

Manchester City Council

Date: 10th October 2025

Via Email

BWB Reference: 233048-BWB-ZZ-XX-T-EC-0002_ECA_Technical_Note-S2-P02

CHORLTON PRECINCT REDEVELOPMENT: Full Planning Application for the erection of 6 no. residential buildings of 10, 8, 6 and 4 storeys in height to provide up to 262 residential dwellings (Use Class C3) with ground floor commercial uses (Use Class E (a-e)); infrastructure works including electric substation and associated utilities works, basement and ground level car parking, service yard, vehicular and pedestrian accesses; together with public realm works and hard/soft landscaping following the demolition of the existing buildings and structures on site (REF: 142652/FO/2025).

TECHNICAL NOTE: EMBODIED CARBON ASSESSMENT – RESPONSE TO PUBLIC COMMENTS

Introduction

This Technical Note has been prepared to respond to the request from Manchester City Council (MCC) on 25th September for clarification regarding public comments received on the Embodied Carbon Assessment (ECA) (Document Reference: 233048-BWB-ZZ-XX-T-EC-0001_ECA) submitted for the full planning application (Reference: 142652/FO/2025) for the residential-led mixed-use redevelopment of the Chorlton Precinct site in Chorlton-Cum-Hardy, Manchester.

The scope of the ECA constituted a lifecycle embodied carbon assessment (as shown in the dashed red box in **Figure 1**), utilising the life-cycle embodied carbon targets set out within the Net Zero New Buildings – Recommendations for Policy¹, which was produced by the Manchester Climate Change Partnership (MCCP) in December 2024 to guide the design and construction of new buildings. The ECA utilised One Click Life Cycle Assessment (LCA) software and was informed by information provided by relevant members of the Project Team. The ECA concluded that the embodied carbon assessed for the Proposed Development was anticipated to be 561kg CO₂e/m², although some exclusions were noted within the ECA due to details being unavailable at the time of the assessment, and prior to submission of the application.

The recommended lifecycle embodied carbon targets for mid-rise (4 to 20 storey) residential buildings within the MCCP recommendations is 720 kgCO₂e/m² for 2025 - 2029, 550 kgCO₂e/m² for 2030 - 2034 and 375 kgCO₂e/m² for 2035 onwards. As set out in detail within the planning application submission (primarily the Planning Statement and Environmental Statement), the construction programme identifies completion by Quarter 4 (Q4) 2029. BWB have reviewed this with the Applicant, and it is apparent, by virtue of the approved Prior Notice for Demolition, that there is significant contingency in the construction programme to off-set the current elongation of the planning application programme. The specified completion date of Q4 2029 therefore remains robust for the purposes of the ECA. It should be noted that following the completion of the construction phase, any carbon emissions associated with operational energy or water use do not fall within the scope of lifecycle embodied carbon assessments and, therefore, the 2025 target is considered to be the applicable target to meet for the ECA.

¹ Manchester Climate Change Partnership (2024) 'Net Zero New Buildings – Recommendations for Policy'. Available from: <https://static1.squarespace.com/static/6347f4912d1e5d13811bd304/t/674f2d411da317547493c1cf/1733242187839>

