccadilly	10	30	30	30

Table 5.1: Bus Services

[source: Transport for Greater Manchester]

5.46 Tram services can be accessed at Shudehill Interchange, 350m from the site (just under a five-minute walk). Metrolink tram services connect the site to other areas of the City Centre, Altrincham, Eccles, East Didsbury, Media City, Ashton, the Airport, Rochdale, Bury, Salford Quays and the Trafford Centre (<https://tfgm.com/public-transport/tram>).

5.47 Train services can be accessed at Manchester Victoria, 800m from the site (10-minute walk). Mainline train services at Victoria station offer coverage of Greater Manchester and beyond (<https://tfgm.com/public-transport/train>).

- 5.48 The assessment confirms that the site is well served by existing public transport services.

Car Club Vehicles

- 5.49 Car clubs provide people that work in the city centre with an opportunity to borrow a car if they need one during the course of the working day, meaning that they do not have to commute in their own car.
- 5.50 Car clubs enable members to benefit from pay-as-you-go low cost, convenient and greener motoring, and a more sustainable pattern of living that provides access for ad-hoc vehicle use and negates the requirement to own and store a car.
- 5.51 Enterprise Car Club has vehicles parked across the city (<https://www.enterprisecarclub.co.uk/gb/en/home.html>). The nearest car club vehicles to the site are located on New Mount Street and High Street, 170m/two-minute walk and 500m/six-minute walk respectively.

Accessibility Assessment

- 5.52 One of the principal factors to be considered when assessing the suitability of a site for development is the proximity and connectivity of a site to other destinations on foot and cycle. Access to amenities is considered in terms of 10-minute walk times to local retail facilities, 15-minute walk times to other destinations such as health care, leisure destinations and open space, and 25-minute walk times for commuting or education trips. Figure 5.5 shows walking time catchments from the site.

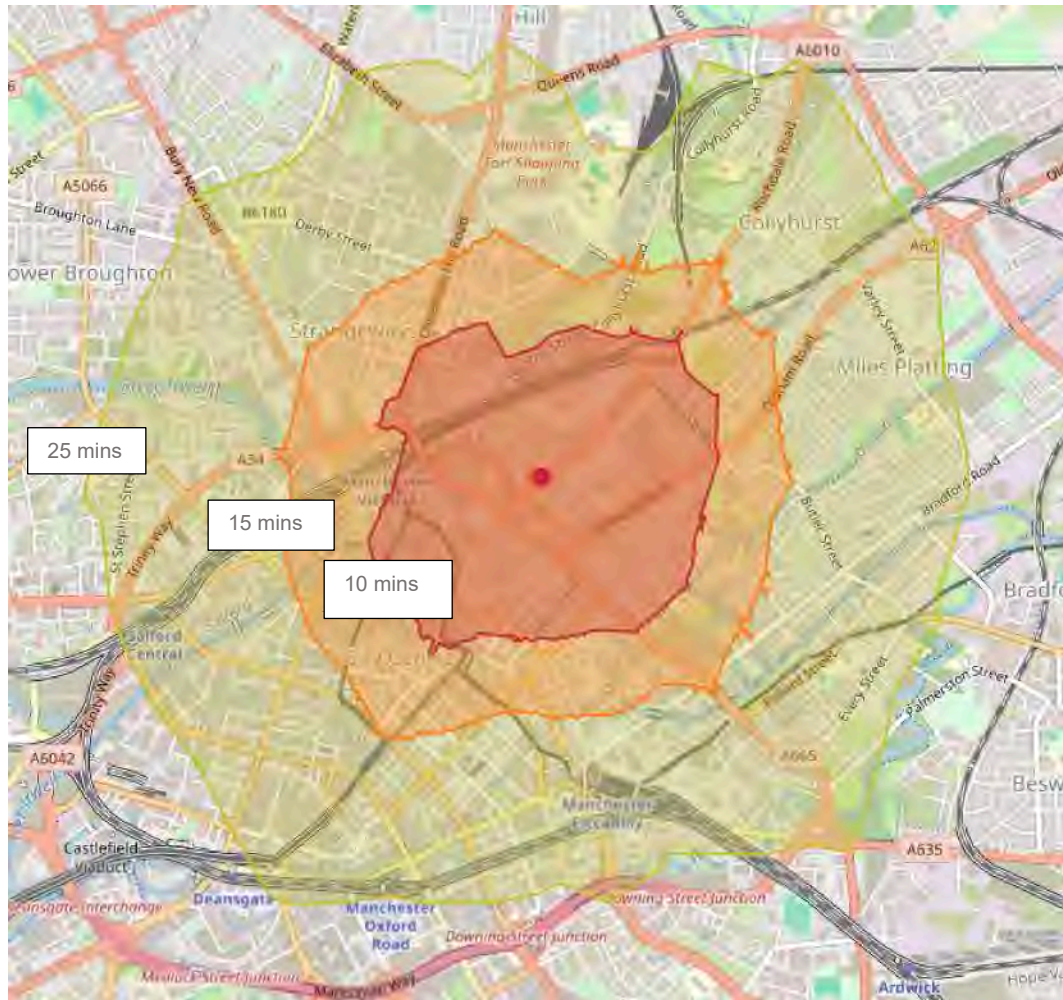


Figure 5.5: Walking Isochrones

[source: [ISO4app](#) and [OpenStreetMap Foundation](#) licensed under the [Open Database License](#)]

- 5.53 Figure 5.5 shows that the site is within a 10-minute walk of Shudehill, New Cross, Ancoats, the Northern Quarter and the Manchester Arndale. It is within a 15-minute walk of the core retail district (Market Street) and Piccadilly Gardens. The site is within a 25-minute walk of all of the city centre, Central Salford, Collyhurst and Cheetham Hill.
- 5.54 The Department for Transport states that cycle trips of 8km have the potential to replace car trips (Department for Transport (2020), Cycle Infrastructure Design LTN 01/20). Figure 5.6 shows an 8km cycle catchment from the site.



Figure 5.6: Cycling Catchment

[source: [ISO4app](#) and [OpenStreetMap Foundation](#) licensed under the [Open Database License](#)]

- 5.55 Based on the assessment, the site is well located for access to a host of services and amenities by active travel modes. Given this it can be expected that active travel will be a dominant mode of travel for future residents at the site.
- 5.56 A Greater Manchester Accessibility Level (GMAL) calculation has been undertaken for the site. A GMAL is calculated using the interactive tool managed and maintained by TfGM (<https://www.gmtu.gov.uk/gmbusroute/GMAL%20Calculation%20Guide.pdf>). This tool measures accessibility by public transport of a point of interest and provides a rate between 1 and 8, where 1 is a poor level of accessibility and 8 is an exceptional level of accessibility usually found in the city centre.

- 5.57 The site has a GMAL of 8 (68.55), which is an exceptional level of accessibility by public transport.

Preliminary Impact Assessment

Assessment Method

- 5.58 TRICS guidance sets out the method that should be used when deriving a suitable sample set for a development proposal (TRICS (2023) TRICS Good Practice Guidance 2024). At section 4 of the guidance (replicated below) it specifically states that the forecast should be based on adjustments to locational and accessibility qualities, rather than regions.
- 5.59 *"Bearing in mind the results of our research, with hard data now being available, it is not considered good practice to exclude survey sites within the TRICS database on the sole basis of such sites being located in a specific region."*
- 5.60 In line with this and as agreed during scoping discussions, no adjustment has been made to the regions in the sample. Instead, the locational parameters have been set to reflect the site's location characteristics (city/town centre).
- 5.61 The site has a GMAL rate of 8 and a score of 68.55. A score of above 40 equates to a PTAL rate of 6b. None of the TRICS sample sites have a PTAL higher than the proposal site.

Trip Generation

- 5.62 The site provides no car parking and in terms of vehicle trips will generate traffic associated with delivery/refuse collection and taxi movements. TRICS now enables users to select sites that have specific service movement surveys, and these survey sites have been selected for the trip generation.
- 5.63 The TRICS output is attached as Appendix A with a summary of peak hour and daily trips provided below.

	Person Trip Rates			LGV Trip Rates			OGV Trip Rates			Taxi Trip Rates		
	(per dwelling)			(per dwelling)			(per dwelling)			(per dwelling)		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM Peak Hour	0.086	0.502	0.588	0.009	0.008	0.017	0	0	0	0.008	0.007	0.015
PM Peak Hour	0.397	0.187	0.584	0.007	0.003	0.01	0	0	0	0.005	0.005	0.01
Daily	2.802	2.759	5.561	0.114	0.111	0.225	0.011	0.011	0.022	0.073	0.073	0.146
	Person Trips			LGV Trips			OGV Trips			Taxi Trips		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM Peak Hour	9	55	65	1	1	2	0	0	0	1	1	2
PM Peak Hour	44	21	64	1	0	1	0	0	0	1	1	1
Daily	308	303	612	13	12	25	1	1	2	8	8	16

Table 5.2: TRICS Trip Rates & Development Trip Generation

5.64 Table 4.2 shows the residual vehicle trips generated by the development.

	Vehicle Trips		
	In	Out	Total
AM Peak Hour	2	2	4
PM Peak Hour	1	1	2
Daily	22	21	43

Table 5.3: Development Vehicle Trip Generation

Impact Assessment

5.65 The site is a brownfield site that will have historically generated traffic onto the highway network. The proposal will extinguish the existing uses on site.

5.66 The trip generation shows that the site will be associated with a minimal level of vehicles in the peak hours. The vehicle trips will be associated with servicing and taxi

movements. Based on the above assessment the development is not anticipated to have an impact on highway operation. Therefore, no traffic surveys will be undertaken, and no junction modelling will be included in the TA.

Parking Effects

- 5.67 The location of the site and type of development is such that residents are less likely to own a car and can readily access key destinations. Given this the development is car free.
- 5.68 Residents with Blue Badges can park in the existing parking bays surrounding the site or can use the disabled bays that are to be delivered on Dyche Street.
- 5.69 The parking assessment reviews the suitability of the site to operate as car free development with no on-site car parking.
- 5.70 The Council does not maintain any parking standards for residential developments and each site is taken on its own merits. However, Policy T2 of the Core Strategy states that developments in the city centre should:
 - 5.71 *"... provide a level of car parking which reflects the highly accessible nature of the location."* (Manchester City Council (2012), Core Strategy)
- 5.72 The accessibility assessment confirms that the site occupies a highly accessible location, with a GMAL of 8, the highest level in Greater Manchester.
- 5.73 To test whether the accessibility level is suitable for car free living, a review has been made of the accessibility of other car free developments consented by the Council in similar locations in the outer areas of the city.

Site	Area	No. of Units	Site Parking Rate	GMAL
One Park Place	Great Ducie Street SRF	273	0%	8
Boddingtons	Great Ducie Street SRF	461	0%	8
Talbot Mill	St Georges	208	0%	7
Port Street	Ancoats	135	0%	8
Crusader Works	Piccadilly	201	0%	8
Bendix Street	New Cross	161	0%	8
Oldham Street	New Cross	144	0%	8
Goulden Street	New Cross	73	0%	8
Proposal Scheme	Rochdale Road	110	0%	8

Table 5.4: Consented Car Free Schemes

5.74 Table 5.4 confirms that the site has the same level of accessibility as other consented car free developments in the outer areas of the city.

5.75 Parking is controlled by existing TRO on the streets adjacent to the site. These controls will remove the practicability of a resident storing a car on-street.

5.76 Based on the above, it is concluded that the site is suitable for car-free living.

Transport Assessment Scope

5.77 Based on the assessment set out above the TA will include the following.

- 1) Baseline Situation
 - Characteristics and location of the site
 - Local transport network review
 - TRO review and plan
 - Road safety analysis
- 2) Proposed Development
 - Pedestrian access arrangements
 - Bounding footway works
 - Cycle parking provision
 - Disabled parking strategy

- Servicing/refuse collection strategy
- Travel Plan summary

3) Accessibility Assessment

- Active travel audit
- Local amenities review
- Public transport accessibility
- Greater Manchester Accessibility Level
- Development strategy
- Policy compliance

4) Impact Assessment

- Person and vehicle trip generation
- Residual traffic impact
- Car free development assessment
- Policy compliance

5.78 A Framework Travel Plan will be prepared for the planning application, and this will be included as an appendix in the TA.

5.79 The TA will include general arrangement layouts of the site access proposals and other localised modifications, Swept Path Analysis, and full details of the development proposal.

EIA Scoping Assessment

Assessment Method

5.80 A preliminary impact forecast and scoping assessment has been undertaken to inform the EIA Scoping Submission.

5.81 The method for assessing the environmental effects of a development is based on the Institute of Environmental Management and Assessment (IEMA) 'Environmental Assessment of Traffic and Movement' guidance published in 2023.

5.82 IEMA recommends that two broad rules of thumb as criteria to assist in delimiting the scale and extent of the environmental assessment.

- Rule 1: include highway links where traffic flows will increase by more than 30% (or the number of HGV will increase by more than 30%).
- Rule 2: include any other specifically sensitive areas where traffic flows have increased by 10% or more.

5.83 IEMA recommends that as a starting point, a 30% change in traffic flow represents a reasonable threshold upon which to base a decision on whether to assess environmental effects in an EIA.

Operational Effects

5.84 Table 5.5 examines the daily development traffic flows in the context of the daily traffic flows on Rochdale Road to allow the IEMA assessment to be undertaken. The existing Rochdale Road traffic flows have been extracted from DfT's Count Database (Count Point: 27447) (<https://roadtraffic.dft.gov.uk/>).

2023 Base AADT Flows	Development Flows	Daily	Percentage Impact
12878	43		0.33%

Table 5.5: Percentage Impact – Development Impact: Operational Phase

5.85 Table 5.5 shows that the proposed development will result in an 0.33% increase in traffic flows on Rochdale Road during the operational phase, well below the IEMA screening thresholds of 30% (Rule 1) and 10% (Rule 2/sensitive locations).

5.86 The assessment set out earlier in this Note shows that the site occupies a highly accessible location that is served by suitable infrastructure to support active and sustainable resident trips.

Construction Effects

5.87 Construction movements are usually limited to regular but low-level traffic volumes over a course of a working day and are comprised of contractor cars, light goods vans, and larger vehicle movements. Construction activity typically occurs prior to the morning peak period and is complete prior to the evening peak period.

5.88 A forecast has been made of the construction traffic that will be generated by the development reference has been made to an agreed method prepared by SK for a site nearby on Park Place (planning ref: 138302/FO/2023). The Park Place development will construct 154 apartments. Table 5.6 shows the daily construction traffic flows associated with the Park Place development.

5.89 The Park Place construction traffic flows have been used to calculate the proposed development construction traffic flows on a pro-rata basis.

Park Place	Proposed Development
Construction Daily Flows	Construction Daily Flows
84	60

Table 5.6: Construction Traffic Flow Generation

5.90 Table 5.7 shows the impact during the construction phase.

2023 Base AADT Flows	Development Flows	Daily	Percentage Impact
12878	60		0.47%

Table 5.7: Percentage Impact – Development Impact: Construction Phase

5.91 Table 5.7 shows that the proposed development will result in an 0.47% increase in traffic flows on Rochdale Road during the construction phase, well below the IEMA screening thresholds of 30% (Rule 1) and 10% (Rule 2/sensitive locations).

Mitigation Measures

5.92 While the development will not generate a level of traffic during construction or the operational phases that exceeds the IEMA screening thresholds, mitigation measures will still be introduced during both phases to assist in enhancing the environmental benefits of the proposal. Examples of these measures are provided below.

- 5.93 A Construction Management Plan will be prepared at an appropriate time in the development process to set out consideration of the measures that will be used to ensure safe, efficient, and environmentally considerate construction practices.
- 5.94 Complementary measures will be provided with the operational phase of the development to support active and sustainable trip making and to reduce the reliance on the private car. These will include:
- Appropriate levels of cycle parking
 - Improvements to bounding footways
 - Resident Travel Plan

Conclusion

- 5.95 The preliminary assessment confirms that the development will not result in environmental effects when considered in the context of the IEMA significance/scoping thresholds. Therefore, a separate ES Transport Chapter is not required for the planning application, and transport can be scoped out of the EIA.
- 5.96 Notwithstanding, a TA will be submitted with an Interim Travel Plan. The TA will include consideration of the environmental effects of the development from a transport and movement perspective in line with best practice guidance.

HUMAN HEALTH

- 5.97 Schedule 3 requires the risk to human health relevant to the proposed development to be considered. Potentially significant effects on human health will be directly or indirectly considered across the technical chapters of the ES, rather than in a dedicated ES chapter.

NOISE & VIBRATION

- 5.98 A Noise Impact Assessment Report is being prepared by Andrew Jameson, BSc(Hons) Acoustics, MIOA, MIET; Director at Jameson Acoustics Limited.
- 5.99 It is noted that the site is surrounded by existing large scale residential properties, some at an equivalent distance from the principal noise source; road traffic on

Rochdale Road. There are no notably noise-generating commercial or industrial premises in the area, and thus noise impacts are solely environmental.

- 5.100 It is considered that adverse environmental noise impacts can be completely removed within proposed dwellings with the inclusion of appropriately specified double glazed windows and suitable ventilation systems, in the context of the area. High performance double glazed windows with mechanical ventilation is likely to be required to apartments overlooking Rochdale Road. The mechanical ventilation solutions will need to be appropriately sized to assist with the overheating strategy, reducing reliance on openable windows in line with the IOA/ANC's 'Acoustics, Ventilation & Overheating' guide and Building Regulations Part O.
- 5.101 The existing chapel will be converted to create amenity spaces, potentially including a co-working space and gym. A gym would have the potential to generate airborne and structure-borne noise (and vibration) from its operation. However, the new building frame forming the apartments will be structurally decoupled from the chapel, mitigating any risks of structure-borne acoustic transfer. Airborne noise emissions will be considered in the noise report, including noise breakout to external receptors, but it is envisaged any risks can be comfortably mitigated through diligent building design.
- 5.102 The ground floor commercial unit shall be designed as a shell only unit (satisfying Building Regulations standards of sound insulation to neighbouring apartments), with prospective tenants made responsible for acoustic upgrades required to mitigate operational noise impacts.
- 5.103 It is considered that noise and vibration associated with the construction of the proposed development can be managed and mitigated effectively via a suitably worded Construction Environmental Management Plan (CEMP), using relatively standard prescriptive methods of noise/vibration control, in the context of the site location. This can be secured via planning condition.
- 5.104 As a result it is considered unlikely that potential significant adverse effects would occur and any potential noise impacts can be fully considered through the planning process through the submission of the Noise Assessment.

- 5.105 The Proposed Development is therefore not considered to have any significant effects in respect of Noise and consequently it is proposed that this topic is scoped out of the ES.

TELECOMMUNICATIONS

- 5.106 The proposed development has the potential to adversely impact the reception of TV transmissions (both digital terrestrial television (DTT - Freeview) and digital satellite television services, such as FreeSat and Sky) in certain areas surrounding the site, in particular the area 'behind' the site with respect to the serving transmitter or serving satellite. These areas are known as 'signal shadow zones'. The main regional DTT transmitter serving the area surrounding the site is the Winter Hill transmitter, located towards the northwest and approximately 24km from the site. This is a main UK DTT transmitter, broadcasting local and national television services in the northwest region.
- 5.107 A TV baseline reception survey will be completed within the various shadow zones created by the built form of the proposed development, using professional reception equipment, connected to calibrated antenna systems. This process will confirm the transmitter serving the surrounding area, as well as the baseline signal strength and quality. The data recorded will allow for a 'before and after' comparison should interference be reported either during the demolition and construction phase or the operational phase of the proposed development.
- 5.108 Any reported TV interference once construction of the proposed development has begun will be investigated. It is not standard practice to apply mitigation in advance because specific instances of interference cannot be easily predicted in such a densely cluttered urban environment. It is also not standard practice to alter plans of a proposed development solely for possible TV interference matters. Any TV interference confirmed to be caused by the proposed development will be mitigated by the developer.
- 5.109 Whilst the proposed development may have the potential to impact TV reception in certain areas around the site, it is not anticipated that there will be significant EIA impacts on telecommunications in the area as a result of the proposed development; therefore, it is proportionate that Telecommunications / Electronic Interference is scoped out of the ES.

- 5.110 No other interference effects to any other wireless technology have been identified. A TV and radio impact reception assessment will be prepared and submitted as part of the planning application, which is a standard document required by the Council to support a planning application submission.

LIGHTING

- 5.111 The proposed development is unlikely to give rise to any lighting impacts which would have a significant impact on the environment due to the size of the site and the characteristics of the surrounding area. Therefore, this is scoped out of the ES.

RISK OF MAJOR ACCIDENTS AND DISASTERS

- 5.112 Given the proposed development's location in the UK, seismic events are rare. Considering the nature of the proposed development, the commitment to building regulations and statutory requirements, a chapter assessing major accidents and or natural disasters is scoped out of the ES.

SUSTAINABILITY

- 5.113 Standalone reports including the Circular Economy and Environmental Standards reports are proposed to be submitted with the planning application. A Greenhouse Gas Emissions ES Chapter is also proposed which will assess the greenhouse gas emissions associated with the construction and operation phases of the proposed development.

UTILITIES

- 5.114 Due to the size of the site and the fact that the proposal falls below the relevant thresholds, it is not expected that the proposed development would have significant environmental effects.

WASTE

- 5.115 Waste during the construction phase will be covered in a standalone Construction and Environmental Management Plan to be submitted with the planning application or secured via condition, and by a Waste Management Strategy and Proforma during the operational phase. Due to the size of the site and the fact that

the scheme does not exceed the relevant thresholds, it is not expected that waste would have significant effects on the environment.

6. TOPICS TO BE SCOPED IN TO THE ES

6.1 This section confirms the proposed assessment methodology and scope for each of the topics to be included within the ES. The section is structured as followed:

- Daylight & Sunlight, prepared by WSP
- Greenhouse Gas Emissions, prepared by Buro Happold
- Heritage, prepared by Stephen Levrant Heritage Architecture
- Townscape and Visual Impact, prepared by RBMP
- Socio-Economics, prepared by Buro Happold
- Wind Microclimate, prepared by WSP
- Air Quality, prepared by Redmore.

DAYLIGHT AND SUNLIGHT

INTRODUCTION

- 6.2 The Daylight Sunlight and Overshadowing (DSO) chapter outlines the assessment methodology to evaluate the potential impacts of the Proposed Development (Baptist Church) on daylight, sunlight, and overshadowing within the surrounding area.
- 6.3 The DSO assessment will determine the likely loss of light to adjacent buildings and open amenity areas resulting from the Proposed Development. To this end, the study will quantify the daylight and sunlight availability to the receptors identified and will derive the resulting ratio between the baseline and the proposed conditions to define the impact.
- 6.4 The study will identify sensitive receptors such as the adjacent residential properties, but also schools, and any other building that relies on natural light for its operation. These areas are where occupants reasonably expect to receive daylight and sunlight, including the proposed amenity areas within and off Site. Surrounding open amenity spaces such as gardens and playgrounds that may be affected by the Application Site will also be part of the assessment.

PLANNING POLICY CONTEXT

Legislative Framework

- 6.5 There is no specific national legislation dealing with daylight, sunlight and overshadowing. However, most Local Authorities in the UK recognise the guidelines set out in the BRE Guide 'Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice' as the most appropriate method for Daylight, Sunlight and Overshadowing Assessments.

Policy

- **National: National Planning Policy Framework NPPF (2023)**
- **Regional:** Places For Everyone (2024): Places for Everyone Joint Development Plan Document for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford And Wigan; and

- **Local:** Core Strategy 2012-2027 (2012);
- And the Addendum to Manchester Core Strategy (2024).

Guidance

6.6 The following guidance documents have been used during the preparation of this Chapter:

- Manchester Residential Quality Guidance (2017); and
- BRE 209 Site layout planning for daylight and sunlight (2022).

BASELINE CONDITIONS

6.7 The Baseline assessment will be undertaken based on the current Proposed Development Site to set out of the existing condition. This will be assumed to be the Site with the existing Baptist Church buildings within the existing surroundings shown in Figure DS6-1.

6.8 The Baseline assessment will be used as a reference from which the magnitude of change will be measured for the Proposed Development which will be assessed under equal conditions.

6.9 The information to define the Baseline model will be collected from available sources including existing drawings, topographical surveys, information from mapping data, aerial photographic data for the area, and drawings within the planning portal.

Figure DS6-1 – Existing Site for Baseline Assessment



ASSESSMENT METHODOLOGY

Potential Impacts

- 6.10 Potential impacts are those where the daylight and sunlight conditions of a receptor deteriorate or improve as a result of the Proposed Development such that it either falls short or satisfies the recommended criteria of usage as defined in the recommended guidelines.

Impact on Neighbouring Properties

- 6.11 The assessment of effects on the receptors surrounding the Site will be based on an assessment of the change from the 'Baseline Scenario' assumed to be the existing Application Site and the existing properties surrounding the Application Site (including properties under construction at the time of the assessment assessed in their final form, if applicable).
- 6.12 In the 'Proposed Scenario' the Proposed Development will be introduced on the Site replacing the existing buildings for a direct comparison. This approach allows determining the impact that the Proposed Development will have on the surrounding properties in terms of daylight, sunlight and overshadowing of open spaces.

- 6.13 As mentioned in the Potential Impacts section above, the assessment will consider the magnitude of change between the Baseline and Proposed Scenarios. An additional scenario will evaluate the cumulative effects, which include adjacent consented schemes along with the Proposed Development. The magnitude of impact for this scenario will also be measured against the Baseline Scenario.
- 6.14 The assessment of the daylight and sunlight impacts will comprise 3 scenarios:
- Baseline Scenario: Assessment of the existing buildings on the Site with the existing surrounding context.
 - Proposed Scenario: Assessment of the Proposed Development on the Site with the existing surrounding context.
 - Cumulative Effects: This scenario includes the effects of the Proposed Development in combination with other future (consented) schemes.
- 6.15 The assessment criteria to be used for the study will be based on the guidelines within the BRE Guide: Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice which is recognised as the most appropriate method for daylight, sunlight and overshadowing assessments.
- 6.16 Whilst the BRE Guide provides numerical guidelines for daylight, sunlight and overshadowing, the Guide is not an instrument of planning policy, therefore some level of flexibility should be applied where appropriate.
- 6.17 The sensitive receptors to be considered in the assessment include:
- Existing properties in the surrounding area; and
 - Existing Open amenity areas in the surrounding area.

Receptors

- 6.18 The receptors for this daylight and sunlight assessment include habitable rooms within adjacent properties that require natural light, as well as open amenity spaces. Habitable rooms will be assessed for daylight levels, while open amenity spaces will be evaluated for overshadowing.

- 6.19 In order to undertake the assessment, the key sensitive receptors around the Application Site need to be identified. According to the BRE Guide, sensitive receptors are described as rooms and windows to habitable rooms facing the Site where the occupants have a reasonable expectation of natural light.
- 6.20 The guidelines for sunlight will be applied to the existing properties for the windows facing within 90° of due south.
- 6.21 Sensitive receptors for overshadowing of open spaces include gardens and open amenity spaces on adjacent properties, excluding public footpaths, front gardens and car parks.

Sensitivity of Receptors

- 6.22 A sensitivity rating has been developed using professional judgement based on the BRE Guide, which is described below and categorised into high, medium and low based on the function or use of the space being assessed. This rating is indicative and there will be occasions where the sensitivity may be interpreted differently:

Daylight

- Habitable rooms such as living rooms, kitchens and bedrooms within residential developments generally require good levels of daylight to render them more enjoyable and adequate to their function. Windows to such spaces are classified as having high sensitivity to daylight.
- Non-domestic buildings where the occupants have a reasonable expectation of daylight but where artificial light is common and do not solely rely on natural light, such as offices, hotels, hostels, and schools, have been classified as having a medium sensitivity to daylight.
- Retail developments usually rely on mechanical control and are not considered spaces where there would be an expectation of daylight by the user. Thus, windows to such spaces can be classified as having low sensitivity to daylight.

Sunlight

- Windows of residential dwellings have been classified as having high sensitivity to sunlight, particularly for living rooms and conservatories. In the absence of internal layout information of the surrounding residential developments, all windows on the southern façades will be classified as having a high sensitivity to sunlight as a worst-case scenario.
- Windows of non-domestic buildings where people spend a considerable amount of their time, such as offices, hotels, hostels, and schools, are classified as having a medium sensitivity to sunlight particularly for the windows on the southern facades.
- Retail developments usually rely on mechanical climate control to achieve comfort and reduce the effect of outside air and noise pollution, particularly in urban areas. Receptors to these spaces are classified as having a low sensitivity to sunlight.

Overshadowing of Open Amenity Spaces

- For the purpose of the overshadowing assessments, gardens and open amenity spaces on adjacent properties are classified as having a high sensitivity.
- Open areas which are not designated to be used by the general public as an amenity area, such as street landscape, and roundabouts, are classified as having a low sensitivity.

6.23 For the purpose of this assessment and given the nature of the locality, only receptors with high and medium sensitivity will be assessed.

Metrics and Criteria - Existing Receptors

6.24 The assessment will be carried out to determine the level of adherence to the recommended BRE Guide on the existing adjacent properties.

6.25 The BRE Guide uses a set of metrics to quantify the potential effect on daylight and sunlight levels including:

- Obstruction Angle (25°);

- Vertical Sky Component (VSC);
- No-Sky Line (NSL); and,
- Probable Sunlight Hours (PSH: Annual Probable Sunlight Hours - APSH and Winter Probable Sunlight Hours - WPSH).

Obstruction Angle

- 6.26 This is an initial check to identify any potential impacts. If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected, and further detailed studies should be carried out.

Vertical Sky Component (VSC)

- 6.27 When the obstruction angle and the visible sky angle (θ) vary significantly when multiple windows are involved, then the Vertical Sky Component (VSC) should be used instead. The calculation of VSC usually requires specialist computer software. The VSC, in simple terms, measures the amount of sky that can be viewed from the centre of a window accounting for all external obstructions, (with 40% being the maximum value for an unobstructed window). The recommended value for VSC is 27% or greater to maintain good levels of daylight. For existing surrounding windows, if the VSC is below 27%, then a comparison of the existing and proposed VSC levels with the new development in place is calculated and a ratio of impact is derived. The BRE guidance recommends that the maximum reduction of the VSC to existing windows should be 0.8 times their former value.

No-Sky Line (NSL)

- 6.28 No-Sky Line (NSL) is used to assess the daylight distribution within rooms of the surrounding properties where the internal layout of the property is known. The No-Sky Line divides the areas of the working plane that can receive direct skylight from those which cannot. If a significant area of the working plane (normally more than 20%) lies beyond the No-Sky Line (i.e., receives no direct skylight) then distribution of daylight in the room will look poor and supplementary electric lighting will be required. The BRE guidance recommends that the maximum reduction of the NSL to existing rooms should be 0.8 times their former value.

- 6.29 The calculation of daylight distribution (No-Sky Line -NSL) in neighbouring properties will only be carried out where room layouts are known. Using estimated room layouts is likely to give inaccurate results and is not recommended.

Probable Sunlight Hours (PSH)

- 6.30 Access to sunlight is measured from the windows of habitable rooms facing within 90° of due south. The Probable Sunlight Hours (PSH) calculation method measures the proportion of the window assessed that is sunlit for a period of time. The BRE Guide and BS EN 17037 recommend that the PSH is calculated for the annum (APSH) and for the winter months (WPSH) (21st September to 21st March). The recommended sunlight criteria for existing buildings potentially affected by a new development, are as follows:

- The window reference point should receive more than 25% of APSH, including at least 5% of WPSH.
- If the available sunlight hours are both less than the amount given above and less than 0.8 times their former value, either over the whole year or during the winter, then the occupants of the existing building will notice some loss of sunlight.
- The overall loss of sunlight should be maintained below 4%.

Overshadowing of Open Amenity Areas

- 6.31 For gardens or amenity areas, the BRE Guide suggests that at least half the area (50%) should receive at least two hours of sunlight on 21st March (sunlight at an altitude of 10° or less is excluded). If, as a result of a new development, an existing garden (usually the main back garden of a house) or amenity area does not meet the above criteria and the area which can receive two hours of sunlight on 21st March is less than 0.8 times its former value, then the loss of sunlight is likely to be significant.

Determining Magnitude of Change

- 6.32 The BRE criteria will be used to assess the likely levels of daylight and sunlight to habitable rooms in the surrounding properties. Compliance with the BRE Guidelines is achieved if the levels of daylight/sunlight within the identified receptors of the

surrounding properties are equal to or greater than the recommended values given in the Guide.

- 6.33 Compliance with the BRE Guide is also achieved for the identified receptors of the surrounding properties if the ratio of impact between the 'Baseline Scenario' and the 'Proposed Scenario' is 0.80 or higher, i.e., the reduction in daylight or sunlight hours is 20% or less. An additional criterion of overall annual loss for APSH values also needs to be satisfied to comply with the recommended BRE guidelines.
- 6.34 A negligible magnitude of change is defined if compliance with the BRE criteria is met.
- 6.35 When the criteria are not met, the BRE document does not provide guidelines for determining the magnitude of the impact. Therefore, a scale to measure the magnitude of change has been provided using professional judgement, which is discussed below.
- 6.36 For the affected receptors that lie below the recommended BRE guidelines, the magnitude of change will be rated depending on the ratio of impact between the 'Baseline Scenario' and the 'Proposed Scenario'. The criteria to be used for determining the magnitude of change for the VSC, NSL, APSH and WPSH results is detailed in the tables below.

Table DS6-1: Magnitude of Change for Vertical Sky Component (VSC) Results

VSC Values	Ratio of Impact	Magnitude of Change
VSC $\geq$ 27%	$\geq$ 0.8	Negligible
VSC $\geq$ 27%	$<$ 0.8	Negligible
VSC $<$ 27%	$>$ 0.8	Negligible
VSC $<$ 27%	0.7 – 0.8	Low
VSC $<$ 27%	0.6 – 0.7	Medium
VSC $<$ 27%	$<$ 0.6	High

Table DS6-2: Magnitude of Change for No-Sky Line (NSL) Results

NSL Values	Ratio of Impact	Magnitude of Change
NSL $\geq$ 80%	≥ 0.8	Negligible
NSL $\geq$ 80%	< 0.8	Negligible
NSL $< 80\%$	> 0.8	Negligible
NSL $< 80\%$	$0.7 - 0.8$	Low
NSL $< 80\%$	$0.6 - 0.7$	Medium
NSL $< 80\%$	< 0.6	High

Table DS6-3: Magnitude of Change for Annual Probable Sunlight Hours (APSH) Results

APSH Values	Ratio of Impact	Absolute reduction	Magnitude of Change
APSH $\geq 25\%$	>0.8	$\leq 4\%$	Negligible
APSH $\geq 25\%$	>0.8	$> 4\%$	Negligible
APSH $\geq 25\%$	<0.8	$> 4\%$	Negligible
APSH $< 25\%$	>0.8	$\leq 4\%$	Negligible
APSH $< 25\%$	>0.7	$>4\%$	Low
APSH $< 25\%$	$0.6 - 0.7$	$>4\%$	Medium
APSH $< 25\%$	< 0.6	$>4\%$	High

Table DS6-4: Magnitude of Change for Winter Probable Sunlight Hours (WPSH) Results

WPSH Values	Ratio of Impact	Magnitude of Change
WPSH $\geq 5\%$	>0.8	Negligible
WPSH $\geq 5\%$	<0.8	Negligible
WPSH $< 5\%$	>0.8	Negligible
WPSH $< 5\%$	$0.7 - 0.8$	Low
WPSH $< 5\%$	$0.6 - 0.7$	Medium
WPSH $< 5\%$	< 0.6	High

POTENTIALLY SIGNIFICANT EFFECTS – CONSTRUCTION PHASE

- 6.37 The level of daylight and sunlight will fluctuate throughout the construction process and cannot be accurately quantified. Therefore, the construction phase is excluded from this assessment. The completed development scenario represents the most significant impact on daylight and sunlight, which will be thoroughly assessed.

POTENTIALLY SIGNIFICANT EFFECTS – OPERATION PHASE

Significance of Effects for Daylight and Sunlight Assessment

- 6.38 In the absence of published guidance, a matrix for determining the significance of effects has been developed taking into account the sensitivity of the receptor and the magnitude of change (Table 1-5).

Table DS6-5: Significance of Effect for VSC, NSL and PSH Results

Magnitude of Change	Sensitivity of Receptor	
	High	Medium
High	Major effect	Moderate effect
Medium	Moderate to Major effect	Moderate to Minor effect
Low	Minor to Moderate effect	Minor effect

Significance of Effects for Overshadowing of Open Amenity Areas

- 6.39 The BRE Guide recommends that for a garden or amenity area to appear adequately sunlit throughout the year, at least half of an amenity area should receive at least two hours of sunlight on 21st March. The BRE Guide also indicates that if, as a result of a new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive some sun on the 21st March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.
- 6.40 The following overshadowing significance of effects will be used in this assessment:

- Negligible - Where the assessment results fall within the BRE criteria either because $\geq 50\%$ of amenity area achieves ≥ 2 hours of sunlight on 21st March; or by retaining ≥ 0.8 of its former value;
- Minor Adverse – Where the assessment results fall below the BRE criteria (< 0.8 of its former value) but not by a significant margin (40-50% of the area assessed receives ≥ 2 hours of sunlight on 21st March);
- Moderate Adverse – Where the assessment results fall below the BRE criteria (< 0.8 of its former value) by a moderate margin (30-40% of the area assessed receives ≥ 2 hours of sunlight on 21st March); and,
- Major Adverse – Where the assessment results fall below the BRE criteria (< 0.8 of its former value) by a significant margin ($< 30\%$ of the area assessed receives ≥ 2 hours of sunlight on 21st March).

MITIGATION

- 6.41 All receptors both within and off-Site will need to satisfy the requirements for daylight and sunlight.
- 6.42 Where the results of the assessments identify areas where the recommended guidelines are not met, mitigation measures will be identified to limit the adverse effect of the Proposed Development and/or achieve the required daylight and sunlight levels.
- 6.43 Within the site, typically, mitigation measures to improve the daylight and sunlight environment in addition to optimising the massing and orientation of the buildings can include adjustments to glazing types and size, rooms orientation and dimensions and material finishes.

SUMMARY OF ASSESSMENT SCOPE

- 6.44 This report will be used as a consultation document to ensure that the Local Planning Authority is aware of the approach to address environmental concerns regarding daylight and sunlight impacts on the proposed development site and the immediate surrounding area. This report will also provide an opportunity for feedback on any aspect of the proposed assessment methodology.

6.45 Table DS6-6 below summarises the elements scoped into this assessment, as well as the ones scoped out:

Table DS6-6: Elements Scoped in or out of Further Assessment

Element	Phase	Scop ed In	Scop ed Out	Justification
Potential effects to existing sensitive receptors such as residential properties	Operation	✓		Required to assess the effects from the Proposed Development both within and off site and identify mitigation measures where required.
Potential effects within the site as part of the Proposed Development i.e., new open amenity spaces.	Operation	✓		Required to assess the level of daylight and sunlight within the Proposed Development site and identify mitigation measures where required.
Cumulative effects considering future schemes	Operation	✓		Required to assess the cumulative impact of the Proposed Development.
Mitigation Studies	Operation	✓		Where the results of the assessments identify areas where the recommended guidelines are not met, mitigation measures will be introduced and tested to limit potential adverse impacts of the Proposed Development.
Assessment of daylight and sunlight within the proposed development.	Operation		✓	This is a design issue and daylight studies internally will be carried out as part of the design process.
Potential effects of daylight and sunlight from the Proposed Development	Construction		✓	The level of daylight and sunlight will continuously vary as construction progresses and it is not practical to quantitatively assess. However, the completed development scenario represents the worst case, and this will be fully quantified.

Cumulative effects with future schemes (consented or under consideration).	Construction		✓	The level of daylight and sunlight will continuously vary as construction progresses and it is not practical to quantitatively assess. However, the completed development scenario represents the worst case, and this will be fully quantified.
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LIMITATIONS AND ASSUMPTIONS

6.46 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- All calculations will be based on best practice guidance and on drawing or models of the Proposed Development provided. Where required, estimations have been made with regards to the height and massing of surrounding properties, based on available satellite photographs and mapping.
- The daylight and sunlight impact assessment described above are based on current UK British Standards and conforms to UK planning requirements but does not constitute a Right of Light survey.
- Upon completion of the assessment as described within the proposed scope, any additional assessment and/or mitigation testing required will be subject to a separate fee and timescale agreement.

GREENHOUSE GAS EMISSIONS

ASSESSMENT CONTEXT

- 6.47 Buildings and construction account for 39% of the world's greenhouse gas (GHG) emissions. Of this, operational emissions (i.e., GHG emissions from energy used to heat, cool and light buildings) account for 28%, while 11% comes from embodied emissions (i.e., GHG emissions associated with the materials and construction processes throughout the building lifecycle) (World Green Building Council, 2019). Therefore, it is of paramount importance that future buildings are designed in a way that minimises their GHG emissions.
- 6.48 The EIA regulations state that the ES should include 'a description of the likely significant effects of the development on the environment resulting from, inter alia... (f) the impact of the project on climate (for example the nature and magnitude of GHG emissions) and the vulnerability of the project to climate change'.
- 6.49 Given the nature and scale of the proposed development, it is considered to have the potential to result in significant adverse effects regarding GHG emissions during the construction and operational stages. The IEMA EIA Guide to Assessing Greenhouse Gas Emissions and Evaluating their Significance Second Edition (2022) (hereafter referred to as the IEMA 2022 Guidance) sets out three overarching principles as to why emissions from development are potentially significant:
- 'The GHG Emissions from all projects will contribute to climate change, the largest interrelated cumulative environmental effect';
 - 'The consequences of a changing climate have the potential to lead to significant environmental effects on all topics in the EIA Directive (e.g human health, biodiversity, water, land use, air quality)'; and
 - 'GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit; as such any GHG emissions or reductions from a project might be considered to be significant.'
- 6.50 The IEMA 2022 Guidance goes on to advise that 'GHG emissions should be assessed and reported as part of a good practice approach to EIA.'

- 6.51 On this basis, it is proposed that a GHG emissions chapter will be included within the ES.

ASSESSMENT METHODOLOGY

- 6.52 There is currently no standard methodology for quantifying GHG emissions within the EIA process. The assessment reported in the ES chapter will be undertaken in line with the IEMA 2022 Guidance, as well as relevant legislation, planning policy, and good practice guidance including:

- Royal Institute of Chartered Surveyors (RICS) Whole Life Carbon Assessment for the Built Environment (2023) (hereafter referred to as the RICS 2023 guidance); and
- BS EN 15978:2011 Sustainability of construction works. Assessment of environmental performance of buildings. Calculation method. (hereafter referred to as BS EN 15978)

- 6.53 A reference study period (RSP) of 60 years is proposed, as per the principles outlined in BS EN 15978. This is based on the typical expected service life of a building. The total estimated GHG emissions will be estimated from the start of construction to 60 years after completion of the proposed development.

- 6.54 For the purposes of the assessment, the proposed development has been split up into lifecycle stages (or 'modules'), as set out within BS EN 15978, with building elements included in line within the RICS 2023 guidance as shown in Figure GG6-1.



Figure GG6-1 Diagram showing the stages of a lifecycle GHG emissions assessment, taken from RICS 2023 Guidance, based on lifecycle stages set out in EN 15643:2021, EN 15978 and more.

- 6.55 It is proposed that GHG emissions associated with the construction stage will be based on appropriate published benchmarks. It is also proposed that the GHG emissions associated with operational embodied carbon within the in-use stage and end-of-life stage will be estimated based on appropriate published benchmarks, where information on operational energy and water usage is not available from the project utilities engineer and sustainability and energy consultants. Where this information is available, carbon factors will be applied to determine the GHG emissions associated with these sources.
- 6.56 Where information on operational transport trip generation is available from the project's transport consultants, carbon factors shall be applied and assumptions on journey distances shall be made.
- 6.57 Where emissions cannot be quantified due to a lack of available benchmarks, a qualitative assessment on their likely contribution to significance will be made based on professional judgement.
- 6.58 The ES chapter will provide a summary of the GHG emissions from each stage across the 60-year RSP. Total estimated GHG emissions shall be compared to both

appropriate national and regional carbon budgets to illustrate the scale of GHG emissions associated with the proposed development.

6.59 GHG emissions caused by an activity are often categorised into 'scope 1', 'scope 2', or 'scope 3', following the guidance of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol suite of guidance documents (WRI and WBCSD, 2014).

6.60 The ES chapter will not refer to scope 1, 2 and 3 emissions throughout, instead referring to emissions by lifecycle stage. However, the following section provides an overview of which scope the assessed emissions fall within.

6.61 Scope 1 emissions include direct emissions from owner or controlled sources. With respect to the proposed development this may include:

- Emissions from fleet vehicles e.g heavy goods vehicles (HGVs).

6.62 Scope 2 emissions include indirect emissions from purchased energy. With respect to the proposed development, this may include:

- Electricity, steam, heat, or cooling generated offsite, purchased and consumed by the proposed development.

6.63 Scope 3 emissions include indirect value chain emissions, resulting from the activities of assets not controlled or owned by the proposed development occurring before or after they have control of an asset. With respect to the proposed development this may include:

- Upstream emissions related to the purchase of required goods and services; and
- Downstream emissions related to any goods leaving the proposed development.

POTENTIALLY SIGNIFICANT EFFECTS – CONSTRUCTION PHASE

6.64 Sources of GHG emissions during the demolition and construction stage are as follows:

- Demolition and construction waste removal;
- Extraction and manufacturing of building materials (i.e. the product stage); and
- Transport of materials to the site and construction and installation of products on site (i.e. the construction process stage).

POTENTIALLY SIGNIFICANT EFFECTS – OPERATION PHASE

6.65 Sources of GHG emissions during the operational stage are as follows:

- Maintenance, repair, replacement and refurbishment within the proposed building (i.e. the embodied carbon);
- Operational energy requirements for the day to day running of the building (i.e. heating, cooling, lighting etc.);
- Operational water consumption;
- Operational transport (i.e. deliveries and servicing), where appropriate transport figures are available for the proposed development; and
- End-of-life demolition.

EFFECT PREDICTION AND ASSESSMENT OF EFFECT SIGNIFICANCE

6.66 Specific criteria for assessing the significance of GHG emissions effects are provided in the IEMA 2022 guidance (Table GG6-1). The assessment of significance will be undertaken in line with these criteria. The guidance also recommends that the context of the project's carbon footprint is determined to establish whether the project supports or undermines a trajectory towards net zero. This can help decision makers in their evaluation of the effects of the proposals. The estimated net GHG emissions will be considered in the context of the both the UK National Carbon Budgets and carbon budgets for Manchester City Council area. If formal Council carbon budgets are not available, the Tyndall Centre recommended energy only carbon budgets for the Council will be used.

Table GG6-1 Criteria for determining effect significance

Significance	Descriptor
Major adverse	The proposed development's GHG impacts are not mitigated or are only compliant with do-minimum standards set through regulation, and do not provide further reductions required by existing local and national policy for projects of this type. A project with major adverse effects is locking in emissions and does not make a meaningful contribution to the UK's trajectory towards net zero.
Moderate adverse	The proposed development's GHG impacts are partially mitigated and may partially meet the applicable existing and emerging policy requirements but would not fully contribute to decarbonisation in line with local and national policy goals for projects of this type. A project with moderate adverse effects falls short of fully contributing to the UK's trajectory towards net zero.
Minor adverse	The proposed development's GHG impacts would be fully consistent with applicable existing and emerging policy requirements and good practice design standards for projects of this type. A project with minor adverse effects is fully in line with measures necessary to achieve the UK's trajectory towards net zero.
Negligible	The proposed development's GHG impacts would be reduced through measures that go well beyond existing and emerging policy and design standards for projects of this type, such that radical decarbonisation or net zero is achieved well before 2050. A project with negligible effects provides GHG performance that is well 'ahead of the curve' for the trajectory towards net zero and has minimal residual emissions.
Beneficial	The proposed development's net GHG impacts are below zero and it causes a reduction in atmospheric GHG concentration, whether directly or indirectly, compared to the without-project baseline. A project with beneficial effects substantially exceeds net zero requirements with a positive climate impact.

6.67 The majority of GHG emissions in the demolition and construction phase are expected to come from the product stage (i.e., embodied carbon from building materials). Therefore, mitigation measures focused around lean design and low embodied carbon opportunities will be recommended.

- 6.68 During operation, it is anticipated that the operation of building services will represent the majority of GHG emissions. Measures to reduce consumption in line with current best practice will be proposed.

CLIMATE CHANGE RESILIENCE AND ADAPTATION

- 6.69 A climate change resilience risk assessment will be appended to the ES.
- 6.70 The approach to assessing the potential impact of climate change on the proposed development will be undertaken in accordance with IEMA's Climate Change Resilience and Adaptation (2020) guidance (hereafter referred to as the IEMA 2020 Guidance) which presents a framework for the consideration of climate change resilience and adaptation in the EIA process. It recognises a need for a proportionate approach to the assessment, due to the uncertainties associated with predicting how the environment will respond to climate change.
- 6.71 The risk assessment shall consider a list of likely climate change risks set out in the C40 Cities Climate Change Risk Assessment Guidance (2018). This list includes the effects of storms and wind, extreme temperatures, water scarcity and flooding and sea level rise, amongst other climate change related hazards.

SUMMARY OF ASSESSMENT SCOPE

- 6.72 The Greenhouse Gas Emissions ES Chapter will follow a traditional EIA approach of assessing the significance of effects, in line with the IEMA 2022 Guidance. It will also describe the methods used to assess these impacts and effects, the existing baseline conditions, the proposed mitigation measures required to prevent, reduce or offset any significant negative effects and the likely residual effects after these methods have been adopted.
- 6.73 The Climate Change Resilience Risk Assessment, in line with the IEMA 2020 Guidance, will follow a risk assessment approach, rather than a traditional EIA approach of assessing the significance of effects.

HERITAGE

ASSESSMENT CONTEXT

- 6.74 The Heritage Chapter of the ES will assess the likely potential effects of the proposed development on the significance of built (above ground) heritage assets surrounding the site.
- 6.75 The site is not protected by any built heritage designations; it does not contain any statutorily listed buildings, nor does it lie within a Conservation Area. At the time of writing, the Council, who are the local planning authority, do not have a local list of heritage assets, however the existing building is considered to be a non-designated heritage asset due to its local historic and architectural interest.
- 6.76 The site is situated within the setting of a number of listed buildings, the closest being approximately 40m to the north of the site boundary. The closest Conservation Area is the Smithfield Conservation Area, which lies approximately 210m to the south-west.
- 6.77 The proposed development therefore has the potential to have direct and indirect effects on the non-designated heritage asset within the site and the settings of a number of designated heritage assets in its setting.
- 6.78 The site is currently occupied by the former Particular Baptist Chapel and comprises a 1907/1908 chapel and a narrow area of cleared ground to its south-west and north-east, the latter being used for surface car parking. Having been rejected for listing by Historic England in 2023, the building is building is considered to yield sufficient historic and architectural interest at a local level to be considered a non-designated heritage asset.
- 6.79 The site's townscape context is highly varied, with isolated high quality and interesting historic buildings sitting cheek-by-jowl with late 20th century residential development and open sites of surface car parking. The hostile road infrastructure of the 4-lane A664/ Rochdale Road detracts from the quality and enjoyment of the townscape and aids the isolation of remnant historic buildings from one another and their local setting. Where there is open space in the setting of the site, it generally comprises of poor-quality hardstanding used for car parking.

- 6.80 From the south-west all the way along to the site and beyond the immediate townscape has been transformed by modern redevelopment which provides residential/ hotel development in tall buildings fronting the pavement along Rochdale Road.

LEGISLATION AND POLICY CONTEXT

- 6.81 The Heritage Chapter will consider the relevant legislation, national and local planning policy listed below. For the purposes of this assessment, it will be those policies concerned with design, townscape, views and historic environment matters that are of the greatest relevance.

- Planning (Listed Buildings and Conservation Areas) Act 1990
- National Planning Policy Framework ('NPPF'), December 2023
- Planning Practice Guidance ('PPG'), live on-line resource
- Manchester's Local Development Framework, Core Strategy, July 2012
- Manchester Extant Unitary Development Policies ('UDP'), July 1995

ASSESSMENT METHODOLOGY

- 6.82 Based on the urban character of the site's surroundings and the height of the proposed development, a study area of 500m is proposed for the identification of built heritage receptors. The following 49 designated heritage assets fall within 500m of the site boundary:

- Workshops, Shop and Warehouse, Grade: II
List Entry Number: 1096052
- Derros Building, Grade II
List Entry Number: 1119732
- 8 Cable Street, Grade II
List Entry Number: 1208255
- Hare And Hounds, Grade II
List Entry Number: 1379936
- Charter Street Mission (Formerly Charter Street Ragged School And Working Girls' Home), Grade II
List Entry Number: 1461979
- Parkers Hotel, Grade II

List Entry Number: 1208963

- Ashton House, Grade II

List Entry Number: 1197764

- Former Police and Ambulance Station, Grade II

List Entry Number: 1292052

- Marble Arch Inn, Grade II

List Entry Number: 1247604

- Crown And Kettle Public House, Grade II

List Entry Number: 1246276

- Holyoake House, Grade II

List Entry Number: 1291969

- Victoria Buildings, Grade II

List Entry Number: 1209985

- Cooperative Wholesale Society Building to North of Junction With Hanover Street, Grade II

List Entry Number: 1197765

- Victoria Square, Grade

List Entry Number: 1246277

- Cooperative Society Building, Grade II

List Entry Number: 1247472

- Co-Operative Insurance Society (CIS) Building, Grade II

List Entry Number: 1270494

- 29, Shude Hill, Grade II

List Entry Number: 1254631

- Sharp Street Ragged School, Grade II

List Entry Number: 1254650

- Warehouse On West Corner of Junction With Simpson Street, Grade II

List Entry Number: 1270681

- New Century House, Including its Attached Conference Hall and Abstract Concrete Relief Wall In The Entrance Piazza, Grade II

List Entry Number: 1255052

- 29, Swan Street, Grade II

List Entry Number: 1270667

- Former Midland Bank, Grade II

List Entry Number: 1270668

- Cooperative Press, Grade II

List Entry Number: 1291013

- Cooperative Society Building, Grade II
List Entry Number: 1200849
- Smithfield Market Hall, Grade II
List Entry Number: 1254687
- The City Public House, Grade II
List Entry Number: 1271456
- Former Wholesale Fish Market, Grade II
List Entry Number: 1282996
- 31-35, Thomas Street, Grade II
List Entry Number: 1270669
- Union Bridge, Grade II
List Entry Number: 1255163
- Former Doctor's Surgery, Grade II
List Entry Number: 1482727
- Nos. 69-77, LEVER STREET And No. 10, BRADLEY STREET, Grade II
List Entry Number: 1291495
- 7, Kelvin Street, Grade II
List Entry Number: 1291627
- 38 Back Turner Street, Grade II
List Entry Number: 1390869
- Warehouse, Workshop And Shops, Grade II
List Entry Number: 1390870
- 49-53, Tib Street, Grade II
List Entry Number: 1254717
- 10-20, Thomas Street, Grade II
List Entry Number: 1270655
- 42, 44 And 46 Thomas Street (Including 41, 43 And 45 Back Turner Street), Grade II
List Entry Number: 1452606
- Daily Express Building, Grade II*
List Entry Number: 1218285
- Nos. 104 and 106, High Street, Grade II
List Entry Number: 1218648
- Castle Hotel, Grade II
List Entry Number: 1246280
- Cooperative Wholesale Society, Grade II
List Entry Number: 1025287

- 105, Oldham Street, Grade II
List Entry Number: 1246432
- Former Church of St Peter, Grade II
List Entry Number: 1197806
- 1, Kelvin Street, Grade II
List Entry Number: 1200822
- Numbers 4, 6 And 8 and Attached Screen Walls, Grade II
List Entry Number: 1197808
- 75 and 77, High Street, Grade II
List Entry Number: 1200814
- Smithfield Conservation Area
- Ancoats Conservation Area
- Shudehill Conservation Area

6.83 It is considered that the proposed development will not materially (or significantly) affect an appreciation of the significance of a number of the heritage assets identified above. This may be due to separating distance or interposing built form, which means the proposed development does not form a noticeable or clearly visible element of the asset's setting, or it may be the nature of the asset itself means that the contribution its setting makes to an appreciation of its significance is limited. A Zone of Theoretical Visibility ('ZTV') prepared by RBMP has also informed this scoping process and helped to identify those assets where it is unlikely the proposed development will result in a significant effect. The ZTV forms **Appendix C** of this document.

6.84 For the reasons identified above, a number of heritage assets are scoped out at this stage and will not be considered further with the Heritage Chapter. **Table H6.1** below lists the heritage assets scoped into the assessment.

6.85 The setting of any additional heritage assets outside the 500m study which are identified during the baseline assessment phase to have the potential to be significantly affected by the proposed development will be incorporated into the assessment where necessary.

POTENTIALLY SIGNIFICANT EFFECTS – CONSTRUCTION PHASE

- 6.86 The redevelopment of the site, including the partial demolition of the existing building and construction of a new building, has the potential to change the existing townscape character of the area, views to and from the site, and the setting of surrounding heritage assets. The physical effects related to this phase of works would include dust, noise, vibrations, hoardings, and increased activity on the site related to the demolition and construction of new buildings.
- 6.87 The activity associated with the demolition and construction phase is temporary and as such no significant effects on heritage receptors are identified as resulting from this element of the proposed development.

POTENTIALLY SIGNIFICANT EFFECTS – OPERATION PHASE

- 6.88 The proposed development will permanently alter the non-designated heritage asset within the site through direct and indirect impacts, it will also have the potential to permanently alter the setting of surrounding built heritage assets and views into the site and across the local area through the introduction of a new building and changes to the existing landscape/pedestrian realm within and on the periphery of the site.
- 6.89 In terms of heritage, the potential for significant operational effects on those assets closest to the site is judged to be low-to-middling owing to the local heritage interest of the heritage asset directly affected and the scale of the proposed development and its proximity to surrounding listed buildings and conservation areas. Notwithstanding this, there has been a significant amount of change in these assets' setting in recent years owing to the large-scale redevelopment of the townscape to the wider area. Subsequently, the introduction of a new tall building into their setting does not represent an alien or uncharacteristic addition to the local townscape or represent an unprecedented change. The potential for significant effects on those assets in the wider townscape is judged to be lower owing to greater separating distances, the screening effect of interposing built form, the experience of the site in the context of the wider urban area of Manchester (including numerous tall and large buildings) and the individual nature of assets' settings.

- 6.90 The impact of the proposed development on the significance and setting of heritage assets will be interrogated in the HTVIA.

ASSESSMENT METHODOLOGY

Technical Scope

- 6.91 As identified above, the ES Heritage Chapter will consider the potential impact of the proposed development on the significance of above-ground heritage assets.
- 6.92 The potential heritage effects of the proposed development will be assessed using a methodology based on best practice guidance.

Baseline Appraisal

- 6.93 A Heritage Statement (HS) prepared in accordance with the requirements of the NPPF will:
- Identify the heritage assets (heritage receptors) surrounding the site which may be affected by the proposed development; and
 - Assess the significance of the identified heritage assets, including the contribution of their settings to an appreciation of their significance.
- 6.94 The baseline assessment element will draw upon site survey work, map regression analysis, and desk-based research.

Consultation

- 6.95 No consultation on the scope of the HS has yet been undertaken. The Council is invited to review the receptors proposed for inclusion in this Scoping Report and provide comment where necessary.

EFFECT PREDICTION AND ASSESSMENT OF EFFECT SIGNIFICANCE

- 6.96 The Heritage Statement (and ES Heritage Chapter) will provide an assessment of the likely potential effects of the proposed development upon the significance and setting of the heritage assets during both the construction and operation phases. A significant effect upon a heritage asset is identified as anything that qualifies as a

‘moderate’ change to the way in which its significance is appreciated, or its setting is affected.

6.97 The assessment will be undertaken with reference to the legislation and planning policy outlined above, as well as the following guidance documents:

- Historic England, Historic Environment Good Practice Advice in Planning: Note 2 (GPA2): Managing Significance in Decision-Taking in the Historic Environment (March 2015)
- Historic England, Historic Environment Good Practice Advice in Planning: Note 3 (GPA3, 2nd edition): The Setting of Heritage Assets (December 2017)
- Historic England, Conservation Principles, Policies and Guidance (2008)
- Historic England, Historic England Advice Note 4: Tall Buildings (December 2015)
- Historic England, Historic England Advice Note 12: Statements of Heritage Significance (October 2019)

6.98 The assessment of potential heritage effects will be informed by the analysis of a series of viewpoints and Accurate Visual Representations ('AVRs') which show how the proposed development will appear in its local and wider townscape context and in tandem with heritage assets in the setting of the site. A total of 5 heritage viewpoints have been identified for the purposes of this assessment and are provided below at Figure 6.1, below, for comment and agreement from the Council.

Cumulative effects

6.99 An overall assessment of cumulative effects, i.e. of the effect of the proposed development taking into account other proposed and consented schemes, will also be provided in relation to built heritage. The approach to cumulative assessment will be to focus on the additional effects of the proposed development on top of the cumulative baseline. This assessment will be based on the inclusion of relevant surrounding cumulative developments in the selected AVRs, represented in wireline (AVR Level 1) form where visible.

6.100 For the purpose of the scoping exercise, we invite the Council to advise on which cumulative developments they consider necessary for inclusion within the AVRs.

Mitigation

- 6.101 The mitigation of any potential impacts will be considered through the design of the scheme proposals and will therefore be 'embedded'.

SUMMARY OF ASSESSMENT SCOPE

- 6.102 The summary of assessment scope is as follows:

Table H6.1:

Heritage Asset Name	Designation/Status
Marble Arch Inn	Grade II Listed Building
Warehouse On West Corner of Junction With Simpson Street	Grade II Listed Building
Cooperative Press	Grade II Listed Building
Sharp Street Ragged School	Grade II Listed Building
Charter Street Mission (Formerly Charter Street Ragged School And Working Girls' Home),	Grade II Listed Building
Former Police and Ambulance Station	Grade II Listed Building
8 Cable Street	Grade II Listed Building
New Century House, Including its Attached Conference Hall and Abstract Concrete Relief Wall In The Entrance Piazza, Grade II	Grade II Listed Building
Parkers Hotel	Grade II Listed Building
Co-Operative Insurance Society (CIS) Building	Grade II Listed Building
Smithfield Conservation Area	Conservation Area
Shudehill Conservation Area	Conservation Area
Ancoats Conservation Area	Conservation Area

SOCIO-ECONOMICS

ASSESSMENT CONTEXT

- 6.103 A socio-economic analysis aims to examine the potential impact of the proposed scheme on the existing economic and social performance of the area. It then proceeds to recognise and quantify, whenever feasible, the effects of the intended construction, considering factors such as job opportunities, housing availability, economic contribution, local expenditure, communal facilities, and nearby amenities and services.
- 6.104 The socio-economic assessment will consider the impacts during the demolition/construction and operational phases of the proposed development. The likely sensitive receptors of the proposed development are:
- Existing and future local businesses and employees;
 - Existing and future local residents; and
 - Local social infrastructure resources (e.g. health facilities, educational resources, open space, play space and recreational facilities)
- 6.105 This evaluation will also encompass a review of the relevant policy landscape and pertinent planning directives provided at various levels.

BASELINE CONDITIONS

- 6.106 The existing site was once a Baptist Church but is currently unoccupied. The site is located to the east of Manchester Victoria Station, which serves as a key transport hub. The site is also surrounded by other residential units, shops, bars, and restaurants.
- 6.107 The proposed development includes part demolition and restoration of the Baptist Church and building of a new residential-led tower block. The development will also include a commercial unit and amenity space. This will result in impacts on the local and regional economies through the creation of new employment opportunities during the construction and operation phases. There will also be impacts on surrounding social infrastructure resources (open space, play space, schools etc.) arising from the new residential population which will reside within the proposed development.

SPATIAL SCOPE

- 6.108 The principal economic effects of the proposed development will be considered relative to Manchester City and Greater Manchester as these represent the principal labour market catchment areas.
- 6.109 Effects on social and community infrastructure will be assessed by various geographical effect areas, according to the most up-to-date socio-economic data or policy available. This depends in part on the availability of relevant data, but in all probability the impacts will be more local.

LEGISLATIVE CONTEXT

- 6.110 Within the context of transforming the former Baptist church into a 23-storey residential-led development, a comprehensive review of relevant planning regulations, economic development strategies, and revitalisation policies will be conducted as part of the socio-economic chapter of the ES. This review will cover the local (Manchester City), regional (Greater Manchester), and national levels, to determine whether the proposed development aligns with or diverges from the goals and prerequisites outlined in these policy documents. Additionally, this assessment will outline the primary strategic outcomes envisioned through the implementation of the proposed development.

POTENTIALLY SIGNIFICANT EFFECTS – DEMOLITION AND CONSTRUCTION PHASE

- 6.111 The proposed development will generate temporary employment opportunities, both direct and indirect, during the demolition and construction phase. Due consideration will be given to the potential beneficial effects on the local economy and labour market.

POTENTIALLY SIGNIFICANT EFFECTS – OPERATION PHASE

- 6.112 The socio-economic assessment will consider the following potential effects during the operational phase:
- Employment opportunities: the creation of long-term, direct, indirect, and induced employment opportunities from any proposed commercial uses on-site as well as impacts on any existing employment uses.

- Housing provision: the provision of new housing to the local area including meeting the annual residential built targets for Manchester City.
- Increased spending: the increase in residents as a result of new housing will likely lead to an increase in spending in the local economy and local businesses.
- Social infrastructure demand: the growth in population due to new residents could impact the demand for social infrastructure such as primary healthcare facilities, education, recreational areas, and open space.

6.113 The measures designed to secure and maximise the beneficial effects will be outlined as part of this process. Any significant adverse effects will be identified, with mitigation measures recommended where necessary.

6.114 Wherever possible, the effects of the socio-economic assessment will be appraised against relevant national standards such as those provided by the Homes and Communities Agency (HCA), now known as Homes England. Where no standards exist, professional experience and judgement will be applied and justified.

ASSESSMENT METHODOLOGY

Technical Scope

6.115 This ES Chapter will outline the potential socio-economic impacts (both direct and indirect) of the proposed development. It will also clearly set out the significance of the residual socio-economic effects (those that remain after mitigation) of the proposed development.

Baseline Assessment

6.116 A baseline assessment will be undertaken to establish the socio-economic conditions which currently surround the site, both at the local and regional level. The ES chapter will utilise data from a variety of sources including:

- **2021 Census Data:** Census 2021 will be utilised to provide insights into the demographic and economic makeup of the area, forming an integral part of the analysis;

- **Office for National Statistics (ONS):** Data compiled by the ONS will be harnessed to offer a comprehensive understanding of key local socio-economic indicators;
- **National Health Service (NHS) Data:** information sourced from the NHS will be leveraged to comprehend healthcare and related socio-economic facets within the vicinity of the site; and
- **Local and regional studies and assessments:** Pertinent studies and assessments conducted at both the local (Manchester City) and regional (Greater Manchester) levels will be referenced to enrich the baseline assessment. These studies will provide valuable context and insights into the existing socio-economic dynamics of the site.

EFFECT PREDICTION AND ASSESSMENT OF EFFECT SIGNIFICANCE

6.117 The assessment of potential socio-economic effects will be undertaken using several methodologies, data sources and assumptions. These are set out below:

- **Construction-related employment effects:** The impact on employment due to the demolition and construction phase will be assessed using established ratios of construction output to employment, considering the distinctive characteristics of the project;
- **Employment accommodation in commercial floorspace:** Anticipated employment opportunities associated with the operational phase of commercial floorspace will be evaluated through the application of standard job density ratios, referencing the HCA Employment Densities Guide 3rd Edition (2015) alongside information furnished by the applicant;
- **Additionality and impact factors:** The assessment will encompass additional factors like deadweight, leakage, displacement, and substitution effects, as outlined in the HCA Additionality Guidance (2015). These considerations will be adapted to the specific dynamics of the proposed development;
- **Population and child yield projections** for the proposed development using relevant yield assumptions (e.g., GLA Population Yield Calculator, where no local equivalent exists) and local authority guidance where necessary;

- **Current capacity in schools** in proximity to the proposed development will be assessed based on information from the Annual Schools Census data for 2023/24 and public admission numbers (latest available data), as well as local authority data and studies where available;
- **The availability of primary healthcare facilities** in the local area will be assessed by using public NHS data. This information will be compared with the projected new population in the proposed development to estimate the likely effect of the proposed development on primary healthcare facilities;
- **Play space provision** will be assessed against relevant local standards and compared to the estimated child yield arising from the proposed development; and
- **An estimate of spending** generated as a result of the completed project will be calculated using average national household spending figures (ONS Family Spending Statistics, latest available).

6.118 The assessment of the socio-economic effects will be made with reference to the standard EIA significance criteria terminology, in terms of the likely nature, scale, permanence and significance of effects.

SUMMARY OF ASSESSMENT SCOPE

6.119 This section of the EIA Scoping report sets out the proposed approach to assessing the effects of the proposed development in relation to socio-economics. It encompasses both social impacts (housing provision, access to education, healthcare, play space and open space) and economic impacts (employment and local spending) of the proposed development.

6.120 It is not anticipated that public consultation will be required as part of the socio-economic assessment.

TOWNSCAPE AND VISUAL IMPACT ASSESSMENT

- 6.121 The Town and Visual Impact Assessment (TVIA) chapter of the EIA will assess the likely impacts of the scheme on landscape and visual amenity. This section identifies the likely significant landscape and visual effects, sets out the proposed approach that will be taken to the TVIA, and provides a summary of the baseline information that is currently available.

ASSESSMENT CONTEXT

Legislation, Policy and Guidance

- 6.122 The TVIA will refer to the National Planning Policy Framework (2023) and the Manchester Core Strategy (2012).
- 6.123 The TVIA will be undertaken in accordance with and informed by the following sources of guidance:
- Guidelines for Landscape and Visual Impact Assessment (GLVIA), 3rd Edition, Landscape Institute and Institute of Environmental Management and Assessment, 2013;
 - The Landscape Institute, GLVIA 3 Statements of Clarification;
 - Landscape Institute Technical Guidance Note 06/19 - Visual Representation of Development Proposals, 2019
- 6.124 The TVIA will be further informed by the following publications and sources of information relevant to the area within which the scheme is located:
- Natural England, 2013, National Character Area (NCA) Profile 55: Manchester Conurbation;
 - The Strategic Level City-Wide Urban Characterisation for Core Strategy
 - The Manchester Core Strategy (2012)
 - Guide to Development in Manchester Supplementary Planning Document and Planning Guidance 2007

- Places for Everyone – joint long-term plan for nine districts
- Historic England - Register of Parks and Gardens of Special Historic Interest in England;
- Ordnance Survey (OS) mapping at 1:25,000 scale; and
- Aerial photography.

STUDY AREA

- 6.125 The study area will include the area from which the scheme will theoretically be visible to a person with a viewing eye height of 1.6m above ground level. The extent of the study area will be determined by digitally mapping the zone of theoretical visibility (ZTV) of the Scheme in accordance with guidance on ZTV mapping in paragraphs 6.6 – 6.11 of Guidelines for Landscape and Visual Impact Assessment, 3rd Edition.

VISIBILITY

- 6.126 An initial ZTV (Zone of Theoretical Visibility) has been run to determine areas of key visibility up to 2km from site (see **Appendix C**). The output demonstrates that most views over the site are contained to the north and east, particularly along the Rochdale Road arterial route into the city centre. It is important to recognise that the eventual massing associated with the New Cross Neighbourhood Development Framework which wrap around the site to the north and east, will ultimately limit these relatively exposed vistas. Further, new development to the north of the city centre, particularly around Cheetham Hill, are already extending the tall building zone out away from the existing city centre, providing a congruous visual frontage.
- 6.127 Looking at the immediate vicinity to the site, the relatively dense urban fabric of surrounding Conservation Areas limits visibility and as such only contained glimpsed views between existing buildings are possible. Receptors in these vicinities close to the site, will be aware of the ongoing development projects which are either underway or about to begin. As such, the proposed development will form an additional part of these ongoing regeneration works both during the construction phases and once complete.

- 6.128 Where longer distance views towards the site are currently possible, for example, views along the River Irwell to the west and public open spaces such as Sand Hills to the north, any changes in massing resulting from the proposed development will be seen within the backdrop and visual envelope of the surrounding tall buildings. This includes the established CIS building alongside newer buildings associated with the New Cross Neighbourhood Development Framework.
- 6.129 The recently approved Premier Inn development, located adjacent to the proposed site, will increase the overall massing along this section of Rochdale Road up to the Baptist Church. This development will create a visual barrier and backdrop for those travelling along Rochdale Road, effectively limiting the visibility of the existing church building from the south side. Additionally, the cumulative impacts of the Gasworks, New Town Phase 1, and 87 Rochdale Road developments should be considered. These projects will also contribute to an overall increase in building mass, extending the tall building zone northward along Rochdale Road.

CHARACTER

- 6.130 The area surrounding the site displays a variety of building typologies, materials and styles. As a recently redeveloped part of the city centre, the newer developments are now the predominant architectural style for receptors moving in and out of the city centre and there is currently no unifying character. There are a number of existing historic buildings to the immediate vicinity, including the Baptist Church which forms part of the development proposals. These buildings are still visible within the urban grain, albeit relegated to subsidiary roles, and form part of the character. The overall image is of new-build residential units with low to medium sensitivity to change.
- 6.131 Close by, recently completed developments including Angel Gardens and currently under construction AC Hotel, have begun to register high-quality design palettes which seek to complement the existing key historic buildings. These developments provide contemporary visual offsets, recognising the importance of well-designed and integrated public realm. The proposed building will seek to further this.

VIEWPOINT LOCATIONS

- VP01 – View East from junction of Ring Road and Corporation Street

- VP02 – View South along Rochdale Road from road bridge over train line
- VP03 – View South along Rochdale Road from junction with Sudell Street
- VP04 - View East along Sharp Street from junction with Naples Street
- VP05 – View North along Rochdale Road from junction with Adlington Street
- VP06 - View North along Shudehill from junction with New George Street
- VP07 - View East from footpath within Angel Meadow
- VP08 – View East from footbridge over River Irwell
- VP09 - View East from junction of St Chad's Street and Stanley Street
- VP10 – View South from Lowry Footbridge
- VP11 – View South from footpath within Sandhills recreational space off Collyhurst Road
- VP12 – View North from Great Ancoats Street at junction with Old Mill Street

WIND MICROCLIMATE

INTRODUCTION

- 6.132 The Wind Microclimate assessment outlines the methodology and approach for assessing the potential impacts of the proposed development on the wind microclimate within the surrounding area of the proposed development. The assessment will focus on identifying sensitive receptors, establishing baseline conditions, and evaluating the potential changes in wind patterns and speeds due to the development.

PLANNING POLICY CONTEXT

- 6.133 Legislation and technical standards relevant to this Chapter are summarised in this section.

Legislative Framework

- 6.134 There is no specific national legislation or planning policy guidance dealing with wind microclimate in terms of pedestrian comfort. However, the Lawson Criteria (2001) are used to benchmark the pedestrian wind microclimate as they are well-established in the UK.

Policy

- **National:** National Planning Policy Framework NPPF (2023);
- **Regional:** Places For Everyone (2024): Places For Everyone Joint Development Plan Document For Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan; and
- **Local:** Core Strategy 2012-2027 (2012); and
- The Addendum to Manchester Core Strategy (2024).

Guidance

6.135 The following guidance documents have been used during the preparation of this Chapter:

- The Lawson Criteria (2001).

6.136 The Lawson Criteria are a widely accepted method in the UK and internationally for assessing pedestrian comfort and safety related to wind conditions around buildings. While not a formal UK standard, these criteria are often used by local authorities as a valuable benchmark for wind microclimate assessments. This assessment will adopt the Lawson Criteria to evaluate wind comfort and safety at the Site.

STUDY AREA

6.137 The Baptist Church development is located at 35 Rochdale Road. Given the characteristics of the Site and the surrounding context, the extent of the study area will cover a 500m radius from the centre of the development site (shown in Figure 1-1), in line with best practice guidance (Lawson, 2001) and Best Practice Guidelines for Computational Fluids Dynamics (CFD) Simulation of Flows in the Urban Environment. Buildings beyond this radius will only be represented in the model if their distance from the region of interest is less than 6 times their height, in accordance with the guidelines.

Figure W6-2– Extent of Study Area



BASELINE CONDITIONS

- 6.138 The Baseline assessment will be conducted based on the current conditions of the Proposed Site and its immediate surroundings. This will include the existing Baptist Church building (shown in Figure W6-2) and any existing buildings or buildings under construction within a 500m radius of the site centre.
- 6.139 The Baseline assessment will be used as a reference from which the magnitude of change will be measured for the Proposed Development which will be assessed under equal conditions.
- 6.140 The information to define the Baseline model will be collected from available sources including existing drawings, topographical surveys, information from mapping data, aerial photographic data for the area, and drawings within the planning portal.

Figure W6-3 – Existing Site for Baseline Assessment



Receptors

6.141 The receptors for the wind assessment will be the users of the outdoors spaces within the Site and adjacent surroundings. This will include both existing and new receptors.

6.142 The sensitive outdoor areas to be assessed include:

Existing Receptors

- Existing outdoor amenity and seating areas at ground level
- Existing building entrances, bus stops, drop off areas
- Existing pedestrian circulation routes

New Receptors

- Outdoor amenity and seating areas at ground level and elevated levels within the Proposed Development
- Building entrances, bus stops, drop off areas within the Proposed Development
- Pedestrian circulation routes within the Proposed Development

Sensitivity of Receptors

6.143 The sensitivity of receptors considers the activity of pedestrians as this affects their tolerance to wind speeds. For instance, during sedentary activities such as sitting, pedestrians are highly sensitive to variations to wind speeds while more transient activities, such as walking, would tolerate stronger winds. In line with these considerations, Table W6-1 illustrates the sensitivity of the receptors depending on their expected use.

Table W6-7: Defining Sensitivity of Receptors

Receptors	Sensitivity
Areas intended for `sitting` and `standing` (e.g. benches, restaurants and bars, building entrances)	High
Areas intended for leisure `walking` (i.e. commercial or residential streets)	Medium
Areas intended for `business walking` (e.g. thoroughfares, streets leading to back-of-the-house or maintenance entrances, areas intended for car parks and high-speed roads); roof tops for maintenance only.	Low

ASSESSMENT METHODOLOGY

6.144 The pedestrian-level wind environment in an urban setting will depend on the general wind conditions as well as on the effects of the urban environment itself. Therefore, the assessment will consist of three main parts: calculation of the urban environment's aerodynamic effect on the wind; which is then combined with historical wind data; and, finally, compared against criteria to quantify the discomfort and/or level of distress caused by the wind.

- The assessment of the wind microclimate impacts comprises 3 scenarios:
- Baseline Scenario: Assessment of the existing buildings on the Site with the existing surrounding context.
- Proposed Scenario: Assessment of the Proposed Development on the Site with the existing surrounding context.

- Cumulative Effects: This scenario includes the effects of the Proposed Development in combination with other future (consented) schemes.

- 6.145 The methodology to be adopted for the study incorporates Computational Fluid Dynamics (CFD) modelling to predict air flows and wind velocities around the Proposed Development. A 3D computer model of the Site and the surrounding area will be created for the assessment. The model will exclude both soft and hard landscaping (trees, street furniture etc.), which is a representation of the worst-case scenario since landscaping will generally improve the wind environment. This approach is standard practice.
- 6.146 The CFD assessment will be aimed at measuring the local wind speeds at street level for a full range of wind directions. Additionally, an assessment of the external terraces and balconies within the scheme will be also included.
- 6.147 Long-term wind data records from the nearest weather station will be adapted with Site specific roughness factors to assess the local wind conditions surrounding the Site.
- 6.148 The recommended guidance is based on the frequency of exceedance of wind speeds for all incoming wind directions; therefore, in addition to the wind testing, a statistical procedure to combine the wind speed frequencies with historical wind data will be carried out to determine the suitability of the Site and surrounding area for the various pedestrian categories (sitting, standing, strolling and business walking).
- 6.149 The Lawson Comfort Criteria will then be applied, and a comparison made between the modelled results of the CFD assessment in terms of the suitability for various pedestrian activities against the desired pedestrian activity in that location. The Lawson Comfort Criteria define a scale for assessing the suitability of wind conditions in the urban environment based upon threshold values of wind speed and frequency of occurrence. The frequency of occurrence is used as an indicator of the likely duration of wind speeds. The criteria provide ranges of acceptability to maintain pedestrian comfort for different activities and relate frequency of occurrence to the hourly average wind speed ranges.

- 6.150 The Lawson criteria are specifically designed for pedestrian activities and are related to pedestrian comfort and safety. Therefore, the assessment will concentrate on assessing the areas with pedestrians use only, including cyclists, as shown on Table W6-2 and Table W6-3 below.

Table W6-8: Lawson's Comfort Assessment Criteria

Comfort Category	Mean and GEM wind speed (5% exceedance)	Comfort Category
Sitting	4 m/s	Light breezes desired for outdoor restaurants and seating areas where one can read a paper or comfortably sit for long periods.
Standing	6 m/s	Gentle breezes suitable for main building entrances, pick-up/drop-off points and bus stops.
Leisure Walking	8 m/s	Moderate breezes that would be appropriate for strolling along a city/town centre street, plaza or park.
Business Walking	10 m/s	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering.
Uncomfortable	>10 m/s	Winds of this magnitude are considered a nuisance for most activities, and wind mitigation is typically recommended.

- 6.151 The Lawson Criteria method also identifies a safety criterion to identify those areas where someone could find walking difficult, or even stumble and fall. The criteria define threshold wind speeds not to be exceeded for more than 0.025% of the year. These are particularly strong winds that could cause people to have difficulties while walking and also stumble or fall. The safety criterion is set out in Table 1-3 below.

Table W6-9: Lawson's Safety Assessment Criteria

Safety Rating	Threshold Mean-Hourly Wind Speed Exceeded Once Per Annum (0.025%)	Potential Effects	Development Constrains
S15 - Unsuitable for	>15 m/s	Less able and cyclists find	S15 threshold not to be exceeded in areas

the general public		conditions physically difficult.	accessible to the general public: sitting areas, standing areas, leisure walking areas. Mitigation required
S20 - Unsuitable for able-bodied	>20 m/s	Able-bodied persons find conditions difficult. Physically impossible to remain standing during gusts.	Threshold not to be exceeded in areas with limited public access, e.g. maintenance areas and carparks.

6.152 The wind assessment for each of these criteria will be tested taking into account the season and will inform the suitability for different activities on the Site based on the following general target wind conditions:

- Outdoor amenity and seating areas: 'Sitting' during the Summer season
- Building entrances, bus stops, drop off areas: 'Standing' during all seasons;
- Pedestrian circulation routes: 'Leisure Walking' during all seasons; and
- Pedestrian thoroughfares (minor pedestrian routes): 'Business Walking' during all seasons.

POTENTIALLY SIGNIFICANT EFFECTS – CONSTRUCTION PHASE

6.153 The potential effects on wind microclimate at the Site during the construction works will not be quantified as part of the assessment as these will continuously vary as construction progresses. However, a qualitative statement based on professional experience will be included in the assessment.

6.154 Given the Site location, it can be anticipated that the effects on the wind microclimate on the Site during construction will be of lesser magnitude than those that will be experienced once the development has been completed, which will be fully quantified as part of the impact assessment.

POTENTIALLY SIGNIFICANT EFFECTS – OPERATION PHASE

- 6.155 The wind microclimate will be affected by terrain, buildings, and other structures obstructing wind flow. The introduction of a new building development can affect the local wind flow patterns, which can produce uncomfortable and/or unsafe wind environment at pedestrian level. Fast-moving high-level winds can be deflected down to street level along windward faces of buildings. As air moves from the windward side of the Site into the low-pressure regions of the buildings, it can accelerate around corners and/or through constrictions, causing localised regions of relatively high wind speed. The level of impact by the Proposed Development design will be assessed to quantify these effects.
- 6.156 The likely significant effects identified for the operational phase for assessment in the ES is as follows in Table W6-4.

Table W6-10: Likely Significant Effects for the Completed Development

Receptor	Effects	Scoped In
Outdoor amenity and seating areas both within and off Site.	The assessment will determine whether wind conditions are 'unsafe' or 'unsuitable' (in terms of comfort) for the intended pedestrian use. Any effects identified will be long-term, permanent and local.	✓
Building entrances, bus stops, drop off areas both within and around the Site.	The assessment will determine whether wind conditions are 'unsafe' or 'unsuitable' (in terms of comfort) for the intended pedestrian use. Any effects identified will be long-term, permanent and local.	✓
Pedestrian circulation routes both within and around the Site.	The assessment will determine whether conditions are 'unsafe' or 'unsuitable' (in terms of comfort) for the intended pedestrian use. Any effects identified will be long-term, permanent and local.	✓

EFFECT PREDICTION AND ASSESSMENT OF EFFECT SIGNIFICANCE

- 6.157 EIA requires a description of the significance of wind effects at a particular location. This section is intended to provide consistency in these significance descriptors. For the purposes of the wind assessment, whether a condition is significant or not

depends on whether the condition requires mitigation. The tables in the following sections include a column that defines if mitigation measures are necessary.

- 6.158 The significance of on-Site measurement locations is defined by comparing the wind comfort/safety levels with the intended pedestrian activity at each location, using Table W6-5 below.

Table W6-11: On-Site (New) Receptor

Significance	Trigger	Mitigation required?
Major Adverse	Conditions are 'unsafe'	Yes
Moderate Adverse	Conditions are 'unsuitable' (in terms of comfort) for the intended pedestrian use.	Yes
Negligible	Conditions are 'suitable' for the intended pedestrian use.	No
Moderate Beneficial	Conditions are calmer than required for the intended pedestrian use (by at least one comfort category).	No

- 6.159 The significance of off-Site measurement locations is defined not only by comparing the wind comfort levels with the intended pedestrian activity, but also by comparing the conditions to those experienced prior to the introduction of the Proposed Development (Baseline), using Table W6-6 below.

Table W6-12: Off-Site (Existing) Receptor

Significance	Trigger	Mitigation required?
Major Adverse	Conditions that were 'safe' in the baseline scenario become 'unsafe' as a result of the Proposed Development. OR Conditions that were 'suitable' in terms of comfort in the baseline scenario become 'unsuitable' as a result of the Proposed Development. OR	Yes

	Conditions that were 'unsafe' in the baseline scenario are made worse as a result of the Proposed Development.	
Moderate Adverse	Conditions that were 'suitable' in terms of comfort in the baseline scenario are made windier (by at least one comfort category) as a result of the Proposed Development, but remain 'suitable' for the intended pedestrian activity.	Yes
Minor Adverse	Minor increase in wind speeds from Baseline but conditions are 'suitable' for the intended pedestrian use.	No
Negligible	Conditions remain the same as in the baseline scenario.	No
Moderate Beneficial	comfort in the baseline scenario become 'suitable' as a result of the Proposed Development. OR Conditions that were 'unsafe' in the baseline scenario are made better as a result of the Proposed Development (but not so as to make them 'safe').	No
Major Beneficial	Conditions that were 'unsafe' in the baseline scenario become 'safe' as a result of the Proposed Development.	No

- 6.160 The above terms will be used to define the impact identified as positive, negative or no impact, and the significance of the effect identified as either beneficial, adverse or negligible.

MITIGATION

- 6.161 All areas both within and off-Site will need to be safe and suitable for the expected use such as 'sitting', 'standing', 'leisure walking' and 'business walking', taking into account the seasons and the specific location considered.
- 6.162 Where the results of the assessments identify areas where the recommended guidelines are not met or where the suitability exceeds that of the intended use,

mitigation measures will be identified to limit the adverse effect of the Proposed Development and/or achieve suitability for the designated uses.

6.163 In general, mitigation measures to improve the wind environment in addition to optimising the massing and orientation of the buildings can include trees, landscape features, wind screens/porous barriers and building canopies, which would be implemented at a later stage, if needed.

6.164 The potential benefits of wind mitigation measures are described below:

- Canopies: provide shelter from wind being driven downwards if large enough; however, they provide little shelter for horizontal ground level winds.
- Planting and Landscaping: wind tolerant species of trees may provide shelter from both downward driven winds and horizontal winds around corners and passageways. The aerodynamic loss caused by the wind passing through the tree's foliage ameliorate the wind environment during winter. However, if too dense this may cause an increase in wind speed below the foliage.
- Physical Barriers ameliorate the wind environment by disconnecting the windward and leeward wind pressure areas that determine air flow.
- Porous Barriers: Urban sculptures and baffles ameliorate horizontal wind speeds providing local shelter by dissipating the wind's energy. The sheltered area depends on the barrier's size.
- Solid Barriers: Screens and solid barriers interrupt high speed winds locally but tend to displace the problem elsewhere. It is thus important to use caution when implementing this type of measures.

SUMMARY OF ASSESSMENT SCOPE

Table W6-13: Elements Scoped in or Out of Further Assessment

Element	Phase	Scoped In	Scoped Out	Justification
Potential effects to existing pedestrian	Operation	✓		Required to assess the effects from the Proposed Development

street-level and open amenity spaces (off-site receptors) including elevated spaces such as balconies and roof terraces.				both within and off site and identify mitigation measures where required.
Potential effects within the site as part of the Proposed Development e.g. balconies, roof terraces and new amenity spaces.	Operation	✓		Required to assess the wind environment within the Proposed Development site and identify mitigation measures where required.
Cumulative effects with future schemes within a 400m distance from the Site.	Operation	✓		Required to assess the cumulative impact of the Proposed Development in conjunction with other future schemes in the surroundings. Where the wind conditions in this scenario exceed the required Lawson comfort or safety categories, an additional future baseline scenario would be required.
Mitigation Studies	Operation	✓		Where the results of the assessments identify areas where the recommended guidelines are not met or where the suitability exceeds that of the intended use, mitigation measures will be introduced and tested to limit potential adverse impacts of the Proposed Development.
Impacts on vehicles or waterways	Operation or Construction		✓	The recommended criteria focus on impacts to pedestrians and

				occupants of outdoor spaces.
Potential effects of wind microclimate from the Proposed Development	Construction		✓	Wind microclimate will continuously vary as construction progresses and it is not practical to quantitatively assess. However, the completed development scenario represents the worst case, and this will be fully quantified.
Cumulative effects with future schemes (consented or under consideration) within a 400m distance from the Site.	Construction		✓	Wind microclimate will continuously vary as construction progresses and it is not practical to quantitatively assess. However, the completed development scenario represents the worst case, and this will be fully quantified.
Potential wind effects including structural wind loads, natural ventilation and internal flows within buildings	Operation or Construction		✓	In line with the Lawson Criteria, the assessment only focused on outdoor wind effects on pedestrians.
Wind effects in areas beyond 500m distance from the Site	Operation or Construction		✓	Wind effects on areas beyond this have been considered insignificant as these will not be relevant for the assessment, in line with best practice guidelines and CoL Wind Microclimate Guidelines.

LIMITATIONS AND ASSUMPTIONS

- 6.165 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- The wind study will focus on the effects on the pedestrian level wind environment and as such it will exclude other wind effects such as façade pressure wind loads, inputs to structural engineering; internal airflows within buildings or impacts on vehicles or waterways.
- The model for the wind assessment will include all relevant buildings and structures in the surrounding area but as a worst-case scenario will exclude trees and landscape features. Where required, these could be added as part of the mitigation options.

AIR QUALITY

CONTEXT

- 6.166 An Air Quality Scoping Note has been prepared in order to outline baseline conditions and provide consideration to potential air quality impacts as a result of the proposed development.

BASELINE INFORMATION AND KEY RECEPTORS

Local Air Quality Management

- 6.167 As required by the Environment Act (1995), as amended by the Environment Act (2021), Review and Assessment of air quality has been undertaken in the vicinity of the site. This process has indicated that annual mean concentrations of nitrogen dioxide (NO₂) are above the Air Quality Objective (AQO) at a number of locations. As such, a number of roads within Manchester have been included within the Greater Manchester Combined Authority Air Quality Management Areas (AQMA). The site is located within the AQMA. As such, there is the potential for exposure of future occupants to any existing air quality issues, as well as adverse impacts as a result of the scheme within this sensitive area.

Air Quality Monitoring

- 6.168 Monitoring of pollutant concentrations is undertaken by the Council throughout their area of jurisdiction. Review of results recently recorded in the vicinity of the site indicated annual mean NO₂ concentrations were below the AQO during 2022.

Sensitive Receptors

- 6.169 There are a number of residential properties within the vicinity of the site which may be affected by any fugitive dust emissions during construction of the development. Additionally, there are a number of residential properties within the vicinity of roads which may be affected by changes in traffic flow and associated increases in vehicle exhaust emissions as a result of the operation of the development. The closest of these adjacent to the north-eastern boundary along Rochdale Road.

ASSESSMENT METHODOLOGY

Key Consultees

- 6.170 Consultation will be undertaken with the Environmental Health Department at the Council to discuss and confirm the assessment methodology.

Surveys

- 6.171 Due to the detailed information available to inform the baseline study, it is not proposed to undertake air quality monitoring within the vicinity of the site.

Construction Phase Fugitive Dust Emissions Assessment

- 6.172 During the construction of the proposed development there is the potential for air quality impacts as a result of fugitive dust emissions from demolition, earthworks, construction and trackout activities. It is proposed to assess these in accordance with the Institute of air Quality Management (IAQM) document 'Guidance on the Assessment of Dust from Demolition and Construction V2.2' (IAQM, 2024).

Construction Phase Road Vehicle Exhaust Emissions Assessment

- 6.173 The development has the potential to impact on existing air quality as a result of road traffic exhaust emissions, such as NO₂, particulate matter with an aerodynamic diameter of less than 10µm (PM₁₀) and particulate matter with an aerodynamic diameter of less than 2.5µm (PM_{2.5}) associated with vehicles travelling to and from the site during construction. These will be assessed in accordance with the criteria provided within the IAQM document 'Land-Use Planning & Development Control: Planning for Air Quality' (IAQM, 2017). This will involve comparing the predicted total daily vehicle trip generation from the site with the following thresholds:
- A change of Light Duty Vehicle (LDV) of more than 100 Annual Average Daily Traffic (AADT) within or adjacent to an AQMA or more than 500 AADT elsewhere; and,
 - A change of HDV flows of more than 25 AADT within or adjacent to an AQMA or more than 100 AADT elsewhere.

- 6.174 Should the above criteria not be met then air quality impacts would be considered negligible. Should they be exceeded then potential effects would be quantified using dispersion modelling.

Operational Phase Road Vehicle Exhaust Emissions

- 6.175 SK Transport, the Transport Consultants for the project, indicated the development is predicted to generate 44 LDV and 2 HDV movements per day. This is below the IAQM screening thresholds summarised above. As such, impacts associated with operational phase road vehicle exhaust emissions are considered to be negligible. This will be confirmed within the report.
- 6.176 There is the potential for future occupants to be exposed to any existing air quality issues at the site. This will be assessed through dispersion modelling using ADMS-Roads in order to quantify NO₂, PM₁₀ and PM_{2.5} concentrations across the development.
- 6.177 The assessment will be undertaken using relevant traffic data, local land use characteristics and 1-year of local hourly meteorological records. The modelling outputs will be verified against local monitoring data in accordance with the Department for Environment, Food and Rural Affairs (DEFRA) methodology.
- 6.178 Predicted pollutant concentrations will be compared against the Air Quality Objectives, as defined in the UK Air Quality Strategy and associated regulations. This will identify potential future exposure to poor air quality and inform any necessary mitigation strategy.

Mitigation

- 6.179 Should assessment of potential impacts indicate the requirement for mitigation, specific measures will be outlined in order to reduce air quality effects to an appropriate level. These will be based on best practice guidance documents.

7. CONCLUSIONS

- 7.1 In summary, this Scoping Report comprises a formal request for the Council to issue a Scoping Opinion, with respect to the considerations at Part 4 Regulation 15(6) of the EIA Regulations.
- 7.2 The planning application to which this scoping opinion request relates is for a full application for residential-led development at the former Particular Baptist Chapel at 35 Rochdale Road, Manchester.
- 7.3 The proposals will realise the redevelopment of an underused brownfield site close to the city centre, whilst achieving the partial retention of the non-designated heritage asset. It will meet a need for additional residential units and contribute to the regeneration of the local area.
- 7.4 While the proposals do not exceed the thresholds set out in Schedule 2 of the EIA Regulations, it has been concluded through discussions with the Council that the development proposals as a whole comprise Schedule 2 EIA development, and therefore it is accepted that EIA is required.
- 7.5 However, the proposals will raise limited environmental issues of a scale sufficient to warrant EIA. It is proposed that the ES considers the following topics:
- Daylight and Sunlight
 - Greenhouse Gas Emissions
 - Heritage
 - Townscape and Visual Impact Assessment
 - Socio-Economics
 - Wind Microclimate
 - Air Quality
- 7.6 In light of this information, we request that the Council issue their formal Scoping Opinion within 5 weeks per Regulation 5(5) of the EIA Regulations.

APPENDIX A: SITE LOCATION PLAN



DO NOT SCALE
Work to annotated dimensions only. Read drawings in conjunction with relevant specification, Structural Engineers' and Services Engineers' drawings. Confirm all dimensions before commencement of any work on site or fabrication.

P1 Planning Issue 28/08/24
Rev: Details Date:

client:
CityPoint Developments

project:
Baptist Church

job number:
0658

status:
S1 - Suitable for Coordination

title:
Proposed GA Plan
Site Location Plan

scale: drawn by:
1 : 1000 HM
@ A1

drawing number:
(-)/001

current revision date: revision:
28/08/24 P1

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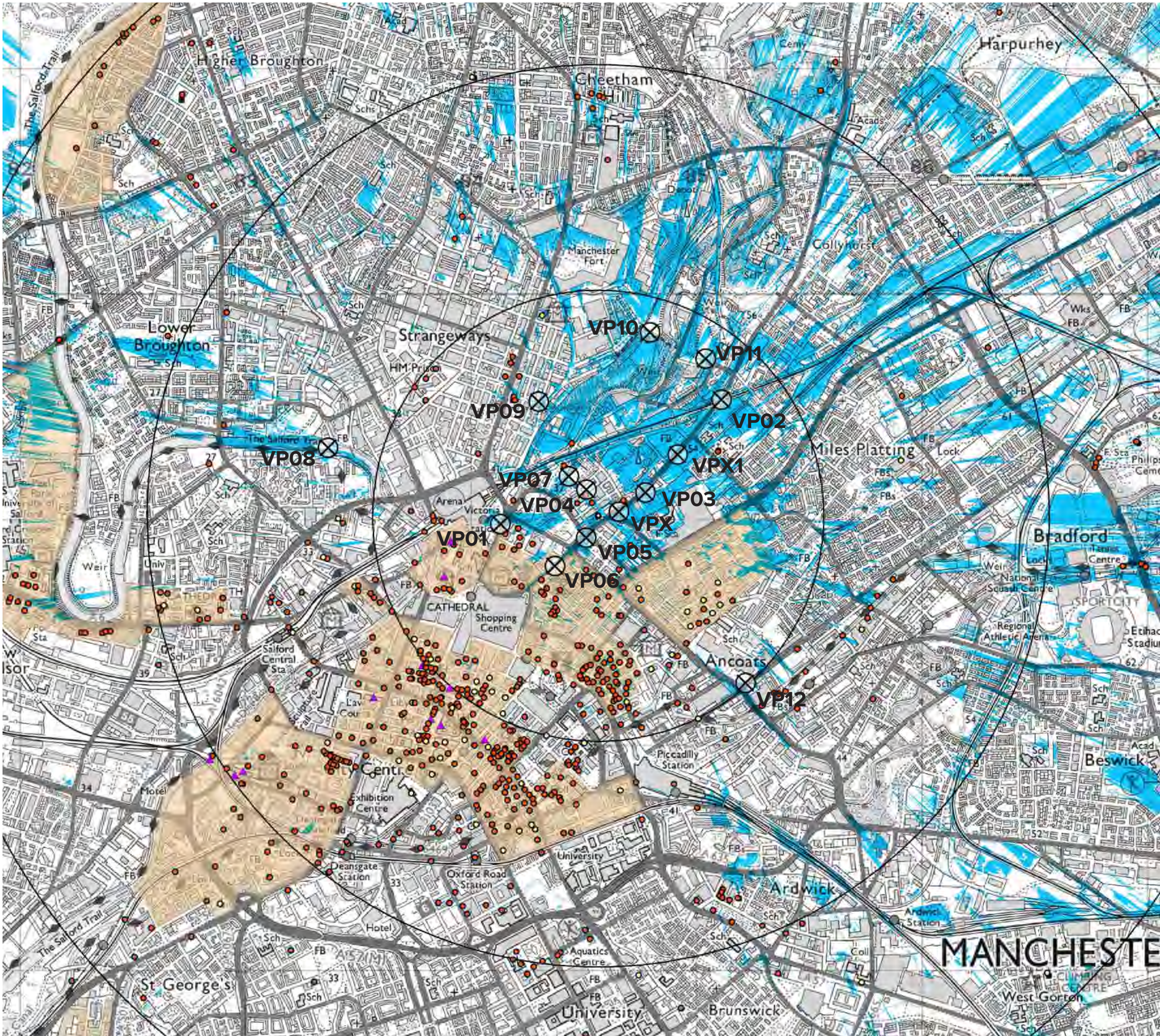
APPENDIX B: LIST OF PROPOSED APPLICATION DOCUMENTS

LIST OF PROPOSED APPLICATION DOCUMENTS

- Design and Access Statement prepared by Hodders
- Planning Statement prepared by Zerum
- Affordable Housing Statement prepared by Zerum
- Air Quality Assessment prepared by Redmore Environmental
- Archaeological Assessment prepared by Orion Heritage
- Blue and Green Infrastructure Statement prepared by Zerum
- Broadband Connectivity Assessment prepared by GTech
- Crime Impact Statement prepared by GMP
- Daylight Sunlight Assessment prepared by WSP
- Environmental Impact Assessment coordinated by Zerum
- Daytime Bat Survey prepared by Rachel Hacking Ecology
- Dusk Emergence Survey prepared by EPS Ltd
- Energy Statement prepared by Futureserv
- Environmental Standards Statement prepared by Futureserv
- Circular Economy Statement prepared by Futureserv
- Fire Statement prepared by Jensen Hughes
- Drainage Strategy prepared by Civic
- Heritage Assessment prepared by Stephen Levrant Heritage Architecture
- Lighting Strategy prepared by Futureserv
- Noise Assessment prepared by Jameson Acoustics
- Phase 1 Geotechnical Assessment prepared by Civic
- Statement of Community Involvement prepared by Counter Context
- Tall Buildings Statement prepared by Zerum
- Townscape and Visual Impact Assessment prepared by RBMP
- Transport Assessment and Travel Plan prepared by SK Transport
- TV and Radio Reception Survey prepared by GTech
- Viability Statement prepared by Savills
- Wind Assessment prepared by WSP

These will be accompanied by a full set of plans prepared by the project architect, Hodders.

APPENDIX C: ZONE OF THEORETICAL VISIBILITY FOR TVIA



BAPTIST CHURCH, ROCHDALE ROAD
Zone of Theoretical Visibility (ZTV)
of Proposed Building - *Cumulative*
Schemes not included.

2419/01/ZTV/A
6th September 2024

Key (ZTV):

- Site
- Areas of Theoretical Visibility

Key (Heritage Designations):

- ▲ Grade I
- Grade II
- Grade II*
- Conservation Areas

ZTV parameters:

Digital Terrain Model: Environment Agency LIDAR
Composite First Return DSM 2022 - 1m

Building Height @ 65m Height

Observer height = 1.6m

Earth curvature refractivity
coefficient = 0.13

Extent of ZTV = r 2km



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1.2 SCOPING OPINION



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Control and Licensing

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Associate Director
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2 December 2024

Our reference: EIASCO/24/003

Dear Ms Baker Barnett

**TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT
ASSESSMENT) REGULATIONS 2017 ("THE EIA REGULATIONS")**

SCOPING REQUEST UNDER PART 4 REGULATION 15(1)

**'FORMER PARTICULAR BAPTIST CHURCH 35 ROCHDALE ROAD
MANCHESTER' ("THE PROPOSED DEVELOPMENT")**

**SCOPING OPINION OF MANCHESTER CITY COUNCIL PURSUANT TO
REGULATION 15**

Thank you for your request dated 7 October 2024 for a Scoping Opinion at the above site.

In coming to a formal opinion on the scope of the Environmental Statement ("ES"), Manchester City Council, as Local Planning Authority, has considered the supporting information contained within your '*Environmental Impact Assessment - Scoping Report*' prepared by yourselves, on behalf of the Applicant, the Government Property Agency (GPA), and the comments from statutory consultees.

I have now had a chance to consider your scoping request and I outline my response below.

The Proposed Development is considered an EIA development as it falls within the description and thresholds in Schedule 2 10(b) of the EIA Regulations as an 'Infrastructure Project - Urban Development Project' which has the potential to have significant effects on the environment. In accordance with Schedule 2, Categories 10(b) (urban development projects) of the EIA Regulations and

owing to the location, scale and nature and of the Proposed Development, I note that you recognise the need for an EIA and have therefore submitted the Scoping Report for consideration to the City Council, as Local Planning Authority.

Before adopting a Scoping Opinion the City Council, as Local Planning Authority, must take into account the information specified in Regulation 15(6) of the EIA Regulations.

- (a) any information provided by the applicant about the proposed development;
- (b) the specific characteristics of the particular development;
- (c) the specific characteristics of development of the type concerned; and
- (d) the environmental features likely to be significantly affected by the development.

This Scoping Opinion sets out the information that the City Council, as Local Planning Authority, considers should be included in the ES that will be submitted with the subsequent planning application made in respect of the Proposed Development.

In formulating this Scoping Opinion the City Council, as Local Planning Authority, has taken account of, the requirements of the EIA Regulations, the nature and scale of the Proposed Development, the nature of the receiving environment, current best practice in the preparation of environmental statements, and the views expressed by the organisations and bodies that responded to the consultation.

This Scoping Opinion should not be construed as implying that the City Council, as Local Planning Authority, agrees with the conclusions set out in the Scoping Request regarding impacts of the proposal. This Scoping Opinion is without prejudice to any decisions subsequently taken in respect of any planning application submitted in respect of the Proposed Development.

Your report of the 7 October 2024 sets out the proposed chapters that the ES will cover, and the disciplines which you believe should be scoped in and out of the EIA.

These are as follows:

Scoped In

- Daylight and Sunlight;
- Greenhouse Gas Emissions;
- Heritage;
- Socio-Economics;
- Townscape and Visual Impact Assessment;
- Wind Microclimate; and

- Air Quality.

Scoped out

- Aviation;
- Archaeology;
- Ecology;
- Flood Risk and Drainage;
- Ground Conditions;
- Highways;
- Human Health;
- Noise and Vibration;
- Telecommunications;
- Lighting;
- Major risks and accidents;
- Sustainability;
- Utilities;
- Waste.

Below is a consideration of the Scoping Report for the Proposed Development and comments on the approach which you have outlined.

CONSULTATIONS

Regulation 15 (4) of the EIA Regulations require the City Council, as Local Planning Authority, to consult consultation bodies prior to adopting a Scoping Opinion.

Having regard to Regulation 2 of the EIA Regulations, the following consultees were consulted who have specific environmental responsibilities and which the City Council, as Local Planning Authority, considers are likely to have an interest in the development proposal.

- Natural England;
- Historic England;
- Environment Agency;
- Greater Manchester Ecology Unit (GMEU);
- Greater Manchester Archaeology Advisory Service (GMAAS);
- Transport for Greater Manchester (TfGM);
- Active Travel England (ATE);
- United Utilities;
- City Council Highway Services;
- City Council Environmental Health;
- City Council Flood Risk Management;

- City Council Arborist;
- City Council works and skills;
- Aerodrome Safeguarding;
- Design for Security at Greater Manchester Police.

All responses of the consultees contacted by the City Council, as Local Planning Authority, during the EIA scoping process are appended to this letter.

You are strongly recommended to consult further with consultees as appropriate throughout the EIA process as the development proposal evolves. It is thereby recommended all consultee responses are reviewed by you and the applicant in full.

Any subsequent ES submitted with a planning application should reflect the points raised by the consultation bodies where this reflects the requirements of the Regulations. It is recommended that the ES summarises the scoping responses from the consultation bodies and how they are, or are not, addressed in this regard. Any consultation responses received after the date of this letter, that have not been taken into account within this Scoping Opinion, will be forwarded to you and should be given due consideration in the planning application and EIA process.

CONTEXT

The development site is 0.08 hectares. The site consists of the former Particular Baptist Church and its curtilage which includes a car park to the north-eastern side.

The site is bounded by Rochdale Road to the south-east; Sharp Street to the north-east; and Dyche Street to the north-west. The adjacent plot to the south-west is vacant and has planning permission for a hotel.

The surrounding area includes a variety of uses including residential, hotel and commercial. The residential apartment buildings on Dyche Street are approximately 6 storeys in height whilst development heights are taller on the opposite side of Rochdale Road where they are associated with the New Cross Development Framework area.

There is a Co-op convenience foodstore 160m from the site. The site is less than 200m from the closest part of the city centre which offers a range of employment, leisure, retail and services.

There are bus stops on Rochdale Road adjacent to the site, with services into the city centre, to Manchester Royal Infirmary, Bury Interchange, Middleton Bus Station and North Manchester General Hospital. The site is 400m from Shudehill bus station and 800m from Manchester Victoria Railway station.

SENSITIVE RECEPTORS

The development site is located within the Greater Manchester Combined Air Quality Management Area (AQMA) along Rochdale Road.

The site is not within, nor does it contain, any ecological designations including sites of specific interest (SSSI), sites of biological importance (SB1) or special protection areas (SPA).

The site is located in Flood Zones 1. The site is also situated within the Manchester, Salford and Trafford Critical Drainage Area (CDA).

The development site is not within a conservation area and there are no immediate listed buildings. However, the former Baptist Church is considered to be a non designated heritage asset.

PROPOSED DEVELOPMENT

I note from your Scoping Report that the Proposed Development is based on a number of parameters which are evolving as part of the design process. Should these parameters change, then a further scoping assessment should be undertaken if the scope of the ES needs to reflect this.

The proposal would be a residential-led development of 23 storeys, providing up to 135 dwellings (Use Class C3) and with a separate commercial unit forming part of the ground floor. Amenity areas are to be incorporated. The proposals involve the partial retention of the church including its front elevation and partial returns. The intention is to retain and/or rebuild the barrel vaulting and the roof structure also.

It is anticipated that the development could commence during Q3 2025 following the grant of planning permission and the construction programme would take 18 months.

ASSESSMENT OF THE SCOPING REPORT

I can confirm that the approach outlined within the Scoping Report is considered to be generally acceptable, appropriate and proportionate. This is also reflected in the nature of the consultation responses.

You should note the specific points I have made below within the specific discipline areas which reflect the comments of the consultees and those of the City Council, as Local Planning Authority. These matters should also be included and addressed within the relevant chapters of ES.

Discussion of alternatives

Paragraph (3)(d) of Regulation 18, and paragraph 2 of Schedule 4 of the EIA Regulations, require that environmental statements include discussion description of the reasonable alternatives to the Proposed Development and an indication of the main reasons for the option chosen, that have been considered by the applicant.

I note within section 3 of your Scoping Request that you intend to provide a discussion on alternatives within the ES. This will focus on alternatives considered and project design evolution.

Presentation and content of the Environmental Statement

The purpose of an ES is to enable significant environmental impacts of a proposed development to be fully considered before an application for planning consent is determined.

The ES provides environmental information to aid the decision making process. The ES should be laid out clearly, with minimum use of technical terms (where appropriate) and should provide an objective and realistic description of the likely significant impacts of the proposed development.

The information should be presented so as to be comprehensible to the specialist and non-specialist alike. The ES should be concise with supporting technical information placed in appendices

Mitigation

Paragraph 7 of Schedule 4 of the EIA Regulations states that mitigation measures may fall into a range of categories namely:

- avoidance of impacts;
- reduction in the magnitude of impacts; or
- compensation for losses incurred through unavoidable impacts;

These should be identified as such in the technical chapters of the ES.

Mitigation measures should not be developed in isolation, as they may relate to more than one aspect of the environment (e.g. mitigation to address issues of landscaping, surface water management, air quality and biodiversity).

The ES should set out the mitigation measures required to prevent, reduce and where possible offset any significant adverse effects. The ES should also identify any residual effects that could be expected to persist even with mitigation in place.

The anticipated effectiveness of any mitigation measures proposed should be addressed within the ES. Only mitigation measures that can be shown to be deliverable (i.e. technically and financially viable), and for which the applicant can deliver and implement as part of any planning permission granted, should be taken into account as part of the assessment.

It is further recommended that a section is included in the ES in which the mitigation measures proposed across all the technical chapters are collated and presented as an integrated package.

It is considered best practice to outline in the ES, the structure of the environmental management and monitoring plan.

Cumulative effects

The committed developments summarised in paragraphs 4.12 to 4.17 of your Scoping Report appears to be acceptable. I would also add the relevant planning permissions at NOMA - 134307/FO/2022. There are also other planning permissions which are close by in Victoria North - 136814/FO/2023.

Cross references and summarising of the findings

All specialist chapters should be cross-referenced to other relevant disciplines (for example traffic impacts on air quality). Consideration of the potential for interactions between the different aspects of the environment is essential to the production of a robust assessment.

The ES should not be a collection of separate specialist chapters, but a comprehensive assessment of the environmental impacts of the proposed components of the wider scheme, and should account for how the identified impacts could be mitigated or avoided, or how suitable compensation could be provided to offset those effects.

In accordance with the requirements of paragraph 6 of Schedule 4 of the EIA Regulations, each technical chapter should include a description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of any difficulties (e.g. technical deficiencies, lack of know-how, etc.) encountered by the applicant during the preparation of the ES and the main uncertainties involved.

ENVIRONMENTAL MATTERS TO BE SCOPED OUT OF THE ES

The City Council comments as follows, based on the information provided, on the matters proposed to be scoped out of the ES.

- Aviation;
- Archaeology;
- Ecology;
- Flood Risk and Drainage;
- Ground Conditions;
- Highways;
- Human Health;
- Noise and Vibration;
- Telecommunications;
- Lighting;
- Major risks and accidents;
- Sustainability;
- Utilities;
- Waste.

Aviation

Aviation can be scoped out of the EIA. The contents of paragraph 5.2 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Archaeology

Archaeology can be scoped out of the EIA. The contents of paragraph 5.3 of the Scoping Report are noted and it is agreed that there would be no significant

environmental impacts which require consideration in this regard as a result of the development.

You should note the comments of Greater Manchester Archaeology Advisory Service (GMAAS) who state that is anticipated that some intrusive archaeological investigation will be required in due course, not least to determine whether any human remains survive in the former graveyard associated with the chapel. It may also be appropriate to implement a historic building investigation in advance of any future development works.

Ecology

Ecology can be scoped out of the EIA. The contents of paragraphs 5.5-5.6 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

You should note the comments received from Greater Manchester Ecology Unit with regards to the bat survey. This work should be incorporated into the application submission.

Flood Risk and Drainage

Flood Risk and Drainage can be scoped out of the EIA. The contents of paragraphs 5.7-5.8 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

You should note the comments received from Flood Risk Management Team. This work should be incorporated into the application submission.

Ground Conditions

Ground Conditions can be scoped out of the EIA. The contents of paragraph 5.9 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Highways

Highways can be scoped out of the EIA. The contents of paragraphs 5.10 – 5.96 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

You should note the comments received from Highway Services. This work should be incorporated into the application submission.

Human Health

The Local Planning Authority does not consider that the work can be scoped out of the ES. It is important to consider the impact of such large scaled developments on Human Health and therefore this should be included as a chapter in the ES.

Noise and Vibration

Noise and Vibration can be scoped out of the EIA. The contents of paragraphs 5.98 – 5.105 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Telecommunications

Telecommunications can be scoped out of the EIA. The contents of paragraphs 5.106 – 5.110 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Lighting

Lighting can be scoped out of the EIA. The contents of paragraph 5.111 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Major risks and accidents

Major risks and accidents can be scoped out of the EIA. The contents of paragraph 5.112 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Sustainability

Sustainability can be scoped out of the EIA. The contents of paragraph 5.113 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Utilities

Utilities can be scoped out of the EIA. The contents of paragraph 5.114 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Waste

Waste can be scoped out of the EIA. The contents of paragraph 5.115 of the Scoping Report are noted and it is agreed that there would be no significant environmental impacts which require consideration in this regard as a result of the development.

Summary

I agree that the matters you have identified to be scoped out of the ES are appropriate with the exception of Human Health.

The planning application must be supported by appropriate documentation, including any mitigation, to minimise any effects as a result of the Proposed Development from the matters capable of being scoped out. The City Council reserves the right to re-consider this position following a more detailed consideration of the reports which will accompany the planning application.

ENVIRONMENTAL STATEMENT CHAPTERS - SPECIFIC COMMENTS ON THE TECHNICAL CONTENTS

The ES should be proportionate in its consideration of the aspects of the environment listed under Paragraph 2 of Regulation 4 of the EIA Regulations. Those aspects of the environment that are subject to the most significant impacts from the Proposed Development should be the primary focus of the ES.

Your Scoping Report advises that the ES will cover the following topic areas.

- Daylight and Sunlight;
- Greenhouse Gas Emissions;
- Heritage;
- Socio-Economics;
- Townscape and Visual Impact Assessment;
- Wind Microclimate; and
- Air Quality.

As highlighted above, you should also include Human Health within relevant chapters within the ES.

General Comments

For planning purposes, the development site is located in the expanded City Centre boundary as well as located in the Regional Centre.

The significance of the site should be reflected throughout the ES. The Environmental Chapters must therefore consider the impacts of the Proposed Development on this context in order to determine any wider significant environmental impacts.

Daylight and Sunlight

The comments within your Scoping Report are noted and are acceptable in terms of their consideration in the ES.

Greenhouse Gas Emissions

The comments within your Scoping Report are noted and are acceptable in terms of their consideration in the ES.

Heritage

The comments within your Scoping Report are noted and are acceptable in terms of their consideration in the ES

Socio-Economics

The comments within your Scoping Report are noted and are acceptable in terms of their consideration in the ES

Townscape and Visual Impact Assessment

The comments within your Scoping Report are noted and are acceptable in terms of their consideration in the ES.

Wind Microclimate

The comments within your Scoping Report are noted and are acceptable in terms of their consideration in the ES.

Air Quality

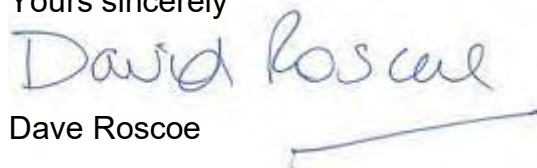
The comments within your Scoping Report are noted and are acceptable in terms of their consideration in the ES.

FURTHER INFORMATION

The City Council, as Local Planning Authority, has undertaken a thorough consideration of the information contained within your Scoping Report together with providing comments from relevant statutory consultees. The issuing of this Scoping Opinion does not preclude the City Council, as Local Planning Authority, from requesting further information at a later stage as the development proposals evolve or whilst a future planning application is being formally considered.

I trust this information is of some assistance to you. Should you require anything further please do not hesitate to contact myself or Jennifer Atkinson.

Yours sincerely

A handwritten signature in blue ink that reads "David Roscoe". Below the signature is a horizontal line.

Dave Roscoe

Deputy Director of Planning, Building Control and Licensing

Date: 28 October 2024
Our ref: 491178
Your ref: EIASCO/24/003



Manchester City Council
Ms. Jennifer Atkinson
[Redacted]

Consultations
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 900

BY EMAIL ONLY

Dear Ms. Atkinson,

Environmental Impact Assessment Scoping consultation (Regulation 15 (4) of the Town and Country Planning EIA Regulations 2017): Request for Scoping opinion under Part 4, Regulation 15 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended)

Location: Former Particular Baptist Church, 35 Rochdale Road, Manchester

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in the consultation dated 10 October 2024, received on the same date.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

A robust assessment of environmental impacts and opportunities based on relevant and up to date environmental information should be undertaken prior to a decision on whether to grant planning permission. Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for the proposed development.

Further guidance is set out in Planning Practice Guidance on [environmental assessment, natural environment and climate change](#).

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

Please note that Natural England must be consulted on Environmental Statements.

Please send any new consultations or further information on this consultation to
[Redacted]

Yours sincerely,

[Redacted]
Consultations Team

Annex A – Natural England Advice on EIA Scoping

General Principles

[Schedule 4](#) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the information that should be included in an Environmental Statement (ES) to assess impacts on the natural environment. This includes:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed development
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen
- A description of the aspects of the environment likely to be significantly affected by the development including biodiversity (for example fauna and flora), land, including land take, soil, water, air, climate (for example greenhouse gas emissions, impacts relevant to adaptation, cultural heritage and landscape and the interrelationship between the above factors
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium, and long term, permanent and temporary, positive, and negative effects. Effects should relate to the existence of the development, the use of natural resources (in particular land, soil, water and biodiversity) and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
- A non-technical summary of the information
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information

Further guidance is set out in Planning Practice Guidance on [environmental assessment](#) and [natural environment](#).

Cumulative and in-combination effects

The ES should fully consider the implications of the whole development proposal. This should include an assessment of all supporting infrastructure.

An impact assessment should identify, describe, and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment (subject to available information):

- a. existing completed projects;
- b. approved but uncompleted projects;
- c. ongoing activities;
- d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

Environmental data

Natural England is required to make available information it holds where requested to do so. National datasets held by Natural England are available at <http://www.naturalengland.org.uk/publications/data/default.aspx>.

Detailed information on the natural environment is available at www.magic.gov.uk.

Natural England's SSSI Impact Risk Zones are a GIS dataset which can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the [Natural England Open Data Geoportal](#).

Natural England does not hold local information on local sites, local landscape character, priority habitats and species or protected species. Local environmental data should be obtained from the appropriate local bodies. This may include the local environmental records centre, the local wildlife trust, local geo-conservation group or other recording society.

Biodiversity and Geodiversity

General principles

The [National Planning Policy Framework](#) (paragraphs 180-181 and 185-188) sets out how to take account of biodiversity and geodiversity interests in planning decisions. Further guidance is set out in Planning Practice Guidance on the [natural environment](#).

The potential impact of the proposal upon sites and features of nature conservation interest and opportunities for nature recovery and biodiversity net gain should be included in the assessment.

Ecological Impact Assessment (EclA) is the process of identifying, quantifying, and evaluating the potential impacts of defined actions on ecosystems or their components. EclA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. [Guidelines](#) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM).

Local planning authorities have a [duty](#) to conserve and enhance biodiversity as part of their decision making. Conserving biodiversity can include habitat restoration or enhancement. Further information is available [here](#).

Designated Nature Conservation Sites

The proposal is unlikely to adversely impact any European or internationally designated nature conservation sites (including 'habitats sites' under the NPPF) or nationally designated sites (Sites of Special Scientific Interest, National Nature Reserves or Marine Conservation Zones).

Regionally and Locally Important Sites

The ES should consider any impacts upon local wildlife and geological sites, including local nature reserves. Local Sites are identified by the local wildlife trust, geoconservation group or other local group and protected under the NPPF (paragraph 180 and 181). The ES should set out proposals for mitigation of any impacts and if appropriate, compensation measures and opportunities for enhancement and improving connectivity with wider ecological networks. Contact the relevant local body for further information.

Protected Species

The conservation of species protected under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017 is explained in Part IV and Annex A of Government Circular 06/2005 [Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System](#).

The ES should assess the impact of all phases of the proposal on protected species (including, for

example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law. Records of protected species should be obtained from appropriate local biological record centres, nature conservation organisations and local groups. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species populations in the wider area.

The area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants.

Natural England has adopted [standing advice](#) for protected species, which includes guidance on survey and mitigation measures. A separate protected species licence from Natural England or Defra may also be required.

District Level Licensing for Great Crested Newts

District level licensing (DLL) is a type of strategic mitigation licence for great crested newts (GCN) granted in certain areas at a local authority or wider scale. A [DLL scheme for GCN](#) may be in place at the location of the development site. If a DLL scheme is in place, developers can make a financial contribution to strategic, off-site habitat compensation instead of applying for a separate licence or carrying out individual detailed surveys. By demonstrating that DLL will be used, impacts on GCN can be scoped out of detailed assessment in the Environmental Statement.

Priority Habitats and Species

Priority Habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. Lists of priority habitats and species can be found [here](#). Natural England does not routinely hold species data. Such data should be collected when impacts on priority habitats or species are considered likely.

Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land. Sites can be checked against the (draft) national Open Mosaic Habitat (OMH) inventory published by Natural England and freely available to [download](#). Further information is also available [here](#).

An appropriate level habitat survey should be carried out on the site, to identify any important habitats present. In addition, ornithological, botanical, and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present.

The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys)
- Additional surveys carried out as part of this proposal
- The habitats and species present
- The status of these habitats and species (e.g. whether priority species or habitat)
- The direct and indirect effects of the development upon those habitats and species
- Full details of any mitigation or compensation measures
- Opportunities for biodiversity net gain or other environmental enhancement

Ancient Woodland, Ancient and Veteran Trees

The ES should assess the impacts of the proposal on any ancient woodland, ancient and veteran trees, and the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement.

Natural England maintains the Ancient Woodland [Inventory](#) which can help identify ancient woodland. The [wood pasture and parkland inventory](#) sets out information on wood pasture and parkland.

The [ancient tree inventory](#) provides information on the location of ancient and veteran trees.

Natural England and the Forestry Commission have prepared [standing advice](#) on ancient woodland, ancient and veteran trees.

Biodiversity Net Gain

Paragraph 180 of the NPPF states that decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Biodiversity Net Gain is additional to statutory requirements relating to designated nature conservation sites and protected species.

Proposals for mandatory biodiversity net gain should be in line with the Environment Act 2021 and supporting regulations. Further information on biodiversity net gain, including [draft Planning Practice Guidance](#), can be found [here](#)

The statutory [biodiversity metric](#), together with ecological advice, should be used to calculate the change in biodiversity resulting from proposed development and demonstrate how proposals can achieve a net gain.

The metric should be used to:

- assess or audit the biodiversity unit value of land within the application area
- calculate the losses and gains in biodiversity unit value resulting from proposed development
- demonstrate that the required percentage biodiversity net gain will be achieved

Biodiversity Net Gain outcomes can be achieved on site, off-site or through a combination of both. On-site provision should be considered first. Delivery should create or enhance habitats of equal or higher value. When delivering net gain, opportunities should be sought to link delivery to relevant plans or strategies e.g. Green Infrastructure Strategies or Local Nature Recovery Strategies.

Opportunities for wider environmental gains should also be considered.

Landscape

Landscape and Visual Impacts

The environmental assessment should refer to the relevant [National Character Areas](#). Character area profiles set out descriptions of each landscape area and statements of environmental opportunity.

The ES should include a full assessment of the potential impacts of the development on local landscape character using [landscape assessment methodologies](#). We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing, and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character.

A landscape and visual impact assessment should also be carried out for the proposed development and surrounding area. Natural England recommends use of the methodology set out in *Guidelines for Landscape and Visual Impact Assessment 2013* ((3rd edition) produced by the Landscape Institute and the Institute of Environmental Assessment and Management. For National

Parks and AONBs, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. This should include an assessment of the impacts of other proposals currently at scoping stage.

To ensure high quality development that responds to and enhances local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible, use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the [National Design Guide](#) and [National Model Design Code](#). The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure. It should also set out detail of layout alternatives, where appropriate, with a justification of the selected option in terms of landscape impact and benefit.

Heritage Landscapes

The ES should include an assessment of the impacts on any land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific, or historic interest. An up-to-date list is available at www.hmrc.gov.uk/heritage/lbsearch.htm.

Connecting People with Nature

The ES should consider potential impacts on access land, common land, public rights of way and, where appropriate, the England Coast Path and coastal access routes and coastal margin in the vicinity of the development, in line with NPPF paragraph 104. It should assess the scope to mitigate for any adverse impacts. Rights of Way Improvement Plans (ROWIP) can be used to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

Measures to help people to better access the countryside for quiet enjoyment and opportunities to connect with nature should be considered. Such measures could include reinstating existing footpaths or the creation of new footpaths, cycleways, and bridleways. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Access to nature within the development site should also be considered, including the role that natural links have in connecting habitats and providing potential pathways for movements of species.

Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Soils and Agricultural Land Quality

Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and best and most versatile (BMV) agricultural land should be considered in line with paragraphs 180 and 181 of the NPPF. Further guidance is set out in the Natural England [Guide to assessing development proposals on agricultural land](#).

As set out in paragraph 217 of the NPPF, new sites or extensions to sites for peat extraction should not be granted planning permission.

The following issues should be considered and, where appropriate, included as part of the Environmental Statement (ES):

- The degree to which soils would be disturbed or damaged as part of the development
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any best and most versatile (BMV) agricultural land would be impacted.

This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see www.magic.gov.uk.

- Where an ALC and soil survey of the land is required, this should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space).
- The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts.

Further information is available in the [Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites](#) and The British Society of Soil Science Guidance Note [Benefitting from Soil Management in Development and Construction](#).

Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue. For example, approximately 85% of protected nature conservation sites are currently in exceedance of nitrogen levels where harm is expected (critical load) and approximately 87% of sites exceed the level of ammonia where harm is expected for lower plants (critical level of 1µg) ^[1]. A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The Government's Clean Air Strategy also has a number of targets to reduce emissions including to reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030, to reduce emissions of ammonia against the 2005 baseline by 16% by 2030 and to reduce emissions of NO_x and SO₂ against a 2005 baseline of 73% and 88% respectively by 2030. Shared Nitrogen Action Plans (SNAPs) have also been identified as a tool to reduce environmental damage from air pollution.

The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly, or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The ES should take account of the risks of air pollution and how these can be managed or reduced. This should include taking account of any strategic solutions or SNAPs, which may be being developed or implemented to mitigate the impacts on air quality. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk).

Information on air pollution modelling, screening and assessment can be found on the following

^[1] [Report: Trends Report 2020: Trends in critical load and critical level exceedances in the UK - Defra, UK](#)

websites:

- SCAIL Combustion and SCAIL Agriculture - <http://www.scail.ceh.ac.uk/>
- Ammonia assessment for agricultural development <https://www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit>
- Environment Agency Screening Tool for industrial emissions <https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>
- Defra Local Air Quality Management Area Tool (Industrial Emission Screening Tool) – England <http://www.airqualityengland.co.uk/laqm>

Water Quality

The planning system plays a key role in determining the location of developments which may give rise to water pollution, and hence planning decisions can have a significant impact on water quality, and land. The assessment should take account of the risks of water pollution and how these can be managed or reduced. A number of water dependent protected nature conservation sites have been identified as failing condition due to elevated nutrient levels and nutrient neutrality is consequently required to enable development to proceed without causing further damage to these sites. The ES needs to take account of any strategic solutions for nutrient neutrality or Diffuse Water Pollution Plans, which may be being developed or implemented to mitigate and address the impacts of elevated nutrient levels. Further information can be obtained from the Local Planning Authority.

Climate Change

The ES should identify how the development affects the ability of the natural environment (including habitats, species, and natural processes) to adapt to climate change, including its ability to provide adaptation for people. This should include impacts on the vulnerability or resilience of a natural feature (i.e. what's already there and affected) as well as impacts on how the environment can accommodate change for both nature and people, for example whether the development affects species ability to move and adapt. Nature-based solutions, such as providing green infrastructure on-site and in the surrounding area (e.g. to adapt to flooding, drought and heatwave events), habitat creation and peatland restoration, should be considered. The ES should set out the measures that will be adopted to address impacts.

Further information is available from the [Committee on Climate Change's \(CCC\) Independent Assessment of UK Climate Risk](#), the [National Adaptation Programme \(NAP\)](#), the [Climate Change Impacts Report Cards](#) (biodiversity, infrastructure, water etc.) and the [UKCP18 climate projections](#).

The Natural England and RSPB [Climate Change Adaptation Manual](#) (2020) provides extensive information on climate change impacts and adaptation for the natural environment and adaptation focussed nature-based solutions for people. It includes the Landscape Scale Climate Change Assessment Method that can help assess impacts and vulnerabilities on natural environment features and identify adaptation actions. Natural England's [Nature Networks Evidence Handbook](#) (2020) also provides extensive information on planning and delivering nature networks for people and biodiversity.

The ES should also identify how the development impacts the natural environment's ability to store and sequester greenhouse gases, in relation to climate change mitigation and the natural environment's contribution to achieving net zero by 2050. Natural England's [Carbon Storage and Sequestration by Habitat report](#) (2021) and the British Ecological Society's [nature-based solutions report](#) (2021) provide further information.

Contribution to local environmental initiatives and priorities

The ES should consider the contribution the development could make to relevant local environmental initiatives and priorities to enhance the environmental quality of the development and deliver wider environmental gains. This should include considering proposals set out in relevant local strategies or supplementary planning documents including landscape strategies, green infrastructure strategies, tree and woodland strategies, biodiversity strategies or biodiversity opportunity areas.

FAO: Jennifer Atkinson
Manchester City Council
Town Hall Albert Square
Manchester
Lancashire
M2 5DB

Our ref: SO/2024/124491/01-L01
Your ref: EIASCO/24/003
Date: 29 October 2024

Dear Jennifer Atkinson,

**REQUEST FOR SCOPING OPINION UNDER PART 4, REGULATION 15 OF THE
TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)
REGULATIONS 2017 (AS AMENDED)**

**FORMER PARTICULAR BAPTISH CHURCH 35 ROCHDALE ROAD
MANCHESTER**

Thank you for consulting us on the above application, on 10 October 2024.

Environment Agency position

We have no objection to the application.

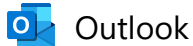
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Should you have any queries regarding this response, please do not hesitate to contact me.

Yours sincerely,


Planning Advisor

Team e-mail 



EIASCO/24/003 - Ecology Comments - 31.10.2024

From [REDACTED]
Date Thu 31/10/2024 11:37
To Jennifer Atkinson <[REDACTED]>
Cc Planning <[REDACTED]>

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Scoping Opinion: EIASCO/24/003

For the attention of Jennifer Atkinson

Dear Jennifer,

My comments on this application haven't changed since those give for application 139072/FO/2024.

The applicants ecologist (Rachel Hacking Ecology) has recommended that *"Further detailed survey is required in order to determine the status of roosting bats at the site. A minimum of one dusk emergence survey should be carried out in accordance with current guidelines. The survey should be undertaken between May and August."*

From what I can see, this was not requested.

All species of bat and their roosts, even when unoccupied, are protected under UK legislation and are a material consideration when determining planning applications. If the development is likely to disturb a potential bat roost then a full bat survey should be carried out before the application is determined. If bats are found on site under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, a licence is required from the Natural England to derogate the terms of this legislation. Before a licence can be granted three tests must be satisfied. These are:

- i) That the development is "in the interest of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequence of primary importance for the environment";
- ii) That there is "no satisfactory alternative";
- iii) That the derogation is "not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range".

Defra Circular 01/2005 gives guidance to local authorities on how these issues should be considered, including that surveys for protected species should not be left to conditions. The application should have not been determined until a full bat survey was submitted. Such a survey should be undertaken by a licensed bat specialist and at an appropriate time of year. If bats are found then appropriate mitigation would need to be proposed to demonstrate that the favourable conservation status of bats would be maintained at the site.

Should you have any queries relating to this advice, please do not hesitate to contact me again,

Yours sincerely,

[REDACTED]

[REDACTED]

Ecologist - Greater Manchester Ecology Unit

Planning and Transportation

Planning and Transportation

Place

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Dukinfield Town Hall | King Street | Dukinfield | Tameside | SK16 4LA

[REDACTED]

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<https://www.tameside.gov.uk/disclaimer>





Application EIASCO/24/003 - Request for Scoping Opinion - Former Particular Baptist Church, 35 Rochdale Road, Manchester

From [REDACTED]
Date Fri 25/10/2024 15:32
To Jennifer Atkinson <[REDACTED]>

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Good afternoon Jen

RE: Application EIASCO/24/003 - Request for Scoping Opinion - Former Particular Baptist Church, 35 Rochdale Road, Manchester

Thank you for consulting GMAAS on the above request for a Scoping Opinion.

The application is supported by a Scoping Report prepared by Zerum in October 2024, which includes a short section that considers archaeology. This concludes that, based on the information gleaned from the Greater Manchester Historic Environment Record, a review of historic mapping and documentary research carried out by Orion Heritage, the application site has a low potential for archaeological remains and any remains that do exist would be of local importance only. As such, it is proposed that archaeology as a topic can be scoped out of the EIA process and does not warrant the preparation of an ES chapter. However, a commitment is made to submitting a detailed archaeological desk-based assessment in support of any future planning application to inform a decision as to whether any further archaeological investigation is warranted.

GMAAS is content with the proposed approach and agrees that archaeology can be scoped out of the EIA process. Without wishing to prejudice the results of the forthcoming archaeological assessment, it may be anticipated that some intrusive archaeological investigation will be required in due course, not least to determine whether any human remains survive in the former graveyard associated with the chapel. It may also be appropriate to implement a historic building investigation in advance of any future development works. GMAAS would be content to see this building survey and intrusive archaeological investigation secured by a condition attached to planning consent in due course.

With kindest regards



Ian Miller BA FSA

Heritage Management Director
Greater Manchester Archaeological Advisory Service
Centre for Applied Archaeology, Peel Building
School of Science, Engineering & Environment
University of Salford, Manchester M5 4WT, UK
T: [REDACTED]



University of
Salford
MANCHESTER



SCHOOL OF
**SCIENCE, ENGINEERING
& ENVIRONMENT**



Memorandum

To Jennifer Atkinson

From [REDACTED]

Date 29 October 2024

Subject **EIASCO/24/003**

Request for Scoping opinion under Part 4, Regulation 15 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended)

We have reviewed the above application in relation to highways and our comments are as follows:

Context:

The proposal is a residential-led development of 23 storeys providing up to 135 dwellings with amenity areas and a separate commercial unit circa 90sqm forming part of the ground floor.

The proposal will also involve the partial retention of the church including its front elevation and partial returns.

The proposed development site is circa 800sqm. The site currently comprises the former Particular Baptist Church and its curtilage which includes a car park. The site is surrounded by Dyche Street to the northwest, Sharp Street to the north-east and Rochdale Road to the south-east.

The site had previously been granted consent in August 2024 for the temporary change of use from place of worship to storage and distribution under Ref:139072/FO/2024.

It should be noted that land to the south-west of the site had been granted consent in October 2020 for a hotel development under Ref:127537/FO/2020.

Documentation Submission:

The EIA Scoping Report confirms that the proposed development will be supported by the following documents:

- o Transport Assessment
- o Travel Plan

The Transport Assessment will comprise of:

- o Existing conditions
- o TRO review and plan
- o A review of highway safety within the vicinity of the site.
- o An audit of the accessibility of the site by all modes of travel.
- o Consideration of the impact of the development, by all modes, on the highway network.
- o Consideration of the multi-modal traffic generation associated with the development proposals. - Highways note that this should also include servicing trips, taxis and deliveries (Amazon/Uber)
- o A review of the development access arrangement, parking, off-site highways work and servicing provision strategy.

It is noted that a servicing/refuse collection strategy is to be provided.

Day to Day Operation:

The proposed development will not provide any car parking spaces with no day-to-day vehicle trips being made by residents at the development.

The Scoping Note acknowledges that there will be traffic accessing the site for servicing purposes which includes refuse collection, deliveries and taxi movements.

The Scoping Note acknowledges that volume of vehicle activity is expected to be low and would not be material presence of traffic on highway users or cause any adverse environmental issues.

Construction:

The construction period assumes commencement of the scheme during 2025 and to be complete in 2027. It is noted that the construction programme will be confirmed within the ES.

A forecast has been provided on the construction traffic generated by the development in line with an agreed method for a residential site (154no. Apartments) under planning ref: 138302/FO/2023. It is noted that the proposed development is anticipated to generate c. 60 construction traffic flow per day. This is a 0.47% increase in traffic flows on Rochdale Road during the construction phase. Highways requests that deliveries associated with construction works take place outside of the network peak hours.

The construction of the site could result in the closure of roads and footpaths, physical works within the highway to form new site access points, layout improvements, service upgrades and the need to accommodate regular deliveries of materials and construction equipment. It is acknowledged that the precise nature of the construction related highway effects are difficult to identify in detail until a final construction programme and delivery phasing plan has been undertaken.

It is recommended that the applicant has early engagement with MCCs Event and Network Management Team and work closely to safely manage highway and pedestrian safety during the construction phase.

Appropriate mitigation measures will be in place.

It is noted that a Construction Management Plan will be prepared. It is therefore recommended that the CEMP is updated to incorporate the following which are usually required within a CMP which would work to further reduce environmental impacts:

- o The duration/phasing of construction works and associated vehicle trips;
- o Routing of construction traffic and associated swept-path assessment;
- o Details of the location and arrangements for contractor parking;
- o The identification of the vehicular access points into the site;
- o Traffic Management measures for vehicles, pedestrians and cyclists;
- o Manage and coordinate construction activities with reference to ongoing/imminent construction works in the locality;
- o Identify measures to control dust and mud including on the surrounding public highway including details of how the wheels of contractor's vehicles are to be cleaned during the construction period;
- o The details of an emergency telephone contact number for the site contractor to be displayed in a publicly accessible location; and
- o Highway dilapidation survey including photographs and commentary on the condition of carriageway/footways on construction vehicle routes surrounding the site.

The Applicant should also note that MCC Highways also require information on proposed outline electricity/utility connection works and associated traffic management proposals prior to determination. This should be included within the submitted TA and also assessed as part of the EIA scoping process.

General Comments:

Car Parking:

The development will be car free and will not provide any standard car parking spaces.

There are existing parking bays surrounding the site on Dyche Street and Sharp Street. It is understood that these will be retained as part of the development. For the avoidance of doubt if the proposals impact on the relocation or removal of any Pay & Display Bays then this could incur the cost of £50k - £55k per bay, subject to confirmation and discussion with Manchester Parking Team.

The document does make reference to disabled car parking provision. It is noted that the consented hotel development (under Ref: 127537/FO/2020) will provide 2no. disabled parking bays on Dyche Street which the applicant suggests could be utilised by residents at the proposed development.

However, Highways requests that the applicant provides a minimum of 1no. disabled on-street parking bay for the use of future residents at the proposed site.

It is accepted that any users/visitors accessing the site by car would utilise local pay-and-display provision or various external car parks spread across the wider network given the existing waiting restrictions covering the highways in the vicinity of the site.

Cycle Parking:

A secure and sheltered cycle parking will be made available for the use at the ground floor of the building.

A cycle parking provision of 50% will be provided for the development. Highways requests that 100% cycle parking provision is provided.

It is noted that 2no. external Sheffield stands accommodating 4no. cycle parking spaces will be provided for visitor cycle parking.

Highways requests that a minimum of 6no. visitor cycle parking is provided and should be in place within the red-line boundary of the site or areas of public realm. This would also be useful for personal deliveries (Uber).

Access:

Primary accesses to the proposed development will be provided from Rochdale Road with secondary access points to the cycle and bin stores provided from Dyche Street.

It is acknowledged that the building line is to be set back, and footways are to be widened on the frontages that provides access to the site which will have the following minimum widths:

- o Rochdale Road: 4.5m
- o Dyche Street: 2.5m

It should be noted that at minimum of 2.0m of the above-mentioned footway should remain as adopted.

It is noted that the Sharp Street footway is to be retained at its existing width of 1.5m.

Clear details of pedestrian access arrangement including engineering drawings should be included in the Transport Assessment.

Mitigation:

The developer should identify appropriate mitigation to accommodate any increases in traffic generation and increased pedestrian and cyclist movements. Any appropriate mitigation should be identified in conjunction with TfGM and MCC who will be happy to work with the developer to agree an approach.

TRO Review:

A review of Traffic Regulation Orders on the surrounding streets in the vicinity of the development has been undertaken by the applicant.

The proposed hotel development (ref:127537/FO/2020) to the southwest of the site is to modify the TRO on Dyche Street to provide 2no. disabled parking bays and a loading bay.

Any further required changes to the TRO is to be funded by the applicant.

Waste and Service Management:

It is noted that the refuse store will be located on the Dyche Street frontage. Highways request that the refuse store for residents and commercial unit is located within the boundary of the site.

It is understood that refuse and servicing activity associated with the development intends to utilise the changes to the TRO proposed by the hotel development (under Ref: 127537/FO/2020) which includes the provision of a loading bay at Dyche Street.

Highways requests that the development provides their own loading bay / loading arrangements for servicing and refuse collections. Please note that Highways will not accept a loading bay on Rochdale Road.

Vehicle tracking of a standard 11.5m refuse vehicle should be demonstrated via swept path analysis.

If the development site proposes private waste collection for both the residential use and commercial use, then it is requested that details of this are provided.

It is requested that servicing is undertaken outside of the network AM and PM peak periods.

Swept path analysis should be provided for the largest expected service/delivery vehicle within the development boundary. The number of deliveries and location of the delivery points should also be provided.

It is noted that a service/refuse collection strategy will be included within the Transport Assessment.

Off-site Highways Works:

As mentioned previously, the building line is to be set back and footways on Rochdale Road and Dyche Street are to be widened.

It is noted that the applicant will also fund the reinstatement of any redundant access points and re-surfacing of footways bounding the site. It is understood that this will include Dyche Street, Sharp Street and Rochdale Road.

If the provision of a servicing area and a disabled parking bay is to be made on Dyche Street, then alterations to the chicane on the adopted Dyche Street will be required to accommodate this. This is to be funded by the applicant and subject to a Section 278 agreement.

It is requested that the applicant review the proposed / granted planning applications surrounding the development site and ensure that any off-site highways work link into these.

For any works on the adopted highway a S278 agreement will be required. A S278 agreement is required for works to the adopted highway - a deposit is required to begin the S278 application, additional costs will be payable and are to be agreed with S278 Statutory Approvals team. Following an assessment of the scope of works, all additional estimated costs are required to be paid in full prior to the expenditure of the initial deposit, or work on the technical approval process will cease and can delay the programme for the start of works on site. The minimum standard S278 technical approval timescale is between 4-6 months and, TRO's can take 12 months so please programme this into your timetable. Please note: you will not be able to start works on the highway until technical approval has been given by the S278 Engineer and the relevant highways permits granted.

Any modifications / improvements to the public highway or footpath will require agreement with MCC's Highways Applications and Network Resilience teams. This will be funded at the applicant's expense. The following link provides access:

https://www.manchester.gov.uk/directory_record/287709/permission_to_work_on_the_highways_-_section_278_agreements/category/355/highways_and_pavements

Additional mitigation measures may be required following further discussion and assessment taken forward within the Transport Assessment.

There is an existing bus stop close to the site on Rochdale Road. The applicant is advised to contact [REDACTED] if the construction works are likely to impact the bus stop or if any changes are proposed [REDACTED] prior to undertaking any works.

Public Realm:

Further details on the amenities space are required.

It is recommended that all public realm designs and materials are agreed with MCC's Capital Programmes and Property team prior to site works beginning. The MCC Flood Risk Management and Street Lighting teams will need to be consulted to discuss lighting and drainage associated with the site public realm.

For the avoidance of doubt, all non-standard materials to be used on the adopted highway will be subject to applicable commuted sums, likewise for the implementation of street trees on the highway.

It is expected that all modifications / improvements to the public highway are achieved with a maximum carbon footprint of 40%. Materials used during this process must also be a minimum of 40% recycled and fully recyclable. Developers will be expected to demonstrate that these standards can be met prior to planning conditions being discharged. The developer is to agree the above with MCC's Statutory Approvals and Network Resilience Teams post planning approval and prior to construction taking place.

Personal Delivery Management:

In order to fully understand the potential impacts of private taxi & food / parcel deliveries for new residential developments within the city and the impact of this type of pick up / drop off activity, applicants will be expected to follow the below suggested guidance:

- o All developments will ideally provide an off-highway location to accommodate all drop off / pick up activity at the site, including vehicular and cycle activity;
- o The applicant must justify the numbers of trips associated with Taxi & Food / Parcel Deliveries as part of the planning submission. The methodology of the assessment should be agreed with MCC and utilise industry standard tools i.e. TRICS;
- o Whilst it is accepted that current data is limited in terms of this type of activity, any additional justification and evidence from recently occupied sites would also be of benefit;
- o Once a robust and agreed trip generation has been established, the applicant will be required to demonstrate how this activity can be accommodated either within the site itself or within the adopted highway. This should account for peak hour activity where the most likely period of conflict will occur.
- o In terms of an internal drop off / pick up facility - the applicant will be expected to illustrate that all vehicle / cycle activity can be accommodated within the site. This should not impact on the adopted highway, including footway.
- o Should drop off / pick up not be accommodated internally, the applicant will be required to assess the exiting highway layout and Traffic Regulation Orders (TROs) and demonstrate that the parking restrictions can accommodate the peak number of movements associated with Taxi & Food / Parcel Deliveries. This should include surveys of existing on-street parking and loading / unloading activity within the vicinity of the site.
- o Where amendments are required to the adopted highway, in order to provide a safe and functional drop off / pick up location, this will be captured as part of a S278 agreement to be fully funded by the applicant.

All developments will be expected to provide a Management Strategy for Food / Parcel Deliveries. This strategy will need to provide clear direction as to how the below considerations are to be brought forward and managed for the duration of the site's occupation:

1. Designate a Delivery Drop-off Point: Work with the management or housing staff of the development to establish a designated drop-off point for deliveries. This could be a specific lobby area or a central location easily accessible to delivery drivers.

2. **Display Signage:** If permitted, put up clear signage in the development's common areas to guide delivery drivers to the drop-off point. This will help prevent confusion and ensure timely deliveries.
3. **Inform Residents:** If possible, notify all residents of the new delivery process. Inform them about the designated drop-off point and any specific rules or guidelines they need to follow when receiving deliveries.
4. **Set Delivery Hours:** Establish specific delivery hours for residents of the development where possible. This could help manage the flow of deliveries, especially during peak times.
5. **Regularly Review the Process:** Periodically review how the drop-off process is working. Gather feedback from residents, delivery drivers, and staff to identify any areas for improvement and make necessary adjustments.
6. **Consider a Delivery Holding Area:** If feasible, set up a secure delivery holding area within the development. This can be especially helpful for residents who may not be immediately available to receive their orders.
7. **Monitor Security Concerns:** Ensure that the delivery process does not compromise the security and safety of the residents of the development. Address any security concerns promptly and collaborate with building management to implement appropriate measures.
8. **Encourage Feedback:** Encourage residents to provide feedback on their delivery experiences. This will help you assess the efficiency of the process and identify any potential issues that need to be addressed.

Travel Plan:

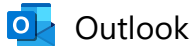
A Travel Plan will be provided with the TA which is welcomed by Highways.

If the Travel Plans are to be successful, they will be dependent on establishing a culture of sustainable travel behaviour at the outset, rather than on changing already established travel practices. The success of Travel Plan measures will depend on their effective delivery and commitment from the occupiers and therefore robust arrangements for the implementation and running of the Travel Plan need to be included in the Framework Travel Plan from the outset. These include:

- o A travel plan budget and resources for the implementation and day to day management of travel plan measures;
- o Appropriate management structures;
- o Detailed time frames for the delivery;
- o Handover arrangements for the travel plan or its components when the developer's responsibility ceases; and
- o Targets and monitoring arrangements.

Ideally the full Travel Plan should include tailored measures to overcome specific barriers, or take advantage of opportunities, presented by the site.

Highways Reference: 16279/FO/2024



EIASCO/24/003, scoping opinion, baptist church 35 rochdale road

From [REDACTED]
Date Tue 05/11/2024 16:04
To Jennifer Atkinson <[REDACTED]>

Hi Jen,

Air Quality

We agree that air quality will be scoped into the EIA. It is accepted that the application site is within the Greater Manchester Air Quality Management Area (map available at: <https://uk-air.defra.gov.uk/aqma/maps>) and that the proposals will consider the effects to air quality from operational road traffic and construction impacts and impacts on the future occupants. If required following assessment of potential impacts, suitable mitigation measures will be identified.

Noise and Vibration

Environmental Health can agree the noise assessment will be scoped out of the EIA. A separate noise report will be submitted and mitigation proposed where necessary.

Contaminated Land

Environmental Health can agree the ground assessment will be scoped out of the EIA and separate report/s will be submitted as part of the planning process.

Kind regards



Environmental Protection
Environmental Health
The Neighbourhoods Directorate
Growth & Neighbourhoods
Manchester City Council
Hammerstone Road Depot
Gorton
Manchester
M18 8EQ

External Tel: [REDACTED]
email: [REDACTED]
website: www.manchester.gov.uk

We are now on X (formerly Twitter), for latest news and updates follow us [@EnvHealthMcr](https://twitter.com/EnvHealthMcr)

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Application details:	The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the "EIA" Regulations) Reference: EIASCO/24/003
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LLFA Comments 31/10/2024

The following Information has been considered:

Planning Portal uploads:	08/10/2024
Further submission emails:	N/A
Pre-Application Advice:	N/A

Any LLFA Comments to LPA
The proposed ES scope is accepted on the basis of the project commitments as-defined in the following sections: 5.8 (provision of a standalone Surface Water Drainage Strategy to support the Planning application.) A Surface Water Drainage Strategy must be submitted to support the Planning Application. The Surface Water Drainage Strategy should demonstrate design compliance with national and local policy. Where required, pre-application consultation with the LLFA can be arranged via the Planning Officer.



Fw: EIA Regulation Request for Scoping Opinion - Former Particular Baptist Church

From [REDACTED]**Date** Mon 14/10/2024 08:05**To** Jennifer Atkinson <[REDACTED]>**Cc** [REDACTED]

1 attachments (98 KB)

ufm5_Request_for_EIA_Scoping_Opinion.pdf;

Hi Jen

"No comments from Work and Skills in relation to Local Labour, assuming we will be consulted on Local Labour conditional requirements as and when progressing to full planning applications(s)."

Kind Regards

[REDACTED]

Work & Skills Officer

Work & Skills Team | Growth and Development | Manchester City Council

[REDACTED]

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From: Work Skills Admin <[REDACTED]>**Sent:** 11 October 2024 08:39**To:** [REDACTED]**Subject:** Fw: EIA Regulation Request for Scoping Opinion - Former Particular Baptist Church

Kind Regards

Work and Skills Team
Growth and Development Directorate
Manchester City Council
Town Hall Extension, Albert Square,
Manchester, PO Box 532,
M60 2LA

Sign up for The Work and Skills Bulletin here <https://public.govdelivery.com/accounts/UKMANCHESTER/signup/19569>

For the latest support and information about the coronavirus visit
<https://secure.manchester.gov.uk/info/500361/coronavirus>

Direct Number - 07939 165 819 / 07939 165 860

Follow us on Twitter- @MCCWorkSkills

Email: [REDACTED]

Web: <http://www.manchester.gov.uk>

From: [REDACTED] <[REDACTED]>

Sent: 10 October 2024 14:24

To: Work Skills Admin <[REDACTED]>

Subject: EIA Regulation Request for Scoping Opinion - Former Particular Baptist Church

Please see attached request for scoping opinion under reference EIASCO/24/003.

Regards,
Information, Delivery & Support Team,
Planning, Building Control & Licensing,
Manchester City Council, P O Box 532, Manchester M60 2LA

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CONSULTATION RESPONSE: EIASCO/24/003

From Safeguarding MAN [REDACTED]

Date Fri 11/10/2024 13:17

To Jennifer Atkinson <[REDACTED]>

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The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the "EIA" Regulations)

Reference: EIASCO/24/003 - REQUEST FOR A SCREENING OPINION FOR A RESIDENTIAL-LED DEVELOPMENT OF UP TO 135 DWELLINGS (USE CLASS C3)

Our Ref.: 2024/332

Dear Jennifer,

Thank you for consulting with the aerodrome safeguarding authority for Manchester Airport on the EIA Scoping Report for development at FORMER PARTICULAR BAPTIST CHURCH, 35 ROCHDALE ROAD, MANCHESTER.

We agree with the report findings at 5.2, that aviation can be scoped out of the EIA. Should the development exceed 90m in height AGL, we will need to be consulted.

Sincerely,
MAG Aerodrome Safeguarding Team

[Stansted Airport](#) | [East Midlands Airport](#) | [Manchester Airport](#)

MAG, 3rd Floor, Olympic House, Manchester Airport, M90 1QX



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Historic England

Ms Jennifer Atkinson
Manchester City Council
PO Box 532
Town Hall
Manchester
M60 2LA

Direct Dial: [REDACTED]

Our ref: PL00797136

18 October 2024

Dear Ms Atkinson

Request for Scoping opinion under Part 4, Regulation 15 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) EIASCO/24/003 - Former Particular Baptist Church 35 Rochdale Road Manchester

Thank you for your consultation to Historic England to request a scoping opinion for the above site. We are in agreement with the results of the submitted Environmental Impact Assessment Scoping Report (Zerum, October 2024) that Built Heritage should be scoped in to the Environmental Statement, and that the heritage assets identified are appropriate for inclusion.

Yours sincerely,

[REDACTED]

Inspector of Historic Buildings and Areas

[REDACTED]



SUITES 3.3 AND 3.4 CANADA HOUSE 3 CHEPSTOW STREET MANCHESTER M1 5FW

Telephone 0161 242 1416
HistoricEngland.org.uk

Historic England is subject to both the Freedom of Information Act (2000) and Environmental Information Regulations (2004). Any information held by the organisation can be requested for release under this legislation.

2.1 SITE LOCATION PLAN



DO NOT SCALE
Work to annotated dimensions only. Read drawings in conjunction with relevant specification, Structural Engineers' and Services Engineers' drawings. Confirm all dimensions before commencement of any work on site or fabrication.

P1 Planning Issue 27/11/24
Rev: Details Date:

client:
CityPoint Developments

project:
Baptist Church

job number:
0658

status:
S1 - Suitable for Coordination

title:
Proposed GA Plan
Site Location Plan

scale: 1 : 1000
@ A1

drawing number:
(-)-001

current revision date: 27/11/24
revision: P1

SGI Studios
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Manchester M15 4LE
t: +44(0)161 632 9842
e: mail@hodderandpartners.com
w: www.hodderandpartners.com

hodder+partners

2.2 DOCUMENTS SUBMITTED WITH THE PLANNING APPLICATION

FULL PLANNING APPLICATION FOR PARTIAL DEMOLITION OF REAR OF EXISTING BUILDING AND ERECTION OF A 23 STOREY RESIDENTIAL BUILDING COMPRISING 133 UNITS WITH GROUND FLOOR COMMERCIAL UNIT (USE CLASS E) AND ASSOCIATE WORKS AT 35 ROCHDALE ROAD, MANCHESTER

DOCUMENTS SUBMITTED WITH THE PLANNING APPLICATION

- Affordable Housing Statement prepared by Zerum
- Archaeological Assessment prepared by Orion Heritage
- Blue and Green Infrastructure Statement prepared by Zerum
- Broadband Connectivity Assessment prepared by GTech
- Circular Economy Statement prepared by Futureserv
- Construction Environmental Management Plan prepared by Zerum
- Crime Impact Statement prepared by Greater Manchester Police
- Daylight Sunlight Assessment prepared by WSP
- Daytime Bat Survey prepared by Rachel Hacking Ecology
- Design and Access Statement prepared by Hodder and Partners
- Desk Based Archaeological Assessment prepared by Orion
- Dusk Emergence Survey prepared by EPS
- Energy Statement prepared by Futureserv
- Environmental Standards Statement prepared by Futureserv
- Fire Statement prepared by Jensen Hughes
- Flood Risk Assessment and Drainage Strategy prepared by
- Heritage Assessment prepared by Stephen Levrant Heritage Architecture
- Noise Assessment prepared by Jameson Acoustics
- Overheating and Ventilation Statement prepared by FutureServ
- Phase 1 Desk Study prepared by Civic Earth;
- Planning Statement including Tall Building Statement prepared by Zerum
- Statement of Community Involvement prepared by Counter Context Ltd
- Television and Radio Reception Impact Assessment prepared by GTech Surveys Limited;
- Townscape and Visual Impact Assessment prepared by RBMP
- Transport Assessment and Travel Plan prepared by SK Transport
- Utility Statement prepared by FutureServ
- Viability Statement prepared by Savills
- Waste pro forma prepared by Hodder and Partners Architects and
- Wind Assessment prepared by WSP

4.1 CONSTRUCTION MANAGEMENT PLAN



Construction Environmental Management Plan

At Former Particular Baptist Chapel,
35 Rochdale Road, Manchester

On behalf of City Point Residences Ltd

December 2024

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3.	Site Operation	3
4.	Environmental Protection	4

1. INTRODUCTION

- 1.1 This document has been prepared by Zerum to support the planning application for redevelopment of the former Particular Baptist Chapel, 35 Rochdale Road, Manchester. The scheme proposes partial demolition of the rear of the existing building and erection of a 23 storey residential building comprising 133 units with ground floor commercial unit (Use Class E) and associated works.
- 1.2 This is an initial draft Construction Environmental Management Plan which sets out requirements for the eventual appointed building contractor. It aims to minimise and mitigate impacts of construction on the local community and will set targets for management of the construction site. It should be viewed as a live document which will be reviewed and adapted during the construction phase. It is therefore subject to change.
- 1.3 The contractor will be expected to be suitably accredited and audited, ie ISO 14001 and audited by BSI to ensure the proper environmental management processes are put in place throughout. This enables monitoring against specific targets, with performance recorded regularly in relation to carbon emissions, waste diverted from landfill, use of energy and reduction in water use.

2. ACCESS

CONSTRUCTION ACCESS

- 2.1 The proposed layout has taken into account how construction will impact the area and ensures there is sufficient space for a crane to be located on site during the construction period.
- 2.2 Consideration has been given to the complexities of constructing the new building and maintaining site access during the construction process.
- 2.3 Prior to the construction phase, the construction team will put together a plan for the routing of construction vehicles to and from the site to avoid unnecessary disruption.

PUBLIC ACCESS

- 2.4 It is recognised that Rochdale Road is a busy thoroughfare and should not be subject to unnecessary disruption. As such, the contractor will be required to provide a robust Construction Traffic Management Plan to address this and to provide more detail on the scheduling and management of construction vehicles which will be required to serve the site.

PARKING

- 2.5 Construction staff will be advised of the absence of onsite parking and provided with details on alternative parking. This is not an unusual arrangement, particularly with urban, central sites. Access gates to the construction site will be managed and manually operated to avoid unauthorised access and parking within or adjacent to the site.

3. SITE OPERATION

HOURS OF OPERATION

3.1 It is anticipated that construction works and deliveries will be limited to the following hours of operation:

- Monday to Friday 08:00 to 18:00.

3.2 No weekend working is anticipated.

SITE WELFARE

3.3 The appointed contractor will provide a site logistics plan, with consideration given to turning vehicles, delivery drop offs, and the optimum placing of any site cabins for secure storage and welfare facilities.

STORAGE

3.4 The appointed contractor will consider the placing of specific storage areas, which are to be maintained and segregated from vehicles. Materials must be stored in line with manufacturer guidance and COSHH data sheet requirements.

3.5 Any flammable liquids must be properly and securely stored. Fuel storage should be in bunded tanks and away from drainage gullies where possible. Spill kits should be located adjacent to any fuel storage tanks and refuelling stations to prevent water pollution into nearby drains in the event of spillage. Sandbags should be available within the fuel storage area to adequately bund nearby gullies as required. An emergency spill response plan should be put in place.

WASTE MANAGEMENT

3.6 A Waste Management Strategy will be put in place by the appointed contractor at the pre-construction stage. This will set out expectations for sustainable practices including recycling.

SECURITY HOARDING AND SITE SIGNAGE

3.7 The construction site will be segregated using temporary fencing to provide a continuous perimeter around the site. The site will be rendered safe and secure at the end of each working day, preventing unauthorised access.

4. ENVIRONMENTAL PROTECTION

ECOLOGICAL PROTECTION

- 4.1 The contractor will be required to ensure that any necessary ecological protection is in place for the entirety of the construction period. This includes groundwater management, the protection of drains and preventing contaminants entering through containment.
- 4.2 The site Manager will inspect all watercourses for any evidence of contamination. They will carry out weekly inspections of all oil/fuel storage areas and plant, and will record any issues or areas of concern in the Environmental Mitigation and Drainage Register. They will be expected to carry out regular dust and noise monitoring, and record all checks in the CEMP inspection log.

DUST CONTROL

- 4.3 Dust from construction activities is to be minimised through minimising onsite cutting and grinding, and using techniques to minimise the impact where this is unavoidable. This could include water suppression.
- 4.4 Loaded lorries and skips will be covered to prevent spillage of materials. Water suppression will be used during dry periods to prevent dust from vehicle movement.

NOISE

- 4.5 Construction noise will be minimised as far as reasonably practicable. Regard will be had to the Control of Noise at Work Regulations 2005. If personnel are required to work with potentially harmful levels of noise, noise assessments will be undertaken and appropriate measures taken. Suppression of noise will be undertaken before use of PPE is considered as the main form of protection.

NEIGHBOUR LIAISON

- 4.6 Consultation has taken place during the planning stage, and it will be requested that the contractor facilitate further meetings as necessary. This will enable any potential issues to be monitored.

6.1 STATEMENT OF COMMUNITY INVOLVEMENT

Rochdale Road

Statement of Community Involvement

Prepared by Counter Context Ltd

OCTOBER 2024

**counter
context**

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1. Introduction

1.1 Overview

This Statement of Community Involvement has been prepared by Counter Context Ltd on behalf of Cynergy Wellness Residences, hereby referred to as 'the Applicant'. It provides:

- An account of the pre-application consultation undertaken with local residents, local community groups, local councillors and other key stakeholders about the proposals.
- A summary of the feedback received from these consultees.
- Evidence that this feedback has been considered in the development of the proposals.

The pre-application consultation strategy was designed to reflect guidance within Manchester City Council's adopted Statement of Community Involvement (2018) and the National Planning Policy Framework (NPPF) (2023).

1.2 Site Location

The proposed site is bound by Northern Angel to the north-west, Rochdale Road (A664) to the south-east, and Hampton by Hilton to the north-east. It currently comprises a disused Baptist chapel, which occupies roughly three quarters of the site, and off-street car parking.

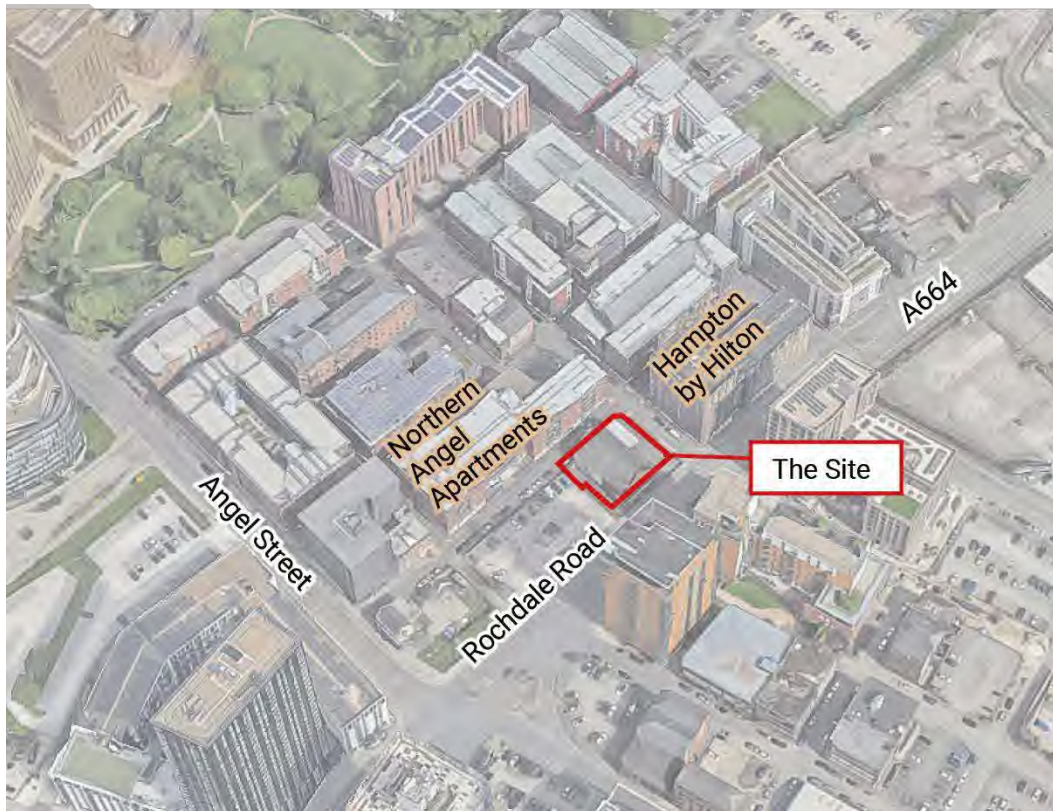


Figure 1: Site location (courtesy of Google Maps).

1.3 Overview of the Proposed Development

Partial demolition of rear of existing building and erection of a 23 storey residential building comprising 133 units with ground floor commercial unit (Use Class E) and associated works.



Figure 2: Site plan.

1.4 Policy Requirements

Conducting an early and transparent pre-application consultation is consistent with the guidance within the National Planning Policy Framework (NPPF) (2023).

Paragraph 39 of the NPPF states that:

Early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties. Good quality pre-application discussion enables better coordination between public and private resources and improved outcomes for the community.¹

The NPPF goes on to state that:

[Local Authorities] should also, where they think this would be beneficial, encourage any applicants who are not already required to do so by law to engage with the local community and, where relevant, with statutory and non-statutory consultees, before submitting their applications.²

¹ Secretary of State for Ministry of Housing, Communities and Local Government, National Planning Policy Framework, 2023, paragraph 39.

² Secretary of State for Ministry of Housing, Communities and Local Government, National Planning Policy Framework, 2023, paragraph 40.

...

Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot.³

This Statement of Community Involvement also fulfils a formal recommendation of the Local Planning Authority to provide people with an opportunity to feed into the design process of a scheme at an early stage.

Manchester City Council's adopted Statement of Community Involvement (2018) sets out 'how developers can ensure that there is an effective opportunity for people to comment and steer development'⁴.

In providing guidance to developers on how they should carry out pre-application consultation, Manchester City Council's Statement of Community Involvement provides recommendations on the types of methods that developers can adopt as part of their pre-application consultation strategy.

Pre-application consultation is beneficial to both the community and the developer as it allows the developer to design a proposal which takes on board the opinions of the community...

...The format of the consultation that the developer uses is likely to be discussed with us as part of pre-application discussions, to help ensure that there is an effective opportunity for people to comment and steer development. The following methods are likely to be suitable and should be used as appropriate:

- *Letters sent to residents and businesses in nearby streets telling them what is proposed, how they can get more information and how they can give the developer their views*
- *Public exhibition in an accessible location close to the development (e.g. library or supermarket) which tells the public about what is happening and gives them an opportunity to make comments*
- *A website set up by the developer*
- *Leaflets distributed to nearby streets and placed in facilities near the proposed developments which have a tear off slip for comments*
- *Social media used by the developer to advertise the development and associated consultation events...*

...We can't require developers to carry out pre-application consultation using the methods set out above, but it is encouraged. Where developers have not engaged with local residents and businesses, it is possible that an application could generate more objections once submitted. This could result in the developer having to amend their application to address the objections which could delay the decision-making process.⁵

From the beginning of the development process, the Applicant set out to undertake a transparent and meaningful consultation with the local community. Throughout the process, stakeholders and local people had the chance to provide feedback to the Applicant and engage in an ongoing dialogue through the consultation channels.

³ Secretary of State for Ministry of Housing, Communities and Local Government, National Planning Policy Framework, 2023, paragraph 132.

⁴ Manchester City Council's Planning and Development Statement of Community Involvement, June 2018, page 33.

⁵ Manchester City Council's Planning and Development Statement of Community Involvement, June 2018, pages 33-34.

2. Pre-Application Public Consultation Activities

2.1 Introduction

This section of the Statement of Community Involvement sets out the range of activities undertaken as part of this pre-application consultation, which ran from Monday 30 September to Monday 21 October 2024, in addition to prior engagement with elected representatives.

2.2 Elected Representative and Stakeholder Engagement

Ahead of the consultation launch, an email was issued to the elected members for the Piccadilly, the ward within which the site is situated. The email provided an introduction to the Applicant, the site, the proposals, and the consultation process. It also invited the councillors to a meeting with the Applicant's team, either in-person or virtually, to discuss the plans in more detail should they wish to. No response was received.

2.3 Publicising the Consultation

2.3.1 Consultation postcard

A postcard was issued 2nd Class via Royal Mail on Wednesday 25 September 2024 to ensure it landed in line with the launch of the consultation on Monday 30 September 2024. It was issued to 2727 addresses within the consultation boundary, as shown below.

The postcard introduced the proposals for Rochdale Road and directed recipients towards the consultation website to find out more.

The consultation leaflet is provided as **Appendix 1**.



Figure 3: Postcard distribution area.

2.3.2 Press release and media coverage

A press release was issued on Monday 30 September to a range of local, regional and national media publications. It provided introductory information about the proposals and details of the public consultation. Articles subsequently appeared in Place North West, The Business Desk, Business Live, About Manchester and BBC News.

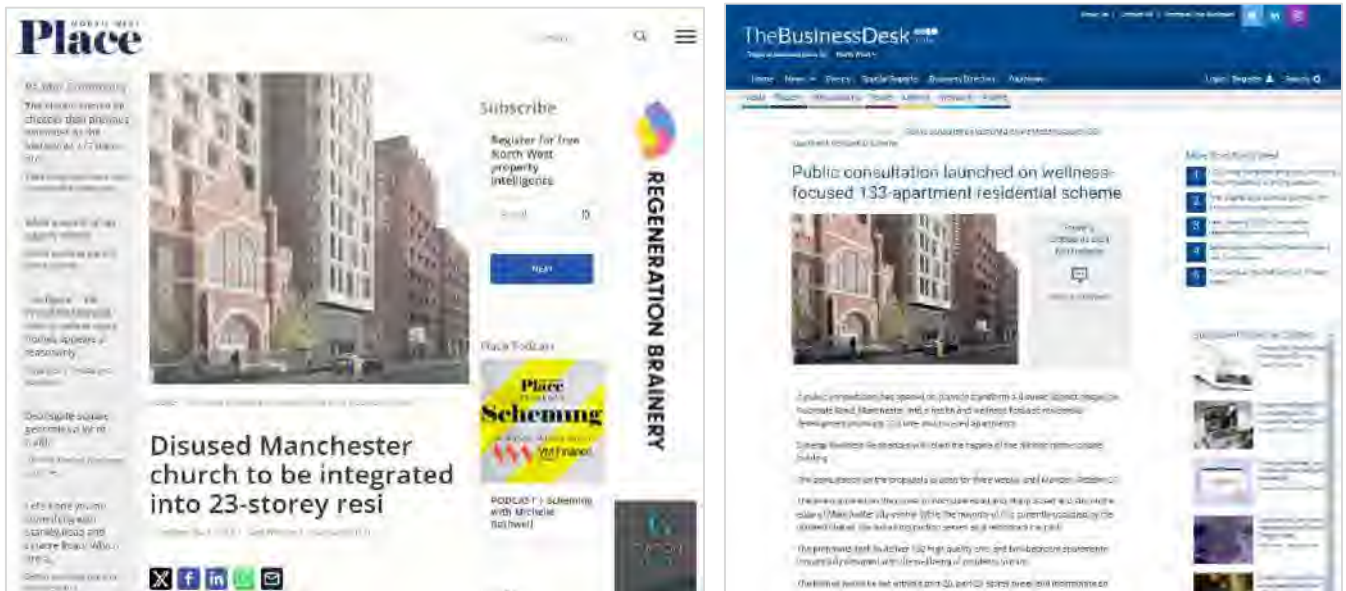


Figure 4: Screenshots of the articles about the proposals that appeared on Place North West (left) and The Business Desk (right).

2.4 Consultation Webpage

The dedicated consultation website went live at the start of the consultation period on Monday 30 September 2024. The website (www.rochdale-road-mcr.com) provided information on the proposals and vision for the development. It also included a 'Have Your Say' section with a link to an online feedback form so that people were able to offer feedback and provide their views on the proposals.





Figure 5: Screenshots of the consultation website.

2.4.1 Website activity

Throughout the consultation period, the website received a total of 683 views from 629 unique users.

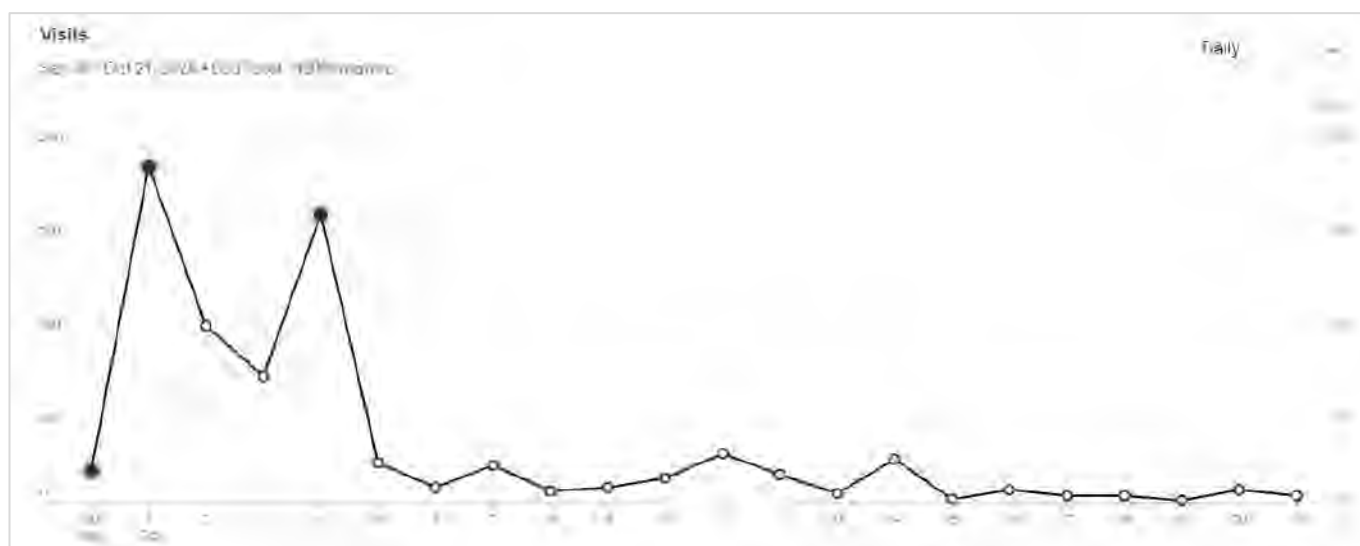


Figure 6: Graph showing the website activity during the consultation period.

2.5 Methods for Receiving Feedback

2.5.1 Email Address

The project email address (info@rochdaleroad-mcr.com) was publicised on all consultation materials, including the website and consultation postcard, allowing people to submit feedback or ask additional questions.

2.5.2 Online Feedback Form

An online feedback form was linked on the consultation website.

3. Pre-Application Consultation Feedback

3.1 Summary of Feedback Received

In total, 55 responses were received during the pre-application consultation via the following channels:

Response Type	Number
Online feedback form	53
Email	2
Total	55

All of the responses received during the pre-application consultation period have been logged and considered by the Applicant's team.

3.2 Analysis of Feedback Forms

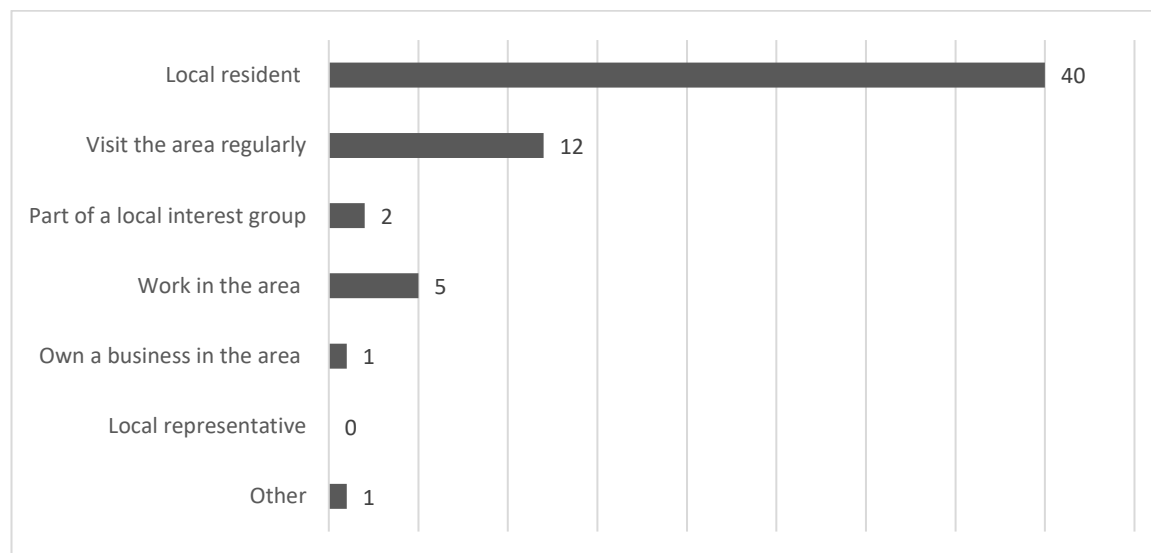
The feedback form included a series of multiple choice questions and open questions about the proposals. Here follows a summary of the answers received through the multiple choice questions asked as part of the online feedback form.

Comments received through the open-text questions included in the feedback form and by email and phone are summarised and responded to in Section 4.1.

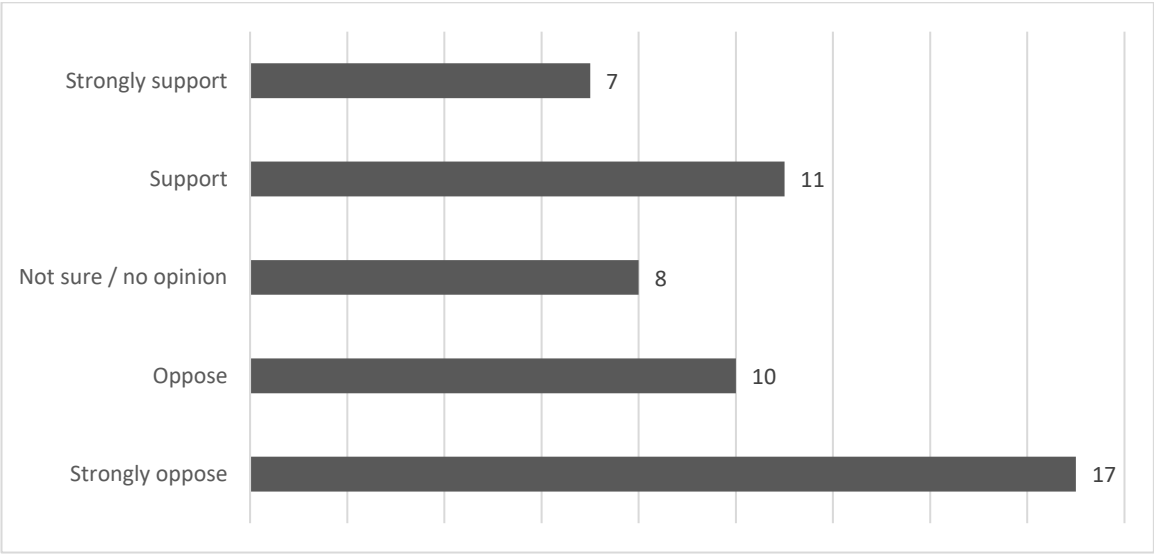
3.2.1 Responses to Closed Questions

How would you describe your interest in the proposals for Rochdale Road? (52/54 respondents answered this question).

Respondents were encouraged to select as many as applied.



To what extent do you support our proposal to breathe new life into the former Baptist chapel on Rochdale Road through the provision of new homes? (53/54 respondents answered this question).



4. Consideration of Pre-Application Consultation Feedback

4.1 Consideration of Issues

A summary of the issues raised by respondents and how they have been considered and responded to by the Applicant is provided in the following table. It should be noted that the submission documents including the Planning Statement and Design and Access Statement respond to these matters in far greater detail.

Topic	Applicant Response
Design	
A number of comments suggesting the height of the building is too tall and out of scale with the surrounding area. - It was suggested that the tallest buildings in the area are nine storeys, which are themselves out of scale with the area as most buildings are six storeys tall. - Suggestion that the building should be capped at 20 storeys. - Suggestion that the building should be capped at 10 storeys. Relatedly, respondents suggested the proposed height of the building would negatively impact existing residents in buildings/properties around the site insofar as it would reduce daylight/sunlight exposure, reduce heat, reduce the quality of life. Some respondents noted that while they are supportive of bringing the church back into use, the scale of the proposal is too big and represents an overdevelopment of the site. A comment acknowledging the logic behind the massing insofar as it follows the rhythm of nearby developments.	The design has been developed to respond to the scale of development in the local area whilst upholding the highest standards of amenity and design quality. There are a range of tall buildings in the immediate area, including the Skyline buildings opposite the site, which reach 19 storeys, NOMA and the nearby Angel Gardens at 35 storeys. Development at scale responds to the Council's ambitions for the regeneration of this city centre fringe location. High density schemes are encouraged in areas such as this, which benefit from the proximity of the city centre facilities and excellent connectivity via public transport and active travel options. The proposals have been carefully designed to uphold amenity for existing and future residents. This is demonstrated through the detailed evidence base which accompanies the application, including a Daylight Sunlight Assessment.
Comments from residents of Northern Angel, a building in close proximity to the site, suggesting that the development would reduce daylight/sunlight levels.	The development's scale and footprint evolved in response to a close analysis of its surroundings and constraints. This included nearby residential dwellings. Northern Angel residents were considered with particular emphasis as they are the proposal's closest residential neighbour. Several design principles were employed to protect their amenity. The building is set back 2.2m from the site's northern boundary, and there are setbacks at levels 3 and 19. As such, suitable separation distances are in place between the existing and proposed dwellings. This is covered in more detail in the application documents. The existing church on the site aligns closely with the ridge height of Northern Angel, with its eaves significantly lower, meaning it does not obstruct surrounding residents' natural light.

	The application includes a Daylight Sunlight Assessment which considers the impact of the scheme on nearby residents' amenity.
Comments that the colour of the building is not in keeping with others in the surrounding area. It was suggested for red brick to be used instead, as other recent developments along Rochdale Road have done (Ancoats Gardens, Hampton, Premier Inn, Downtown Victoria North).	While brick may complement other local designs, its use in this context risks overshadowing the Particular Baptist Chapel. The design approach is guided by the principle that heritage assets should be thoughtfully integrated into the evolving city centre. By selecting a material that offers a clear contrast, the chapel is both emphasized and celebrated.
Comments praising the proposed high-quality materiality.	
Suggestions that the building should match the materiality and style of the church.	The use of concrete allows for a range of high-quality textured surface finishes as well as the ability to create profiled elements on the facade to add richness. The rigorous grid is complemented by an anodised coloured aluminium for the window frames and cladding to set back recesses to give an accent.
Comments criticising the appearance of the scheme. It was suggested that it is indistinctive and is not in keeping with the surrounding area. Another suggested it was outdated.	Following the consultation, the side elevations have undergone further design development to better articulate the façade. This has been achieved through the addition of windows to living spaces and relocating the glazing on the stair cores to face the city centre. The stair cores now appear less monolithic after coordinating a panelised system which will encase them, improving both their appearance and integration with the overall design.
Comments that the facades on the side of the building need more detailing and should seek to be better articulated.	
Suggestion to step back the ground floor of the development further to expand the public realm at the entrance to the chapel.	The front elevation of the proposal is dictated by the position of the existing chapel. Given that the chapel is to remain as a local heritage asset, it is not felt appropriate to re-situate it and install public realm which does not reflect its original appearance.
A comment that there needs to be adequate space for refuse within the design.	The proposals have been carefully considered and include suitable internal refuse storage which is conveniently located for use by residents and collection by operatives. Further information is provided within the application documents.
A request to include some form of green space within the design.	The proposals incorporate two residents' terraces as well as internal amenity spaces.
Church	
A number of respondents praised the decision to integrate the disused church into the design. It was noted that the church is a heritage asset and that the proposals will ensure it is preserved.	The Applicant welcomes these comments of support. Significant attention has been devoted to preserving the existing Baptist Church as far as possible within the design.
It was noted that the church provides a fantastic frontage at street level.	
Comments objecting to the principle of delivering residential accommodation on the site.	The principle of housing on this accessible site that is close to the facilities of the city centre is fully in line with policy and will be a positive addition to the local area.

A number of respondents commented that the design does not respect the church, but rather serves to overshadow and encase it. It was suggested that a new design is needed that celebrates the church.	Promoting the church's frontage was a key consideration in shaping the design's massing. While sections of the building extend outward to interact with the streetscape, the overall proposal is set back to ensure the church remains prominently visible.
A suggestion to demolish the existing church so it is not an impediment on the plans.	The retention of the church is a key element of the proposals and is not considered an impediment.
A suggestion to retain the view of the church façade from the west.	The western return of the church is partially retained and will be clearly visible. This is considered a positive aspect of the design.
A suggestion that the church should be listed.	Historic England reviewed the church as a potential candidate for listing in April 2023. Their report concluded that while the building had a degree of architectural and historic interest, it lacked the strong level of distinction required to merit national listing. While the building is not listed, the applicant is keen to retain it and include it within the proposals due to its local interest.
Site	
A number of comments praising the proposals for bringing a key city centre site back into use.	The Applicant welcomes these comments of support.
Facilities	
Requests for the facilities within the development to be open to the local community. - A request for them to be offered at a discounted rate. - It was noted that doing so will help embed the development within the wider community. A comment noting that facilities such as co-working spaces are often underutilised when only available to residents of the development.	The facilities within the development would only be available to residents, but the commercial elements will be available to both residents and the general public.
Local amenities and infrastructure	
Comments suggesting the Applicant should support local infrastructure.	The planning process requires decision makers to review the potential impacts of the scheme on local infrastructure and require applicants to make contributions/improvements where necessary.
Suggestion to include a commercial unit in the development which could host a new shop.	A commercial unit is included on the ground floor of the development.
Affordable housing	
Comments expressing a preference towards seeing affordable housing delivered on site. Others suggested that at least some of the units included in the development should be offered as affordable housing. Suggestions that there should be some affordable housing specifically for local people. It was noted that many local residents are being priced out of the area due to developments such as this.	The Council has policies in place regarding the provision of affordable housing, and these will be addressed within the submission.
Demand for housing	

A comment praising the proposal for providing much-needed high density housing.	The Applicant welcomes this comment of support.
A comment objecting to the claim that the proposals will help to meet demand for housing in the area as many apartment buildings in the area currently stand half empty.	There is an acknowledged demand for housing of all types in Manchester City centre and for this reason, the Council's policies encourage housing, particularly on sustainably located brownfield sites such as this one.
Construction	
A comment noting the disruption caused by the construction of other developments in the area in recent years, and concern that these proposals would ultimately add to this.	Should planning consent be granted, this will be dependent on the provision of a Construction Management Plan, to be submitted by the Applicant prior to commencement of construction activities. These are typically required to address delivery arrangements, hours of operation, dust mitigation and the like, with the aim being to ensure that the process occurs with the minimum disruption to local residents and businesses.
Concern that the construction of the development would lead to road closures and cause disruption to local residents in the area.	
Car parking	
Comments criticising the exclusion of car parking from the proposals. It was suggested that there should be some level of provision. It was noted that the car parking in the area is already challenging at present and that the proposals would likely exacerbate the situation.	The site is in a highly sustainable location – it is within 30m of a bus stop, and 600m of Manchester Victoria train station and tram stop. It is also within a short walk, or cycle, to the city centre core. Residents will not require a car. Car-free living is popular particularly within such close proximity to the city centre facilities. Furthermore, the proposals include generous provision of secure internal cycle storage.
Traffic	
Suggestions that the proposal would exacerbate traffic in the area	The proposal is entirely car-free. This is a popular approach particularly in such well-located urban areas. The application is accompanied by a Travel Plan which will further promote sustainable travel.
Key services and infrastructure in the local area	
A comment that the adequacy of the area's infrastructure should be considered.	The planning process requires decision makers to review the potential impacts of schemes on local infrastructure and require applicants to make contributions/improvements where necessary.

5. Conclusion and Influence of Consultation on the Proposals

The consultation which has been undertaken is in accordance with both the National Planning Policy Framework (NPPF) (2023) and with Manchester City Council's adopted Statement of Community Involvement (2018). This document fulfils the requirement for a consultation supporting statement that summarises the methods used, the representations received, and the changes made to the proposals as a result of feedback submitted.

The comments received during the pre-application consultation have been considered by the Applicant's team on an ongoing basis to ensure that the issues raised could be addressed during the development of the proposals.

Overall, the feedback received in response to the consultation was broadly balanced. Many respondents expressed support for the plans to bring the disused church on the site back into use, with comments praising the proposed approach to the preserving and retaining the heritage asset. On the other hand, there were concerns around issues such as the proposed scale and design. The table in Section 4.1 provides a comprehensive response to this feedback and all other points raised during the consultation process.

The Applicant would like to thank all those who have provided their feedback during the pre-application consultation and looks forward to further constructive dialogue throughout the development process.

6. Appendices

6.1 Appendix 1: Consultation postcard

WE WANT TO HEAR YOUR VIEWS

On our plans for a new development on Rochdale Road

Cynergy Wellness Residences is bringing forward plans to redevelop the former Particular Baptist Chapel on the corner of Rochdale Road and Sharp Street, on the edge of Manchester city centre.

The project seeks to breathe new life into the disused chapel building by delivering much-needed city centre housing.

A total of 133 homes are proposed in a mix of one and two bedroom apartments, supported by a range of amenities including a concierge-manned reception, gym, spa and wellness facilities, social areas, co-working space, secure cycle storage and a communal roof terrace.

As an important heritage asset in the area, the former Baptist chapel fronting Rochdale Road has been carefully integrated into the design. It is retained in the street frontage and in the scale and character of the ground floor space.

In addition to residents' co-working spaces, the ground floor will include a separate commercial unit, helping to activate the surrounding streetscape.

Before we submit a planning application for our proposals, we are keen to hear feedback from the local community.



CYNERGY
WELLNESS RESIDENCES

HAVE YOUR SAY

The consultation on our proposals for Rochdale Road will be open for three weeks, from Monday 30 September to Monday 21 October 2024.

You can find more information on our plans by visiting our website, www.rochdale-road-mcr.com, which also includes a link to a questionnaire to tell us your views.

If you have any questions or would like further information on our proposals, please feel free to contact us via email: info@rochdale-road-mcr.com.



Return address:
Counter Context
Jactin House
24 Hood Street
Manchester
M4 5WX

6.2 SCHEDULE OF CUMULATIVE DEVELOPMENTS

FULL PLANNING APPLICATION FOR PARTIAL DEMOLITION OF REAR OF EXISTING BUILDING AND ERECTION OF A 23 STOREY RESIDENTIAL BUILDING COMPRISING 133 UNITS WITH GROUND FLOOR COMMERCIAL UNIT (USE CLASS E) AND ASSOCIATE WORKS AT 35 ROCHDALE ROAD, MANCHESTER

SCHEDULE OF CUMULATIVE DEVELOPMENTS

Name	Application ref.	Description	Status and programme
Land Bound By Gould Street, Williamson Street, Bromley Street And Bilbrook Street Manchester M4 4DD	139811/ NMC/ 2024	Erection of 9 buildings ranging from 8 to 34 storeys in height to form 1202 residential apartments (Use Class C3a) and ground floor commercial uses (Use Class E) (192 sqm) together with associated car parking, new vehicular and pedestrian access, public realm, landscaping and other associated works following demolition of existing structures and buildings Subsequent NMA ref 128248/FO/ 2020 approved April 2024	Application approved December 2023
87 Rochdale Road Manchester M4 4HY	136574/ NMC/ 2023	Original application consented February 2022 for the erection of a part 11, part 13 storey building to form residential apartments (Use Class C3a) together with the erection of two blocks of 3 storey duplexes (Use Class C3a) to form 237 residential homes in total with associated commercial floor (Use Class E) (132 sqm), basement car parking, landscaping and public realm, and associated engineering and infrastructure works following demolition of existing buildings and structures Subsequent NMA ref 131708/FO/2021 approved March 2023	Application approved February 2022
25 Rochdale Road	127537/ FO/ 2020	Erection of a 11 storey 229 bedroom hotel (Use Class C1) with ancillary ground floor bar / restaurant together associated	Confirmation of lawful start ref 138365/LE/

Manchester M4 4HT		public realm and other associated works, approved October 2020 Subsequent NMA ref 138248/NMC/ 2023, approved October 2023	2023, dated December 2023
Land Bounded By Angel Street, Miller Street And Angel Square Known As Plots M And N Manchester	134307/FO/202 2	Erection of 2 Angel Square, a 14 storey building to form a mixed use office development with flexible commercial units; Erection of 3 Angel Square, a 13 storey building to form a mixed use office development with flexible commercial units, cinema space and ancillary gym space with hard and soft landscaping and other associated works. Subsequent variation of condition ref 141138/JO/2024 granted December 2024	Several conditions discharged; variation approved December 2024
Land Bounded By Dantzic Street, Dalton Street And The Railway Line Known As Plots NT02, NT03 And NT04 Manchester	136814/FO/202 3	Erection of a phased residential led mixed use development comprising three residential towers with associated flexible non-residential floorspace comprising commercial, business, service and community uses; erection of a 6 storey residential amenity space within a clubhouse building and hard and soft landscaping	Latest condition discharge approved December 2024

7.1 IMAGES OF THE 3D MODEL USED FOR THE ASSESSMENTS

3D Model of the Baseline Scenario

Top View



South View - zoom



- Existing Surroundings
- Existing building on site
- NSL, PSH and VSC Receptors
- VSC and PSH Receptors

East View



East View - zoom



3D Model of the Proposed Scenario

Top View



Top View - zoom



- Existing Surroundings
- Proposed Development
- NSL, PSH and VSC Receptors
- VSC and PSH Receptors

East View



East View - zoom



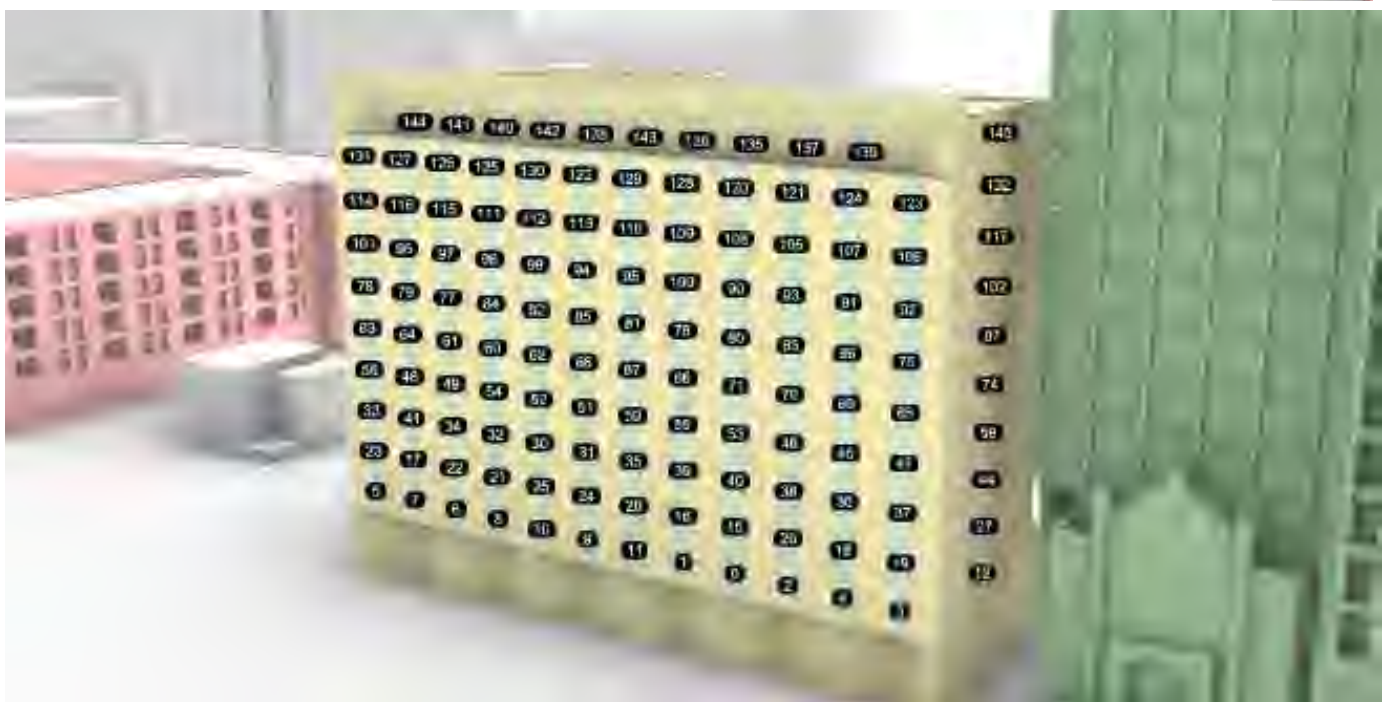
7.2 DAYLIGHT AND SUNLIGHT SENSITIVE RECEPTORS (FOR VSC, PSH AND NSL ASSESSMENTS)

Daylight & Sunlight Sensitive Receptors (VSC and PSH)

Receptor A - Northern Angel



Receptor B - 25 Rochdale road



Receptor C - Hampton by Hilton



Receptor D - Ancoats gardens



Receptor E - 10 Rochdale Road



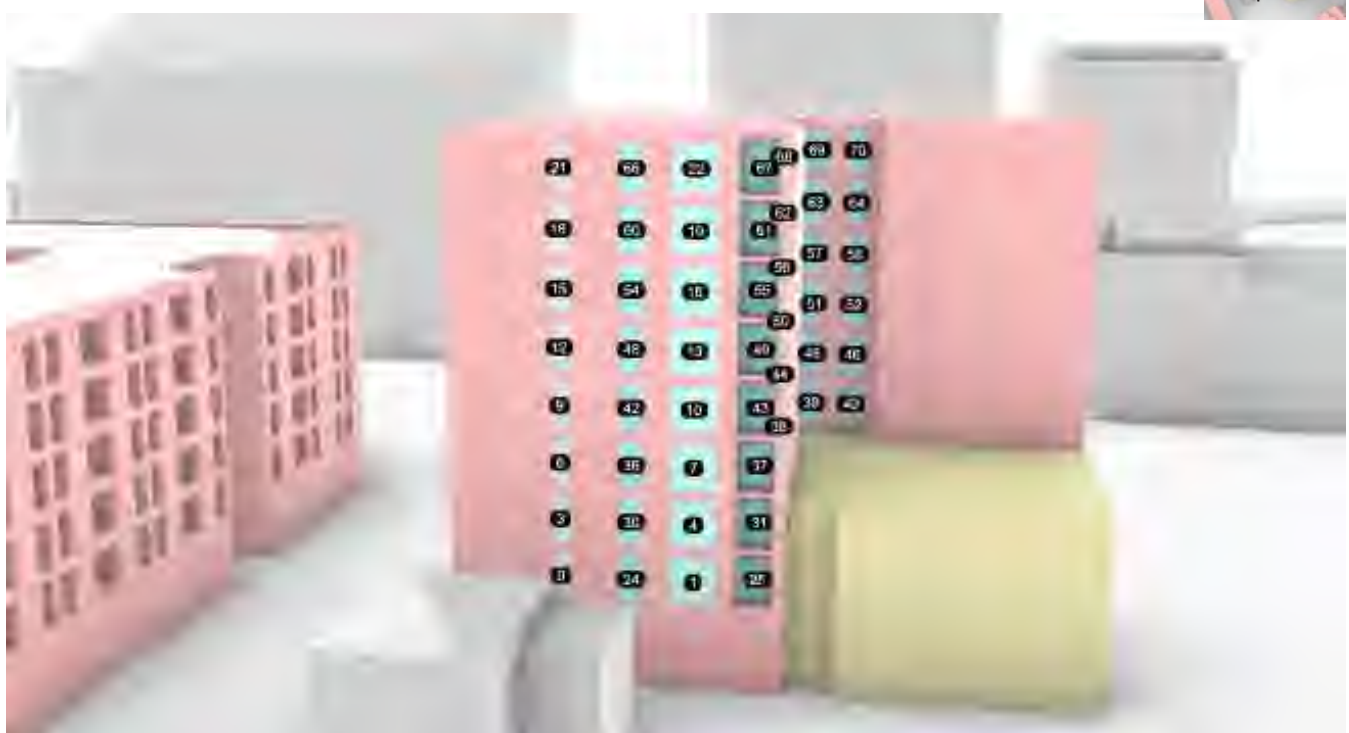
Receptor F - Skyline Chambers



Receptor G - Corner Building



Receptor H - Grey Building



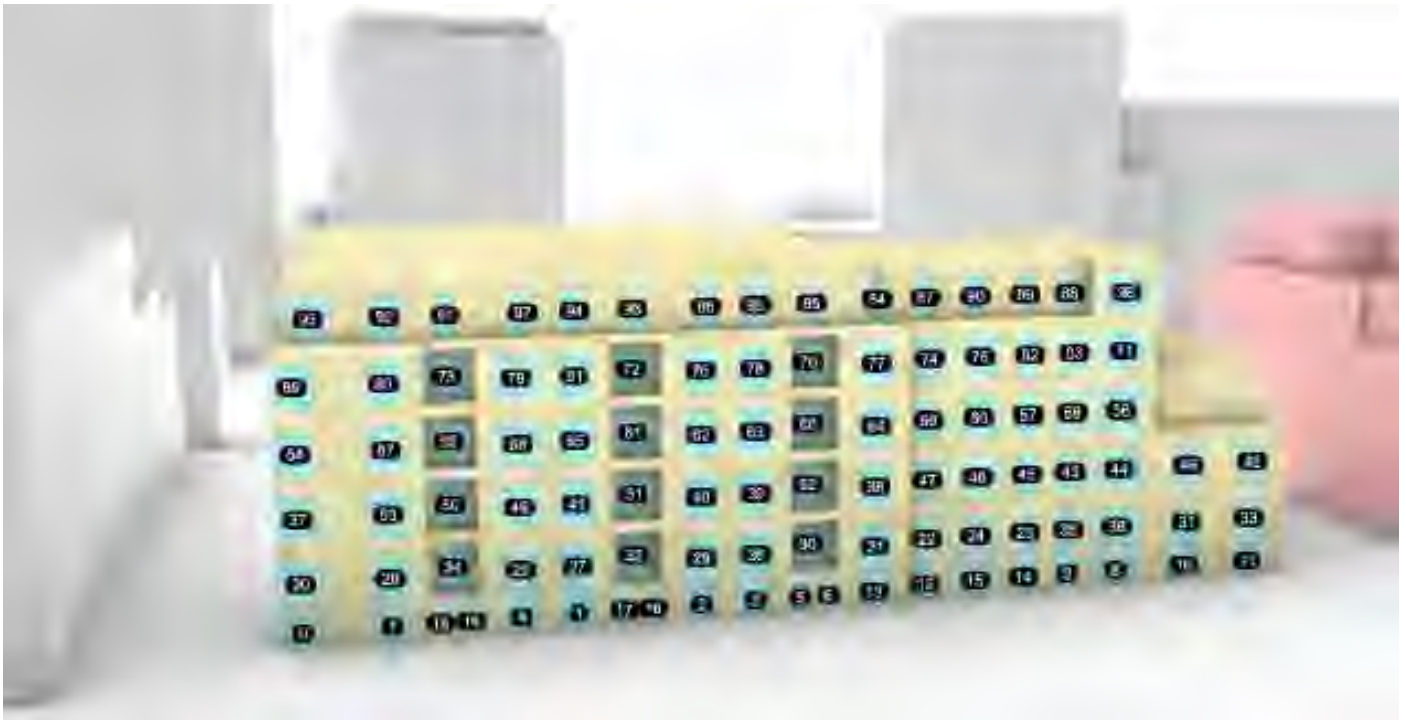
Receptor I - Krupa Building



Receptor J - 12 Rochdale Road



Receptor K - Halo Building



Receptor L - Sharp Street



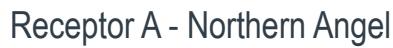
Receptor M - Courtyard Building



Receptor N - 11 Dyche st.



An example of the receptors for each Building is shown.



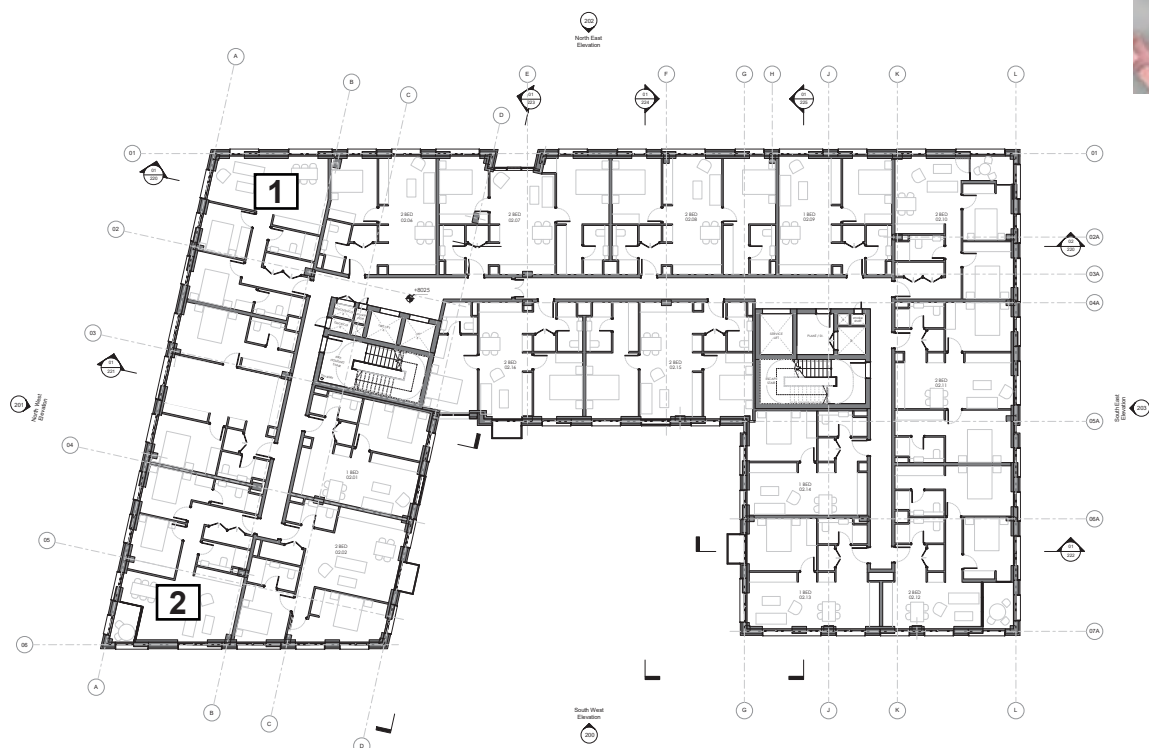
Receptor C - Hampton by Hilton

Typical level 1-6F



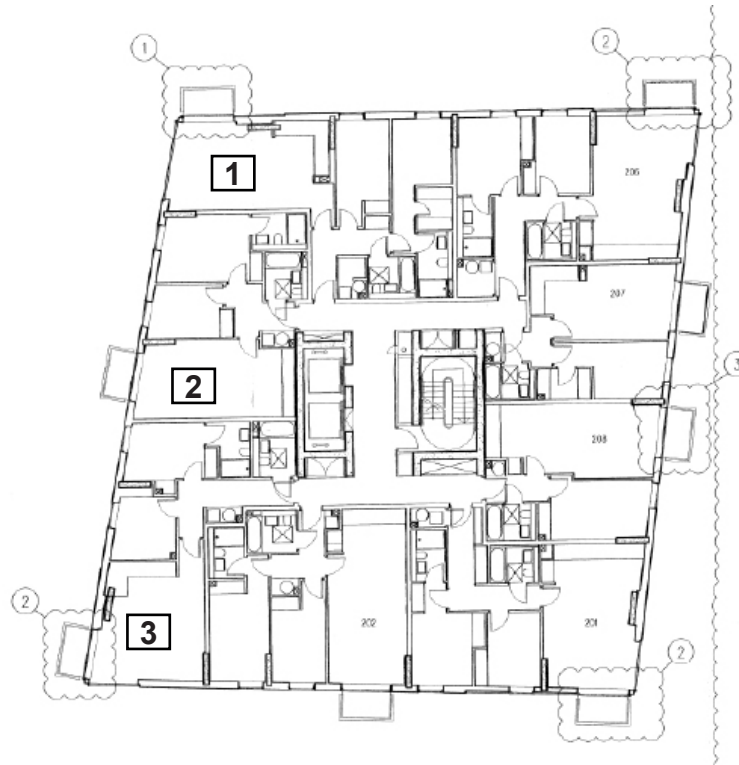
Receptor D - Ancoats Garden

Level 1 Plan



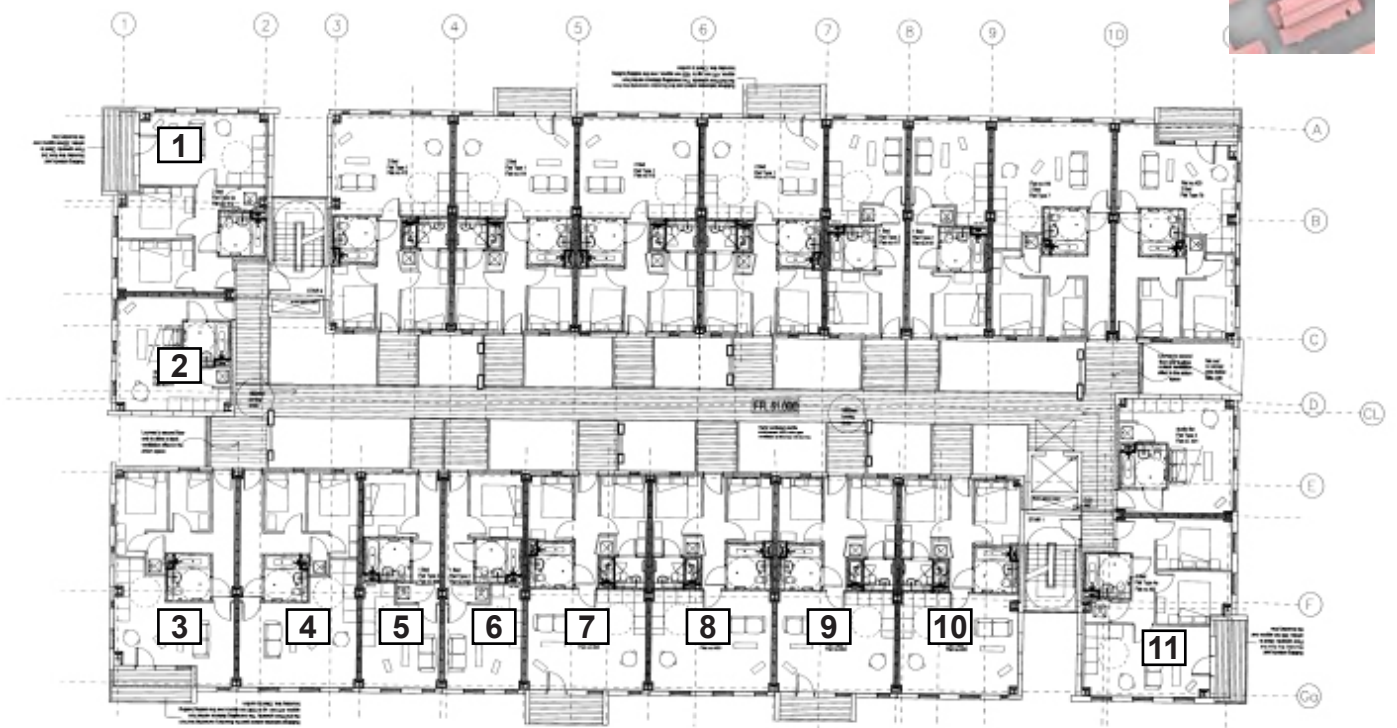
Receptor E - 10 Rochdale road

Typical level 2-5F



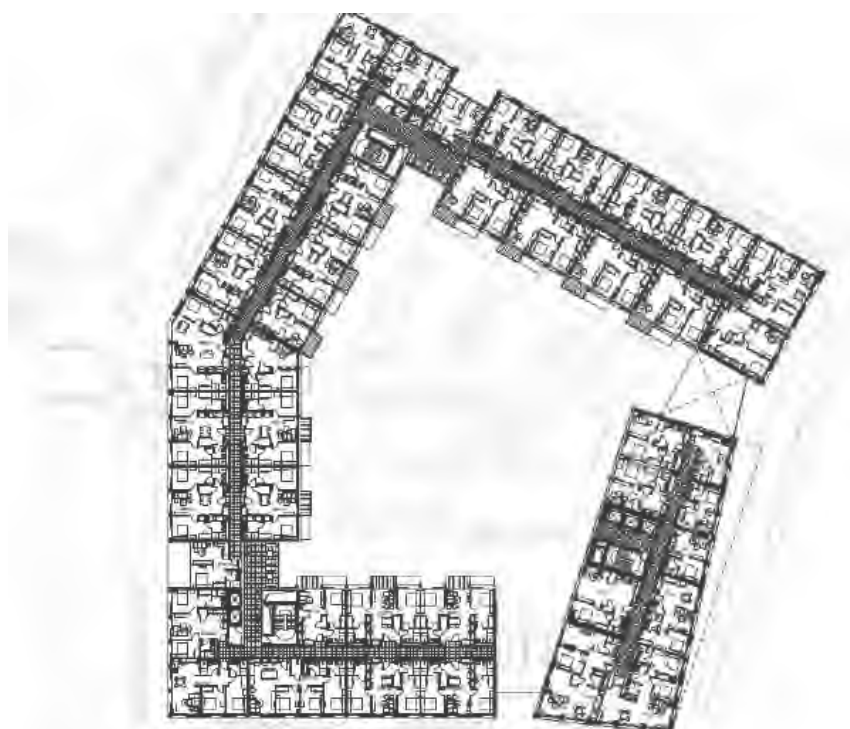
Receptor F - Skyline Chambers

Fourth Floor



Receptor G - Corner Building

Levels - 1,3,5



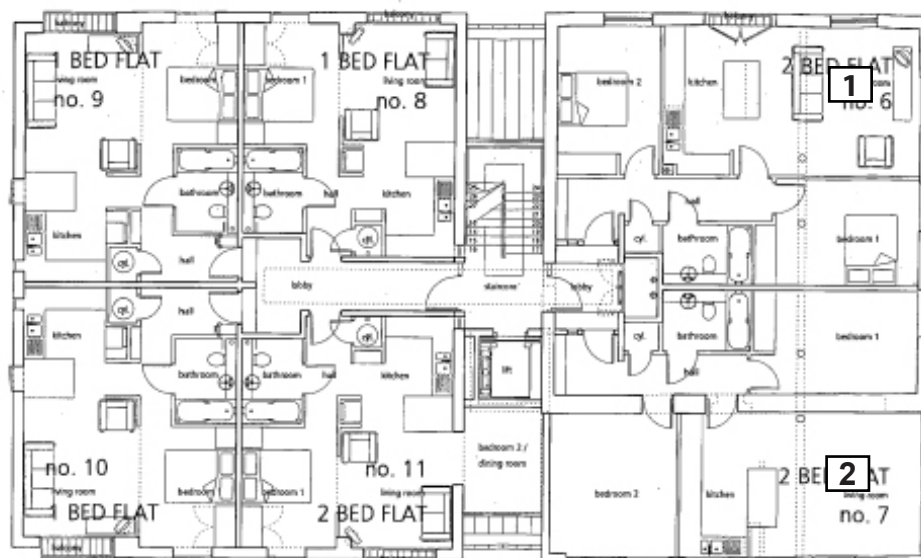
Receptor H - Grey Building

Typical level



Receptor I - Krupa Building

First Floor





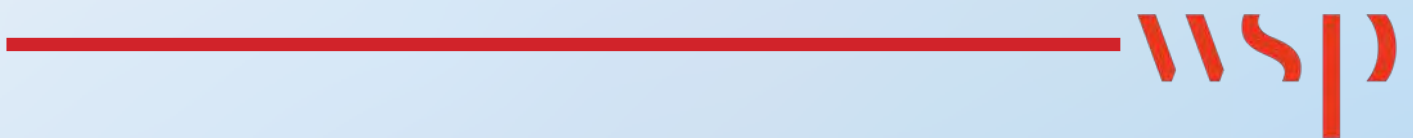
Receptor J - 10 Rochdale Road

Fourth Floor



Appendix 3

Detailed Daylight Assessment Results (VSC and
NSL)



Detailed Daylight Assessment Results (VSC and NSL)

Receptor A - Northern Angel

Receptor	VSC							NSL						
	Floor No.	Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Overall BRE Criteria
A - Northern Angel	0	0	11	10	0.91	Above	Negligible	0	0.87	0.74	0.85	Above	Negligible	Above
	0	1	6	6	1	Above	Negligible							
	0	2	7	6	0.86	Above	Negligible							
	0	3	6	5	0.83	Above	Negligible	1	0.29	0.29	0.99	Above	Negligible	Above
	0	4	5	4	0.8	Above	Negligible	2	0.25	0.23	0.91	Above	Negligible	Above
	0	5	8	5	0.62	Below	Medium							
	0	6	7	5	0.71	Below	Low	3	0.94	0.36	0.38	Below	High	Below
	0	7	9	4	0.44	Below	High	4	0.91	0.28	0.31	Below	High	Below
	0	8	9	5	0.56	Below	High	5	0.89	0.19	0.21	Below	High	Below
	0	9	10	3	0.3	Below	High	6	0.34	0.25	0.72	Below	Low	Below
	0	10	11	4	0.36	Below	High	7	0.93	0.21	0.23	Below	High	Below
	1	11	10	3	0.3	Below	High	8	0.48	0.09	0.19	Below	High	Below
	1	12	8	3	0.38	Below	High	9	0.21	0.06	0.28	Below	High	Below
	1	13	9	2	0.22	Below	High	10	0.34	0.1	0.29	Below	High	Below
	1	14	10	3	0.3	Below	High	11	0.58	0.09	0.15	Below	High	Below
	1	15	15	4	0.27	Below	High							
	1	16	18	4	0.22	Below	High	12	0.72	0.1	0.14	Below	High	Below
	1	17	13	3	0.23	Below	High	13	0.09	0.05	0.56	Below	High	Below
	1	18	12	3	0.25	Below	High	14	0.13	0.13	1	Above	Negligible	Below
	1	19	13	4	0.31	Below	High	15	0.61	0.55	0.91	Above	Negligible	Below
	2	20	11	6	0.55	Below	High	16	0.62	0.55	0.89	Above	Negligible	Below
	2	21	11	5	0.45	Below	High	17	0.2	0.2	1	Above	Negligible	Below
	2	22	9	6	0.67	Below	Medium	18	0.15	0.12	0.84	Above	Negligible	Below
	2	23	9	6	0.67	Below	Medium	19	0.18	0.13	0.73	Below	Low	Below
	2	24	6	5	0.83	Above	Negligible	20	0.59	0	0	Below	High	Below
	2	25	8	6	0.75	Below	Low							
	2	26	12	10	0.83	Above	Negligible	21	0.76	0.02	0.03	Below	High	Below
	2	27	12	11	0.92	Above	Negligible	22	0.77	0	0	Below	High	Below
	2	28	4	3	0.75	Below	Low	23	0.51	0.1	0.2	Below	High	Below
	2	29	3	3	1	Above	Negligible	24	0.11	0.1	0.85	Above	Negligible	Above
	3	30	9	5	0.56	Below	High	25	0.63	0.56	0.89	Above	Negligible	Below
	3	31	13	7	0.54	Below	High	26	0.22	0.22	1	Above	Negligible	Below
	3	32	10	7	0.7	Below	Low	27	0.19	0.18	0.94	Above	Negligible	Below
	3	33	7	0	0	Below	High	28	0.21	0.17	0.83	Above	Negligible	Below
	3	34	6	0	0	Below	High	29	0.62	0	0	Below	High	Below

		VSC						NSL						
Receptor	Floor No.	Wind No.	Base-line (%)	Pro-posed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	Room No.	Base-line (%)	Pro-posed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	Overall BRE Criteria
	3	35	8	0	0	Below	High							
	3	36	19	5	0.26	Below	High	30	0.84	0.03	0.04	Below	High	Below
	3	37	20	6	0.3	Below	High							
	3	38	11	0	0	Below	High	31	0.82	0	0	Below	High	Below
	3	39	9	0	0	Below	High							
	3	40	9	1	0.11	Below	High	32	0.54	0.11	0.21	Below	High	Below
	3	41	11	8	0.73	Below	Low	33	0.14	0.13	0.94	Above	Negligible	Below
	4	42	14	8	0.57	Below	High	34	0.66	0.59	0.9	Above	Negligible	Below
	4	43	10	7	0.7	Below	Low							
	4	44	3	3	1	Above	Negligi-ble	35	0.22	0.22	1	Above	Negligible	Above
	4	45	5	4	0.8	Above	Negligi-ble							
	4	46	13	11	0.85	Above	Negligi-ble	36	0.14	0.12	0.83	Above	Negligible	Above
	4	47	14	13	0.93	Above	Negligi-ble	37	0.19	0.13	0.71	Below	Low	Below
	4	48	7	4	0.57	Below	High	38	0.7	0.04	0.06	Below	High	Below
	4	49	4	4	1	Above	Negligi-ble	39	0.88	0.08	0.09	Below	High	Below
	4	50	10	6	0.6	Below	Medium							
	4	51	12	7	0.58	Below	High	40	0.87	0.05	0.05	Below	High	Below
	4	52	10	7	0.7	Below	Low							
	4	53	11	1	0.09	Below	High	41	0.64	0.13	0.2	Below	High	Below
	4	54	10	1	0.1	Below	High							
	4	55	12	0	0	Below	High	42	0.11	0.09	0.84	Above	Negligible	Below
	4	56	22	6	0.27	Below	High							
	5	57	24	5	0.21	Below	High	43	0.88	0.8	0.9	Above	Negligible	Below
	5	58	18	3	0.17	Below	High							
	5	59	17	2	0.12	Below	High	44	0.45	0.45	1	Above	Negligible	Below
	5	60	23	5	0.22	Below	High							
	5	61	23	7	0.3	Below	High	45	0.68	0.56	0.83	Above	Negligible	Below
	5	62	17	4	0.24	Below	High							
	5	63	17	4	0.24	Below	High	46	0.73	0.54	0.74	Below	Low	Below
	5	64	20	7	0.35	Below	High							
	5	65	20	12	0.6	Below	Medium	47	0.92	0.42	0.45	Below	High	Below
	5	66	13	7	0.54	Below	High							
	5	67	12	8	0.67	Below	Medium	48	0.87	0.32	0.37	Below	High	Below
	5	68	18	13	0.72	Below	Low							
	5	69	11	11	1	Above	Negligi-ble	49	0.96	0.31	0.32	Below	High	Below
	5	70	12	10	0.83	Above	Negligi-ble							
	5	71	5	5	1	Above	Negligi-ble	50	0.91	0.29	0.32	Below	High	Below

Receptor C - Hampton by Hilton

Receptor	VSC							NSL						
	Floor No.	Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Overall BRE Criteria
C-Hampton by Hilton	0	0	23	6	0.26	Below	High	0	0.87	0.77	0.89	Above	Negligible	Below
	0	1	21	4	0.19	Below	High	1	0.9	0.57	0.63	Below	Medium	Below
	0	2	22	7	0.32	Below	High	2	0.93	0.36	0.38	Below	High	Below
	0	3	20	12	0.6	Below	Medium	3	0.81	0.23	0.28	Below	High	Below
	0	4	21	9	0.43	Below	High	4	0.81	0.2	0.25	Below	High	Below
	1	5	25	7	0.28	Below	High	5	0.91	0.81	0.89	Above	Negligible	Below
	1	6	23	5	0.22	Below	High	6	0.9	0.61	0.67	Below	Medium	Below
	1	7	24	7	0.29	Below	High	7	0.93	0.36	0.38	Below	High	Below
	1	8	23	15	0.65	Below	Medium	8	0.81	0.24	0.29	Below	High	Below
	1	9	24	10	0.42	Below	High	9	0.81	0.21	0.25	Below	High	Below
	2	10	26	7	0.27	Below	High	10	0.92	0.81	0.88	Above	Negligible	Below
	2	11	24	5	0.21	Below	High	11	0.9	0.61	0.67	Below	Medium	Below
	2	12	25	8	0.32	Below	High	12	0.94	0.34	0.36	Below	High	Below
	2	13	26	17	0.65	Below	Medium	13	0.84	0.24	0.28	Below	High	Below
	2	14	26	12	0.46	Below	High	14	0.84	0.21	0.25	Below	High	Below
	3	15	28	8	0.29	Below	High	15	0.92	0.81	0.88	Above	Negligible	Below
	3	16	26	6	0.23	Below	High	16	0.91	0.61	0.66	Below	Medium	Below
	3	17	27	8	0.3	Below	High	17	0.96	0.34	0.36	Below	High	Below
	3	18	28	18	0.64	Below	Medium	18	0.87	0.25	0.29	Below	High	Below
	3	19	27	12	0.44	Below	High	19	0.84	0.21	0.25	Below	High	Below
	4	20	29	8	0.28	Below	High	20	0.94	0.81	0.86	Above	Negligible	Below
	4	21	27	6	0.22	Below	High	21	0.94	0.61	0.64	Below	Medium	Below
	4	22	28	9	0.32	Below	High	22	0.96	0.34	0.36	Below	High	Below
	4	23	29	17	0.59	Below	High	23	0.94	0.25	0.27	Below	High	Below
	4	24	29	12	0.41	Below	High	24	0.89	0.22	0.25	Below	High	Below
	5	25	30	8	0.27	Below	High	25	0.94	0.81	0.86	Above	Negligible	Below
	5	26	28	6	0.21	Below	High	26	0.94	0.61	0.64	Below	Medium	Below
	5	27	28	9	0.32	Below	High	27	0.96	0.34	0.36	Below	High	Below
	5	28	30	18	0.6	Below	Medium	28	0.94	0.25	0.27	Below	High	Below
	5	29	29	13	0.45	Below	High	29	0.89	0.22	0.25	Below	High	Below
	6	30	30	7	0.23	Below	High	30	1	0.84	0.84	Above	Negligible	Below
	6	31	29	7	0.24	Below	High	31	1	0.63	0.63	Below	Medium	Below
	6	32	30	9	0.3	Below	High	32	1	0.36	0.36	Below	High	Below
	6	33	30	17	0.57	Below	High	33	1	0.3	0.3	Below	High	Below
	6	34	31	13	0.42	Below	High	34	1	0.28	0.28	Below	High	Below
	7	35	31	8	0.26	Below	High	35	1	0.84	0.84	Above	Negligible	Below
	7	36	30	7	0.23	Below	High	36	1	0.63	0.63	Below	Medium	Below
	7	37	31	9	0.29	Below	High	37	1	0.36	0.36	Below	High	Below
	7	38	31	18	0.58	Below	High	38	1	0.3	0.3	Below	High	Below
	7	39	31	13	0.42	Below	High	39	1	0.31	0.31	Below	High	Below

Receptor D - Ancoats Gardens

Receptor	VSC							NSL						
	Floor No.	Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Overall BRE Criteria
D- And-coats garden	0	0	30	30	1	Above	Negligible	0	0.91	0.9	1	Above	Negligible	Above
	0	1	28	28	1	Above	Negligible							
	0	2	17	16	0.94	Above	Negligible							
	0	3	15	8	0.53	Below	High	1	0.68	0.41	0.6	Below	Medium	Below
	0	4	1	1	1	Above	Negligible							
	0	5	3	1	0.33	Below	High							
	0	6	13	9	0.69	Below	Medium							
	1	7	30	31	1.03	Above	Negligible	2	0.99	0.99	1	Above	Negligible	Above
	1	8	28	28	1	Above	Negligible							
	1	9	20	18	0.9	Above	Negligible							
	1	10	17	10	0.59	Below	High	3	0.69	0.45	0.65	Below	Medium	Below
	1	11	1	1	1	Above	Negligible							
	1	12	3	1	0.33	Below	High							
	1	13	15	12	0.8	Above	Negligible							
	2	14	33	32	0.97	Above	Negligible	4	1	1	1	Above	Negligible	Above
	2	15	29	29	1	Above	Negligible							
	2	16	24	22	0.92	Above	Negligible							
	2	17	20	12	0.6	Below	Medium	5	0.71	0.56	0.79	Below	Low	Below
	2	18	1	1	1	Above	Negligible							
	2	19	3	1	0.33	Below	High							
	2	20	18	15	0.83	Above	Negligible							
	3	21	32	33	1.03	Above	Negligible	6	1	1	1	Above	Negligible	Above
	3	22	30	30	1	Above	Negligible							
	3	23	27	25	0.93	Above	Negligible							
	3	24	21	14	0.67	Below	Medium	7	0.8	0.65	0.81	Above	Negligible	Above
	3	25	1	1	1	Above	Negligible							
	3	26	3	1	0.33	Below	High							
	3	27	21	18	0.86	Above	Negligible							
	4	28	33	33	1	Above	Negligible	8	1	1	1	Above	Negligible	Above
	4	29	30	30	1	Above	Negligible							
	4	30	31	28	0.9	Above	Negligible							
	4	31	24	17	0.71	Below	Low	9	0.91	0.83	0.92	Above	Negligible	Above
	4	32	1	1	1	Above	Negligible							
	4	33	4	2	0.5	Below	High							
	4	34	24	20	0.83	Above	Negligible							
	5	35	35	34	0.97	Above	Negligible	10	1	1	1	Above	Negligible	Above
	5	36	31	32	1.03	Above	Negligible							
	5	37	33	30	0.91	Above	Negligible							
	5	38	26	19	0.73	Below	Low	11	0.93	0.87	0.93	Above	Negligible	Above
	5	39	1	1	1	Above	Negligible							
	5	40	5	2	0.4	Below	High							
	5	41	26	23	0.88	Above	Negligible							

Receptor	Floor No.	VSC						NSL						Overall BRE Criteria
		Wind No.	Base-line (%)	Pro-posed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	Room No.	Base-line (%)	Pro-posed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	
	6	42	35	35	1	Above	Negligible	12	1	1	1	Above	Negligible	Above
	6	43	31	31	1	Above	Negligible							
	6	44	34	32	0.94	Above	Negligible							
	6	45	27	22	0.81	Above	Negligible	13	0.93	0.9	0.97	Above	Negligible	Above
	6	46	1	1	1	Above	Negligible							
	6	47	5	3	0.6	Below	Medium							
	6	48	28	25	0.89	Above	Negligible							
	7	49	35	35	1	Above	Negligible	14	1	1	1	Above	Negligible	Above
	7	50	32	32	1	Above	Negligible							
	7	51	35	33	0.94	Above	Negligible							
	7	52	30	22	0.73	Below	Low	15	0.96	0.94	0.98	Above	Negligible	Above
	7	53	1	1	1	Above	Negligible							
	7	54	6	4	0.67	Below	Medium							
	7	55	29	26	0.9	Above	Negligible							
	8	56	35	35	1	Above	Negligible	16	1	1	1	Above	Negligible	Above
	8	57	31	31	1	Above	Negligible							
	8	58	35	33	0.94	Above	Negligible							
	8	59	30	24	0.8	Above	Negligible	17	0.97	0.96	0.98	Above	Negligible	Above
	8	60	1	1	1	Above	Negligible							
	8	61	6	4	0.67	Below	Medium							
	8	62	30	27	0.9	Above	Negligible							
	9	63	35	36	1.03	Above	Negligible	18	1	1	1	Above	Negligible	Above
	9	64	32	31	0.97	Above	Negligible							
	9	65	35	33	0.94	Above	Negligible							
	9	66	30	24	0.8	Above	Negligible	19	0.97	0.96	0.98	Above	Negligible	Above
	9	67	1	1	1	Above	Negligible							
	9	68	7	4	0.57	Below	High							
	9	69	31	28	0.9	Above	Negligible							
	10	70	35	36	1.03	Above	Negligible	20	1	1	1	Above	Negligible	Above
	10	71	32	32	1	Above	Negligible							
	10	72	35	34	0.97	Above	Negligible							
	10	73	30	24	0.8	Above	Negligible	21	0.97	0.96	0.98	Above	Negligible	Above
	10	74	1	1	1	Above	Negligible							
	10	75	7	5	0.71	Below	Low							
	10	76	31	28	0.9	Above	Negligible							
	11	77	35	36	1.03	Above	Negligible	22	1	1	1	Above	Negligible	Above
	11	78	32	32	1	Above	Negligible							
	11	79	35	34	0.97	Above	Negligible							
	11	80	30	25	0.83	Above	Negligible	23	0.97	0.96	0.98	Above	Negligible	Above
	11	81	1	1	1	Above	Negligible							
	11	82	6	4	0.67	Below	Medium							
	11	83	32	29	0.91	Above	Negligible							
	12	84	36	36	1	Above	Negligible	24	1	1	1	Above	Negligible	Above
	12	85	32	32	1	Above	Negligible							
	12	86	36	34	0.94	Above	Negligible							
	12	87	31	25	0.81	Above	Negligible	25	0.97	0.96	0.99	Above	Negligible	Above

	12	88	1	2	2	Above	Negligible							
	12	89	6	4	0.67	Below	Medium							
	12	90	33	30	0.91	Above	Negligible							
	13	91	35	35	1	Above	Negligible	26	1	1	1	Above	Negligible	Above
	13	92	32	32	1	Above	Negligible							
	13	93	36	34	0.94	Above	Negligible							
	13	94	31	25	0.81	Above	Negligible	27	1	1	1	Above	Negligible	Above
	13	95	2	2	1	Above	Negligible							

Receptor E - 10 Rochdale Road

Receptor	VSC							NSL						
	Floor No.	Win	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Overall BRE Criteria
E- 10 Rochdale Road	0	0	27	27	1	Above	Negligible	0	0.88	0.88	1	Above	Negligible	Above
	0	1	15	13	0.87	Above	Negligible							
	0	2	15	10	0.67	Below	Medium	1	0.28	0.2	0.72	Below	Low	Below
	0	3	17	9	0.53	Below	High	2	0.79	0.49	0.62	Below	Medium	Below
	0	4	18	10	0.56	Below	High							
	1	5	28	27	0.96	Above	Negligible	3	0.9	0.9	1	Above	Negligible	Above
	1	6	17	15	0.88	Above	Negligible							
	1	7	16	11	0.69	Below	Medium	4	0.28	0.21	0.75	Below	Low	Below
	1	8	18	10	0.56	Below	High	5	0.8	0.5	0.62	Below	Medium	Below
	1	9	20	10	0.5	Below	High							
	2	10	28	28	1	Above	Negligible	6	0.9	0.9	1	Above	Negligible	Above
	2	11	19	16	0.84	Above	Negligible							
	2	12	19	13	0.68	Below	Medium	7	0.29	0.23	0.78	Below	Low	Below
	2	13	20	12	0.6	Below	Medium	8	0.8	0.5	0.62	Below	Medium	Below
	2	14	20	13	0.65	Below	Medium							
	3	15	29	29	1	Above	Negligible	9	0.8	0.51	0.64	Below	Medium	Below
	3	16	21	18	0.86	Above	Negligible							
	3	17	20	15	0.75	Below	Low	10	0.3	0.25	0.84	Above	Negligible	Below
	3	18	22	13	0.59	Below	High	11	0.9	0.9	1	Above	Negligible	Below
	3	19	22	13	0.59	Below	High							
	4	20	30	29	0.97	Above	Negligible	12	0.8	0.51	0.64	Below	Medium	Below
	4	21	22	20	0.91	Above	Negligible							
	4	22	22	17	0.77	Below	Low	13	0.32	0.3	0.92	Above	Negligible	Below
	4	23	24	15	0.62	Below	Medium	14	0.9	0.9	1	Above	Negligible	Below
	4	24	23	15	0.65	Below	Medium							
	5	25	30	31	1.03	Above	Negligible	15	0.8	0.51	0.64	Below	Medium	Below
	5	26	25	23	0.92	Above	Negligible							
	5	27	25	19	0.76	Below	Low	16	0.37	0.34	0.92	Above	Negligible	Below
	5	28	26	17	0.65	Below	Medium	17	0.91	0.91	1	Above	Negligible	Below
	5	29	26	17	0.65	Below	Medium							
	6	30	31	31	1	Above	Negligible	18	0.93	0.93	1	Above	Negligible	Above
	6	31	28	25	0.89	Above	Negligible							
	6	32	28	22	0.79	Below	Low	19	0.47	0.44	0.95	Above	Negligible	Below
	6	33	29	20	0.69	Below	Medium	20	0.81	0.55	0.67	Below	Medium	Below

VSC								NSL						
Receptor	Floor No.	Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Overall BRE Criteria
	6	34	29	20	0.69	Below	Medium							
	7	35	32	32	1	Above	Negligible	21	0.97	0.97	1	Above	Negligible	Above
	7	36	31	28	0.9	Above	Negligible							
	7	37	31	25	0.81	Above	Negligible	22	0.64	0.64	1	Above	Negligible	Above
	7	38	32	22	0.69	Below	Medium	23	0.85	0.66	0.78	Below	Low	Below
	7	39	31	22	0.71	Below	Low							
	8	40	33	32	0.97	Above	Negligible	24	0.96	0.87	0.91	Above	Negligible	Above
	8	41	34	30	0.88	Above	Negligible							
	8	42	34	27	0.79	Above	Negligible	25	0.85	0.84	0.99	Above	Negligible	Above
	8	43	34	25	0.74	Below	Low	26	1	1	1	Above	Negligible	Below
	8	44	34	25	0.74	Below	Low							
	9	45	33	33	1	Above	Negligible	27	1	1	1	Above	Negligible	Above
	9	46	36	32	0.89	Above	Negligible							
	9	47	36	30	0.83	Above	Negligible	28	0.99	0.99	1	Above	Negligible	Above
	9	48	36	27	0.75	Above	Negligible	29	0.96	0.96	1	Above	Negligible	Above
	9	49	36	28	0.78	Above	Negligible							
	10	50	33	33	1	Above	Negligible	30	1	1	1	Above	Negligible	Above
	10	51	37	33	0.89	Above	Negligible							
	10	52	37	31	0.84	Above	Negligible	31	0.99	0.99	1	Above	Negligible	Above
	10	53	37	29	0.78	Above	Negligible	32	0.96	0.96	1	Above	Negligible	Above
	10	54	38	29	0.76	Above	Negligible							
	11	55	34	33	0.97	Above	Negligible	33	1	1	1	Above	Negligible	Above
	11	56	37	33	0.89	Above	Negligible							
	11	57	37	32	0.86	Above	Negligible	34	0.99	0.99	1	Above	Negligible	Above
	11	58	37	29	0.78	Above	Negligible	35	0.96	0.96	1	Above	Negligible	Above
	11	59	38	30	0.79	Above	Negligible							
	12	60	34	34	1	Above	Negligible	36	1	1	1	Above	Negligible	Above
	12	61	37	34	0.92	Above	Negligible							
	12	62	38	32	0.84	Above	Negligible	37	0.99	0.99	1	Above	Negligible	Above
	12	63	38	29	0.76	Above	Negligible	38	0.96	0.96	1	Above	Negligible	Above
	12	64	38	31	0.82	Above	Negligible							
	13	65	35	34	0.97	Above	Negligible	39	1	1	1	Above	Negligible	Above
	13	66	37	34	0.92	Above	Negligible							
	13	67	38	33	0.87	Above	Negligible	40	0.99	0.99	1	Above	Negligible	Above
	13	68	38	30	0.79	Above	Negligible	41	0.96	0.96	1	Above	Negligible	Above
	13	69	39	32	0.82	Above	Negligible							
	14	70	35	35	1	Above	Negligible	42	1	1	1	Above	Negligible	Above
	14	71	38	35	0.92	Above	Negligible							
	14	72	38	33	0.87	Above	Negligible	43	0.99	0.99	1	Above	Negligible	Above
	14	73	38	31	0.82	Above	Negligible	44	0.96	0.96	1	Above	Negligible	Above
	14	74	39	32	0.82	Above	Negligible							
	15	75	35	35	1	Above	Negligible	45	1	1	1	Above	Negligible	Above
	15	76	38	35	0.92	Above	Negligible							
	15	77	38	34	0.89	Above	Negligible	46	0.99	0.99	1	Above	Negligible	Above

	15	78	38	32	0.84	Above	Negligible	47	0.96	0.96	1	Above	Negligible	Above
	15	79	39	33	0.85	Above	Negligible							
	16	80	35	35	1	Above	Negligible	48	0.94	0.94	1	Above	Negligible	Above
	16	81	38	36	0.95	Above	Negligible							
	16	82	38	35	0.92	Above	Negligible	49	0.94	0.94	1	Above	Negligible	Above
	16	83	38	33	0.87	Above	Negligible	50	0.93	0.93	1	Above	Negligible	Above
	16	84	39	34	0.87	Above	Negligible							

Receptor F - Skyline Chambers

Receptor	VSC							NSL						
	Floor No.	Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Overall BRE Criteria
F- Sky-line Chambers	0	0	16	16	1	Above	Negligible	0	0.63	0.61	0.98	Above	Negligible	Above
	0	1	17	16	0.94	Above	Negligible							
	0	2	16	16	1	Above	Negligible							
	0	3	14	13	0.93	Above	Negligible	1	0.29	0.28	0.98	Above	Negligible	Above
	0	4	8	8	1	Above	Negligible	2	0.22	0.2	0.9	Above	Negligible	Above
	0	5	12	10	0.83	Above	Negligible	3	0.29	0.28	0.96	Above	Negligible	Above
	0	6	12	12	1	Above	Negligible							
	0	7	5	5	1	Above	Negligible	4	0.23	0.23	1	Above	Negligible	Above
	0	8	10	8	0.8	Above	Negligible	5	0.3	0.25	0.82	Above	Negligible	Above
	0	9	10	8	0.8	Above	Negligible	6	0.39	0.26	0.68	Below	Medium	Below
	0	10	8	4	0.5	Below	High	7	0.29	0.21	0.72	Below	Low	Below
	0	11	8	4	0.5	Below	High							
	0	12	8	4	0.5	Below	High	8	0.54	0.38	0.7	Below	Low	Below
	0	13	8	3	0.38	Below	High							
	0	14	19	12	0.63	Below	Medium							
	0	15	19	12	0.63	Below	Medium							
	0	16	23	19	0.83	Above	Negligible	9	0.72	0.66	0.91	Above	Negligible	Above
	0	17	23	20	0.87	Above	Negligible							
	0	18	24	22	0.92	Above	Negligible	10	0.45	0.45	0.99	Above	Negligible	Above
	0	19	24	22	0.92	Above	Negligible							
	1	20	19	19	1	Above	Negligible	11	0.83	0.83	0.99	Above	Negligible	Above
	1	21	18	18	1	Above	Negligible							
	1	22	18	17	0.94	Above	Negligible							
	1	23	12	12	1	Above	Negligible	12	0.27	0.2	0.74	Below	Low	Below
	1	24	11	11	1	Above	Negligible							
	1	25	15	14	0.93	Above	Negligible							
	1	26	15	16	1.07	Above	Negligible	13	0.35	0.34	0.97	Above	Negligible	Above
	1	27	6	6	1	Above	Negligible							
	1	28	5	5	1	Above	Negligible	14	0.31	0.29	0.94	Above	Negligible	Above
	1	29	8	7	0.88	Above	Negligible							
	1	30	11	11	1	Above	Negligible							
	1	31	13	12	0.92	Above	Negligible	15	0.16	0.16	1	Above	Negligible	Above
	1	32	2	2	1	Above	Negligible							
	1	33	8	6	0.75	Below	Low	16	0.27	0.26	0.95	Above	Negligible	Above

Receptor	VSC							NSL						
	Floor No.	Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Overall BRE Criteria
	1	34	11	10	0.91	Above	Negligible							
	1	35	11	9	0.82	Above	Negligible	17	0.16	0.16	1	Above	Negligible	Above
	1	36	9	9	1	Above	Negligible							
	1	37	6	5	0.83	Above	Negligible	18	0.33	0.32	0.98	Above	Negligible	Above
	1	38	4	2	0.5	Below	High							
	1	39	7	3	0.43	Below	High							
	1	40	3	1	0.33	Below	High	19	0.58	0.57	0.97	Above	Negligible	Below
	1	41	22	16	0.73	Below	Low							
	1	42	22	16	0.73	Below	Low							
	1	43	24	21	0.88	Above	Negligible	20	0.61	0.6	0.98	Above	Negligible	Above
	1	44	21	18	0.86	Above	Negligible							
	1	45	20	18	0.9	Above	Negligible							
	1	46	17	15	0.88	Above	Negligible	21	0.38	0.28	0.75	Below	Low	Below
	2	47	22	22	1	Above	Negligible	22	0.84	0.73	0.87	Above	Negligible	Above
	2	48	21	21	1	Above	Negligible							
	2	49	10	10	1	Above	Negligible	23	0.12	0.1	0.86	Above	Negligible	Above
	2	50	17	17	1	Above	Negligible							
	2	51	17	17	1	Above	Negligible	24	0.4	0.33	0.84	Above	Negligible	Above
	2	52	13	13	1	Above	Negligible							
	2	53	11	11	1	Above	Negligible							
	2	54	8	8	1	Above	Negligible	25	0.39	0.36	0.91	Above	Negligible	Above
	2	55	14	14	1	Above	Negligible							
	2	56	14	14	1	Above	Negligible	26	0.39	0.37	0.95	Above	Negligible	Above
	2	57	10	9	0.9	Above	Negligible							
	2	58	9	8	0.89	Above	Negligible							
	2	59	13	11	0.85	Above	Negligible	27	0.22	0.22	1	Above	Negligible	Above
	2	60	15	12	0.8	Above	Negligible							
	2	61	13	11	0.85	Above	Negligible	28	0.39	0.39	1	Above	Negligible	Above
	2	62	10	10	1	Above	Negligible							
	2	63	2	1	0.5	Below	High	29	0.24	0.24	1	Above	Negligible	Below
	2	64	7	3	0.43	Below	High							
	2	65	11	5	0.45	Below	High	30	0.51	0.5	0.97	Above	Negligible	Below
	2	66	11	5	0.45	Below	High							
	2	67	13	6	0.46	Below	High							
	2	68	25	18	0.72	Below	Low							
	2	69	25	19	0.76	Below	Low							
	2	70	26	20	0.77	Below	Low							
	2	71	19	15	0.79	Below	Low							
	2	72	20	19	0.95	Above	Negligible	31	0.8	0.77	0.96	Above	Negligible	Above
	2	73	30	26	0.87	Above	Negligible							
	2	74	29	27	0.93	Above	Negligible	32	0.62	0.61	0.98	Above	Negligible	Above
	2	75	25	24	0.96	Above	Negligible							
	3	76	25	24	0.96	Above	Negligible	33	0.93	0.92	0.99	Above	Negligible	Above
	3	77	25	23	0.92	Above	Negligible							
	3	78	18	17	0.94	Above	Negligible							

Receptor	Floor No.	VSC						NSL						Overall BRE Criteria
		Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	
	3	79	17	16	0.94	Above	Negligible	34	0.44	0.37	0.84	Above	Negligible	Above
	3	80	21	20	0.95	Above	Negligible							
	3	81	21	21	1	Above	Negligible							
	3	82	9	9	1	Above	Negligible	35	0.53	0.52	0.98	Above	Negligible	Above
	3	83	9	9	1	Above	Negligible							
	3	84	13	12	0.92	Above	Negligible	36	0.45	0.43	0.95	Above	Negligible	Above
	3	85	17	16	0.94	Above	Negligible							
	3	86	18	18	1	Above	Negligible							
	3	87	4	4	1	Above	Negligible	37	0.28	0.28	1	Above	Negligible	Above
	3	88	11	9	0.82	Above	Negligible							
	3	89	17	14	0.82	Above	Negligible	38	0.51	0.5	0.98	Above	Negligible	Above
	3	90	15	14	0.93	Above	Negligible							
	3	91	13	12	0.92	Above	Negligible	39	0.28	0.28	1	Above	Negligible	Above
	3	92	8	8	1	Above	Negligible							
	3	93	6	4	0.67	Below	Medium	40	0.56	0.55	0.99	Above	Negligible	Below
	3	94	10	5	0.5	Below	High							
	3	95	11	6	0.55	Below	High							
	3	96	4	1	0.25	Below	High	41	0.74	0.72	0.98	Above	Negligible	Above
	3	97	29	22	0.76	Below	Low							
	3	98	29	23	0.79	Below	Low							
	3	99	31	27	0.87	Above	Negligible							
	3	100	31	27	0.87	Above	Negligible	42	0.87	0.86	0.99	Above	Negligible	Above
	3	101	31	27	0.87	Above	Negligible							
	3	102	20	19	0.95	Above	Negligible							
	3	103	28	27	0.96	Above	Negligible	43	0.74	0.66	0.9	Above	Negligible	Above
	4	104	28	27	0.96	Above	Negligible	44	0.23	0.2	0.85	Above	Negligible	Above
	4	105	14	14	1	Above	Negligible							
	4	106	24	23	0.96	Above	Negligible	45	0.61	0.55	0.9	Above	Negligible	Above
	4	107	26	25	0.96	Above	Negligible							
	4	108	26	25	0.96	Above	Negligible	46	0.63	0.59	0.94	Above	Negligible	Above
	4	109	21	20	0.95	Above	Negligible							
	4	110	11	11	1	Above	Negligible							
	4	111	20	19	0.95	Above	Negligible	47	0.71	0.68	0.96	Above	Negligible	Above
	4	112	23	21	0.91	Above	Negligible							
	4	113	23	21	0.91	Above	Negligible	48	0.42	0.41	0.99	Above	Negligible	Above
	4	114	22	20	0.91	Above	Negligible							
	4	115	21	18	0.86	Above	Negligible							
	4	116	20	17	0.85	Above	Negligible	49	0.81	0.8	0.99	Above	Negligible	Above
	4	117	18	16	0.89	Above	Negligible							
	4	118	14	14	1	Above	Negligible	50	0.46	0.46	1	Above	Negligible	Above
	4	119	3	3	1	Above	Negligible							
	4	120	11	6	0.55	Below	High	51	0.77	0.72	0.94	Above	Negligible	Below
	4	121	16	10	0.62	Below	Medium							
	4	122	17	11	0.65	Below	Medium	52	0.99	0.97	0.98	Above	Negligible	Above
	4	123	19	12	0.63	Below	Medium							

	4	124	31	24	0.77	Below	Low							
	4	125	32	25	0.78	Below	Low							
	4	126	31	25	0.81	Above	Negligible							

Receptor G - Corner Building

Receptor	VSC							NSL						
	Floor No.	Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	Overall BRE Criteria
G-Corner Building	0	0	28	27	0.96	Above	Negligible	0	0.39	0.39	1	Above	Negligible	Above
	0	1	26	26	1	Above	Negligible	1	0.8	0.79	0.99	Above	Negligible	Above
	0	2	24	23	0.96	Above	Negligible	2	0.06	0.06	1	Above	Negligible	Above
	0	3	22	20	0.91	Above	Negligible	3	0.4	0.4	1	Above	Negligible	Above
	0	4	17	17	1	Above	Negligible	4	0.91	0.91	1	Above	Negligible	Above
	0	5	17	17	1	Above	Negligible	5	0.08	0.08	1	Above	Negligible	Above
	0	6	18	19	1.06	Above	Negligible	6	0.4	0.4	1	Above	Negligible	Above
	0	7	18	18	1	Above	Negligible							
	1	8	22	22	1	Above	Negligible	7	0.91	0.91	1	Above	Negligible	Above
	1	9	21	22	1.05	Above	Negligible							
	1	10	20	20	1	Above	Negligible	8	0.12	0.12	0.98	Above	Negligible	Above
	1	11	19	18	0.95	Above	Negligible	9	0.41	0.41	1	Above	Negligible	Above
	1	12	23	22	0.96	Above	Negligible	10	0.92	0.92	0.99	Above	Negligible	Above
	1	13	26	25	0.96	Above	Negligible	11	0.3	0.28	0.92	Above	Negligible	Above
	1	14	28	27	0.96	Above	Negligible	12	0.41	0.41	1	Above	Negligible	Above
	1	15	29	29	1	Above	Negligible	13	0.95	0.94	1	Above	Negligible	Above
	2	16	30	30	1	Above	Negligible	14	0.91	0.91	1	Above	Negligible	Above
	2	17	29	29	1	Above	Negligible	15	0.41	0.41	1	Above	Negligible	Above
	2	18	28	27	0.96	Above	Negligible	16	0.95	0.95	1	Above	Negligible	Above
	2	19	25	24	0.96	Above	Negligible	17	0.99	0.99	1	Above	Negligible	Above
	2	20	21	21	1	Above	Negligible	18	0.41	0.41	1	Above	Negligible	Above
	2	21	23	24	1.04	Above	Negligible	19	0.96	0.95	0.99	Above	Negligible	Above
	2	22	25	25	1	Above	Negligible	20	0.99	0.99	1	Above	Negligible	Above
	2	23	25	25	1	Above	Negligible							
	3	24	29	29	1	Above	Negligible	21	0.44	0.44	1	Above	Negligible	Above
	3	25	29	29	1	Above	Negligible							
	3	26	26	25	0.96	Above	Negligible	22	0.96	0.96	0.99	Above	Negligible	Above
	3	27	23	23	1	Above	Negligible	23	0.99	0.99	1	Above	Negligible	Above
	3	28	26	26	1	Above	Negligible	24	0.99	0.99	1	Above	Negligible	Above
	3	29	29	28	0.97	Above	Negligible	25	0.99	0.99	1	Above	Negligible	Above
	3	30	30	30	1	Above	Negligible	26	0.99	0.99	1	Above	Negligible	Above
	3	31	32	31	0.97	Above	Negligible	27	0.99	0.99	1	Above	Negligible	Above
	4	32	32	32	1	Above	Negligible	28	0.99	0.99	1	Above	Negligible	Above
	4	33	32	31	0.97	Above	Negligible	29	0.99	0.99	1	Above	Negligible	Above
	4	34	31	30	0.97	Above	Negligible	30	0.99	0.99	1	Above	Negligible	Above
	4	35	29	28	0.97	Above	Negligible	31	0.99	0.99	1	Above	Negligible	Above
	4	36	26	26	1	Above	Negligible	32	0.99	0.99	1	Above	Negligible	Above
	4	37	29	29	1	Above	Negligible	33	0.99	0.99	1	Above	Negligible	Above
	4	38	31	31	1	Above	Negligible	34	0.99	0.99	1	Above	Negligible	Above
	4	39	32	32	1	Above	Negligible							

Receptor H - Grey Building

Receptor	Floor No.	VSC						NSL						Overall BRE Criteria
		Wind No.	Base-line (%)	Pro-posed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	Room No.	Base-line (%)	Pro-posed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	
H- Grey Building	0	0	22	22	1	Above	Negligible	0	0.39	0.39	1	Above	Negligible	Above
	0	1	24	24	1	Above	Negligible	1	0.8	0.79	0.99	Above	Negligible	Above
	0	2	4	5	1.25	Above	Negligible	2	0.06	0.06	1	Above	Negligible	Above
	1	3	25	24	0.96	Above	Negligible	3	0.4	0.4	1	Above	Negligible	Above
	1	4	24	24	1	Above	Negligible	4	0.91	0.91	1	Above	Negligible	Above
	1	5	7	7	1	Above	Negligible	5	0.08	0.08	1	Above	Negligible	Above
	2	6	26	26	1	Above	Negligible	6	0.4	0.4	1	Above	Negligible	Above
	2	7	26	25	0.96	Above	Negligible	7	0.91	0.91	1	Above	Negligible	Above
	2	8	13	12	0.92	Above	Negligible	8	0.12	0.12	0.98	Above	Negligible	Above
	3	9	26	26	1	Above	Negligible	9	0.41	0.41	1	Above	Negligible	Above
	3	10	26	27	1.04	Above	Negligible	10	0.92	0.92	0.99	Above	Negligible	Above
	3	11	22	21	0.95	Above	Negligible	11	0.3	0.28	0.92	Above	Negligible	Above
	4	12	28	27	0.96	Above	Negligible	12	0.41	0.41	1	Above	Negligible	Above
	4	13	28	27	0.96	Above	Negligible	13	0.95	0.94	1	Above	Negligible	Above
	4	14	34	30	0.88	Above	Negligible	14	0.91	0.91	1	Above	Negligible	Above
	5	15	28	28	1	Above	Negligible	15	0.41	0.41	1	Above	Negligible	Above
	5	16	28	28	1	Above	Negligible	16	0.95	0.95	1	Above	Negligible	Above
	5	17	34	32	0.94	Above	Negligible	17	0.99	0.99	1	Above	Negligible	Above
	6	18	29	29	1	Above	Negligible	18	0.41	0.41	1	Above	Negligible	Above
	6	19	30	29	0.97	Above	Negligible	19	0.96	0.95	0.99	Above	Negligible	Above
	6	20	35	32	0.91	Above	Negligible	20	0.99	0.99	1	Above	Negligible	Above
	7	21	30	30	1	Above	Negligible	21	0.44	0.44	1	Above	Negligible	Above
	7	22	31	30	0.97	Above	Negligible	22	0.96	0.96	0.99	Above	Negligible	Above
	7	23	36	33	0.92	Above	Negligible	23	0.99	0.99	1	Above	Negligible	Above

Receptor I - Krupa Building

Receptor	Floor No.	VSC						NSL						Overall BRE Criteria
		Wind No.	Base-line (%)	Pro-posed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	Room No.	Base-line (%)	Pro-posed (%)	Ratio of Impact	BRE Criteria	Magni-tude of Change	
I - Krupa Building	0	0	19	15	0.79	Below	Low	0	0.42	0.35	0.84	Above	Negligible	Below
	0	1	21	17	0.81	Above	Negligible	1	0.48	0.47	0.98	Above	Negligible	Above
	1	2	22	16	0.73	Below	Low	2	0.19	0.16	0.84	Above	Negligible	Below
	1	3	23	19	0.83	Above	Negligible	3	0.39	0.38	0.97	Above	Negligible	Above
	2	4	25	19	0.76	Below	Low	4	0.31	0.25	0.81	Above	Negligible	Below
	2	5	26	21	0.81	Above	Negligible	5	0.48	0.45	0.94	Above	Negligible	Above
	3	6	28	23	0.82	Above	Negligible	6	0.55	0.48	0.87	Above	Negligible	Above

Receptor J - 12 Rochdale Road

Receptor	Floor No.	VSC						NSL						Overall BRE Criteria
		Wind No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	Room No.	Base-line (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change	
J- 12 Rochdale Road	0	0	20	7	0.35	Below	High	0	0.32	0.18	0.57	Below	High	Below
	0	1	15	5	0.33	Below	High	1	0.44	0.13	0.29	Below	High	Below
	0	2	21	10	0.48	Below	High	2	0.54	0.53	0.99	Above	Negligible	Above
	0	3	1	2	2	Above	Negligible							
	1	4	21	9	0.43	Below	High	3	0.34	0.19	0.57	Below	High	Below
	1	5	18	6	0.33	Below	High	4	0.67	0.16	0.24	Below	High	Below
	1	6	23	10	0.43	Below	High	5	0.54	0.54	1	Above	Negligible	Above
	1	7	2	2	1	Above	Negligible							
	2	8	22	10	0.45	Below	High	6	0.34	0.19	0.57	Below	High	Below
	2	9	20	7	0.35	Below	High	7	0.75	0.17	0.22	Below	High	Below
	2	10	24	11	0.46	Below	High	8	0.55	0.55	1	Above	Negligible	Above
	2	11	2	2	1	Above	Negligible							
	3	12	24	11	0.46	Below	High	9	0.34	0.2	0.6	Below	Medium	Below
	3	13	22	8	0.36	Below	High	10	0.76	0.21	0.28	Below	High	Below
	3	14	26	13	0.5	Below	High	11	0.56	0.56	1	Above	Negligible	Above
	3	15	3	3	1	Above	Negligible							
	4	16	26	12	0.46	Below	High	12	0.34	0.21	0.61	Below	Medium	Below
	4	17	23	9	0.39	Below	High	13	0.8	0.23	0.29	Below	High	Below
	4	18	28	14	0.5	Below	High	14	0.58	0.58	1	Above	Negligible	Above
	4	19	3	3	1	Above	Negligible							
	5	20	26	13	0.5	Below	High	15	0.36	0.23	0.63	Below	Medium	Below
	5	21	25	10	0.4	Below	High	16	0.88	0.29	0.33	Below	High	Below
	5	22	30	15	0.5	Below	High	17	0.6	0.6	1	Above	Negligible	Below
	5	23	3	2	0.67	Below	Medium							
	6	24	26	12	0.46	Below	High	18	0.9	0.33	0.37	Below	High	Below
	6	25	31	17	0.55	Below	High	19	0.77	0.77	1	Above	Negligible	Above
	6	26	3	3	1	Above	Negligible							
	7	27	28	13	0.46	Below	High	20	0.92	0.43	0.46	Below	High	Below
	7	28	33	19	0.58	Below	High	21	0.82	0.82	1	Above	Negligible	Above
	7	29	4	4	1	Above	Negligible							
	8	30	35	20	0.57	Below	High	22	0.96	0.58	0.6	Below	Medium	Below
	8	31	35	21	0.6	Below	Medium	23	0.94	0.94	1	Above	Negligible	Above
	8	32	9	8	0.89	Above	Negligible							

7.3 DETAILED DAYLIGHT ASSESSMENT RESULTS (VSC AND NSL)

Detailed Daylight Assessment Results (VSC)

Receptors A,B,C,D,E,F,G,H,I,J,K,L,M

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
A - Northern Angel	0	11	10	0.91	Above	Negligible
	1	6	6	1	Above	Negligible
	2	7	6	0.86	Above	Negligible
	3	6	5	0.83	Above	Negligible
	4	5	5	1	Above	Negligible
	5	7	4	0.57	Below	High
	6	7	5	0.71	Below	Low
	7	9	4	0.44	Below	High
	8	9	4	0.44	Below	High
	9	11	4	0.36	Below	High
	10	11	4	0.36	Below	High
	11	10	3	0.3	Below	High
	12	8	3	0.38	Below	High
	13	9	2	0.22	Below	High
	14	11	3	0.27	Below	High
	15	16	4	0.25	Below	High
	16	17	4	0.24	Below	High
	17	13	2	0.15	Below	High
	18	11	4	0.36	Below	High
	19	13	5	0.38	Below	High
	20	11	5	0.45	Below	High
	21	11	5	0.45	Below	High
	22	8	6	0.75	Below	Low
	23	9	5	0.56	Below	High
	24	7	6	0.86	Above	Negligible
	25	8	7	0.88	Above	Negligible
	26	11	10	0.91	Above	Negligible
	27	12	10	0.83	Above	Negligible
	28	4	3	0.75	Below	Low
	29	3	4	1.33	Above	Negligible
	30	9	5	0.56	Below	High
	31	13	7	0.54	Below	High
	32	9	7	0.78	Below	Low
	33	7	0	0.14	Below	High
	34	6	0	0.17	Below	High
	35	9	0	0.11	Below	High
	36	19	5	0.26	Below	High
	37	20	6	0.3	Below	High
	38	11	0	0.09	Below	High
	39	9	0	0.11	Below	High
	40	9	1	0.11	Below	High
	41	10	7	0.7	Below	Low
	42	13	8	0.62	Below	Medium
	43	10	7	0.7	Below	Low

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	44	3	3	1	Above	Negligible
	45	5	3	0.6	Below	Medium
	46	13	11	0.85	Above	Negligible
	47	14	12	0.86	Above	Negligible
	48	5	5	1	Above	Negligible
	49	4	5	1.25	Above	Negligible
	50	10	6	0.6	Below	Medium
	51	12	7	0.58	Below	High
	52	10	7	0.7	Below	Low
	53	11	1	0.09	Below	High
	54	10	1	0.1	Below	High
	55	12	0	0.08	Below	High
	56	22	7	0.32	Below	High
	57	24	5	0.21	Below	High
	58	17	2	0.12	Below	High
	59	17	2	0.12	Below	High
	60	24	5	0.21	Below	High
	61	23	6	0.26	Below	High
	62	17	4	0.24	Below	High
	63	17	4	0.24	Below	High
	64	21	7	0.33	Below	High
	65	20	13	0.65	Below	Medium
	66	13	8	0.62	Below	Medium
	67	12	8	0.67	Below	Medium
	68	19	14	0.74	Below	Low
	69	11	11	1	Above	Negligible
	70	12	10	0.83	Above	Negligible
	71	6	5	0.83	Above	Negligible
	72	6	4	0.67	Below	Medium
	73	7	5	0.71	Below	Low
	74	6	3	0.5	Below	High
	75	5	4	0.8	Above	Negligible
	76	8	4	0.5	Below	High
	77	5	4	0.8	Above	Negligible
	78	12	5	0.42	Below	High
	79	13	5	0.38	Below	High
	80	8	3	0.38	Below	High
	81	8	4	0.5	Below	High
	82	9	2	0.22	Below	High
	83	15	3	0.2	Below	High
	84	8	6	0.75	Below	Low
	85	8	5	0.62	Below	Medium
	86	8	5	0.62	Below	Medium
	87	9	6	0.67	Below	Medium

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	88	12	7	0.58	Below	High
	89	11	7	0.64	Below	Medium
	90	7	6	0.86	Above	Negligible
	91	15	6	0.4	Below	High
	92	17	7	0.41	Below	High
	93	15	5	0.33	Below	High
	94	15	4	0.27	Below	High
	95	18	4	0.22	Below	High
	96	19	4	0.21	Below	High
	97	9	0	0.11	Below	High
	98	9	6	0.67	Below	Medium
	99	9	7	0.78	Below	Low
	100	9	7	0.78	Below	Low
	101	11	8	0.73	Below	Low
	102	14	9	0.64	Below	Medium
	103	13	8	0.62	Below	Medium
	104	8	8	1	Above	Negligible
	105	17	7	0.41	Below	High
	106	18	7	0.39	Below	High
	107	19	5	0.26	Below	High
	108	19	5	0.26	Below	High
	109	21	4	0.19	Below	High
	110	21	5	0.24	Below	High
	111	11	0	0.09	Below	High
	112	10	8	0.8	Above	Negligible
	113	11	8	0.73	Below	Low
	114	11	8	0.73	Below	Low
	115	14	10	0.71	Below	Low
	116	12	9	0.75	Below	Low
	117	17	10	0.59	Below	High
	118	10	9	0.9	Above	Negligible
	119	18	9	0.5	Below	High
	120	20	8	0.4	Below	High
	121	22	5	0.23	Below	High
	122	23	5	0.22	Below	High
	123	23	5	0.22	Below	High
	124	23	6	0.26	Below	High
	125	13	1	0.08	Below	High
	126	7	6	0.86	Above	Negligible
	127	8	4	0.5	Below	High
	128	7	4	0.57	Below	High
	129	7	5	0.71	Below	Low
	130	10	5	0.5	Below	High

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	131	6	6	1	Above	Negligible
	132	13	5	0.38	Below	High
	133	15	6	0.4	Below	High
	134	11	4	0.36	Below	High
	135	11	4	0.36	Below	High
	136	13	3	0.23	Below	High
	137	17	3	0.18	Below	High
	138	14	3	0.21	Below	High
	139	2	1	0.5	Below	High
	140	2	2	1	Above	Negligible
	141	3	2	0.67	Below	Medium
	142	11	3	0.27	Below	High
	143	12	2	0.17	Below	High
	144	24	8	0.33	Below	High
	145	24	5	0.21	Below	High
	146	24	6	0.25	Below	High
	147	24	7	0.29	Below	High
	148	9	2	0.22	Below	High
	149	8	1	0.12	Below	High
	150	4	3	0.75	Below	Low
	151	7	3	0.43	Below	High
	152	4	3	0.75	Below	Low
B- 25 Rochdale Road	0	13	14	1.08	Above	Negligible
	1	14	13	0.93	Above	Negligible
	2	13	14	1.08	Above	Negligible
	3	13	13	1	Above	Negligible
	4	13	13	1	Above	Negligible
	5	24	24	1	Above	Negligible
	6	22	22	1	Above	Negligible
	7	23	23	1	Above	Negligible
	8	20	20	1	Above	Negligible
	9	16	15	0.94	Above	Negligible
	10	18	18	1	Above	Negligible
	11	15	14	0.93	Above	Negligible
	12	17	3	0.18	Below	High
	13	16	12	0.75	Below	Low
	14	18	13	0.72	Below	Low
	15	13	15	1.15	Above	Negligible
	16	14	14	1	Above	Negligible
	17	24	24	1	Above	Negligible
	18	14	14	1	Above	Negligible
	19	14	14	1	Above	Negligible
	20	14	15	1.07	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	21	21	21	1	Above	Negligible
	22	23	23	1	Above	Negligible
	23	25	25	1	Above	Negligible
	24	16	16	1	Above	Negligible
	25	18	19	1.06	Above	Negligible
	26	14	14	1	Above	Negligible
	27	20	3	0.15	Below	High
	28	20	16	0.8	Above	Negligible
	29	17	13	0.76	Below	Low
	30	19	19	1	Above	Negligible
	31	17	17	1	Above	Negligible
	32	21	21	1	Above	Negligible
	33	25	25	1	Above	Negligible
	34	24	23	0.96	Above	Negligible
	35	15	16	1.07	Above	Negligible
	36	15	15	1	Above	Negligible
	37	14	15	1.07	Above	Negligible
	38	16	15	0.94	Above	Negligible
	39	15	15	1	Above	Negligible
	40	14	14	1	Above	Negligible
	41	25	25	1	Above	Negligible
	42	19	15	0.79	Below	Low
	43	22	17	0.77	Below	Low
	44	24	3	0.12	Below	High
	45	16	15	0.94	Above	Negligible
	46	16	16	1	Above	Negligible
	47	16	16	1	Above	Negligible
	48	25	25	1	Above	Negligible
	49	24	25	1.04	Above	Negligible
	50	16	16	1	Above	Negligible
	51	18	18	1	Above	Negligible
	52	20	20	1	Above	Negligible
	53	16	15	0.94	Above	Negligible
	54	22	22	1	Above	Negligible
	55	16	16	1	Above	Negligible
	56	26	26	1	Above	Negligible
	57	24	18	0.75	Below	Low
	58	20	15	0.75	Below	Low
	59	25	3	0.12	Below	High
	60	23	23	1	Above	Negligible
	61	24	25	1.04	Above	Negligible
	62	21	21	1	Above	Negligible
	63	26	27	1.04	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	64	26	25	0.96	Above	Negligible
	65	18	17	0.94	Above	Negligible
	66	16	17	1.06	Above	Negligible
	67	17	17	1	Above	Negligible
	68	19	19	1	Above	Negligible
	69	17	17	1	Above	Negligible
	70	17	18	1.06	Above	Negligible
	71	17	16	0.94	Above	Negligible
	72	25	20	0.8	Above	Negligible
	73	21	16	0.76	Below	Low
	74	27	3	0.11	Below	High
	75	19	19	1	Above	Negligible
	76	18	17	0.94	Above	Negligible
	77	25	26	1.04	Above	Negligible
	78	27	28	1.04	Above	Negligible
	79	27	26	0.96	Above	Negligible
	80	18	18	1	Above	Negligible
	81	19	18	0.95	Above	Negligible
	82	22	21	0.95	Above	Negligible
	83	18	18	1	Above	Negligible
	84	23	23	1	Above	Negligible
	85	19	20	1.05	Above	Negligible
	86	18	18	1	Above	Negligible
	87	28	4	0.14	Below	High
	88	26	21	0.81	Above	Negligible
	89	22	17	0.77	Below	Low
	90	19	19	1	Above	Negligible
	91	20	20	1	Above	Negligible
	92	20	20	1	Above	Negligible
	93	19	19	1	Above	Negligible
	94	21	21	1	Above	Negligible
	95	19	19	1	Above	Negligible
	96	27	27	1	Above	Negligible
	97	26	26	1	Above	Negligible
	98	24	24	1	Above	Negligible
	99	22	22	1	Above	Negligible
	100	19	18	0.95	Above	Negligible
	101	28	28	1	Above	Negligible
	102	28	4	0.14	Below	High
	103	28	21	0.75	Below	Low
	104	23	18	0.78	Below	Low
	105	21	21	1	Above	Negligible
	106	22	21	0.95	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	107	21	22	1.05	Above	Negligible
	108	20	20	1	Above	Negligible
	109	20	19	0.95	Above	Negligible
	110	20	20	1	Above	Negligible
	111	25	25	1	Above	Negligible
	112	23	23	1	Above	Negligible
	113	22	22	1	Above	Negligible
	114	29	29	1	Above	Negligible
	115	26	27	1.04	Above	Negligible
	116	28	28	1	Above	Negligible
	117	30	4	0.13	Below	High
	118	25	19	0.76	Below	Low
	119	31	24	0.77	Below	Low
	120	21	21	1	Above	Negligible
	121	22	22	1	Above	Negligible
	122	22	23	1.05	Above	Negligible
	123	23	23	1	Above	Negligible
	124	22	23	1.05	Above	Negligible
	125	26	26	1	Above	Negligible
	126	28	28	1	Above	Negligible
	127	29	29	1	Above	Negligible
	128	21	20	0.95	Above	Negligible
	129	21	21	1	Above	Negligible
	130	24	24	1	Above	Negligible
	131	30	30	1	Above	Negligible
	132	31	4	0.13	Below	High
	133	33	26	0.79	Below	Low
	134	28	21	0.75	Below	Low
	135	9	9	1	Above	Negligible
	136	8	9	1.12	Above	Negligible
	137	9	9	1	Above	Negligible
	138	10	10	1	Above	Negligible
	139	9	10	1.11	Above	Negligible
	140	12	12	1	Above	Negligible
	141	13	13	1	Above	Negligible
	142	10	11	1.1	Above	Negligible
	143	9	9	1	Above	Negligible
	144	13	13	1	Above	Negligible
	145	31	5	0.16	Below	High
C- Hampton	0	23	6	0.26	Below	High
	1	20	4	0.2	Below	High
	2	21	6	0.29	Below	High
	3	21	12	0.57	Below	High

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	4	22	9	0.41	Below	High
	5	25	6	0.24	Below	High
	6	22	5	0.23	Below	High
	7	24	8	0.33	Below	High
	8	24	14	0.58	Below	High
	9	23	11	0.48	Below	High
	10	27	8	0.3	Below	High
	11	25	5	0.2	Below	High
	12	25	8	0.32	Below	High
	13	26	17	0.65	Below	Medium
	14	26	12	0.46	Below	High
	15	28	8	0.29	Below	High
	16	25	5	0.2	Below	High
	17	27	8	0.3	Below	High
	18	28	17	0.61	Below	Medium
	19	27	12	0.44	Below	High
	20	29	8	0.28	Below	High
	21	27	6	0.22	Below	High
	22	28	9	0.32	Below	High
	23	29	18	0.62	Below	Medium
	24	29	12	0.41	Below	High
	25	30	9	0.3	Below	High
	26	28	6	0.21	Below	High
	27	29	9	0.31	Below	High
	28	29	17	0.59	Below	High
	29	29	13	0.45	Below	High
	30	28	7	0.25	Below	High
	31	30	7	0.23	Below	High
	32	29	9	0.31	Below	High
	33	31	18	0.58	Below	High
	34	31	13	0.42	Below	High
	35	30	7	0.23	Below	High
	36	30	7	0.23	Below	High
	37	31	10	0.32	Below	High
	38	32	18	0.56	Below	High
	39	30	13	0.43	Below	High
D - Ancoats Gardens	0	29	30	1.03	Above	Negligible
	1	28	28	1	Above	Negligible
	2	16	16	1	Above	Negligible
	3	15	8	0.53	Below	High
	4	0	0	1	Above	Negligible
	5	2	1	0.5	Below	High
	6	13	10	0.77	Below	Low

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	7	31	30	0.97	Above	Negligible
	8	28	28	1	Above	Negligible
	9	21	19	0.9	Above	Negligible
	10	17	10	0.59	Below	High
	11	0	0	1	Above	Negligible
	12	2	1	0.5	Below	High
	13	15	12	0.8	Above	Negligible
	14	32	31	0.97	Above	Negligible
	15	29	29	1	Above	Negligible
	16	24	22	0.92	Above	Negligible
	17	19	12	0.63	Below	Medium
	18	0	0	1	Above	Negligible
	19	3	1	0.33	Below	High
	20	18	15	0.83	Above	Negligible
	21	33	33	1	Above	Negligible
	22	30	30	1	Above	Negligible
	23	27	25	0.93	Above	Negligible
	24	21	15	0.71	Below	Low
	25	0	0	1	Above	Negligible
	26	4	1	0.25	Below	High
	27	21	18	0.86	Above	Negligible
	28	34	34	1	Above	Negligible
	29	30	30	1	Above	Negligible
	30	30	28	0.93	Above	Negligible
	31	23	17	0.74	Below	Low
	32	0	0	1	Above	Negligible
	33	4	2	0.5	Below	High
	34	24	20	0.83	Above	Negligible
	35	34	34	1	Above	Negligible
	36	31	31	1	Above	Negligible
	37	33	31	0.94	Above	Negligible
	38	26	18	0.69	Below	Medium
	39	0	0	1	Above	Negligible
	40	5	2	0.4	Below	High
	41	27	23	0.85	Above	Negligible
	42	35	35	1	Above	Negligible
	43	31	31	1	Above	Negligible
	44	34	32	0.94	Above	Negligible
	45	27	21	0.78	Below	Low
	46	1	0	1	Above	Negligible
	47	5	3	0.6	Below	Medium
	48	27	25	0.93	Above	Negligible
	49	35	34	0.97	Above	Negligible
	50	32	31	0.97	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	51	35	32	0.91	Above	Negligible
	52	30	23	0.77	Below	Low
	53	0	1	1	Above	Negligible
	54	6	4	0.67	Below	Medium
	55	30	26	0.87	Above	Negligible
	56	36	35	0.97	Above	Negligible
	57	32	31	0.97	Above	Negligible
	58	36	32	0.89	Above	Negligible
	59	30	24	0.8	Above	Negligible
	60	0	1	1	Above	Negligible
	61	6	4	0.67	Below	Medium
	62	29	28	0.97	Above	Negligible
	63	36	36	1	Above	Negligible
	64	32	32	1	Above	Negligible
	65	36	33	0.92	Above	Negligible
	66	31	24	0.77	Below	Low
	67	1	1	1	Above	Negligible
	68	6	5	0.83	Above	Negligible
	69	31	27	0.87	Above	Negligible
	70	36	35	0.97	Above	Negligible
	71	32	32	1	Above	Negligible
	72	36	34	0.94	Above	Negligible
	73	30	25	0.83	Above	Negligible
	74	1	1	1	Above	Negligible
	75	6	5	0.83	Above	Negligible
	76	31	29	0.94	Above	Negligible
	77	36	36	1	Above	Negligible
	78	32	32	1	Above	Negligible
	79	36	33	0.92	Above	Negligible
	80	31	25	0.81	Above	Negligible
	81	1	1	1	Above	Negligible
	82	6	4	0.67	Below	Medium
	83	32	30	0.94	Above	Negligible
	84	35	36	1.03	Above	Negligible
	85	32	32	1	Above	Negligible
	86	36	34	0.94	Above	Negligible
	87	31	26	0.84	Above	Negligible
	88	1	1	1	Above	Negligible
	89	7	5	0.71	Below	Low
	90	34	30	0.88	Above	Negligible
	91	36	36	1	Above	Negligible
	92	32	32	1	Above	Negligible
	93	36	34	0.94	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	94	30	26	0.87	Above	Negligible
	95	2	2	1	Above	Negligible
	96	7	5	0.71	Below	Low
	97	34	31	0.91	Above	Negligible
	98	35	34	0.97	Above	Negligible
	99	35	34	0.97	Above	Negligible
	100	35	35	1	Above	Negligible
	101	36	36	1	Above	Negligible
	102	35	35	1	Above	Negligible
	103	36	36	1	Above	Negligible
	104	36	36	1	Above	Negligible
	105	36	36	1	Above	Negligible
	106	36	35	0.97	Above	Negligible
	107	35	36	1.03	Above	Negligible
	108	35	35	1	Above	Negligible
	109	35	35	1	Above	Negligible
	110	35	35	1	Above	Negligible
	111	34	34	1	Above	Negligible
	112	34	34	1	Above	Negligible
	113	33	34	1.03	Above	Negligible
	114	33	33	1	Above	Negligible
	115	18	15	0.83	Above	Negligible
	116	16	14	0.88	Above	Negligible
	117	16	14	0.88	Above	Negligible
	118	15	12	0.8	Above	Negligible
	119	18	14	0.78	Below	Low
	120	16	12	0.75	Below	Low
	121	17	11	0.65	Below	Medium
	122	11	10	0.91	Above	Negligible
	123	10	9	0.9	Above	Negligible
	124	12	10	0.83	Above	Negligible
	125	11	12	1.09	Above	Negligible
	126	16	16	1	Above	Negligible
	127	11	10	0.91	Above	Negligible
	128	14	14	1	Above	Negligible
	129	13	13	1	Above	Negligible
	130	9	9	1	Above	Negligible
	131	13	13	1	Above	Negligible
	132	11	11	1	Above	Negligible
	133	12	12	1	Above	Negligible
	134	9	9	1	Above	Negligible
	135	6	6	1	Above	Negligible
	136	7	6	0.86	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	137	11	8	0.73	Below	Low
	138	15	15	1	Above	Negligible
	139	17	16	0.94	Above	Negligible
	140	18	17	0.94	Above	Negligible
	141	15	13	0.87	Above	Negligible
	142	14	14	1	Above	Negligible
	143	36	36	1	Above	Negligible
	144	36	36	1	Above	Negligible
	145	37	36	0.97	Above	Negligible
	146	37	37	1	Above	Negligible
	147	36	37	1.03	Above	Negligible
	148	37	37	1	Above	Negligible
	149	37	37	1	Above	Negligible
	150	37	36	0.97	Above	Negligible
	151	36	36	1	Above	Negligible
	152	36	36	1	Above	Negligible
	153	36	36	1	Above	Negligible
	154	36	36	1	Above	Negligible
	155	35	35	1	Above	Negligible
	156	35	35	1	Above	Negligible
	157	35	35	1	Above	Negligible
	158	34	35	1.03	Above	Negligible
	159	34	34	1	Above	Negligible
	160	20	18	0.9	Above	Negligible
	161	19	16	0.84	Above	Negligible
	162	20	17	0.85	Above	Negligible
	163	18	15	0.83	Above	Negligible
	164	20	15	0.75	Below	Low
	165	19	14	0.74	Below	Low
	166	19	13	0.68	Below	Medium
	167	14	11	0.79	Below	Low
	168	14	12	0.86	Above	Negligible
	169	14	12	0.86	Above	Negligible
	170	14	13	0.93	Above	Negligible
	171	19	19	1	Above	Negligible
	172	13	13	1	Above	Negligible
	173	16	16	1	Above	Negligible
	174	15	16	1.07	Above	Negligible
	175	11	11	1	Above	Negligible
	176	15	15	1	Above	Negligible
	177	13	13	1	Above	Negligible
	178	14	14	1	Above	Negligible
	179	10	10	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	180	7	6	0.86	Above	Negligible
	181	8	7	0.88	Above	Negligible
	182	12	8	0.67	Below	Medium
	183	20	19	0.95	Above	Negligible
	184	21	20	0.95	Above	Negligible
	185	22	21	0.95	Above	Negligible
	186	18	17	0.94	Above	Negligible
	187	18	18	1	Above	Negligible
	188	37	37	1	Above	Negligible
	189	37	37	1	Above	Negligible
	190	37	37	1	Above	Negligible
	191	37	37	1	Above	Negligible
	192	37	37	1	Above	Negligible
	193	37	37	1	Above	Negligible
	194	37	38	1.03	Above	Negligible
	195	36	37	1.03	Above	Negligible
	196	37	36	0.97	Above	Negligible
	197	37	37	1	Above	Negligible
	198	36	36	1	Above	Negligible
	199	36	36	1	Above	Negligible
	200	36	36	1	Above	Negligible
	201	35	36	1.03	Above	Negligible
	202	36	35	0.97	Above	Negligible
	203	35	35	1	Above	Negligible
	204	35	35	1	Above	Negligible
	205	24	21	0.88	Above	Negligible
	206	22	19	0.86	Above	Negligible
	207	23	20	0.87	Above	Negligible
	208	21	18	0.86	Above	Negligible
	209	23	20	0.87	Above	Negligible
	210	21	16	0.76	Below	Low
	211	21	16	0.76	Below	Low
	212	16	15	0.94	Above	Negligible
	213	17	15	0.88	Above	Negligible
	214	18	15	0.83	Above	Negligible
	215	16	16	1	Above	Negligible
	216	22	22	1	Above	Negligible
	217	17	16	0.94	Above	Negligible
	218	20	19	0.95	Above	Negligible
	219	19	18	0.95	Above	Negligible
	220	14	14	1	Above	Negligible
	221	18	17	0.94	Above	Negligible
	222	16	15	0.94	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	223	17	17	1	Above	Negligible
	224	12	12	1	Above	Negligible
	225	8	7	0.88	Above	Negligible
	226	9	7	0.78	Below	Low
	227	14	10	0.71	Below	Low
	228	24	23	0.96	Above	Negligible
	229	24	24	1	Above	Negligible
	230	26	25	0.96	Above	Negligible
	231	21	20	0.95	Above	Negligible
	232	22	22	1	Above	Negligible
	233	37	37	1	Above	Negligible
	234	37	37	1	Above	Negligible
	235	37	37	1	Above	Negligible
	236	37	38	1.03	Above	Negligible
	237	38	38	1	Above	Negligible
	238	38	38	1	Above	Negligible
	239	37	38	1.03	Above	Negligible
	240	37	37	1	Above	Negligible
	241	37	37	1	Above	Negligible
	242	37	37	1	Above	Negligible
	243	37	37	1	Above	Negligible
	244	37	37	1	Above	Negligible
	245	37	36	0.97	Above	Negligible
	246	36	37	1.03	Above	Negligible
	247	36	37	1.03	Above	Negligible
	248	36	36	1	Above	Negligible
	249	36	36	1	Above	Negligible
	250	27	25	0.93	Above	Negligible
	251	26	22	0.85	Above	Negligible
	252	26	23	0.88	Above	Negligible
	253	25	21	0.84	Above	Negligible
	254	27	22	0.81	Above	Negligible
	255	24	19	0.79	Below	Low
	256	25	18	0.72	Below	Low
	257	19	18	0.95	Above	Negligible
	258	20	18	0.9	Above	Negligible
	259	21	19	0.9	Above	Negligible
	260	18	18	1	Above	Negligible
	261	26	26	1	Above	Negligible
	262	20	20	1	Above	Negligible
	263	23	23	1	Above	Negligible
	264	21	21	1	Above	Negligible
	265	16	16	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	266	20	20	1	Above	Negligible
	267	18	18	1	Above	Negligible
	268	20	20	1	Above	Negligible
	269	13	13	1	Above	Negligible
	270	8	8	1	Above	Negligible
	271	10	8	0.8	Above	Negligible
	272	15	11	0.73	Below	Low
	273	27	26	0.96	Above	Negligible
	274	28	27	0.96	Above	Negligible
	275	29	28	0.97	Above	Negligible
	276	24	23	0.96	Above	Negligible
	277	25	25	1	Above	Negligible
	278	38	38	1	Above	Negligible
	279	37	38	1.03	Above	Negligible
	280	38	38	1	Above	Negligible
	281	38	38	1	Above	Negligible
	282	38	38	1	Above	Negligible
	283	38	38	1	Above	Negligible
	284	38	38	1	Above	Negligible
	285	37	37	1	Above	Negligible
	286	37	37	1	Above	Negligible
	287	37	37	1	Above	Negligible
	288	37	36	0.97	Above	Negligible
	289	38	38	1	Above	Negligible
	290	37	36	0.97	Above	Negligible
	291	37	36	0.97	Above	Negligible
	292	37	37	1	Above	Negligible
	293	37	37	1	Above	Negligible
	294	36	37	1.03	Above	Negligible
	295	30	28	0.93	Above	Negligible
	296	28	25	0.89	Above	Negligible
	297	29	26	0.9	Above	Negligible
	298	27	23	0.85	Above	Negligible
	299	29	25	0.86	Above	Negligible
	300	26	22	0.85	Above	Negligible
	301	27	22	0.81	Above	Negligible
	302	23	21	0.91	Above	Negligible
	303	25	21	0.84	Above	Negligible
	304	24	22	0.92	Above	Negligible
	305	20	21	1.05	Above	Negligible
	306	29	29	1	Above	Negligible
	307	24	23	0.96	Above	Negligible
	308	25	26	1.04	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	309	25	25	1	Above	Negligible
	310	18	18	1	Above	Negligible
	311	22	22	1	Above	Negligible
	312	22	22	1	Above	Negligible
	313	23	23	1	Above	Negligible
	314	16	16	1	Above	Negligible
	315	9	9	1	Above	Negligible
	316	11	10	0.91	Above	Negligible
	317	17	13	0.76	Below	Low
	318	29	29	1	Above	Negligible
	319	30	29	0.97	Above	Negligible
	320	31	30	0.97	Above	Negligible
	321	28	27	0.96	Above	Negligible
	322	28	27	0.96	Above	Negligible
	323	38	38	1	Above	Negligible
	324	38	38	1	Above	Negligible
	325	38	38	1	Above	Negligible
	326	38	38	1	Above	Negligible
	327	38	38	1	Above	Negligible
	328	38	38	1	Above	Negligible
	329	38	38	1	Above	Negligible
	330	38	37	0.97	Above	Negligible
	331	37	38	1.03	Above	Negligible
	332	37	38	1.03	Above	Negligible
	333	37	37	1	Above	Negligible
	334	37	37	1	Above	Negligible
	335	37	37	1	Above	Negligible
	336	37	37	1	Above	Negligible
	337	37	38	1.03	Above	Negligible
	338	37	37	1	Above	Negligible
	339	32	30	0.94	Above	Negligible
	340	31	28	0.9	Above	Negligible
	341	32	29	0.91	Above	Negligible
	342	30	26	0.87	Above	Negligible
	343	33	27	0.82	Above	Negligible
	344	30	24	0.8	Above	Negligible
	345	30	24	0.8	Above	Negligible
	346	25	23	0.92	Above	Negligible
	347	27	25	0.93	Above	Negligible
	348	27	25	0.93	Above	Negligible
	349	24	24	1	Above	Negligible
	350	33	33	1	Above	Negligible
	351	28	27	0.96	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	352	30	30	1	Above	Negligible
	353	28	28	1	Above	Negligible
	354	20	20	1	Above	Negligible
	355	25	26	1.04	Above	Negligible
	356	28	27	0.96	Above	Negligible
	357	27	27	1	Above	Negligible
	358	23	23	1	Above	Negligible
	359	10	10	1	Above	Negligible
	360	13	12	0.92	Above	Negligible
	361	18	14	0.78	Below	Low
	362	31	30	0.97	Above	Negligible
	363	32	31	0.97	Above	Negligible
	364	32	31	0.97	Above	Negligible
	365	30	29	0.97	Above	Negligible
	366	31	30	0.97	Above	Negligible
	367	39	39	1	Above	Negligible
	368	38	38	1	Above	Negligible
	369	39	39	1	Above	Negligible
	370	38	39	1.03	Above	Negligible
	371	38	38	1	Above	Negligible
	372	38	38	1	Above	Negligible
	373	38	38	1	Above	Negligible
	374	38	37	0.97	Above	Negligible
	375	38	38	1	Above	Negligible
	376	37	37	1	Above	Negligible
	377	37	38	1.03	Above	Negligible
	378	38	38	1	Above	Negligible
	379	37	38	1.03	Above	Negligible
	380	38	37	0.97	Above	Negligible
	381	34	32	0.94	Above	Negligible
	382	33	29	0.88	Above	Negligible
	383	33	29	0.88	Above	Negligible
	384	32	28	0.88	Above	Negligible
	385	33	29	0.88	Above	Negligible
	386	32	27	0.84	Above	Negligible
	387	31	26	0.84	Above	Negligible
	388	27	25	0.93	Above	Negligible
	389	29	27	0.93	Above	Negligible
	390	30	28	0.93	Above	Negligible
	391	26	26	1	Above	Negligible
	392	36	35	0.97	Above	Negligible
	393	30	31	1.03	Above	Negligible
	394	34	34	1	Above	Negligible
	395	32	32	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	396	22	22	1	Above	Negligible
	397	27	27	1	Above	Negligible
	398	31	31	1	Above	Negligible
	399	29	29	1	Above	Negligible
	400	32	31	0.97	Above	Negligible
	401	39	38	0.97	Above	Negligible
	402	38	38	1	Above	Negligible
	403	39	39	1	Above	Negligible
	404	39	38	0.97	Above	Negligible
	405	38	38	1	Above	Negligible
	406	38	38	1	Above	Negligible
	407	38	38	1	Above	Negligible
	408	38	38	1	Above	Negligible
	409	38	38	1	Above	Negligible
	410	38	38	1	Above	Negligible
	411	38	37	0.97	Above	Negligible
	412	38	38	1	Above	Negligible
	413	38	37	0.97	Above	Negligible
	414	37	38	1.03	Above	Negligible
	415	36	32	0.89	Above	Negligible
	416	34	30	0.88	Above	Negligible
	417	35	31	0.89	Above	Negligible
	418	32	28	0.88	Above	Negligible
	419	34	30	0.88	Above	Negligible
	420	33	28	0.85	Above	Negligible
	421	33	28	0.85	Above	Negligible
	422	28	27	0.96	Above	Negligible
	423	31	29	0.94	Above	Negligible
	424	31	29	0.94	Above	Negligible
	425	32	32	1	Above	Negligible
	426	38	38	1	Above	Negligible
	427	33	33	1	Above	Negligible
	428	37	36	0.97	Above	Negligible
	429	36	36	1	Above	Negligible
	430	26	26	1	Above	Negligible
	431	28	28	1	Above	Negligible
	432	32	32	1	Above	Negligible
	433	31	30	0.97	Above	Negligible
	434	32	32	1	Above	Negligible
	435	38	38	1	Above	Negligible
	436	36	33	0.92	Above	Negligible
	437	34	31	0.91	Above	Negligible
	438	35	32	0.91	Above	Negligible
	439	34	30	0.88	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	440	36	31	0.86	Above	Negligible
	441	34	29	0.85	Above	Negligible
	442	34	28	0.82	Above	Negligible
	443	29	28	0.97	Above	Negligible
	444	32	30	0.94	Above	Negligible
	445	32	30	0.94	Above	Negligible
	446	39	38	0.97	Above	Negligible
	447	38	38	1	Above	Negligible
	448	34	34	1	Above	Negligible
	449	38	38	1	Above	Negligible
	450	38	38	1	Above	Negligible
	451	38	38	1	Above	Negligible
	452	38	38	1	Above	Negligible
	453	35	32	0.91	Above	Negligible
	454	35	32	0.91	Above	Negligible
	455	35	31	0.89	Above	Negligible
	456	33	29	0.88	Above	Negligible
	457	37	31	0.84	Above	Negligible
	458	35	28	0.8	Above	Negligible
	459	35	29	0.83	Above	Negligible
	460	30	29	0.97	Above	Negligible
	461	33	31	0.94	Above	Negligible
	462	32	31	0.97	Above	Negligible
	463	39	39	1	Above	Negligible
	464	38	38	1	Above	Negligible
	465	34	34	1	Above	Negligible
	466	38	38	1	Above	Negligible
	467	38	39	1.03	Above	Negligible
	468	39	39	1	Above	Negligible
	469	38	38	1	Above	Negligible
	470	37	38	1.03	Above	Negligible
	471	37	37	1	Above	Negligible
	472	38	38	1	Above	Negligible
	473	38	39	1.03	Above	Negligible
	474	35	33	0.94	Above	Negligible
	475	34	31	0.91	Above	Negligible
	476	36	32	0.89	Above	Negligible
	477	33	30	0.91	Above	Negligible
	478	37	32	0.86	Above	Negligible
	479	34	29	0.85	Above	Negligible
	480	35	29	0.83	Above	Negligible
	481	31	29	0.94	Above	Negligible
	482	33	32	0.97	Above	Negligible
	483	33	32	0.97	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	484	39	39	1	Above	Negligible
	485	38	38	1	Above	Negligible
	486	34	34	1	Above	Negligible
	487	38	38	1	Above	Negligible
	488	39	39	1	Above	Negligible
	489	38	38	1	Above	Negligible
	490	39	39	1	Above	Negligible
	491	38	38	1	Above	Negligible
	492	36	34	0.94	Above	Negligible
	493	34	31	0.91	Above	Negligible
	494	36	32	0.89	Above	Negligible
	495	34	30	0.88	Above	Negligible
	496	36	31	0.86	Above	Negligible
	497	35	29	0.83	Above	Negligible
	498	35	30	0.86	Above	Negligible
	499	31	29	0.94	Above	Negligible
	500	34	32	0.94	Above	Negligible
	501	33	31	0.94	Above	Negligible
	502	39	39	1	Above	Negligible
	503	38	38	1	Above	Negligible
	504	33	34	1.03	Above	Negligible
	505	38	38	1	Above	Negligible
	506	38	39	1.03	Above	Negligible
	507	39	39	1	Above	Negligible
	508	39	38	0.97	Above	Negligible
	509	38	38	1	Above	Negligible
	510	35	32	0.91	Above	Negligible
	511	36	32	0.89	Above	Negligible
	512	34	31	0.91	Above	Negligible
	513	37	32	0.86	Above	Negligible
	514	34	30	0.88	Above	Negligible
	515	36	30	0.83	Above	Negligible
	516	32	31	0.97	Above	Negligible
	517	34	32	0.94	Above	Negligible
	518	33	32	0.97	Above	Negligible
	519	39	39	1	Above	Negligible
	520	38	38	1	Above	Negligible
	521	34	34	1	Above	Negligible
	522	39	38	0.97	Above	Negligible
	523	38	39	1.03	Above	Negligible
	524	39	38	0.97	Above	Negligible
	525	39	39	1	Above	Negligible
	526	38	38	1	Above	Negligible
	527	36	34	0.94	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	528	35	32	0.91	Above	Negligible
	529	36	33	0.92	Above	Negligible
	530	34	31	0.91	Above	Negligible
	531	37	33	0.89	Above	Negligible
	532	35	31	0.89	Above	Negligible
	533	35	30	0.86	Above	Negligible
	534	32	31	0.97	Above	Negligible
	535	34	33	0.97	Above	Negligible
	536	34	33	0.97	Above	Negligible
	537	39	39	1	Above	Negligible
	538	38	39	1.03	Above	Negligible
	539	39	39	1	Above	Negligible
	540	39	39	1	Above	Negligible
	541	39	39	1	Above	Negligible
	542	39	39	1	Above	Negligible
	543	36	34	0.94	Above	Negligible
E - 10 Rochdale Road	0	27	27	1	Above	Negligible
	1	15	13	0.87	Above	Negligible
	2	15	11	0.73	Below	Low
	3	16	9	0.56	Below	High
	4	18	10	0.56	Below	High
	5	28	28	1	Above	Negligible
	6	17	14	0.82	Above	Negligible
	7	16	12	0.75	Below	Low
	8	18	10	0.56	Below	High
	9	19	11	0.58	Below	High
	10	28	29	1.04	Above	Negligible
	11	19	15	0.79	Below	Low
	12	18	13	0.72	Below	Low
	13	20	12	0.6	Below	Medium
	14	20	12	0.6	Below	Medium
	15	29	29	1	Above	Negligible
	16	21	18	0.86	Above	Negligible
	17	20	14	0.7	Below	Low
	18	22	13	0.59	Below	High
	19	22	13	0.59	Below	High
	20	30	30	1	Above	Negligible
	21	23	19	0.83	Above	Negligible
	22	22	17	0.77	Below	Low
	23	24	15	0.62	Below	Medium
	24	24	15	0.62	Below	Medium
	25	30	30	1	Above	Negligible
	26	25	22	0.88	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	27	25	19	0.76	Below	Low
	28	26	17	0.65	Below	Medium
	29	25	17	0.68	Below	Medium
	30	31	31	1	Above	Negligible
	31	28	24	0.86	Above	Negligible
	32	28	22	0.79	Below	Low
	33	29	20	0.69	Below	Medium
	34	28	20	0.71	Below	Low
	35	32	31	0.97	Above	Negligible
	36	31	27	0.87	Above	Negligible
	37	31	25	0.81	Above	Negligible
	38	32	22	0.69	Below	Medium
	39	31	22	0.71	Below	Low
	40	33	32	0.97	Above	Negligible
	41	34	30	0.88	Above	Negligible
	42	34	28	0.82	Above	Negligible
	43	34	25	0.74	Below	Low
	44	34	24	0.71	Below	Low
	45	33	33	1	Above	Negligible
	46	36	33	0.92	Above	Negligible
	47	37	30	0.81	Above	Negligible
	48	37	28	0.76	Above	Negligible
	49	36	27	0.75	Above	Negligible
	50	33	33	1	Above	Negligible
	51	37	33	0.89	Above	Negligible
	52	37	31	0.84	Above	Negligible
	53	38	29	0.76	Above	Negligible
	54	38	30	0.79	Above	Negligible
	55	34	34	1	Above	Negligible
	56	37	34	0.92	Above	Negligible
	57	37	32	0.86	Above	Negligible
	58	38	29	0.76	Above	Negligible
	59	38	30	0.79	Above	Negligible
	60	34	34	1	Above	Negligible
	61	37	34	0.92	Above	Negligible
	62	37	32	0.86	Above	Negligible
	63	38	30	0.79	Above	Negligible
	64	38	31	0.82	Above	Negligible
	65	34	34	1	Above	Negligible
	66	37	35	0.95	Above	Negligible
	67	37	33	0.89	Above	Negligible
	68	38	30	0.79	Above	Negligible
	69	38	32	0.84	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	70	35	35	1	Above	Negligible
	71	38	35	0.92	Above	Negligible
	72	38	34	0.89	Above	Negligible
	73	38	31	0.82	Above	Negligible
	74	39	32	0.82	Above	Negligible
	75	35	35	1	Above	Negligible
	76	38	36	0.95	Above	Negligible
	77	38	34	0.89	Above	Negligible
	78	38	32	0.84	Above	Negligible
	79	39	33	0.85	Above	Negligible
	80	35	35	1	Above	Negligible
	81	38	36	0.95	Above	Negligible
	82	38	35	0.92	Above	Negligible
	83	38	33	0.87	Above	Negligible
	84	39	34	0.87	Above	Negligible
	85	38	35	0.92	Above	Negligible
	86	38	35	0.92	Above	Negligible
	87	36	36	1	Above	Negligible
	88	36	35	0.97	Above	Negligible
	89	38	37	0.97	Above	Negligible
	90	38	36	0.95	Above	Negligible
	91	36	36	1	Above	Negligible
	92	36	35	0.97	Above	Negligible
	93	35	35	1	Above	Negligible
	94	35	35	1	Above	Negligible
	95	34	34	1	Above	Negligible
	96	34	34	1	Above	Negligible
	97	33	34	1.03	Above	Negligible
	98	33	33	1	Above	Negligible
	99	33	33	1	Above	Negligible
	100	32	32	1	Above	Negligible
	101	32	32	1	Above	Negligible
	102	31	31	1	Above	Negligible
	103	39	35	0.9	Above	Negligible
	104	39	39	1	Above	Negligible
	105	39	39	1	Above	Negligible
	106	39	39	1	Above	Negligible
	107	39	37	0.95	Above	Negligible
	108	39	37	0.95	Above	Negligible
	109	39	35	0.9	Above	Negligible
	110	39	36	0.92	Above	Negligible
	111	39	35	0.9	Above	Negligible
	112	39	39	1	Above	Negligible
	113	39	39	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	114	39	39	1	Above	Negligible
	115	39	37	0.95	Above	Negligible
	116	39	36	0.92	Above	Negligible
	117	39	35	0.9	Above	Negligible
	118	39	36	0.92	Above	Negligible
	119	39	35	0.9	Above	Negligible
	120	39	39	1	Above	Negligible
	121	39	39	1	Above	Negligible
	122	39	39	1	Above	Negligible
	123	39	39	1	Above	Negligible
	124	39	39	1	Above	Negligible
	125	39	39	1	Above	Negligible
	126	39	39	1	Above	Negligible
	127	39	39	1	Above	Negligible
	128	39	39	1	Above	Negligible
	129	39	39	1	Above	Negligible
	130	39	39	1	Above	Negligible
	131	39	36	0.92	Above	Negligible
	132	39	36	0.92	Above	Negligible
	133	39	34	0.87	Above	Negligible
	134	39	36	0.92	Above	Negligible
	135	39	39	1	Above	Negligible
	136	39	36	0.92	Above	Negligible
	137	39	36	0.92	Above	Negligible
	138	39	33	0.85	Above	Negligible
	139	38	34	0.89	Above	Negligible
	140	39	35	0.9	Above	Negligible
	141	39	39	1	Above	Negligible
	142	38	35	0.92	Above	Negligible
	143	38	35	0.92	Above	Negligible
	144	38	33	0.87	Above	Negligible
	145	38	33	0.87	Above	Negligible
	146	38	35	0.92	Above	Negligible
	147	39	39	1	Above	Negligible
	148	38	35	0.92	Above	Negligible
	149	38	34	0.89	Above	Negligible
	150	38	32	0.84	Above	Negligible
	151	38	33	0.87	Above	Negligible
	152	38	34	0.89	Above	Negligible
	153	39	39	1	Above	Negligible
	154	37	34	0.92	Above	Negligible
	155	38	34	0.89	Above	Negligible
	156	38	31	0.82	Above	Negligible
	157	37	32	0.86	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	158	37	33	0.89	Above	Negligible
	159	34	29	0.85	Above	Negligible
	160	39	39	1	Above	Negligible
	161	39	39	1	Above	Negligible
	162	39	39	1	Above	Negligible
	163	39	39	1	Above	Negligible
	164	38	39	1.03	Above	Negligible
	165	39	38	0.97	Above	Negligible
	166	38	38	1	Above	Negligible
	167	38	38	1	Above	Negligible
	168	37	37	1	Above	Negligible
	169	37	37	1	Above	Negligible
	170	39	39	1	Above	Negligible
	171	35	32	0.91	Above	Negligible
	172	35	31	0.89	Above	Negligible
	173	36	29	0.81	Above	Negligible
	174	35	30	0.86	Above	Negligible
	175	39	39	1	Above	Negligible
	176	32	30	0.94	Above	Negligible
	177	29	26	0.9	Above	Negligible
	178	31	24	0.77	Below	Low
	179	29	22	0.76	Below	Low
	180	28	24	0.86	Above	Negligible
	181	39	38	0.97	Above	Negligible
	182	28	26	0.93	Above	Negligible
	183	23	21	0.91	Above	Negligible
	184	26	19	0.73	Below	Low
	185	22	17	0.77	Below	Low
	186	22	18	0.82	Above	Negligible
	187	38	38	1	Above	Negligible
	188	23	21	0.91	Above	Negligible
	189	18	16	0.89	Above	Negligible
	190	21	13	0.62	Below	Medium
	191	18	13	0.72	Below	Low
	192	17	14	0.82	Above	Negligible
	193	37	37	1	Above	Negligible
	194	19	18	0.95	Above	Negligible
	195	15	13	0.87	Above	Negligible
	196	16	10	0.62	Below	Medium
	197	14	10	0.71	Below	Low
	198	14	11	0.79	Below	Low
	199	38	35	0.92	Above	Negligible
	200	38	34	0.89	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	201	38	34	0.89	Above	Negligible
	202	38	33	0.87	Above	Negligible
	203	38	34	0.89	Above	Negligible
	204	38	34	0.89	Above	Negligible
	205	38	34	0.89	Above	Negligible
	206	37	33	0.89	Above	Negligible
	207	37	33	0.89	Above	Negligible
	208	37	32	0.86	Above	Negligible
	209	36	31	0.86	Above	Negligible
	210	34	29	0.85	Above	Negligible
	211	31	26	0.84	Above	Negligible
	212	28	23	0.82	Above	Negligible
	213	25	21	0.84	Above	Negligible
	214	37	32	0.86	Above	Negligible
	215	37	32	0.86	Above	Negligible
	216	37	32	0.86	Above	Negligible
	217	36	31	0.86	Above	Negligible
	218	34	28	0.82	Above	Negligible
	219	32	25	0.78	Below	Low
	220	28	22	0.79	Below	Low
	221	25	20	0.8	Above	Negligible
	222	38	34	0.89	Above	Negligible
	223	38	34	0.89	Above	Negligible
	224	38	33	0.87	Above	Negligible
	225	38	33	0.87	Above	Negligible
	226	38	33	0.87	Above	Negligible
	227	38	32	0.84	Above	Negligible
	228	38	31	0.82	Above	Negligible
	229	38	31	0.82	Above	Negligible
	230	37	30	0.81	Above	Negligible
	231	37	30	0.81	Above	Negligible
	232	37	28	0.76	Above	Negligible
	233	34	26	0.76	Below	Low
	234	32	24	0.75	Below	Low
	235	38	32	0.84	Above	Negligible
	236	37	31	0.84	Above	Negligible
	237	37	31	0.84	Above	Negligible
	238	37	30	0.81	Above	Negligible
	239	36	30	0.83	Above	Negligible
	240	34	28	0.82	Above	Negligible
	241	31	25	0.81	Above	Negligible
	242	28	21	0.75	Below	Low
	243	26	19	0.73	Below	Low
	244	29	20	0.69	Below	Medium

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	245	26	18	0.69	Below	Medium
	246	19	16	0.84	Above	Negligible
	247	18	14	0.78	Below	Low
	248	16	12	0.75	Below	Low
	249	15	12	0.8	Above	Negligible
	250	12	8	0.67	Below	Medium
	251	31	31	1	Above	Negligible
	252	30	30	1	Above	Negligible
	253	29	29	1	Above	Negligible
	254	28	28	1	Above	Negligible
	255	27	27	1	Above	Negligible
	256	36	36	1	Above	Negligible
	257	36	36	1	Above	Negligible
	258	35	35	1	Above	Negligible
	259	35	35	1	Above	Negligible
	260	34	34	1	Above	Negligible
	261	33	34	1.03	Above	Negligible
	262	23	23	1	Above	Negligible
	263	25	26	1.04	Above	Negligible
	264	15	14	0.93	Above	Negligible
	265	17	18	1.06	Above	Negligible
	266	22	18	0.82	Above	Negligible
	267	22	18	0.82	Above	Negligible
	268	23	16	0.7	Below	Low
	269	23	16	0.7	Below	Low
	270	36	36	1	Above	Negligible
	271	15	14	0.93	Above	Negligible
	272	12	10	0.83	Above	Negligible
	273	14	8	0.57	Below	High
	274	11	9	0.82	Above	Negligible
	275	20	16	0.8	Above	Negligible
	276	20	15	0.75	Below	Low
	277	21	14	0.67	Below	Medium
	278	34	34	1	Above	Negligible
	279	13	12	0.92	Above	Negligible
	280	10	8	0.8	Above	Negligible
	281	13	6	0.46	Below	High
	282	10	6	0.6	Below	Medium
	283	9	7	0.78	Below	Low
	284	18	14	0.78	Below	Low
	285	19	13	0.68	Below	Medium
	286	19	12	0.63	Below	Medium
	287	33	33	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	288	11	10	0.91	Above	Negligible
	289	8	7	0.88	Above	Negligible
	290	11	5	0.45	Below	High
	291	9	5	0.56	Below	High
	292	7	6	0.86	Above	Negligible
	293	16	13	0.81	Above	Negligible
	294	16	11	0.69	Below	Medium
	295	17	11	0.65	Below	Medium
	296	29	29	1	Above	Negligible
	297	9	8	0.89	Above	Negligible
	298	7	6	0.86	Above	Negligible
	299	10	4	0.4	Below	High
	300	8	4	0.5	Below	High
	301	7	5	0.71	Below	Low
	302	14	11	0.79	Below	Low
	303	15	10	0.67	Below	Medium
	304	16	10	0.62	Below	Medium
	305	24	24	1	Above	Negligible
	306	8	7	0.88	Above	Negligible
	307	6	5	0.83	Above	Negligible
	308	10	3	0.3	Below	High
	309	7	4	0.57	Below	High
	310	6	4	0.67	Below	Medium
F - Skyline Chambers	0	16	16	1	Above	Negligible
	1	16	15	0.94	Above	Negligible
	2	16	15	0.94	Above	Negligible
	3	14	14	1	Above	Negligible
	4	8	8	1	Above	Negligible
	5	11	11	1	Above	Negligible
	6	11	11	1	Above	Negligible
	7	5	5	1	Above	Negligible
	8	10	8	0.8	Above	Negligible
	9	10	7	0.7	Below	Low
	10	8	5	0.62	Below	Medium
	11	9	4	0.44	Below	High
	12	8	4	0.5	Below	High
	13	9	3	0.33	Below	High
	14	19	12	0.63	Below	Medium
	15	18	13	0.72	Below	Low
	16	22	20	0.91	Above	Negligible
	17	23	20	0.87	Above	Negligible
	18	25	22	0.88	Above	Negligible
	19	24	23	0.96	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	20	19	18	0.95	Above	Negligible
	21	19	18	0.95	Above	Negligible
	22	18	18	1	Above	Negligible
	23	12	12	1	Above	Negligible
	24	11	10	0.91	Above	Negligible
	25	15	14	0.93	Above	Negligible
	26	15	15	1	Above	Negligible
	27	6	5	0.83	Above	Negligible
	28	5	5	1	Above	Negligible
	29	8	7	0.88	Above	Negligible
	30	12	10	0.83	Above	Negligible
	31	12	13	1.08	Above	Negligible
	32	2	3	1.5	Above	Negligible
	33	8	6	0.75	Below	Low
	34	12	10	0.83	Above	Negligible
	35	11	10	0.91	Above	Negligible
	36	9	9	1	Above	Negligible
	37	5	5	1	Above	Negligible
	38	4	2	0.5	Below	High
	39	7	3	0.43	Below	High
	40	3	1	0.33	Below	High
	41	22	15	0.68	Below	Medium
	42	22	16	0.73	Below	Low
	43	24	20	0.83	Above	Negligible
	44	21	18	0.86	Above	Negligible
	45	21	18	0.86	Above	Negligible
	46	16	16	1	Above	Negligible
	47	22	21	0.95	Above	Negligible
	48	22	22	1	Above	Negligible
	49	10	10	1	Above	Negligible
	50	17	17	1	Above	Negligible
	51	18	17	0.94	Above	Negligible
	52	13	14	1.08	Above	Negligible
	53	10	11	1.1	Above	Negligible
	54	8	8	1	Above	Negligible
	55	14	14	1	Above	Negligible
	56	15	14	0.93	Above	Negligible
	57	9	8	0.89	Above	Negligible
	58	9	8	0.89	Above	Negligible
	59	13	12	0.92	Above	Negligible
	60	14	12	0.86	Above	Negligible
	61	13	11	0.85	Above	Negligible
	62	10	10	1	Above	Negligible
	63	1	2	2	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	64	8	3	0.38	Below	High
	65	10	5	0.5	Below	High
	66	10	4	0.4	Below	High
	67	12	6	0.5	Below	High
	68	25	18	0.72	Below	Low
	69	26	19	0.73	Below	Low
	70	26	20	0.77	Below	Low
	71	19	16	0.84	Above	Negligible
	72	20	18	0.9	Above	Negligible
	73	29	27	0.93	Above	Negligible
	74	30	27	0.9	Above	Negligible
	75	25	24	0.96	Above	Negligible
	76	25	24	0.96	Above	Negligible
	77	24	24	1	Above	Negligible
	78	18	17	0.94	Above	Negligible
	79	17	17	1	Above	Negligible
	80	20	20	1	Above	Negligible
	81	21	21	1	Above	Negligible
	82	9	9	1	Above	Negligible
	83	9	9	1	Above	Negligible
	84	13	12	0.92	Above	Negligible
	85	18	16	0.89	Above	Negligible
	86	18	18	1	Above	Negligible
	87	4	4	1	Above	Negligible
	88	11	9	0.82	Above	Negligible
	89	17	14	0.82	Above	Negligible
	90	15	14	0.93	Above	Negligible
	91	13	12	0.92	Above	Negligible
	92	7	7	1	Above	Negligible
	93	6	4	0.67	Below	Medium
	94	10	5	0.5	Below	High
	95	11	6	0.55	Below	High
	96	4	1	0.25	Below	High
	97	29	22	0.76	Below	Low
	98	29	23	0.79	Below	Low
	99	31	27	0.87	Above	Negligible
	100	31	27	0.87	Above	Negligible
	101	31	28	0.9	Above	Negligible
	102	20	18	0.9	Above	Negligible
	103	28	27	0.96	Above	Negligible
	104	28	27	0.96	Above	Negligible
	105	14	14	1	Above	Negligible
	106	24	22	0.92	Above	Negligible
	107	26	25	0.96	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	108	26	25	0.96	Above	Negligible
	109	20	20	1	Above	Negligible
	110	11	12	1.09	Above	Negligible
	111	20	18	0.9	Above	Negligible
	112	23	21	0.91	Above	Negligible
	113	23	20	0.87	Above	Negligible
	114	22	20	0.91	Above	Negligible
	115	22	19	0.86	Above	Negligible
	116	20	18	0.9	Above	Negligible
	117	18	16	0.89	Above	Negligible
	118	14	14	1	Above	Negligible
	119	2	2	1	Above	Negligible
	120	11	6	0.55	Below	High
	121	16	10	0.62	Below	Medium
	122	18	10	0.56	Below	High
	123	20	12	0.6	Below	Medium
	124	31	24	0.77	Below	Low
	125	31	25	0.81	Above	Negligible
	126	32	25	0.78	Below	Low
	127	31	26	0.84	Above	Negligible
	128	32	26	0.81	Above	Negligible
	129	26	21	0.81	Above	Negligible
	130	27	22	0.81	Above	Negligible
	131	30	25	0.83	Above	Negligible
	132	30	24	0.8	Above	Negligible
	133	23	19	0.83	Above	Negligible
	134	22	17	0.77	Below	Low
	135	20	16	0.8	Above	Negligible
	136	19	15	0.79	Below	Low
	137	31	28	0.9	Above	Negligible
	138	31	28	0.9	Above	Negligible
	139	29	27	0.93	Above	Negligible
	140	28	27	0.96	Above	Negligible
	141	26	25	0.96	Above	Negligible
	142	24	23	0.96	Above	Negligible
	143	24	21	0.88	Above	Negligible
	144	24	22	0.92	Above	Negligible
	145	24	22	0.92	Above	Negligible
G - Corner building	0	28	27	0.96	Above	Negligible
	1	26	26	1	Above	Negligible
	2	24	24	1	Above	Negligible
	3	22	21	0.95	Above	Negligible
	4	17	17	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	5	18	17	0.94	Above	Negligible
	6	18	19	1.06	Above	Negligible
	7	18	18	1	Above	Negligible
	8	22	22	1	Above	Negligible
	9	21	21	1	Above	Negligible
	10	19	20	1.05	Above	Negligible
	11	18	18	1	Above	Negligible
	12	23	22	0.96	Above	Negligible
	13	25	25	1	Above	Negligible
	14	28	27	0.96	Above	Negligible
	15	29	28	0.97	Above	Negligible
	16	30	30	1	Above	Negligible
	17	29	29	1	Above	Negligible
	18	28	27	0.96	Above	Negligible
	19	25	24	0.96	Above	Negligible
	20	20	21	1.05	Above	Negligible
	21	23	23	1	Above	Negligible
	22	25	25	1	Above	Negligible
	23	25	25	1	Above	Negligible
	24	29	29	1	Above	Negligible
	25	29	29	1	Above	Negligible
	26	26	26	1	Above	Negligible
	27	23	23	1	Above	Negligible
	28	26	26	1	Above	Negligible
	29	29	29	1	Above	Negligible
	30	30	30	1	Above	Negligible
	31	31	31	1	Above	Negligible
	32	32	31	0.97	Above	Negligible
	33	32	31	0.97	Above	Negligible
	34	31	30	0.97	Above	Negligible
	35	29	28	0.97	Above	Negligible
	36	26	26	1	Above	Negligible
	37	28	29	1.04	Above	Negligible
	38	31	31	1	Above	Negligible
	39	32	32	1	Above	Negligible
	40	27	27	1	Above	Negligible
	41	27	27	1	Above	Negligible
	42	27	26	0.96	Above	Negligible
	43	25	25	1	Above	Negligible
	44	25	25	1	Above	Negligible
	45	23	23	1	Above	Negligible
	46	23	22	0.96	Above	Negligible
	47	20	19	0.95	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	48	18	18	1	Above	Negligible
	49	16	16	1	Above	Negligible
	50	10	10	1	Above	Negligible
	51	17	16	0.94	Above	Negligible
	52	19	19	1	Above	Negligible
	53	29	28	0.97	Above	Negligible
	54	29	28	0.97	Above	Negligible
	55	28	27	0.96	Above	Negligible
	56	27	27	1	Above	Negligible
	57	26	26	1	Above	Negligible
	58	24	24	1	Above	Negligible
	59	24	23	0.96	Above	Negligible
	60	21	20	0.95	Above	Negligible
	61	20	20	1	Above	Negligible
	62	18	18	1	Above	Negligible
	63	11	11	1	Above	Negligible
	64	19	19	1	Above	Negligible
	65	21	21	1	Above	Negligible
	66	30	29	0.97	Above	Negligible
	67	29	29	1	Above	Negligible
	68	30	29	0.97	Above	Negligible
	69	28	28	1	Above	Negligible
	70	29	28	0.97	Above	Negligible
	71	26	26	1	Above	Negligible
	72	25	25	1	Above	Negligible
	73	23	22	0.96	Above	Negligible
	74	23	21	0.91	Above	Negligible
	75	20	20	1	Above	Negligible
	76	13	14	1.08	Above	Negligible
	77	21	21	1	Above	Negligible
	78	25	25	1	Above	Negligible
	79	31	30	0.97	Above	Negligible
	80	31	30	0.97	Above	Negligible
	81	30	30	1	Above	Negligible
	82	30	29	0.97	Above	Negligible
	83	29	29	1	Above	Negligible
	84	28	27	0.96	Above	Negligible
	85	28	27	0.96	Above	Negligible
	86	25	24	0.96	Above	Negligible
	87	24	24	1	Above	Negligible
	88	22	22	1	Above	Negligible
	89	16	16	1	Above	Negligible
	90	24	24	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	91	28	27	0.96	Above	Negligible
	92	32	31	0.97	Above	Negligible
	93	32	31	0.97	Above	Negligible
	94	32	31	0.97	Above	Negligible
	95	32	31	0.97	Above	Negligible
	96	31	31	1	Above	Negligible
	97	31	30	0.97	Above	Negligible
	98	30	29	0.97	Above	Negligible
	99	28	27	0.96	Above	Negligible
	100	27	26	0.96	Above	Negligible
	101	25	26	1.04	Above	Negligible
	102	23	23	1	Above	Negligible
	103	27	27	1	Above	Negligible
	104	30	30	1	Above	Negligible
	105	38	37	0.97	Above	Negligible
	106	38	37	0.97	Above	Negligible
	107	38	37	0.97	Above	Negligible
	108	38	37	0.97	Above	Negligible
	109	37	37	1	Above	Negligible
	110	37	36	0.97	Above	Negligible
	111	37	37	1	Above	Negligible
	112	37	37	1	Above	Negligible
	113	37	37	1	Above	Negligible
	114	37	37	1	Above	Negligible
	115	37	36	0.97	Above	Negligible
	116	37	37	1	Above	Negligible
	117	37	37	1	Above	Negligible
	118	37	36	0.97	Above	Negligible
	119	37	36	0.97	Above	Negligible
	120	37	36	0.97	Above	Negligible
	121	37	36	0.97	Above	Negligible
	122	37	36	0.97	Above	Negligible
	123	37	36	0.97	Above	Negligible
	124	37	36	0.97	Above	Negligible
	125	36	35	0.97	Above	Negligible
	126	36	36	1	Above	Negligible
	127	36	35	0.97	Above	Negligible
	128	36	36	1	Above	Negligible
	129	36	36	1	Above	Negligible
	130	36	35	0.97	Above	Negligible
	131	36	35	0.97	Above	Negligible
	132	36	35	0.97	Above	Negligible
	133	36	35	0.97	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	134	36	35	0.97	Above	Negligible
	135	38	37	0.97	Above	Negligible
	136	38	38	1	Above	Negligible
	137	38	37	0.97	Above	Negligible
	138	38	38	1	Above	Negligible
	139	38	37	0.97	Above	Negligible
	140	38	37	0.97	Above	Negligible
	141	38	37	0.97	Above	Negligible
	142	38	37	0.97	Above	Negligible
	143	38	37	0.97	Above	Negligible
	144	38	37	0.97	Above	Negligible
	145	39	39	1	Above	Negligible
	146	39	39	1	Above	Negligible
	147	39	39	1	Above	Negligible
	148	39	39	1	Above	Negligible
	149	39	38	0.97	Above	Negligible
	150	39	38	0.97	Above	Negligible
	151	39	39	1	Above	Negligible
	152	39	38	0.97	Above	Negligible
	153	39	39	1	Above	Negligible
	154	39	38	0.97	Above	Negligible
	155	38	38	1	Above	Negligible
	156	39	38	0.97	Above	Negligible
	157	39	39	1	Above	Negligible
	158	39	38	0.97	Above	Negligible
	159	38	38	1	Above	Negligible
	160	39	38	0.97	Above	Negligible
	161	38	38	1	Above	Negligible
	162	38	38	1	Above	Negligible
	163	39	38	0.97	Above	Negligible
	164	39	38	0.97	Above	Negligible
	165	38	38	1	Above	Negligible
	166	38	38	1	Above	Negligible
	167	38	38	1	Above	Negligible
	168	39	38	0.97	Above	Negligible
	169	38	38	1	Above	Negligible
	170	38	37	0.97	Above	Negligible
	171	38	38	1	Above	Negligible
	172	38	38	1	Above	Negligible
	173	38	38	1	Above	Negligible
	174	38	38	1	Above	Negligible
	175	39	39	1	Above	Negligible
	176	39	39	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	177	39	39	1	Above	Negligible
	178	39	39	1	Above	Negligible
	179	39	39	1	Above	Negligible
	180	39	39	1	Above	Negligible
	181	39	39	1	Above	Negligible
	182	39	39	1	Above	Negligible
	183	39	39	1	Above	Negligible
	184	39	39	1	Above	Negligible
	185	39	39	1	Above	Negligible
	186	39	39	1	Above	Negligible
	187	39	39	1	Above	Negligible
	188	39	39	1	Above	Negligible
	189	39	39	1	Above	Negligible
	190	39	39	1	Above	Negligible
	191	39	39	1	Above	Negligible
	192	39	39	1	Above	Negligible
	193	39	39	1	Above	Negligible
	194	39	39	1	Above	Negligible
	195	39	39	1	Above	Negligible
	196	39	39	1	Above	Negligible
	197	39	39	1	Above	Negligible
	198	39	39	1	Above	Negligible
	199	39	39	1	Above	Negligible
	200	39	39	1	Above	Negligible
	201	39	39	1	Above	Negligible
	202	39	39	1	Above	Negligible
	203	39	39	1	Above	Negligible
	204	39	39	1	Above	Negligible
	205	39	39	1	Above	Negligible
	206	39	39	1	Above	Negligible
	207	39	39	1	Above	Negligible
	208	39	39	1	Above	Negligible
	209	39	39	1	Above	Negligible
	210	39	39	1	Above	Negligible
	211	39	39	1	Above	Negligible
	212	39	39	1	Above	Negligible
	213	39	39	1	Above	Negligible
	214	39	39	1	Above	Negligible
	215	39	39	1	Above	Negligible
	216	39	39	1	Above	Negligible
	217	39	39	1	Above	Negligible
	218	39	39	1	Above	Negligible
	219	39	39	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	220	39	39	1	Above	Negligible
	221	39	39	1	Above	Negligible
	222	39	39	1	Above	Negligible
	223	39	39	1	Above	Negligible
	224	39	39	1	Above	Negligible
	225	39	39	1	Above	Negligible
	226	39	39	1	Above	Negligible
	227	39	39	1	Above	Negligible
	228	39	39	1	Above	Negligible
	229	39	39	1	Above	Negligible
	230	39	39	1	Above	Negligible
	231	39	39	1	Above	Negligible
	232	39	39	1	Above	Negligible
	233	39	39	1	Above	Negligible
	234	39	39	1	Above	Negligible
	235	39	39	1	Above	Negligible
	236	39	39	1	Above	Negligible
	237	39	39	1	Above	Negligible
	238	39	39	1	Above	Negligible
	239	39	39	1	Above	Negligible
H - Grey building	0	22	22	1	Above	Negligible
	1	24	23	0.96	Above	Negligible
	2	5	5	1	Above	Negligible
	3	25	24	0.96	Above	Negligible
	4	24	24	1	Above	Negligible
	5	8	7	0.88	Above	Negligible
	6	26	25	0.96	Above	Negligible
	7	26	25	0.96	Above	Negligible
	8	12	12	1	Above	Negligible
	9	27	26	0.96	Above	Negligible
	10	27	26	0.96	Above	Negligible
	11	22	21	0.95	Above	Negligible
	12	28	28	1	Above	Negligible
	13	28	27	0.96	Above	Negligible
	14	33	30	0.91	Above	Negligible
	15	28	28	1	Above	Negligible
	16	28	28	1	Above	Negligible
	17	34	31	0.91	Above	Negligible
	18	29	29	1	Above	Negligible
	19	29	29	1	Above	Negligible
	20	35	32	0.91	Above	Negligible
	21	30	30	1	Above	Negligible
	22	30	29	0.97	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	23	36	33	0.92	Above	Negligible
	24	23	23	1	Above	Negligible
	25	16	16	1	Above	Negligible
	26	0	0	1	Above	Negligible
	27	0	0	1	Above	Negligible
	28	0	0	1	Above	Negligible
	29	5	6	1.2	Above	Negligible
	30	25	24	0.96	Above	Negligible
	31	17	17	1	Above	Negligible
	32	0	0	1	Above	Negligible
	33	0	0	1	Above	Negligible
	34	0	0	1	Above	Negligible
	35	8	8	1	Above	Negligible
	36	26	26	1	Above	Negligible
	37	18	17	0.94	Above	Negligible
	38	12	10	0.83	Above	Negligible
	39	13	12	0.92	Above	Negligible
	40	11	12	1.09	Above	Negligible
	41	13	12	0.92	Above	Negligible
	42	26	27	1.04	Above	Negligible
	43	18	18	1	Above	Negligible
	44	14	12	0.86	Above	Negligible
	45	13	13	1	Above	Negligible
	46	13	12	0.92	Above	Negligible
	47	22	22	1	Above	Negligible
	48	27	27	1	Above	Negligible
	49	18	19	1.06	Above	Negligible
	50	16	14	0.88	Above	Negligible
	51	14	14	1	Above	Negligible
	52	13	13	1	Above	Negligible
	53	34	30	0.88	Above	Negligible
	54	29	28	0.97	Above	Negligible
	55	19	19	1	Above	Negligible
	56	18	16	0.89	Above	Negligible
	57	15	15	1	Above	Negligible
	58	15	15	1	Above	Negligible
	59	35	32	0.91	Above	Negligible
	60	29	28	0.97	Above	Negligible
	61	19	19	1	Above	Negligible
	62	22	19	0.86	Above	Negligible
	63	18	18	1	Above	Negligible
	64	19	19	1	Above	Negligible
	65	36	33	0.92	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	66	30	30	1	Above	Negligible
	67	20	20	1	Above	Negligible
	68	26	24	0.92	Above	Negligible
	69	26	26	1	Above	Negligible
	70	25	25	1	Above	Negligible
	71	36	33	0.92	Above	Negligible
I - Krupa Building	0	19	14	0.74	Below	Low
	1	20	18	0.9	Above	Negligible
	2	21	18	0.86	Above	Negligible
	3	23	19	0.83	Above	Negligible
	4	25	20	0.8	Above	Negligible
	5	26	21	0.81	Above	Negligible
	6	28	23	0.82	Above	Negligible
	7	20	16	0.8	Above	Negligible
	8	21	17	0.81	Above	Negligible
	9	22	18	0.82	Above	Negligible
	10	23	19	0.83	Above	Negligible
	11	25	20	0.8	Above	Negligible
	12	26	21	0.81	Above	Negligible
	13	28	23	0.82	Above	Negligible
	14	28	23	0.82	Above	Negligible
J - 12 Rochdale Road	0	19	8	0.42	Below	High
	1	16	5	0.31	Below	High
	2	20	10	0.5	Below	High
	3	1	2	2	Above	Negligible
	4	21	9	0.43	Below	High
	5	17	6	0.35	Below	High
	6	23	11	0.48	Below	High
	7	2	2	1	Above	Negligible
	8	22	10	0.45	Below	High
	9	20	7	0.35	Below	High
	10	24	11	0.46	Below	High
	11	2	2	1	Above	Negligible
	12	24	11	0.46	Below	High
	13	22	8	0.36	Below	High
	14	26	12	0.46	Below	High
	15	2	2	1	Above	Negligible
	16	26	12	0.46	Below	High
	17	24	8	0.33	Below	High
	18	28	14	0.5	Below	High
	19	2	2	1	Above	Negligible
	20	27	13	0.48	Below	High
	21	25	10	0.4	Below	High

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	22	29	16	0.55	Below	High
	23	3	3	1	Above	Negligible
	24	27	12	0.44	Below	High
	25	31	17	0.55	Below	High
	26	3	3	1	Above	Negligible
	27	28	13	0.46	Below	High
	28	32	19	0.59	Below	High
	29	4	4	1	Above	Negligible
	30	35	19	0.54	Below	High
	31	35	22	0.63	Below	Medium
	32	9	8	0.89	Above	Negligible
	33	34	21	0.62	Below	Medium
	34	36	21	0.58	Below	High
	35	37	21	0.57	Below	High
	36	35	20	0.57	Below	High
	37	36	20	0.56	Below	High
	38	36	20	0.56	Below	High
	39	33	18	0.55	Below	High
	40	34	18	0.53	Below	High
	41	35	19	0.54	Below	High
	42	31	16	0.52	Below	High
	43	32	16	0.5	Below	High
	44	34	17	0.5	Below	High
	45	30	14	0.47	Below	High
	46	31	15	0.48	Below	High
	47	32	16	0.5	Below	High
	48	28	13	0.46	Below	High
	49	29	13	0.45	Below	High
	50	30	15	0.5	Below	High
	51	27	12	0.44	Below	High
	52	27	12	0.44	Below	High
	53	29	13	0.45	Below	High
	54	25	11	0.44	Below	High
	55	26	11	0.42	Below	High
	56	27	12	0.44	Below	High
	57	22	9	0.41	Below	High
	58	24	9	0.38	Below	High
	59	25	11	0.44	Below	High
	60	20	8	0.4	Below	High
	61	22	9	0.41	Below	High
	62	23	10	0.43	Below	High
K - Halo buildings	0	9	8	0.89	Above	Negligible
	1	8	8	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	2	9	9	1	Above	Negligible
	3	10	10	1	Above	Negligible
	4	8	8	1	Above	Negligible
	5	10	10	1	Above	Negligible
	6	10	10	1	Above	Negligible
	7	7	7	1	Above	Negligible
	8	10	10	1	Above	Negligible
	9	10	11	1.1	Above	Negligible
	10	11	10	0.91	Above	Negligible
	11	10	10	1	Above	Negligible
	12	9	9	1	Above	Negligible
	13	11	10	0.91	Above	Negligible
	14	11	10	0.91	Above	Negligible
	15	11	10	0.91	Above	Negligible
	16	9	9	1	Above	Negligible
	17	8	9	1.12	Above	Negligible
	18	7	7	1	Above	Negligible
	19	8	7	0.88	Above	Negligible
	20	10	10	1	Above	Negligible
	21	12	12	1	Above	Negligible
	22	12	11	0.92	Above	Negligible
	23	12	13	1.08	Above	Negligible
	24	12	12	1	Above	Negligible
	25	10	9	0.9	Above	Negligible
	26	9	8	0.89	Above	Negligible
	27	10	10	1	Above	Negligible
	28	12	11	0.92	Above	Negligible
	29	11	11	1	Above	Negligible
	30	2	1	0.5	Below	High
	31	12	12	1	Above	Negligible
	32	1	0	1	Above	Negligible
	33	12	12	1	Above	Negligible
	34	0	0	1	Above	Negligible
	35	12	13	1.08	Above	Negligible
	36	12	12	1	Above	Negligible
	37	12	12	1	Above	Negligible
	38	16	15	0.94	Above	Negligible
	39	15	14	0.93	Above	Negligible
	40	14	13	0.93	Above	Negligible
	41	13	12	0.92	Above	Negligible
	42	16	15	0.94	Above	Negligible
	43	15	15	1	Above	Negligible
	44	15	15	1	Above	Negligible

Receptor	Wind No.	Baseline (%)	Proposed (%)	Ratio of Impact	BRE Criteria	Magnitude of Change
	45	16	16	1	Above	Negligible
	46	15	15	1	Above	Negligible
	47	15	14	0.93	Above	Negligible
	48	16	15	0.94	Above	Negligible
	49	12	11	0.92	Above	Negligible
	50	1	1	1	Above	Negligible
	51	3	2	0.67	Below	Medium
	52	4	3	0.75	Below	Low
	53	11	11	1	Above	Negligible
	54	16	16	1	Above	Negligible
	55	4	4	1	Above	Negligible
	56	20	19	0.95	Above	Negligible
	57	21	18	0.86	Above	Negligible
	58	20	18	0.9	Above	Negligible
	59	19	17	0.89	Above	Negligible
	60	21	18	0.86	Above	Negligible
	61	6	5	0.83	Above	Negligible
	62	19	17	0.89	Above	Negligible
	63	20	18	0.9	Above	Negligible
	64	20	18	0.9	Above	Negligible
	65	18	16	0.89	Above	Negligible
	66	7	6	0.86	Above	Negligible
	67	15	14	0.93	Above	Negligible
	68	17	15	0.88	Above	Negligible
	69	21	19	0.9	Above	Negligible
	70	11	8	0.73	Below	Low
	71	24	22	0.92	Above	Negligible
	72	10	8	0.8	Above	Negligible
	73	9	8	0.89	Above	Negligible
	74	25	21	0.84	Above	Negligible
	75	25	22	0.88	Above	Negligible
	76	24	22	0.92	Above	Negligible
	77	26	22	0.85	Above	Negligible
	78	25	21	0.84	Above	Negligible
	79	23	20	0.87	Above	Negligible
	80	20	19	0.95	Above	Negligible
	81	23	21	0.91	Above	Negligible
	82	25	23	0.92	Above	Negligible
	83	25	22	0.88	Above	Negligible
	84	24	21	0.88	Above	Negligible
	85	28	24	0.86	Above	Negligible
	86	28	24	0.86	Above	Negligible
	87	28	24	0.86	Above	Negligible

7.4 DETAILED SUNLIGHT ASSESSMENT RESULTS (APSH AND WPSH)

Detailed Sunlight Assessment Results (APSH and WPSH)

Receptors A,B,C,D,E,F,G,H,I,J,K,L,M

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
A - Northern Angel	0	28	21	0.75	4	4	1	7	Below	Low
	1	15	8	0.53	1	1	1	7	Below	High
	2	17	10	0.59	2	2	1	7	Below	High
	3	15	8	0.53	1	1	1	7	Below	High
	4	10	9	0.9	1	1	1	1	Above	Negligible
	5	12	4	0.33	0	0	0	8	Below	High
	6	13	5	0.38	0	0	0	8	Below	High
	7	18	4	0.22	2	0	0	14	Below	High
	8	17	4	0.24	2	0	0	13	Below	High
	9	22	6	0.27	1	0	0	16	Below	High
	10	22	8	0.36	0	0	0	14	Below	High
	11	21	8	0.38	2	0	0	13	Below	High
	12	17	6	0.35	0	0	0	11	Below	High
	13	19	4	0.21	0	0	0	15	Below	High
	14	23	10	0.43	0	0	0	13	Below	High
	15	39	15	0.38	4	0	0	24	Below	High
	16	41	15	0.37	4	0	0	26	Below	High
	17	34	9	0.26	1	0	0	25	Below	High
	18	29	9	0.31	3	0	0	20	Below	High
	19	30	10	0.33	2	0	0	20	Below	High
	20	24	10	0.42	3	0	0	14	Below	High
	21	24	9	0.38	3	0	0	15	Below	High
	22	19	9	0.47	0	0	0	10	Below	High
	23	17	8	0.47	0	0	0	9	Below	High
	24	15	11	0.73	1	1	1	4	Above	Negligible
	25	20	13	0.65	2	2	1	7	Below	Medium
	26	30	23	0.77	5	5	1	7	Below	Low
	27	33	25	0.76	5	5	1	8	Above	Negligible
	28	9	6	0.67	1	1	1	3	Above	Negligible
	29	6	6	1	1	1	1	0	Above	Negligible
	30	23	12	0.52	0	0	0	11	Below	High
	31	32	16	0.5	3	0	0	16	Below	High
	32	24	18	0.75	3	0	0	6	Below	High
	33	7	0	0	2	0	0	7	Below	High
	34	11	0	0	5	0	0	11	Below	High
	35	12	0	0	6	0	0	12	Below	High
	36	44	16	0.36	4	0	0	28	Below	High
	37	49	20	0.41	5	0	0	29	Below	High
	38	15	0	0	9	0	0	15	Below	High
	39	14	0	0	8	0	0	14	Below	High
	40	10	0	0	5	0	0	10	Below	High
	41	24	18	0.75	3	0	0	6	Below	High
	42	36	19	0.53	3	0	0	17	Below	High
	43	27	15	0.56	1	0	0	12	Below	High
	44	8	8	1	1	1	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	45	11	8	0.73	1	1	1	3	Above	Negligible
	46	35	27	0.77	5	5	1	8	Above	Negligible
	47	38	29	0.76	5	5	1	9	Above	Negligible
	48	12	8	0.67	1	1	1	4	Above	Negligible
	49	9	9	1	1	1	1	0	Above	Negligible
	50	16	10	0.62	1	0	0	6	Below	High
	51	24	13	0.54	4	0	0	11	Below	High
	52	20	15	0.75	3	0	0	5	Below	High
	53	12	0	0	6	0	0	12	Below	High
	54	15	0	0	9	0	0	15	Below	High
	55	17	0	0	10	0	0	17	Below	High
	56	51	22	0.43	5	0	0	29	Below	High
	57	59	23	0.39	8	1	0.12	36	Below	High
	58	45	11	0.24	8	0	0	34	Below	High
	59	49	11	0.22	10	0	0	38	Below	High
	60	63	23	0.37	11	0	0	40	Below	High
	61	59	25	0.42	9	0	0	34	Below	High
	62	47	15	0.32	9	0	0	32	Below	High
	63	45	18	0.4	7	0	0	27	Below	High
	64	46	19	0.41	7	0	0	27	Below	High
	65	50	32	0.64	4	0	0	18	Below	High
	66	41	25	0.61	4	0	0	16	Below	High
	67	40	24	0.6	5	1	0.2	16	Below	High
	68	46	32	0.7	2	1	0.5	14	Below	High
	69	20	20	1	1	1	1	0	Above	Negligible
	70	23	13	0.57	1	1	1	10	Below	High
	71	13	11	0.85	5	5	1	2	Above	Negligible
	72	21	12	0.57	1	1	1	9	Below	High
	73	19	11	0.58	1	1	1	8	Below	High
	74	14	6	0.43	0	0	0	8	Below	High
	75	9	4	0.44	0	0	0	5	Below	High
	76	16	7	0.44	2	0	0	9	Below	High
	77	11	10	0.91	0	0	0	1	Above	Negligible
	78	26	10	0.38	1	0	0	16	Below	High
	79	26	10	0.38	1	0	0	16	Below	High
	80	18	11	0.61	0	0	0	7	Below	High
	81	19	12	0.63	0	0	0	7	Below	High
	82	22	12	0.55	0	0	0	10	Below	High
	83	38	14	0.37	4	0	0	24	Below	High
	84	26	16	0.62	1	1	1	10	Below	Medium
	85	26	15	0.58	1	1	1	11	Below	High
	86	19	11	0.58	0	0	0	8	Below	High
	87	20	10	0.5	0	0	0	10	Below	High
	88	29	14	0.48	2	0	0	15	Below	High
	89	25	15	0.6	3	0	0	10	Below	High
	90	16	15	0.94	0	0	0	1	Above	Negligible
	91	40	18	0.45	4	0	0	22	Below	High
	92	41	17	0.41	4	0	0	24	Below	High
	93	40	17	0.42	0	0	0	23	Below	High
	94	42	16	0.38	0	0	0	26	Below	High

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	95	45	16	0.36	3	0	0	29	Below	High
	96	46	15	0.33	6	0	0	31	Below	High
	97	12	0	0	6	0	0	12	Below	High
	98	27	17	0.63	1	1	1	10	Below	Medium
	99	28	17	0.61	1	1	1	11	Below	Medium
	100	23	14	0.61	1	0	0	9	Below	High
	101	26	15	0.58	1	0	0	11	Below	High
	102	33	18	0.55	2	0	0	15	Below	High
	103	31	20	0.65	3	0	0	11	Below	High
	104	21	19	0.9	0	0	0	2	Above	Negligible
	105	44	21	0.48	4	0	0	23	Below	High
	106	45	21	0.47	4	0	0	24	Below	High
	107	50	19	0.38	4	0	0	31	Below	High
	108	50	18	0.36	5	0	0	32	Below	High
	109	56	20	0.36	9	0	0	36	Below	High
	110	52	20	0.38	6	0	0	32	Below	High
	111	12	0	0	6	0	0	12	Below	High
	112	31	21	0.68	1	1	1	10	Below	Medium
	113	32	21	0.66	1	1	1	11	Below	Medium
	114	27	18	0.67	1	0	0	9	Below	High
	115	33	21	0.64	1	0	0	12	Below	High
	116	22	13	0.59	3	0	0	9	Below	High
	117	37	25	0.68	3	0	0	12	Below	High
	118	30	26	0.87	1	0	0	4	Above	Negligible
	119	50	26	0.52	5	0	0	24	Below	High
	120	52	25	0.48	6	0	0	27	Below	High
	121	58	22	0.38	8	0	0	36	Below	High
	122	60	20	0.33	9	0	0	40	Below	High
	123	60	21	0.35	10	0	0	39	Below	High
	124	56	23	0.41	7	0	0	33	Below	High
	125	13	0	0	7	0	0	13	Below	High
	126	25	16	0.64	1	1	1	9	Below	Medium
	127	24	14	0.58	1	1	1	10	Below	High
	128	16	8	0.5	0	0	0	8	Below	High
	129	11	5	0.45	0	0	0	6	Below	High
	130	19	10	0.53	2	0	0	9	Below	High
	131	12	11	0.92	0	0	0	1	Above	Negligible
	132	33	12	0.36	4	0	0	21	Below	High
	133	31	11	0.35	2	0	0	20	Below	High
	134	32	14	0.44	0	0	0	18	Below	High
	135	31	14	0.45	0	0	0	17	Below	High
	136	32	14	0.44	0	0	0	18	Below	High
	137	43	14	0.33	5	0	0	29	Below	High
	138	35	6	0.17	3	0	0	29	Below	High
	139	11	9	0.82	2	1	0.5	2	Above	Negligible
	140	9	6	0.67	2	1	0.5	3	Above	Negligible
	141	10	6	0.6	1	0	0	4	Above	Negligible
	142	26	9	0.35	1	0	0	17	Below	High
	143	27	4	0.15	4	0	0	23	Below	High
	144	56	21	0.38	7	0	0	35	Below	High

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	145	63	23	0.37	11	0	0	40	Below	High
	146	60	22	0.37	11	0	0	38	Below	High
	147	60	23	0.38	10	0	0	37	Below	High
	148	20	6	0.3	7	0	0	14	Below	High
	149	18	6	0.33	6	0	0	12	Below	High
	150	10	8	0.8	1	0	0	2	Above	Negligible
	151	17	9	0.53	3	0	0	8	Below	High
	152	14	10	0.71	1	0	0	4	Above	Negligible
B - 25 Rochdale Road	0	32	32	1	2	2	1	0	Above	Negligible
	1	32	32	1	3	3	1	0	Above	Negligible
	2	37	37	1	6	6	1	0	Above	Negligible
	3	29	29	1	2	2	1	0	Above	Negligible
	4	35	35	1	5	5	1	0	Above	Negligible
	5	52	52	1	15	15	1	0	Above	Negligible
	6	49	49	1	13	13	1	0	Above	Negligible
	7	51	51	1	13	13	1	0	Above	Negligible
	8	49	49	1	14	14	1	0	Above	Negligible
	9	39	39	1	7	7	1	0	Above	Negligible
	10	44	44	1	9	9	1	0	Above	Negligible
	11	38	38	1	8	8	1	0	Above	Negligible
	12	-	-	-	-	-	-	-	-	-
	13	-	-	-	-	-	-	-	-	-
	14	-	-	-	-	-	-	-	-	-
	15	33	33	1	2	2	1	0	Above	Negligible
	16	33	33	1	3	3	1	0	Above	Negligible
	17	53	53	1	15	15	1	0	Above	Negligible
	18	36	36	1	5	5	1	0	Above	Negligible
	19	34	34	1	2	2	1	0	Above	Negligible
	20	38	38	1	8	8	1	0	Above	Negligible
	21	50	50	1	14	14	1	0	Above	Negligible
	22	51	51	1	14	14	1	0	Above	Negligible
	23	54	54	1	17	17	1	0	Above	Negligible
	24	40	40	1	7	7	1	0	Above	Negligible
	25	44	44	1	9	9	1	0	Above	Negligible
	26	39	39	1	6	6	1	0	Above	Negligible
	27	-	-	-	-	-	-	-	-	-
	28	-	-	-	-	-	-	-	-	-
	29	-	-	-	-	-	-	-	-	-
	30	45	45	1	9	9	1	0	Above	Negligible
	31	42	42	1	7	7	1	0	Above	Negligible
	32	51	51	1	14	14	1	0	Above	Negligible
	33	56	56	1	17	17	1	0	Above	Negligible
	34	54	54	1	14	14	1	0	Above	Negligible
	35	41	41	1	8	8	1	0	Above	Negligible
	36	40	40	1	6	6	1	0	Above	Negligible
	37	35	35	1	3	3	1	0	Above	Negligible
	38	40	40	1	6	6	1	0	Above	Negligible
	39	35	35	1	3	3	1	0	Above	Negligible
	40	34	34	1	2	2	1	0	Above	Negligible
	41	55	55	1	15	15	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	42	-	-	-	-	-	-	-	-	-
	43	-	-	-	-	-	-	-	-	-
	44	-	-	-	-	-	-	-	-	-
	45	42	42	1	7	7	1	0	Above	Negligible
	46	42	42	1	7	7	1	0	Above	Negligible
	47	40	40	1	4	4	1	0	Above	Negligible
	48	57	57	1	15	15	1	0	Above	Negligible
	49	55	55	1	14	14	1	0	Above	Negligible
	50	42	42	1	8	8	1	0	Above	Negligible
	51	43	43	1	7	7	1	0	Above	Negligible
	52	46	46	1	9	9	1	0	Above	Negligible
	53	36	36	1	3	3	1	0	Above	Negligible
	54	53	53	1	14	14	1	0	Above	Negligible
	55	36	36	1	3	3	1	0	Above	Negligible
	56	58	58	1	17	17	1	0	Above	Negligible
	57	-	-	-	-	-	-	-	-	-
	58	-	-	-	-	-	-	-	-	-
	59	-	-	-	-	-	-	-	-	-
	60	53	53	1	14	14	1	0	Above	Negligible
	61	55	55	1	14	14	1	0	Above	Negligible
	62	47	47	1	9	9	1	0	Above	Negligible
	63	59	59	1	17	17	1	0	Above	Negligible
	64	57	57	1	15	15	1	0	Above	Negligible
	65	43	42	0.98	4	4	1	1	Above	Negligible
	66	40	40	1	5	5	1	0	Above	Negligible
	67	43	43	1	8	8	1	0	Above	Negligible
	68	44	44	1	7	7	1	0	Above	Negligible
	69	44	44	1	8	8	1	0	Above	Negligible
	70	45	45	1	8	8	1	0	Above	Negligible
	71	38	38	1	4	4	1	0	Above	Negligible
	72	-	-	-	-	-	-	-	-	-
	73	-	-	-	-	-	-	-	-	-
	74	-	-	-	-	-	-	-	-	-
	75	47	46	0.98	6	6	1	1	Above	Negligible
	76	41	41	1	5	5	1	0	Above	Negligible
	77	56	56	1	15	15	1	0	Above	Negligible
	78	60	60	1	17	17	1	0	Above	Negligible
	79	59	59	1	16	16	1	0	Above	Negligible
	80	42	42	1	5	5	1	0	Above	Negligible
	81	44	44	1	8	8	1	0	Above	Negligible
	82	48	48	1	10	10	1	0	Above	Negligible
	83	47	47	1	8	8	1	0	Above	Negligible
	84	55	55	1	15	15	1	0	Above	Negligible
	85	43	43	1	7	7	1	0	Above	Negligible
	86	47	47	1	9	9	1	0	Above	Negligible
	87	-	-	-	-	-	-	-	-	-
	88	-	-	-	-	-	-	-	-	-
	89	-	-	-	-	-	-	-	-	-
	90	44	44	1	6	6	1	0	Above	Negligible
	91	52	52	1	11	11	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	92	53	51	0.96	9	9	1	2	Above	Negligible
	93	51	51	1	10	10	1	0	Above	Negligible
	94	48	48	1	10	10	1	0	Above	Negligible
	95	48	48	1	11	11	1	0	Above	Negligible
	96	61	61	1	16	16	1	0	Above	Negligible
	97	58	58	1	15	15	1	0	Above	Negligible
	98	57	57	1	16	16	1	0	Above	Negligible
	99	51	51	1	12	12	1	0	Above	Negligible
	100	44	44	1	6	6	1	0	Above	Negligible
	101	62	62	1	17	17	1	0	Above	Negligible
	102	-	-	-	-	-	-	-	-	-
	103	-	-	-	-	-	-	-	-	-
	104	-	-	-	-	-	-	-	-	-
	105	58	58	1	14	14	1	0	Above	Negligible
	106	60	58	0.97	12	12	1	2	Above	Negligible
	107	59	59	1	13	13	1	0	Above	Negligible
	108	52	52	1	10	10	1	0	Above	Negligible
	109	49	49	1	10	10	1	0	Above	Negligible
	110	50	50	1	12	12	1	0	Above	Negligible
	111	58	58	1	16	16	1	0	Above	Negligible
	112	55	55	1	13	13	1	0	Above	Negligible
	113	49	49	1	11	11	1	0	Above	Negligible
	114	64	64	1	17	17	1	0	Above	Negligible
	115	59	59	1	15	15	1	0	Above	Negligible
	116	62	62	1	16	16	1	0	Above	Negligible
	117	-	-	-	-	-	-	-	-	-
	118	-	-	-	-	-	-	-	-	-
	119	-	-	-	-	-	-	-	-	-
	120	54	54	1	10	10	1	0	Above	Negligible
	121	61	61	1	15	15	1	0	Above	Negligible
	122	53	53	1	12	12	1	0	Above	Negligible
	123	62	60	0.97	13	13	1	2	Above	Negligible
	124	61	61	1	15	15	1	0	Above	Negligible
	125	61	61	1	17	17	1	0	Above	Negligible
	126	60	60	1	16	16	1	0	Above	Negligible
	127	63	63	1	17	17	1	0	Above	Negligible
	128	53	53	1	10	10	1	0	Above	Negligible
	129	55	55	1	12	12	1	0	Above	Negligible
	130	56	56	1	13	13	1	0	Above	Negligible
	131	65	65	1	18	18	1	0	Above	Negligible
	132	-	-	-	-	-	-	-	-	-
	133	-	-	-	-	-	-	-	-	-
	134	-	-	-	-	-	-	-	-	-
	135	0	0		0	0	0	0	Above	Negligible
	136	0	0		0	0	0	0	Above	Negligible
	137	0	0		0	0	0	0	Above	Negligible
	138	0	0		0	0	0	0	Above	Negligible
	139	0	0		0	0	0	0	Above	Negligible
	140	0	0		0	0	0	0	Above	Negligible
	141	0	0		0	0	0	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	142	0	0		0	0	0	0	Above	Negligible
	143	0	0		0	0	0	0	Above	Negligible
	144	0	0		0	0	0	0	Above	Negligible
	145	-	-	-	-	-	-	-	-	-
C - Hampton	0	21	10	0.48	1	1	1	11	Below	High
	1	16	8	0.5	1	1	1	8	Below	High
	2	19	5	0.26	2	1	0.5	14	Below	High
	3	20	5	0.25	1	1	1	15	Below	High
	4	21	4	0.19	2	1	0.5	17	Below	High
	5	25	10	0.4	1	1	1	15	Below	High
	6	19	8	0.42	1	1	1	11	Below	High
	7	22	5	0.23	2	1	0.5	17	Below	High
	8	20	5	0.25	1	1	1	15	Below	High
	9	23	5	0.22	2	1	0.5	18	Below	High
	10	29	12	0.41	3	3	1	17	Below	High
	11	22	8	0.36	1	1	1	14	Below	High
	12	27	6	0.22	3	2	0.67	21	Below	High
	13	27	8	0.3	2	2	1	19	Below	High
	14	29	7	0.24	3	2	0.67	22	Below	High
	15	30	12	0.4	3	3	1	18	Below	High
	16	24	9	0.38	2	2	1	15	Below	High
	17	29	6	0.21	3	2	0.67	23	Below	High
	18	29	8	0.28	2	2	1	21	Below	High
	19	30	7	0.23	3	2	0.67	23	Below	High
	20	31	12	0.39	3	3	1	19	Below	High
	21	25	9	0.36	2	2	1	16	Below	High
	22	29	6	0.21	3	2	0.67	23	Below	High
	23	30	8	0.27	3	2	0.67	22	Below	High
	24	31	7	0.23	4	2	0.5	24	Below	High
	25	33	13	0.39	4	4	1	20	Below	High
	26	27	10	0.37	2	2	1	17	Below	High
	27	31	7	0.23	4	3	0.75	24	Below	High
	28	32	8	0.25	5	2	0.4	24	Below	High
	29	31	7	0.23	4	2	0.5	24	Below	High
	30	31	9	0.29	4	4	1	22	Below	High
	31	30	12	0.4	4	4	1	18	Below	High
	32	34	8	0.24	5	4	0.8	26	Below	High
	33	34	8	0.24	6	2	0.33	26	Below	High
	34	34	7	0.21	6	3	0.5	27	Below	High
	35	33	10	0.3	6	5	0.83	23	Below	High
	36	33	14	0.42	6	6	1	19	Below	High
	37	36	9	0.25	7	5	0.71	27	Below	High
	38	35	9	0.26	7	3	0.43	26	Below	High
	39	35	8	0.23	7	4	0.57	27	Below	High
D - Ancoats gardens	0	-	-	-	-	-	-	-	-	-
	1	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-
	4	0	0		0	0	0	0	Above	Negligible
	5	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	6	15	15	1	5	5	1	0	Above	Negligible
	7	-	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	-	-	-	-
	9	-	-	-	-	-	-	-	-	-
	10	-	-	-	-	-	-	-	-	-
	11	0	0		0	0	0	0	Above	Negligible
	12	-	-	-	-	-	-	-	-	-
	13	16	16	1	5	5	1	0	Above	Negligible
	14	-	-	-	-	-	-	-	-	-
	15	-	-	-	-	-	-	-	-	-
	16	-	-	-	-	-	-	-	-	-
	17	-	-	-	-	-	-	-	-	-
	18	0	0		0	0	0	0	Above	Negligible
	19	-	-	-	-	-	-	-	-	-
	20	20	20	1	6	6	1	0	Above	Negligible
	21	-	-	-	-	-	-	-	-	-
	22	-	-	-	-	-	-	-	-	-
	23	-	-	-	-	-	-	-	-	-
	24	-	-	-	-	-	-	-	-	-
	25	0	0		0	0	0	0	Above	Negligible
	26	-	-	-	-	-	-	-	-	-
	27	23	23	1	8	8	1	0	Above	Negligible
	28	-	-	-	-	-	-	-	-	-
	29	-	-	-	-	-	-	-	-	-
	30	-	-	-	-	-	-	-	-	-
	31	-	-	-	-	-	-	-	-	-
	32	0	0		0	0	0	0	Above	Negligible
	33	-	-	-	-	-	-	-	-	-
	34	27	27	1	11	11	1	0	Above	Negligible
	35	-	-	-	-	-	-	-	-	-
	36	-	-	-	-	-	-	-	-	-
	37	-	-	-	-	-	-	-	-	-
	38	-	-	-	-	-	-	-	-	-
	39	0	0		0	0	0	0	Above	Negligible
	40	-	-	-	-	-	-	-	-	-
	41	31	31	1	14	14	1	0	Above	Negligible
	42	-	-	-	-	-	-	-	-	-
	43	-	-	-	-	-	-	-	-	-
	44	-	-	-	-	-	-	-	-	-
	45	-	-	-	-	-	-	-	-	-
	46	0	0		0	0	0	0	Above	Negligible
	47	-	-	-	-	-	-	-	-	-
	48	35	35	1	17	17	1	0	Above	Negligible
	49	-	-	-	-	-	-	-	-	-
	50	-	-	-	-	-	-	-	-	-
	51	-	-	-	-	-	-	-	-	-
	52	-	-	-	-	-	-	-	-	-
	53	0	0		0	0	0	0	Above	Negligible
	54	-	-	-	-	-	-	-	-	-
	55	37	37	1	17	17	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	56	-	-	-	-	-	-	-	-	-
	57	-	-	-	-	-	-	-	-	-
	58	-	-	-	-	-	-	-	-	-
	59	-	-	-	-	-	-	-	-	-
	60	0	0		0	0	0	0	Above	Negligible
	61	-	-	-	-	-	-	-	-	-
	62	38	38	1	17	17	1	0	Above	Negligible
	63	-	-	-	-	-	-	-	-	-
	64	-	-	-	-	-	-	-	-	-
	65	-	-	-	-	-	-	-	-	-
	66	-	-	-	-	-	-	-	-	-
	67	0	0		0	0	0	0	Above	Negligible
	68	-	-	-	-	-	-	-	-	-
	69	40	40	1	17	17	1	0	Above	Negligible
	70	-	-	-	-	-	-	-	-	-
	71	-	-	-	-	-	-	-	-	-
	72	-	-	-	-	-	-	-	-	-
	73	-	-	-	-	-	-	-	-	-
	74	0	0		0	0	0	0	Above	Negligible
	75	-	-	-	-	-	-	-	-	-
	76	42	42	1	17	17	1	0	Above	Negligible
	77	-	-	-	-	-	-	-	-	-
	78	-	-	-	-	-	-	-	-	-
	79	-	-	-	-	-	-	-	-	-
	80	-	-	-	-	-	-	-	-	-
	81	0	0		0	0	0	0	Above	Negligible
	82	-	-	-	-	-	-	-	-	-
	83	43	43	1	17	17	1	0	Above	Negligible
	84	-	-	-	-	-	-	-	-	-
	85	-	-	-	-	-	-	-	-	-
	86	-	-	-	-	-	-	-	-	-
	87	-	-	-	-	-	-	-	-	-
	88	2	2	1	0	0	0	0	Above	Negligible
	89	-	-	-	-	-	-	-	-	-
	90	45	45	1	17	17	1	0	Above	Negligible
	91	-	-	-	-	-	-	-	-	-
	92	-	-	-	-	-	-	-	-	-
	93	-	-	-	-	-	-	-	-	-
	94	-	-	-	-	-	-	-	-	-
	95	2	2	1	0	0	0	0	Above	Negligible
	96	-	-	-	-	-	-	-	-	-
	97	46	46	1	17	17	1	0	Above	Negligible
	98	78	78	1	22	22	1	0	Above	Negligible
	99	77	77	1	23	23	1	0	Above	Negligible
	100	78	78	1	24	24	1	0	Above	Negligible
	101	80	80	1	25	25	1	0	Above	Negligible
	102	79	79	1	25	25	1	0	Above	Negligible
	103	81	81	1	25	25	1	0	Above	Negligible
	104	79	79	1	25	25	1	0	Above	Negligible
	105	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	106	-	-	-	-	-	-	-	-	-
	107	-	-	-	-	-	-	-	-	-
	108	-	-	-	-	-	-	-	-	-
	109	-	-	-	-	-	-	-	-	-
	110	-	-	-	-	-	-	-	-	-
	111	-	-	-	-	-	-	-	-	-
	112	-	-	-	-	-	-	-	-	-
	113	-	-	-	-	-	-	-	-	-
	114	-	-	-	-	-	-	-	-	-
	115	-	-	-	-	-	-	-	-	-
	116	-	-	-	-	-	-	-	-	-
	117	-	-	-	-	-	-	-	-	-
	118	-	-	-	-	-	-	-	-	-
	119	-	-	-	-	-	-	-	-	-
	120	-	-	-	-	-	-	-	-	-
	121	-	-	-	-	-	-	-	-	-
	122	14	14	1	5	5	1	0	Above	Negligible
	123	13	13	1	1	1	1	0	Above	Negligible
	124	13	13	1	1	1	1	0	Above	Negligible
	125	28	28	1	4	4	1	0	Above	Negligible
	126	31	31	1	6	6	1	0	Above	Negligible
	127	22	22	1	6	6	1	0	Above	Negligible
	128	26	26	1	2	2	1	0	Above	Negligible
	129	28	28	1	2	2	1	0	Above	Negligible
	130	12	12	1	1	1	1	0	Above	Negligible
	131	17	17	1	1	1	1	0	Above	Negligible
	132	7	7	1	0	0	0	0	Above	Negligible
	133	10	10	1	0	0	0	0	Above	Negligible
	134	2	2	1	0	0	0	0	Above	Negligible
	135	-	-	-	-	-	-	-	-	-
	136	-	-	-	-	-	-	-	-	-
	137	-	-	-	-	-	-	-	-	-
	138	29	29	1	8	8	1	0	Above	Negligible
	139	30	30	1	8	8	1	0	Above	Negligible
	140	29	29	1	6	6	1	0	Above	Negligible
	141	26	26	1	8	8	1	0	Above	Negligible
	142	27	27	1	8	8	1	0	Above	Negligible
	143	81	81	1	25	25	1	0	Above	Negligible
	144	78	78	1	24	24	1	0	Above	Negligible
	145	80	80	1	26	26	1	0	Above	Negligible
	146	81	81	1	26	26	1	0	Above	Negligible
	147	80	80	1	26	26	1	0	Above	Negligible
	148	82	82	1	26	26	1	0	Above	Negligible
	149	79	79	1	25	25	1	0	Above	Negligible
	150	-	-	-	-	-	-	-	-	-
	151	-	-	-	-	-	-	-	-	-
	152	-	-	-	-	-	-	-	-	-
	153	-	-	-	-	-	-	-	-	-
	154	-	-	-	-	-	-	-	-	-
	155	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	156	-	-	-	-	-	-	-	-	-
	157	-	-	-	-	-	-	-	-	-
	158	-	-	-	-	-	-	-	-	-
	159	-	-	-	-	-	-	-	-	-
	160	-	-	-	-	-	-	-	-	-
	161	-	-	-	-	-	-	-	-	-
	162	-	-	-	-	-	-	-	-	-
	163	-	-	-	-	-	-	-	-	-
	164	-	-	-	-	-	-	-	-	-
	165	-	-	-	-	-	-	-	-	-
	166	-	-	-	-	-	-	-	-	-
	167	17	17	1	5	5	1	0	Above	Negligible
	168	17	17	1	2	2	1	0	Above	Negligible
	169	21	21	1	5	5	1	0	Above	Negligible
	170	32	32	1	5	5	1	0	Above	Negligible
	171	37	37	1	7	7	1	0	Above	Negligible
	172	29	29	1	8	8	1	0	Above	Negligible
	173	30	30	1	4	4	1	0	Above	Negligible
	174	34	34	1	5	5	1	0	Above	Negligible
	175	19	19	1	1	1	1	0	Above	Negligible
	176	24	24	1	1	1	1	0	Above	Negligible
	177	11	11	1	0	0	0	0	Above	Negligible
	178	15	15	1	0	0	0	0	Above	Negligible
	179	5	5	1	0	0	0	0	Above	Negligible
	180	-	-	-	-	-	-	-	-	-
	181	-	-	-	-	-	-	-	-	-
	182	-	-	-	-	-	-	-	-	-
	183	32	32	1	10	10	1	0	Above	Negligible
	184	35	35	1	10	10	1	0	Above	Negligible
	185	38	38	1	12	12	1	0	Above	Negligible
	186	30	30	1	11	11	1	0	Above	Negligible
	187	31	31	1	11	11	1	0	Above	Negligible
	188	82	82	1	26	26	1	0	Above	Negligible
	189	80	80	1	26	26	1	0	Above	Negligible
	190	81	81	1	27	27	1	0	Above	Negligible
	191	82	82	1	27	27	1	0	Above	Negligible
	192	81	81	1	27	27	1	0	Above	Negligible
	193	83	83	1	27	27	1	0	Above	Negligible
	194	81	81	1	27	27	1	0	Above	Negligible
	195	-	-	-	-	-	-	-	-	-
	196	-	-	-	-	-	-	-	-	-
	197	-	-	-	-	-	-	-	-	-
	198	-	-	-	-	-	-	-	-	-
	199	-	-	-	-	-	-	-	-	-
	200	-	-	-	-	-	-	-	-	-
	201	-	-	-	-	-	-	-	-	-
	202	-	-	-	-	-	-	-	-	-
	203	-	-	-	-	-	-	-	-	-
	204	-	-	-	-	-	-	-	-	-
	205	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	206	-	-	-	-	-	-	-	-	-
	207	-	-	-	-	-	-	-	-	-
	208	-	-	-	-	-	-	-	-	-
	209	-	-	-	-	-	-	-	-	-
	210	-	-	-	-	-	-	-	-	-
	211	-	-	-	-	-	-	-	-	-
	212	21	21	1	6	6	1	0	Above	Negligible
	213	22	22	1	3	3	1	0	Above	Negligible
	214	27	27	1	7	7	1	0	Above	Negligible
	215	35	35	1	7	7	1	0	Above	Negligible
	216	44	44	1	9	9	1	0	Above	Negligible
	217	33	33	1	10	10	1	0	Above	Negligible
	218	34	34	1	7	7	1	0	Above	Negligible
	219	40	40	1	8	8	1	0	Above	Negligible
	220	22	22	1	1	1	1	0	Above	Negligible
	221	28	28	1	1	1	1	0	Above	Negligible
	222	14	14	1	0	0	0	0	Above	Negligible
	223	23	23	1	0	0	0	0	Above	Negligible
	224	6	6	1	0	0	0	0	Above	Negligible
	225	-	-	-	-	-	-	-	-	-
	226	-	-	-	-	-	-	-	-	-
	227	-	-	-	-	-	-	-	-	-
	228	36	36	1	13	13	1	0	Above	Negligible
	229	38	38	1	13	13	1	0	Above	Negligible
	230	42	42	1	14	14	1	0	Above	Negligible
	231	34	34	1	12	12	1	0	Above	Negligible
	232	33	33	1	12	12	1	0	Above	Negligible
	233	84	84	1	28	28	1	0	Above	Negligible
	234	81	81	1	27	27	1	0	Above	Negligible
	235	81	81	1	27	27	1	0	Above	Negligible
	236	82	82	1	27	27	1	0	Above	Negligible
	237	81	81	1	27	27	1	0	Above	Negligible
	238	83	83	1	27	27	1	0	Above	Negligible
	239	81	81	1	27	27	1	0	Above	Negligible
	240	-	-	-	-	-	-	-	-	-
	241	-	-	-	-	-	-	-	-	-
	242	-	-	-	-	-	-	-	-	-
	243	-	-	-	-	-	-	-	-	-
	244	-	-	-	-	-	-	-	-	-
	245	-	-	-	-	-	-	-	-	-
	246	-	-	-	-	-	-	-	-	-
	247	-	-	-	-	-	-	-	-	-
	248	-	-	-	-	-	-	-	-	-
	249	-	-	-	-	-	-	-	-	-
	250	-	-	-	-	-	-	-	-	-
	251	-	-	-	-	-	-	-	-	-
	252	-	-	-	-	-	-	-	-	-
	253	-	-	-	-	-	-	-	-	-
	254	-	-	-	-	-	-	-	-	-
	255	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	256	-	-	-	-	-	-	-	-	-
	257	24	24	1	8	8	1	0	Above	Negligible
	258	24	24	1	4	4	1	0	Above	Negligible
	259	31	31	1	8	8	1	0	Above	Negligible
	260	38	38	1	10	10	1	0	Above	Negligible
	261	53	53	1	13	13	1	0	Above	Negligible
	262	40	40	1	12	12	1	0	Above	Negligible
	263	40	40	1	11	11	1	0	Above	Negligible
	264	46	46	1	12	12	1	0	Above	Negligible
	265	27	27	1	5	5	1	0	Above	Negligible
	266	32	32	1	3	3	1	0	Above	Negligible
	267	19	19	1	0	0	0	0	Above	Negligible
	268	31	31	1	1	1	1	0	Above	Negligible
	269	6	6	1	0	0	0	0	Above	Negligible
	270	-	-	-	-	-	-	-	-	-
	271	-	-	-	-	-	-	-	-	-
	272	-	-	-	-	-	-	-	-	-
	273	41	41	1	15	15	1	0	Above	Negligible
	274	41	41	1	15	15	1	0	Above	Negligible
	275	44	44	1	15	15	1	0	Above	Negligible
	276	38	38	1	13	13	1	0	Above	Negligible
	277	38	38	1	14	14	1	0	Above	Negligible
	278	84	84	1	28	28	1	0	Above	Negligible
	279	82	82	1	28	28	1	0	Above	Negligible
	280	82	82	1	28	28	1	0	Above	Negligible
	281	83	83	1	28	28	1	0	Above	Negligible
	282	82	82	1	28	28	1	0	Above	Negligible
	283	84	84	1	28	28	1	0	Above	Negligible
	284	82	82	1	28	28	1	0	Above	Negligible
	285	-	-	-	-	-	-	-	-	-
	286	-	-	-	-	-	-	-	-	-
	287	-	-	-	-	-	-	-	-	-
	288	-	-	-	-	-	-	-	-	-
	289	-	-	-	-	-	-	-	-	-
	290	-	-	-	-	-	-	-	-	-
	291	-	-	-	-	-	-	-	-	-
	292	-	-	-	-	-	-	-	-	-
	293	-	-	-	-	-	-	-	-	-
	294	-	-	-	-	-	-	-	-	-
	295	-	-	-	-	-	-	-	-	-
	296	-	-	-	-	-	-	-	-	-
	297	-	-	-	-	-	-	-	-	-
	298	-	-	-	-	-	-	-	-	-
	299	-	-	-	-	-	-	-	-	-
	300	-	-	-	-	-	-	-	-	-
	301	-	-	-	-	-	-	-	-	-
	302	29	29	1	11	11	1	0	Above	Negligible
	303	30	30	1	7	7	1	0	Above	Negligible
	304	35	35	1	11	11	1	0	Above	Negligible
	305	43	43	1	14	14	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	306	64	64	1	19	19	1	0	Above	Negligible
	307	49	49	1	19	19	1	0	Above	Negligible
	308	50	50	1	18	18	1	0	Above	Negligible
	309	50	50	1	16	16	1	0	Above	Negligible
	310	34	34	1	10	10	1	0	Above	Negligible
	311	39	39	1	8	8	1	0	Above	Negligible
	312	33	33	1	1	1	1	0	Above	Negligible
	313	39	39	1	6	6	1	0	Above	Negligible
	314	12	12	1	0	0	0	0	Above	Negligible
	315	-	-	-	-	-	-	-	-	-
	316	-	-	-	-	-	-	-	-	-
	317	-	-	-	-	-	-	-	-	-
	318	47	47	1	15	15	1	0	Above	Negligible
	319	46	46	1	15	15	1	0	Above	Negligible
	320	48	48	1	15	15	1	0	Above	Negligible
	321	44	44	1	13	13	1	0	Above	Negligible
	322	45	45	1	14	14	1	0	Above	Negligible
	323	84	84	1	28	28	1	0	Above	Negligible
	324	82	82	1	28	28	1	0	Above	Negligible
	325	82	82	1	28	28	1	0	Above	Negligible
	326	83	83	1	28	28	1	0	Above	Negligible
	327	83	83	1	29	29	1	0	Above	Negligible
	328	85	85	1	29	29	1	0	Above	Negligible
	329	83	83	1	29	29	1	0	Above	Negligible
	330	-	-	-	-	-	-	-	-	-
	331	-	-	-	-	-	-	-	-	-
	332	-	-	-	-	-	-	-	-	-
	333	-	-	-	-	-	-	-	-	-
	334	-	-	-	-	-	-	-	-	-
	335	-	-	-	-	-	-	-	-	-
	336	-	-	-	-	-	-	-	-	-
	337	-	-	-	-	-	-	-	-	-
	338	-	-	-	-	-	-	-	-	-
	339	-	-	-	-	-	-	-	-	-
	340	-	-	-	-	-	-	-	-	-
	341	-	-	-	-	-	-	-	-	-
	342	-	-	-	-	-	-	-	-	-
	343	-	-	-	-	-	-	-	-	-
	344	-	-	-	-	-	-	-	-	-
	345	-	-	-	-	-	-	-	-	-
	346	31	31	1	13	13	1	0	Above	Negligible
	347	33	33	1	9	9	1	0	Above	Negligible
	348	37	37	1	13	13	1	0	Above	Negligible
	349	47	47	1	15	15	1	0	Above	Negligible
	350	70	70	1	22	22	1	0	Above	Negligible
	351	57	57	1	21	21	1	0	Above	Negligible
	352	56	56	1	21	21	1	0	Above	Negligible
	353	56	56	1	19	19	1	0	Above	Negligible
	354	38	38	1	14	14	1	0	Above	Negligible
	355	46	46	1	15	15	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	356	45	45	1	12	12	1	0	Above	Negligible
	357	47	47	1	14	14	1	0	Above	Negligible
	358	31	31	1	1	1	1	0	Above	Negligible
	359	-	-	-	-	-	-	-	-	-
	360	-	-	-	-	-	-	-	-	-
	361	-	-	-	-	-	-	-	-	-
	362	51	51	1	16	16	1	0	Above	Negligible
	363	49	49	1	15	15	1	0	Above	Negligible
	364	51	51	1	15	15	1	0	Above	Negligible
	365	49	49	1	16	16	1	0	Above	Negligible
	366	49	49	1	16	16	1	0	Above	Negligible
	367	84	84	1	29	29	1	0	Above	Negligible
	368	83	83	1	29	29	1	0	Above	Negligible
	369	85	85	1	29	29	1	0	Above	Negligible
	370	83	83	1	29	29	1	0	Above	Negligible
	371	-	-	-	-	-	-	-	-	-
	372	-	-	-	-	-	-	-	-	-
	373	-	-	-	-	-	-	-	-	-
	374	-	-	-	-	-	-	-	-	-
	375	-	-	-	-	-	-	-	-	-
	376	-	-	-	-	-	-	-	-	-
	377	-	-	-	-	-	-	-	-	-
	378	-	-	-	-	-	-	-	-	-
	379	-	-	-	-	-	-	-	-	-
	380	-	-	-	-	-	-	-	-	-
	381	-	-	-	-	-	-	-	-	-
	382	-	-	-	-	-	-	-	-	-
	383	-	-	-	-	-	-	-	-	-
	384	-	-	-	-	-	-	-	-	-
	385	-	-	-	-	-	-	-	-	-
	386	-	-	-	-	-	-	-	-	-
	387	-	-	-	-	-	-	-	-	-
	388	35	35	1	16	16	1	0	Above	Negligible
	389	36	36	1	12	12	1	0	Above	Negligible
	390	40	40	1	16	16	1	0	Above	Negligible
	391	52	52	1	18	18	1	0	Above	Negligible
	392	76	76	1	27	27	1	0	Above	Negligible
	393	65	65	1	25	25	1	0	Above	Negligible
	394	66	66	1	25	25	1	0	Above	Negligible
	395	66	66	1	23	23	1	0	Above	Negligible
	396	40	40	1	16	16	1	0	Above	Negligible
	397	48	48	1	16	16	1	0	Above	Negligible
	398	49	49	1	16	16	1	0	Above	Negligible
	399	49	49	1	16	16	1	0	Above	Negligible
	400	47	47	1	16	16	1	0	Above	Negligible
	401	84	84	1	29	29	1	0	Above	Negligible
	402	83	83	1	29	29	1	0	Above	Negligible
	403	85	85	1	29	29	1	0	Above	Negligible
	404	83	83	1	29	29	1	0	Above	Negligible
	405	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	406	-	-	-	-	-	-	-	-	-
	407	-	-	-	-	-	-	-	-	-
	408	-	-	-	-	-	-	-	-	-
	409	-	-	-	-	-	-	-	-	-
	410	-	-	-	-	-	-	-	-	-
	411	-	-	-	-	-	-	-	-	-
	412	-	-	-	-	-	-	-	-	-
	413	-	-	-	-	-	-	-	-	-
	414	-	-	-	-	-	-	-	-	-
	415	-	-	-	-	-	-	-	-	-
	416	-	-	-	-	-	-	-	-	-
	417	-	-	-	-	-	-	-	-	-
	418	-	-	-	-	-	-	-	-	-
	419	-	-	-	-	-	-	-	-	-
	420	-	-	-	-	-	-	-	-	-
	421	-	-	-	-	-	-	-	-	-
	422	36	36	1	16	16	1	0	Above	Negligible
	423	36	36	1	12	12	1	0	Above	Negligible
	424	40	40	1	16	16	1	0	Above	Negligible
	425	68	68	1	22	22	1	0	Above	Negligible
	426	77	77	1	28	28	1	0	Above	Negligible
	427	68	68	1	27	27	1	0	Above	Negligible
	428	72	72	1	27	27	1	0	Above	Negligible
	429	79	79	1	27	27	1	0	Above	Negligible
	430	47	47	1	16	16	1	0	Above	Negligible
	431	48	48	1	16	16	1	0	Above	Negligible
	432	49	49	1	16	16	1	0	Above	Negligible
	433	49	49	1	16	16	1	0	Above	Negligible
	434	48	48	1	16	16	1	0	Above	Negligible
	435	-	-	-	-	-	-	-	-	-
	436	-	-	-	-	-	-	-	-	-
	437	-	-	-	-	-	-	-	-	-
	438	-	-	-	-	-	-	-	-	-
	439	-	-	-	-	-	-	-	-	-
	440	-	-	-	-	-	-	-	-	-
	441	-	-	-	-	-	-	-	-	-
	442	-	-	-	-	-	-	-	-	-
	443	36	36	1	16	16	1	0	Above	Negligible
	444	37	37	1	12	12	1	0	Above	Negligible
	445	41	41	1	16	16	1	0	Above	Negligible
	446	82	82	1	29	29	1	0	Above	Negligible
	447	78	78	1	29	29	1	0	Above	Negligible
	448	71	71	1	29	29	1	0	Above	Negligible
	449	74	74	1	29	29	1	0	Above	Negligible
	450	81	81	1	29	29	1	0	Above	Negligible
	451	-	-	-	-	-	-	-	-	-
	452	-	-	-	-	-	-	-	-	-
	453	-	-	-	-	-	-	-	-	-
	454	-	-	-	-	-	-	-	-	-
	455	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	456	-	-	-	-	-	-	-	-	-
	457	-	-	-	-	-	-	-	-	-
	458	-	-	-	-	-	-	-	-	-
	459	-	-	-	-	-	-	-	-	-
	460	39	39	1	17	17	1	0	Above	Negligible
	461	38	38	1	12	12	1	0	Above	Negligible
	462	43	43	1	17	17	1	0	Above	Negligible
	463	83	83	1	29	29	1	0	Above	Negligible
	464	78	78	1	29	29	1	0	Above	Negligible
	465	71	71	1	29	29	1	0	Above	Negligible
	466	75	75	1	29	29	1	0	Above	Negligible
	467	81	81	1	29	29	1	0	Above	Negligible
	468	-	-	-	-	-	-	-	-	-
	469	-	-	-	-	-	-	-	-	-
	470	-	-	-	-	-	-	-	-	-
	471	-	-	-	-	-	-	-	-	-
	472	-	-	-	-	-	-	-	-	-
	473	-	-	-	-	-	-	-	-	-
	474	-	-	-	-	-	-	-	-	-
	475	-	-	-	-	-	-	-	-	-
	476	-	-	-	-	-	-	-	-	-
	477	-	-	-	-	-	-	-	-	-
	478	-	-	-	-	-	-	-	-	-
	479	-	-	-	-	-	-	-	-	-
	480	-	-	-	-	-	-	-	-	-
	481	42	42	1	17	17	1	0	Above	Negligible
	482	39	39	1	12	12	1	0	Above	Negligible
	483	46	46	1	17	17	1	0	Above	Negligible
	484	83	83	1	29	29	1	0	Above	Negligible
	485	79	79	1	29	29	1	0	Above	Negligible
	486	72	72	1	29	29	1	0	Above	Negligible
	487	75	75	1	29	29	1	0	Above	Negligible
	488	81	81	1	29	29	1	0	Above	Negligible
	489	-	-	-	-	-	-	-	-	-
	490	-	-	-	-	-	-	-	-	-
	491	-	-	-	-	-	-	-	-	-
	492	-	-	-	-	-	-	-	-	-
	493	-	-	-	-	-	-	-	-	-
	494	-	-	-	-	-	-	-	-	-
	495	-	-	-	-	-	-	-	-	-
	496	-	-	-	-	-	-	-	-	-
	497	-	-	-	-	-	-	-	-	-
	498	-	-	-	-	-	-	-	-	-
	499	43	43	1	17	17	1	0	Above	Negligible
	500	42	42	1	12	12	1	0	Above	Negligible
	501	47	47	1	17	17	1	0	Above	Negligible
	502	83	83	1	29	29	1	0	Above	Negligible
	503	79	79	1	29	29	1	0	Above	Negligible
	504	72	72	1	29	29	1	0	Above	Negligible
	505	75	75	1	29	29	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	506	81	81	1	29	29	1	0	Above	Negligible
	507	-	-	-	-	-	-	-	-	-
	508	-	-	-	-	-	-	-	-	-
	509	-	-	-	-	-	-	-	-	-
	510	-	-	-	-	-	-	-	-	-
	511	-	-	-	-	-	-	-	-	-
	512	-	-	-	-	-	-	-	-	-
	513	-	-	-	-	-	-	-	-	-
	514	-	-	-	-	-	-	-	-	-
	515	-	-	-	-	-	-	-	-	-
	516	45	45	1	17	17	1	0	Above	Negligible
	517	43	43	1	12	12	1	0	Above	Negligible
	518	49	49	1	17	17	1	0	Above	Negligible
	519	84	84	1	29	29	1	0	Above	Negligible
	520	79	79	1	29	29	1	0	Above	Negligible
	521	72	72	1	29	29	1	0	Above	Negligible
	522	75	75	1	29	29	1	0	Above	Negligible
	523	81	81	1	29	29	1	0	Above	Negligible
	524	-	-	-	-	-	-	-	-	-
	525	-	-	-	-	-	-	-	-	-
	526	-	-	-	-	-	-	-	-	-
	527	-	-	-	-	-	-	-	-	-
	528	-	-	-	-	-	-	-	-	-
	529	-	-	-	-	-	-	-	-	-
	530	-	-	-	-	-	-	-	-	-
	531	-	-	-	-	-	-	-	-	-
	532	-	-	-	-	-	-	-	-	-
	533	-	-	-	-	-	-	-	-	-
	534	46	46	1	17	17	1	0	Above	Negligible
	535	45	45	1	12	12	1	0	Above	Negligible
	536	50	50	1	17	17	1	0	Above	Negligible
	537	84	84	1	29	29	1	0	Above	Negligible
	538	82	82	1	29	29	1	0	Above	Negligible
	539	83	83	1	29	29	1	0	Above	Negligible
	540	85	85	1	29	29	1	0	Above	Negligible
	541	82	82	1	29	29	1	0	Above	Negligible
	542	-	-	-	-	-	-	-	-	-
	543	-	-	-	-	-	-	-	-	-
E - 10 Rochdale Road	0	41	41	1	12	12	1	0	Above	Negligible
	1	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-
	5	42	42	1	13	13	1	0	Above	Negligible
	6	-	-	-	-	-	-	-	-	-
	7	-	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	-	-	-	-
	9	-	-	-	-	-	-	-	-	-
	10	43	43	1	13	13	1	0	Above	Negligible
	11	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	12	-	-	-	-	-	-	-	-	-
	13	-	-	-	-	-	-	-	-	-
	14	-	-	-	-	-	-	-	-	-
	15	43	43	1	13	13	1	0	Above	Negligible
	16	-	-	-	-	-	-	-	-	-
	17	-	-	-	-	-	-	-	-	-
	18	-	-	-	-	-	-	-	-	-
	19	-	-	-	-	-	-	-	-	-
	20	43	43	1	13	13	1	0	Above	Negligible
	21	-	-	-	-	-	-	-	-	-
	22	-	-	-	-	-	-	-	-	-
	23	-	-	-	-	-	-	-	-	-
	24	-	-	-	-	-	-	-	-	-
	25	44	44	1	14	14	1	0	Above	Negligible
	26	-	-	-	-	-	-	-	-	-
	27	-	-	-	-	-	-	-	-	-
	28	-	-	-	-	-	-	-	-	-
	29	-	-	-	-	-	-	-	-	-
	30	45	45	1	14	14	1	0	Above	Negligible
	31	-	-	-	-	-	-	-	-	-
	32	-	-	-	-	-	-	-	-	-
	33	-	-	-	-	-	-	-	-	-
	34	-	-	-	-	-	-	-	-	-
	35	46	46	1	15	15	1	0	Above	Negligible
	36	-	-	-	-	-	-	-	-	-
	37	-	-	-	-	-	-	-	-	-
	38	-	-	-	-	-	-	-	-	-
	39	-	-	-	-	-	-	-	-	-
	40	47	47	1	16	16	1	0	Above	Negligible
	41	-	-	-	-	-	-	-	-	-
	42	-	-	-	-	-	-	-	-	-
	43	-	-	-	-	-	-	-	-	-
	44	-	-	-	-	-	-	-	-	-
	45	47	47	1	16	16	1	0	Above	Negligible
	46	-	-	-	-	-	-	-	-	-
	47	-	-	-	-	-	-	-	-	-
	48	-	-	-	-	-	-	-	-	-
	49	-	-	-	-	-	-	-	-	-
	50	47	47	1	16	16	1	0	Above	Negligible
	51	-	-	-	-	-	-	-	-	-
	52	-	-	-	-	-	-	-	-	-
	53	-	-	-	-	-	-	-	-	-
	54	-	-	-	-	-	-	-	-	-
	55	49	49	1	16	16	1	0	Above	Negligible
	56	-	-	-	-	-	-	-	-	-
	57	-	-	-	-	-	-	-	-	-
	58	-	-	-	-	-	-	-	-	-
	59	-	-	-	-	-	-	-	-	-
	60	49	49	1	16	16	1	0	Above	Negligible
	61	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	62	-	-	-	-	-	-	-	-	-
	63	-	-	-	-	-	-	-	-	-
	64	-	-	-	-	-	-	-	-	-
	65	49	49	1	16	16	1	0	Above	Negligible
	66	-	-	-	-	-	-	-	-	-
	67	-	-	-	-	-	-	-	-	-
	68	-	-	-	-	-	-	-	-	-
	69	-	-	-	-	-	-	-	-	-
	70	49	49	1	16	16	1	0	Above	Negligible
	71	-	-	-	-	-	-	-	-	-
	72	-	-	-	-	-	-	-	-	-
	73	-	-	-	-	-	-	-	-	-
	74	-	-	-	-	-	-	-	-	-
	75	49	49	1	16	16	1	0	Above	Negligible
	76	-	-	-	-	-	-	-	-	-
	77	-	-	-	-	-	-	-	-	-
	78	-	-	-	-	-	-	-	-	-
	79	-	-	-	-	-	-	-	-	-
	80	49	49	1	16	16	1	0	Above	Negligible
	81	-	-	-	-	-	-	-	-	-
	82	-	-	-	-	-	-	-	-	-
	83	-	-	-	-	-	-	-	-	-
	84	-	-	-	-	-	-	-	-	-
	85	-	-	-	-	-	-	-	-	-
	86	-	-	-	-	-	-	-	-	-
	87	51	51	1	16	16	1	0	Above	Negligible
	88	50	50	1	16	16	1	0	Above	Negligible
	89	-	-	-	-	-	-	-	-	-
	90	-	-	-	-	-	-	-	-	-
	91	49	49	1	16	16	1	0	Above	Negligible
	92	49	49	1	16	16	1	0	Above	Negligible
	93	49	49	1	16	16	1	0	Above	Negligible
	94	48	48	1	16	16	1	0	Above	Negligible
	95	48	48	1	16	16	1	0	Above	Negligible
	96	48	48	1	16	16	1	0	Above	Negligible
	97	46	46	1	16	16	1	0	Above	Negligible
	98	46	46	1	16	16	1	0	Above	Negligible
	99	46	46	1	16	16	1	0	Above	Negligible
	100	45	45	1	16	16	1	0	Above	Negligible
	101	44	44	1	15	15	1	0	Above	Negligible
	102	43	43	1	15	15	1	0	Above	Negligible
	103	-	-	-	-	-	-	-	-	-
	104	86	86	1	29	29	1	0	Above	Negligible
	105	88	88	1	29	29	1	0	Above	Negligible
	106	89	89	1	29	29	1	0	Above	Negligible
	107	-	-	-	-	-	-	-	-	-
	108	-	-	-	-	-	-	-	-	-
	109	-	-	-	-	-	-	-	-	-
	110	-	-	-	-	-	-	-	-	-
	111	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	112	86	86	1	29	29	1	0	Above	Negligible
	113	86	86	1	29	29	1	0	Above	Negligible
	114	89	89	1	29	29	1	0	Above	Negligible
	115	-	-	-	-	-	-	-	-	-
	116	-	-	-	-	-	-	-	-	-
	117	-	-	-	-	-	-	-	-	-
	118	-	-	-	-	-	-	-	-	-
	119	-	-	-	-	-	-	-	-	-
	120	86	86	1	29	29	1	0	Above	Negligible
	121	86	86	1	29	29	1	0	Above	Negligible
	122	86	86	1	29	29	1	0	Above	Negligible
	123	86	86	1	29	29	1	0	Above	Negligible
	124	86	86	1	29	29	1	0	Above	Negligible
	125	86	86	1	29	29	1	0	Above	Negligible
	126	86	86	1	29	29	1	0	Above	Negligible
	127	86	86	1	29	29	1	0	Above	Negligible
	128	86	86	1	29	29	1	0	Above	Negligible
	129	86	86	1	29	29	1	0	Above	Negligible
	130	88	88	1	29	29	1	0	Above	Negligible
	131	-	-	-	-	-	-	-	-	-
	132	-	-	-	-	-	-	-	-	-
	133	-	-	-	-	-	-	-	-	-
	134	-	-	-	-	-	-	-	-	-
	135	88	88	1	29	29	1	0	Above	Negligible
	136	-	-	-	-	-	-	-	-	-
	137	-	-	-	-	-	-	-	-	-
	138	-	-	-	-	-	-	-	-	-
	139	-	-	-	-	-	-	-	-	-
	140	-	-	-	-	-	-	-	-	-
	141	88	88	1	29	29	1	0	Above	Negligible
	142	-	-	-	-	-	-	-	-	-
	143	-	-	-	-	-	-	-	-	-
	144	-	-	-	-	-	-	-	-	-
	145	-	-	-	-	-	-	-	-	-
	146	-	-	-	-	-	-	-	-	-
	147	88	88	1	29	29	1	0	Above	Negligible
	148	-	-	-	-	-	-	-	-	-
	149	-	-	-	-	-	-	-	-	-
	150	-	-	-	-	-	-	-	-	-
	151	-	-	-	-	-	-	-	-	-
	152	-	-	-	-	-	-	-	-	-
	153	88	88	1	29	29	1	0	Above	Negligible
	154	-	-	-	-	-	-	-	-	-
	155	-	-	-	-	-	-	-	-	-
	156	-	-	-	-	-	-	-	-	-
	157	-	-	-	-	-	-	-	-	-
	158	-	-	-	-	-	-	-	-	-
	159	-	-	-	-	-	-	-	-	-
	160	86	86	1	29	29	1	0	Above	Negligible
	161	86	86	1	29	29	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	162	86	86	1	29	29	1	0	Above	Negligible
	163	86	86	1	29	29	1	0	Above	Negligible
	164	86	86	1	29	29	1	0	Above	Negligible
	165	86	86	1	29	29	1	0	Above	Negligible
	166	86	86	1	29	29	1	0	Above	Negligible
	167	86	86	1	29	29	1	0	Above	Negligible
	168	84	84	1	28	28	1	0	Above	Negligible
	169	82	82	1	27	27	1	0	Above	Negligible
	170	87	87	1	29	29	1	0	Above	Negligible
	171	-	-	-	-	-	-	-	-	-
	172	-	-	-	-	-	-	-	-	-
	173	-	-	-	-	-	-	-	-	-
	174	-	-	-	-	-	-	-	-	-
	175	87	87	1	29	29	1	0	Above	Negligible
	176	-	-	-	-	-	-	-	-	-
	177	-	-	-	-	-	-	-	-	-
	178	-	-	-	-	-	-	-	-	-
	179	-	-	-	-	-	-	-	-	-
	180	-	-	-	-	-	-	-	-	-
	181	86	86	1	29	29	1	0	Above	Negligible
	182	-	-	-	-	-	-	-	-	-
	183	-	-	-	-	-	-	-	-	-
	184	-	-	-	-	-	-	-	-	-
	185	-	-	-	-	-	-	-	-	-
	186	-	-	-	-	-	-	-	-	-
	187	86	86	1	29	29	1	0	Above	Negligible
	188	-	-	-	-	-	-	-	-	-
	189	-	-	-	-	-	-	-	-	-
	190	-	-	-	-	-	-	-	-	-
	191	-	-	-	-	-	-	-	-	-
	192	-	-	-	-	-	-	-	-	-
	193	82	82	1	27	27	1	0	Above	Negligible
	194	-	-	-	-	-	-	-	-	-
	195	-	-	-	-	-	-	-	-	-
	196	-	-	-	-	-	-	-	-	-
	197	-	-	-	-	-	-	-	-	-
	198	-	-	-	-	-	-	-	-	-
	199	-	-	-	-	-	-	-	-	-
	200	-	-	-	-	-	-	-	-	-
	201	-	-	-	-	-	-	-	-	-
	202	-	-	-	-	-	-	-	-	-
	203	-	-	-	-	-	-	-	-	-
	204	-	-	-	-	-	-	-	-	-
	205	-	-	-	-	-	-	-	-	-
	206	-	-	-	-	-	-	-	-	-
	207	-	-	-	-	-	-	-	-	-
	208	-	-	-	-	-	-	-	-	-
	209	-	-	-	-	-	-	-	-	-
	210	-	-	-	-	-	-	-	-	-
	211	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	212	-	-	-	-	-	-	-	-	-
	213	-	-	-	-	-	-	-	-	-
	214	-	-	-	-	-	-	-	-	-
	215	-	-	-	-	-	-	-	-	-
	216	-	-	-	-	-	-	-	-	-
	217	-	-	-	-	-	-	-	-	-
	218	-	-	-	-	-	-	-	-	-
	219	-	-	-	-	-	-	-	-	-
	220	-	-	-	-	-	-	-	-	-
	221	-	-	-	-	-	-	-	-	-
	222	-	-	-	-	-	-	-	-	-
	223	-	-	-	-	-	-	-	-	-
	224	-	-	-	-	-	-	-	-	-
	225	-	-	-	-	-	-	-	-	-
	226	-	-	-	-	-	-	-	-	-
	227	-	-	-	-	-	-	-	-	-
	228	-	-	-	-	-	-	-	-	-
	229	-	-	-	-	-	-	-	-	-
	230	-	-	-	-	-	-	-	-	-
	231	-	-	-	-	-	-	-	-	-
	232	-	-	-	-	-	-	-	-	-
	233	-	-	-	-	-	-	-	-	-
	234	-	-	-	-	-	-	-	-	-
	235	-	-	-	-	-	-	-	-	-
	236	-	-	-	-	-	-	-	-	-
	237	-	-	-	-	-	-	-	-	-
	238	-	-	-	-	-	-	-	-	-
	239	-	-	-	-	-	-	-	-	-
	240	-	-	-	-	-	-	-	-	-
	241	-	-	-	-	-	-	-	-	-
	242	-	-	-	-	-	-	-	-	-
	243	-	-	-	-	-	-	-	-	-
	244	-	-	-	-	-	-	-	-	-
	245	-	-	-	-	-	-	-	-	-
	246	-	-	-	-	-	-	-	-	-
	247	-	-	-	-	-	-	-	-	-
	248	-	-	-	-	-	-	-	-	-
	249	-	-	-	-	-	-	-	-	-
	250	-	-	-	-	-	-	-	-	-
	251	41	41	1	13	13	1	0	Above	Negligible
	252	41	41	1	13	13	1	0	Above	Negligible
	253	41	41	1	13	13	1	0	Above	Negligible
	254	39	39	1	12	12	1	0	Above	Negligible
	255	38	38	1	11	11	1	0	Above	Negligible
	256	82	82	1	27	27	1	0	Above	Negligible
	257	80	80	1	26	26	1	0	Above	Negligible
	258	80	80	1	26	26	1	0	Above	Negligible
	259	78	78	1	24	24	1	0	Above	Negligible
	260	78	78	1	24	24	1	0	Above	Negligible
	261	73	73	1	22	22	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	262	57	57	1	5	5	1	0	Above	Negligible
	263	57	57	1	9	9	1	0	Above	Negligible
	264	37	37	1	0	0	0	0	Above	Negligible
	265	45	45	1	3	3	1	0	Above	Negligible
	266	-	-	-	-	-	-	-	-	-
	267	-	-	-	-	-	-	-	-	-
	268	-	-	-	-	-	-	-	-	-
	269	-	-	-	-	-	-	-	-	-
	270	79	79	1	25	25	1	0	Above	Negligible
	271	-	-	-	-	-	-	-	-	-
	272	-	-	-	-	-	-	-	-	-
	273	-	-	-	-	-	-	-	-	-
	274	-	-	-	-	-	-	-	-	-
	275	-	-	-	-	-	-	-	-	-
	276	-	-	-	-	-	-	-	-	-
	277	-	-	-	-	-	-	-	-	-
	278	73	73	1	23	23	1	0	Above	Negligible
	279	-	-	-	-	-	-	-	-	-
	280	-	-	-	-	-	-	-	-	-
	281	-	-	-	-	-	-	-	-	-
	282	-	-	-	-	-	-	-	-	-
	283	-	-	-	-	-	-	-	-	-
	284	-	-	-	-	-	-	-	-	-
	285	-	-	-	-	-	-	-	-	-
	286	-	-	-	-	-	-	-	-	-
	287	71	71	1	23	23	1	0	Above	Negligible
	288	-	-	-	-	-	-	-	-	-
	289	-	-	-	-	-	-	-	-	-
	290	-	-	-	-	-	-	-	-	-
	291	-	-	-	-	-	-	-	-	-
	292	-	-	-	-	-	-	-	-	-
	293	-	-	-	-	-	-	-	-	-
	294	-	-	-	-	-	-	-	-	-
	295	-	-	-	-	-	-	-	-	-
	296	64	64	1	18	18	1	0	Above	Negligible
	297	-	-	-	-	-	-	-	-	-
	298	-	-	-	-	-	-	-	-	-
	299	-	-	-	-	-	-	-	-	-
	300	-	-	-	-	-	-	-	-	-
	301	-	-	-	-	-	-	-	-	-
	302	-	-	-	-	-	-	-	-	-
	303	-	-	-	-	-	-	-	-	-
	304	-	-	-	-	-	-	-	-	-
	305	55	55	1	11	11	1	0	Above	Negligible
	306	-	-	-	-	-	-	-	-	-
	307	-	-	-	-	-	-	-	-	-
	308	-	-	-	-	-	-	-	-	-
	309	-	-	-	-	-	-	-	-	-
	310	-	-	-	-	-	-	-	-	-
F - Skyline Chambers	0	38	34	0.89	6	6	1	4	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	1	37	33	0.89	4	4	1	4	Above	Negligible
	2	36	31	0.86	2	2	1	5	Above	Negligible
	3	37	32	0.86	1	1	1	5	Above	Negligible
	4	11	11	1	0	0	0	0	Above	Negligible
	5	27	23	0.85	0	0	0	4	Above	Negligible
	6	26	26	1	0	0	0	0	Above	Negligible
	7	7	7	1	0	0	0	0	Above	Negligible
	8	21	14	0.67	0	0	0	7	Below	High
	9	29	22	0.76	0	0	0	7	Below	High
	10	28	18	0.64	0	0	0	10	Below	High
	11	25	14	0.56	0	0	0	11	Below	High
	12	19	11	0.58	0	0	0	8	Below	High
	13	18	9	0.5	1	0	0	9	Below	High
	14	23	7	0.3	6	5	0.83	16	Below	High
	15	20	5	0.25	4	3	0.75	15	Below	High
	16	29	17	0.59	7	5	0.71	12	Below	High
	17	31	20	0.65	7	5	0.71	11	Below	Medium
	18	29	22	0.76	5	4	0.8	7	Below	Low
	19	30	21	0.7	5	3	0.6	9	Below	Medium
	20	45	40	0.89	5	5	1	5	Above	Negligible
	21	42	37	0.88	2	2	1	5	Above	Negligible
	22	42	37	0.88	1	1	1	5	Above	Negligible
	23	22	22	1	2	2	1	0	Above	Negligible
	24	17	14	0.82	1	1	1	3	Above	Negligible
	25	31	25	0.81	0	0	0	6	Below	High
	26	35	34	0.97	0	0	0	1	Above	Negligible
	27	16	16	1	0	0	0	0	Above	Negligible
	28	4	4	1	0	0	0	0	Above	Negligible
	29	11	8	0.73	0	0	0	3	Above	Negligible
	30	24	20	0.83	0	0	0	4	Above	Negligible
	31	27	27	1	0	0	0	0	Above	Negligible
	32	5	5	1	0	0	0	0	Above	Negligible
	33	17	11	0.65	0	0	0	6	Below	High
	34	26	20	0.77	0	0	0	6	Below	High
	35	27	23	0.85	0	0	0	4	Above	Negligible
	36	21	21	1	0	0	0	0	Above	Negligible
	37	15	15	1	0	0	0	0	Above	Negligible
	38	19	10	0.53	1	0	0	9	Below	High
	39	16	3	0.19	0	0	0	13	Below	High
	40	2	1	0.5	1	0	0	1	Above	Negligible
	41	31	14	0.45	7	6	0.86	17	Below	High
	42	29	13	0.45	7	6	0.86	16	Below	High
	43	35	21	0.6	7	5	0.71	14	Below	Medium
	44	38	25	0.66	7	5	0.71	13	Above	Negligible
	45	22	20	0.91	5	5	1	2	Above	Negligible
	46	13	13	1	0	0	0	0	Above	Negligible
	47	52	46	0.88	8	8	1	6	Above	Negligible
	48	51	45	0.88	7	7	1	6	Above	Negligible
	49	24	24	1	3	3	1	0	Above	Negligible
	50	38	35	0.92	3	3	1	3	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	51	38	38	1	3	3	1	0	Above	Negligible
	52	22	22	1	3	3	1	0	Above	Negligible
	53	14	14	1	3	3	1	0	Above	Negligible
	54	18	18	1	3	3	1	0	Above	Negligible
	55	31	28	0.9	3	3	1	3	Above	Negligible
	56	34	34	1	4	4	1	0	Above	Negligible
	57	14	14	1	3	3	1	0	Above	Negligible
	58	15	8	0.53	3	3	1	7	Below	High
	59	30	21	0.7	3	3	1	9	Below	Low
	60	34	25	0.74	3	3	1	9	Below	Low
	61	29	24	0.83	3	3	1	5	Above	Negligible
	62	23	23	1	2	2	1	0	Above	Negligible
	63	4	4	1	2	2	1	0	Above	Negligible
	64	20	4	0.2	1	0	0	16	Below	High
	65	23	11	0.48	2	1	0.5	12	Below	High
	66	21	10	0.48	2	1	0.5	11	Below	High
	67	30	17	0.57	4	3	0.75	13	Below	High
	68	34	17	0.5	7	6	0.86	17	Below	High
	69	32	15	0.47	7	6	0.86	17	Below	High
	70	35	18	0.51	7	6	0.86	17	Below	High
	71	42	29	0.69	7	5	0.71	13	Above	Negligible
	72	22	19	0.86	0	0	0	3	Above	Negligible
	73	37	28	0.76	7	4	0.57	9	Below	High
	74	36	27	0.75	6	3	0.5	9	Below	High
	75	59	54	0.92	11	11	1	5	Above	Negligible
	76	57	50	0.88	9	9	1	7	Above	Negligible
	77	55	49	0.89	7	7	1	6	Above	Negligible
	78	33	32	0.97	8	8	1	1	Above	Negligible
	79	28	24	0.86	7	7	1	4	Above	Negligible
	80	43	37	0.86	7	7	1	6	Above	Negligible
	81	45	44	0.98	7	7	1	1	Above	Negligible
	82	21	21	1	3	3	1	0	Above	Negligible
	83	9	8	0.89	3	3	1	1	Above	Negligible
	84	22	19	0.86	8	8	1	3	Above	Negligible
	85	39	32	0.82	7	7	1	7	Above	Negligible
	86	40	38	0.95	7	7	1	2	Above	Negligible
	87	8	8	1	2	2	1	0	Above	Negligible
	88	25	15	0.6	2	2	1	10	Below	Medium
	89	39	30	0.77	6	6	1	9	Above	Negligible
	90	39	32	0.82	5	5	1	7	Above	Negligible
	91	30	28	0.93	4	4	1	2	Above	Negligible
	92	22	22	1	4	4	1	0	Above	Negligible
	93	16	11	0.69	5	4	0.8	5	Below	Medium
	94	21	7	0.33	2	2	1	14	Below	High
	95	20	7	0.35	3	2	0.67	13	Below	High
	96	9	3	0.33	1	0	0	6	Below	High
	97	40	22	0.55	7	6	0.86	18	Below	High
	98	40	22	0.55	7	6	0.86	18	Below	High
	99	42	29	0.69	7	5	0.71	13	Above	Negligible
	100	45	32	0.71	8	5	0.62	13	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	101	45	33	0.73	8	5	0.62	12	Above	Negligible
	102	23	20	0.87	2	0	0	3	Above	Negligible
	103	71	65	0.92	15	15	1	6	Above	Negligible
	104	71	65	0.92	15	15	1	6	Above	Negligible
	105	33	33	1	11	11	1	0	Above	Negligible
	106	56	48	0.86	11	11	1	8	Above	Negligible
	107	68	61	0.9	14	14	1	7	Above	Negligible
	108	63	57	0.9	13	13	1	6	Above	Negligible
	109	49	49	1	12	12	1	0	Above	Negligible
	110	26	26	1	11	11	1	0	Above	Negligible
	111	50	41	0.82	9	9	1	9	Above	Negligible
	112	62	53	0.85	11	11	1	9	Above	Negligible
	113	62	53	0.85	11	11	1	9	Above	Negligible
	114	59	49	0.83	10	10	1	10	Above	Negligible
	115	58	47	0.81	10	10	1	11	Above	Negligible
	116	54	43	0.8	8	8	1	11	Above	Negligible
	117	47	38	0.81	8	8	1	9	Above	Negligible
	118	34	33	0.97	5	5	1	1	Above	Negligible
	119	6	6	1	4	4	1	0	Above	Negligible
	120	34	18	0.53	2	0	0	16	Below	High
	121	45	27	0.6	3	2	0.67	18	Below	Medium
	122	47	29	0.62	3	2	0.67	18	Below	Medium
	123	50	32	0.64	4	3	0.75	18	Below	Medium
	124	43	24	0.56	8	6	0.75	19	Below	High
	125	43	24	0.56	8	6	0.75	19	Below	High
	126	43	25	0.58	8	6	0.75	18	Above	Negligible
	127	43	25	0.58	8	6	0.75	18	Above	Negligible
	128	45	25	0.56	10	6	0.6	20	Above	Negligible
	129	36	20	0.56	7	6	0.86	16	Below	High
	130	37	21	0.57	7	6	0.86	16	Below	High
	131	43	25	0.58	8	6	0.75	18	Above	Negligible
	132	43	25	0.58	8	6	0.75	18	Above	Negligible
	133	29	13	0.45	7	6	0.86	16	Below	High
	134	29	13	0.45	7	6	0.86	16	Below	High
	135	17	3	0.18	2	1	0.5	14	Below	High
	136	17	2	0.12	2	1	0.5	15	Below	High
	137	45	33	0.73	8	5	0.62	12	Above	Negligible
	138	46	33	0.72	9	5	0.56	13	Above	Negligible
	139	41	29	0.71	4	1	0.25	12	Below	High
	140	32	25	0.78	0	0	0	7	Below	High
	141	26	21	0.81	0	0	0	5	Below	High
	142	20	18	0.9	2	2	1	2	Above	Negligible
	143	29	20	0.69	6	5	0.83	9	Below	Medium
	144	29	21	0.72	6	5	0.83	8	Below	Low
	145	29	21	0.72	6	5	0.83	8	Below	Low
G - Corner building	0	38	38	1	13	13	1	0	Above	Negligible
	1	32	32	1	9	9	1	0	Above	Negligible
	2	34	33	0.97	9	9	1	1	Above	Negligible
	3	36	35	0.97	10	10	1	1	Above	Negligible
	4	28	28	1	10	10	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	5	19	19	1	7	7	1	0	Above	Negligible
	6	23	23	1	7	7	1	0	Above	Negligible
	7	21	21	1	7	7	1	0	Above	Negligible
	8	24	24	1	7	7	1	0	Above	Negligible
	9	25	25	1	7	7	1	0	Above	Negligible
	10	21	21	1	7	7	1	0	Above	Negligible
	11	29	29	1	10	10	1	0	Above	Negligible
	12	37	35	0.95	10	10	1	2	Above	Negligible
	13	37	35	0.95	10	10	1	2	Above	Negligible
	14	35	34	0.97	10	10	1	1	Above	Negligible
	15	38	38	1	13	13	1	0	Above	Negligible
	16	41	40	0.98	14	14	1	1	Above	Negligible
	17	36	34	0.94	10	10	1	2	Above	Negligible
	18	38	37	0.97	10	10	1	1	Above	Negligible
	19	38	36	0.95	10	10	1	2	Above	Negligible
	20	30	30	1	10	10	1	0	Above	Negligible
	21	23	23	1	7	7	1	0	Above	Negligible
	22	28	28	1	7	7	1	0	Above	Negligible
	23	30	30	1	7	7	1	0	Above	Negligible
	24	36	36	1	8	8	1	0	Above	Negligible
	25	35	35	1	8	8	1	0	Above	Negligible
	26	28	28	1	8	8	1	0	Above	Negligible
	27	31	31	1	10	10	1	0	Above	Negligible
	28	40	37	0.92	10	10	1	3	Above	Negligible
	29	39	38	0.97	10	10	1	1	Above	Negligible
	30	36	34	0.94	10	10	1	2	Above	Negligible
	31	42	41	0.98	14	14	1	1	Above	Negligible
	32	43	41	0.95	14	14	1	2	Above	Negligible
	33	40	39	0.98	11	11	1	1	Above	Negligible
	34	43	42	0.98	11	11	1	1	Above	Negligible
	35	44	41	0.93	12	12	1	3	Above	Negligible
	36	36	36	1	12	12	1	0	Above	Negligible
	37	35	35	1	10	10	1	0	Above	Negligible
	38	42	42	1	10	10	1	0	Above	Negligible
	39	43	43	1	10	10	1	0	Above	Negligible
	40	33	33	1	11	11	1	0	Above	Negligible
	41	32	32	1	10	10	1	0	Above	Negligible
	42	34	34	1	10	10	1	0	Above	Negligible
	43	30	30	1	9	9	1	0	Above	Negligible
	44	32	31	0.97	9	9	1	1	Above	Negligible
	45	38	37	0.97	10	10	1	1	Above	Negligible
	46	37	36	0.97	10	10	1	1	Above	Negligible
	47	32	31	0.97	10	10	1	1	Above	Negligible
	48	31	30	0.97	10	10	1	1	Above	Negligible
	49	25	25	1	10	10	1	0	Above	Negligible
	50	5	5	1	0	0	0	0	Above	Negligible
	51	21	21	1	9	9	1	0	Above	Negligible
	52	22	22	1	7	7	1	0	Above	Negligible
	53	34	33	0.97	11	11	1	1	Above	Negligible
	54	34	33	0.97	10	10	1	1	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	55	35	34	0.97	10	10	1	1	Above	Negligible
	56	34	33	0.97	10	10	1	1	Above	Negligible
	57	35	34	0.97	10	10	1	1	Above	Negligible
	58	39	38	0.97	10	10	1	1	Above	Negligible
	59	38	37	0.97	10	10	1	1	Above	Negligible
	60	33	32	0.97	10	10	1	1	Above	Negligible
	61	31	30	0.97	10	10	1	1	Above	Negligible
	62	26	26	1	10	10	1	0	Above	Negligible
	63	6	6	1	0	0	0	0	Above	Negligible
	64	22	22	1	9	9	1	0	Above	Negligible
	65	24	24	1	7	7	1	0	Above	Negligible
	66	37	36	0.97	12	12	1	1	Above	Negligible
	67	36	34	0.94	11	11	1	2	Above	Negligible
	68	37	35	0.95	11	11	1	2	Above	Negligible
	69	35	34	0.97	10	10	1	1	Above	Negligible
	70	36	35	0.97	10	10	1	1	Above	Negligible
	71	39	38	0.97	10	10	1	1	Above	Negligible
	72	39	38	0.97	10	10	1	1	Above	Negligible
	73	34	33	0.97	10	10	1	1	Above	Negligible
	74	33	32	0.97	10	10	1	1	Above	Negligible
	75	26	26	1	10	10	1	0	Above	Negligible
	76	8	8	1	0	0	0	0	Above	Negligible
	77	25	25	1	9	9	1	0	Above	Negligible
	78	27	27	1	7	7	1	0	Above	Negligible
	79	38	37	0.97	12	12	1	1	Above	Negligible
	80	37	35	0.95	11	11	1	2	Above	Negligible
	81	38	36	0.95	11	11	1	2	Above	Negligible
	82	36	35	0.97	10	10	1	1	Above	Negligible
	83	37	36	0.97	10	10	1	1	Above	Negligible
	84	40	39	0.98	10	10	1	1	Above	Negligible
	85	41	39	0.95	10	10	1	2	Above	Negligible
	86	35	33	0.94	10	10	1	2	Above	Negligible
	87	34	32	0.94	10	10	1	2	Above	Negligible
	88	29	29	1	10	10	1	0	Above	Negligible
	89	12	12	1	0	0	0	0	Above	Negligible
	90	31	31	1	9	9	1	0	Above	Negligible
	91	32	32	1	8	8	1	0	Above	Negligible
	92	41	39	0.95	13	13	1	2	Above	Negligible
	93	41	38	0.93	12	12	1	3	Above	Negligible
	94	42	39	0.93	12	12	1	3	Above	Negligible
	95	40	39	0.98	11	11	1	1	Above	Negligible
	96	41	40	0.98	11	11	1	1	Above	Negligible
	97	43	42	0.98	11	11	1	1	Above	Negligible
	98	44	42	0.95	11	11	1	2	Above	Negligible
	99	39	37	0.95	12	12	1	2	Above	Negligible
	100	38	36	0.95	12	12	1	2	Above	Negligible
	101	34	34	1	11	11	1	0	Above	Negligible
	102	29	29	1	3	3	1	0	Above	Negligible
	103	36	36	1	12	12	1	0	Above	Negligible
	104	39	39	1	10	10	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	105	-	-	-	-	-	-	-	-	-
	106	-	-	-	-	-	-	-	-	-
	107	-	-	-	-	-	-	-	-	-
	108	-	-	-	-	-	-	-	-	-
	109	-	-	-	-	-	-	-	-	-
	110	-	-	-	-	-	-	-	-	-
	111	-	-	-	-	-	-	-	-	-
	112	-	-	-	-	-	-	-	-	-
	113	-	-	-	-	-	-	-	-	-
	114	-	-	-	-	-	-	-	-	-
	115	-	-	-	-	-	-	-	-	-
	116	-	-	-	-	-	-	-	-	-
	117	-	-	-	-	-	-	-	-	-
	118	-	-	-	-	-	-	-	-	-
	119	-	-	-	-	-	-	-	-	-
	120	-	-	-	-	-	-	-	-	-
	121	-	-	-	-	-	-	-	-	-
	122	-	-	-	-	-	-	-	-	-
	123	-	-	-	-	-	-	-	-	-
	124	-	-	-	-	-	-	-	-	-
	125	-	-	-	-	-	-	-	-	-
	126	-	-	-	-	-	-	-	-	-
	127	-	-	-	-	-	-	-	-	-
	128	-	-	-	-	-	-	-	-	-
	129	-	-	-	-	-	-	-	-	-
	130	-	-	-	-	-	-	-	-	-
	131	-	-	-	-	-	-	-	-	-
	132	-	-	-	-	-	-	-	-	-
	133	-	-	-	-	-	-	-	-	-
	134	-	-	-	-	-	-	-	-	-
	135	-	-	-	-	-	-	-	-	-
	136	-	-	-	-	-	-	-	-	-
	137	-	-	-	-	-	-	-	-	-
	138	-	-	-	-	-	-	-	-	-
	139	-	-	-	-	-	-	-	-	-
	140	-	-	-	-	-	-	-	-	-
	141	-	-	-	-	-	-	-	-	-
	142	-	-	-	-	-	-	-	-	-
	143	-	-	-	-	-	-	-	-	-
	144	-	-	-	-	-	-	-	-	-
	145	-	-	-	-	-	-	-	-	-
	146	-	-	-	-	-	-	-	-	-
	147	-	-	-	-	-	-	-	-	-
	148	-	-	-	-	-	-	-	-	-
	149	-	-	-	-	-	-	-	-	-
	150	-	-	-	-	-	-	-	-	-
	151	-	-	-	-	-	-	-	-	-
	152	-	-	-	-	-	-	-	-	-
	153	-	-	-	-	-	-	-	-	-
	154	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	155	-	-	-	-	-	-	-	-	-
	156	-	-	-	-	-	-	-	-	-
	157	-	-	-	-	-	-	-	-	-
	158	-	-	-	-	-	-	-	-	-
	159	-	-	-	-	-	-	-	-	-
	160	-	-	-	-	-	-	-	-	-
	161	-	-	-	-	-	-	-	-	-
	162	-	-	-	-	-	-	-	-	-
	163	-	-	-	-	-	-	-	-	-
	164	-	-	-	-	-	-	-	-	-
	165	-	-	-	-	-	-	-	-	-
	166	-	-	-	-	-	-	-	-	-
	167	-	-	-	-	-	-	-	-	-
	168	-	-	-	-	-	-	-	-	-
	169	-	-	-	-	-	-	-	-	-
	170	-	-	-	-	-	-	-	-	-
	171	-	-	-	-	-	-	-	-	-
	172	-	-	-	-	-	-	-	-	-
	173	-	-	-	-	-	-	-	-	-
	174	-	-	-	-	-	-	-	-	-
	175	-	-	-	-	-	-	-	-	-
	176	-	-	-	-	-	-	-	-	-
	177	-	-	-	-	-	-	-	-	-
	178	-	-	-	-	-	-	-	-	-
	179	-	-	-	-	-	-	-	-	-
	180	-	-	-	-	-	-	-	-	-
	181	-	-	-	-	-	-	-	-	-
	182	-	-	-	-	-	-	-	-	-
	183	-	-	-	-	-	-	-	-	-
	184	-	-	-	-	-	-	-	-	-
	185	-	-	-	-	-	-	-	-	-
	186	-	-	-	-	-	-	-	-	-
	187	-	-	-	-	-	-	-	-	-
	188	-	-	-	-	-	-	-	-	-
	189	-	-	-	-	-	-	-	-	-
	190	-	-	-	-	-	-	-	-	-
	191	-	-	-	-	-	-	-	-	-
	192	-	-	-	-	-	-	-	-	-
	193	-	-	-	-	-	-	-	-	-
	194	-	-	-	-	-	-	-	-	-
	195	-	-	-	-	-	-	-	-	-
	196	-	-	-	-	-	-	-	-	-
	197	-	-	-	-	-	-	-	-	-
	198	-	-	-	-	-	-	-	-	-
	199	-	-	-	-	-	-	-	-	-
	200	-	-	-	-	-	-	-	-	-
	201	-	-	-	-	-	-	-	-	-
	202	-	-	-	-	-	-	-	-	-
	203	-	-	-	-	-	-	-	-	-
	204	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	205	-	-	-	-	-	-	-	-	-
	206	-	-	-	-	-	-	-	-	-
	207	-	-	-	-	-	-	-	-	-
	208	-	-	-	-	-	-	-	-	-
	209	-	-	-	-	-	-	-	-	-
	210	-	-	-	-	-	-	-	-	-
	211	-	-	-	-	-	-	-	-	-
	212	-	-	-	-	-	-	-	-	-
	213	-	-	-	-	-	-	-	-	-
	214	-	-	-	-	-	-	-	-	-
	215	-	-	-	-	-	-	-	-	-
	216	-	-	-	-	-	-	-	-	-
	217	-	-	-	-	-	-	-	-	-
	218	-	-	-	-	-	-	-	-	-
	219	-	-	-	-	-	-	-	-	-
	220	-	-	-	-	-	-	-	-	-
	221	-	-	-	-	-	-	-	-	-
	222	-	-	-	-	-	-	-	-	-
	223	-	-	-	-	-	-	-	-	-
	224	-	-	-	-	-	-	-	-	-
	225	-	-	-	-	-	-	-	-	-
	226	-	-	-	-	-	-	-	-	-
	227	-	-	-	-	-	-	-	-	-
	228	-	-	-	-	-	-	-	-	-
	229	-	-	-	-	-	-	-	-	-
	230	-	-	-	-	-	-	-	-	-
	231	-	-	-	-	-	-	-	-	-
	232	-	-	-	-	-	-	-	-	-
	233	-	-	-	-	-	-	-	-	-
	234	-	-	-	-	-	-	-	-	-
	235	-	-	-	-	-	-	-	-	-
	236	-	-	-	-	-	-	-	-	-
	237	-	-	-	-	-	-	-	-	-
	238	-	-	-	-	-	-	-	-	-
	239	-	-	-	-	-	-	-	-	-
H - Grey building	0	51	49	0.96	13	13	1	2	Above	Negligible
	1	53	49	0.92	15	15	1	4	Above	Negligible
	2	6	6	1	0	0	0	0	Above	Negligible
	3	56	54	0.96	15	15	1	2	Above	Negligible
	4	57	53	0.93	15	15	1	4	Above	Negligible
	5	8	8	1	0	0	0	0	Above	Negligible
	6	62	60	0.97	16	16	1	2	Above	Negligible
	7	61	57	0.93	16	16	1	4	Above	Negligible
	8	13	13	1	1	1	1	0	Above	Negligible
	9	65	62	0.95	16	16	1	3	Above	Negligible
	10	64	60	0.94	17	17	1	4	Above	Negligible
	11	23	20	0.87	2	2	1	3	Above	Negligible
	12	66	63	0.95	16	16	1	3	Above	Negligible
	13	66	62	0.94	17	17	1	4	Above	Negligible
	14	36	31	0.86	4	3	0.75	5	Below	Low

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	15	68	66	0.97	17	17	1	2	Above	Negligible
	16	69	65	0.94	18	18	1	4	Above	Negligible
	17	38	33	0.87	6	4	0.67	5	Below	Medium
	18	69	67	0.97	17	17	1	2	Above	Negligible
	19	71	69	0.97	19	19	1	2	Above	Negligible
	20	40	34	0.85	8	5	0.62	6	Above	Negligible
	21	75	73	0.97	21	21	1	2	Above	Negligible
	22	72	70	0.97	20	20	1	2	Above	Negligible
	23	41	35	0.85	9	6	0.67	6	Above	Negligible
	24	54	52	0.96	14	14	1	2	Above	Negligible
	25	26	26	1	14	14	1	0	Above	Negligible
	26	-	-	-	-	-	-	-	-	-
	27	0	0		0	0	0	0	Above	Negligible
	28	0	0		0	0	0	0	Above	Negligible
	29	7	7	1	0	0	0	0	Above	Negligible
	30	58	56	0.97	15	15	1	2	Above	Negligible
	31	32	29	0.91	14	14	1	3	Above	Negligible
	32	-	-	-	-	-	-	-	-	-
	33	0	0		0	0	0	0	Above	Negligible
	34	0	0		0	0	0	0	Above	Negligible
	35	9	9	1	0	0	0	0	Above	Negligible
	36	60	58	0.97	16	16	1	2	Above	Negligible
	37	33	30	0.91	15	15	1	3	Above	Negligible
	38	-	-	-	-	-	-	-	-	-
	39	19	19	1	4	4	1	0	Above	Negligible
	40	20	20	1	9	9	1	0	Above	Negligible
	41	15	15	1	1	1	1	0	Above	Negligible
	42	66	63	0.95	16	16	1	3	Above	Negligible
	43	34	31	0.91	15	15	1	3	Above	Negligible
	44	-	-	-	-	-	-	-	-	-
	45	19	19	1	4	4	1	0	Above	Negligible
	46	23	23	1	9	9	1	0	Above	Negligible
	47	24	21	0.88	3	3	1	3	Above	Negligible
	48	67	63	0.94	16	16	1	4	Above	Negligible
	49	35	32	0.91	15	15	1	3	Above	Negligible
	50	-	-	-	-	-	-	-	-	-
	51	21	21	1	5	5	1	0	Above	Negligible
	52	23	23	1	9	9	1	0	Above	Negligible
	53	38	32	0.84	5	3	0.6	6	Below	Medium
	54	68	65	0.96	17	17	1	3	Above	Negligible
	55	36	34	0.94	16	16	1	2	Above	Negligible
	56	-	-	-	-	-	-	-	-	-
	57	24	24	1	5	5	1	0	Above	Negligible
	58	27	27	1	10	10	1	0	Above	Negligible
	59	40	35	0.88	7	5	0.71	5	Above	Negligible
	60	69	67	0.97	17	17	1	2	Above	Negligible
	61	37	36	0.97	17	17	1	1	Above	Negligible
	62	-	-	-	-	-	-	-	-	-
	63	32	32	1	9	9	1	0	Above	Negligible
	64	33	33	1	10	10	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	65	41	36	0.88	8	5	0.62	5	Above	Negligible
	66	72	70	0.97	20	20	1	2	Above	Negligible
	67	37	36	0.97	17	17	1	1	Above	Negligible
	68	-	-	-	-	-	-	-	-	-
	69	60	58	0.97	16	16	1	2	Above	Negligible
	70	55	55	1	14	14	1	0	Above	Negligible
	71	41	36	0.88	8	5	0.62	5	Above	Negligible
I - Krupa Building	0	47	39	0.83	3	1	0.33	8	Below	High
	1	50	43	0.86	2	1	0.5	7	Below	High
	2	55	46	0.84	5	2	0.4	9	Below	High
	3	55	47	0.85	5	3	0.6	8	Below	Medium
	4	65	56	0.86	9	5	0.56	9	Above	Negligible
	5	65	55	0.85	8	4	0.5	10	Below	High
	6	73	62	0.85	14	8	0.57	11	Above	Negligible
	7	50	42	0.84	4	3	0.75	8	Below	Low
	8	48	40	0.83	2	1	0.5	8	Below	High
	9	57	48	0.84	5	3	0.6	9	Below	Medium
	10	57	48	0.84	6	4	0.67	9	Below	Medium
	11	64	56	0.88	8	5	0.62	8	Above	Negligible
	12	66	57	0.86	9	5	0.56	9	Above	Negligible
	13	72	62	0.86	14	9	0.64	10	Above	Negligible
	14	73	63	0.86	15	9	0.6	10	Above	Negligible
J - 12 Rochdale Road	0	-	-	-	-	-	-	-	-	-
	1	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-
	3	1	1	1	1	1	1	0	Above	Negligible
	4	-	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-
	7	1	1	1	1	1	1	0	Above	Negligible
	8	-	-	-	-	-	-	-	-	-
	9	-	-	-	-	-	-	-	-	-
	10	-	-	-	-	-	-	-	-	-
	11	1	1	1	1	1	1	0	Above	Negligible
	12	-	-	-	-	-	-	-	-	-
	13	-	-	-	-	-	-	-	-	-
	14	-	-	-	-	-	-	-	-	-
	15	1	1	1	1	1	1	0	Above	Negligible
	16	-	-	-	-	-	-	-	-	-
	17	-	-	-	-	-	-	-	-	-
	18	-	-	-	-	-	-	-	-	-
	19	1	1	1	1	1	1	0	Above	Negligible
	20	-	-	-	-	-	-	-	-	-
	21	-	-	-	-	-	-	-	-	-
	22	-	-	-	-	-	-	-	-	-
	23	1	1	1	1	1	1	0	Above	Negligible
	24	-	-	-	-	-	-	-	-	-
	25	-	-	-	-	-	-	-	-	-
	26	1	1	1	1	1	1	0	Above	Negligible
	27	-	-	-	-	-	-	-	-	-

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	28	-	-	-	-	-	-	-	-	-
	29	1	1	1	1	1	1	0	Above	Negligible
	30	-	-	-	-	-	-	-	-	-
	31	-	-	-	-	-	-	-	-	-
	32	4	4	1	1	1	1	0	Above	Negligible
	33	-	-	-	-	-	-	-	-	-
	34	-	-	-	-	-	-	-	-	-
	35	-	-	-	-	-	-	-	-	-
	36	-	-	-	-	-	-	-	-	-
	37	-	-	-	-	-	-	-	-	-
	38	-	-	-	-	-	-	-	-	-
	39	-	-	-	-	-	-	-	-	-
	40	-	-	-	-	-	-	-	-	-
	41	-	-	-	-	-	-	-	-	-
	42	-	-	-	-	-	-	-	-	-
	43	-	-	-	-	-	-	-	-	-
	44	-	-	-	-	-	-	-	-	-
	45	-	-	-	-	-	-	-	-	-
	46	-	-	-	-	-	-	-	-	-
	47	-	-	-	-	-	-	-	-	-
	48	-	-	-	-	-	-	-	-	-
	49	-	-	-	-	-	-	-	-	-
	50	-	-	-	-	-	-	-	-	-
	51	-	-	-	-	-	-	-	-	-
	52	-	-	-	-	-	-	-	-	-
	53	-	-	-	-	-	-	-	-	-
	54	-	-	-	-	-	-	-	-	-
	55	-	-	-	-	-	-	-	-	-
	56	-	-	-	-	-	-	-	-	-
	57	-	-	-	-	-	-	-	-	-
	58	-	-	-	-	-	-	-	-	-
	59	-	-	-	-	-	-	-	-	-
	60	-	-	-	-	-	-	-	-	-
	61	-	-	-	-	-	-	-	-	-
	62	-	-	-	-	-	-	-	-	-
K - Halo buildings	0	18	18	1	2	2	1	0	Above	Negligible
	1	20	18	0.9	0	0	0	2	Above	Negligible
	2	27	25	0.93	0	0	0	2	Above	Negligible
	3	28	26	0.93	0	0	0	2	Above	Negligible
	4	19	17	0.89	0	0	0	2	Above	Negligible
	5	28	27	0.96	0	0	0	1	Above	Negligible
	6	28	27	0.96	0	0	0	1	Above	Negligible
	7	15	15	1	0	0	0	0	Above	Negligible
	8	29	29	1	0	0	0	0	Above	Negligible
	9	30	30	1	0	0	0	0	Above	Negligible
	10	27	27	1	0	0	0	0	Above	Negligible
	11	32	32	1	0	0	0	0	Above	Negligible
	12	24	23	0.96	0	0	0	1	Above	Negligible
	13	29	28	0.97	0	0	0	1	Above	Negligible
	14	28	28	1	0	0	0	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	15	27	26	0.96	0	0	0	1	Above	Negligible
	16	24	22	0.92	0	0	0	2	Above	Negligible
	17	24	22	0.92	0	0	0	2	Above	Negligible
	18	17	17	1	0	0	0	0	Above	Negligible
	19	18	17	0.94	0	0	0	1	Above	Negligible
	20	22	22	1	2	2	1	0	Above	Negligible
	21	39	36	0.92	0	0	0	3	Above	Negligible
	22	32	30	0.94	0	0	0	2	Above	Negligible
	23	34	34	1	0	0	0	0	Above	Negligible
	24	33	32	0.97	0	0	0	1	Above	Negligible
	25	28	25	0.89	0	0	0	3	Above	Negligible
	26	21	21	1	0	0	0	0	Above	Negligible
	27	30	27	0.9	0	0	0	3	Above	Negligible
	28	35	33	0.94	0	0	0	2	Above	Negligible
	29	33	31	0.94	0	0	0	2	Above	Negligible
	30	0	0		0	0	0	0	Above	Negligible
	31	34	34	1	0	0	0	0	Above	Negligible
	32	0	0		0	0	0	0	Above	Negligible
	33	37	37	1	0	0	0	0	Above	Negligible
	34	0	0		0	0	0	0	Above	Negligible
	35	37	37	1	1	1	1	0	Above	Negligible
	36	37	37	1	1	1	1	0	Above	Negligible
	37	30	29	0.97	2	2	1	1	Above	Negligible
	38	49	44	0.9	0	0	0	5	Below	High
	39	49	44	0.9	0	0	0	5	Below	High
	40	46	41	0.89	0	0	0	5	Below	High
	41	42	38	0.9	0	0	0	4	Above	Negligible
	42	48	47	0.98	1	1	1	1	Above	Negligible
	43	48	47	0.98	1	1	1	1	Above	Negligible
	44	47	46	0.98	1	1	1	1	Above	Negligible
	45	46	45	0.98	0	0	0	1	Above	Negligible
	46	45	44	0.98	1	1	1	1	Above	Negligible
	47	43	39	0.91	0	0	0	4	Above	Negligible
	48	48	45	0.94	0	0	0	3	Above	Negligible
	49	39	34	0.87	0	0	0	5	Below	High
	50	0	0		0	0	0	0	Above	Negligible
	51	0	0		0	0	0	0	Above	Negligible
	52	0	0		0	0	0	0	Above	Negligible
	53	31	30	0.97	0	0	0	1	Above	Negligible
	54	43	40	0.93	3	3	1	3	Above	Negligible
	55	1	0	0	1	0	0	1	Above	Negligible
	56	58	53	0.91	3	3	1	5	Above	Negligible
	57	55	50	0.91	4	3	0.75	5	Below	Low
	58	56	52	0.93	3	3	1	4	Above	Negligible
	59	49	44	0.9	3	3	1	5	Above	Negligible
	60	54	49	0.91	3	2	0.67	5	Below	Medium
	61	3	2	0.67	3	2	0.67	1	Above	Negligible
	62	57	51	0.89	2	1	0.5	6	Below	High
	63	58	52	0.9	3	2	0.67	6	Below	Medium
	64	61	55	0.9	4	3	0.75	6	Below	Low

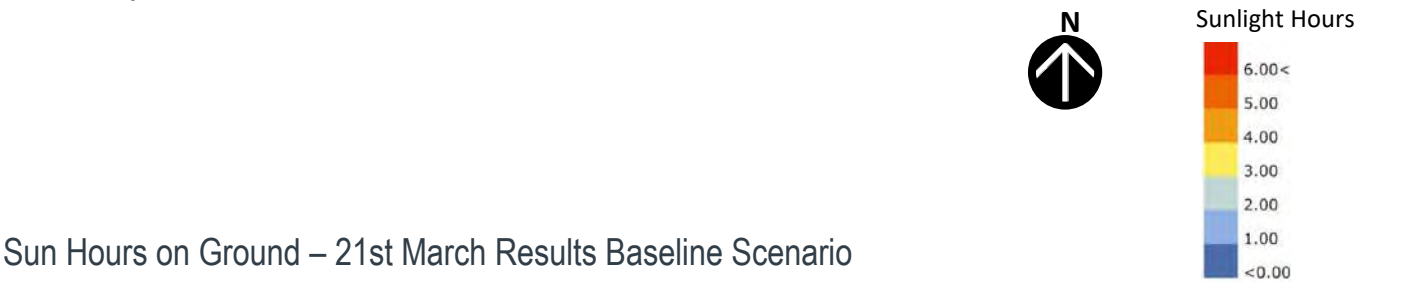
Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	65	52	48	0.92	1	0	0	4	Above	Negligible
	66	4	3	0.75	4	3	0.75	1	Above	Negligible
	67	49	46	0.94	1	1	1	3	Above	Negligible
	68	50	46	0.92	2	1	0.5	4	Above	Negligible
	69	55	52	0.95	7	6	0.86	3	Above	Negligible
	70	10	8	0.8	10	8	0.8	2	Above	Negligible
	71	66	59	0.89	9	6	0.67	7	Above	Negligible
	72	10	7	0.7	10	7	0.7	3	Above	Negligible
	73	8	5	0.62	8	5	0.62	3	Above	Negligible
	74	58	50	0.86	11	7	0.64	8	Above	Negligible
	75	65	57	0.88	11	6	0.55	8	Above	Negligible
	76	67	62	0.93	11	9	0.82	5	Above	Negligible
	77	67	59	0.88	10	6	0.6	8	Above	Negligible
	78	68	62	0.91	11	9	0.82	6	Above	Negligible
	79	64	58	0.91	9	6	0.67	6	Above	Negligible
	80	60	55	0.92	9	7	0.78	5	Above	Negligible
	81	66	60	0.91	10	7	0.7	6	Above	Negligible
	82	66	59	0.89	10	6	0.6	7	Above	Negligible
	83	65	59	0.91	9	6	0.67	6	Above	Negligible
	84	55	46	0.84	15	8	0.53	9	Above	Negligible
	85	71	63	0.89	15	10	0.67	8	Above	Negligible
	86	72	66	0.92	16	13	0.81	6	Above	Negligible
	87	70	60	0.86	17	10	0.59	10	Above	Negligible
	88	58	47	0.81	14	7	0.5	11	Above	Negligible
	89	71	59	0.83	17	8	0.47	12	Above	Negligible
	90	72	60	0.83	17	8	0.47	12	Above	Negligible
	91	71	64	0.9	15	11	0.73	7	Above	Negligible
	92	68	61	0.9	14	10	0.71	7	Above	Negligible
	93	66	60	0.91	12	8	0.67	6	Above	Negligible
	94	73	67	0.92	17	14	0.82	6	Above	Negligible
	95	71	63	0.89	15	11	0.73	8	Above	Negligible
	96	72	66	0.92	16	13	0.81	6	Above	Negligible
	97	72	65	0.9	16	12	0.75	7	Above	Negligible
	98	72	63	0.88	15	10	0.67	9	Above	Negligible
L - Sharp Street	0	8	8	1	5	5	1	0	Above	Negligible
	1	28	21	0.75	5	3	0.6	7	Below	Medium
	2	28	23	0.82	2	0	0	5	Below	High
	3	31	28	0.9	1	0	0	3	Above	Negligible
	4	11	11	1	6	6	1	0	Above	Negligible
	5	41	37	0.9	3	2	0.67	4	Above	Negligible
	6	34	27	0.79	7	5	0.71	7	Above	Negligible
	7	35	29	0.83	3	1	0.33	6	Below	High
	8	14	14	1	7	7	1	0	Above	Negligible
	9	51	46	0.9	4	3	0.75	5	Below	Low
	10	44	37	0.84	10	8	0.8	7	Above	Negligible
	11	44	38	0.86	5	2	0.4	6	Below	High
	12	45	38	0.84	10	7	0.7	7	Above	Negligible
	13	61	56	0.92	5	3	0.6	5	Below	Medium
	14	68	63	0.93	9	6	0.67	5	Above	Negligible
	15	70	65	0.93	11	9	0.82	5	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
M - Courtyard buildings	0	34	30	0.88	6	6	1	4	Above	Negligible
	1	32	28	0.88	6	6	1	4	Above	Negligible
	2	31	27	0.87	6	6	1	4	Above	Negligible
	3	28	24	0.86	6	6	1	4	Above	Negligible
	4	19	18	0.95	6	6	1	1	Above	Negligible
	5	25	21	0.84	6	6	1	4	Above	Negligible
	6	22	20	0.91	6	6	1	2	Above	Negligible
	7	19	19	1	7	7	1	0	Above	Negligible
	8	19	18	0.95	7	7	1	1	Above	Negligible
	9	20	20	1	7	7	1	0	Above	Negligible
	10	32	28	0.88	6	6	1	4	Above	Negligible
	11	36	32	0.89	6	6	1	4	Above	Negligible
	12	34	30	0.88	6	6	1	4	Above	Negligible
	13	22	20	0.91	6	6	1	2	Above	Negligible
	14	32	27	0.84	6	6	1	5	Above	Negligible
	15	27	22	0.81	6	6	1	5	Above	Negligible
	16	30	25	0.83	6	6	1	5	Above	Negligible
	17	21	21	1	7	7	1	0	Above	Negligible
	18	22	20	0.91	7	7	1	2	Above	Negligible
	19	21	21	1	7	7	1	0	Above	Negligible
	20	36	32	0.89	6	6	1	4	Above	Negligible
	21	33	29	0.88	7	7	1	4	Above	Negligible
	22	37	33	0.89	6	6	1	4	Above	Negligible
	23	27	24	0.89	6	6	1	3	Above	Negligible
	24	32	26	0.81	6	6	1	6	Above	Negligible
	25	33	27	0.82	6	6	1	6	Above	Negligible
	26	36	30	0.83	6	6	1	6	Above	Negligible
	27	26	24	0.92	7	7	1	2	Above	Negligible
	28	27	24	0.89	7	7	1	3	Above	Negligible
	29	23	23	1	7	7	1	0	Above	Negligible
	30	36	32	0.89	8	8	1	4	Above	Negligible
	31	39	35	0.9	7	7	1	4	Above	Negligible
	32	38	34	0.89	7	7	1	4	Above	Negligible
	33	32	29	0.91	6	6	1	3	Above	Negligible
	34	36	31	0.86	6	6	1	5	Above	Negligible
	35	38	32	0.84	6	6	1	6	Above	Negligible
	36	37	32	0.86	6	6	1	5	Above	Negligible
	37	31	28	0.9	7	7	1	3	Above	Negligible
	38	31	28	0.9	8	8	1	3	Above	Negligible
	39	27	27	1	9	9	1	0	Above	Negligible
	40	42	39	0.93	9	9	1	3	Above	Negligible
	41	43	39	0.91	9	9	1	4	Above	Negligible
	42	41	38	0.93	8	8	1	3	Above	Negligible
	43	43	36	0.84	7	7	1	7	Above	Negligible
	44	42	35	0.83	7	7	1	7	Above	Negligible
	45	42	37	0.88	7	7	1	5	Above	Negligible
	46	41	35	0.85	7	7	1	6	Above	Negligible
	47	38	34	0.89	8	8	1	4	Above	Negligible
	48	40	36	0.9	9	9	1	4	Above	Negligible
	49	32	32	1	9	9	1	0	Above	Negligible

Receptor	Windows No.	APSH Baseline (%)	APSH Proposed (%)	APSH Ratio of Impact	WPSH Baseline (%)	WPSH Proposed (%)	WPSH Ratio of Impact	Absolute Reduction (%)	Magnitude of Change	BRE Criteria
	50	45	41	0.91	9	9	1	4	Above	Negligible
	51	44	40	0.91	8	8	1	4	Above	Negligible
	52	45	41	0.91	9	9	1	4	Above	Negligible
	53	45	38	0.84	8	8	1	7	Above	Negligible
	54	46	39	0.85	9	9	1	7	Above	Negligible
	55	46	38	0.83	9	9	1	8	Above	Negligible
	56	45	40	0.89	9	9	1	5	Above	Negligible
	57	45	40	0.89	9	9	1	5	Above	Negligible
	58	43	39	0.91	9	9	1	4	Above	Negligible
	59	41	39	0.95	10	10	1	2	Above	Negligible
N- 11 Dyche st.	0	42	38	0.9	11	11	1	4	Above	Negligible
	1	47	43	0.91	15	15	1	4	Above	Negligible
	2	47	43	0.91	14	14	1	4	Above	Negligible
	3	42	37	0.88	9	9	1	5	Above	Negligible
	4	43	37	0.86	10	10	1	6	Above	Negligible
	5	47	43	0.91	12	12	1	4	Above	Negligible
	6	51	47	0.92	15	15	1	4	Above	Negligible
	7	51	47	0.92	15	15	1	4	Above	Negligible
	8	45	40	0.89	10	10	1	5	Above	Negligible
	9	46	40	0.87	11	11	1	6	Above	Negligible

7.5 DETAILED OVERSHADOWING ASSESSMENT RESULTS

External Overshadowing Graphical Results (Surrounding Amenity Areas)



Sun Hours on Ground – 21st March Results Proposed Scenario





-  Areas receiving less than 2h of Sunlight on 21st of March
-  Areas receiving at least 2h of Sunlight on 21st of March

Sun Exposure – BRE Results Baseline Scenario



Sun Exposure – BRE Results Proposed Scenario



8.1 CLIMATE CHANGE RESILIENCE RISK ASSESSMENT

APPENDIX 8.1: CLIMATE CHANGE RESILIENCE RISK ASSESSMENT

1.1 INTRODUCTION

- 1.1.1
- Schedule 4, Clause 5(f) of the Town and Country Planning (EIA) Regulations 2017 notes information should be included in the ES on the likely significant effects of the development on the environment resulting from the vulnerability of the project to climate change.
- 1.1.2
- In line with the IEMA EIA Guide to Climate Change Resilience and Adaptation (IEMA, 2020), there are two key strands to assessing climate change resilience and adaptation issues within EIA, as outlined below:
 - The risks of changes in the climate to the project (i.e. the resilience or conversely the vulnerability of a project to future climate changes). The IEMA (2020) guidance states that this is generally best reported in the analysis of alternatives and it is better suited to a risk assessment type process than traditional EIA 'determination of significance. This climate change resilience risk assessment has therefore been completed for the proposed development and appended to the Environmental Statement; and
 - The extent to which climate exacerbates or ameliorates the effects of the project on the environment (i.e. 'in-combination' effects). The IEMA (2020) guidance states that this is best analysed in the existing chapters of the ES and is suited to using traditional significance criteria from the respective chapters. Therefore, this has been included throughout each of the technical chapters and has been completed by each technical specialist.

1.2 METHODOLOGY AND ASSESSMENT CRITERIA

Risk assessment

- 1.2.1
- This climate change resilience risk assessment has been undertaken in line with the IEMA Resilience & Adaptation Guidance. The methodology has also been informed by other guidance documents referenced in the IEMA Resilience & Adaptation Guidance, including the C40 Cities Climate Change Risk Assessment Guidance (2018), the Public Infrastructure Engineering Vulnerability Committee (PIEVC) Climate Risk Assessment Methodology (2015), and the Highways England Design Manual for Roads and Bridges Sustainability & Environmental Appraisal. Risks have been assessed based on both the probability of the event occurring and the severity of the consequences of the event, should it occur. The assessment is based on climate change projection data from UKCP18, as well as information provided in other submitted reports, including the Flood Risk Assessment (FRA). The list of climate hazards that has been considered has been adapted from the C40 Cities Climate Change Risk Assessment Guidance (2018).

Probability

- 1.2.2
- Table 1 summarises the criteria that have been used to determine the likelihood rating for an effect, adapted from Appendix 1 of the IEMA 2020 guidance. The project lifetime includes both the construction and operational stages. In line with the principles set out in BS EN 15978, a Reference Study Period (RSP) of 60 years after opening (the opening year) has been used.

Table 1 Criteria used to determine likelihood

Score	Description (probability and frequency of occurrence)
1	The event occurs very rarely during the lifetime of the projects (60 years). For example, once every 60 years (1 event).

Score	Description (probability and frequency of occurrence)
2	The event occurs limited number of times during the lifetime of the project (60 years). For example, once every 25 years (2-3 events).
3	The event occurs regularly during the lifetime of the project (60 years) For example, once every 2-5 years (12-30 events).
4	The event occurs frequently during lifetime of the project (60 years). For example, once per year (60 events).
5	The event occurs very frequently during the lifetime of the project (60 years). For example, multiple times per year (more than 60 events).

Consequence

- 1.2.3
- Table 2 summarises the criteria used to determine the consequence rating for effects relating to a climate risk. Consequence has been determined based on the extent to which the climate risk may impact on the amenity value and function of the proposed development. The amenity value is the positive element or elements that contribute to the overall character or enjoyment of the proposed development. The function is the extent to which the proposed development meets the purpose or purposes that it is designed to fulfil (i.e. a place for residents to live).

Table 2 Criteria used to determine consequence

Score	Description
1	Very low but measurable effect on site users and the proposed development itself. Slight negative change in amenity value of the proposed development and slight negative change in function.
2	Low but measurable effect on site users and the proposed development itself. Low negative change in amenity value of the proposed development and slight negative change in function.
3	Moderate effect on site users and the proposed development itself. Moderate negative change in amenity value of the proposed development and slight negative change in function.
4	Moderate effect on site users and the proposed development itself. Major negative change in amenity value of the proposed development and low negative change in function.
5	Moderate effect on site users and the proposed development itself. Major negative change in amenity value of the proposed development and moderate negative change in function.
6	Major effect on site users and the proposed development itself. Major negative change in amenity value of the proposed development and major negative change in function.
7	Extreme effect on site users and the proposed development itself. Loss of asset.

Risk rating

- 1.2.4
- Table 3 summarises the matrix used to determine the risk rating, based on probability of the event occurring and the consequences as a result of the event occurring.

Table 3 Risk rating determined based on the likelihood and consequence scores

Consequence	Probability					
		1	2	3	4	5
	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	18
	5	5	10	15	20	25
	6	6	12	18	24	30
	7	7	14	21	28	35

	Low risk
--	----------

	Medium risk
	High risk

Limitations and assumptions

- 1.3
- The main uncertainty regarding the climate change resilience assessment surrounds the climate change projections that the scheme is assessed against. Climate change projections (e.g., UKCP18) are presented using a set of scenarios that capture the relationships between human choices, emissions, concentrations and temperature change. The UKCP18 climate change projections have been selected, as they are UK specific, and relatively conservative. Some scenarios are consistent with continued dependence on fossil fuels, while others are associated with deliberate actions to reduce GHG emissions. Therefore, these climate change projections contain inherent uncertainty, reflecting the uncertainty associated with quantifying human activities (including technological change) and their influence on climate.

1.4 LEGISLATION AND POLICY

International legislation and policy

Paris Agreement 2015

- 1.4.1
- Negotiations at the Conference of the Parties (COP) 21 led to the 2015 Paris Agreement, the aim of which is to maintain the increase in global average temperature at 'well below' 2oC and 'pursue efforts' to limit the temperature increase even further to 1.5oC.
- 1.4.2
- A total of 160 parties, including the UK, made voluntary pledges to reduce emissions by 2030, however the cumulative effect of these would still lead to an estimated 3oC of warming or greater.

The Special Report on Global Warming of 1.5oC, International Panel on Climate Change (IPCC) 2018

- 1.4.3
- The IPCC published a special report in response to the Paris Agreement, to present the impacts of the targeted 1.5oC temperature rise. The report highlighted that to achieve this, global emissions must decrease by 45% by 2030 (against a 1990 baseline), and that net zero global emissions (where emissions and removals from the atmosphere are balanced) must be achieved by 2050. This is noted to require rapid and far-reaching transitions of every sector on an unprecedented scale.

National legislation and policy

National Planning Policy Framework (NPPF) (MHCLG), 2023

- 1.4.4
- Section 14 of the NPPF 2021 focuses on meeting the challenge of climate change, flooding and coastal change. As part of this, new developments should be planned in ways that:

'Avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure.'

UK Climate Change Act 2008 (2050 Target Amendment) (Order 2019)

- 1.4.5
- Section 56 requires the UK Government to undertake a Climate Change Risk Assessment (CCRA) on a five-yearly cycle, with the subsequent development of an adaption programme to deliver resilience against these risks. The Act stipulates that the Government must assess 'the risks for the United Kingdom from the current and predicted impacts of climate change'.

UK Climate Change Risk Assessment (HM Government, 2022)

- 1.4.6
- The third and most recent UK-wide CCRA was published in 2022. The assessment outlines risks in the eight priority risk areas relating to the following topics:
 - Risks to the viability and diversity of terrestrial and freshwater habitats and species from multiple hazards (Priority Risk Area 1);
 - Risks to soil health from increased flooding and drought (Priority Risk Area 2);
 - Risks to natural carbon stores and sequestration from multiple hazards, leading to increased emissions (Priority Risk Area 3);
 - Risks to crops, livestock and commercial trees from multiple climate hazards (Priority Risk Area 4);
 - Risks to supply of food, goods and vital services due to climate-related collapse of supply chains and distribution networks (Priority Risk Area 5);
 - Risks to people and the economy from climate-related failure of the power system (Priority Risk Area 6);
 - Risks to human health, wellbeing and productivity form increased exposure to heat in homes and other buildings (Priority Risk Area 7);
 - Multiple risks to the UK from climate change overseas (Priority Risk Area 8); and
 - Additional More Action Needed Risks.

The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting (Defra, 2018)

- 1.4.7
- The second and most recent National Adaptation Programme sets out government's response to the second CCRA, showing the actions government is, and will be, taking to address the risks and opportunities posed by a changing climate. This breaks down the likely risks associated with climate change into the same six categories as those set out in the CCRA, which is outlined above.

Regional and local policy

Places for Everyone Joint Development Plan Documents for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan 2022 to 2039

- 1.4.8
- Development will consider sustainability at the forefront of its design, making use of previously-developed (brownfield) land and vacant buildings to meet development needs.
- 1.4.9
- When considering a whole life approach for any new building, embodied emissions from construction can account for up to half of the carbon impacts associated with its lifecycle. In addition, other emissions can be attributed to the end-of-life stages such as demolition, repair or refurbishment.

Objective 8: Improve the quality of our natural environment and access to green spaces.

1.4.10 Objective 8 includes an aim to: *'enhance special landscapes, green infrastructure, biodiversity and geodiversity; improve access to the natural environment and green spaces including parks; promote the role of green space in climate resilience and reducing flood risk. '*

Policy JP-G2: Green Infrastructure

1.4.11 There is a clear strategic directive towards the enhancement and protection of green infrastructure and its contribution to the development of a Local Nature Recovery Strategy for Greater Manchester.

- 1.4.12 Any development that involves the removal of land from the Green Belt will need to offset the impact and delivery compensatory improvements.
- 1.4.13 Where possible, new green infrastructure should be integrated into development design and the developer should make appropriate provision for its long-term management and maintenance.
- Policy JP-P1: Sustainable Places
- 1.4.14 The city region aims to be visually stimulating, socially inclusive and distinctive in design and cultural preservation.
- 1.4.15 It also aims to be resilient in its perception of environmental hazards, adaptable, durable and resource efficient, ensuring low-carbon footprint and an efficient use of land.
- 1.4.16 Design should also be functional and convenient, safe and supported by inclusive design that tackles socioeconomic inequalities. It should also be well-connected, comfortable and incorporate well-managed green infrastructure.
- Policy JP-G3: River Valleys and Waterways
- 1.4.17 They will form a central part of the protection and improvement of green infrastructure as contributing to the Nature Recovery Network.
- 1.4.18 Some of the key considerations to river valleys and waterways are to: retain the open character; promote enjoyment of the features of valleys such as access to the countryside; protect the semi-natural habitats and their unique features such as ancient woodland; preserve areas of relative tranquillity and seclusion; reduce flood risk management through Natural Flood Management (NFM); improve water quality such as through land decontamination; enhance the re-naturalisation of riverbanks and flood plains; increase active access to green space through promotion of canals and watercourses for walking and cycling; and ensure the development relates positively to nearby rivers and other waterways.

Manchester’s Local Development Framework. Core Strategy Development Plan 2012 to 2027 (MCC, 2012)

- 1.4.19 The Council will require all development to make sustainable use of resources, and adapt to climate change. This will be achieved by:
- *‘Considering new developments in the transformation towards retrofitting of renewable energy sources and low or zero carbon infrastructure to existing building stock;*
 - *Following the principles of an energy hierarchy by recognising the carbon embedded at every stage of activity and resources. Therefore, consider the total carbon footprint of new and refurbished buildings;*
 - *Encouraging developers to use green infrastructure design facets such as green roofs, green walls, waterways and street trees to contribute to energy compliance with CO2 mitigation;*
 - *Minimising flood risk by considering the appropriate siting, drainage and treatment of surface areas to ensure rainwater permeability;*
 - *The potential to enhance green space zones to assist in the production of natural habitats which will provide species adaptation.’*

Manchester City Council Climate Change Action Plan 2020-2025

- 1.4.20 The Manchester City Council (MCC) Climate Change Action Plan sets out MCC’s commitments to tackling climate change from 2020-2025 and builds on previous plans over the last decade.

- 1.4.21 The purpose of the plan is as follows:
- *“The document sets out MCC’s commitments to tackling climate change over the next 5 years and builds on previous action plans over the last decade.*
 - *It covers MCC’s plans for adapting to the expected impacts of climate change and supporting and influencing others, including through the implementation of the Manchester Green and Blue Infrastructure strategy 2015-2025”*
- 1.4.22 Recommended targets and objectives of the plan are as follows:
- *“To adapt the city’s buildings, infrastructure and natural environment to the changing climate and to increase the climate resilience of our residents and organizations.*
 - *To improve the health and wellbeing of everyone in Manchester through actions that also contribute to our objective for CO2 reduction and adaptation and resilience, with particular focus on those most in need.*
 - *To ensure that Manchester establishes an inclusive, zero carbon and climate resilient economy where every can benefit from playing an active role in decarbonizing and adapting the city to the changing climate”*
 - *“We recognise that limiting CO2 emissions is not enough. Depending on how successful the world is at reducing emissions, global temperatures by 2100 are likely to rise by between 1.5°C and 4°C above pre-industrial levels. As such, we need to accept that some level of change is inevitable. Climate change is happening now and we need to assess the risks to our communities in order to reduce their vulnerability to these changes. Adopting appropriate mitigation measures will be essential if we are to create resilient communities of the future in Manchester.”*
- 1.4.23 The plan states the following in relation to adaptation to climate change:
- *Despite the increased international efforts to tackle climate change, we recognise that the world’s climate is already changing and that adaptation is required to protect the city’s people. We are committed to ensuring that climate change adaptation, including green and blue infrastructure, is included in new developments and across Council owned buildings and land.*
 - *Further work needs to be done at a local level through ward plans and neighbourhoods to adapt to make communities more resilient to climate change. This will form part of the Council’s work through Neighbourhoods Teams, Highways and also through the development of improved communication information and guidance.”*
- 1.4.24 The plan states the following in relation to citywide emissions:
- *“The Council also recognises the importance of supporting and influencing our residents and organisations to take action to reduce their direct and indirect CO2 emissions and to adapt to the changing climate.”*
- 1.4.25 It is stated that the following is included in the 2020-2025 Action Plan:
- *“This action plan details the activity that we will undertake over the next five years but also includes activities that will need to be developed and investigated further in order to ensure that we are on the right path to being zero carbon by 2038. The actions include activities to deliver a reduction in emissions from energy, transport and consumption (mitigation) but also adaptation and promoting investment in nature based solutions and green infrastructure.”*

Manchester Climate Change Framework 2020-2025

- 1.4.26
- The Manchester Climate Change Framework 2020-25 is the city’s high-level strategy for tackling climate change. It sets out how Manchester will ‘play its full part in limiting the impacts of climate change’, a commitment in the Our Manchester Strategy 2016-25.
- 1.4.27
- The framework sets the following objectives and targets:
 - ‘Staying within our carbon budgets – based on recommendations by the Tyndall Centre for Climate change Research in 2020
 - Climate adaptation and resilience
 - Health and wellbeing
 - Inclusive, zero carbon and climate resilient economy’
- 1.4.28
- The frameworks sets the following areas for action to meet the objectives and targets:
- 1.4.29
- ‘Buildings (existing and new)
- 1.4.30
- Green infrastructure and nature-based solutions’

Manchester Green and Blue Infrastructure Strategy 2015-2025

- 1.4.31
- The council aims to enhance and protect the recreational spaces of health and greenery such as gardens, golf courses and pond, placing emphasis on their incredible value and functionality.
- 1.4.32
- The city has developed a long-term vision that integrates the extent and value of the city’s green and blue infrastructure.
 - Investment in river valleys and canals to restore biodiversity value and flood resilience;
 - Embed green infrastructure as part of residential and city centre developments; and
 - Smaller scale green infrastructure in Central Manchester such as tree planting and community greening have the potential for increasing an areas climate resilience.
- 1.4.33
- The strategic plan acknowledges the challenges of COVID-19 and increase in extreme weather events, aiming to combat them through progressive resilience by protecting the climate functionality of existing spaces.

Climate Emergency Declaration

Manchester City Council Climate Emergency Declaration (2019)

- 1.4.34
- Manchester City Council declared a Climate Emergency on 10th July 2019. The council meeting minutes read as follows:

‘This Council notes:

 - The serious risks to Manchester’s people, of climate change/global heating affecting economic, social and environmental well-being, supply chains – including food security, financial systems and local weather, among many others
 - That in 2008 the ‘Principles of Tackling Climate Change in Manchester’ were agreed as a call to action to engage people from all walks of life in climate change action and, build support for a new way of thinking about climate change.

- That Manchester leads the way, with an agreed Paris compliant carbon budget set in December 2018 and an acceleration of the target for becoming a zero-carbon city by 12 years, setting 2038 as the new target for the city, based on research from the world-renowned Tyndall Centre for Climate Change.
- The recent and welcome upsurge of action by the young people of Manchester, exemplifying the radical traditions of which Manchester is proud.’

- 1.4.35
- This Council agrees (or to the extent that the below concern executive functions, recommends to the Executive) to:

Declare a Climate Emergency.

- ‘Continue working with partners across Manchester and GMCA to deliver the 2038 target, and determine if an earlier target can be possible, through a transparent and open review. Become carbon neutral by the earliest possible date.
- Encourage involvement in all wards by April 2020 through meetings as part of the Our Manchester strategy, to identify residents and partners who want to be actively involved in achieving the target, with provision for those who cannot attend. Ensure ward plans contain specific, measurable, achievable steps.
- Review all policies, processes and procedures to ensure the council can become carbon neutral. Present an action plan by March 2020 detailing how the city can stay within its carbon budget. Report back regularly to the NESC. Review the corporate plan.
- Work with the Tyndall Centre to review the actual emissions from aviation. Investigate the best way to include aviation in our overall carbon reduction programme in the long term.
- Make climate breakdown and the environment, an integral part of activity throughout the Council, including all decision making, ensuring key decisions take into account the impact on achieving the zero-carbon target and including an environmental impact assessment in all relevant committee reports.
- Ensure that everyone in the council receives carbon literacy training by the end of 2020. Make attendance easier by varying times and length of sessions.
- Encourage all staff on council business to use the lowest carbon, appropriate, travel. Investigate measures to ensure future procurement is carbon neutral. Increase the percentage of social value with an additional environmental element.
- Work with suppliers to green their supply chains, and support local production.
- Work with training providers to ensure Manchester residents can take on green jobs.
- Investigate and introduce measures to help reach domestic zero carbon levels including addressing fuel poverty and retrofitting existing homes.
- Investigate ways to ensure that future local plans place a mandatory requirement for all new development to be net zero carbon by the earliest possible date.
- Push GMCA to decarbonise public transport, heat and energy as early as possible.
- Through our role on GMPF, encourage divestment in fossil fuels as early as possible.
- Call on the government to:
 - provide powers and resources to make the zero-carbon target possible including funding for big capital projects

- accelerate the reduction of carbon emissions from aviation
- accelerate the decarbonisation of the electricity grid, funding low carbon energy generation
- ensure that the UK prosperity fund focuses on enable the transition to a low carbon economy.'

Guidance documents

IEMA EIA Guide to: Climate Change Resilience and Adaptation (IEMA, 2020)

- 1.4.36 This document acts as a revision to the IEMA guidance on Climate Resilience and Adaptation in EIA (2015) and reflects lessons learnt from emerging practice. It provides a framework for the effective consideration of climate change resilience and adaptation in the EIA process.

ISO 14090:2019 Adaptation to Climate Change – Principles, Requirements and Guidelines (BSI, 2019)

- 1.4.37 The main purpose of this standard is to provide organisations and projects with a consistent, structured and pragmatic approach to prevent or minimise the harm that climate change could cause and also to take advantage of opportunities.

C40 Cities Climate Change Risk Assessment Guidance (C40 Cities, 2017)

- 1.4.38 This document aims to provide a concise, easy-to-read guidance, to help cities to develop a climate risk assessment report. It provides the methodology and components of the assessment, as well as providing a comprehensive list of possible effects relating to climate change.

1.5 CURRENT & FUTURE BASELINE CONDITIONS

Current Baseline Conditions

- 1.6 Table 4 provides a summary of the current baseline climatic conditions, taken from the closest weather station, Rochdale (Manchester) weather station, to the north-east of the proposed development. The data provides historic average climatic conditions for 1991-2020, which is assumed to be representative of the baseline year of the assessment (i.e. 2024). The monthly mean minimum/maximum temperatures are calculated from the average of the daily maximum and daily minimum temperatures for each month. The warmest month on average was July and the coolest month on average was January. The wettest month on average was December and the driest month on average was May. The sunniest month on average was May and the least sunny month on average was January.

Table 4 Summary of historic average climatic conditions for 1981-2010 taken from the Rochdale Met Office monitoring station.

Month	Mean daily maximum temperature (degrees C)	Mean daily minimum temperature (degrees C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)
January	6.93	1.50	10.16	32.16	119.19
February	7.45	1.41	9.32	49.83	97.11
March	9.57	2.51	6.06	98.86	89.91
April	12.47	4.55	2.33	152.72	68.36
May	15.6	7.19	0.28	175.45	65.67
June	18.24	10.13	0	152.85	82.87
July	20.01	11.94	0	170.77	96.90
August	19.55	11.77	0	153.52	100.02

Month	Mean daily maximum temperature (degrees C)	Mean daily minimum temperature (degrees C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)
September	17.11	9.55	0	116.33	97.80
October	13.39	6.85	1.07	78.66	116.78
November	9.70	3.86	5.05	41.64	123.53

Climate Change Projections

- 1.6.1 The UK Climate Projections 2018 (UKCP18) (Met Office, 2018) provide the most up-to-date assessment of how the climate of the UK may change over the 21st century. UKCP18 uses Representative Concentration Pathways (RCPs). These are named according to the concentration of greenhouse gas modelled to occur in the atmosphere in 2100. There are four RCPs available in the UKCP18 climate projections: RCP 2.6, RCP 4.5, RCP 6.0 and RCP 8.5. In line with the IEMA (2020) guidance, RCP 8.5 has been used, which represents the most conservative, highest-impact scenario. Table 6 summarises the projected summer and winter mean temperature and precipitation changes up to the 2090s for RCP 8.5.

Table 5 UKCP18 data for the north west England under RCP 8.5

Season	Variable	Time Period	Projected Change At		
			10 th percentile	50 th percentile	90 th percentile
Winter	Mean temperature (°C)	2020 - 2039	-1 to 0	0 to 1	1 to 2
		2040 - 2059	0 to 1	1 to 2	2 to 3
		2060 - 2079	0 to 1	2 to 3	3 to 4
		2080 – 2099	1 to 2	3 to 4	5 to 6
	Mean precipitation change (%)	2020 - 2039	-10 to 0	0 to 10	20 to 30
		2040 - 2059	-10 to 0	10 to 20	20 to 30
		2060 - 2079	-10 to 0	10 to 20	30 to 40
		2080 – 2099	0 to 10	20 to 30	60+
	Mean daily maximum temp change compared to 1981-2000	2020 - 2039	-1 to 0	0 to 1	1 to 2
		2040 - 2059	0 to 1	1 to 2	2 to 3
		2060 - 2079	0 to 1	2 to 3	3 to 4
		2080 – 2099	1 to 2	3 to 4	5 to 6
	Mean daily minimum temp change compared to 1981-2000	2020 - 2039	-1 to 0	0 to 1	1 to 2
		2040 - 2059	0 to 1	1 to 2	2 to 3
		2060 - 2079	0 to 1	2 to 3	4 to 5
		2080 – 2099	1 to 2	3 to 4	5 to 6
Summer	Mean temperature (°C)	2020 - 2039	0 to 1	1 to 2	1 to 2
		2040 - 2059	0 to 1	1 to 2	3 to 4
		2060 - 2079	1 to 2	3 to 4	5 to 6
		2080 – 2099	2 to 3	4 to 5	8+
	Mean precipitation change (%)	2020 - 2039	-30 to -20	-10 to 0	10 to 20
		2040 - 2059	-40 to -30	-20 to -10	0 to 10
		2060 - 2079	-50 to -40	-30 to -20	0 to 10
		2080 – 2099	-60 to -50	-40 to -30	-10 to 0
	Mean daily maximum temp change compared to 1981-2000	2020 - 2039	-1 to 0	1 to 2	3 to 4
		2040 - 2059	0 to 1	2 to 3	3 to 4
		2060 - 2079	1 to 2	3 to 4	5 to 6
		2080 – 2099	2 to 3	5 to 6	8+
	Mean daily minimum temp change compared to 1981-2000	2020 - 2039	0 to 1	0 to 1	1 to 2
		2040 - 2059	0 to 1	1 to 2	2 to 3
		2060 - 2079	1 to 2	2 to 3	4 to 5
		2080 – 2099	2 to 3	4 to 5	6 to7

1.6.2 According to UKCP18 data, over land the projected general trends of climate changes in the 21st century are similar to UKCP09, with a move towards warmer, wetter winters and hotter, drier summers. However, natural variations mean that some cold winters, some dry winters, some cool summers and some wet summers will still occur.

Temperature

1.6.3 UKCP18 projections show that there is more warming in the summer than in the winter.

Precipitation

1.6.4 Rainfall patterns across the UK are not uniform and vary on seasonal and regional scales and will continue to vary in the future. While UKCP18 projections show a clear shift to higher probability levels of dry summers, they also suggest that the likelihood of individual wet summers reduces only slightly. The risk of heavy rainfall events is likely to increase.

Sea level rise

1.6.5 According to UKCP18 projections, global sea level has risen over the 20th century and will continue to rise over the coming centuries. The amount of sea level rise depends on the location around the UK and increases with higher emissions scenarios. Sea level rise over the coming centuries may affect tidal characteristics substantially (including tidal range).

Snow

1.6.6 According to UKCP18 projections, for the period 2061-2080, under a high emissions scenario (RCP8.5), the regional (12km) and local (2.2km) projections show a decrease in both falling and lying snow across the UK relative to the 1981-2000 baseline.

Wind

1.6.7 There are no compelling trends in storminess, as determined by maximum gust speeds, from the UK wind network over the last four decades. UKCP18 projections over the UK show an increase in near surface wind speeds over the UK for the second half of the 21st century for the winter season when more significant effects of wind are experienced. This is accompanied by an increase in frequency of winter storms over the UK. However, the increase in wind speeds is modest compared to interannual variability.

1.6.8 Winds associated with major storm events can be some of the most damaging and disruptive events for the UK with implications for property, power networks, road and rail transport and aviation.

1.7 IDENTIFICATION AND EVALUATION OF RISKS WITH CLIMATE CHANGE

1.7.1 Table 6 provides a List of potential risks, as adapted from the C40 Cities Climate Change Risk Assessment Guidance (C40 Cities, 2017). A summary is provided of how the identified climate risks are likely to change in the future as a result of climate change. Probability and consequence ratings have been given to these risks, thereby generating a risk rating based on Table 3. The probability and consequence ratings have been considered prior to the implantation of mitigation measures.

Table 6 Climate change risks

Climate Hazard	Description	Is it relevant to the proposed development	Likely consequences of climate risk occurring	Change in probability as a result of climate change	Probability rating (1-5)	Consequence rating (1-7)	Risk rating	Mitigation needed?
Rainstorm	Strong wind and heavy rain	Yes – rainstorms happen frequently in the UK and are likely to impact the proposed development	Damage and degradation of building materials through wetting and impact from rainfall. Discomfort for users of the proposed development.	The frequency of precipitation is likely to decrease, particularly in the summer. However, the risk of heavy rainfall events is likely to increase.	5 Rainstorms will occur very frequently during the lifetime of the proposed development	1 Very low but measurable effect on site users and the proposed development. Damage and degradation of building materials through rainfall impacts.	5	No
Monsoon	'A persistent seasonal wind, often responsible for seasonal precipitation regime.' (National Weather Service, 2023)	No – Monsoons do not occur in the UK, and therefore do not present a climatic risk to the proposed development.	N/A	N/A	N/A	N/A	N/A	N/A
Heavy snow	'Large snowflakes that greatly reduce the visibility and falls at a rate exceeding 4cm per hour.' (Wild, 2023)	Yes – Heavy snow can occur during winters in the UK and therefore has the potential to impact the proposed development.	Damage to building materials (e.g. roofs). Discomfort and potential injury to users of the proposed development.	The frequency of heavy snow events is likely to decrease.	2 Heavy snow is likely to occur a limited number of times during the lifetime of the proposed development	2 Low but measurable effect on site users and the proposed development. Damage to building materials and potential injury to users.	4	No
Fog	'Water droplets which are suspended in the air near the Earth's surface and causing reduced visibilities.' (National Weather Service, 2023)	Yes – Fog occurs under certain climatic conditions in the UK, and therefore has the potential to impact the proposed development.	Increased risk of accidents as a result of impaired vision.	It is unknown how climate change will affect the frequency of fog.	5 Fog will occur very frequently during the lifetime of the proposed development	1 Very low but measurable effect on site users and the proposed development. Increased risk of accidents around the proposed development.	5	No
Hail	'Precipitation of small balls or other pieces of ice (hailstones) falling separately or frozen together in irregular lumps. (Typically associated with thunderstorms and surface temperatures above freezing).' (National Weather Service, 2023)	Yes – Hail occurs in the UK and therefore has the potential to impact the proposed development	Discomfort for users of the proposed development.	The frequency of hailstorms is likely to increase.	5 Hail will occur very frequently during the lifetime of the proposed development	1 Very low but measurable effect on site users and the proposed development. Discomfort for users of the proposed development.	5	No
Severe wind	Mean wind speed exceeding 23 m/s (Met Office, 2024a).	Yes – Severe wind occurs in the UK and therefore has the potential to impact the proposed development	Damage to building materials. Discomfort and potential injury to users of the proposed development, and immediate surroundings	The frequency of severe wind and storms is likely to remain similar.	4 Severe wind is likely to occur frequently during the lifetime of the proposed development.	2 Low but measurable effect on site users and the proposed development. Damage to building materials and potential injury to users.	8	Yes
Tornado	'A violent rotating column of air, usually forming a pendant from a cumulonimbus cloud with the circulation reaching the ground. It nearly always starts as a funnel cloud and may be accompanied by a loud roaring noise. On a local scale, it is the most destructive of all atmospheric phenomena' (National Weather Service, 2023)	No – Tornadoes are very rare in the UK. It is therefore very unlikely that they pose a climatic risk to the proposed development	N/A	N/A	N/A	N/A	N/A	N/A

Hurricane	'A severe tropical cyclone with wind speeds in excess of 74 mph (64 knots).' (National Weather Service, 2023)	No – Hurricanes cannot form at the latitudes of the UK, and therefore do not pose a climatic risk to the proposed development.	N/A	N/A	N/A	N/A	N/A	N/A
Extra tropical storm	'Deep depressions that were originally hurricanes which have moved to higher latitudes.' (Met Office, 2024b)	Yes – Extra tropical storms (such as ex-Hurricanes) can reach the UK, and therefore have the potential to impact on the proposed development.	Damage to building materials. Discomfort and potential injury to users of the proposed development and immediate surroundings	The frequency of severe wind and storms is likely to remain similar.	3 Extra tropical storms are likely to happen regularly during the lifetime of the proposed development	4 Moderate effect on site users and the proposed development. Damage to building materials and potential injury to users.	12	Yes
Tropical storm	'An organised cyclone in the tropics with wind speed between 35 and 64 knots.' (National Weather Service, 2023)	No – Tropical storms do not occur in the UK and therefore do not pose a climatic risk to the proposed development	N/A	N/A	N/A	N/A	N/A	N/A
Storm surge	'A change in sea level that is caused by a storm.' (Met Office, 2024c).	No – the proposed development is not located close to the coast, and is therefore not at risk of storm surge	N/A	N/A	N/A	N/A	N/A	N/A
Lightning	'Electrical discharge cause by imbalances between storm clouds and the ground, or within clouds themselves.' (National Geographic, 2024)	Yes – Lightening occurs during storms, and therefore has the potential to impact the proposed development	Potential damage to building materials. Injury to users of the proposed development unlikely but possible.	The frequency of lightning storms is likely to remain similar.	4 Lightening is likely to occur frequently during the lifetime of the proposed development.	1 Very low but measurable effect on site users and the proposed development Potential damage to building materials and injury to users.	4	No
Extreme winter conditions	'A combination of heavy snow, blowing snow and/or dangerous wind chills' (NOAA, 2024c)	Yes – Extreme winter conditions sometimes occur in the UK, and therefore have the potential to impact the proposed development	Damage to building materials (e.g. pipes bursting). Discomfort and potential injury to users of the proposed development.	The frequency of extreme winter conditions is likely to decrease.	4 Extreme winter conditions are likely to occur frequently during the lifetime of the proposed development.	3 Moderate effect on site users and the proposed development. This could include thermal discomfort, damage to building materials and potential injury to users.	12	Yes
Cold wave	'Average temperatures below 20C for 5 days' or 'average temperatures below 0oC for 48hrs or more.' (Met Office, 2023)	Yes – Cold waves happen during winter months, and therefore have the potential to impact the proposed development	Damage to building materials (e.g. pipes bursting). Discomfort and potential injury to users of the proposed development.	The frequency of cold waves is likely to decrease.	4 Cold waves are likely to occur frequently during the lifetime of the proposed development.	3 Moderate effect on site users and the proposed development. This could include thermal discomfort, damage to building materials and potential injury to users.	12	Yes
Extreme cold days	Average temperatures below 0oC (Met Office, 2023)	Yes – Extreme cold days occur during winter months, and therefore have the potential to impact the proposed development	Damage to building materials (e.g. pipes bursting). Discomfort and potential injury to users of the proposed development.	The frequency of extreme cold days is likely to decrease.	4 Extreme cold days are likely to occur frequently during the lifetime of the proposed development.	3 Moderate effect on site users and the proposed development. This could include thermal discomfort, damage to building materials and potential injury to users.	12	Yes
Heat waves	Three days 'of hot weather relative to the expected conditions of the area at that time of year, which may be accompanied by high humidity.' (Met Office, 2024d)	Yes – Heat waves occur increasingly frequently in the UK, and therefore have the potential to impact the proposed development	Damage and degradation to building materials. Extended period of overheating in building affects comfort and health of occupants.	The frequency of heat waves is likely to increase.	4 Heat waves are likely to occur frequently during the lifetime of the proposed development.	5	20	Yes

						Moderate effect on site users and the proposed development. This could include health impacts, particularly for children and elderly visitors. Damage to buildings and overheating causing discomfort to occupants.		
Extreme hot days	A day where temperatures exceed 30oC (Met Office, 2023)	Yes – Extreme hot days occur increasingly frequently in the UK, and therefore have the potential to impact the proposed development	Damage and degradation to building materials. Intense overheating in building affects comfort and health of occupants.	The frequency of extreme hot days is likely to increase.	4 Extreme hot days are likely to occur frequently during the lifetime of the proposed development.	4 Moderate effect on site users and the proposed development. This could include health impacts, particularly for children and elderly visitors. Damage to buildings and overheating causing discomfort to occupants.	16	Yes
Drought	'When rainfall in an area is below average for the region' or 'when water supplies such as streams and reservoirs are low, which is caused by low rainfall, lack of snowmelt, or other reasons' (Met Office, 2024e)	Yes – Drought occurs in the UK and therefore has the potential to impact the proposed development	eHealth of flora and fauna on the site affected.	The frequency of drought is likely to increase.	4 Drought is likely to occur frequently during the lifetime of the proposed development.	2 Low effect on site users and the proposed development. This is an inner city development with little exposure to drought-impacted vegetation or topography.	8	No
Wild fire	'Any uncontrolled vegetation fire which requires a decision, or action, regarding suppression' (Scottish Government, 2013)	Yes – Wild fires do occur in the UK, and therefore have the potential to impact the proposed development	Damage to buildings and contents. Potential injury to users of the proposed development.	The frequency of land fire is likely to remain similar.	1 Wild fires are likely to occur very rarely during the lifetime of the proposed development	6 Major effect on site users and the proposed development. Damage to buildings and contents. Potential injury to users.	6	No
Flash/surface flood	'A flood that occurs within a few hours (usually less than six) of heavy or excessive rainfall, dam or levee failure.' (National Weather Service, 2023)	Yes – flash/surface floods occur during periods of intense rainfall, there is the potential this could impact the proposed development	Damage to buildings and contents. Potential injury to users of the proposed development.	The frequency of flash/surface flooding is likely to increase.	1 Flooding in the Site is not anticipated, as ground slopes are sufficient to limit localised ponding and a SUDS strategy is also proposed. Flash/surface floods are likely to occur very rarely during the lifetime of the proposed development	6 Major effect on site users and the proposed development. Damage to buildings and contents. Potential injury to users.	6	No
River/tidal flood	'Where a rivers flow will exceed the bank sides and cause damage or obstruction to a nearby area.' (Flood Guidance, 2024)	Yes – river flooding can occur during intense periods of rainfall, and therefore has the potential to impact the proposed development	Damage to buildings and contents. Potential injury to users of the proposed development.	The frequency of river/tidal flooding is likely to increase.	1 The Site is located in Flood Zone 1. River floods are likely to occur a limited number of times during the lifetime of the proposed development	6 Major effect on site users and the proposed development. Damage to buildings and contents. Potential injury to users.	6	No
Groundwater flood	The level of groundwater rises above the ground level as a result of increased rain, causing flooding on the surface (Flood Guidance, 2024)	Yes – groundwater flooding does occur in the UK, and therefore has the potential to impact the proposed development	Damage to buildings and contents. Potential injury to users of the proposed development.	The frequency of groundwater flooding is likely to remain at a similar level.	1 A SUDS strategy is proposed. Groundwater floods are likely to occur very rarely during the lifetime of the proposed development	6 Major effect on site users and the proposed development. Damage to buildings and contents. Potential injury to users.	6	No

Permanent inundation	The increase of sea level over time to where an area is continuously covered by water (DELWP, 2021)	Yes – Permanent inundation could occur in the UK, and therefore has the potential to impact the proposed development	N/A	N/A	N/A	N/A	N/A	N/A
Salt water intrusion	When salt water (from the ocean) gets into fresh water coastal aquifers (USGS, 2024)	No – The proposed development is not close to the sea, and therefore salt water intrusion is unlikely to impact the proposed development	N/A	N/A	N/A	N/A	N/A	N/A
Ocean acidification	'A reduction in the pH of the ocean over an extended period of time, caused primarily by uptake of carbon dioxide (CO2) from the atmosphere. (NOAA, 2024)	No – the proposed development is not located close to the ocean and is therefore unlikely to be impacted by ocean acidification	N/A	N/A	N/A	N/A	N/A	N/A
Landslide	'The movement of a mass of rock, debris, or earth down a slope' (USGS, 2024b)	No – the proposed development is located in a relatively flat location, and is therefore unlikely to be impacted by landslides	N/A	N/A	N/A	N/A	N/A	N/A
Avalanche	'A mass of snow, rock, ice, soil, and other material slides swiftly down a mountainside.' (National Geographic, 2024b)	No – the proposed development is not located in a location that is steep enough or receives enough snow for avalanches to be a risk	N/A	N/A	N/A	N/A	N/A	N/A
Rock fall	Type of fast-moving landslide that happens when rock or earth falls, bounces, or rolls from a cliff or down a very steep slope.' (Colorado Geological Survey, 2024)	No – the proposed development is located in a relatively flat location, and is therefore unlikely to be impacted by rock fall	N/A	N/A	N/A	N/A	N/A	N/A
Subsidence	'Sinking of the ground because of underground material movement' (NOAA, 2024b)	Yes – subsidence does occur in the UK, and therefore has the potential to impact the proposed development	Damage to building materials. Potential injury to users of the proposed development.	The frequency of subsidence is likely to remain low.	1 Subsidence is likely to occur very rarely during the lifetime of the proposed development	6 Major effect on site users and the proposed development. Damage to building materials. Potential injury to users.	6	No
Water-borne disease	'Illnesses caused by microscopic organisms, like viruses and bacteria, that are ingested through contaminated water or by coming in contact with feces.' (Lifewater, 2024)	Yes – water-borne diseases do occur in the UK, and therefore have the potential to impact the proposed development	Potential illness to users of the proposed development.	The frequency of water-borne disease is likely to increase but remain low.	2 Water-borne diseases are likely to occur a limited number of times during the lifetime of the proposed development	3 Moderate effect on site users and the proposed development. Potential illness to users.	6	No
Vector borne disease	'Human illnesses caused by parasites, viruses and bacteria that are transmitted by vectors' (living organisms) (WHO, 2024)	Yes – Vector borne diseases do occur in the UK, and therefore have the potential to impact the proposed development	Potential illness to users of the proposed development.	The frequency of vector-borne disease is likely to increase but remain low.	2 Given the nature of the proposed development and the Site, vector borne diseases, such as those transmitted through ticks, are unlikely to occur. The proposed development is in the inner city with little exposure to vectors.	2 Low effect on site users and the proposed development. Potential illness to users.	4	No

Airborne disease	'Disease that is caused by a microorganism that is transmitted through the air.' (Ather et al, 2013)	Yes – airborne diseases do occur in the UK, and therefore have the potential to impact the proposed development	Potential illness to users of the proposed development.	The frequency of air-borne disease is likely to increase but remain low.	2 Airborne diseases are likely to occur a limited number of times during the lifetime of the proposed development	3 Moderate effect on site users and the proposed development. Potential illness to users.	6	Yes
Insect infestation	'Recently detected insect pest population, including an incursion, or a sudden significant increase of an established insect, disease agents or weed population in an area leading to damage to plants in production fields, forests or natural habitats and causing substantial damage to productivity, biodiversity or natural resources' (UNDRR, 2024)	Yes – Insect infestations do occur in the UK, and therefore have the potential to impact the proposed development	Potential illness to users of the proposed development.	The frequency of insect infestation is likely to increase but remain low.	2 Insect infestations are likely to occur a limited number of times during the lifetime of the proposed development	2 Low but measurable effect on site users and the proposed development. Potential illness to users.	4	No

1.8 INCREASING THE RESILIENCE OF THE PROPOSED DEVELOPMENT TO CLIMATE CHANGE

- 1.8.1 Table 7 summarises the mitigation measures that have been put in place for the proposed development that will increase resilience to the likely effects resulting from climate change. The mitigation measures included in this table are already included in the design, and do not require further implementation. These particularly focus on the effects that scored highly in the risk assessment in Table 6.

Table 7 Climate change resilience measures

Risk	Mitigation measure
Severe winds	The proposed development will be built in line with current building regulations, and is therefore expected to be capable of withstanding severe wind and storm conditions.
Extreme tropical storm	
Extreme winter conditions	The proposed development will be built in line with current building regulations and will therefore have appropriate insulation and heating in place to withstand extreme winter and cold conditions.
Cold wave	
Extreme cold days	Mechanical Ventilation with Heat Recovery (MVHR) will be used in the building, which will reduce the heating demand.
Heat waves	
Extreme hot days	Mechanical Ventilation with Heat Recovery (MVHR) will be used in the building, which will reduce the Cooling demand.
All risks	
	Since the effects of climate change are dynamic and constantly changing, an adaptive management approach is recommended. The climate change resilience risk assessment should be periodically revisited by the design team during construction in order re-assess likely effects.

1.9 RESIDUAL EFFECTS

Table 9 provides a summary of the residual effects of climate change on the proposed development. Mitigation measures outlined in Table 9 have been taken into account.

Table 8 Summary of residual risks ratings based on probability and consequence taking into account mitigation measures

Risk	Risk rating pre-mitigation	Probability rating (1-5)	Consequence rating (1-7)	Risk rating
Rainstorm	5	5	1	5
Heavy snow	4	2	2	4
Fog	5	5	1	5
Hail	5	5	1	5
Severe wind	8	4	1	4
Extreme tropical storm	12	3	3	9
Lightning	4	4	1	4
Extreme winter conditions	12	4	2	8
Cold wave	12	4	2	8
Extreme cold days	12	4	2	8
Heat waves	20	4	3	12
Extreme hot days	16	4	3	12
Drought	8	4	2	8
Flash/surface flood	6	1	6	6
River flood	6	1	6	6
Groundwater flood	6	1	6	6
Subsidence	6	1	6	6

Risk	Risk rating pre-mitigation	Probability rating (1-5)	Consequence rating (1-7)	Risk rating
Water-borne disease	6	2	3	6
Vector borne disease	4	2	2	4
Air-borne disease	6	2	3	6
Insect infestation	4	2	2	4

1.10 CONCLUSION

- 1.10.1 A set of climate change risks to the proposed development were identified using the C40 Cities Climate Change Risk Assessment Guidance. These risks were assessed based on the probability of an event occurring and the consequence if it occurred. Mitigation measures have been identified for risks where required, and with the appropriate mitigation measures in place, the risk rating for all climate change hazards relating to the proposed development have been reduced. It is considered that the residual risks are in line with typical expectations for urban developments of this nature in the UK. Nevertheless, due to the nature and scale of many climate hazards, some level of residual risk remains in some instances.

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8.2 GREENHOUSE GAS CALCULATION INPUTS

APPENDIX 8.2 GREENHOUSE GAS CALCULATION INPUTS

General project inputs

Table 1 General information

LCA timeline	60	years	BS EN 15978
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Table 2 Calculation area schedule for construction of the proposed development

Building	Unit	Area			
		2025	2026	2027	Total m²
Former Baptist Church	m²	3,921	5,227	2,178	11,326

Embodied carbon (construction GHG emission) inputs

Table 3 Material embodied carbon benchmarks

Schedule typologies	Embodied carbon benchmarks (RICS, 2014)	RICS (2014) and WRAP (2017) benchmarks	Unit
Former Baptist Church	High rise residential tower (16-25 storey building)	1250	kgCO ₂ e/m²

Table 4 Transport, construction, use and demolition embodied carbon benchmarks.

	Year	Benchmark	Unit	Reference
Total on-site energy use	0	14,000	kgCO ₂ /£m	BRE SMART Waste KPI from RICS 2017 draft professional statement
Total site transport and delivery	0	2,910	kgCO ₂ /£m	BH past project monitored data
Use	15 onwards	90%	% of raw material embodied carbon	BH past project monitored data
Demolition	0 & end of life	3.5	kgCO ₂ /£m	RICS 2017 draft professional statement

Operational GHG emission calculation inputs

Table 5 Building emission rates as provided by the Energy Consultants

Building	kgCO ₂ e/m²/year
Former Baptist Church	6.27

Table 6 BEIS (2023) and SAP (2016) emissions factors.

	kgCO ₂ /kWh	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050+
BEIS	Grid Domestic- BEIS projections (BEIS Measuring and reporting environmental impacts: guidance for businesses, 2021)	0.15150	0.131	0.098	0.073	0.063	0.054	0.049	0.042	0.033	0.026	0.021	0.020	0.020	0.018	0.018	0.017	0.016	0.015	0.015	0.009	0.008	0.008	0.008	0.005	0.005	0.003	0.003

BEIS	Grid Commercial / Public sector- BEIS projections (BEIS Measuring and reporting environmental impacts: guidance for businesses, 2021)	0.149	0.129	0.096	0.072	0.062	0.053	0.049	0.041	0.032	0.025	0.020	0.020	0.019	0.018	0.018	0.017	0.016	0.015	0.014	0.009	0.008	0.008	0.008	0.005	0.005	0.003	0.002
BEIS	Grid Industrial- BEIS projections (BEIS Measuring and reporting environmental impacts: guidance for businesses, 2019)	0.146	0.127	0.095	0.070	0.061	0.052	0.048	0.040	0.032	0.025	0.020	0.019	0.019	0.018	0.017	0.016	0.015	0.015	0.014	0.009	0.008	0.008	0.007	0.005	0.005	0.003	0.002
SAP	Grid SAP 2016 Consultation	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136
SAP	Gas SAP 2016 Consultation	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208	0.208

Table 7 Benchmarks and conversion factors used for GHG emissions associated with operational water consumption for the proposed development

Building/Use	Benchmark name	Benchmark	Source
Former Baptist Church	Provided by the project sustainability consultants, Future Serv	100 L per person per day	Project Sustainability Consultants
	Carbon factor for water supply	0.177 kg CO ₂ per m ³ of water supplied	Department for Energy Security and Net Zero (DESNZ) Greenhouse Gas Reporting: Conversion Factors 2023
	Carbon factor for the treatment of foul water	0.201 kg CO ₂ per m ³ of water supplied	

Table 8 Assumptions and conversion factors used for GHG emissions associated with operational transport for the proposed development

Assumed mode of transport	Assumed Distance travelled (km)	Source of assumed distance travelled	Annual trips	Number of trips over 60-year lifecycle	Carbon factor (total kgCO ₂ e per km)	Lifetime GHG emissions (tCO ₂ e)
HGVs	108	Department for Transport Domestic Road Freight Statistics, United Kingdom: 2018 (publishing.service.gov.uk)	730	43,800	All HGVs, average laden 0.87296	4,129
LGVs	108	Department for Transport Domestic Road Freight Statistics, United Kingdom: 2018 (publishing.service.gov.uk)	16,790	1,007,400	Average vans, unknown fuel 0.24934	27,128

9.1 HERITAGE STATEMENT: SIGNIFICANCE APPRAISAL & IMPACT ASSESSMENT

Particular Baptist Chapel

Rochdale Road
Manchester

Heritage Statement

Prepared by:



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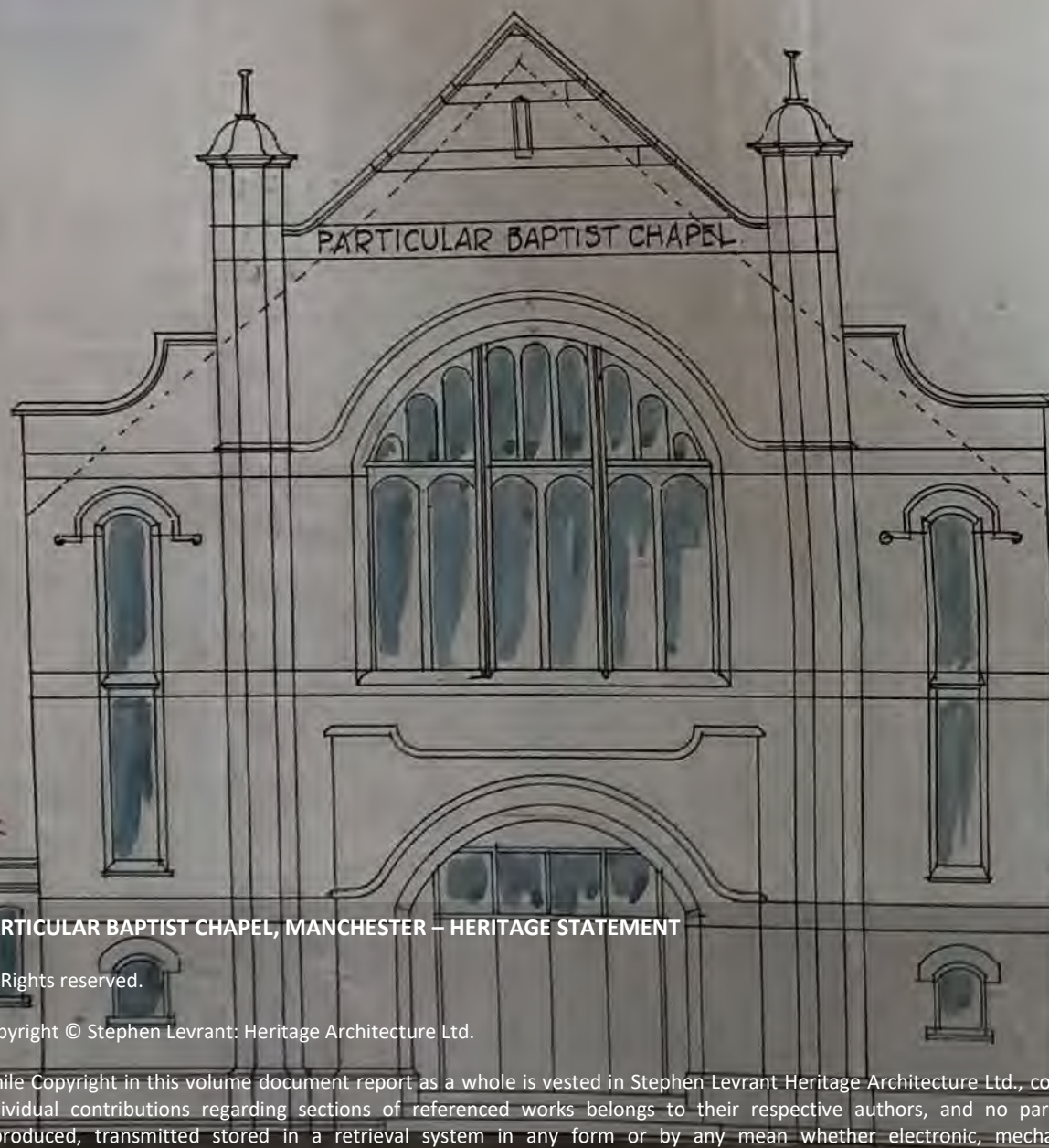
Prepared for:

**City Point
Residences
Limited**

December 2024

PARTICULAR BAPTIST CHAPEL

JOHN
Arch
Vic
DE



PARTICULAR BAPTIST CHAPEL, MANCHESTER – HERITAGE STATEMENT

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FRONT ELEVATION.

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EXECUTIVE SUMMARY

Heritage Architecture Ltd were commissioned by City Point Residences Limited to evaluate the potential heritage impact of the proposed redevelopment of the Particular Baptist Chapel, Rochdale Road, Manchester (the Site'), upon the surrounding historic built environment.

The proposals (the 'Proposed Development') seek to introduce a 23-storey tower consisting of 133 residential units, shared outdoor/indoor amenity space, commercial space, and associated cycle parking, refuse storage and plant to the Site, which includes the partial demolition of the rear parts of the former chapel and restoration of the retained front aspect of the building and its principal front elevation.

The Site comprises the Particular Baptist Chapel, which was constructed between 1907 and 1908 by the architectural firm, John Wills and Sons of Derby, as a Baptist chapel to replace a much older Baptist chapel on the same site and forms the third Baptist chapel on the same site.

The building is not statutorily listed and was rejected for listing by Historic England in 2023. However, the Particular Baptist Chapel has been identified as a non-designated heritage asset (NDHA) by Manchester City Council, who are the Local Planning Authority. The Site is not located within a conservation area but is located within the setting of a number of listed buildings.

A Heritage Statement is required to understand the potential heritage impact upon the historic fabric, significance, and setting of the NDHA within the Site, and the potential for indirect effects on the setting of surrounding heritage assets.

In line with Historic England's Guidance Note on '*Statements of Heritage Significance*' (October 2019), the following Heritage Statement is divided into two parts. The Significance Appraisal (Part 1) provides a detailed evaluation of the relative architectural and historical interest of the Site and heritage assets in the surrounding area. Part 2: The Heritage Impact Assessment (HIA) will utilise recognised ICOMOS and Historic England methodology to assess the potential direct (physical) and indirect (visual and setting) impacts of the Proposed Development upon relevant elements of the historic environment in the setting of the Site.

The Visual Impact Assessment (VIA) (**Section 7**) demonstrates that the Proposed Development would enhance the currently dilapidated character of the streetscape and introduce a sense of cohesion into this part of Rochdale Road, currently fragmented and disparate in character.

The Impact Assessment demonstrates that the Proposed Development would result in a **minor adverse** impact on two identified designated heritage assets and a **moderate adverse** impact on the NDHA.

It will be clear that the Site at present is in an extremely poor condition and requires significant investment to ensure its heritage interest is not completely lost. The Proposed Development has sought to provide a scheme that is viable and simultaneously ensures the retention of the most significant parts of the former chapel and will deliver heritage benefits and resulting in a positive contribution to the vitality of this part of the city centre.

1 INTRODUCTION

1.1 Purpose

This Heritage Statement has been written by Stephen Levrant Heritage Architecture Ltd (SLHA), a practice of conservation architects, surveyors, planners, and heritage consultants which specialises in the historic environment.

SLHA have been commissioned by City Point Residences Limited to prepare a Heritage Statement to accompany the planning application for the proposed residential development of the non-designated heritage asset (NDHA) – the Particular Baptist Chapel, Rochdale Road, Manchester ('the Site', **Figure 1** below).

The building was constructed between 1907 and 1908 as a Baptist Chapel to replace a much older Baptist Chapel on the same site.

The proposals (the 'Proposed Development') seek to introduce a 23-storey tower consisting of 133 residential units, shared outdoor/indoor amenity space, commercial space, and associated cycle parking, refuse storage and plant to the Site, which includes the partial demolition of the rear parts of the former chapel and restoration of the retained front aspect of the building and its principal front elevation.



Figure 1: The principal south front of the building as seen from Rochdale Road. (Source: SLHA)

The purpose of this Heritage Statement is to assess the impact of the Proposed Development on the significance and setting of the non-designated heritage asset, and on the settings of surrounding heritage assets. The Local Planning Authority (LPA) is Manchester City Council (MCC).

This Statement, and the preceding conservation advice to the client, has been prepared in the context of relevant national and local heritage planning policy.

1.2 General Methodology – focus on proportionality

This Heritage Statement is framed by the requirements of the National Planning Policy Framework (NPPF, most recently updated in December 2024). **Paragraph 202** advises that heritage assets are *“an irreplaceable resource and should be conserved in a manner appropriate to their significance”*. The analysis of heritage significance in this document accords with the required NPPF approach, as it presents sufficient evidence to inform the design development and in turn enable the Council *“to reach an informed decision”*.

The assessment is based on the definition of ‘heritage assets’ set out in the Planning Policy Guidance (PPG) and NPPF. Therefore, a heritage asset is defined as:

“a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing)”.

The analysis of heritage significance in this Heritage Statement accords with the requirements of **paragraphs 207 and 216** of the NPPF and Historic England’s October 2019 guidance (Historic England’s Advice Note 12, *‘Statements of Heritage Significance: Analysing Significance in heritage Assets’*), as it presents sufficient and proportionate evidence to enable the Council, *“to reach an informed decision”*. The conclusions of this Heritage Statement are thus based on the *“need to be proportionate to the significance of the heritage assets [potentially] affected, and the impact on the significance of those heritage assets”*.

It is important to distinguish ‘designated heritage assets’ from ‘non-designated heritage assets’ as they are subject to different legislative and policy evaluation requirements at both national and local levels. Designated heritage assets are defined as:

“World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or a Conservation Area designated under the relevant legislation”.

Non-designated heritage assets (including Locally Listed buildings), such as the Site, are defined within the NPPF as:

“a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest”.

The assessment of relative significance is a comparative process, and for this reason it relies heavily on the analysis of a range of information, including local knowledge. It aims to establish whether a component of the area is of local, regional, national or international significance, and therefore merit appropriate consideration in the Planning process.

1.3 Research Methodology

This appraisal is the result of an extensive process which synthesises literature and documentary research, analysis and processing of information, building surveying, and professional judgment.

The documentary research was based upon primary and secondary sources, including maps, drawings and reports.

Surveys of the Site and surrounding areas were originally conducted in 2021 and most recently in July 2024 by visual inspection.

1.4 Authorship

This report has been prepared by Stephen Levrant Heritage Architecture Ltd., an architectural practice specialising exclusively in the historic built environment.

Author:

- Lee Hutchings [BSc (Hons)] – Associate Heritage Consultant

Reviewed by:

- Kirsten McKnight [BA (Hons) MA, MSc, IHBC] - Associate Director

2 THE SITE & HERITAGE CONTEXT

2.1 Location

The Particular Baptist Chapel (the Site) is located just north-east of the centre of Manchester and comprises a 1907/1908 chapel and a narrow area of cleared ground to its south-west and north-east, the latter being used for surface car parking.

The Site is bounded by Dyche Street to the north-west, by Sharp Street to the north-east, by Rochdale Road to the south-east, and by a large surface car park to the south-west (**Figures 2 & 3**).



Figure 2: A modern map showing the location of the Site outlined red. (Source: Historic England)



Figure 3: An aerial view looking north across the Site (outlined) (Source: Google Maps).

2.2 Statutory Designations

2.2.1 Listed Buildings

Statutory listing of buildings means that a building is of special architectural or historic interest at a national level and is therefore protected in statute and policy. Grading of listed buildings reflects their architectural and historic interest; Grade I buildings are of exceptional interest; Grade II* buildings are particularly important buildings of more than special interest; and Grade II buildings are of special interest.

It will be clear that the redevelopment of the Site with a high-rise element has the potential to indirectly impact the setting of a number of listed buildings in the surrounding area.

Review of the townscape within a 500m study area has identified 49 designated heritage assets, however, due to the density, typology and alignment of buildings within the area surrounding the Site and the intervisibility of the development from surrounding streets as highlighted on the Zone of Theoretical Visibility plan (ZTV) provided by rbmp (**Figure 4 below**), it is considered that only 11 designated heritage assets will be susceptible to potential indirect impacts from development of the Site, and, consequently, will form part of the subsequent Heritage Visual Impact Assessment in **Section 7** (See **Figure 5** & listed in **Table 1** below).

The 500m study area provides a focus for assessment but is not intended to be prescriptive; listed buildings/conservation areas outside of the study area which have the potential to be affected by the Proposed Development will be included within the Visual Impact Assessment (VIA) where relevant.



Figure 4: Zone of Theoretical Visibility plan (ZTV) showing areas where the site of the Proposed Development (red star) will be seen from. The Smithfield Conservation Area is shown shaded red, the Shudehill Conservation

Asset Number in Fig 5 above	Name / descriptor	Grade	List Entry Number	Potential to be indirectly impacted by the Proposed Development and scoped in for assessment
-----------------------------	-------------------	-------	-------------------	--

A	Marble Arch Inn	Grade: II	List Entry Number: 1247604	Yes
B	Warehouse On West Corner of Junction With Simpson Street	Grade: II	List Entry Number: 1270681	Yes
C	Cooperative Press	Grade: II	List Entry Number: 1291013	Yes
D	Sharp Street Ragged School	Grade: II	List Entry Number: 1254650	Yes

E	Charter Street Mission (Formerly Charter Street Ragged School And Working Girls' Home),	Grade: II	List Entry Number: 1461979	Yes
F	Former Police and Ambulance Station	Grade: II	List Entry Number: 1292052	Yes
G	8 Cable Street	Grade: II	List Entry Number: 1208255	Yes
H	New Century House, Including its Attached Conference Hall and Abstract Concrete Relief Wall In The Entrance Piazza, Grade II	Grade: II	List Entry Number: 1255052	Yes
I	Parkers Hotel	Grade: II	List Entry Number: 1208963	Yes
J	Co-operative Insurance Society (CIS) Building	Grade: II	List Entry Number: 1270494	Yes
	Shudehill Conservation Area	/	/	Yes

2.2.2 Conservation Areas

Conservation areas are designated areas that are deemed to have special architectural or historical interest, the character or appearance of which it is desirable to preserve or enhance.

As demonstrated in the ZTV at **Figure 4**, above, the Site is not situated within a designated conservation area, however, due to the height of the Proposed Development, it will be clear that there may be some isolated visibility from parts of three conservation areas: the Smithfield Conservation Area, Shudehill Conservation Area and Ancoats Conservation Area. However, due to the surrounding typology and proximity of the Site and the intervisibility of the Proposed Development from surrounding streets/buildings, only the Shudehill Conservation Area has been scoped into this assessment (see **Table 1**)

The potential impact upon the character and appearance of the Shudehill Conservation Area will thus be tested within the Heritage Impact Assessment (HIA) in **Section 7**.

2.2.3 Non-designated Heritage Assets

Local planning authorities may identify buildings, monuments, sites, places, areas or landscapes identifies as ‘non-designated heritage assets’ (NDHA). These sites are understood as having a degree of significance which merits consideration in planning decisions but which are not formally designated heritage assets (i.e. listed). In some areas, local authorities identify non-designated heritage assets as ‘locally listed’.

Some non-designated heritage assets, such as buildings of good local character or sites of archaeological interest, are of heritage significance but not at a level that would pass the threshold for national designation (listing). Such assets can, singularly and collectively, make an important, positive contribution to the local environment. It is important to note that not all non-designated heritage assets will necessarily feature on a local list and may be identified by the Local Planning Authority at any time during the planning process.

The Particular Baptist Chapel has been identified by Manchester City Council as a non-designated heritage asset.

As the Chapel is considered to be a NDHA, **paragraph 210** of the **NPPF (2024)** should be considered in the context of the Site’s redevelopment:

*“The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, **a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset**”.*

Also of relevance is **Policy CC9** (Manchester City Council’s Core Strategy, 2012), which states that: *“Development in Manchester City Centre should preserve or enhance the heritage assets that have been identified, including listed buildings, conservation areas and scheduled ancient monuments.”*

2.2.4 Archaeological potential

Due to the Site being used for over 200 years as a Baptist chapel and cemetery, the Site will contain the remains of the earlier Baptist chapel and also two burials within the chapel. Other graves are located beneath the yard area to the south of the Site which are presumed to also retain human remains.

Please refer to the separate Archaeological DBA by Orion for details.

3 POLICY CONTEXT

3.1 The Planning (Listed Building and Conservation Areas) Act 1990

The Planning (Listed Buildings and Conservation Areas) Act 1990 provides specific protection for buildings and areas of special architectural or historic interest, over and above that provided by local development management policies.

Section 66 of the Act is relevant as it requires the Local Planning Authority to “*have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses,*” when considering whether to grant planning permission.

Due to the proximity of the Site to the identified Conservation Areas, **Section 72** of the Act is also of relevance as it requires the Local Planning Authority to pay special attention to the ‘*desirability of preserving or enhancing the character and appearance*’ of a designated area. Consequently, it is important to assess the impact of the Proposed Development on the wider historic environment.

3.2 National Planning Policy Framework (NPPF December 2024)

The revised and most recent version of the National Planning Policy Framework (December 2024) sets out Government's planning policies for England and how these are expected to be applied.

The policies in the NPPF constitute the Government's view of what sustainable development in England means in practice. In these terms, development proposals which fail to give due weight to the conservation of heritage assets are deemed not to be sustainable development, and consequently should not be supported. This is because one of the key dimensions of sustainability is to protect and enhance our natural, built and historic environment (**NPPF paragraph 8, point c**).

Paragraph 207 states that “*in determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the Proposal on their significance*”.

Paragraph 216 states that, ‘*the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset*’. Consequently, the relative significance value of the non-designated heritage asset (the Particular Baptist Chapel) must be made clear, in order to provide a clear evidence base to inform development Proposals.

Further to this, **paragraph 219** states that ‘*Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and*

any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted’.

Paragraph 213 states that *‘Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification’.*

Paragraph 215 states that *‘Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use’.*

Paragraph 216 states that *‘The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.’*

3.3 Planning Practice Guidance (PPG)

The PPG is an online document which is amended as required by the Government. It provides current guidance to assist with the interpretation of the NPPF. The section *“conserving and enhancing the historic environment”* of the current iteration of the PPG has been reviewed and referenced in the course of producing this Heritage Statement.

Of particular relevance in this instance is the PPG’s commentary upon the importance of ‘significance’ in decision taking (**Paragraph 7 - Reference ID: 18a-007-20190723**). This section advises that *“being able to properly assess the nature, extent and importance of the significance of a heritage asset, and the contribution of its setting, is very important to understanding the potential impact and acceptability of development Proposals.”* This report aims to provide such information and in particular to assess the significance of the settings of the identified designated heritage assets which may be affected by the Proposed Development.

Also, of relevance in this instance is **Paragraph 13 (Reference ID: 18a-013-20190723)** which aims to define setting as a term and to explain how it should be taken into account in the assessment of Proposals. Paragraph 13 explains that *“All heritage assets have a setting, irrespective of the form in which they survive...”*. It goes on to note that *“the extent and importance of setting is often expressed by visual considerations”* however, setting also includes *“our understanding of the historic relationship between places”*. This highlights the requirement for proportionate research into the development of the area.

Paragraph 039 (Reference ID: 18a-039-20190723) of the PPG states that *“Non-designated heritage assets are buildings, monuments, sites, places, areas or landscapes identified by plan-making bodies as having a degree of heritage significance meriting consideration in planning decisions but which do not meet the criteria for designated heritage assets”.*

Paragraph 039 goes on to specifically clarify that *“a substantial majority of buildings have little or no heritage significance and thus do not constitute heritage assets. Only a minority have enough heritage significance to merit identification as non-designated heritage assets.”*

3.4 Local Planning Policy

Manchester's **Core Strategy** was adopted on the 11th July 2012 and is the key document in the Manchester Local Plan.

Policy EN3 (Heritage) states that throughout the City, MCC will encourage development that complements and takes advantage of the distinct historic and heritage features of its districts and neighbourhoods. New developments must be designed to support MCC in preserving or, where possible, enhancing the historic environment, the character, setting and accessibility of areas and buildings of acknowledged importance. This policy also encourages Proposals which enable the re-use of heritage assets in accordance with their significance.

The Council's key regeneration objective is tempered by the need to ensure that: *“historic sites and areas of particular heritage value should be both safeguarded for the future and, where possible, enhanced for their own heritage merits and as part of wider heritage regeneration Proposals”* (paragraph 12.21, **Policy EN3**). The policy thus evidently requires development Proposals to be sensitive to the inherent values of heritage assets, with any impact justified by clear, documentary evidence.

3.5 Historic England's guidance

In 2015 Historic England released three Good Practice Advice notes supporting the implementation of national policy and the related guidance in the PPG. The advice notes do not constitute a statement of Government policy itself, nor do they seek to prescribe a single methodology or particular data sources. **Good Practice Advice Note 2 (Managing Significance in Decision-Taking in the Historic Environment – March 2015)** and **Good Practice Advice Note 3 (The Setting of Heritage Assets – as amended December 2017)** were both utilised as part of this assessment in order to gain a full understanding of the relevant issues, alongside the NPPF and PPG.

This Heritage Appraisal utilises the guidance set out in **Historic England's Advice Note 12, 'Statements of Heritage Significance: Analysing Significance in heritage Assets'** (October 2019). The recent guidance calls for a staged approach, which provides relevant and proportionate information sufficient to inform decision-making by the Council.

In January 2021, Historic England issued a revised guidance note on **Local Heritage Listing: Identifying and Conserving Local Heritage, Advice Note 7 (2nd Edition)**. As the Site has been identified by the LPA as a non-designated heritage asset (NDHA), the aforementioned guidance note has been utilised within this report.

3.6 Historic England Advice Note 4: Tall Buildings ('HEAN 4')

HE's revised guidance on tall buildings was published on 4 March 2022. The note supersedes a previous version from 2015 and takes into account recent updates to planning policy, legislation, and recent experience of the development of tall buildings within the historic environment.

The purpose of the guidance is defined by HE as follows:

"Its purpose is to support Local Planning Authorities, developers, communities and other stakeholders in dealing with tall buildings Proposals within the legislative and planning framework relevant to the historic environment."

The note provides support and guidance in the following key ways: in the initial plan-making process, in the identification of appropriate locations for tall buildings and the definition of 'design parameters' with regard to the historic environment, and in the assessment and determination of individual tall building Proposals at the determination stage of the planning process.

Although not prescriptive and other approaches may be appropriate, HE's note provides a set of principles for the consideration of tall building development in the historic environment.

The note stipulates that the identification of locations or the determination of Proposals should be informed by an understanding of local place, character, and historic significance. The guidance warns of the negative impacts tall buildings can have on the qualities of place valued by people who experience them if the siting, scale, or design is wrong and/or fails to demonstrate a consideration for the defining positive characteristics of a local area.

The note demonstrates HE's acknowledgement of the capability of high-quality tall buildings to deliver sustainable development in tandem with the conservation and promotion of the historic environment. The note emphasises the importance of good design in ensuring that tall buildings respond positively to their local context, especially within the historic environment, and the opportunity high-quality Proposals can embody in terms of place-making, particularly within the context of wider regeneration schemes. In summary, the note promotes a best-practice approach to the consideration of tall buildings to deliver high quality, sustainable schemes.

3.7 Places For Everyone (PfE) (2024)

PfE is the long-term plan of nine Greater Manchester districts for jobs, new homes and sustainable growth. The plan sets out a strategic policy framework for the nine boroughs and helps these areas to meet their local housing and employment needs by identifying land and infrastructure to support growth.

Objective 4 of the PfE seeks to: - Enhance our cultural, heritage and educational assets; - Improve sustainable transport and active travel access to these locations; - Improve access for local people to jobs in these locations.

Policy JP-P 2 addresses 'Heritage', states: *Through this Plan we will proactively manage and work with partners to positively conserve, sustain and enhance its historic environment and heritage assets and their settings. Opportunities will be pursued to aid the promotion, enjoyment, understanding and*

interpretation of heritage assets, as a means of maximising wider public benefits and reinforcing Greater Manchester's distinct identity and sense of place. Local Plans will set out the key elements which contribute to the district's identity, character and distinctiveness and which should be the priority for safeguarding and enhancing in the future, and demonstrate a clear understanding of the historic environment and the heritage values of sites, buildings or areas and their relationship with their surroundings. This knowledge should be used to inform the positive integration of our heritage by:

- 1. Setting out a clear vision that recognises and embeds the role of heritage in place-making;*
- 2. Utilising the heritage significance of a site or area in the planning and design process, providing opportunities for interpretation and local engagement;*
- 3. Integrating the conservation and enhancement of heritage assets and their settings, with creative contextual architectural responses that contribute to their significance and sense of place;*
- 4. Delivering positive benefits that sustain and enhance the historic environment, as well as contributing to the economic viability, accessibility and environmental quality of a place, and to social wellbeing; and*
- 5. Exploring opportunities to reduce greenhouse gas emissions that restoration of historic buildings offer.*

Particular consideration will be given to ensure that the significance of key elements of the historic environment which contribute to Greater Manchester's distinctive identity and sense of place are protected from harm. These include historic town centres, places of worship, historic Places for Everyone transport routes including the canal network, industrial buildings and structures including textile mills, farmsteads and other sites, buildings and areas of identified archaeological, architectural, artistic and historic value.

Proposals should be informed, as necessary, by the findings and recommendations of the appropriate heritage assessment(s) in the development plan evidence base and/or any updated heritage assessment submitted as part of the planning application process.

4 HISTORICAL DEVELOPMENT

4.1 Introduction

In order to understand the heritage significance of the Site as a component of the surrounding historic environment, it is first necessary to understand its historical development and the impact it made on this part of Manchester.

A full map regression of the Site can be found in **Appendix i**.

4.1 “Particular Baptists”

The religious group known as “Particular Baptists” originate from a non-Separatist church that was established in 1616 by Henry Jacob at Southwark. In 1638 several of its members withdrew under the leadership of John Spilsbury to form the first Particular Baptist Church, taking their name from the doctrine of particular redemption.

There were two groups in early Baptist life: the “Particular Baptists” and the “General Baptists”. The Particular Baptists adhered to the doctrine of a *particular* atonement: that Christ died only for an elect, and strongly followed the Reformation teachings of John Calvin.

4.2 Development of the Site

The Particular Baptist Chapel was designed in February 1907 by the architectural firm John Wills and Sons of Derby and built in 1907-08 as the third replacement chapel on the Site.

The original chapel on the Site was built in 1789 following the need of the minister of the nearby Coldhouse Chapel in Shudehill, John Sharp, for a new place of worship. At the time of its construction, the new chapel, originally known as the “Anabaptist Chapel”, formed only the second place of Baptist worship in Manchester along with the Coldhouse Chapel. By the 1820s the chapel was known as the Back Lane Chapel, and by that date the number of Baptist chapels in Manchester had only grown to a total of three.

The appearance of the original 18th century chapel is unknown, as this building was demolished and a larger chapel built on the Site in c1823-4 (**Figure 8**), which extended southwards partially over the original 18th century graveyard (some of the gravestones now form the paved areas to the front of the chapel).

The original 18th century chapel, and its replacement c1823-4 chapel became well known in Baptist circles due to its renowned, early-19th century minister, Rev William Gadsby (1773-1844 – see **Figures 6 and 7**), and was commonly known as “Gadsby’s Chapel” (**Figures 4 and 5**).

Gadsby was an early leader of the Strict and Particular Baptist movement in England and was a popular preacher who was well known for his unusual and quirky character. It was later recalled that when singers in the chapel once sang out of tune, Gadsby proclaimed “*Let us pray, for, Lord help us,*

we cannot sing". On another occasion when a parishioner kept calling out "Amen!", Gadsby answered "I shall make noise enough without you brother".



Figure 6: An etching of William Gadsby preaching from the pulpit in the Particular Baptist Chapel during the early-19th century. The same pulpit remains in the current building (Figures 10-11) (Source: Gadsby's - The Story of a Hymnbook, Matthew J. Hyde (2014))



Figure 7: Portrait of William Gadsby during his ministership at the particular Baptist Chapel. (Source: Particular Baptist Chapel)

William Gadsby became the pastor of the original 18th century chapel in 1805 and oversaw the construction of the new chapel building in c1823-4, remaining there until his death in 1844.

During Gadsby's time as minister at the chapel, the dwindling numbers of worshipers increased and the building was reconstructed in c1823-4 (**Figures 8 & 11**), effectively doubling its original size. Gadsby's larger new chapel was designed with a chapel house, which was connected to the north-east of the chapel in which Gadsby lived and where his noted printer son John Gadsby was born.

The following is an extract from "Memoir of William Gadsby" by William's son, John Gadsby, which mentions the original chapel's rebuilding in 1823-1824 in an address by William Gadsby in 1844:

"... we found it necessary to enlarge the chapel. And here we got into difficulty again; for as the chapel would have to be almost wholly taken down, and rebuilt, if meddled with at all, a dispute arose about the site of the chapel. Some of our friends wanted to have the chapel erected in a more central part of the town; another party was determined it should be where it was. One difficulty about keeping it where it was arose out of the necessity of taking up the graves for the foundations, and the consequent expense.

This, the party last mentioned, however, did not conceive to be a difficulty, and nothing could serve them but they must have it their own way; and we submitted. But, when the chapel was

down, and the foundation of the new one had been laid, the other party deserted us, and we were left with a debt coming on us of about £2000; for the builder whom they had engaged wanted £200 or £800 above his account, and we could not help ourselves. We must either pay or go to law. So you see they had left us in a pretty plight!

Well, to make bad worse, the builder, seeing that the party who had employed him had left us, stopped the work in a great measure. There we were; the chapel down; the foundation of another laid, it is true, but no prospect, in all human appearance, of the chapel ever being raised. However, I thought, if God approve of what we are doing, he will not desert us; and I prayed for faith, and that the Lord would direct me what to do.

Then I went to the builder, to know why he was not going on with the chapel. 'Have you any money owing you,' said I. 'No, he replied. 'Well,' I said, 'then go on; and when you have, if it is not forthcoming, then stop.' So he went on again. Meantime, I knew not how the money was to be raised; but one friend (Mr. Niven, who then lived at Rochdale) lent me £500, and another £800; and so we went on, and we never let the builder ask twice for his money. During all the time the chapel was erecting, the Lord opened the dispensations of his providence".

A photograph taken of Gadsby's c1823-4 chapel shortly before its demolition in the early-1900s (**Figure 16**) shows its southern entrance front to contain two separate entrances, accessed via two sets of iron gates onto Rochdale Road.

Figure 6 below illustrates the interior of the c1823-4 chapel, showing that it was largely similar to the present chapel, with the northern end containing anti-vestries and staircase, with the southern end containing the two main entrances and two further staircases giving access to the balconies.

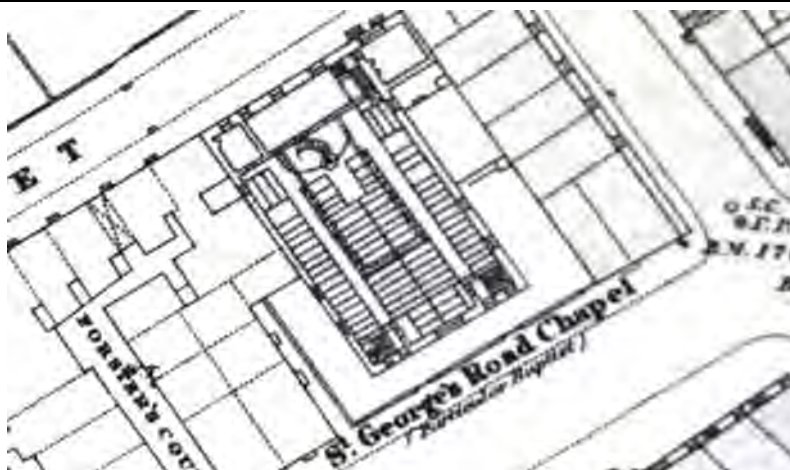


Figure 8: Internal ground floor plan of the c1823-4 chapel as depicted in the 1850 Ordnance Survey map. The map shows the northern end containing vestries and staircase, with the southern end containing the two main entrances and two further staircases giving access to the balconies.

The centre of the chapel contained three areas of pews with two aisles. Note the original pulpit drawn to the centre of the plan, which until recently still remained in situ. The structure connected to the north-east of the chapel was the chapel house where Gadsby lived and his son John was born.



Figure 9: c1860s-80s photograph of the south entrance front of the original chapel, showing its early-19th century southern elevation. Note the original wall copings/piers and 19th century gates, which still survive today (Source: Particular Baptist Chapel)



Figure 10: Detailed c1860s-80s view of the early 19th century grit stone wall copings, gate piers and 19th century cast iron railings/gates, which were reused in the current boundary wall (Source: Particular Baptist Chapel)



Figure 11: The south elevation of the c1823-4 chapel as seen in 1900, showing the replacement of the original sash windows with fixed windows (Source: Manchester Archives)

The interior of the c1823-4 chapel contained three areas of pews facing north towards the pulpit with two aisles either side. To the rear (north) of the main chapel space was an internal wall containing two doors into the rear corridor/vestry, and two large semi-circular glazed windows allowing the corridor to be naturally lit (see **Figures 12-13**). These design features can clearly be seen to have been included in the present 1907 design of this space also (see **Figure 15**).

The early 1900s photos of the interior of the chapel also show a number of architectural elements/features that were carefully removed and relocated within the present structure in 1907-8.



Figure 12: c1880s photograph looking north towards the c1823-4 century pulpit, as used by Rev William Gadsby (Source: Particular Baptist Chapel)



Figure 13: 1906 photograph looking north towards the original c1823-4 pulpit, as used by Rev William Gadsby (Source: Particular Baptist Chapel)



Figure 14: A closer 1906 view of the original c1823-4 pulpit, cast iron railings and panelled balcony, which were all reused in the current building. (Source: Particular Baptist Chapel)



Figure 15: A photograph from in 2021 taken in the same position as seen in Figures 10 and 11 above, however, taken in the present 1907-8 chapel building, illustrating the remarkable similarity in chapel design and fixtures and fittings, including the reuse of Gadsby's original pulpit (since removed), cast iron balcony railings, and early timber balcony panelling. *Note: since this photo was taken the pews, wall panelling, stained glass windows, doors and pulpit have all been removed.*

By the early 1900s the original building was suffering from substantial structural problems, which, following serious consideration by the minister and committee, it was decided that there was no alternative other than to demolish the existing building and construct a new chapel in its place.

The Trustees of the Particular Baptist Chapel engaged Derby based architects, John Wills and Sons, to design a new chapel on the site of the original building. Plans were drawn up in early February 1907, and the final service was held in the chapel on the 21st April 1907 (**Figures 16-17**). On the 29th

April the neighbouring Sunday school on Sharp Street was certified for religious worship and marriage ceremonies for the period during the construction of the new chapel.



Figure 16: A photograph showing the congregation of the original chapel entering for one of the last services in April 1907. (Source: Manchester Archives).



Figure 17: Article in the Manchester Evening News, 17th April 1907 on the closing of the chapel - *“though its correct name is the Particular Baptists’ Church, it is better known as Gadsby’s Chapel owing to William Gadsby’s long association with it. The main structure was erected 221 years ago, but in the early part of last century it was extended”*. The article wrongly suggests the original construction date was 1686 instead of 1789, and does not acknowledge the original building was rebuilt in c1823-4.

4.3 Architects of the new 1907 chapel

The architects responsible for the design of the present chapel were John Wills and Sons of Derby. John Wills was the son of a preacher from Devon, and a local preacher himself, who established an architectural practice in Derby in the 1870s specialising in Nonconformist chapels in England and Wales, and over his career had over 200 schemes attributed to him.

In c1893 his two sons, William and John joined the firm, with William overseeing northern England, and John covering southern England. Although some of the earlier designed chapels were Italianate in style, the majority of designs were in the Gothic style.

However, following John Will's death in 1906, his two sons appear to have introduced more contemporary and popular stylistic changes, using the Arts and Crafts, Art Nouveau styles between the 1900s until the 1920s.

The 1907 design of the current chapel corresponds exactly with this early change in the architectural firms design approach, and instead of a Gothic design, the firm used a largely Arts and Crafts design, with elements such as the main entrance doors and their exemplar Arts and Crafts metal hinges, the use of shallow semi-circular arches internally and externally, the castellated pediment to the south elevation, and all stained glass throughout.

4.4 The new chapel

The architectural plans for the new chapel, dated the 11th February 1907, are largely as built. However, there are some examples of where the designs were altered before construction started, including the change to the pointed gable to the south elevation, the inclusion of castellated parapets to the male/female toilet roofs and above the two outer windows to the south elevation.

Internal changes included the inclusion of the two stained glass internal windows behind the pulpit, minor arrangements to toilets, change in the location of the large vestry entrance/vestibule, and the location of the first floor former dining room fireplace from the west side to the east.

Unusually for a new build, a number of original features from the early 19th century chapel were reused in the new building. This was clearly undertaken by the request of the Trustees of the chapel so that elements and features which had special meaning, or that could prevent waste, could be included in the new building.

Another factor is that the internal planform of both the c1823-4 chapel and new chapel was almost identical, which would enable elements to be simply relocated in the same/similar positions in the new building.

Elements reused from the c1823-4 chapel include the 'Gothick' stone fire surround to the first floor former dining room (**Figure 98**), which is of an early-19th century date and likely originally located in the 1820's chapel vestry. The cast iron balustrades and hardwood handrails used in all three of the present staircases (**Figures 49-51 and 85-88**) also pre-date the date of the current chapel and are of

an early 19th century style. The current Pulpit which also dates to c1823-4 and formed part of Gadsby's rebuilding of the chapel, from which he preached from until his death.

The pulpit (now removed), and the cast iron railings to the balcony behind can be seen in historic photographs of the chapel in the c1880s and 1900s (**Figures 12-15**), with the pulpit itself also being depicted on the 1850 map (**Figure 8**). The panelling around the first floor balcony appears to also have come from the original chapel is also seen in **Figures 14 and 15**.

To the south of Site, the open yard is entirely covered by late-18th and early-19th century stone gravestones, which appears to have been relocated here during the construction of the c1823-4 chapel over the original graveyard. The existing southern perimeter wall also retains elements from the c1823-4 chapel and retain early cast iron gates/railings and grit stone copings and gate piers.

The new chapel opened on the 4th July 1908 and registered for solemnising marriages on the 20th July (The Manchester Guardian, 01st Aug 1908), and from that date to today very little of the chapel has been altered, except for the replacement of some toilet sanitaryware and flat roofs to the toilets, and general heating apparatus.

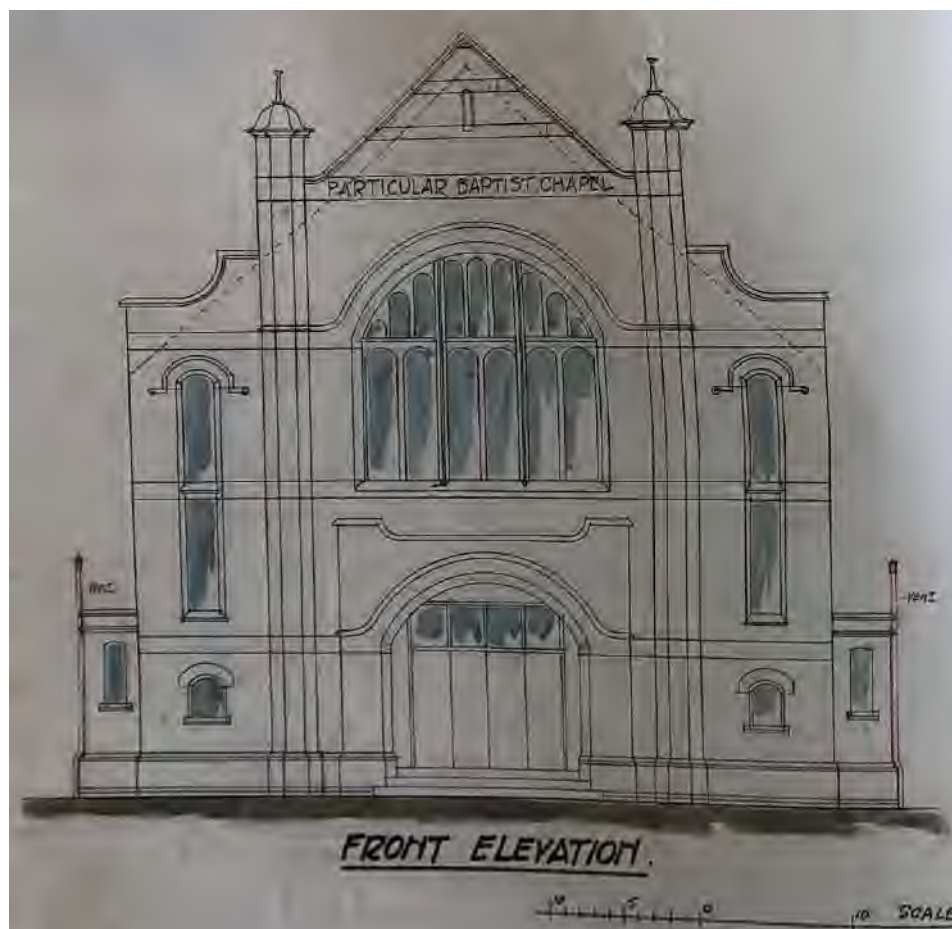


Figure 18: The original design for the south elevation from February 1907, showing the originally curved pediments over the two outer staircase windows and pointed gable. (Source: Manchester Archives)

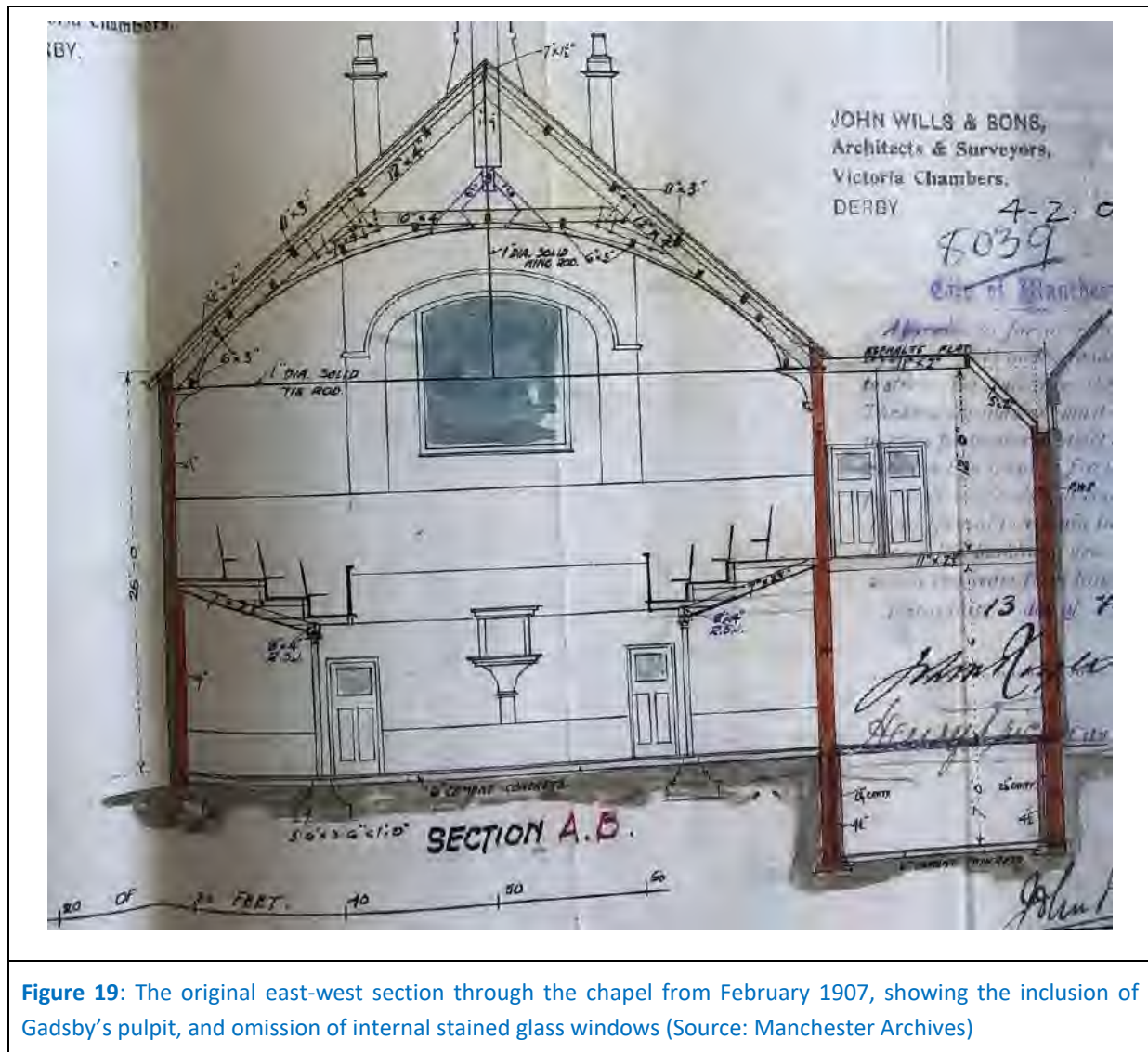


Figure 19: The original east-west section through the chapel from February 1907, showing the inclusion of Gadsby's pulpit, and omission of internal stained glass windows (Source: Manchester Archives)

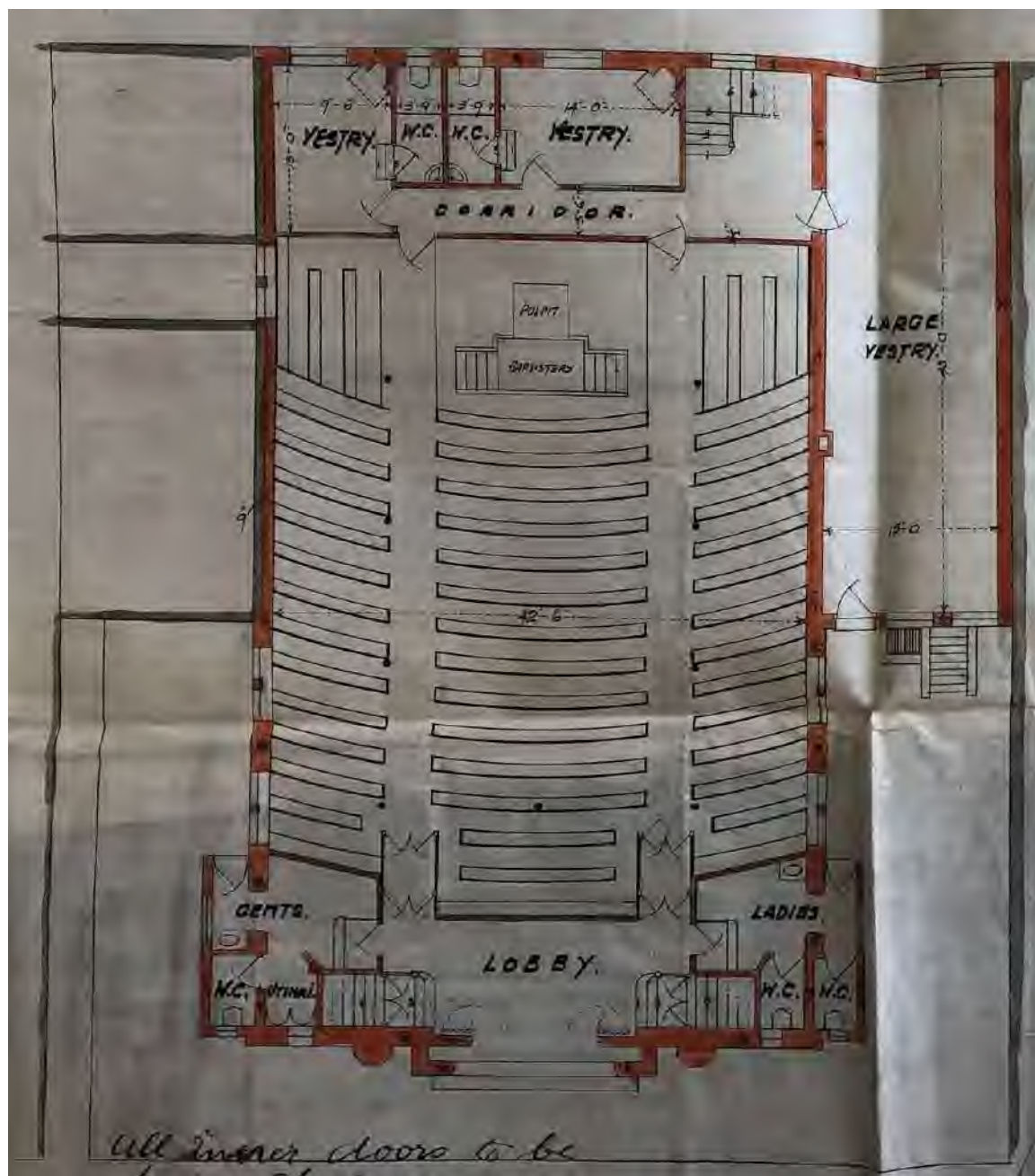


Figure 20: The original ground floor plan from February 1907, showing the slight changes to the toilets and the large eastern room marked as “Large Vestry” (Source: Manchester Archives)

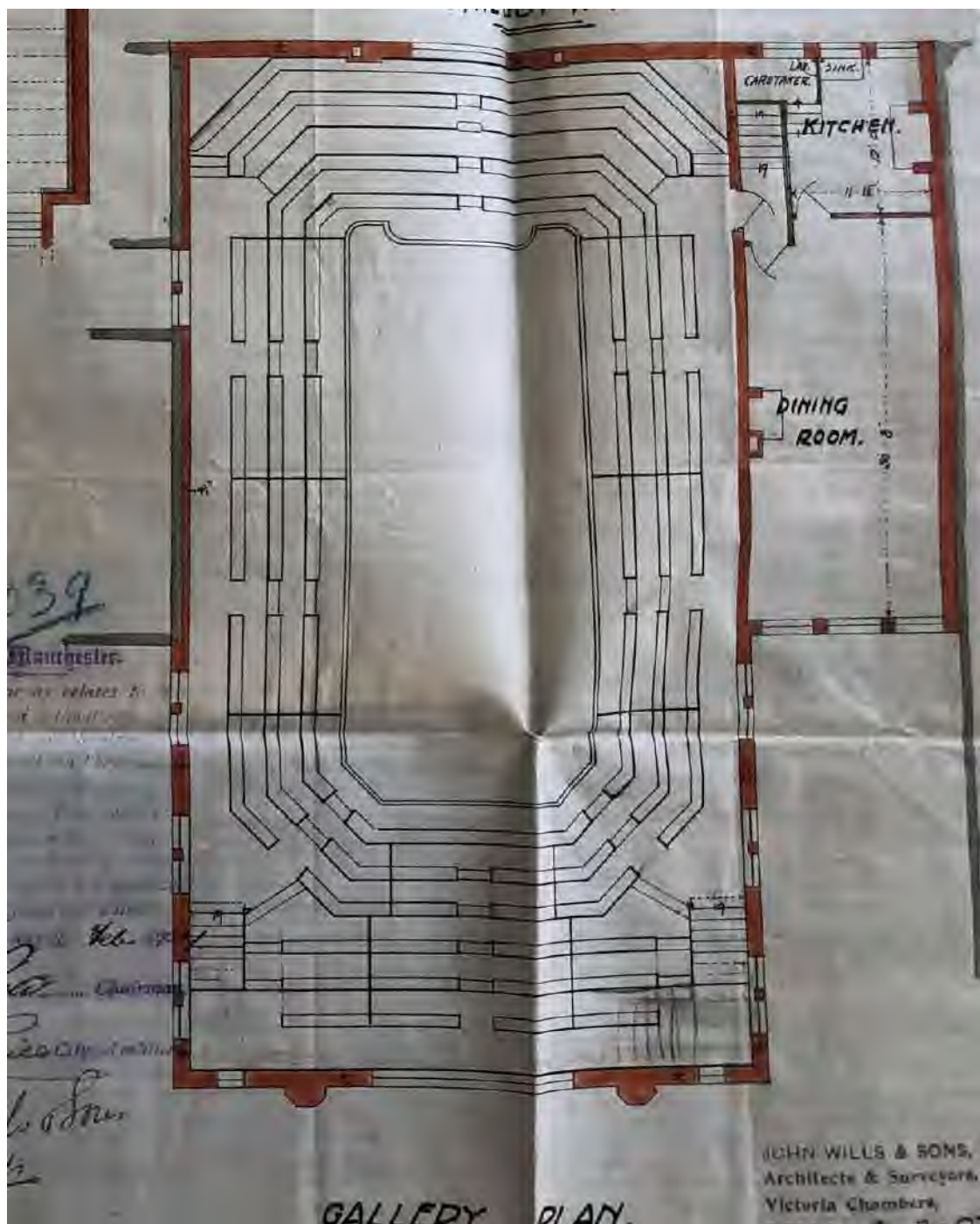


Figure 21: The original design for the first floor from February 1907, showing the location of the dining room fireplace on the western side of the room. (Source: Manchester Archives)

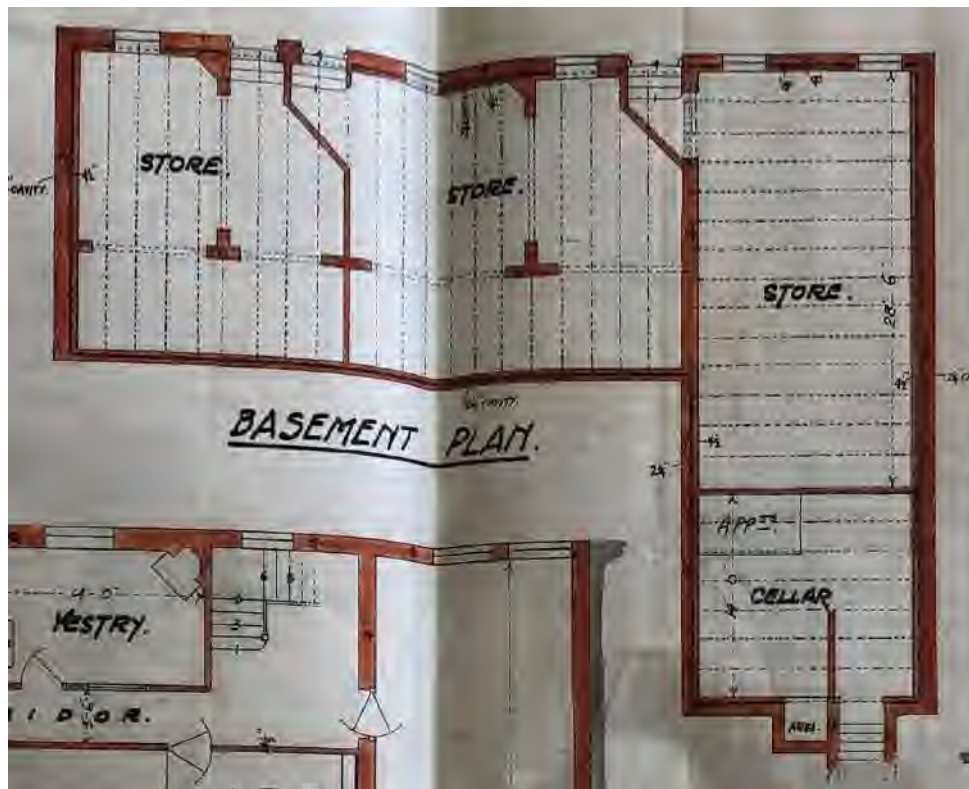


Figure 22: The original design for the basement level from February 1907 (Source: Manchester Archives)



Figure 23: An aerial view looking north over the Site in 1939, showing the original, 18th century former dwellings to the eastern side of the Site. (Source: Britain From Above)



Figure 24: Looking north towards the south elevation in 1958, showing the original castellated roof of the female toilet (outlined red). (Source: Manchester Archives)



Figure 25: Looking north-west towards the chapel from Rochdale Road in 1958, showing the early dwellings to the east of the Site. (Source: Manchester Archives)



Figure 26: A view looking north-east, showing the western elevation of the chapel and original dwelling to the western side of the Site in c1960 (Source: <http://freestgeorges.blogspot.com>)

5 SITE DESCRIPTION

5.1 Introduction

The following section provides a description of the Chapel in order to illustrate its historical development and significance. The interior of the building has largely been stripped of all its fixtures and fittings.

5.2 Building Description



Figure 27: The principal south elevation, constructed from deep red brick and buff-coloured, unglazed terracotta. The retained earlier stone coping stones, gate piers and iron gates can be seen in the foreground.



Figure 28 (above): The south elevation. **Figure 29 (below):** Looking along the east elevation of the chapel.





Figure 30: The original buff terracotta entrance portal, with concertina entrance doors that include an exemplar example of the Arts and Crafts style in the form of elongated metal hinges.



Figure 31: The east elevation, showing the current small assembly room/dining room to the right.



Figure 32: The entrance to the small assembly room with dining room above.



Figure 33: The original buff terracotta door canopy and Arts and Crafts metal basement railings.



Figure 34: The eastern half of the reused 19th century stone copings, gates and piers.

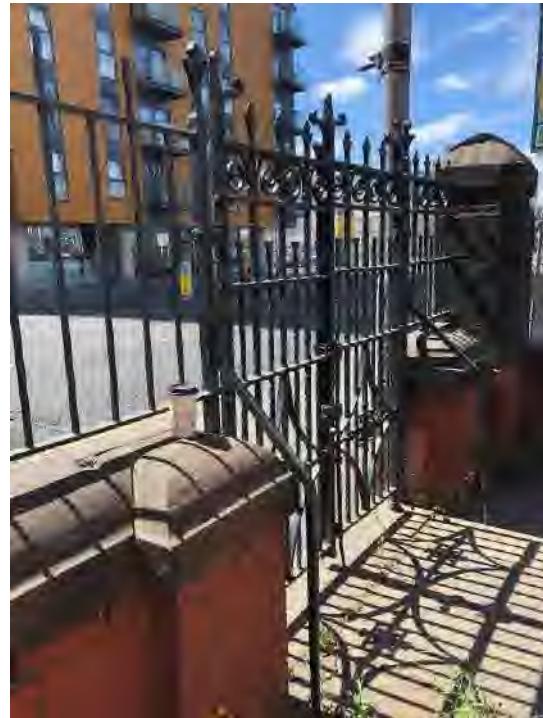


Figure 35: The reused 19th century stone copings, gates and pier to the west of the boundary wall.



Figure 36: An example of an early grave stone used as paving, dated 1793.



Figure 37: An example of an early grave stone used as paving, dated 1796.



Figure 38: An example of an early grave stone used as paving, dated 1798.



Figure 39: An example of an early grave stone used as paving, dated 1799.



Figure 40: The original foundation stone to the south elevation, placed here on the 31st August 1907 by William Vickers Esq.



Figure 41: Looking east along Dyche Street towards the west elevation of the chapel, illustrating the scarring resulting from previous buildings since demolished.



Figure 42: The rear, north elevation on Dyche Street.



Figure 43: The rear, north elevation on Dyche Street, showing the original basement storage room doors.



Figure 44: Looking north through the nave of the Chapel as it appears today, showing the balcony railings that were reused from the earlier Chapel.



Figure 45 & 46: The entrance vestibule and bases of the two balcony staircases as seen in 2021, which were removed and reused from the earlier chapel.

6 SIGNIFICANCE APPRAISAL

6.1 Introduction

The purpose of the significance appraisal is to use recognised criteria to assess the relative heritage significance of the Particular Baptist Chapel in line with its status as an NDHA, and to also determine the contribution of settings to the significance of surrounding designated heritage assets that have the potential to be impacted by the Proposed Development of the Site.

The existing Site will also be assessed with regard to the contribution the Site makes to the ability to understand and appreciate the heritage significance of any surrounding Listed Buildings and Conservation Areas.

6.2 Methodology

Criteria have been established to appraise a building's significance. Statutory criteria, as set out in the 'Principles of Selection for Listing Buildings', DCMS, 2018, provides a list of principles for assessing significance based on architectural and historic interest, age and rarity, aesthetic merits, selectivity and national interest.

The assessment of significance accords with the requirements of the NPPF and uses Historic England's methodology outlined in its 2019 document, *"Statements of Heritage Significance"*. Historic England's *"Conservation Principles Policies and Guidance"* 2008 and the revised guidance on *"Setting of Heritage Assets"* (as reissued in Dec. 2017) have also been acknowledged as part of the following assessment.

Consequently, the significance of a heritage asset is determined by an analysis of the relevant aspects of the following:

➤ **Archaeological interest**

There will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.

➤ **Architectural and artistic interest**

These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skills, like sculpture.

➤ **Historic Interest**

An interest in past lives and events (including pre-historic). Heritage assets can

illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.

The analysis of the significance allows for an assessment of the current integrity and authenticity of the Site and its contribution to the settings of nearby designated heritage assets. The focus is on providing necessary and proportionate amount of information based on the perceived level of heritage significance (refer to **Table 2, below** for full definitions of heritage significance as defined in this present report and **Table 6, Appendix I**).

Table 2: Definition of significance terms used in this Heritage Statement	
High heritage significance	relates to those components deemed to be of special interest. They are important to the understanding of the Site's design concept and play a considerable role in reflecting their archaeological, architectural, artistic or historic interest.
Medium heritage significance	relates to those components deemed to be of some interest. They will make a modest contribution to the understanding of Site's design concept and play a minor role in reflecting their archaeological, architectural, artistic or historic interest.
Low heritage significance	relates to those components deemed to be of more modest interest. They make a relatively insignificant contribution to the understanding of the architectural design concept and retain a slight role in revealing the building's evidential historic aesthetic or communal values.
No significance /Detrimental	features and elements that do not contain any special interest. These can <i>detract from the significance</i> of the building and maybe evidence of poor craftsmanship or ad-hoc refurbishments.
Unknown heritage significance	features or components where the relative importance or interest requires determination by further investigation.

6.3 The Site - The Particular Baptist Chapel

The Particular Baptist Chapel forms a good example of an Edwardian Baptist chapel in the Arts and Crafts style and represents over 230 years of continual use as a chapel and cemetery which has contained three different phases of building from the late-18th century, the early-19th century and the early-20th century.

The chapel forms the second earliest known location for a Baptist chapel in Manchester. Considerable historic interest is also yielded from the strong and well-known direct connection to one of the leading and best-known Particular Baptist preachers, William Gadsby, who was Reverend of the chapel for 38 years. This connection to the building/Site is strengthened by the retention of a number of original fixtures and fittings that were in Gadsby's c1823-4 chapel.

The north-east corner of the Site (location of the present small assembly room) was originally the site of William Gadsby's chapel house, which was designed as part of his chapel rebuilding in c1823-4, and where his son John Gadsby was born.

The typical design of a Baptist chapel does not include specific features or building elements particular to that religion, except for the inclusion of a full-depth Baptistry pool within their designs. The Particular Baptist Chapel retains its 1907 Baptistry pool immediately in front of the pulpit, which is designed to be covered over whilst not in use. However, the Baptistry does not retain any significant features or decoration.

The building retains its original 1907 planform, which was clearly continued into the present chapel design from the earlier planform of the c1823-4 chapel. The building when originally built incorporated a number of important fixtures and fittings removed from the c1823-4 chapel, which enabled the character of the earlier chapel to be partially continued in the present building. Of these, the current balcony balustrading, staircases/balustrading and perimeter cast iron railings/wall survive from the earlier Chapel.

The Particular Baptist Chapel has been identified by Manchester City Council to **yield sufficient local historic interest to be deemed a ‘non-designated heritage asset’** (NDHA) when assessed against the recognised Historic England Criteria within their 2021 Local Heritage Listing: Identifying and Conserving Local Heritage.

In 2023 a spot listing application for listing was submitted to Historic England (HE). Following HE’s assessment of the Site they rejected listing within their advice report, dated 26th April 2023, for the following reasons:

Degree of architectural interest:

- The exterior design does not demonstrate exceptional quality or innovation for its relatively late date;
- The extent of internal alteration has diminished the interest of the building in a national context.

Degree of historic interest:

- The associations with Manchester’s Baptist community, former minister William Gadsby, and with architect William Wills are of local rather than national interest.

6.4 Listed Buildings – Contribution of setting to significance

The heritage assets which have the potential to be impacted by proposed redevelopment of the Site have been identified in **Section 2.2**. The contribution of setting to the significance of these heritage assets is set out in **Table 3, below**.

The importance of ‘setting’ lies in what it contributes to the significance of the heritage asset or to the ability to appreciate that significance. Therefore, it is the *contribution of setting to the significance of the heritage asset* which should be established at this stage in the process. For these purposes, the contribution of setting to the significance of any given heritage asset is considered to be either **high, medium, low, negligible, or neutral** (refer to **Table 2** above for definitions).

Table 3: Contribution of setting to significance of identified listed buildings

Map Reference in Figure 5	Name and Grade	Summary of architectural and historic interest from list description	Contribution of setting to significance and relationship to the Site
A	Marble Arch Inn	Public house dating to 1888. Buff brick with polished pink granite to ground floor, hipped slate roof. Corner site. Two storeys; 5 bays to Gould Street with splayed corner and 2-bay return to Rochdale Road. The ground floor has a moulded plinth and a frieze and cornice carried round; a corner entrance recessed in a 3-sided granite-columned porch with "Caernarvon" arches over. Interior retains original decorative features including much faience, tiling and glazed brick. Forms an unusual survivor of a small 19th century public house with high quality interior and exterior.	The pub occupies a small corner location and sits within a setting that is characterised by cleared sites on both sides of Rochdale Road to the north and south. Plots to the west of the pub have been the subject of recent large-scale development and there is the anticipation of further development in order to reinstate the streetscape and integrate the pub back into an active streetscape. The principal two elevations of the building form the most significant elements of the building's setting. The contribution of the setting to the building's significance comes primarily from its domestic scale and high quality exterior design and materials. Due to the close proximity of the listed building to the Site they can be seen in conjunction with one another when traveling along Rochdale Road. The overall contribution of the setting to significance of the heritage asset is considered to therefore be low. The Site makes a low contribution to the appreciation and understanding of the listed building.
B	Warehouse On West Corner of Junction With Simpson Street	Small 4-storey warehouse, now handbag workshop. Probably mid C19, slightly altered. Brick, with corrugated sheet roof. Almost square plan. Four storeys, 3x3 bays; gabled facade with central 4-stage loading slot complete with timber sills, board doors and crane jib, flanked by segmental-headed windows. Three-window left side with central segmental-headed doorway at ground floor, and segmental-headed windows. Forms group with Sharp Street Ragged School to the right. Forms an simple early survival of a 19th century warehouse in the local	The warehouse forms the end of an island block, with its setting being appreciated from the adjacent School Street and Sharp Street as well as Simpson Street. The small scale of the listed building and the narrow width of surrounding streets curtail the appreciation of its setting to the principal surrounding streets. The overall contribution of the setting to significance of the heritage asset is considered to be medium. Due to the lack of intervisibility

Table 3: Contribution of setting to significance of identified listed buildings

Map Reference in Figure 5	Name and Grade	Summary of architectural and historic interest from list description	Contribution of setting to significance and relationship to the Site
		area.	between the Site and listed building, the Site makes no contribution to the appreciation and understanding of the listed building.
C	Cooperative Press	Industrial building or warehouse. Later C19 with addition or alteration of c.1905. Brown brick with red brick dressings, and red brick with yellow terracotta dressings (roof not visible). Rectangular plan on island site, in 2 portions. Left range is 4 storeys with basement and attic, 4 windows plus canted corner to left; right-hand range is 4 storeys with basement. Now apartments. Forms an unusual survival of a city centre 19th and 20th century printing press.	The setting of the former printing works is primarily understood when looking north towards its main elevation where the principal phases of its differing constructions can be appreciated. The overall contribution of the setting to significance of the heritage asset is considered to be low/medium. Due to the lack of intervisibility between the Site and listed building, the Site makes no contribution to the appreciation and understanding of the listed building.
D	Sharp Street Ragged School	Former ragged School, Sunday School and Boys' Club. Established 1853, rebuilt 1869. Red brick, slate roof. Rectangular plan. Two storeys and 8 bays, pilastered, with a corbel table to each bay. The ground floor has a round-headed doorway to the 1st bay, with panelled door and fanlight with semi-circular tracery, a segmental-headed window to the 4th bay with a doorway below the sill and coupled segmental-headed windows in the other bays; the 1st floor has coupled round-headed windows. The rear is similar. Forms a rare survivor of an inner-city ragged school in a once nitrous district of the city centre.	The listed building forms the northern end of an island block, with its setting being appreciated from the adjacent School Street and Sharp Street as well as Naples Street. The medium scale of the listed building and the narrow width of surrounding streets curtail the appreciation of its setting to the principal surrounding streets. The overall contribution of the setting to significance of the heritage asset is considered to be medium. Due to the lack of intervisibility between the Site and listed building, the Site makes no contribution to the appreciation and understanding of the listed building.

Table 3: Contribution of setting to significance of identified listed buildings

Map Reference in Figure 5	Name and Grade	Summary of architectural and historic interest from list description	Contribution of setting to significance and relationship to the Site
E	Charter Street Mission (Formerly Charter Street Ragged School and Working Girls' Home)	The building forms a working girls' home, ragged school and mission hall of 1892 and 1900. The Dantzig Street frontage of 1900 is of three storeys. The main frontage is four bays wide, each bay having paired windows, and the right-hand bay wider and also incorporating a corner entrance. The left-hand bay is under a shouldered gable with stone copings. The righthand bay has a larger, Flemish gable with truncated central chimney breast. Between the gables, the eaves project with a cast-iron ogee gutter, and central downpipe which is respected by the moulded terracotta sill-bands of the upper two floors. The roof ridge has crested tiles, a flagpole and a small, brick ventilator tower. The building forms a physical reminder of the very real need to safely accommodate working girls and young women in industrial cities during the late-C19 and early-C20, and the extensive efforts made to meet this need, designed by notable architects Maxwell and Tuke. Forms a group with the nearby Ashton House (Grade II), Sharp Street Ragged School (Grade II), and the former Methodist female mission at 29 Great Ancoats Street (Grade II).	The listed building sits on the northern edge of the St Michael's and Angel Meadow Park which provides an attractive green setting and enables the opportunity for an appreciation of the architectural character and historical significance of the listed building. To the north, the building is enclosed by the railway viaduct; to the west, it's setting has been enclosed by tall modern development. The opportunity to appreciate the listed building is therefore largely limited to close up views from the park to the south. The overall contribution of the setting to significance of the heritage asset is considered to be medium. Due to the distance and orientation of the listed building to the Site, the Site makes no contribution to the appreciation and understanding of the listed building.
F	Former Police and Ambulance Station	The former police and fire station was largely demolished in 2007 due to fire damage and today consists of the four outer walls and ventilation stack. Below is the original list description. Former police and fire station. Mid to later C19, now ruined. Red brick with some sandstone ashlar. Rectangular plan on island Site originally incorporating office and domestic	The setting of the former Police Station has been entirely lost due to all surrounding blocks having been redeveloped with a mixture of modern industrial units and surface car parks from the 1950s onwards, along with areas of more recent housing in the 1980s. As a result, the remains of the (now ruined) Site and especially its substantial chimney stack stand

Table 3: Contribution of setting to significance of identified listed buildings

Map Reference in Figure 5	Name and Grade	Summary of architectural and historic interest from list description	Contribution of setting to significance and relationship to the Site
		block on west side, cell range to south of this, with tall chimney stack (surviving), and fire engine garage on east side, all within a curtain wall. Curtain wall with sandstone ashlar plinth, rusticated quoins to the angles, plain cornice and parapet carried round. The principal feature of the entrance front on the west side is the gable end of the 4-storey main block, which has a 3-bay facade of ashlar.	isolated as a remnant of the 19th century development of the area. Due to the substantial redevelopment and clearance of surrounding sites, the overall contribution of the setting to significance of the heritage asset is considered to be low. Due to the distance and orientation of the listed building to the Site, the Site makes no contribution to the appreciation and understanding of the listed building.
G	8 Cable Street	Warehouse or industrial building. Mid to later C19. Brick with some stone dressings. Rectangular. Four storeys, gable to road, 3 x 10 windows. Central segmental-headed doorway and segmental-headed windows, all these with stepped jambs in the form of simplified pilasters with moulded heads and feet; moulded brick band over top floor; rebuilt gable with central window, moulded bands to coping, and added or rebuilt chimney on left slope. Long sides similar, but with simpler windows (those to basement blocked). Rear gable wall has tiered loading doorways to right.	The former industrial furniture warehouse at No. 8 Cable Street is now substantially shorn from its historic setting due to the surrounding plots having been cleared or redeveloped in recent years with new apartment buildings. The setting of the remains of the listed building (perimeter walls and chimney) and largely appreciated from surrounding streets, whilst the tall chimney structure can be seen from further afield. The overall contribution of the setting to significance of the heritage asset is considered to be Low. Due to the distance and orientation of the listed building to the Site, the Site makes no contribution to the appreciation and understanding of the listed building.
H	New Century House, Including its Attached Conference Hall and Abstract Concrete	Office building and attached conference hall, 1959-63, by G.S. Hay, chief architect of the Co-operative Wholesale Society (CWS) with Gordon Tait of Sir John Burnet, Tait and Partners. Forms a group with the adjacent CIS	New Century House sits on a prominent corner site between Miller Street and Corporation Street. Whilst the tower element of the building (New Century House) is a landmark within the Manchester skyline, the lower Hall element provides a strong horizontal emphasis which contrasts

Table 3: Contribution of setting to significance of identified listed buildings

Map Reference in Figure 5	Name and Grade	Summary of architectural and historic interest from list description	Contribution of setting to significance and relationship to the Site
	Relief Wall in the Entrance Piazza, Grade II	Tower (Grade II).	to the tower and provides a more human scale to the building composition. The building is set back from the back of pavement line and is surrounded by green space along Miller Street. This landscaping orientates the pedestrian to move round to the south and or west side of the building where the entrances are located. It is from these locations that the setting of the building is experienced more intimately as the building is understood to be within a denser urban grain and as part of the larger Co-op estate. The overall contribution of the setting to significance of the heritage asset is considered to be high. Due to the distance and orientation of the listed building to the Site, the Site makes no contribution to the appreciation and understanding of the listed building.
I	Parkers Hotel	Originally part of the Cooperative Wholesale Society estate and now hotel. c.1900- 10, in 2 builds. Entrance block of red brick and Portland stone, rear range of sandstone ashlar, with slate roof. On island site between Corporation Street and railway, the rear range rectangular with the entrance block forming a quadrant at the south end. Entrance block in neo-Baroque style: 3 storeys with basement and double attic, 9 bays in a convex quarter circle. The building optimises the prominent curved corner plot it accommodates.	Parkers Hotel is located on a corner plot at the junction of Corporation Street and Ring Road. The listed building is prominent in these approaches owing to its corner position, copper-clad dome, and the contrast of its red brick materiality with the largely grey tones of surrounding modern development, including the tall buildings on Cheetham Hill Road which backdrop the former hotel. The current visual experience of the listed building highlights that it appears quite isolated from its former historic context, with the exception of the Cooperative Society warehouse buildings to the south which contribute to an appreciation

Table 3: Contribution of setting to significance of identified listed buildings

Map Reference in Figure 5	Name and Grade	Summary of architectural and historic interest from list description	Contribution of setting to significance and relationship to the Site
			of its significance. The surrounding road infrastructure creates a hostile pedestrian environment surrounding the listed building, limiting opportunity for the appreciation and enjoyment of its architectural quality in close up views. The overall contribution of the setting to significance of the heritage asset is considered to be low/medium. The Site makes no contribution to the appreciation and understanding of the listed building.
J	Co-Operative Insurance Society (CIS) Building	The CIS Tower is a high-rise office building designed for the Co-operative Insurance Society (CIS) by architects Gordon Tait and G. S. Hay, completed in 1962 and rises to 118 m (387 ft) in height. Forms a highly visible and prominent landmark building in the local vicinity with far-reaching visibility across the city centre.	The CIS tower is experienced at multiple points across the city and beyond. It forms a key landmark feature to the Manchester skyline and has done for over 50 years. Consequently, the setting of the building extends to long distance views. Within the immediate surroundings of the building it is understood as being part of the larger Co-op estate; this relationship is strengthened by the presence of New Century House to the north. The overall contribution of the setting to significance of the heritage asset is considered to be high. The Site makes no contribution to the appreciation and understanding of the listed building.

6.5 Conservation Areas

The boundaries of the Shudehill Conservation Area, Smithfield Conservation Area and Ancoats Conservation Area are located at a short distance from the Site, however, the Site is not currently intervisible with the conservation areas or their settings, and makes no contribution to the appreciation of their significance or setting.

The Shudehill Conservation Area is bounded by Hanover Street, Riga Street, Mayes Street, Shudehill, Withy Grove and Corporation Street. It also includes one building on the north side of Hanover Street, fronting Corporation Street. Whilst it is recognised the area retains some key listed buildings and isolated pockets of consistent character, when considered as a whole, there are no key architectural and aesthetic regularities which can be understood as a collective and coherent conservation area.

The wholesale removal of historic street pattern and buildings to the centre of the area in order to build the modern Shudehill Interchange development resulted in a largely open space for the passage of buses, cars and coaches which is wholly out of character of the conservation area, providing long expanses of non-active street frontages and a lack of enclosure, whilst radically changing the appearance and grain of northern end of Shudehill and Dantzic Street. However, parts of the proposed tower element are likely to be partially visible in the distance along Shudehill itself.

The Smithfield Conservation Area lies on the north-eastern edge of the city centre of Manchester. The area is bounded by Swan Street, Oldham Street, Market Street, High Street and Shudehill. The Conservation Area can be understood and appreciated as a coherent area of 19th Century commercial development. The focus and ability to appreciate the former commercial district is experienced further south into the area away from Swan Street.

The Ancoats Conservation Area is a large and varied area bounded by Great Ancoats Street, Oldham Road, Kemp Street, Wadeford Close, Jersey Street and the Rochdale Canal. The former 18th century industrial village is laid out in a regular grid pattern which provides a dense urban form and enclosed streetscapes which contain a high number of Manchester's earliest, and most significant cotton mill developments. The conservation area is largely contained within a tightly contained grid pattern, which is only appreciate when traveling through the area itself, or when viewed from the east along the eastern end of Great Ancoats Street.

It is considered that the Proposed Development will have **no impact** on the setting, character or appearance of the Shudehill Conservation Area, Smithfield Conservation Area, or the Ancoats Conservation Area.

6.6 Statement of Significance

The following section disaggregates the relative interest of the Site in line with its non-designated status. The purpose of the Statement of Significance is to define those parts of the Site which contribute to its interest, against those which detract from it, whilst putting the Site in its historic context.

- The Particular Baptist Chapel was assessed for listing by Historic England for listing in 2023 and **did not meet the criteria for listing.**
- The Site **does not contain any listed buildings but is located within the setting a number of listed buildings.**
- The Site has been **identified as a ‘non-designated heritage asset’** by MCC and is thus considered to be of low heritage significance as recognised in ICOMOS guidance.
- The Site yields **considerable architectural and aesthetic interest, considerable historic interest and medium/high archaeological interest.**
- The Site is **not within a conservation area** but is **located close to the Shudehill Conservation Area, Ancoats Conservation Area and Smithfield Conservation Area.**
- Due to the proximity / intervisibility, only the **Shudehill Conservation Area is scoped in to this assessment.**
- There are 49no listed buildings within a 500m radius of the site, of which **10no. are scoped in to this assessment.**
- It is considered that the Proposed Development will have **no impact on the setting, character or appearance of the Shudehill Conservation Area, Smithfield Conservation Area, or the Ancoats Conservation Area.**

7 HERITAGE IMPACT ASSESSMENT

7.1 The Proposed Development

The Proposed Development will include the partial demolition of the rear and eastern parts of the former Chapel and the retention of the majority of the original nave along with the restoration of the front elevation of the building, including stained glass windows, doors and the reuse of the historic 18th and 19th century gravestones within the front yard area. The demolished rear part of the Chapel will become the site of a 23-storey tower consisting of 133 residential units.

The scheme will include shared outdoor/indoor amenity space, commercial space, and associated cycle parking, refuse storage and plant.

7.2 Measuring heritage impact

In the interests of proportionality, and recognising the **low heritage status of the Site**, this impact assessment provides a narrative description of the proposed works and the direct and indirect impacts of these works on the heritage interest of the Site and on the settings of identified surrounding heritage assets.

This assessment of the potential heritage impact also concerns the visual impact of the Proposed Development upon the settings of identified heritage assets, including the setting and significance of the non-designated Particular Baptist Chapel (the Site). The contribution of the setting to significance in each case has been established in the significance assessment above, in preparation for the following impact assessment.

The aim of this assessment is to demonstrate the cumulative impact of the proposed alterations to the non-designated building and its setting as a whole. Thus, the key purpose of the impact assessment is to consider changes and the cumulative impact that the Proposed Development will have on the non-designated building's significance and setting. In accordance with planning policy, the Proposed Development aims to balance the degree of change, to deliver both a continued and sustainable use while contributing to wider conservation objectives established in national and local policy.

There is no recognised standard methodology for the appraisal of impact on heritage assets. Therefore, the method used below is a synthesis of the Historic England's guidance, the policy requirements of the NPPF (which requires that new development should be demonstrably 'sustainable'), and the ICOMOS methodology for evaluating impact.

The magnitude of impact is a product of the extent of change which is likely to result from the Proposed Development on the settings of the identified surrounding heritage assets and on the significance and setting of The Site. Where the proposed changes are considered to *enhance* the setting or appreciation of a heritage asset, the impact on its significance will be deemed to be *beneficial*. Conversely, where the Proposed Development is considered to *compromise* its positive heritage values, the impact on the significance will be deemed *adverse*.

Therefore, measuring the heritage impact of the Proposed Development is essentially an evaluation of change to the: setting, fabric, character, and appearance of the identified heritage assets, balanced against their relative significance. Please refer to **Table 6, Appendix I for relative significance / values used in this Heritage Statement which notes non-designated heritage assets are generally of local value only and at the lower end of significance ‘spectrum’. i.e. low value.**

The relative importance and interest of each heritage asset is considered in the context of its surroundings, and the extent to which the setting contributes to the interest of the asset is considered. In terms of the context, where this exists, historical relationships between heritage assets and their surroundings, and other assets in the vicinity, are considered. In some instances, these relationships may be understood in the light of historic research but may not be, immediately, visually apparent.

The effects are rated as: **Major, Moderate, Minor, Negligible or Neutral**, and can be direct or indirect, adverse or beneficial.

The criteria for assessing the magnitude of change and significance of impact follows the recommended approach to evaluating heritage impact derived by ICOMOS (2011) and the tests set by Historic England in the 2017 guidance on the evaluation of: ‘The Setting of Heritage Assets’ (*Historic Environment Good Practice Advice in Planning. Note 3*). Refer to **Table 4, below**.

7.3 Determining the overall impact

The significance of the effect of change – i.e. the overall impact - on an attribute is a function of the importance of the attribute and the scale of change.

The overall impact of the Proposed Development upon the setting and context of the identified heritage assets is informed by the identified heritage views. The subsequent assessment gives particular consideration to the overall effect upon the experience and appreciation of the significance of key heritage assets (listed buildings and conservation areas) which may exist in close proximity to the Site or be frequently visible in a series of views in conjunction with the Proposed Development in addition to the direct impact on the Site as a non-designated heritage asset in its own right. Please refer to **Table 4, below** for ICOMOS Guide on determining significance of overall impact.

Mitigation in respect of any adverse impact upon the Site or the setting of the identified listed buildings and conservation areas is formulated upon the overall benefits of the Proposed Development. Benefits relate to both the place in which the development will be constructed, as well as benefits to the wider community or society as a whole. Discussion of such benefits fall outside the scope of the Heritage Statement and are expounded in the Planning Statement prepared by Zerum.

The following section will focus on the indirect (visual) impact upon the settings of identified heritage assets (including the setting of the non-designated Particular Baptist Chapel), which will result as a primary consequence of the Proposed Development.

Indirect (visual) impact principally relates to visual impact, but also takes into consideration the changed experience within the setting of the heritage assets in the view, including traffic, noise, accessibility, permeability and patterns of movement. As set out within Historic England's assessment checklist for assessing the impact on 'setting'.¹

The following assessment on heritage impact has been considered in accordance with paragraph **216 of the NPPF** (2024), which relates specifically to non-designated heritage assets, and which states *"The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset"*.

In terms of the non-designated Particular Baptist Chapel it is therefore the 'scale of harm' and 'loss of significance' which must be understood in order to inform the planning balance. The impact of the Proposed Development on the overall integrity and significance of the Site's historic components may be measured as: **adverse; neutral or beneficial**.

Regarding the heritage impact of designated heritage assets, **paragraph 212 of the NPPF** (2024) requires that, when considering the impact of a Proposed Development on the significance of a designated heritage asset that great weight is given to its conservation in order to avoid any 'harm' which might diminish the value of the asset and its significance.

Table 4 below, 'Assessing the Significance of Impact', uses a matrix to combine the value of a heritage asset (whether it be designated or non-designated – refer to **Table 5 Appendix I**) with the magnitude of impact. As stated within ICOMOS Guidance, this is a general guide and is not intended to be prescriptive.

Scale or severity of impacts or changes can be judged taking into account their indirect effects and whether they are temporary or permanent, reversible or irreversible. The cumulative effect of separate impacts should also be considered. The scale or severity of impact can be ranked without regard to the value of the asset. This significance of impact can be either adverse or beneficial.

¹ Historic England (2017). The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning Note 3 (Second Edition).

Table 4: Assessing the Significance of Impact (taken from ICOMOS guide for Heritage Impact).

Value of Heritage Asset	Scale & Severity of Change/Impact				
	No Change	Negligible change	Minor change	Moderate change	Major change
For WH Properties Very High – Attributes which Convey OUV	Significance of Effect or Overall Impact (Either Adverse or Beneficial)				
	Neutral	Slight	Moderate/ Large	Large/Very Large	Very Large
For Other Heritage Assets or Attributes	Significance of Impact (Either Adverse or Beneficial)				
Very High	Neutral	Slight	Slight/ Moderate	Large/very Large	Very Large
High	Neutral	Slight	Slight/ Moderate	Moderate/ Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/ Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/ Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

7.4 Visual Impact Assessment (Indirect)

Figure 47 below provides a baseline map with the relative locations of the six key heritage viewpoints. The chosen heritage viewpoint locations (**Viewpoints 01, 02, 05, 06, 08 and 09**) will form the Visual Impact Assessment below.

The selected viewpoints have been scoped in where a) there is a baseline value to the view, in heritage terms, b) where the Proposed Development is visible, and c) sensitive / key viewpoints which test whether the Proposed Development could be visible. Additional viewpoints will be assessed as part of the wider Townscape Visual Impact Assessment (TVIA). Cumulative schemes shown in the views prepared by rpmb are identified in the key below.



Figure 47: Map showing full viewpoint selection – views used for the purposes of the subsequent heritage impact assessment are highlighted with a pink circle. Additional townscape viewpoints will be assessed in the accompanying TVIA report. The Site is outlined in white.

CUMULATIVE DEVELOPMENTS SHOWN AS:		
VISIBLE IN-VIEW	MASKING EXTENTS	APPLICATION
		Land Bounded By Angel Street, Miller Street And Angel Square Known As Plots M And O Manchester NOMA (34007/FO/2022)
		25 Rochdale Road, Manchester M4 3HT, (27537/FO/2020)
		87 Rochdale Road, Manchester M4 4RY, (36574/MNC/2023)
		One Park Place, Cheetham Hill Road, (38002/FO/2023)
		Land Bounded By Denzil Street, Dalton Street And The Railway Line Known As 1000 NT02, NT03 And NT04 Manchester, Victoria North, Redbank (36614/FO/2023)

7.5 Views 01 & 02 – looking south-west towards the site (kinetic views)



View 01 (Baseline)



View 01 (Proposed)



View 01 (Cumulative)



View 02 (Baseline)



View 02 (Proposed)



View 02 (Cumulative)

The above images provide a kinetic sequence of views experienced along Rochdale Road whilst travelling south-west towards the Site.

View 02 is experienced looking south-west towards the Site from the junction of Rochdale Road and Sudell Street and illustrates the lack of development to the far-eastern side of the Site compared to the number of tall buildings to the edge of the city to the left. The view shows the juxtaposition in character within the immediate environs of the site which includes cleared plots alongside large new residential developments to the extreme right of the view.

Although this view includes glimpses of the very top floors of the Grade II listed CIS Tower to the distant right, and the altered, plain side elevation of the Grade II listed Marble Arch public house to the mid-right, these buildings are not readily perceptible, and this is not the best location from which to experience their architectural and historical significance. The Proposed Development is seen to fit relatively comfortably into the existing context and setting of these heritage assets and overall, notwithstanding its scale and prominence, is not considered to adversely impact their setting or the current, limited ability to appreciate the listed buildings from this location.

Travelling further east, View 1 illustrates the built form to the immediate east of the Site, which comprises almost entirely of new built, medium-rise residential apartment buildings/hotel which have been completed within the last few years. To the mid-right distance can be seen the Grade II listed CIS Tower, which forms part of this modern skyline.

The Particular Baptist Chapel can be seen to be shadowed amongst these new, taller buildings, but still retains a strong street presence resulting from its architectural form and detailing of its principal front façade fronting Rochdale Road.

The proposed view clearly shows the Chapel's principal façade as being partially concealed by the new tower element of the development; however, the western edge of the façade can still be glimpsed, resulting in a **minor adverse** impact on the character and setting of the non-designated building. The ability to appreciate the Grade II listed CIS Tower from this location is limited by the presence of the new tower, which obscures the majority of the listed building's form. A **minor adverse** impact is identified to this building's setting from this location.

In the cumulative context, cumulative schemes indicated by the orange, blue and green wirelines/shaded areas are visible, and illustrate the future evolution and intensification of the setting of the Site. Notwithstanding their prominence in the views, it is considered that the cumulative schemes neither increase or diminish the impacts identified on the scheme as a result of the Proposed Development.

7.6 Views 05 & 06 – looking north-east towards the site (kinetic views)



View 05 (Baseline)



View 05 (Proposed)



View 05 (Cumulative)



View 06 (Baseline)



View 06 (Proposed)



View 06 (Cumulative)

The above selection of viewpoints provides a kinetic sequence of views experienced along Rochdale Road and into Shudehill, travelling south-west from the location of the Site.

View 5 illustrates the immediate setting of the Particular Baptist Chapel, demonstrating its total loss of historic context, which now comprises of cleared sites and newly completed medium-rise and tall residential buildings and hotels. The cleared sites reflect the anticipation of further development in this location.

Rochdale Road is characterised by its straight, linear axis, its sense of enclosure is lessened by the fragmented nature of the cleared sites to the left foreground. The busy nature of this part of Rochdale Road at its junction with Addington Street (right) and Angel Street (left) and its associated street furniture and signage is clearly illustrated.

To the distance is the Grade II listed Marble Arch public house, however, due to the distance and presence of surrounding buildings, the listed building is not easily perceptible within the view and its setting will not be affected from this viewing location.

The proposed scenario of view 5 illustrates that the new tall element of the scheme will be fully visible within the view, and will be a dominant presence in the streetscape, and will be seen to project directly above the small-scale Baptist Chapel and erode its street presence to a notable degree. The location of the proposed tower and its structural reinforced frame to the western aspect of the chapel, further erodes the character and setting of the building, however, it is considered that this visual impact will be diminished with the future redevelopment of the cleared sites in the foreground (currently on site) as the tower becomes less visually stark in its emerging context.

The impact in View 6 is less perceptible due to the distance of the Site from the viewing location, there are also no designated heritage assets within this view, and therefore no related heritage impacts resulting from the visibility of the scheme. The view does take in a terraced row of late-19th century, non-listed buildings that are located within the easternmost corner of the Shudehill Conservation Area. It is not considered that the Proposed Development will adversely affect the character or appearance of the conservation area or the setting of the non-designated, historic terrace.

The cumulative content in view 5 illustrates that the neighbouring schemes on Rochdale Road will continue the dramatic transformation of the streetscape. The scheme outlined in orange, 25 Rochdale Road, will further diminish the street presence of the NDHA within the Site from this location, although it may activate the streetscape and bring vitality at a closer level. The cumulative context is considered to result in an intensification of the impact of the Proposed Development on the Chapel, which will not be readily perceived within the streetscape. The impact is less intense in view 6 owing to the greater separation between the viewpoint and the Site.

7.7 View 08 – looking south-east towards the site



View 08 (Baseline)



View 08 (Proposed)



View 08 (Cumulative)

View 08 illustrates how the Proposed Development will be experienced from the intimate setting of the Grade II listed Sharp Street Ragged School (right of view), when looking south-east towards the rear aspect of the proposed tower element of the Proposed Development in the middle distance.

This view demonstrates the consistency in height, scale and materiality, that characterises historic and contemporary buildings within this tight gridwork of narrow streets.

The addition of the proposed tall building element is clearly an uplift in scale compared to the existing buildings in this view and means the Site will now be visible from the setting of the Sharp Street School building. It is considered, however, that this tower element will be appreciated as being a distinct development in the mid-distance. Notwithstanding this, it is considered that the insertion of the tall building will draw the attention of viewers and diminish the prominence of the listed building experienced in the view.

Consequently, it is considered that the Proposed Development will result in a **minor adverse** impact to the setting of the Grade II listed former Sharp Street School.

There are no visible cumulative schemes due to interposing built form and so no decrease or intensification of the impact of the Proposed Development in the cumulative context.

7.8 View 09 – looking east towards the site



View 09 (Baseline)



View 09 (Proposed)



View 09 (Cumulative)

View 09 looks east across Corporation Street towards the location of the Site to the centre distance of the view, illustrating the setting of the Grade II listed New Century House (right) from this viewing place. To the centre of the view can be seen recently completed residential towers, located to the eastern end of Miller Street at its junction with Rochdale Road.

This view illustrates part of the existing cluster of tall buildings at the junction of Corporation Street and Miller Street, which within the view includes the recently completed No. 4 Angel Square building (far left), and the Grade II listed New Century House (far right). The foreground is characterised by the 1950s sculptural concrete fountain and piazza which forms part of the Grade II designation of New Century House.

The proposed new tower element of the development will be seen in conjunction with the existing and established tall buildings within the foreground and mid-distance of the view and will introduce a further medium-height addition to the horizon, adjacent to recently completed residential buildings of corresponding scale and mass. The new tower will be read and understood as forming part of this urban context and will reinforce it. The development will disappear behind surrounding towers in kinetic views further north-east along Corporation Street and easterly along Miller Street.

It is considered that the Proposed Development will not change or affect an appreciation of the architectural or historical value and significance of the Grade II listed New Century House and its sculptural fountain and piazza as a group.

The cumulative scheme at NOMA, outlined in blue, wholly obscures the Proposed Development in the cumulative context, infilling most of the existing sky gap between the buildings in the middle-

ground of the view. The impact of the Proposed Development on the setting of heritage assets as experienced from this viewpoint location is therefore entirely removed.

7.9 Visual Impact Assessment (Indirect) - Conclusions

Utilising the above CGIS, **Table 5** below demonstrates that the Proposed Development will result in **seven instances of neutral impact** on the settings of the Grade II listed Marble Arch Inn, Cooperative Press Charter Street Mission, former Police and Ambulance Station, 8 Cable Street, New Century House, and Parkers Hotel, and **three instances of minor adverse indirect impact** on the settings of the Grade II listed Warehouse on west corner of Junction with Simpson Street, Sharp Street Ragged School, and the Cooperative Insurance Society (CIS) Building. A **moderate adverse indirect impact** on the setting and significance of the non-designated Particular Baptist Chapel is identified. The Proposed Development has also been demonstrated to result in **neutral impacts** on the Ancoats, Shudehill and Smithfield Conservation Areas.

Regarding the Grade II listed Warehouse on west corner of Junction with Simpson Street and Sharp Street Ragged School, minor adverse impacts are incurred due to the introduction of a new, tall element within the established and consistent, low-rise settings of the listed buildings. A minor adverse impact on the setting of the CIS Tower is identified as a result of the visual impact that is illustrated in View 1.

Regarding the non-designated Particular Baptist Chapel, the moderate indirect adverse impact incurred results from the change to the building's presence within the streetscape and the ability to appreciate and understand the heritage interest of the building, which although retained as part of the Proposed Development, will be much lessened by the oversailing tall building element of the scheme.

However, it is considered that the Proposed Development will enhance the current streetscape by activating and enlivening it, creating a new 'destination' which will draw people towards the Site which in turn will provide more opportunities for the appreciation of its remaining legible architectural/historical heritage interest of the building.

In the cumulative context, the intensity of built form in the setting of the Site is demonstrably increased, and the prominence of the NDHA within the Site is arguably diminished to a greater degree. However, it is considered that the impacts identified above will remain consistent in the cumulative context, including the **moderate adverse indirect impact** on the Chapel within the Site.

Table 5 – Predicted impacts of Proposed Development upon significance of setting to Heritage Assets

Asset Number in Fig 4	Heritage Asset designation	Significance value	Scale of impact	Significance of the effect of change, or overall impact
A	Marble Arch Inn, Grade II	Medium	No change	Neutral
B	Warehouse on west corner of Junction with	Medium	Moderate change	Minor adverse

	Simpson Street, Grade II			
C	Cooperative Press, Grade II	Medium	No change	Neutral
D	Sharp Street Ragged School, Grade II	Medium	Moderate change	Minor adverse
E	Charter Street Mission (formerly Charter Street Ragged School and Working Girls' Home), Grade II	Medium	No change	Neutral
F	Former Police and Ambulance Station, Grade II	Medium	No change	Neutral
G	8 Cable Street, Grade II	Medium	No change	Neutral
H	New Century House, including its attached conference hall and abstract concrete Relief wall in the entrance piazza, Grade II	Medium	No change	Neutral
I	Parkers Hotel, Grade II	Medium	No change	Neutral
J	Co-Operative Insurance Society (CIS) Building, Grade II	Medium	Minor change	Minor Adverse
/	Particular Baptist Chapel (the Site), Non-designated	Low	Major change	Moderate adverse
/	Ancoats Conservation Area	Medium	No change	Neutral
/	Shudehill Conservation Area	Medium	No change	Neutral
/	Smithfield Conservation Area	Medium	No change	Neutral

7.10 Physical Impact Assessment (Direct)

An important element of the Proposed Development has been to retain and restore the principal front façade of the 1907-8 chapel and the spatial character of the Chapel's nave, which form the most significant parts of the original chapel building. Retention and restoration of these elements will result in **beneficial direct impacts**.

The Proposed Development has sought to create an active/viable use for the redundant historic building, retaining the front portion of the Chapel and utilising the principal front (south) elevation fronting Rochdale Road, which will be retained in its entirety, forming the new entrance into the residential development. The original stained-glass windows to the retained façade will be removed, repaired and reinserted, with the addition of a secondary glazing system within the inner reveals. The Arts and Crafts concertina entrance doors will be repaired and redecorated and will continue to form the main entrance into the building.

To the front (south) entrance yard, the perimeter brick and stone wall and cast-iron railings/gates, which all date to the earlier, c1823-4 chapel on the site, will be retained and repaired. Due to the need for level access into the new development a ramp will be built within the yard area, which will require the permanent closing of the central-most gates.

The existing 18th and 19th century gravestones which currently form the surface of the front yard will be salvaged and re-used within the frontage area.

Internally, in order to retain as much of the original spatial character/volume as possible, the proposed scheme has positioned the plant and co-working space to the rear (north) of the chapel site, which allows the main nave space to remain largely unaltered.

The nave itself will only lose a total of 3.4m length in order to allow for the new structure to be located behind and will continue to form a large and dramatic open space, retaining its original barrel-vaulted ceiling and perimeter galleries. In order to install the transfer structure, however, the galleries and original supporting cast iron columns will need to be dismantled and refurbished before being repositioned in their original locations.

The balustrade to the galleries, which dates to the earlier c.1823-4 chapel on the site, will aim to be refurbished and re-installed, with any necessary additions/alterations included to align with current building regulations. New bleacher seating will be introduced to reflect the original religious pew seating, which will allow the gallery space to be enjoyed by residents.

The entrance foyer from Rochdale Road will require some modifications to improve connectivity from the main entrance into the nave area. These changes will include the removal of the dividing wall between foyer/nave and the construction of a new, curved wall, and large central opening.

The two stone staircases and cast-iron balustrading to the east and west sides of the foyer, which both date to the earlier c1823-4 chapel on the site, will be dismantled and reconstructed in order to suit current regulations.

The retention and refurbishment of the principal elevation, the spatial character of the nave and its balconies and columns as part of the Proposed Development will result in beneficial impacts, however, adverse impacts will be incurred

Unfortunately, due to the siting and complexity of constructing the new tower structure immediately behind the retained front aspect of the Chapel and allowing for continued site access during the construction process, the northern end of the chapel, along with the former Sunday

school building to the east and side toilets to the east and west of the front elevation will require demolition.

Adverse impacts will also arise from the redesigning of the original stone staircases and construction of new entrance ramp, which will require the current gravestones to be removed and partially relocated elsewhere. Adverse impact will also be yielded from the removal of the original rooms and structure to the northern aspect of the chapel, along with the demolition of the original toilets to the east and west of the entrance foyer.

These proposed changes and additions will require the removal of a significant amount of the historic fabric that forms the Site and will result in an overall **minor-moderate adverse direct impact**.

8 PLANNING POLICY ASSESSMENT AND CONCLUSION

8.1 Summary of Impacts

The Site has been identified by MCC as a non-designated heritage asset, consequently, in line with recognised ICOMOS guidance, the building is subsequently deemed to yield **low heritage interest**. As stated within the ‘hierarchy and definition of heritage significance’ table (**Table 6, Appendix I**), which relates to *“unrecorded buildings, structures, or designed landscape features, which demonstrably retain a degree of heritage value due to their: architectural design, historic, communal, or townscape interest”*.

As an established non-designated heritage asset, it is necessary that the Proposed Development of the Particular Baptist Chapel is subject to the tests as set out in **para.216 of the NPPF (2024)**. The relevant planning policy guidance states that *“In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset”*.

The Proposed Development addresses the need to redevelop the currently poorly maintained and empty building, which will result in a regeneration of the immediate surrounding area and bring key elements of the former Chapel back into good repair and active use, and allowing for the retention, repair, and reuse of the most significant parts of the former Chapel. The balance of impact of the Proposed Development, both directly and indirectly, and taking into consideration the low heritage interest of the building (recognised in its status as a NDHA as opposed to a designated listed building), is considered to give rise to a **minor-moderate adverse** impact overall.

Due to the distance of the Proposed Development from surrounding conservation areas and the location of surrounding tall buildings and local typography, the new tall element of the development will be largely unseen or imperceptible from these areas.

However, the Proposed Development is considered to result in three instances of **minor adverse** indirect impacts on the settings of the Grade II listed Warehouse on west corner of Junction with Simpson Street, Sharp Street Ragged School, and the CIS Tower.

8.2 Statutory and policy requirements

The NPPF requires that all planning proposals contribute to the achievement of *“sustainable development”* (**paragraph 8**), which in this case means the preservation of the fabric, character and appearance of the identified heritage assets. This requires a clear and proportionate evaluation of the significance and impact on the identified heritage asset as has been outlined in this Heritage Statement.

The NPPF establishes a clear hierarchy of significance for heritage assets, derived from their designated status. The fundamental objective is to avoid compromising designated heritage assets, such that any potential ‘harm’ from a development must be balanced against the potential advantages of the public benefits that may outweigh any harm (**paragraphs 214-215**).

The Proposed Development will not detract from the ability to appreciate the special interest of the identified designated heritage assets despite the evident changes to some of their settings. The cumulative impact of the Proposed Development would avoid any unmitigated conflict with the conservation of the identified designated heritage assets overall. Thus, it is considered that the Proposed Development meets the requirements of NPPF, paragraphs **210 and 212**.

The Visual Impact Assessment has demonstrated that the Proposed Development would enhance the currently dilapidated character of the streetscape and introduce a sense of cohesion into the area.

As an established non-designated heritage asset, the Proposed Development for developing the Particular Baptist Chapel have aimed to address **paragraphs 207 and 210 – 216 of the NPPF (2024)** in order to demonstrate how “*great weight*” has been given to the redevelopment of the Site, and that “*clear and convincing justification*” for the harm to, and loss of, the significance of the heritage asset has been provided.

The Proposed Development have been found to result in **minor-moderate adverse direct impact** and **moderate adverse indirect impact** to the significance and setting of the non-designated chapel, which arises from the level of proposed demolition of elements of the building, and the impact of the new tall building element and its structural supports on the setting of the building when viewed from Rochdale Road.

The NPPF (2024) and the associated Planning Practice Guide emphasise the need for a thorough understanding of the significance of identified heritage assets, to form the basis for the assessment of any development impact. The Heritage Significance Appraisal (Part 1 of this report) has informed the Heritage Impact Assessment (Part 2) which demonstrates that the cumulative impact of the development Proposals would have a **minor adverse impact** on designated heritage assets (Grade II listed Warehouse on west corner of Junction with Simpson Street and Grade II listed Sharp Street Ragged School), and a **moderate adverse impact** upon the non-designated heritage asset (Particular Baptist Chapel).

8.3 Balanced impact on the heritage asset and historic environment

It will be clear that the Site at present is unused and in poor condition, requiring significant investment to ensure its heritage interest is not completely lost. The Proposed Development has sought to provide a development that whilst viable, ensures the retention of the most significant part of the non-designated heritage asset, delivering heritage benefits, and one that will make a positive contribution to the vitality of this part of the city centre.

The Proposed Development will ensure a long-term viable use for the redundant historic chapel, creating reactivated streetscapes and retaining and repairing the most significant parts of the chapel, chiefly the front elevation with its stained-glass windows and timber entrance doors, and the spatial qualities of the internal chapel nave with its original balcony, which in turn will provide better opportunities for the appreciation of its remaining legible architectural/historical significance.

Where the Proposed Development have been demonstrated to result in instances of adverse impact upon designated heritage assets (**minor adverse**), this is clearly at the lower end of “less than

substantial” harm. The perceived level of harm is required to be outweighed by the public benefits brought about by the Proposed Development as per the requirements outlined within the NPPF **paragraph 215**, which are expounded in the planning documents by Zerum.

9. APPENDICES

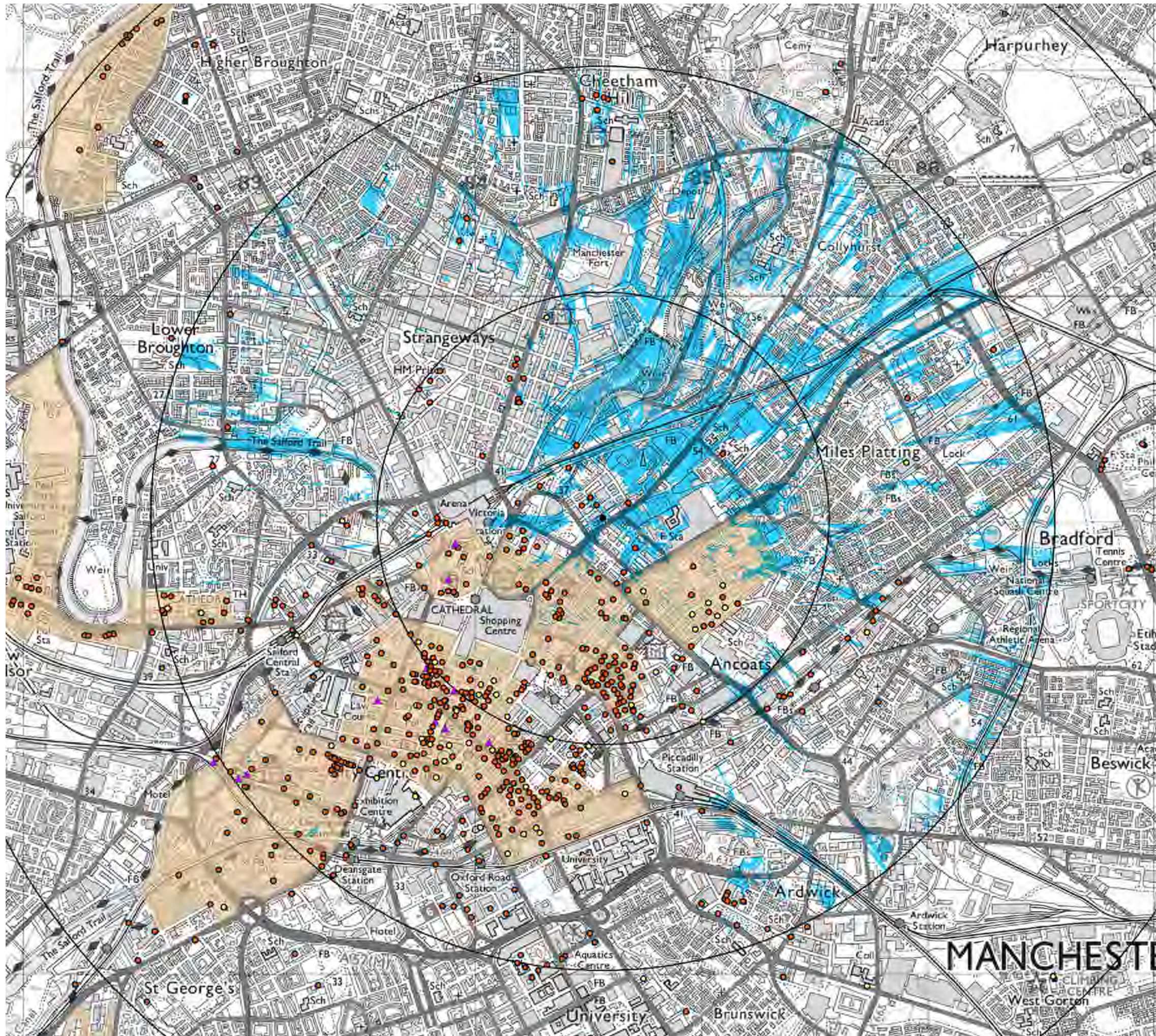
9.1 Appendix I: Definition of Significance Terms used in this Heritage Statement

Table 6: The hierarchy and definition of heritage significance relevant to the redevelopment of the Site (tailored from ICOMOS & Historic England guidance)

Heritage status / hierarchy	Description.
Very High / Exceptional heritage significance <i>International architectural and historic interest and importance.</i>	This heritage grading relates to the fabric and setting of: - Scheduled Ancient Monuments, - Grade-I listed buildings, - Grade-I historic parks/gardens, - and battlefields, defined by statute, where the particular site is well represented in the impacted historic environment.
High heritage significance <i>National architectural and historic importance and interest.</i>	This heritage grading relates to the fabric and setting of: - Grade-II* and Grade-II listed buildings, - Grade-II* and Grade-II historic parks/gardens, - Battlefields, as defined by statute, - Conservation Areas containing very Important buildings where the particular site is well represented in the impacted historic environment.
Medium heritage significance <i>Regional architectural and historic importance and interest.</i>	This heritage grading relates to the fabric and setting of: - Grade-II listed buildings (dependant on character), - Grade-II historic parks/gardens and battlefields, - Designated Conservation Areas, - Unscheduled archaeological sites and landscapes of potential national interest where the fabric and character of the site is well represented in the impacted historic environment.
Low heritage significance <i>Local architectural and historic heritage importance and interest.</i>	This heritage grading relates to the fabric and setting of: - Locally Listed Buildings (as formally identified by the Council and defined by an adopted Local Planning Policy). - Sites identified and recorded as being of heritage interest on the Historic Environment Record, which retain a definable heritage interest as a component of the historic environment. - Unrecorded buildings, structures, or designed landscape features, which demonstrably retain a degree of heritage value due to their: architectural design, historic, communal, or townscape interest.

Negligible heritage significance <i>Buildings or fabric components which have been extensively altered, eroding or compromising their architectural and historic interest</i>	This heritage grading relates to sites which may be: - recorded on the Historic Environment Record in record form or as 'Find Sites' but retain minimal or no original fabric or definable character. - buildings, structures, or designed landscape features, which detract from the architectural design, historic, communal, or townscape interest of the principal heritage asset.
Unknown heritage potential <i>Buildings/sites where the potential importance interest requires determination</i>	This heritage grading relates to sites which may be locally identified as meriting recognition but have not been previously recorded or investigated so that their origins and fabric significance have yet to be objectively defined.

11.1 ZTV AND DESIGNATION PLAN



BAPTIST CHURCH, ROCHDALE ROAD

Zone of Theoretical Visibility (ZTV)
of Proposed Building - *Cumulative
Schemes not included.*

2419/01/ZTV
17th January 2025

Key (ZTV):

- Site
- Areas of Theoretical Visibility

Key (Heritage Designations):

- Grade I
- Grade II
- Grade II*
- Conservation Areas

ZTV parameters:

Digital Terrain Model: Environment Agency LIDAR
Composite First Return DSM 2022 - 1m

Building Height @ 65m Height

Observer height = 1.6m

Earth curvature refractivity
coefficient = 0.13

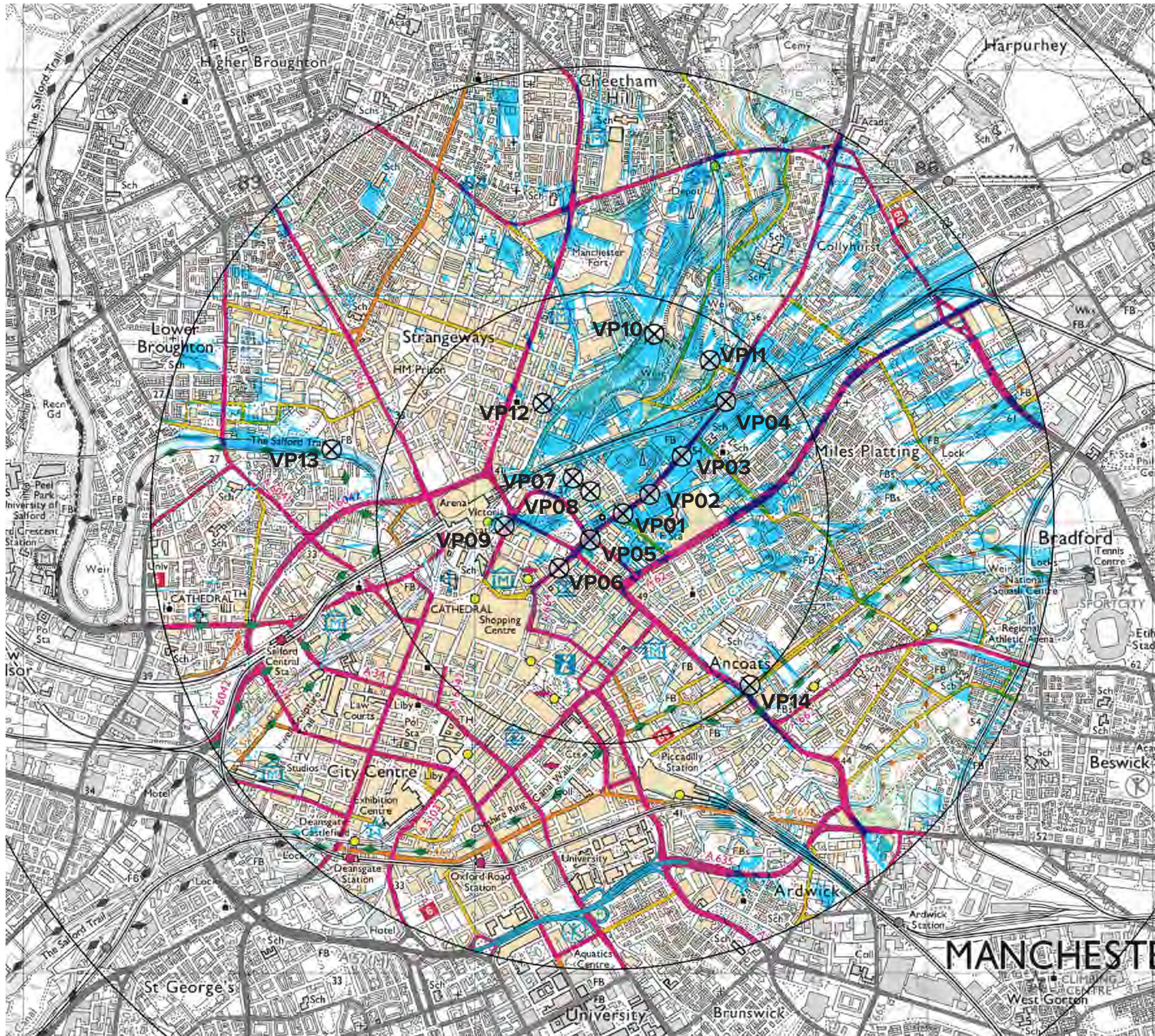
Extent of ZTV = r 2km



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11.2 VIEWPOINTS AND LOCATIONS PLAN



BAPTIST CHURCH, ROCHDALE ROAD Viewpoint Locations Plan

2419/02/Viewpoints
17th January 2025

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London 020 3488 0657
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11.3 ACCURATE VISUAL REPRESENTATIONS VERIFIED VIEWS

Note

These visualisations have been prepared by rbmp using current best practice techniques in both photography and the construction of 3D models and photomontages specified by the Landscape Institute: 3rd edition (April 2013); Landscape Institute Technical Guidance Note 06/19 (September 2019) Visual Representation of Development Proposals; The Revised SPG London View Management Framework (March 2012.)

All views have been prepared to Type 4 visualisations as set out within table 2, page 11 of TGN06/19. Please see supporting methodology documentation for this project. [End of this document.]

Viewing Instructions

The visualisations give an impression of the predicted scale and mass of the proposed development as it would be seen from the viewpoint locations. For correct viewing, the images should be viewed at the distance shown on the corresponding page when printed at A3. These images should only be assessed in the field from the same viewpoint location.

Camera Location Information

Viewpoint Number	Easting	Northing	Ground Height	Camera Height
Viewpoint 01	384655.72E	399035.28N	+52.26m AOD	+53.86m AOD
Viewpoint 02	384774.34E	399119.66N	+52.02m AOD	+53.62m AOD
Viewpoint 03	384916.5E	399288.88N	+53.13m AOD	+54.73m AOD
Viewpoint 04	385111.34E	399532.47N	+41.48m AOD	+43.08m AOD
Viewpoint 05	384510.69E	398920.06N	+50.14m AOD	+51.74m AOD
Viewpoint 06	384372E	398794N	+50.05m AOD	+51.65m AOD
Viewpoint 07	384433.63E	399191.94N	+35.39m AOD	+36.99m AOD
Viewpoint 08	384512E	399133N	+51.14m AOD	+52.74m AOD
Viewpoint 09	384132E	398981N	+50.9m AOD	+52.5m AOD
Viewpoint 10	384795.09E	399830.81N	+52.46m AOD	+54.06m AOD
Viewpoint 11	385041.09E	399714.03N	+50.74m AOD	+52.34m AOD
Viewpoint 12	384300.69E	399522.78N	+47.24m AOD	+48.84m AOD
Viewpoint 13	383366.44E	399319.25N	+29.58m AOD	+31.18m AOD
Viewpoint 14	385217.72E	398276.22N	+45.82m AOD	+47.42m AOD

CUMULATIVE DEVELOPMENTS SHOWN AS:

VISIBLE IN VIEW	MASSING EXTENTS	APPLICATION
		Land Bounded By Angel Street, Miller Street And Angel Square Known As Plots M And N Manchester, NOMA, 134307/FO/2022
		25 Rochdale Road, Manchester M4 4HT, 127537/FO/2020
		87 Rochdale Road, Manchester M4 4HY, 136574/NMC/2023
		One Park Place, Cheetham Hill Road, 138302/FO/2023
		Land Bounded By Dantzic Street, Dalton Street And The Railway Line Known As Plots NT02, NT03 And NT04 Manchester, Victoria North, Redbank, 136814/FO/2023





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Viewpoint 01
Grid reference: 384655.72E, 399035.28N
Ground Height: +52.26m AOD
Camera Height: +53.86m AOD



Viewpoint 02
Grid reference: 384774.34E, 399119.66N
Ground Height: +52.02m AOD
Camera Height: +53.62m AOD



Viewpoint 03
Grid reference: 384916.5E, 399288.88N
Ground Height: +53.13m AOD
Camera Height: +54.73m AOD



Viewpoint 04
Grid reference: 385111.34E, 399532.47N
Ground Height: +41.48m AOD
Camera Height: +43.08m AOD



Viewpoint 05
Grid reference: 384510.69E, 398920.06N
Ground Height: +50.14m AOD
Camera Height: +51.74m AOD



Viewpoint 06
Grid reference: 384372E, 398794N
Ground Height: +50.05m AOD
Camera Height: +51.65m AOD



Viewpoint 07
Grid reference: 384433.63E, 399191.94N
Ground Height: +35.39m AOD
Camera Height: +36.99m AOD



Viewpoint 08
Grid reference: 384512E, 399133N
Ground Height: +51.14m AOD
Camera Height: +52.74m AOD



Viewpoint 09
Grid reference: 384132E, 398981N
Ground Height: +50.9m AOD
Camera Height: +52.5m AOD



Viewpoint 10
Grid reference: 384795.09E, 399830.81N
Ground Height: +52.46m AOD
Camera Height: +54.06m AOD



Viewpoint 11
Grid reference: 385041.09E, 399714.03N
Ground Height: +50.74m AOD
Camera Height: +52.34m AOD



Viewpoint 12
Grid reference: 384300.69E, 399522.78N
Ground Height: +47.24m AOD
Camera Height: +48.84m AOD



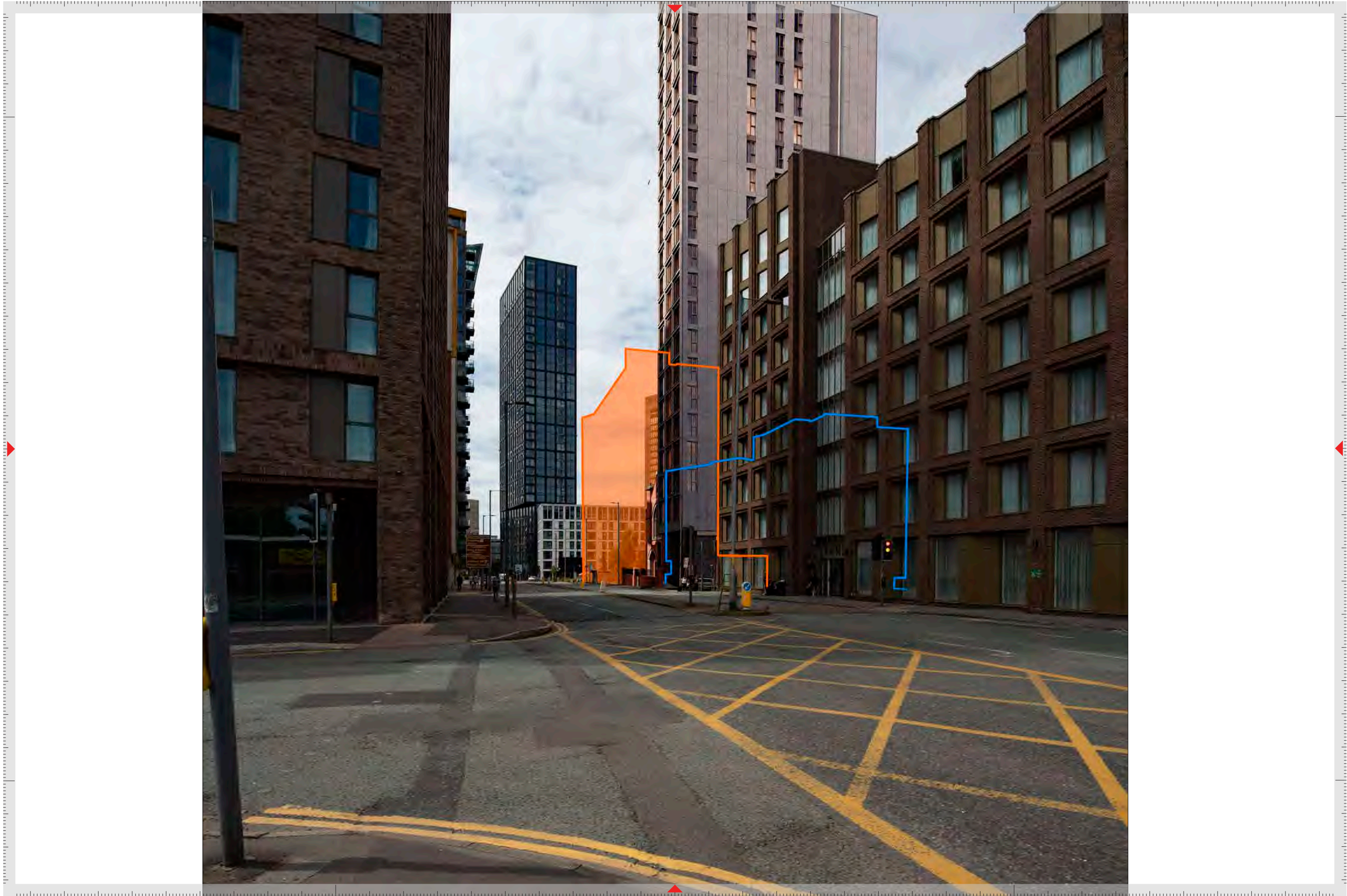
Viewpoint 13
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Ground Height: +29.58m AOD
Camera Height: +31.18m AOD



Viewpoint 14
Grid reference: 385217.72E, 398276.22N
Ground Height: +45.82m AOD
Camera Height: +47.42m AOD









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Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 24mm f/1.8
Date & time of photograph
- 18/07/24 @ 11.51am
OS grid reference
- 384774.34E, 399119.66N

Viewpoint height (AOD)
- +52.02m
Distance from site
- 225m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 73.7°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP02 - Baseline View [24mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs



rbmp

Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 24mm f/1.8
Date & time of photograph
- 18/07/24 @ 11.51am
OS grid reference
- 384774.34E, 399119.66N

Viewpoint height (AOD)
- +52.02m
Distance from site
- 225m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 73.7°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP02 - AVR [24mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs



rbmp

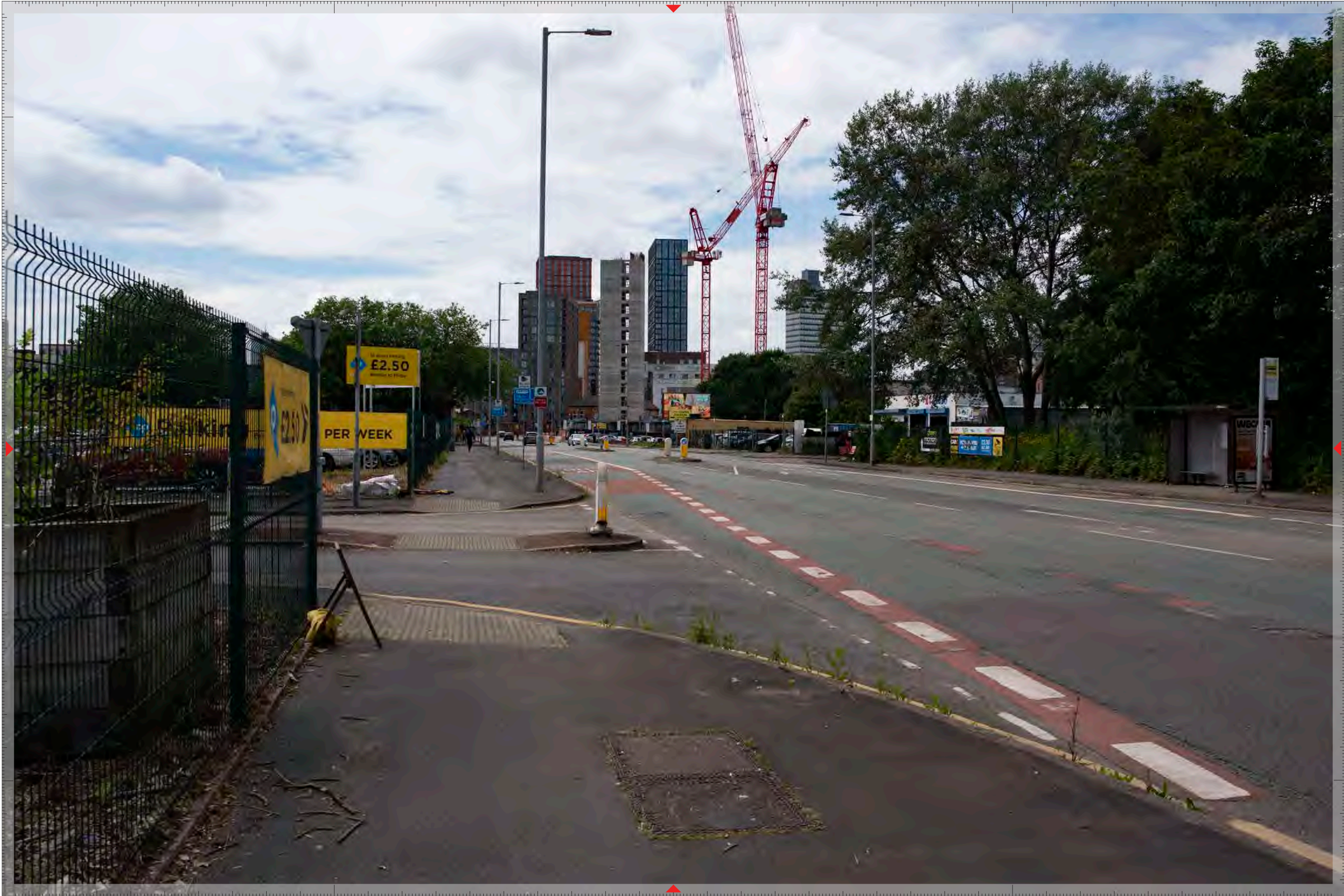
Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 24mm f/1.8
Date & time of photograph
- 18/07/24 @ 11.51am
OS grid reference
- 384774.34E, 399119.66N

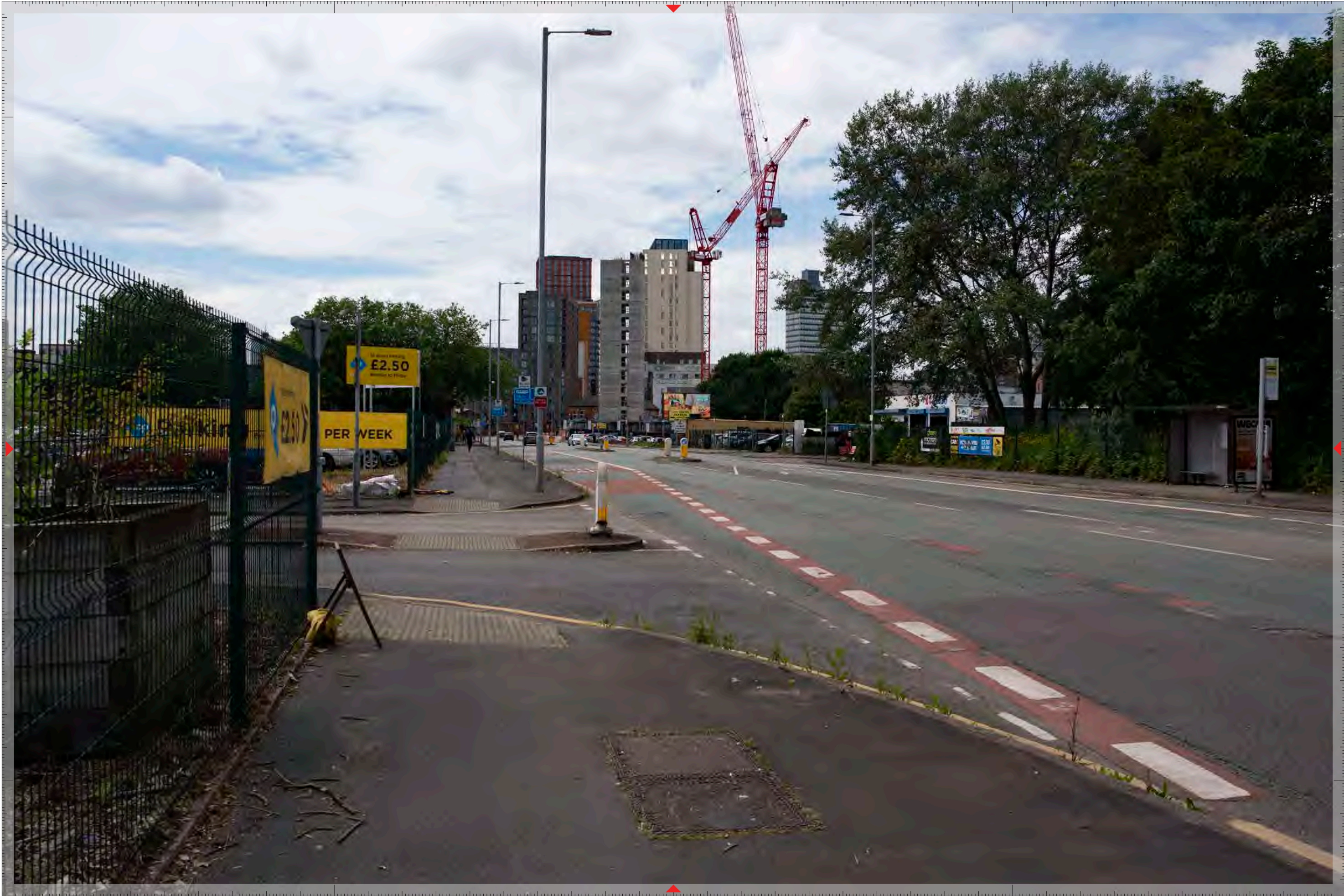
Viewpoint height (AOD)
- +52.02m AOD
Distance from site
- 225m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 73.7°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP02 - AVR - Cumulative [24mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs









rbmp

Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 50mm f/1.8
Date & time of photograph
- 18/07/24 @ 12.32pm
OS grid reference
- 385111.34E, 399532.47N

Viewpoint height (AOD)
- +41.48m AOD
Distance from site
- 740m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 36.9°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP04 - Baseline View [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs



rbmp

Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 50mm f/1.8
Date & time of photograph
- 18/07/24 @ 12.32pm
OS grid reference
- 385111.34E, 399532.47N

Viewpoint height (AOD)
- +41.48m AOD
Distance from site
- 740m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 36.9°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP04 - AVR [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVR













rbmp

Camera make & model - Nikon D810 (full frame sensor)
Lens make & focal length - Nikon 24mm f/1.8
Date & time of photograph - 18/07/24 @ 10.36am
OS grid reference - 384372E, 398794N

Viewpoint height (AOD) - +50.05m AOD
Distance from site - 290m
Projection - Planar
Enlargement / Sheet Size - 100% @ A3

Visualisation Type - Type 4
Horizontal Field of View - 73.7°
Height of camera (AGL) - 1.6m
Page size / Image size (mm) - 420 x 297 / 390 x 260

V06 - AVR [24mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs





rbmp

Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 24mm f/1.8 [Tilt-Shift]
Date & time of photograph
- 18/07/24 @ 11.29am
OS grid reference
- 384433.63E, 399191.94N

Viewpoint height (AOD)
- +35.39m AOD
Distance from site
- 210m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 73.7°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP07 - Baseline View [24mm Shift]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs



rbmp

Camera make & model - Nikon D810 (full frame sensor)
Lens make & focal length - Nikon 24mm f/1.8 [Tilt-Shift]
Date & time of photograph - 18/07/24 @ 11.29am
OS grid reference - 384433.63E, 399191.94N

Viewpoint height (AOD) - +35.39m AOD
Distance from site - 210m
Projection - Planar
Enlargement / Sheet Size - 100% @ A3

Visualisation Type - Type 4
Horizontal Field of View - 73.7°
Height of camera (AGL) - 1.6m
Page size / Image size (mm) - 420 x 297 / 390 x 260

VP07 - AVR [24mm Shift]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVR















rbmp

Camera make & model - Nikon D810 (full frame sensor)
Lens make & focal length - Nikon 28mm f/1.8
Date & time of photograph - 18/07/24 @ 10.11am
OS grid reference - 384132E, 398981N

Viewpoint height (AOD) - +50.9m AOD
Distance from site - 410m
Projection - Planar
Enlargement / Sheet Size - 100% @ A3

Visualisation Type - Type 4
Horizontal Field of View - 65.5°
Height of camera (AGL) - 1.6m
Page size / Image size (mm) - 420 x 297 / 390 x 260

VP09 - AVR - Cumulative [28mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs



rbmp

Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 50mm f/1.8
Date & time of photograph
- 18/07/24 @ 13.04pm
OS grid reference
- 384795.09E, 399830.81N

Viewpoint height (AOD)
- +52.46m AOD
Distance from site
- 850m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 39.6°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

V10 - Baseline View [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs



rbmp

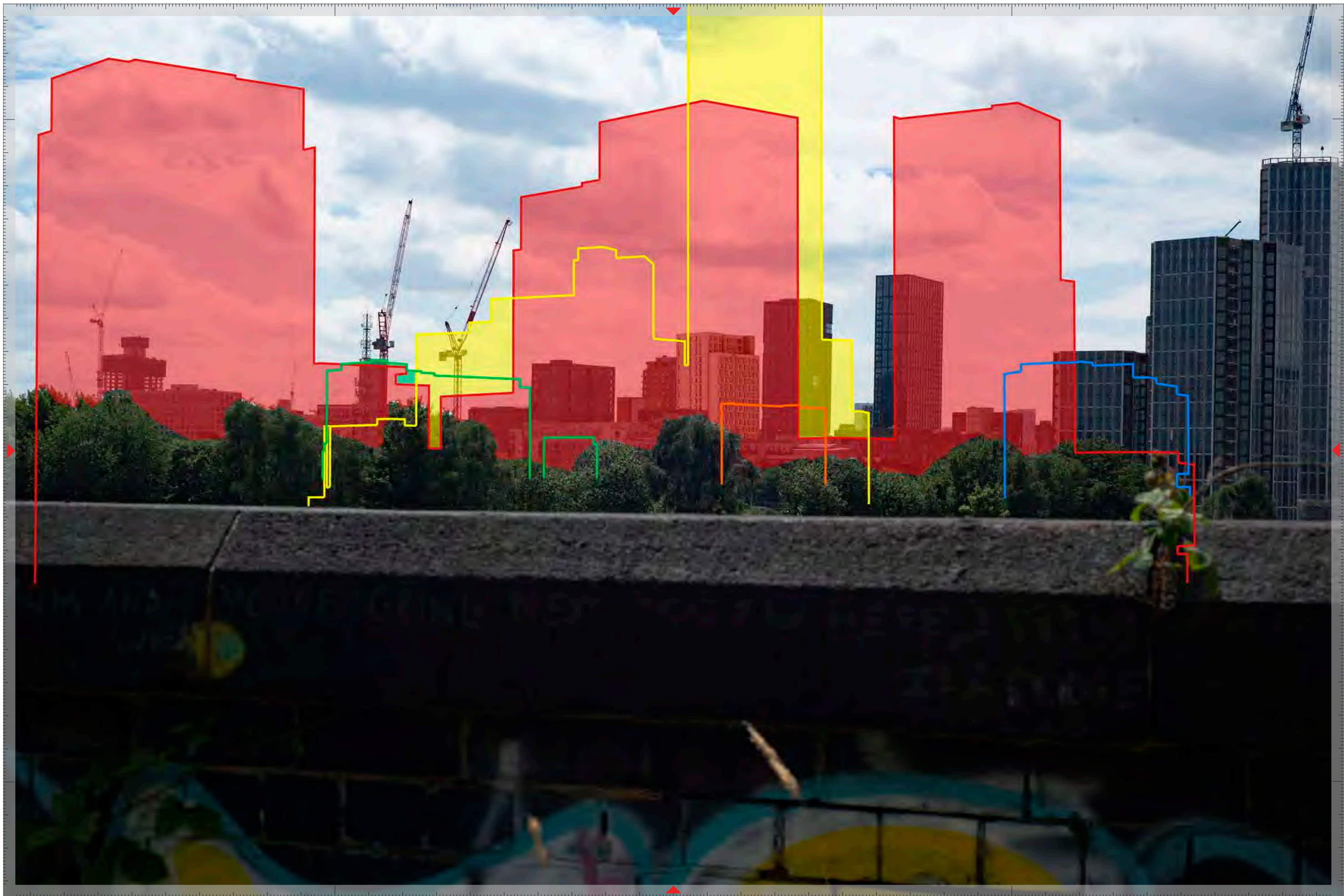
Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 50mm f/1.8
Date & time of photograph
- 18/07/24 @ 13.04pm
OS grid reference
- 384795.09E, 399830.81N

Viewpoint height (AOD)
- +52.46m AOD
Distance from site
- 850m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 39.6°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP10 - AVR [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVR





rbmp

Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 50mm f/1.8
Date & time of photograph
- 18/07/24 @ 12.50pm
OS grid reference
- 385041.09E, 399714.03N

Viewpoint height (AOD)
- +50.74m AOD
Distance from site
- 850m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 39.6°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP11 - Baseline View [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs



rbmp

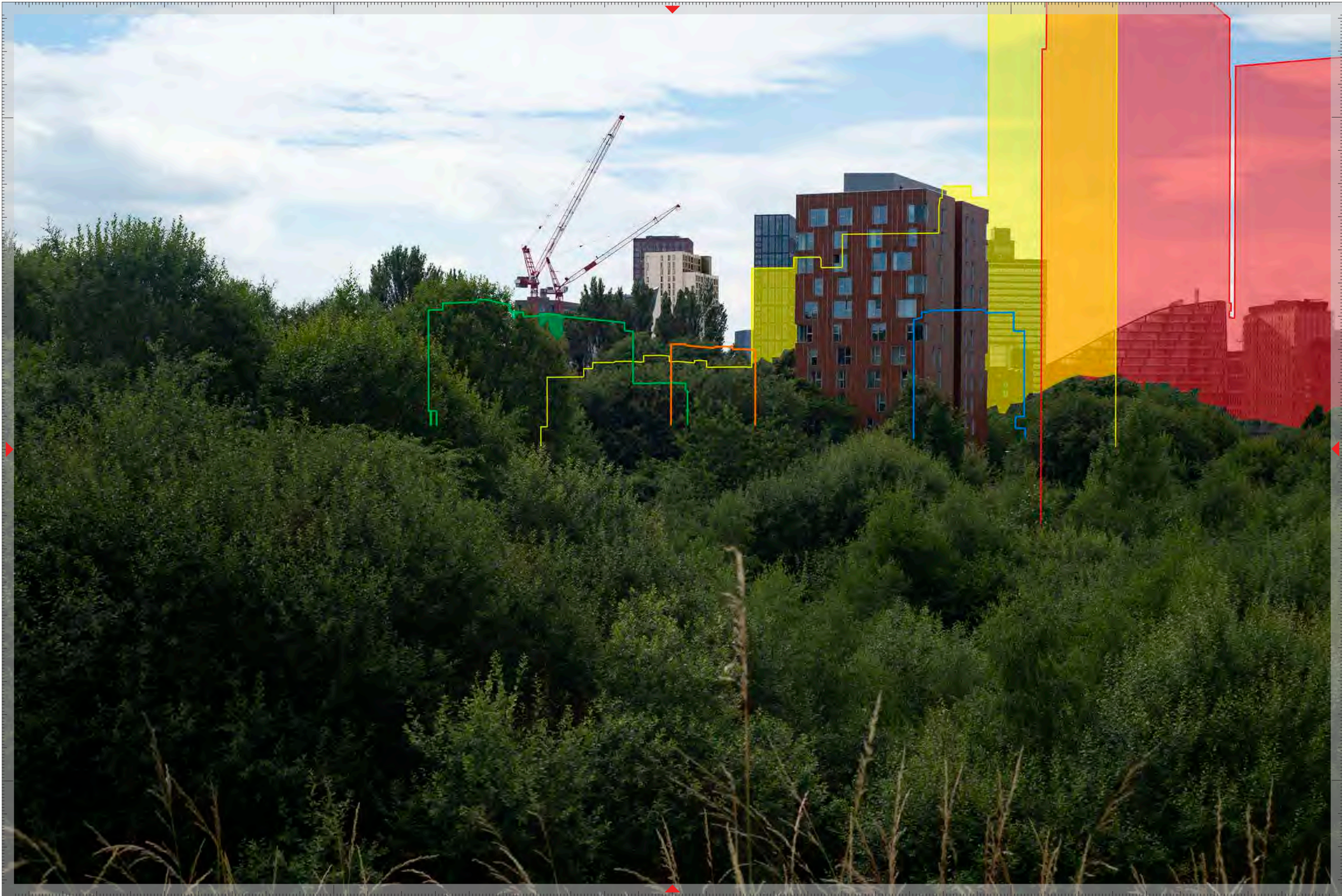
Camera make & model
- Nikon D810 (full frame sensor)
Lens make & focal length
- Nikon 50mm f/1.8
Date & time of photograph
- 18/07/24 @ 12.50pm
OS grid reference
- 385041.09E, 399714.03N

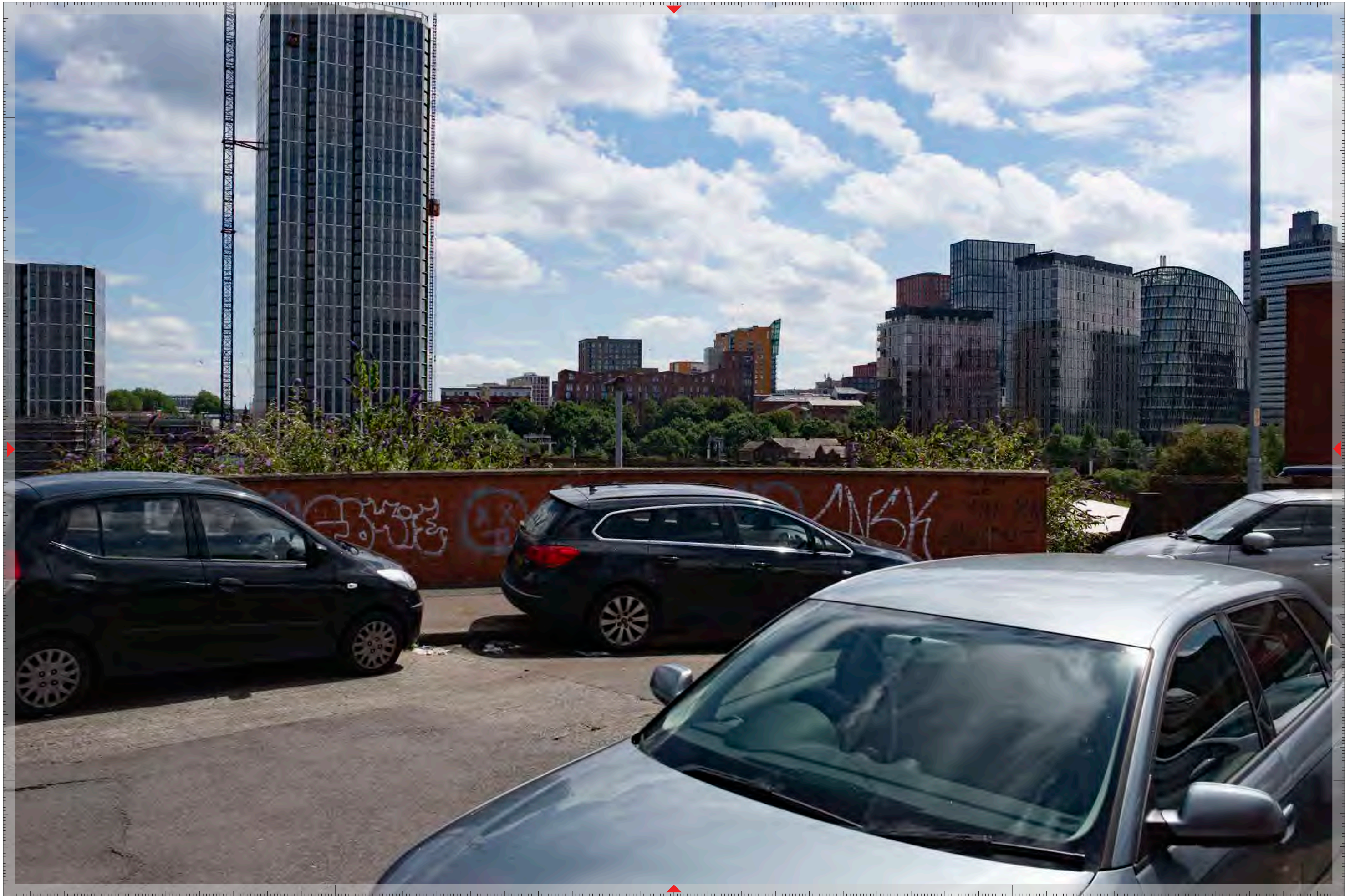
Viewpoint height (AOD)
- +50.74m AOD
Distance from site
- 850m
Projection
- Planar
Enlargement / Sheet Size
- 100% @ A3

Visualisation Type
- Type 4
Horizontal Field of View
- 39.6°
Height of camera (AGL)
- 1.6m
Page size / Image size (mm)
- 420 x 297 / 390 x 260

VP11 - AVR [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVR





rbmp

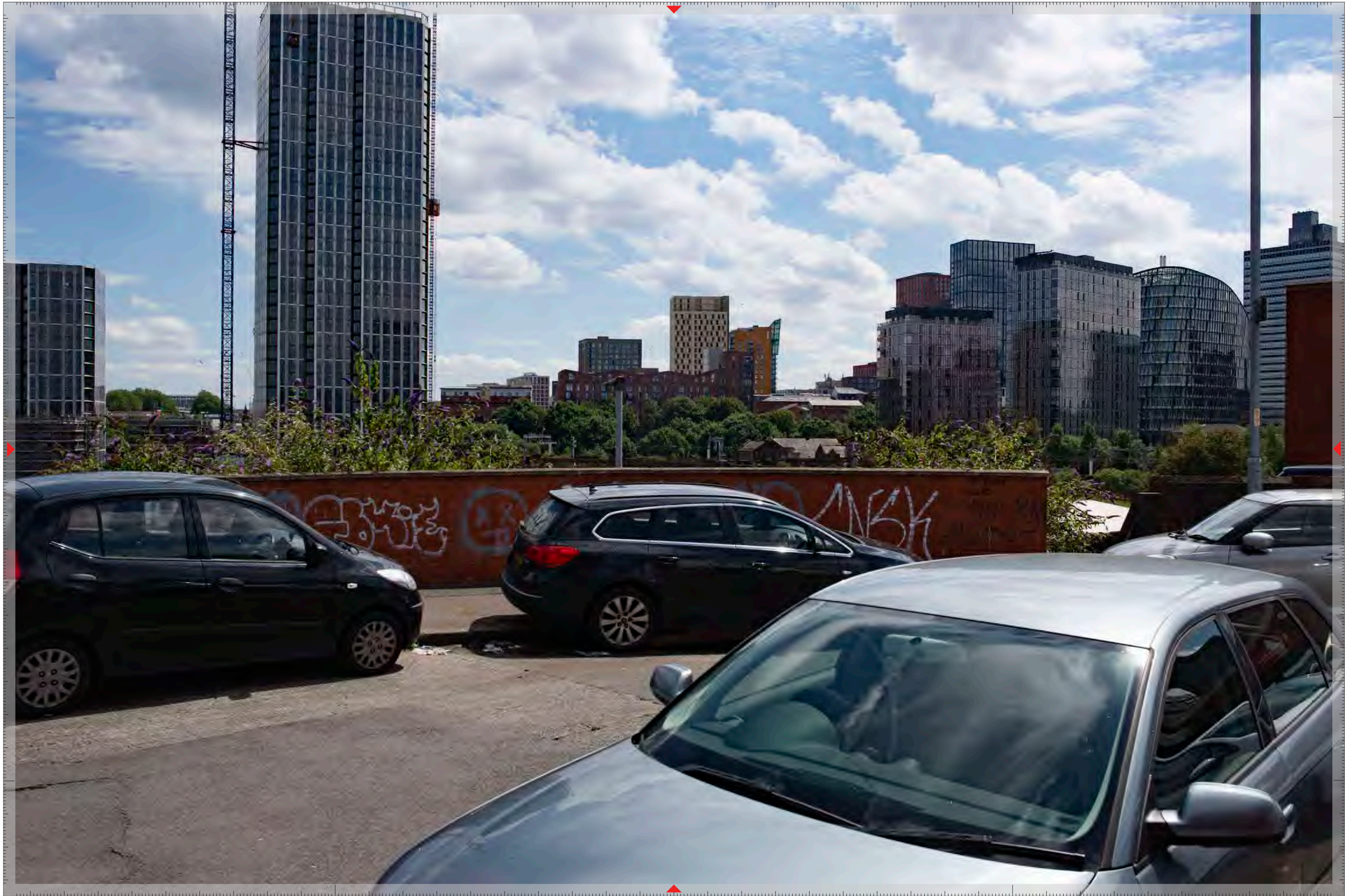
Camera make & model - Nikon D810 (full frame sensor)
Lens make & focal length - Nikon 28mm f/1.8
Date & time of photograph - 18/07/24 @ 13.26pm
OS grid reference - 384300.69E, 399522.78N

Viewpoint height (AOD) - +47.24m AOD
Distance from site - 560m
Projection - Planar
Enlargement / Sheet Size - 100% @ A3

Visualisation Type - Type 4
Horizontal Field of View - 65.5°
Height of camera (AGL) - 1.6m
Page size / Image size (mm) - 420 x 297 / 390 x 260

VP12 - Baseline View [28mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs



rbmp

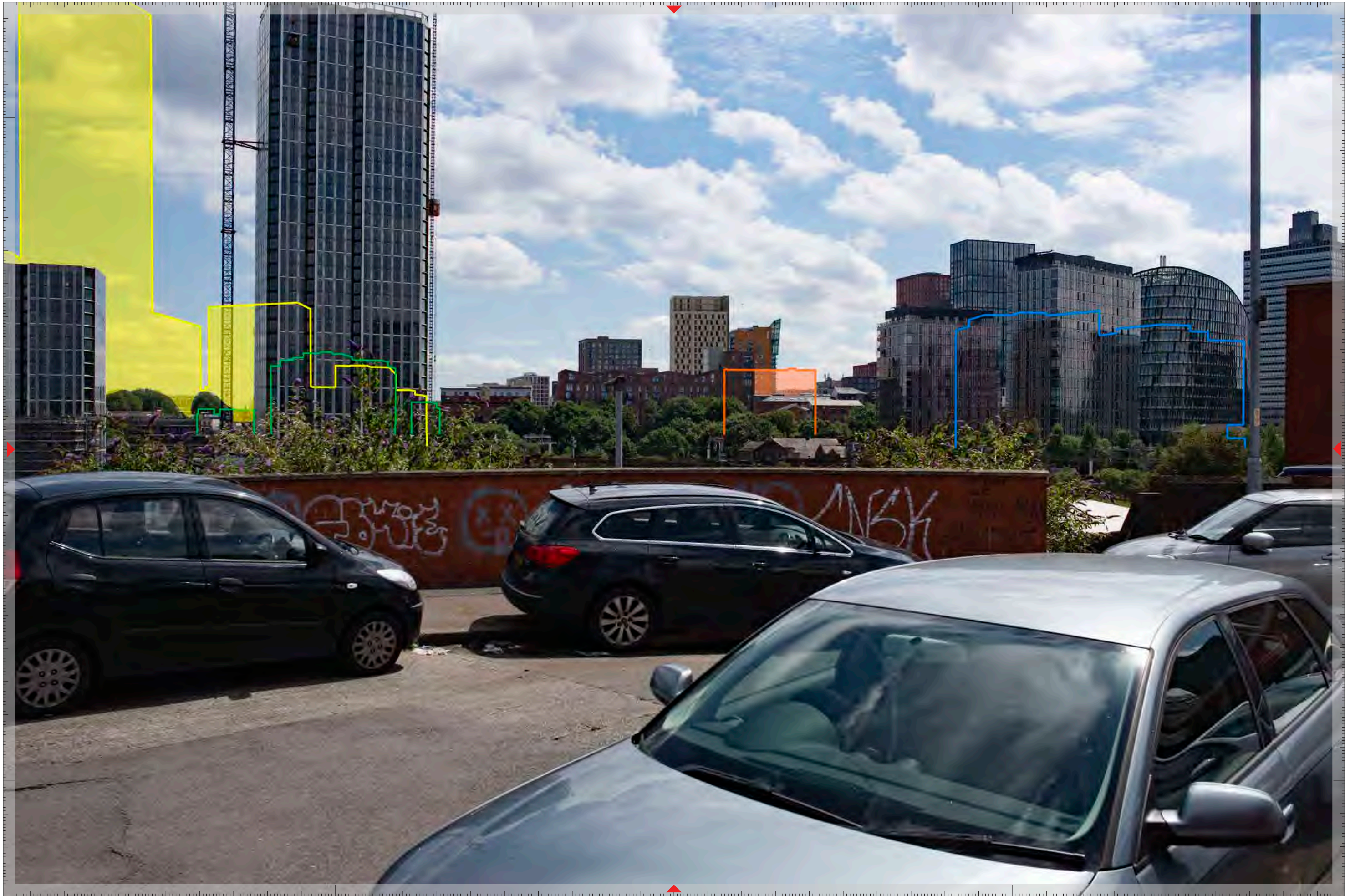
Camera make & model - Nikon D810 (full frame sensor)
Lens make & focal length - Nikon 28mm f/1.8
Date & time of photograph - 18/07/24 @ 13.26pm
OS grid reference - 384300.69E, 399522.78N

Viewpoint height (AOD) - +47.24m AOD
Distance from site - 560m
Projection - Planar
Enlargement / Sheet Size - 100% @ A3

Visualisation Type - Type 4
Horizontal Field of View - 65.5°
Height of camera (AGL) - 1.6m
Page size / Image size (mm) - 420 x 297 / 390 x 260

VP12 - AVR [28mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVR





rbmp

Camera make & model - Nikon D810 (full frame sensor)
Lens make & focal length - Nikon 50mm f/1.8
Date & time of photograph - 18/07/24 @ 13.48pm
OS grid reference - 383366.44E, 399319.25N

Viewpoint height (AOD) - +29.58m AOD
Distance from site - 1.23km
Projection - Planar
Enlargement / Sheet Size - 100% @ A3

Visualisation Type - Type 4
Horizontal Field of View - 39.6°
Height of camera (AGL) - 1.6m
Page size / Image size (mm) - 420 x 297 / 390 x 260

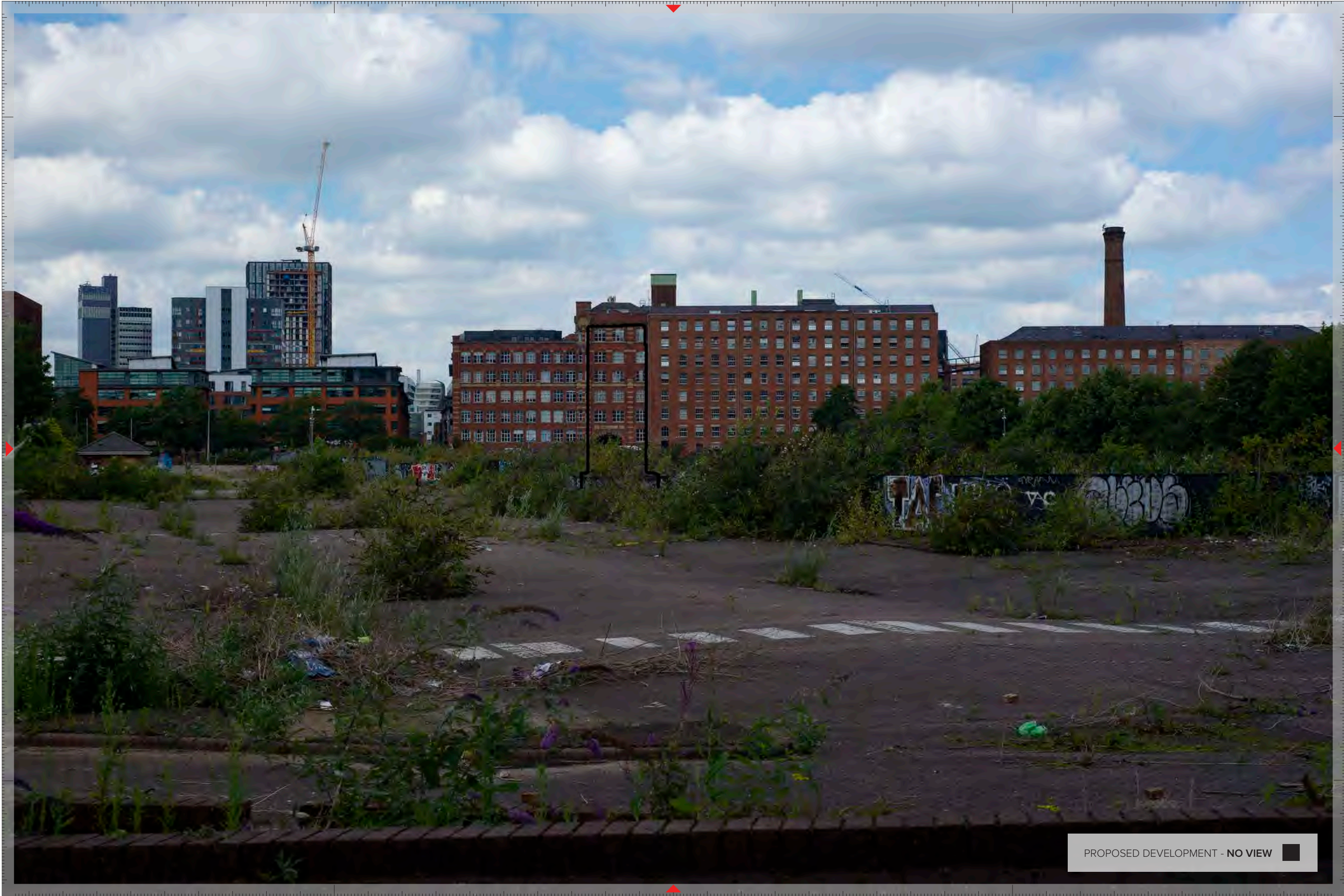
VP13 - Baseline View [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs









PROPOSED DEVELOPMENT - NO VIEW

rbmp

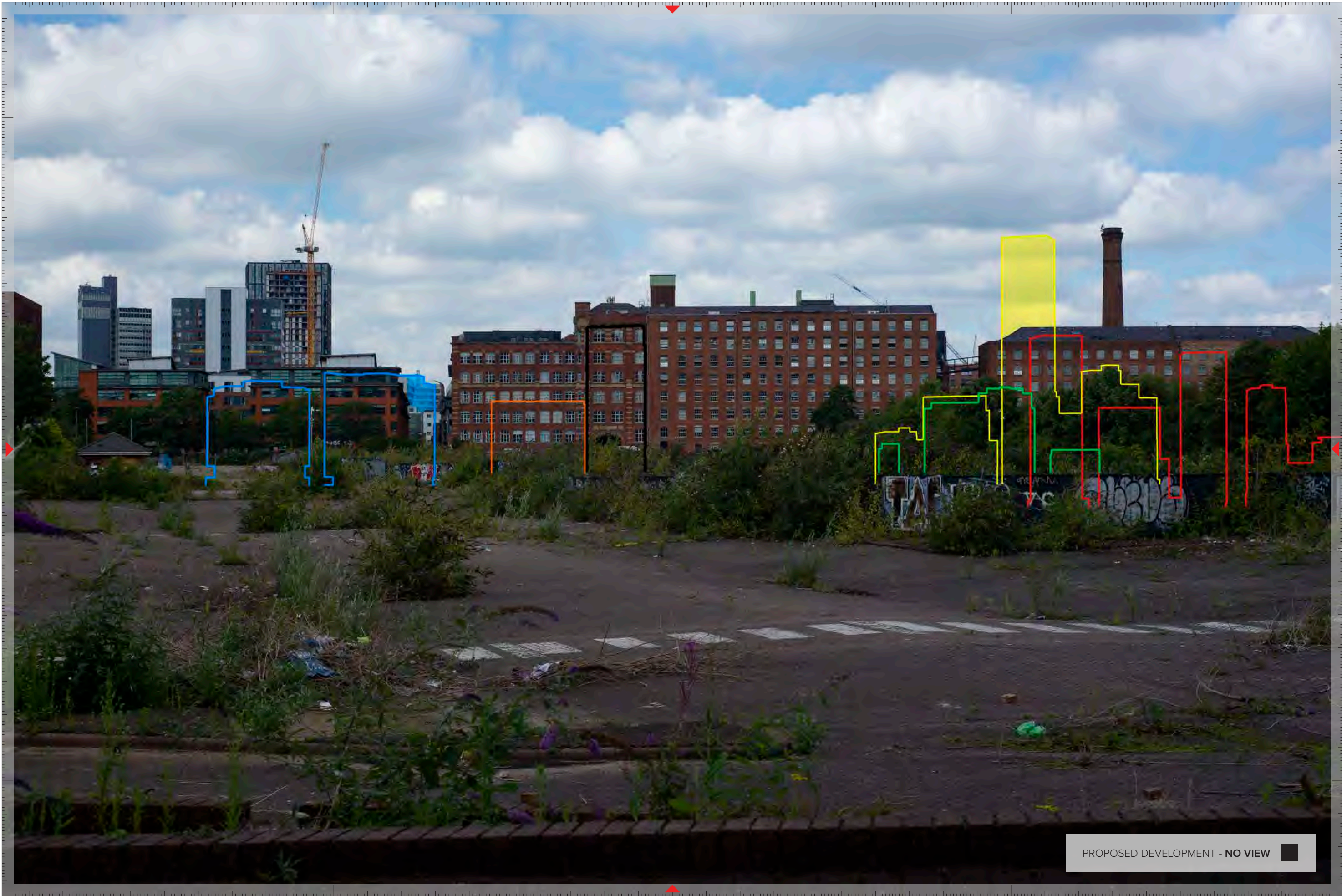
Camera make & model - Nikon D600 (full frame sensor)
Lens make & focal length - Nikon 28mm f/1.8
Date & time of photograph - 10/08/23 @ 12.38pm
OS grid reference - 385217.72E, 398276.22N

Viewpoint height (AOD) - +45.82m AOD
Distance from site - 1.2km
Projection - Planar
Enlargement / Sheet Size - 100% @ A3

Visualisation Type - Type 4
Horizontal Field of View - 39.6°
Height of camera (AGL) - 1.6m
Page size / Image size (mm) - 420 x 297 / 390 x 260

VP14 - AVR [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TV1A - AVR's
page [45 of 47]



PROPOSED DEVELOPMENT - NO VIEW

rbmp

Camera make & model - Nikon D600 (full frame sensor)
Lens make & focal length - Nikon 28mm f/1.8
Date & time of photograph - 10/08/23 @ 12.38pm
OS grid reference - 385217.72E, 398276.22N

Viewpoint height (AOD) - +45.82m AOD
Distance from site - 1.2km
Projection - Planar
Enlargement / Sheet Size - 100% @ A3

Visualisation Type - Type 4
Horizontal Field of View - 39.6°
Height of camera (AGL) - 1.6m
Page size / Image size (mm) - 420 x 297 / 390 x 260

VP14 - AVR - Cumulative [50mm]

rbmp.2419 Baptist Church, Rochdale Road, Manchester, TVIA - AVRs

OVERVIEW

The process of generating verified views (also referred to as accurate visual representations (AVR)) for the proposed new Henshaw Street development in Leicester, was carried out by rbmp ltd.

These visualisations have been prepared by rbmp ltd. using current best practice techniques in both photography and the construction of 3D models and photomontages specified by the Landscape Institute: Guidelines for Landscape and Visual Impact Assessment 3rd edition (April 2013); Landscape Institute Technical Guidance Note 06/19 (September 2019) Visual Representation of Development Proposals; The Revised SPG London View Management Framework (March 2012.) All views have been prepared to Type 4 visualisations as set out within table 2, page 11 of TGN06/19.

High quality/resolution photographs were taken from the agreed locations with an adequate number of visible features subsequently surveyed, including the precise location of the camera.

A development model was generated to correct geographical co-ordinates. With a known camera position and orientation, photographic and surveyed existing visible features, the development model was accurately aligned to the photograph.

SITE VISIT

rbmp ltd. visited the site on the 10th August 2023 and 18th July 2024, to obtain viewpoint photography. The view positions were documented using photography of the exact positions (marked with a survey pin) with a surveyor present to record the precise co-ordinates.

PHOTOGRAPHY

For the agreed viewpoint location, high resolution RAW photographs were taken with a Digital SLR camera with a 35mm (full frame) sensor. The camera was levelled horizontally and laterally by means of a tripod mounted levelling base and two camera mounted spirit levels.

CAMERA & EQUIPMENT

- Nikon D810 digital SLR camera (35mm)
- Nikon 50mm f/1.8, 28mm f/2.8mm & 24mm f/3.5 Tilt-Shift
- Manfrotto 190 tripod
- Tripod indexed pan head
- Levelling base with bubble level
- Digital Level
- Laser plumb bob

LENS SELECTION

In order to capture the full extent of the proposed development and an appropriate amount of context, a 28mm lens in landscape orientation (effective 65.5° horizontal field of view) was used. For reference a 180° panoramic for each viewpoint location was also captured using a 15° rotational index allowing a series of individual frames to be stitched together into a single image.

POST PRODUCTION

Each photoviewpoint photograph was processed using Adobe Photoshop® CC 2024 Camera RAW. Standard (digital) photographic post production techniques (profiles, curves and sharpening) were used to create a corrected final .psd file to be used as the basis for the photomontage.

SURVEY

For the agreed photoviewpoint location an instructional document was released to the survey subcontractor. The surveyor was instructed on site to record a range of contextual reference points.

SURVEY EQUIPMENT

- Leica GPS
- Leica Total station
- Precise level

FIELD SURVEY METHODOLOGY

Camera Locations - To establish the position of a viewpoint, the surveyor must set up a GPS on it and record enough points to ensure a high level of accuracy.

Reference points - To survey the various reference points, the surveyor should set up three temporary stations (TBMs) within view of each reference point and establish their location using the GPS. Once these co-ordinates have been established, the surveyor will set up a Total Station on the TBMs and take 3 reflectorless survey shots to the reference point in view.

Where GPS positioning was not possible near to the required survey point – due to poor signal, for instance – the surveyor will set up his TBMs at the nearest position possible and traverse traditionally to a position where he can survey the point.

DATA PROCESSING & DELIVERY

GPS data is processed through Leica Geo-Office to acquire the OSGB36 co-ordinate system information and then processed to produce co-ordinate information for the surveyed points.

PROPOSED DEVELOPMENT

rbmp created a 3D model of the proposed development working from supplied model and plans. The model was checked for accuracy and subsequently aligned to the OSGB36 coordinate system.

VERIFICATION PROCESS

The collected survey reference point data and camera location data was imported into the 3D model environment from the delimited text file (relative to the OSGB36 co-ordinate system) by means of a proprietary script.

At each photoviewpoint location a virtual camera was set up in the 3D software using the coordinates provided by the surveyor. The 3D coordinates of the survey reference points were used to create an accurate ‘point cloud’ model of the contextual surveyed parts of the scene. The scene was verified by matching the contextual surveyed points to the photograph.

To do this, for each photoviewpoint, two renders* were made from the 3D model from the same virtual camera: one render showed only the development (in the chosen method of presentation); the other showed only the survey reference point data.

Using a photo editing package [Adobe Photoshop® CC 2024.] the photography, survey reference point render and proposed development render were aligned.

With the rendered* proposals aligned to the photography, masks were applied to the image to hide extents of the proposals occluded by intervening vegetation and built form.

USE OF PHOTOMONTAGES

For correct perspective viewing, the photomontage pages should be printed unscaled at A3 and must be viewed at an approximate viewing distance of 50cm. The photomontages should only be assessed in the field from the same viewpoint.

*Rendering is the process of generating an image from a model (or models in what collectively could be called the 3D environment), by means of computer programs - specifically, in this case Chaos Group V-Ray for Autodesk 3Ds Max 2025.

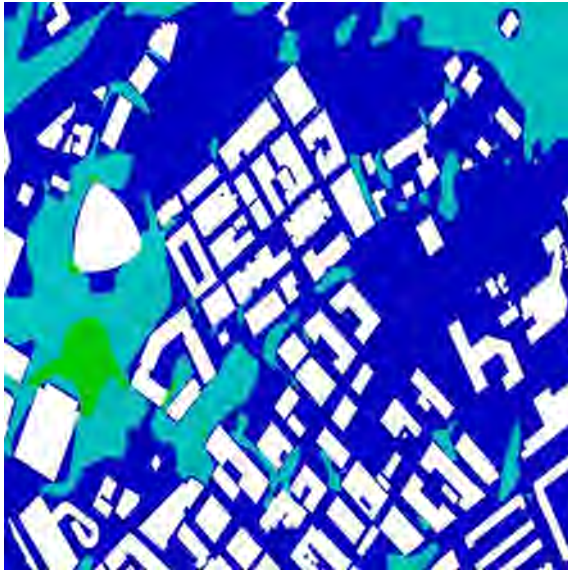
NOTES

- The model is based on the Revit File: ‘0658-HOD-BC-XX-M3-A-0000.fbx’
- The model has been positioned and referenced to the OS Grid (OSGB36) using topographic survey drawing ‘15538 Existing Survey - Correct UCS.dwg’ and rbmp’s collected survey data.

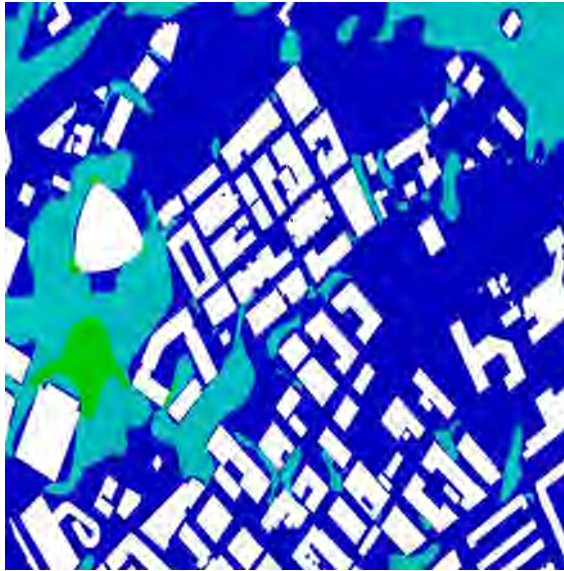
12.1 IMAGES OF THE ANNUAL AND SEASONAL COMFORT AND SAFETY RESULTS AND THE VELOCITY CONTOURS FOR EACH DIRECTION

Results for Allyear comfort

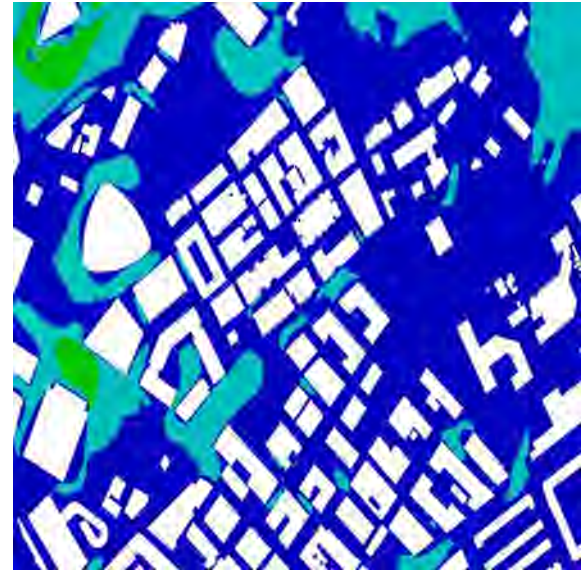
Baseline



Proposed



Cumulative



Project:
Baptist Church, Manchester



Created by: amcloughlin801
Date: 2024-12-10

Results for Allyear comfort (continued)

Proposed-Elevated Levels



Cumulative-Elevated Levels



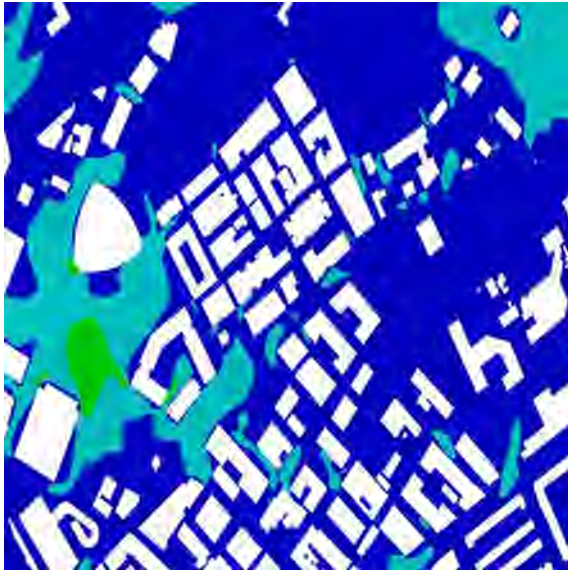
Project:
Baptist Church, Manchester



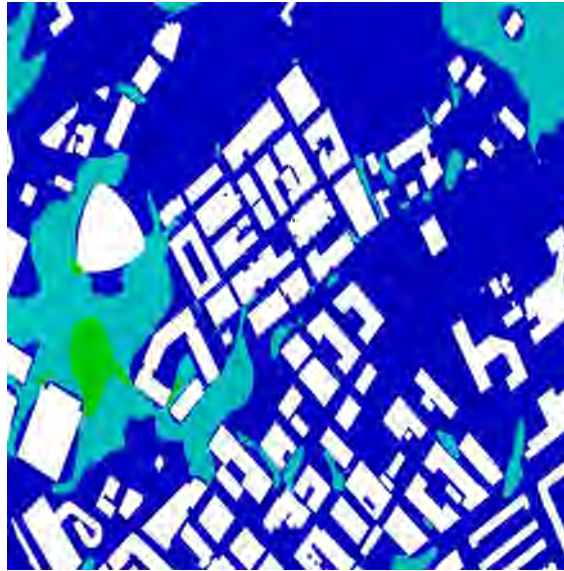
Created by: amcloughlin801
Date: 2024-12-10

Results for Autumn comfort

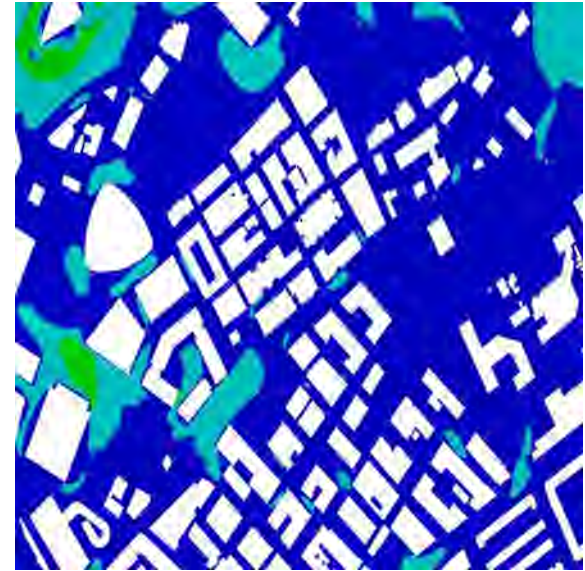
Baseline



Proposed



Cumulative



Project:
Baptist Church, Manchester



Created by: amcloughlin801
Date: 2024-12-10

Results for Autumn comfort (continued)

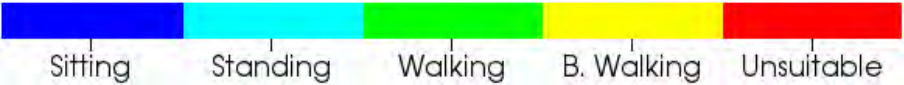
Proposed-Elevated Levels



Cumulative-Elevated Levels



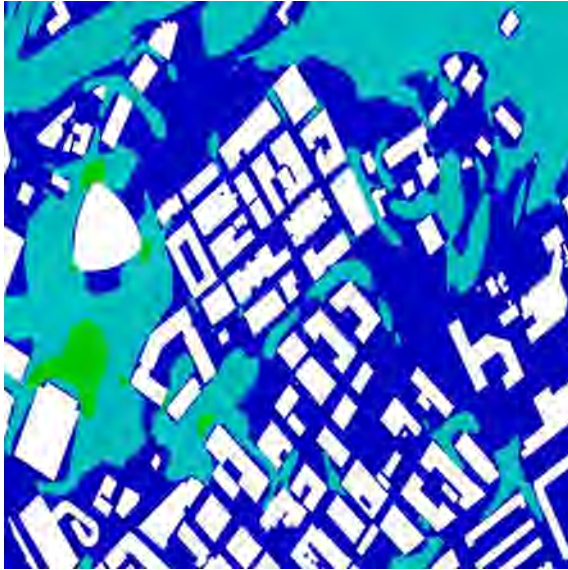
Project:
Baptist Church, Manchester



Created by: amcloughlin801
Date: 2024-12-10

Results for Spring comfort

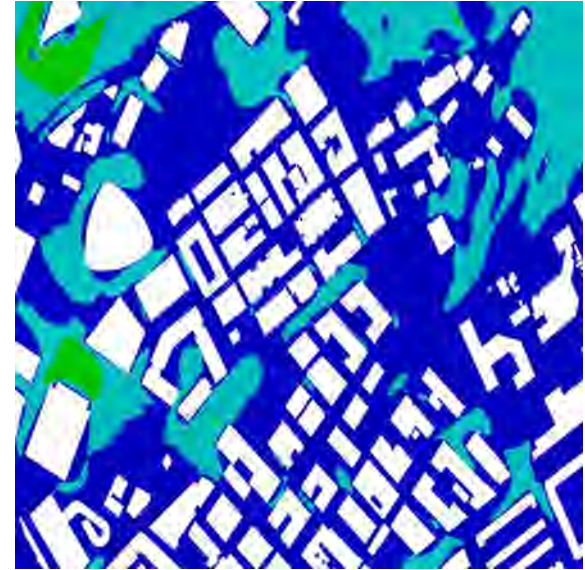
Baseline



Proposed



Cumulative



Project:
Baptist Church, Manchester



Created by: amcloughlin801
Date: 2024-12-10

Results for Spring comfort (continued)

Proposed-Elevated Levels



Cumulative-Elevated Levels



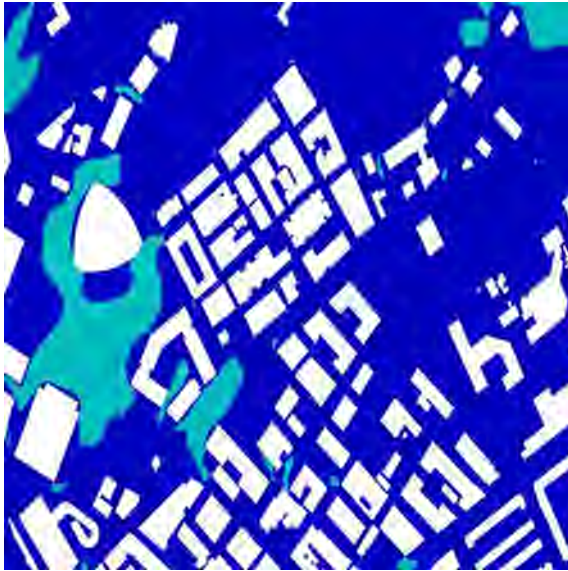
Project:
Baptist Church, Manchester



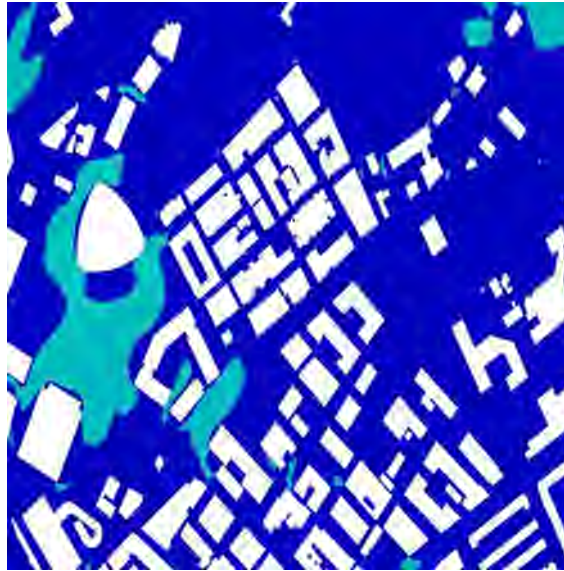
Created by: amcloughlin801
Date: 2024-12-10

Results for Summer comfort

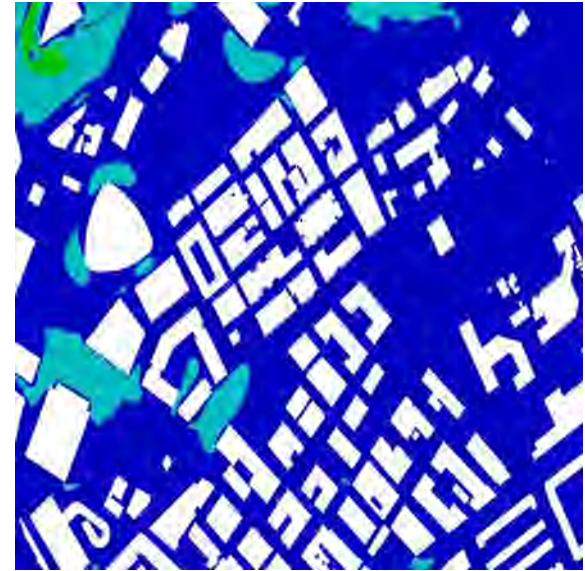
Baseline



Proposed



Cumulative



Project:
Baptist Church, Manchester



Created by: amcloughlin801
Date: 2024-12-10

Results for Summer comfort (continued)

Proposed-Elevated Levels



Cumulative-Elevated Levels



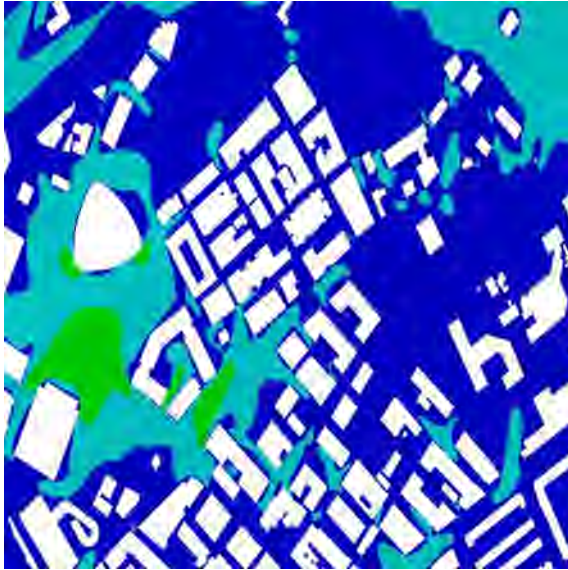
Project:
Baptist Church, Manchester



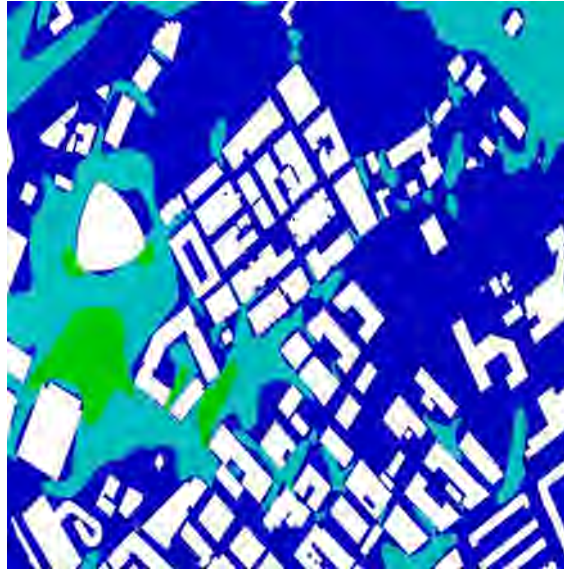
Created by: amcloughlin801
Date: 2024-12-10

Results for Winter comfort

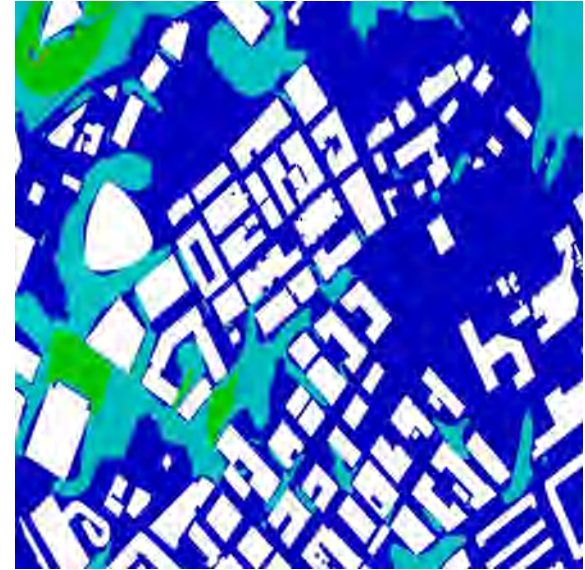
Baseline



Proposed



Cumulative



Project:
Baptist Church, Manchester



Created by: amcloughlin801
Date: 2024-12-10

Results for Winter comfort (continued)

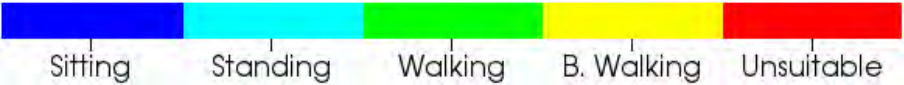
Proposed-Elevated Levels



Cumulative-Elevated Levels



Project:
Baptist Church, Manchester



Created by: amcloughlin801
Date: 2024-12-10

Results for Annual safety

Baseline



Proposed



Cumulative



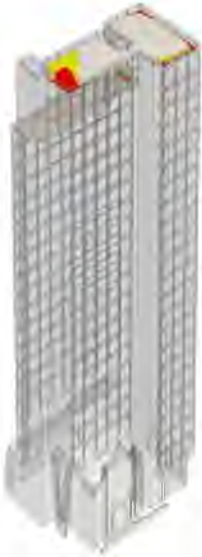
Project:
Baptist Church, Manchester



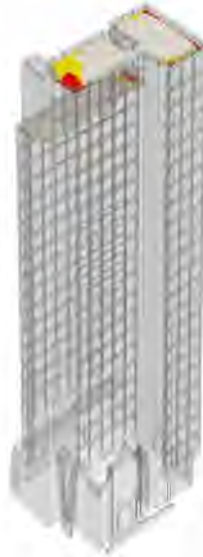
Created by: amcloughlin801
Date: 2024-12-10

Results for Annual safety [continued]

Proposed-Elevated Levels



Cumulative-Elevated Levels



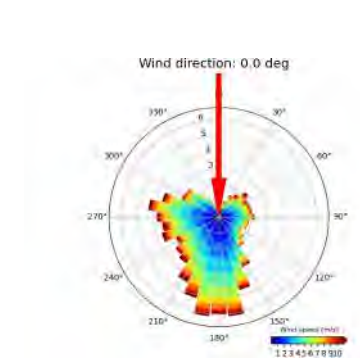
Project:
Baptist Church, Manchester



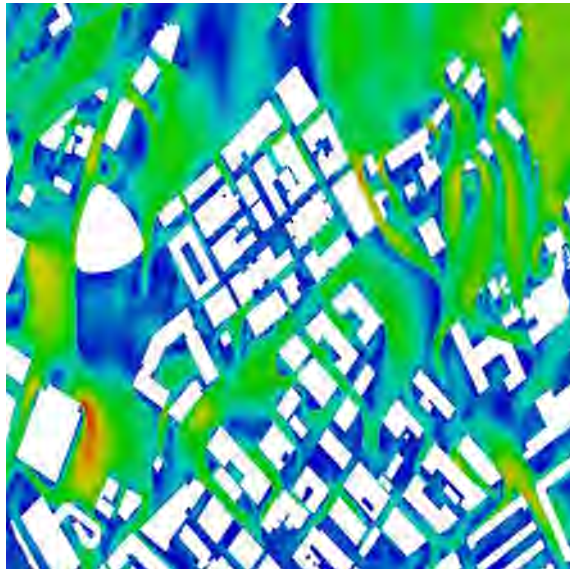
Created by: amcloughlin801
Date: 2024-12-10

0deg: Velocity contours at 1.5m above ground

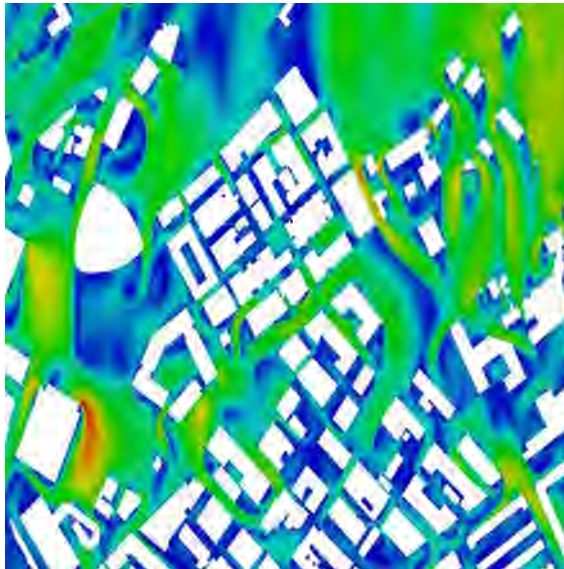
$U_{ref} = \sim 12\text{m/s}$ at 80m height



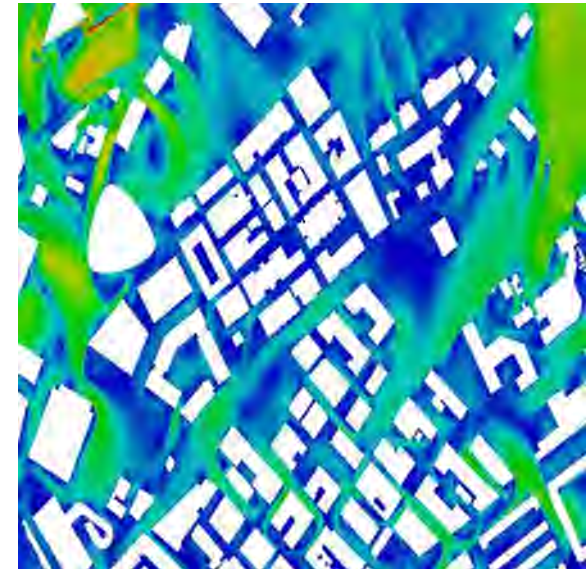
Baseline



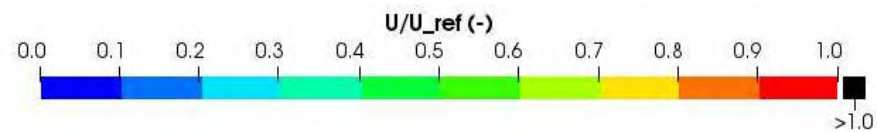
Proposed



Cumulative



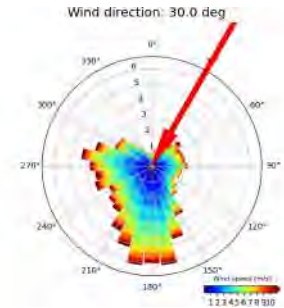
Project:
Baptist Church, Manchester



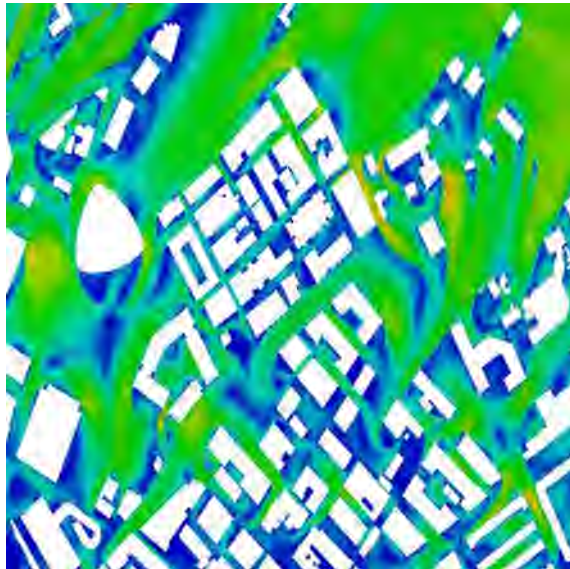
Created by: amcloughlin801
Date: 2024-12-10

30deg: Velocity contours at 1.5m above ground

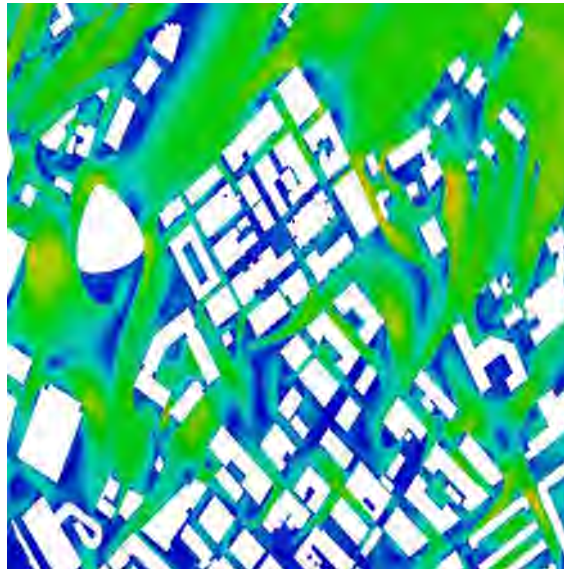
$U_{ref} = \sim 12\text{m/s}$ at 80m height



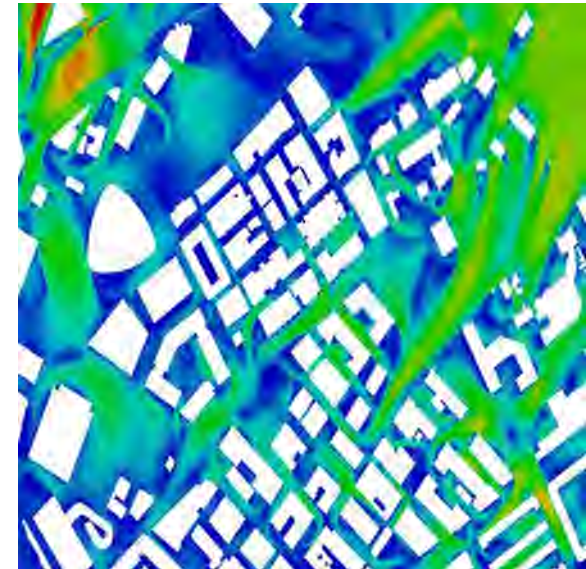
Baseline



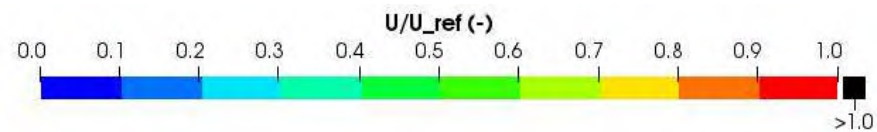
Proposed



Cumulative



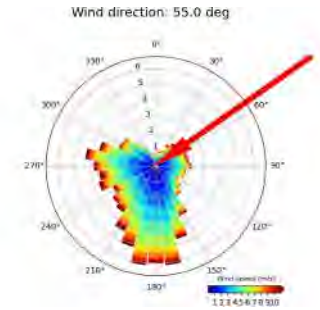
Project:
Baptist Church, Manchester



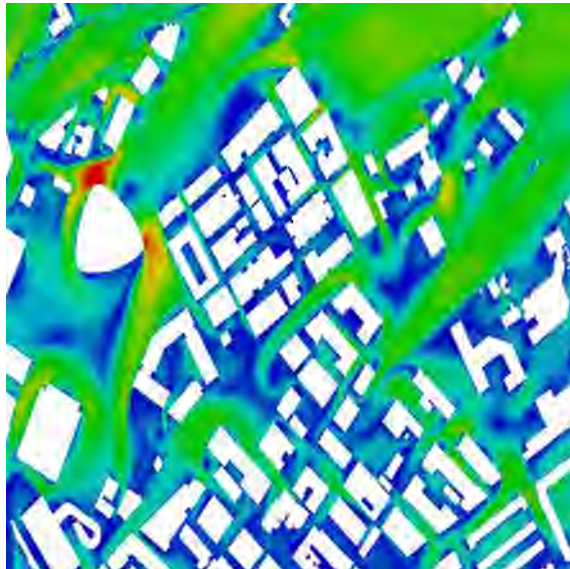
Created by: amcloughlin801
Date: 2024-12-10

55deg: Velocity contours at 1.5m above ground

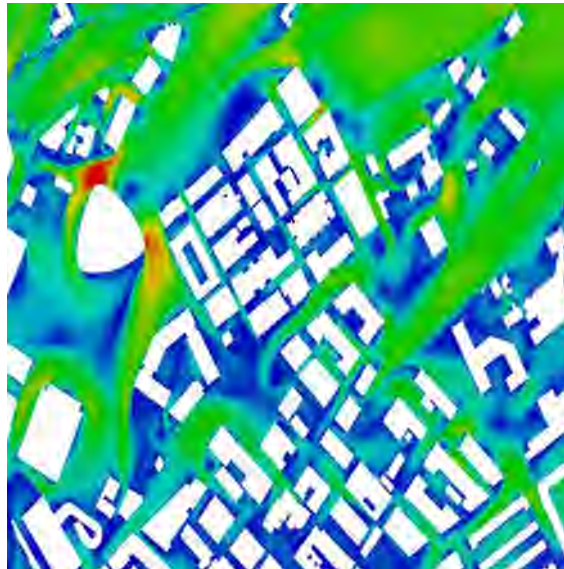
$U_{ref} = \sim 12\text{m/s}$ at 80m height



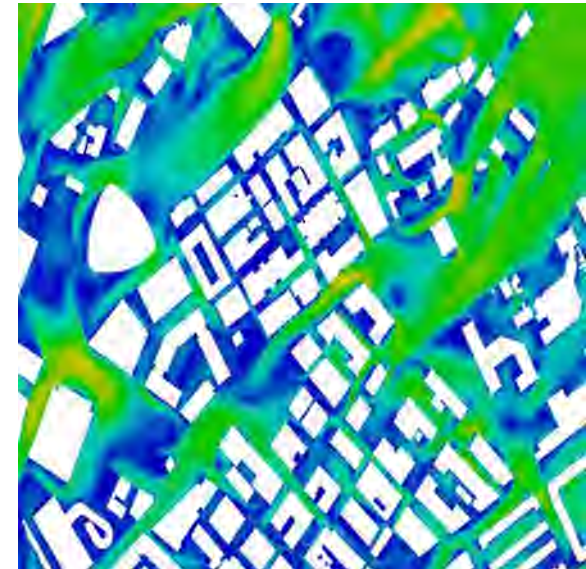
Baseline



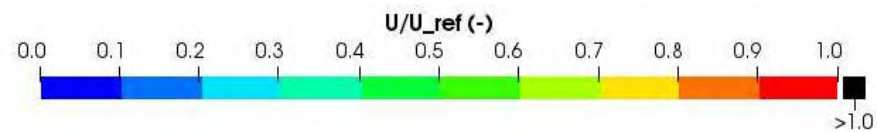
Proposed



Cumulative



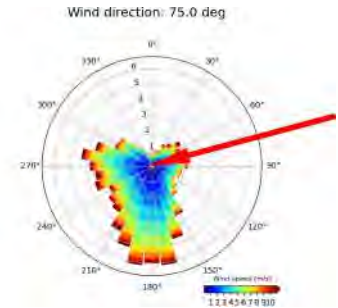
Project:
Baptist Church, Manchester



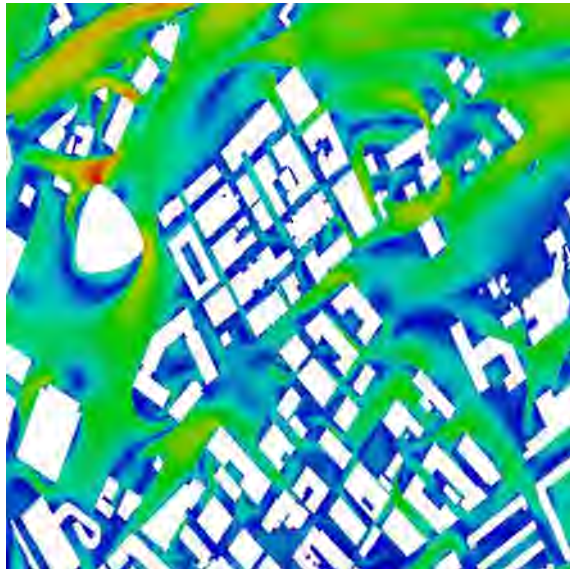
Created by: amcloughlin801
Date: 2024-12-10

75deg: Velocity contours at 1.5m above ground

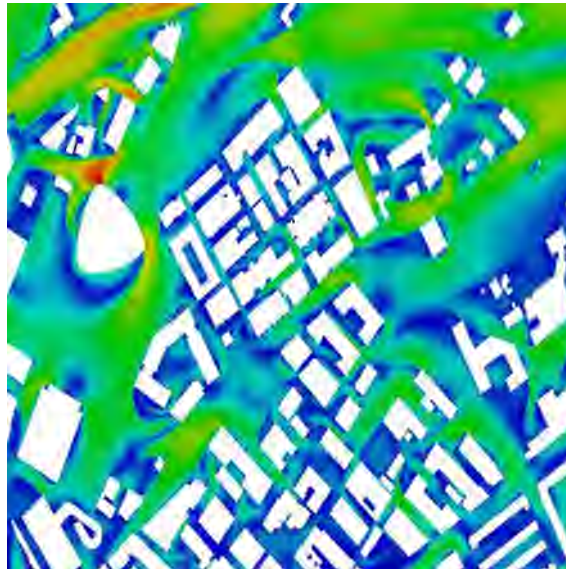
$U_{ref} = \sim 12\text{m/s}$ at 80m height



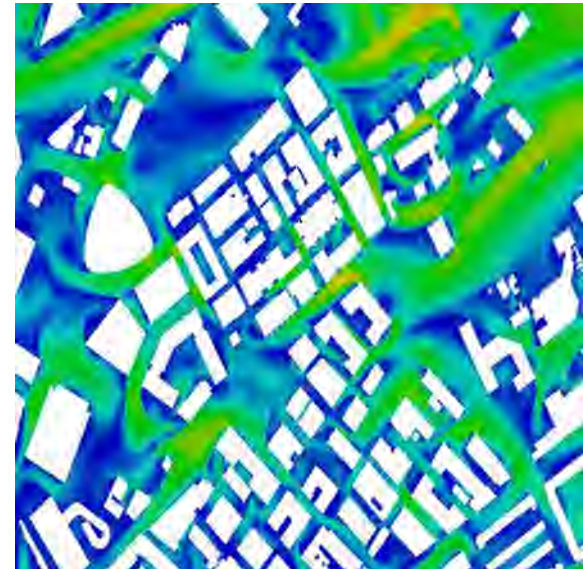
Baseline



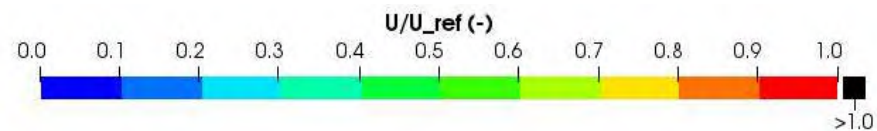
Proposed



Cumulative



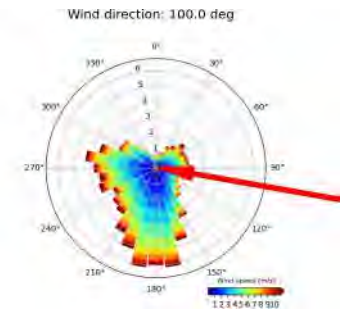
Project:
Baptist Church, Manchester



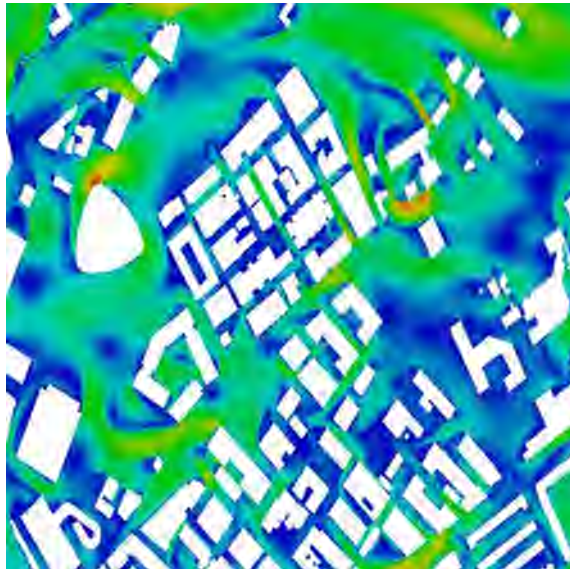
Created by: amcloughlin801
Date: 2024-12-10

100deg: Velocity contours at 1.5m above ground

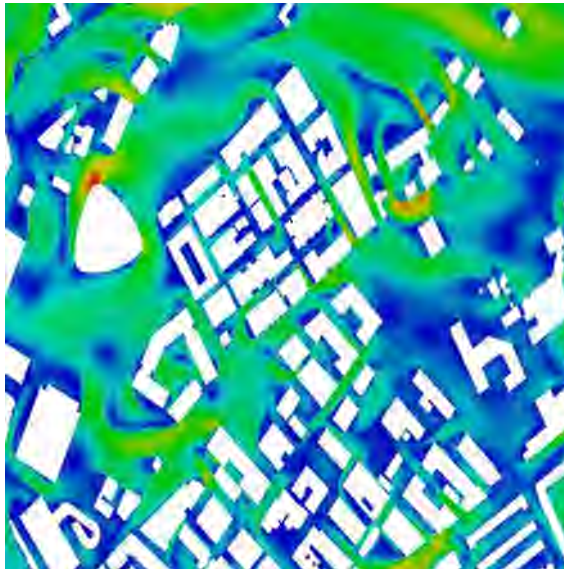
$U_{ref} = \sim 12\text{m/s}$ at 80m height



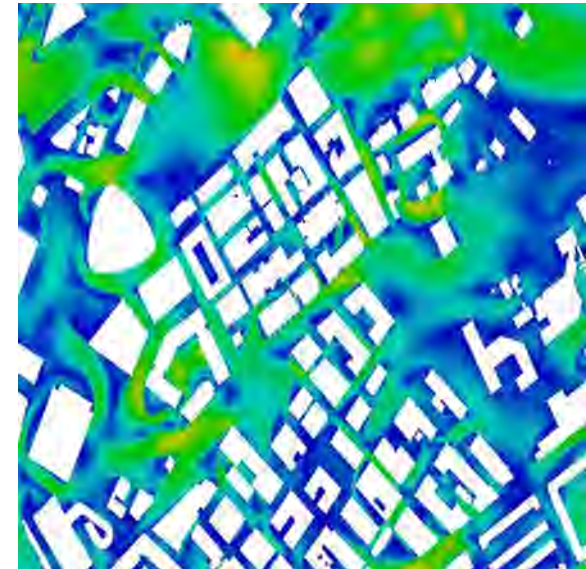
Baseline



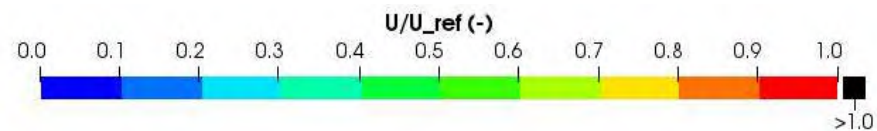
Proposed



Cumulative



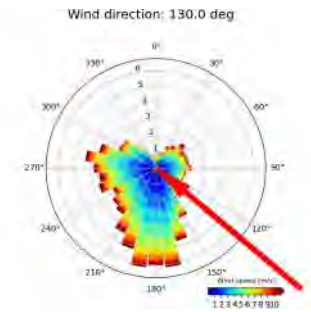
Project:
Baptist Church, Manchester



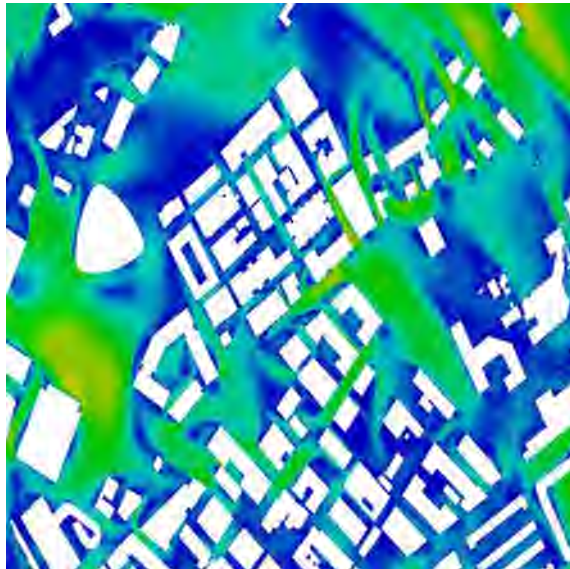
Created by: amcloughlin801
Date: 2024-12-10

130deg: Velocity contours at 1.5m above ground

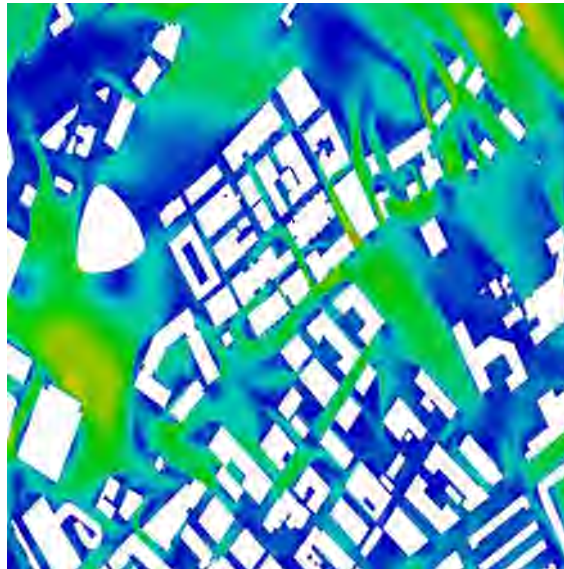
$U_{ref} = \sim 12\text{m/s}$ at 80m height



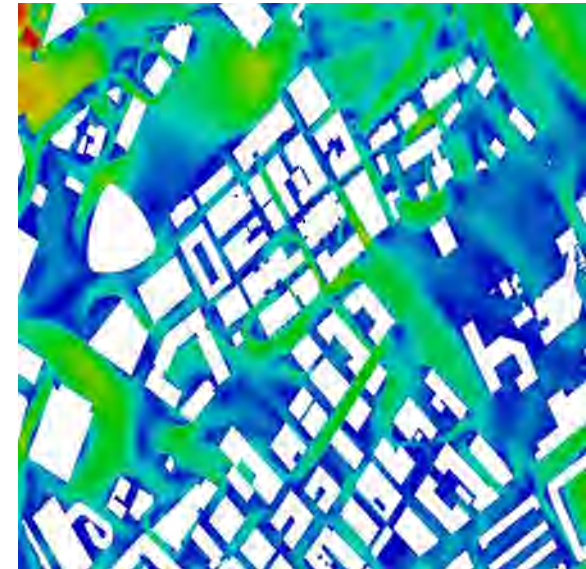
Baseline



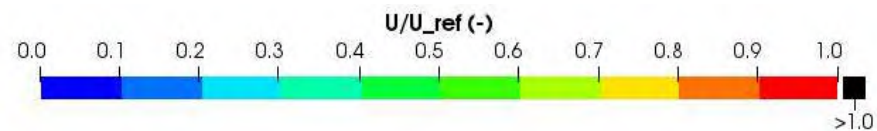
Proposed



Cumulative



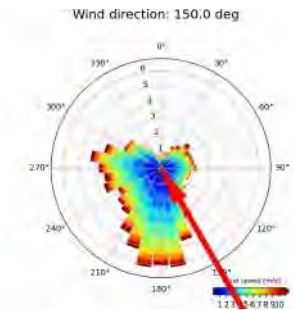
Project:
Baptist Church, Manchester



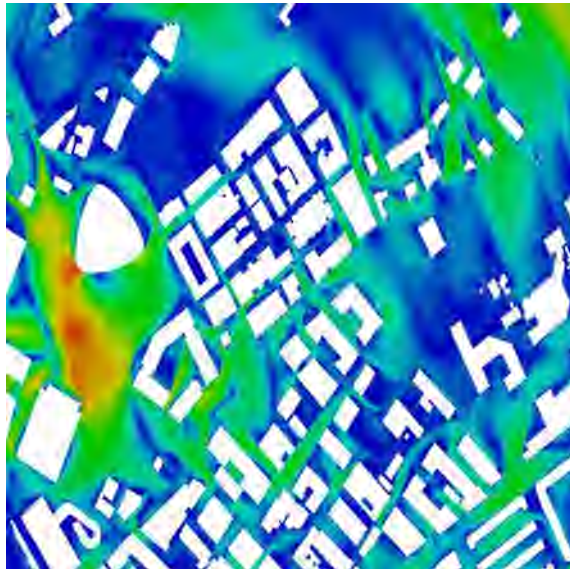
Created by: amcloughlin801
Date: 2024-12-10

150deg: Velocity contours at 1.5m above ground

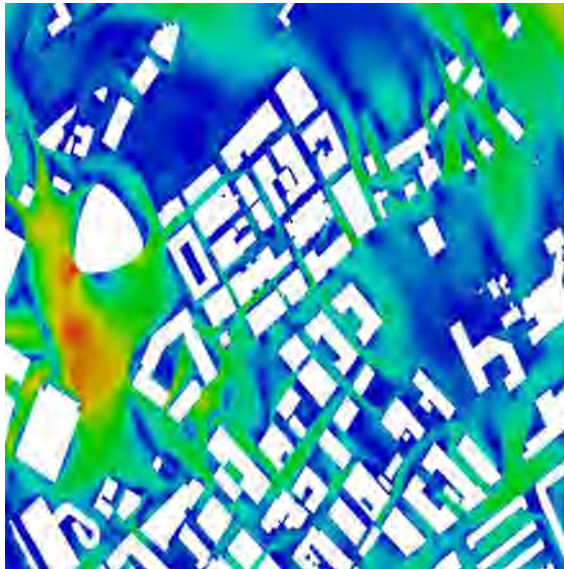
$U_{ref} = \sim 12\text{m/s}$ at 80m height



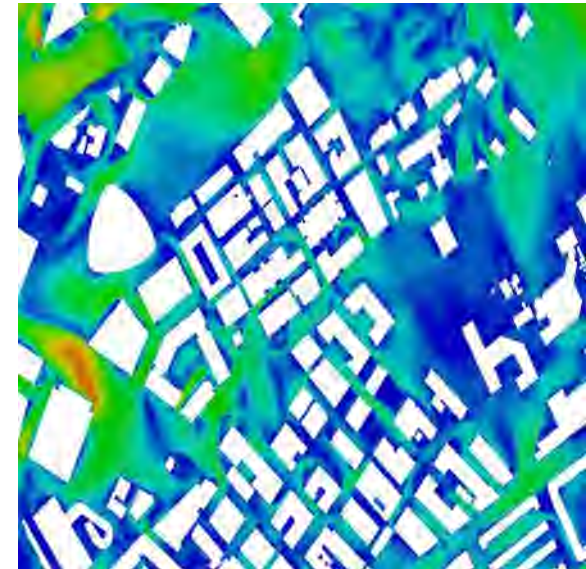
Baseline



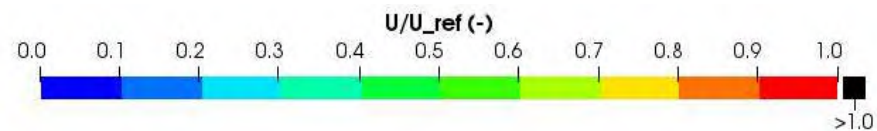
Proposed



Cumulative



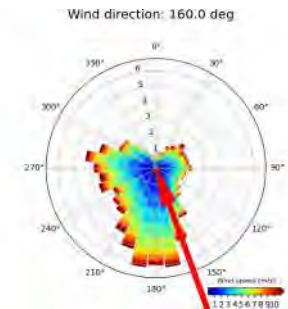
Project:
Baptist Church, Manchester



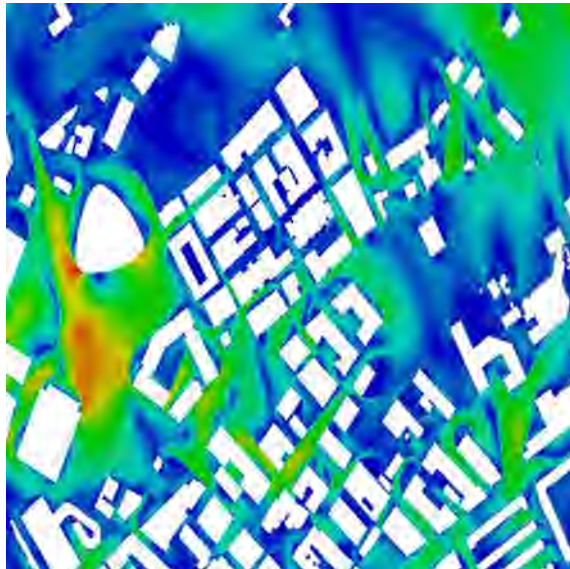
Created by: amcloughlin801
Date: 2024-12-10

160deg: Velocity contours at 1.5m above ground

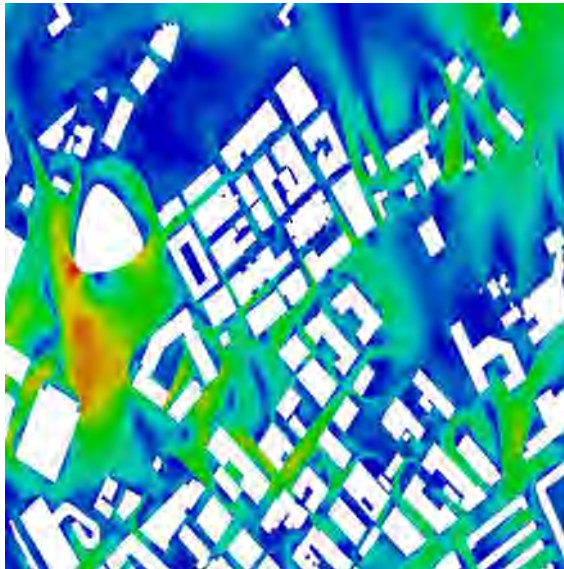
$U_{ref} = \sim 12\text{m/s}$ at 80m height



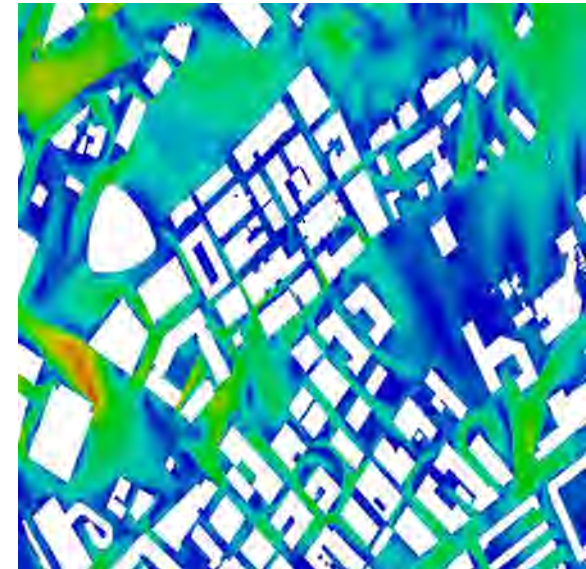
Baseline



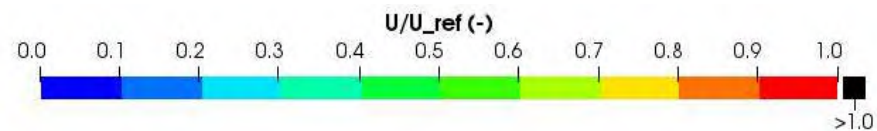
Proposed



Cumulative



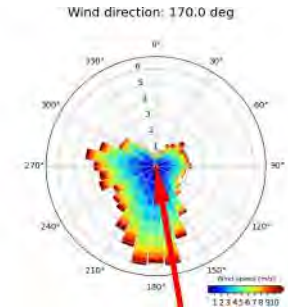
Project:
Baptist Church, Manchester



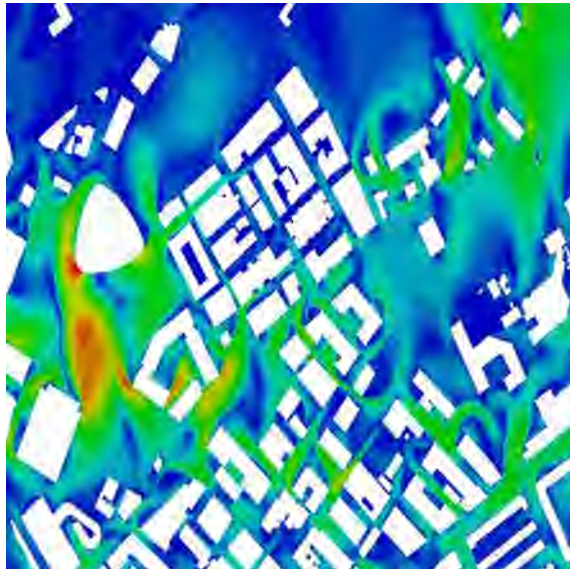
Created by: amcloughlin801
Date: 2024-12-10

170deg: Velocity contours at 1.5m above ground

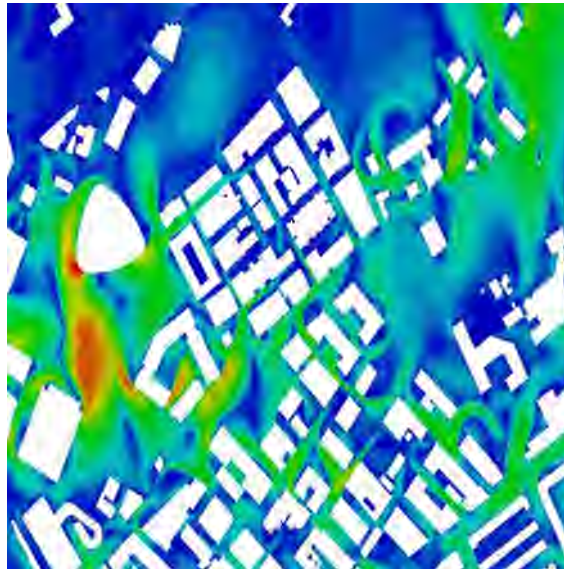
$U_{ref} = \sim 12\text{m/s}$ at 80m height



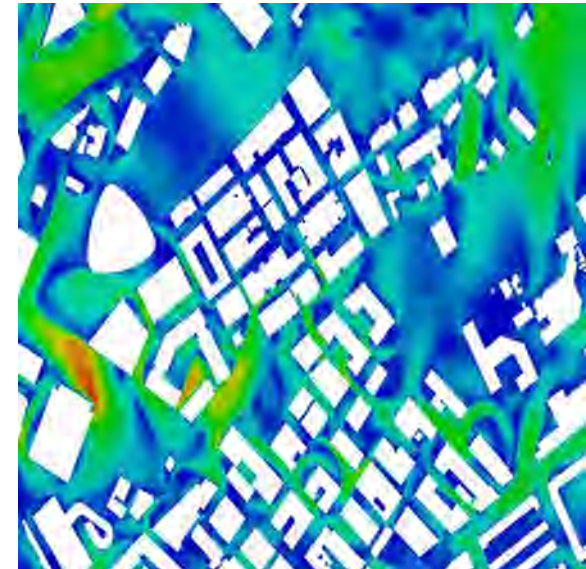
Baseline



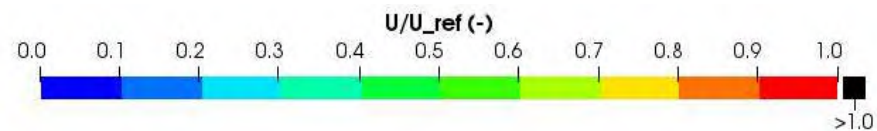
Proposed



Cumulative



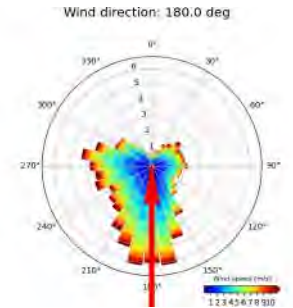
Project:
Baptist Church, Manchester



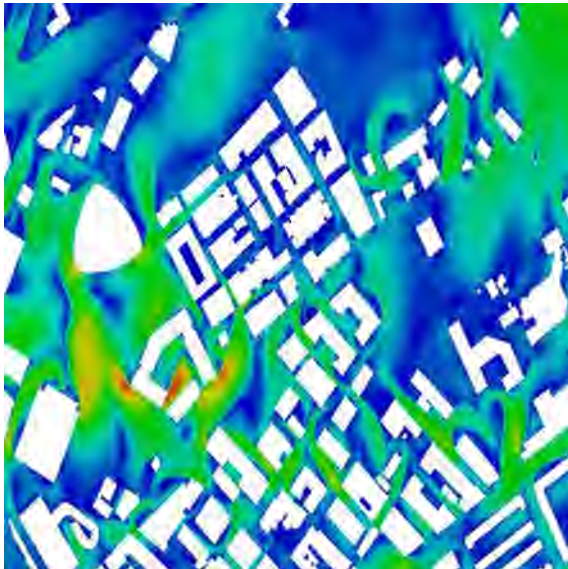
Created by: amcloughlin801
Date: 2024-12-10

180deg: Velocity contours at 1.5m above ground

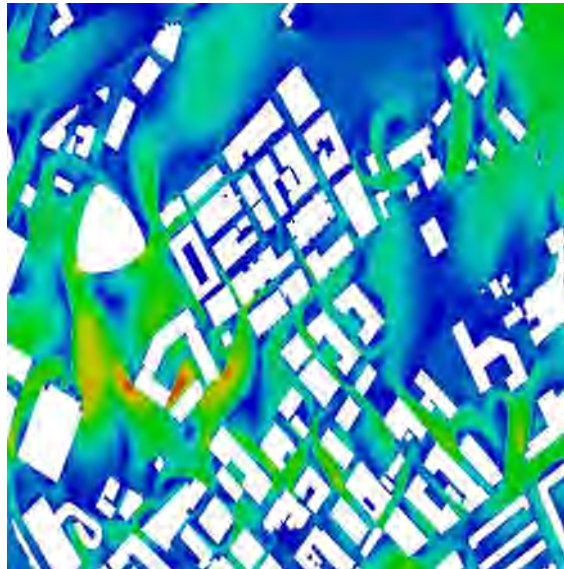
$U_{ref} = \sim 12\text{m/s}$ at 80m height



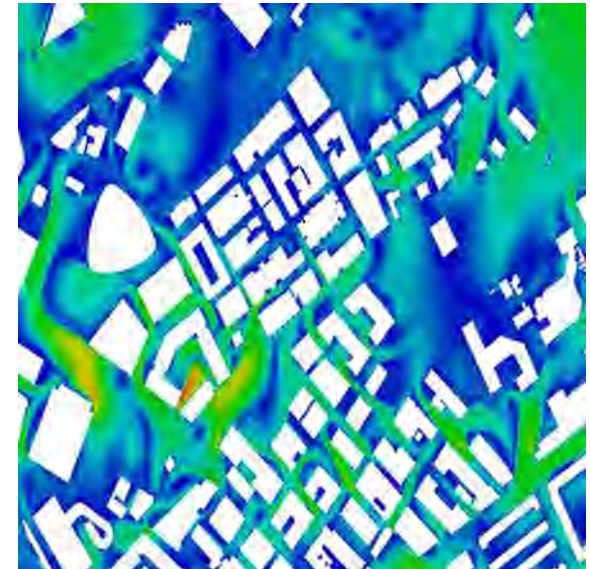
Baseline



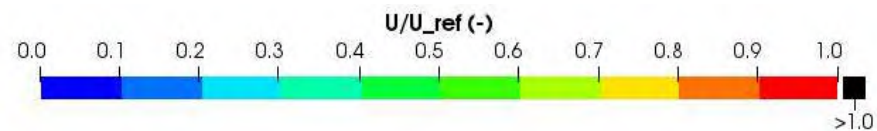
Proposed



Cumulative



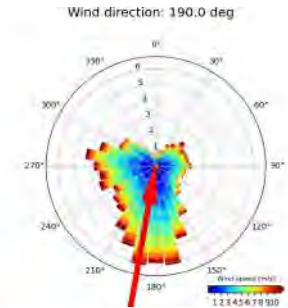
Project:
Baptist Church, Manchester



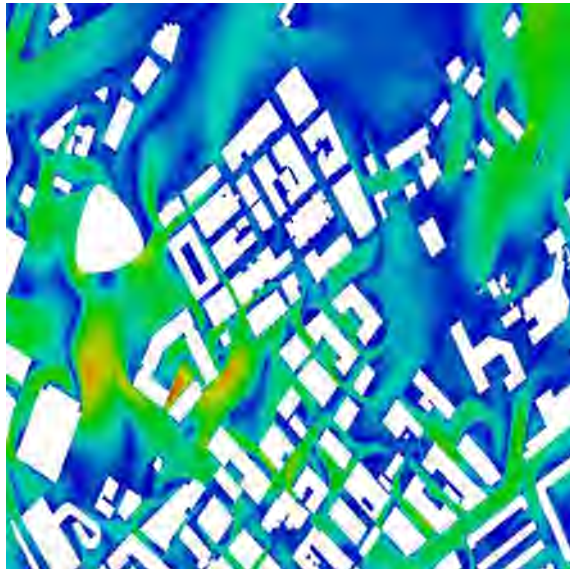
Created by: amcloughlin801
Date: 2024-12-10

190deg: Velocity contours at 1.5m above ground

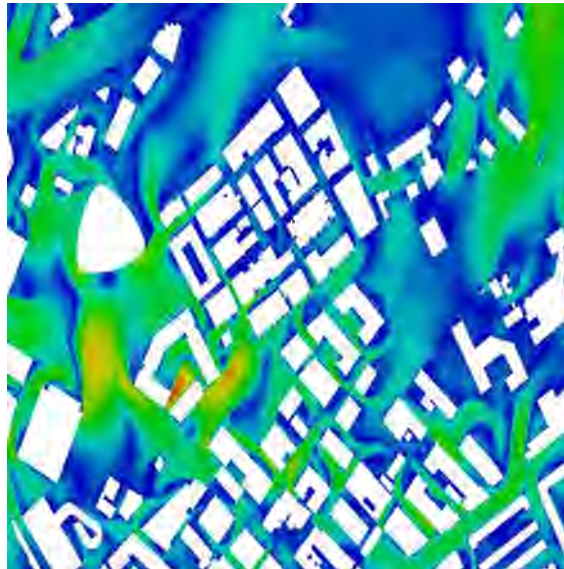
$U_{ref} = \sim 12\text{m/s}$ at 80m height



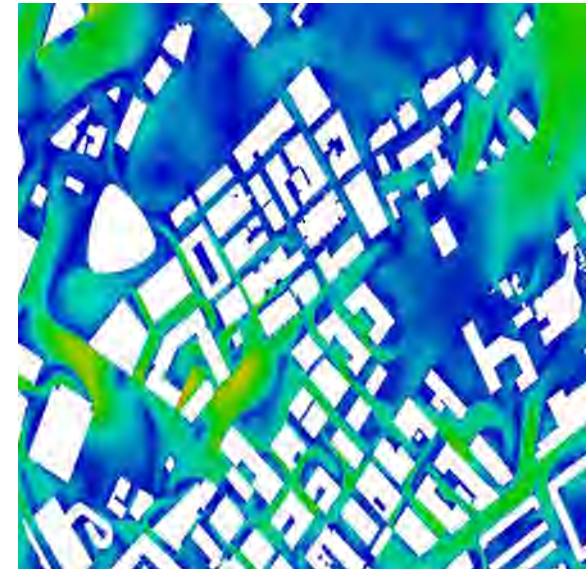
Baseline



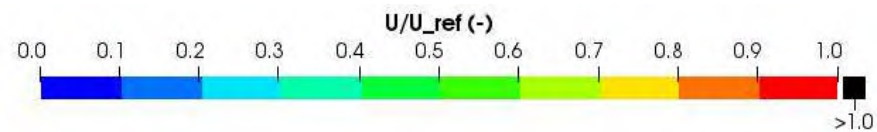
Proposed



Cumulative



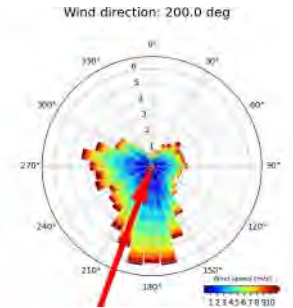
Project:
Baptist Church, Manchester



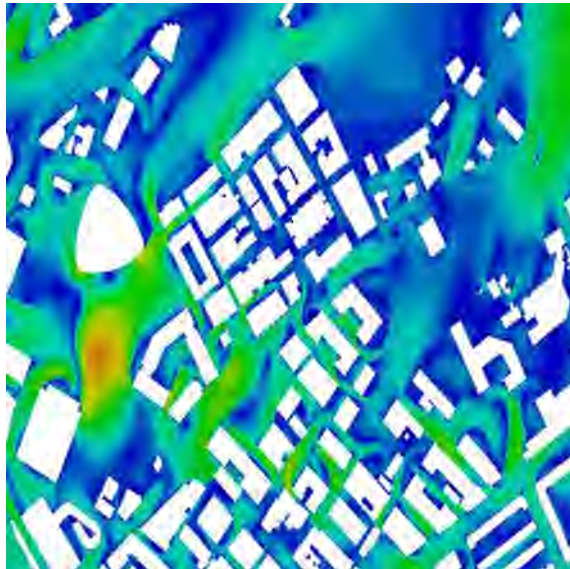
Created by: amcloughlin801
Date: 2024-12-10

200deg: Velocity contours at 1.5m above ground

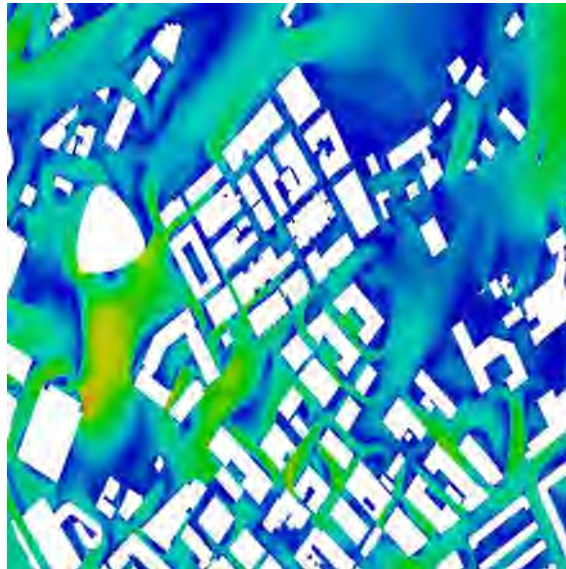
$U_{ref} = \sim 12\text{m/s}$ at 80m height



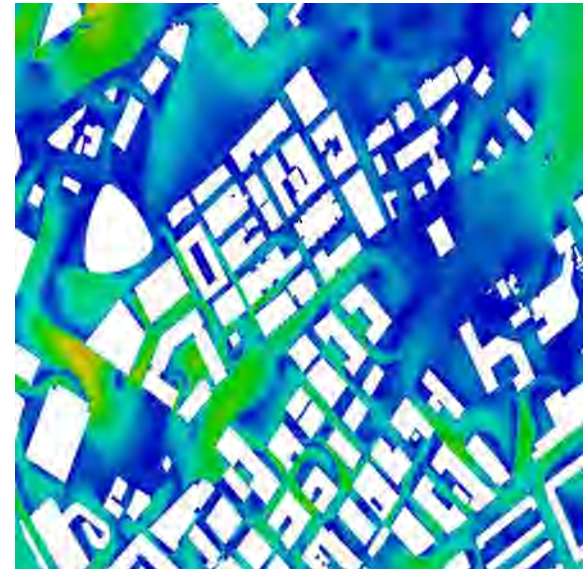
Baseline



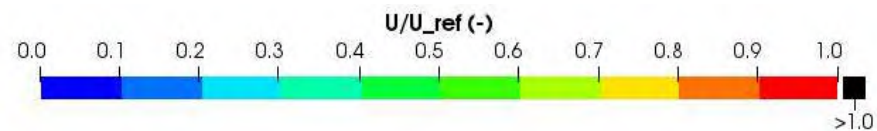
Proposed



Cumulative



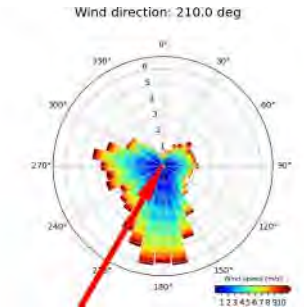
Project:
Baptist Church, Manchester



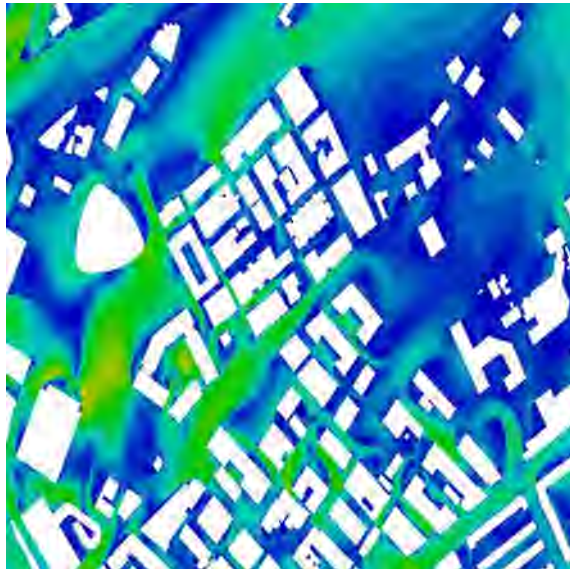
Created by: amcloughlin801
Date: 2024-12-10

210deg: Velocity contours at 1.5m above ground

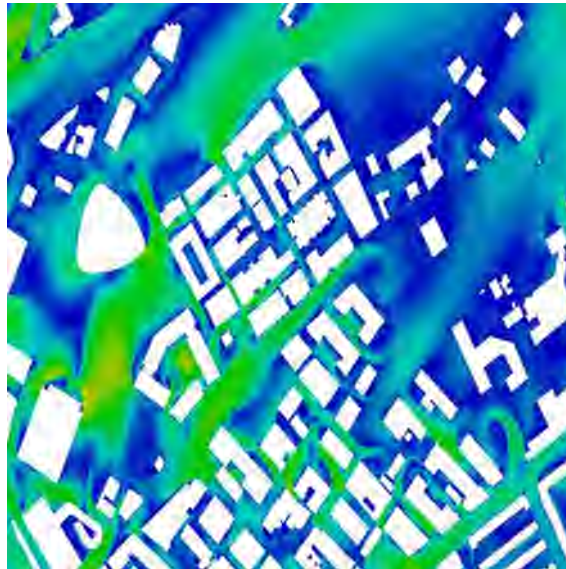
$U_{ref} = \sim 12\text{m/s}$ at 80m height



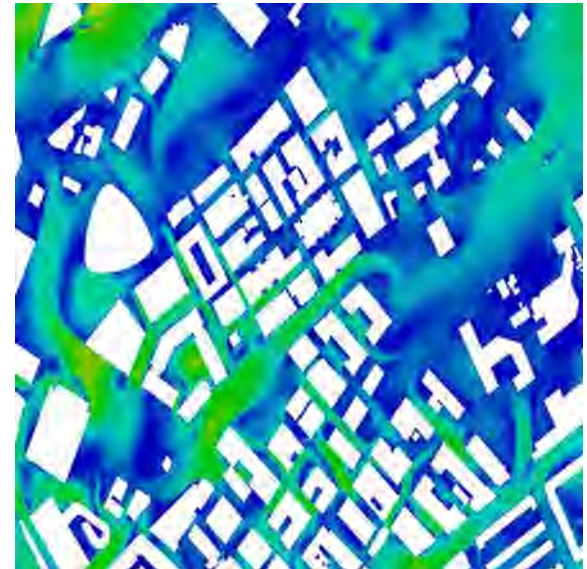
Baseline



Proposed

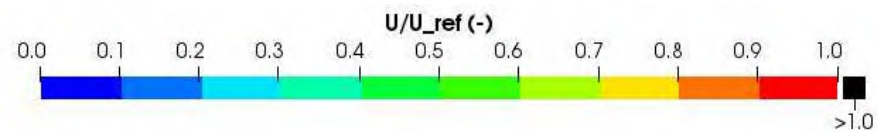


Cumulative



Project:

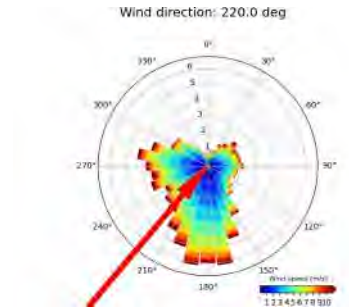
Baptist Church, Manchester



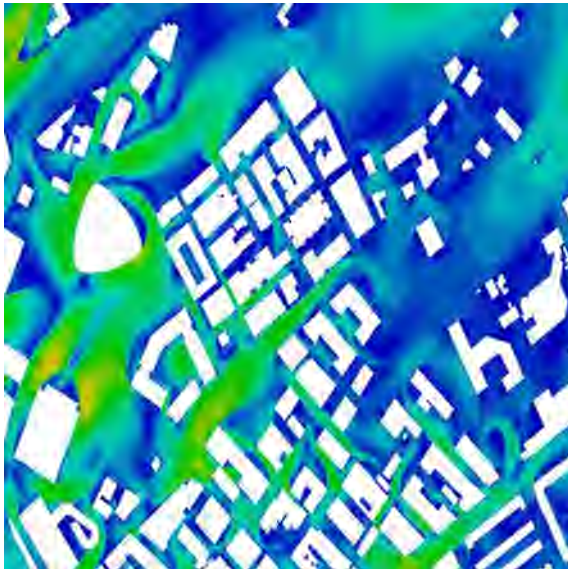
Created by: amcloughlin801
Date: 2024-12-10

220deg: Velocity contours at 1.5m above ground

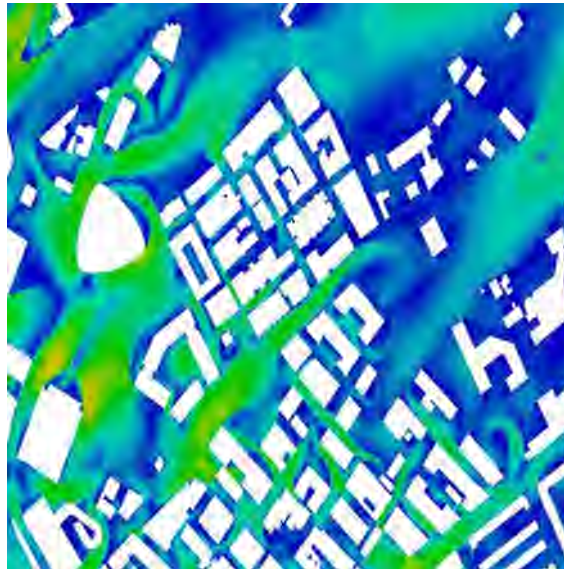
$U_{ref} = \sim 12\text{m/s}$ at 80m height



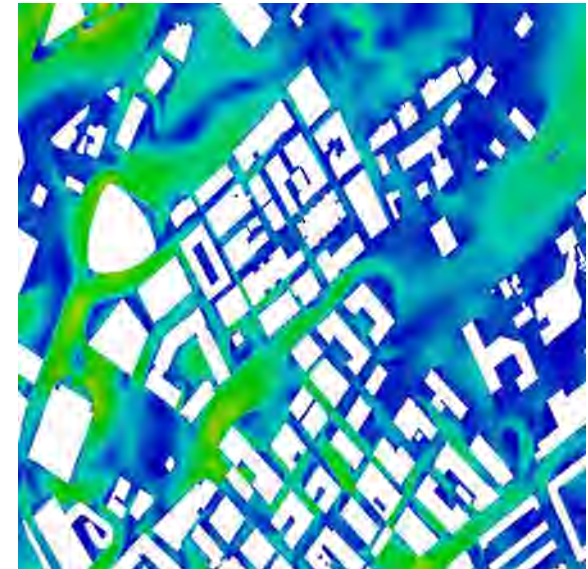
Baseline



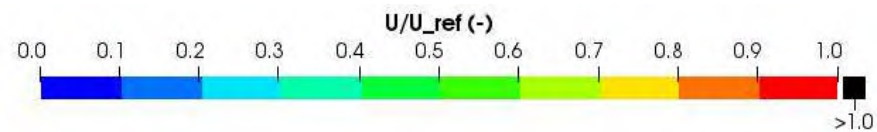
Proposed



Cumulative



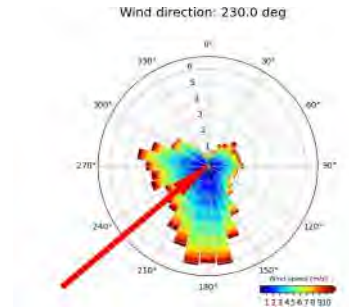
Project:
Baptist Church, Manchester



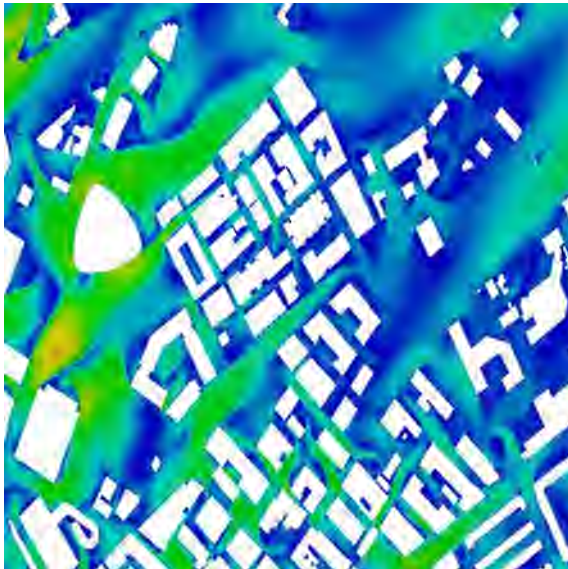
Created by: amcloughlin801
Date: 2024-12-10

230deg: Velocity contours at 1.5m above ground

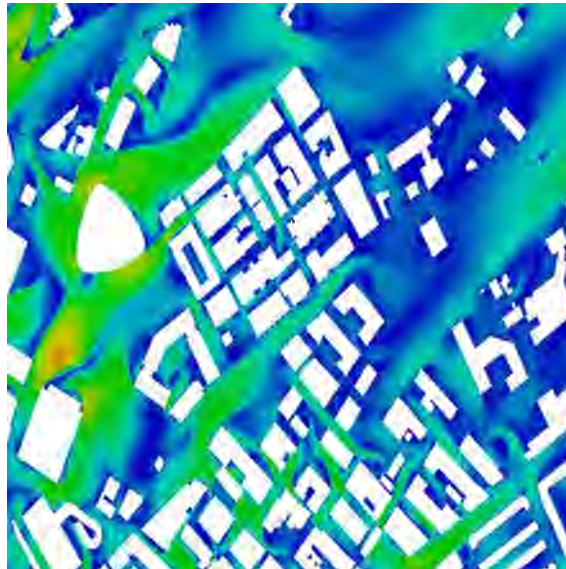
$U_{ref} = \sim 12\text{m/s}$ at 80m height



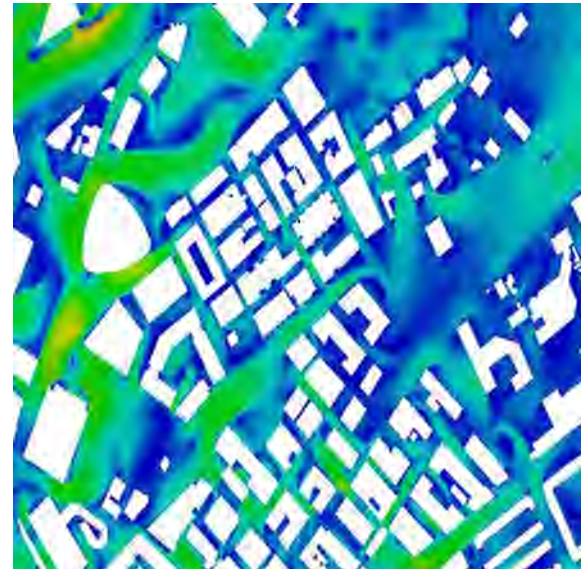
Baseline



Proposed

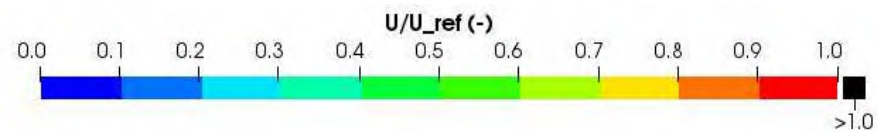


Cumulative



Project:

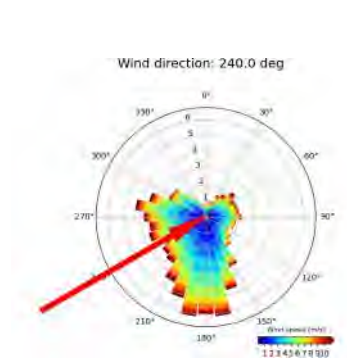
Baptist Church, Manchester



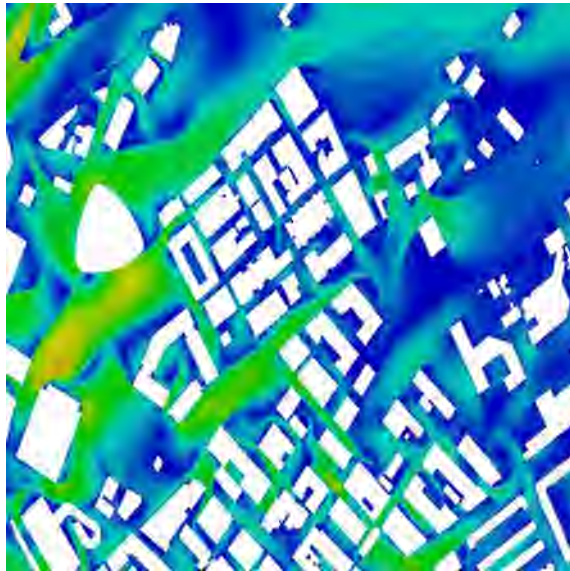
Created by: amcloughlin801
Date: 2024-12-10

240deg: Velocity contours at 1.5m above ground

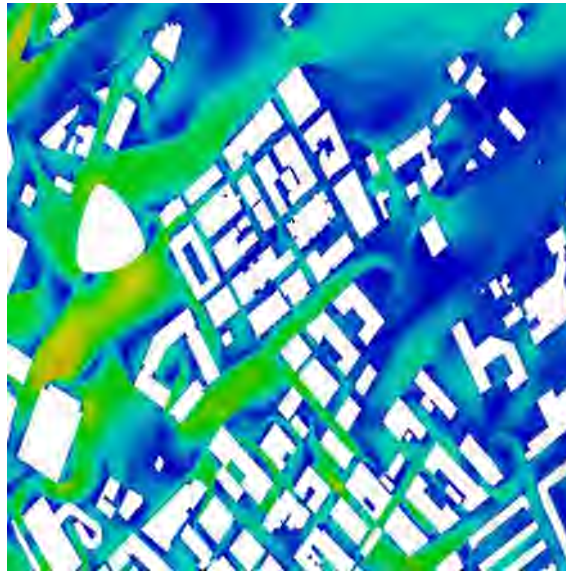
$U_{ref} = \sim 12\text{m/s}$ at 80m height



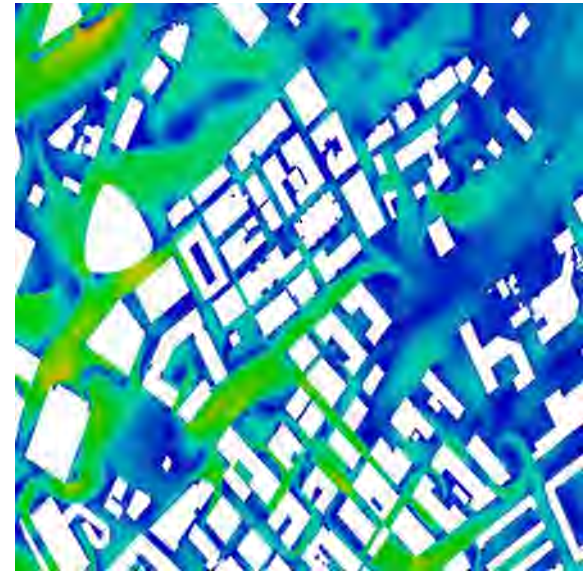
Baseline



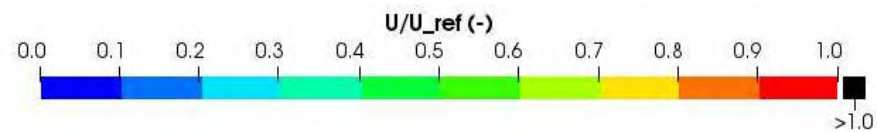
Proposed



Cumulative



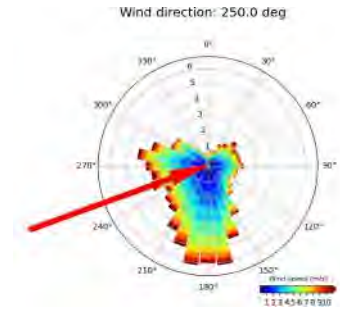
Project:
Baptist Church, Manchester



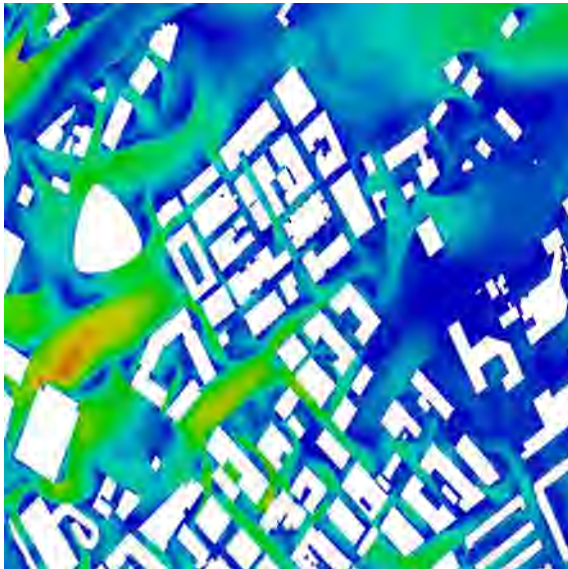
Created by: amcloughlin801
Date: 2024-12-10

250deg: Velocity contours at 1.5m above ground

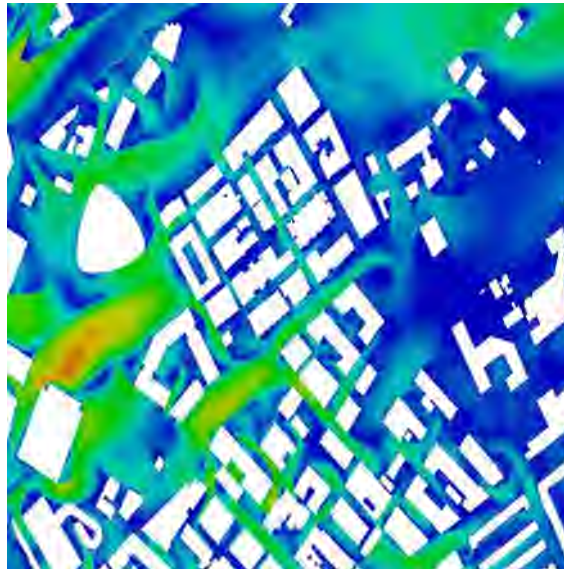
$U_{ref} = \sim 12\text{m/s}$ at 80m height



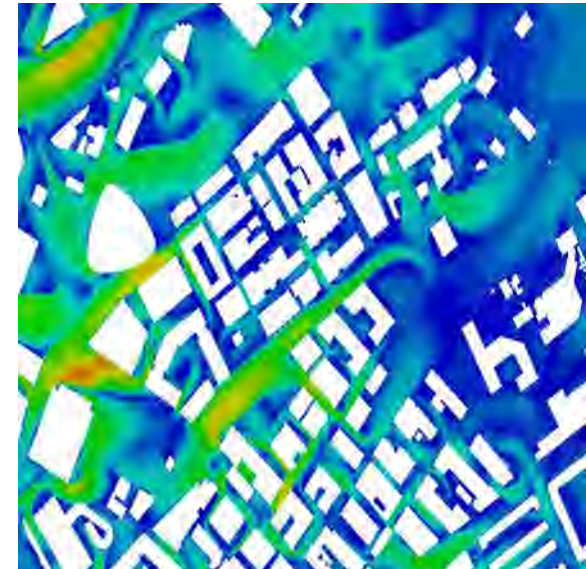
Baseline



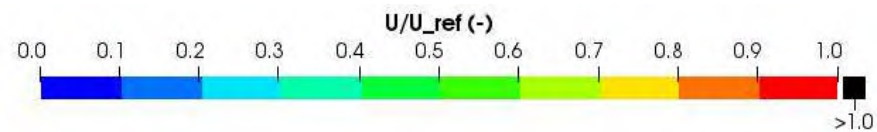
Proposed



Cumulative



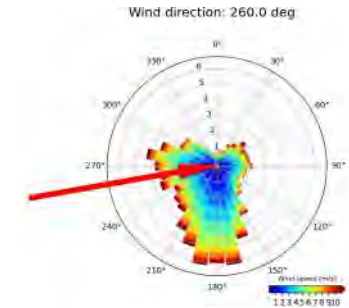
Project:
Baptist Church, Manchester



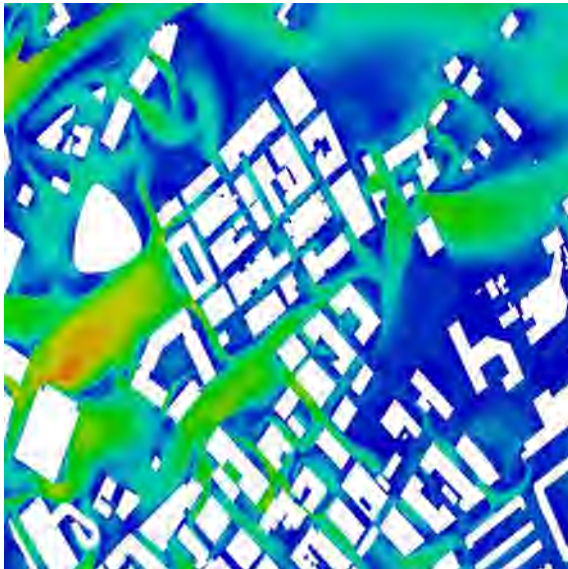
Created by: amcloughlin801
Date: 2024-12-10

260deg: Velocity contours at 1.5m above ground

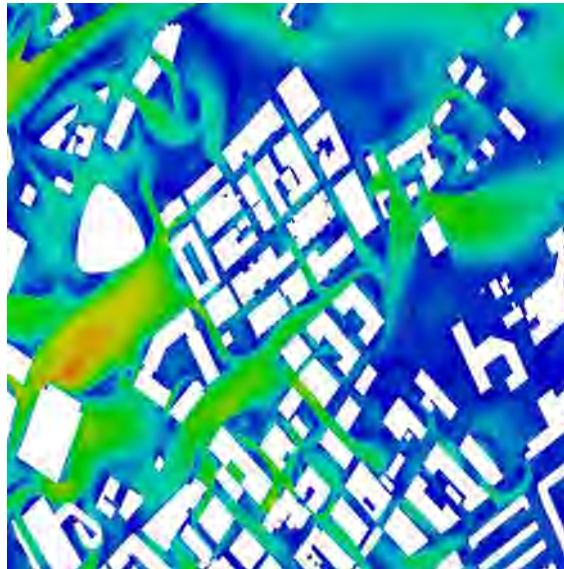
$U_{ref} = \sim 12\text{m/s}$ at 80m height



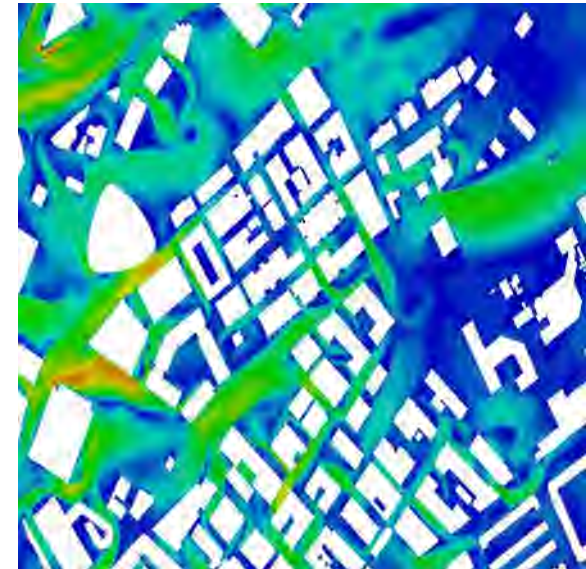
Baseline



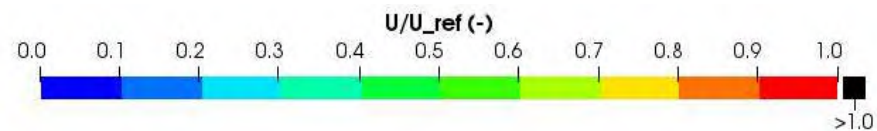
Proposed



Cumulative



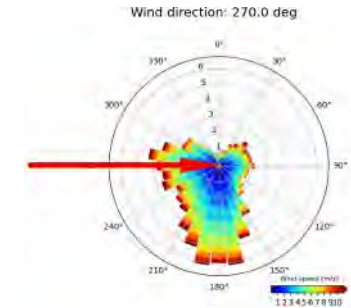
Project:
Baptist Church, Manchester



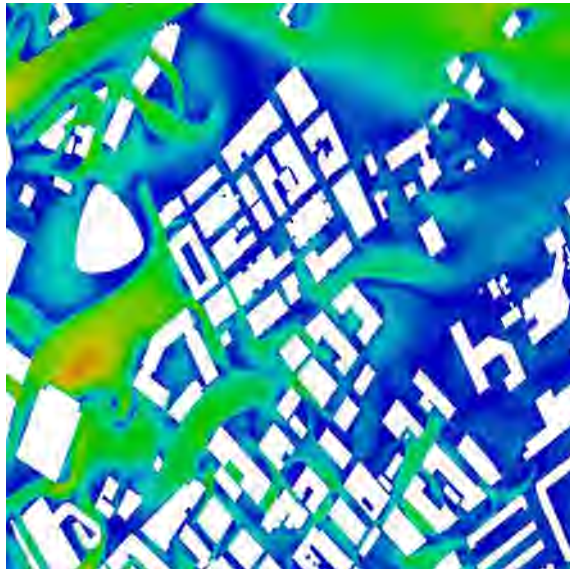
Created by: amcloughlin801
Date: 2024-12-10

270deg: Velocity contours at 1.5m above ground

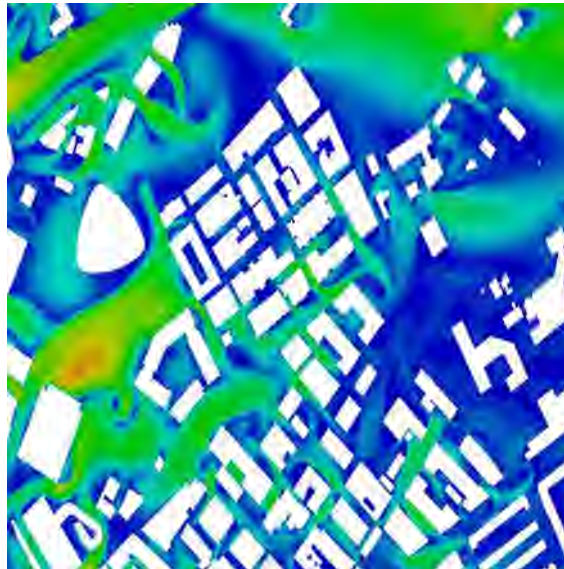
$U_{ref} = \sim 12\text{m/s}$ at 80m height



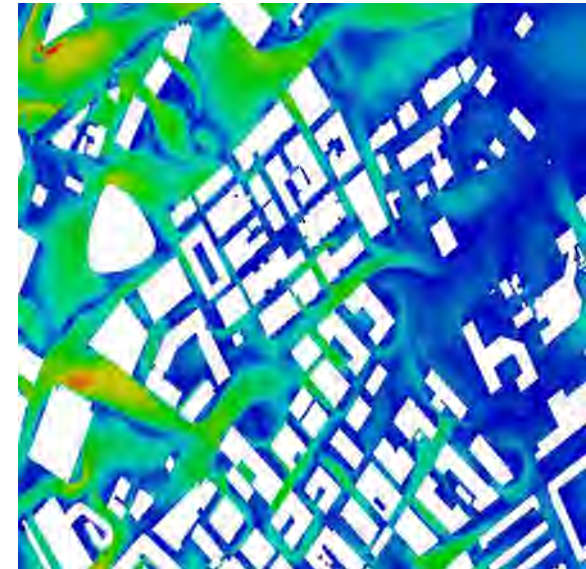
Baseline



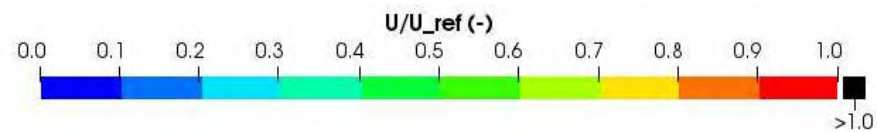
Proposed



Cumulative



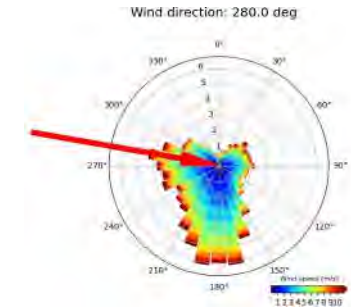
Project:
Baptist Church, Manchester



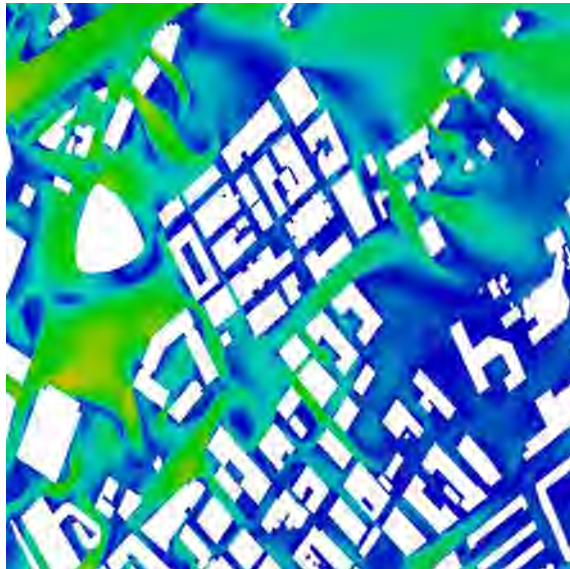
Created by: amcloughlin801
Date: 2024-12-10

280deg: Velocity contours at 1.5m above ground

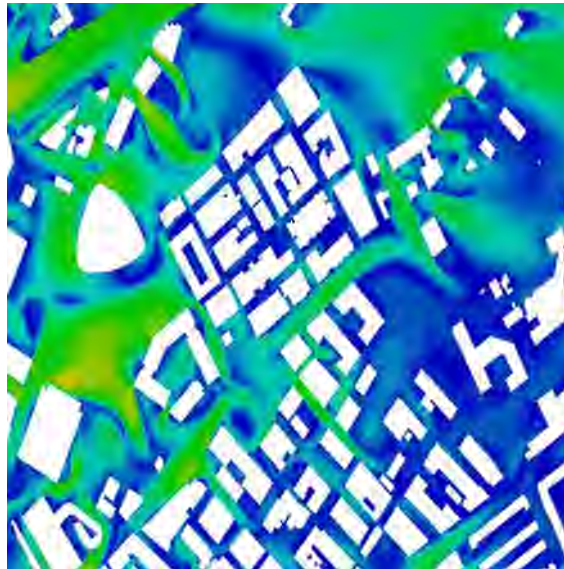
$U_{ref} = \sim 12\text{m/s}$ at 80m height



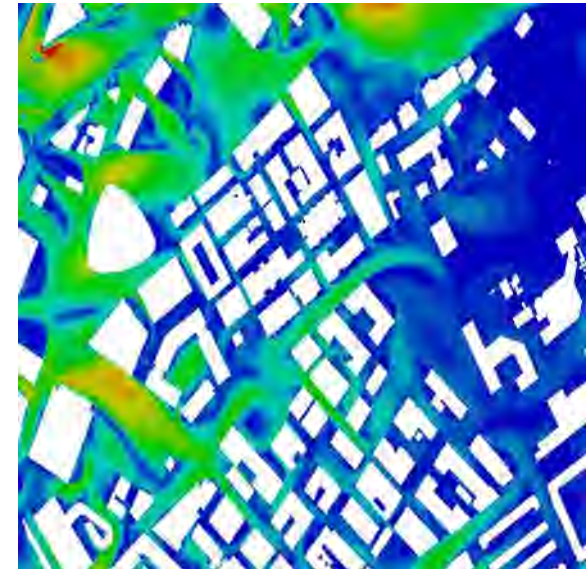
Baseline



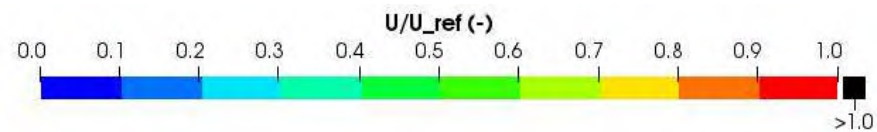
Proposed



Cumulative



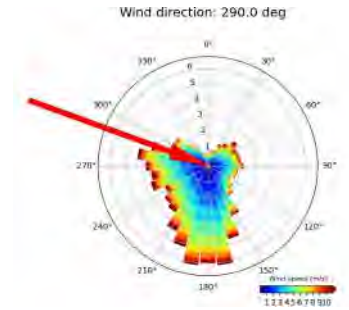
Project:
Baptist Church, Manchester



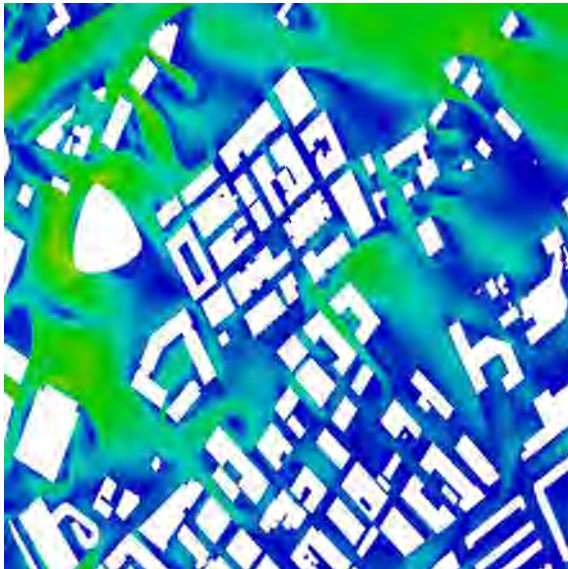
Created by: amcloughlin801
Date: 2024-12-10

290deg: Velocity contours at 1.5m above ground

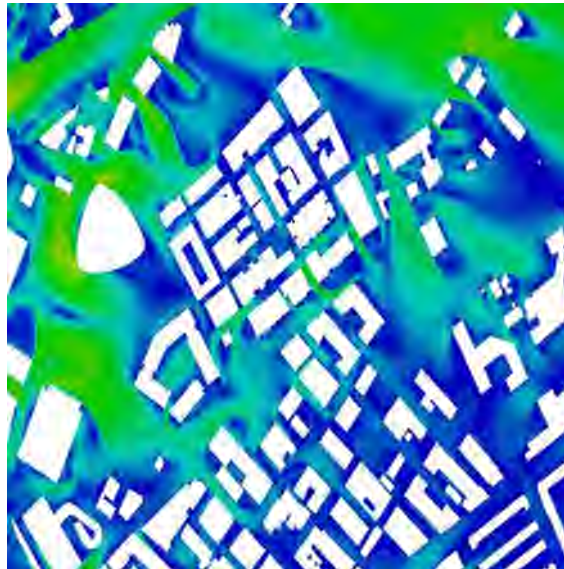
$U_{ref} = \sim 12\text{m/s}$ at 80m height



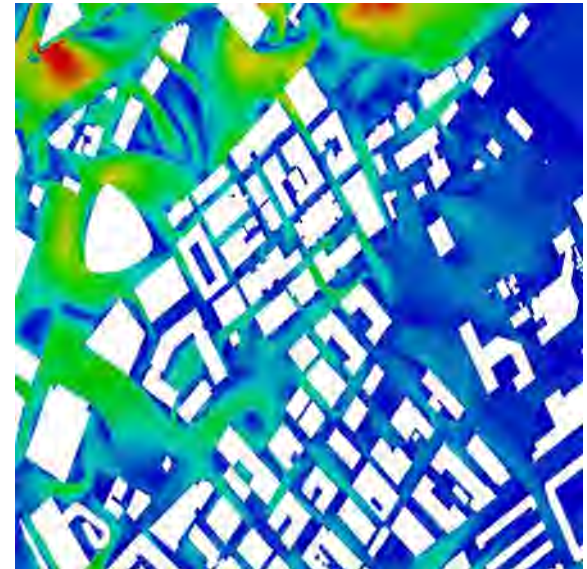
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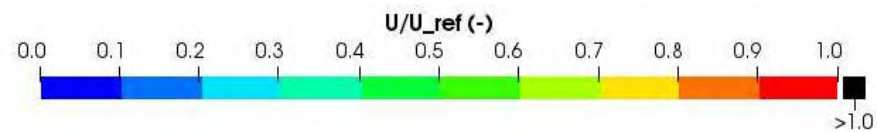
Proposed



Cumulative



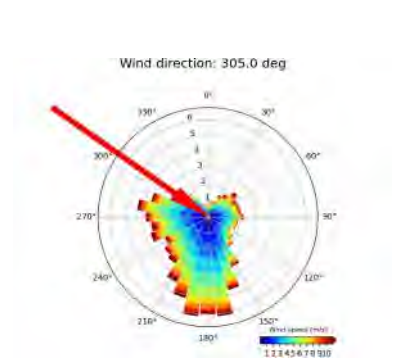
Project:
Baptist Church, Manchester



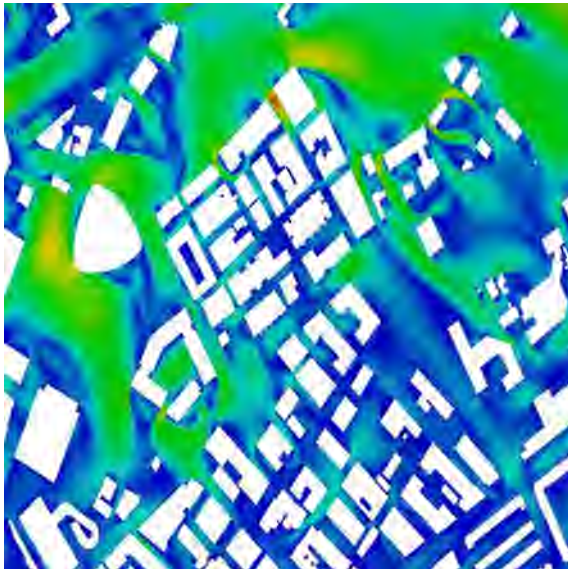
Created by: amcloughlin801
Date: 2024-12-10

305deg: Velocity contours at 1.5m above ground

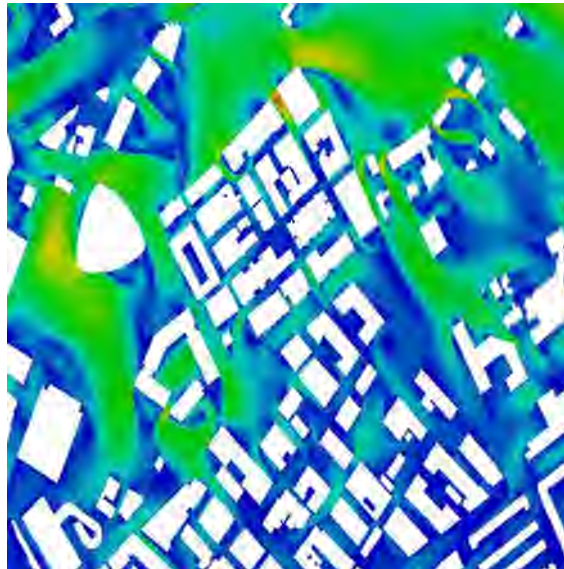
$U_{ref} = \sim 12\text{m/s}$ at 80m height



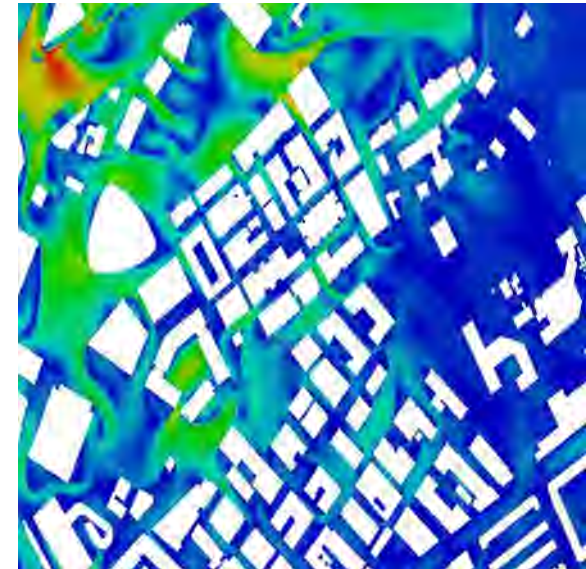
Baseline



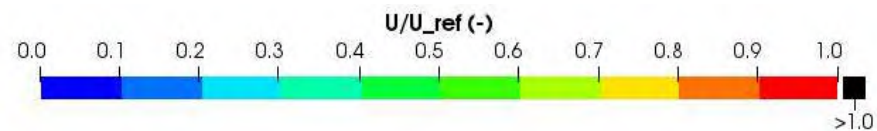
Proposed



Cumulative



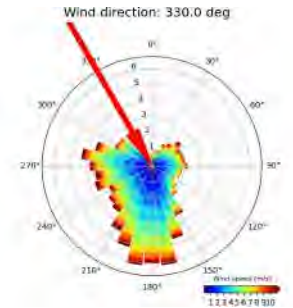
Project:
Baptist Church, Manchester



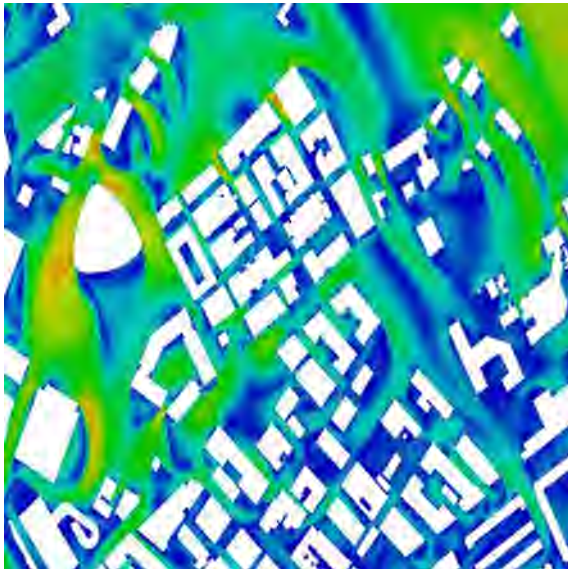
Created by: amcloughlin801
Date: 2024-12-10

330deg: Velocity contours at 1.5m above ground

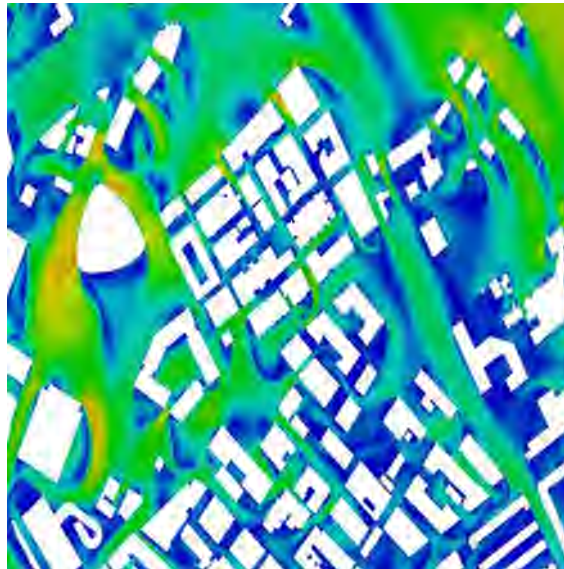
$U_{ref} = \sim 12\text{m/s}$ at 80m height



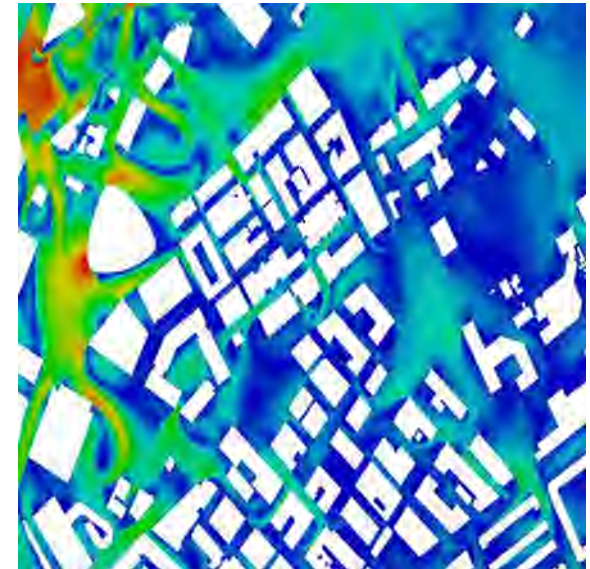
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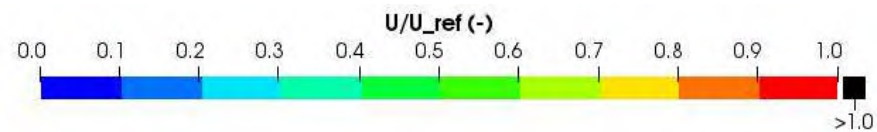
Proposed



Cumulative



Project:
Baptist Church, Manchester



Created by: amcloughlin801
Date: 2024-12-10

13.1 ASSESSMENT INPUT DATA

Technical Appendix 1 - Air Quality Dispersion Modelling Inputs
Rochdale Road, Manchester

Reference: 8104r1



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1.0 INTRODUCTION

- 1.1.1 This Technical Appendix provides the dispersion modelling inputs utilised in order to predict pollutant concentrations across the Proposed Development Site as a result of road vehicle exhaust emissions. It should be read in conjunction with the Air Quality Chapter of the Environmental Statement.

2.0 METHODOLOGY

2.1 Introduction

2.1.1 The Proposed Development has the potential to cause exposure of future occupants to elevated pollutant concentrations as a result of road vehicle exhaust emissions. In order to assess nitrogen dioxide (NO₂), particulate matter with an aerodynamic diameter of less than 10µm (PM₁₀) and particulate matter with an aerodynamic diameter of less than 2.5µm (PM_{2.5}) concentrations, detailed dispersion modelling was undertaken in accordance with the following methodology.

2.2 Dispersion Model

2.2.1 Dispersion modelling was undertaken using the ADMS-Roads dispersion model (version 5.0.1.3). ADMS-Roads is developed by Cambridge Environmental Research (CERC) and is routinely used throughout the world for the prediction of pollutant dispersion from road sources. Modelling predictions from this software package are accepted within the UK by the Environment Agency and the Department for Environment Food and Rural Affairs (DEFRA).

2.2.2 The model requires input data that details the following parameters:

- Traffic flow data;
- Vehicle emission factors;
- Spatial co-ordinates of emissions;
- Street width;
- Meteorological data;
- Roughness length (z_0); and,
- Monin-Obukhov length.

2.2.3 Additional options can also be selected within the ADMS-Road user interface in order to take account of site specific characteristics that may affect model outputs, such as canyons.

2.2.4 The following Sections detail the relevant inputs utilised in the assessment.

Traffic Flow Data

- 2.2.5 Traffic data used in the assessment, including 24-hour Annual Average Daily Traffic (AADT) flows and fleet composition as Heavy Duty Vehicle (HDV) proportion, was obtained from the Department for Transport (DfT) (DfT, 2024). The DfT web tool enables the user to view and download traffic flows on every link of the 'A' road network, as well as minor roads, in Great Britain for the years 1999 to 2023. It should be noted that the DfT web tool is referenced in DEFRA guidance (DEFRA, 2022) as being a suitable source of data for air quality assessments and it is therefore considered to provide a reasonable estimate of traffic flows in the vicinity of the Site.
- 2.2.6 Baseline traffic data was converted to the opening year of the development utilising a factor obtained from TemPro (Version 8.0). This software package has been developed by the DfT to calculate future traffic growth throughout the UK.
- 2.2.7 Road widths and vehicle speeds were estimated from aerial photography and UK highway design standards. A summary of the traffic flow data is provided in Table 1.

Table 1 Traffic Data

Link		24-hour AADT Flow		HDV Prop. of Fleet (%)	Road Width (m)	Avg. Vehicle Speed (km/h)
		2022	2027			
L1	Shudehill, Slow Phase (SP)	7,322	7,753	21.55	15.0	20
L2	Miller Street SP	13,073	13,843	2.51	8.0	20
L3	Miller Street	13,073	13,843	2.51	7.6	40
L4	Swan Street, SP	13,073	13,843	2.51	13.2	20
L5	Swan Street	13,073	13,843	2.51	8.6	40
L6	Rochdale Road, Northbound (NB)	4,715	4,993	9.69	10.8	40
L7	Rochdale Road NB, north of Angel Street	6,009	6,363	5.66	6.8	20
L8	Rochdale Road Canyon 1	12,655	13,400	5.49	16.8	40
L9	Rochdale Road Canyon 2	12,655	13,400	5.49	15.8	40
L10	Rochdale Road NB, north of Thompson Street	6,009	6,363	5.66	6.1	40

Link		24-hour AADT Flow		HDV Prop. of Fleet (%)	Road Width (m)	Avg. Vehicle Speed (km/h)
		2022	2027			
L11	Rochdale Road Southbound (SB), north of Thompson Street	6,646	7,037	5.33	7.3	40
L12	Rochdale Road SB, north of Angel Street	6,646	7,037	5.33	8.7	20
L13	Rochdale Road SB, South of Angel Street	4,717	4,995	10.09	11.0	20
L14	Addington Street, SP	12,607	13,350	2.48	5.5	30
L15	Angel Street	11,141	11,797	3.37	6.8	30
L16	Angel Street Traffic Lights	11,141	11,797	3.37	9.6	20
L17	Angel Street, East of Traffic Lights	11,141	11,797	3.37	9.1	20
L18	Angel Street Canyon 1	11,141	11,797	3.37	10.9	30
L19	Angel Street	11,141	11,797	3.37	8.2	30
L20	Angel Street Canyon 2	11,141	11,797	3.37	9.7	20
L21	Angel Street SP	11,141	11,797	3.37	10.2	20

2.2.8 Reference should be made to Figure 6 for a graphical representation of the road link locations.

Canyons

2.2.9 Where buildings or walls surround roads, pollutant dispersion patterns are altered which can lead to high pollutant concentrations. These street canyons can significantly influence air quality along a road and therefore it is important to take consideration of their effects when undertaking dispersion modelling.

2.2.10 The release of ADMS-Roads version 4.0.1.0 in December 2015 incorporated a number of new features including an advanced street canyon module, which have been retained in version 5.0.1.3. Advanced street canyon modelling allows a number of parameters to be included in the dispersion model in order to predict pollutant dispersion patterns which better reflect air flow within complex urban geometries.

2.2.11 Canyons have five principal effects on dispersion which can influence pollutant concentrations. These are:

- Pollutants are channelled along street canyons;
- Pollutants are dispersed across street canyons by circulating flow at road height;
- Pollutants are trapped in recirculation regions;
- Pollutants leave the canyon through gaps between buildings - as if there were no canyon; and,
- Pollutants leave the canyon from the canyon top.

2.2.12 The combined modelling of these effects will result in concentration patterns unique to each canyon. The parameters used in the verification assessment are outlined in Table 2. It should be noted that where buildings are not present adjacent to the road, parameters have purposely been included at 0m.

Table 2 Verification Canyon Parameters

Link	Parameter (m)					
	Canyon Width to Left	Average Height of Buildings to Left	Building Length Left	Canyon Width to Right	Average Height of Buildings to Right	Building Length Right
L1	0.0	0.0	0.0	12.9	30.0	74.4
L8	0.0	0.0	0.0	10.6	50.0	29.7
L9	10.8	21.0	70.5	13.5	27.0	57.7
L18	0.0	0.0	0.0	9.7	19.0	58.2
L20	0.0	0.0	0.0	9.2	7.0	21.3

2.2.13 The Proposed Development will lead to changes in the street geometry adjacent to the Site. As such, the canyon parameters outlined in Table 2 were updated accordingly to represent the opening year of the scheme. The relevant parameters are shown in Table 3.

Table 3 Future Year Canyon Parameters

Link	Parameter (m)					
	Canyon Width to Left	Average Height of Buildings to Left	Building Length Left	Canyon Width to Right	Average Height of Buildings to Right	Building Length Right
L1	0.0	0.0	0.0	12.9	30.0	74.4
L8	0.0	0.0	0.0	10.6	50.0	29.7
L9	10.8	40.0	70.5	13.5	27.0	57.7
L18	0.0	0.0	0.0	9.7	19.0	58.2
L20	0.0	0.0	0.0	9.2	7.0	21.3

2.2.14 A choice of two modes is provided for use in the advanced canyon module. Standard mode assumes that each road is part of a continuous network of roads with similar canyon properties. Network mode analyses the road network to determine transport of pollutants between adjoining street canyons, allows for varying concentrations along the canyon and accounts for transport of pollutants out of the end of a canyon. Network mode is considered most accurate for detailed local analysis and as such was selected for use in the model.

Emission Factors

2.2.15 Emission factors for each link were calculated using the relevant traffic flows and the Emissions Factor Toolkit (version 12.1). This has been produced by DEFRA and incorporates COPERT 5.6 vehicle emission factors and fleet information.

2.2.16 There is current uncertainty over NO₂ concentrations within the UK, with the implementation of new vehicle emission standards not resulting in the previously expected reduction in roadside levels. Therefore, 2022 emission factors were utilised in preference to the development opening year in order to provide robust outputs. As predictions for 2022 were verified, it is considered the results are a robust indication of worst-case concentrations for the future year.

Meteorological Data

2.2.17 Meteorological data used in the assessment was taken from Manchester Airport meteorological station over the period 1st January 2022 to 31st December 2022 (inclusive). Manchester Airport meteorological station is located at NGR: 381792, 384116 which is approximately 15.2km south-west of the development. It is anticipated that conditions would be reasonably similar over a distance of this magnitude. The data was therefore considered suitable for an assessment of this nature.

2.2.18 All meteorological records used in the assessment were provided by Atmospheric Dispersion Modelling (ADM) Ltd, which is an established distributor of data within the UK. Reference should be made to Figure 2 for a wind rose of the utilised meteorological data.

Roughness Length

2.2.19 The z_0 is a modelling parameter applied to allow consideration of surface height roughness elements. A z_0 of 1m was used to describe the modelling extents. This is considered appropriate for the morphology of the area and is suggested within ADMS-Roads as being suitable for 'cities, woodland'.

2.2.20 A z_0 of 0.2m was used to describe the meteorological site. This is considered appropriate for the morphology of the area and is suggested within ADMS-Roads as being suitable for 'agricultural areas (min)'.

Monin-Obukhov Length

2.2.21 The Monin-Obukhov length provides a measure of the stability of the atmosphere. A minimum Monin-Obukhov length of 30m was used to describe the modelling extents and meteorological site. This value is considered appropriate for the nature of both areas and is suggested within ADMS-Roads as being suitable for 'cities and large towns'.

Background Concentrations

2.2.22 Annual mean NO₂, PM₁₀ and PM_{2.5} background concentrations used in the assessment were obtained from the DEFRA mapping study for the grid square containing the monitors, NGR: 384500, 398500. These are shown in Table 4.

Table 4 Background Pollutant Concentrations - Modelling Extents

Pollutant	Predicted 2022 Background Concentration ($\mu\text{g}/\text{m}^3$)
NO ₂	26.25
PM ₁₀	13.04
PM _{2.5}	8.38

2.2.23 The values were chosen to represent concentrations throughout the dispersion modelling extents without the contribution from road vehicles as they were higher than the DEFRA backgrounds for the grid square containing the Site.

2.2.24 Similarly to emission factors, background concentrations from 2022 were utilised throughout the assessment in preference to the development opening year. This provided a robust assessment and is likely to overestimate pollutant concentrations during the operation of the proposal.

Model Verification

2.2.25 It is necessary to compare the modelled results versus monitored results at relevant locations to enable the adjustment of model outputs and minimise the inherent uncertainties associated with dispersion modelling. The predicted results from a dispersion model may differ from measured concentrations for a number of reasons, including:

- Estimates of background concentrations;
- Uncertainties in source activity data such as traffic flows and emission factors;
- Variations in meteorological conditions;
- Overall model limitations; and,
- Uncertainties associated with monitoring data, including locations.

2.2.26 Model verification is the process by which these and other uncertainties are investigated and where possible minimised. In reality, the differences between modelled and monitored results are likely to be a combination of all of these aspects.

2.2.27 For the purpose of the assessment, model verification was undertaken for 2022 using traffic data, meteorological data and monitoring results from this year.

2.2.28 Monitoring of NO₂ concentrations was undertaken at 9 monitors in the vicinity of roads included within the modelling extents during 2022. The results were obtained and the road contributions to total NO_x concentrations calculated following the methodology contained within DEFRA guidance (DEFRA, 2022). The monitored annual mean NO₂ concentrations and calculated road NO_x concentrations are summarised in Table 5.

Table 5 NO_x Verification - Monitoring Results

Monitoring Site		Monitored NO ₂ Concentration (µg/m ³)	Calculated Road NO _x Concentration (µg/m ³)
MA88NO	Angel Street	39.20	26.53
CAP_MANC_052	Shudehill	45.60	40.89
CAP_MANC_076	A665 (Miller Street)	29.50	6.37
CAP_MANC_077	A665 (Miller Street)	32.20	11.80
CAP_MANC_078	A665 (Swan Street)	40.60	29.60
CAP_MANC_079	A665 (Swan Street)	44.30	37.90
CAP_MANC_142	Swan Street	39.10	26.31
CAP_MANC_143	Studehill	43.20	35.40
CAP_MANC_144	Studehill	42.00	32.48

2.2.29 The annual mean road NO_x concentrations predicted from the dispersion model and the calculated 2022 road NO_x monitoring results are summarised in Table 6.

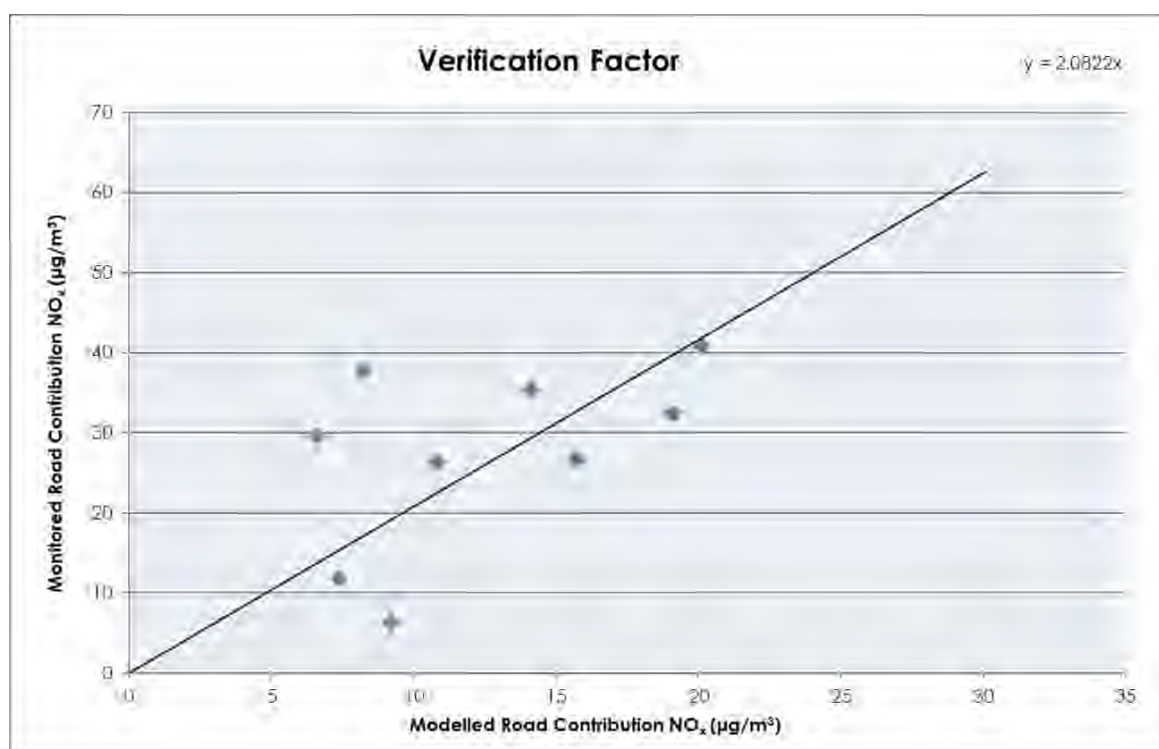
Table 6 NO_x Verification - Modelling Results

Monitoring Site		Calculated Road NO _x Concentration (µg/m ³)	Modelled Road NO _x Concentration (µg/m ³)
MA88NO	Angel Street	26.53	15.74
CAP_MANC_052	Shudehill	40.89	20.11
CAP_MANC_076	A665 (Miller Street)	6.37	9.19
CAP_MANC_077	A665 (Miller Street)	11.80	7.36
CAP_MANC_078	A665 (Swan Street)	29.60	6.61
CAP_MANC_079	A665 (Swan Street)	37.90	8.21

Monitoring Site		Calculated Road NO _x Concentration (µg/m ³)	Modelled Road NO _x Concentration (µg/m ³)
CAP_MANC_142	Swan Street	26.31	10.80
CAP_MANC_143	Studehill	35.40	14.12
CAP_MANC_144	Studehill	32.48	19.12

2.2.30 The monitored and modelled road NO_x concentrations were graphed and the equation of the trendline based on linear progression through zero calculated. This indicated a verification factor of 2.0822 was required to be applied to all road NO_x modelling results, as shown in Graph 1.

Graph 1 - Verification Factor



2.2.31 Monitoring of PM₁₀ and PM_{2.5} concentrations is not undertaken within the assessment extents. The NO₂ verification factor was therefore used to adjust model predictions of these species in lieu of more accurate data in accordance with DEFRA guidance (DEFRA, 2022).