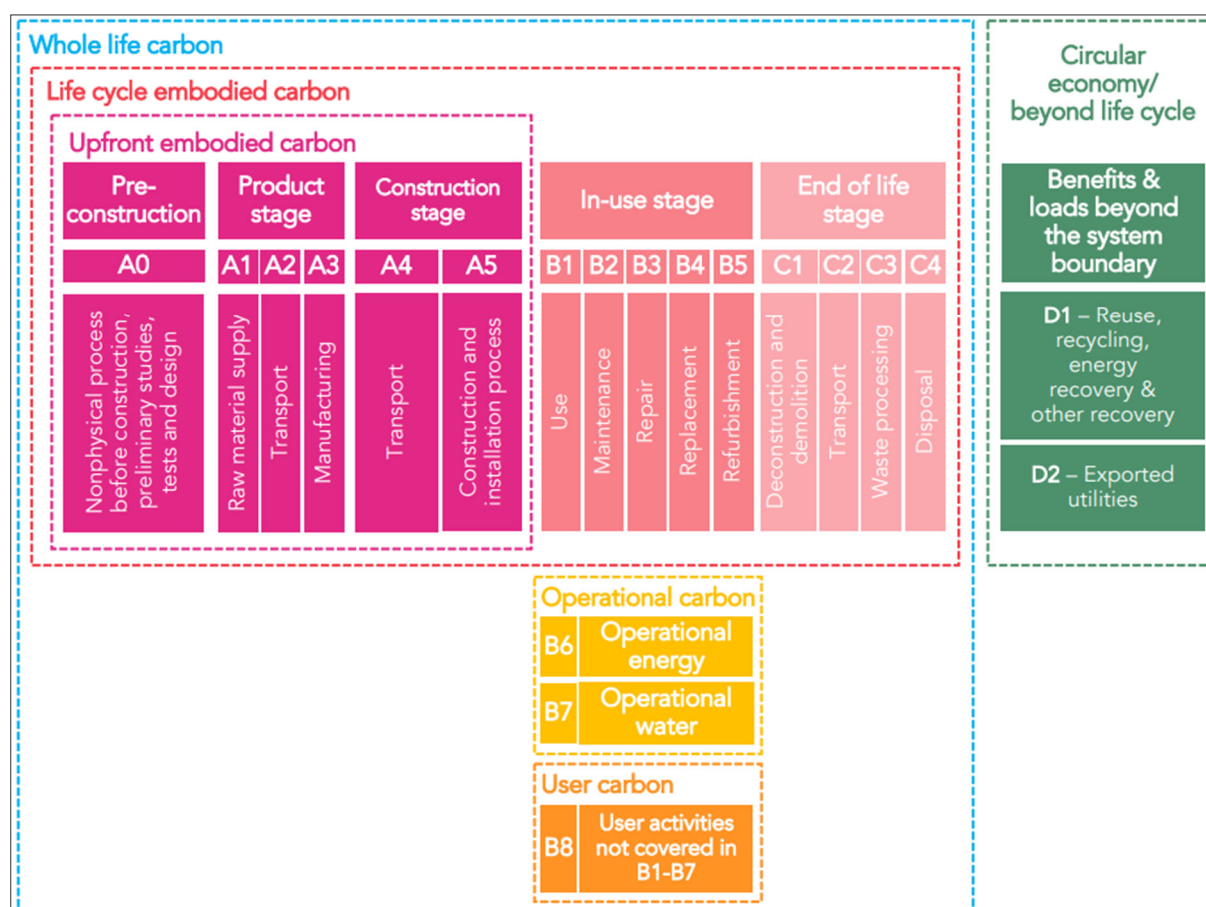


Figure 1: Scope of Carbon Assessments

Comments Raised

MCC requested clarification on the baseline assessment and conclusions reached in the ECA, based on the following comments received:

- “The submitted assessment prepared by BWB indicates that the proposed development will not meet the Net Zero New Buildings Recommendations for 2030 or 2035 from the Manchester Climate Change Partnership and the Manchester Climate Change Agency. The use of the 2025 target is questioned as being irrelevant when this proposed development will not begin in 2025.”
- “The submitted evidence suggests that the proposed development, if consented, would never meet the Net Zero Buildings Recommendations at any time.”
- “Whilst the proposed development fails to meet the recommendations, many significant parts of the development - for example, the groundworks, the roof, and “work to existing building” (which, presumably, includes demolition of Graeme House) - have been (for unclear reasons) excluded. If these were included, then the failure to meet the Recommendations for 2030 and 2035 would be even greater; and would also cause the proposed development to fail the guideline for 2025 as well.”

Our Response

The comments outlined above raise three distinct points, which are addressed in turn:

1. Question of the relevance of the use of the 2025 target within the Net Zero New Buildings – Recommendations for Policy;
2. Suggestion that the Proposed Development fails to meet the Net Zero New Buildings – Recommendations for Policy¹ targets and that these will not be met at any time; and
3. The exclusions from the ECA are questioned as being unclear with suggestion that if these were included, the failure to meet the Net Zero New Buildings – Recommendations for Policy¹ targets for 2030 and 2035 would be greater, and the Proposed Development would also exceed the 2025 target.

Point 1

Within Net Zero New Buildings – Recommendations for Policy¹, the 2025 target is set out to cover ‘2025 onwards’. Given there is also a target for ‘2030 onwards’, the ‘2025 onwards’ target is adopted to apply to developments which are fully constructed between the years 2025 to 2029.

As mentioned above, the construction programme set out within the planning application outlines that the final block of the Proposed Development would be completed by Q4 of 2029 and by virtue of the approved Prior Notice for Demolition, there is significant contingency in the construction programme to off-set the current elongation of the planning application programme. Therefore, the specified completion date of Q4 2029 therefore remains robust for the purposes of the ECA.

It is BWB’s consideration that given the entire Proposed Development will be built out by Q4 of 2029, the ‘2025 onwards’ target (**720 kgCO₂e/m²**) is therefore the relevant target to benchmark against.

Point 2

As set out above, the intention of the ECA is to benchmark lifecycle embodied carbon emissions with due consideration for the construction programme, which is anticipated to be completed in 2029. Therefore, the recommended targets for either 2030 onwards or 2035 onwards are not considered to be applicable to the Proposed Development.

The ‘2025 onwards’ lifecycle embodied carbon target for mid-rise residential developments, such as the Proposed Development, is **720 kgCO₂e/m²**. Residential targets were utilised as opposed to commercial targets as the Proposed Development consists of around 97% residential development (by total building area), and the targets for residential development are more stringent, resulting in a more robust assessment.

Based on the data available prior to submission of the application, the ECA concluded that the Proposed Development would result in **561 kgCO₂e/m²** of lifecycle embodied carbon emissions, which is 22% lower than the recommended target for 2025 – 2029. In the absence of data excluded from the assessment due to unavailability prior to submission of the application, it is not possible to determine whether the target of **720 kgCO₂e/m²** would be met. An updated ECA would need to be undertaken once all excluded data becomes available in order to ascertain whether the target will be met. It is not possible to provide an informed assessment in advance of planning determination given that a significant amount of information

regarding the specification of certain building elements will not be available until the Scheme progresses through the latter RIBA stages (i.e. Stage 4 - Technical Design / Stage 5 - Manufacturing and Construction). The Project Team will continue to carefully consider the materials being chosen in order to minimise embodied carbon where feasible in order to meet the 720 kgCO₂e/m² target and comply with policies within Manchester City Council's Places for Everyone Joint Development Plan.

It is noted that in the Draft Manchester Local Plan², currently at Regulation 18 Consultation stage, the embodied carbon thresholds for residential developments recommended by Net Zero New Buildings – Recommendations for Policy¹ have not been included within any policies. The ECA adopts the recommended benchmarks voluntarily, to demonstrate early alignment with emerging policy direction.

Overall, it is considered that, whilst not currently cited within adopted or draft policy, the Proposed Development currently demonstrates compliance with the '2025 onwards' residential target.

Point 3

It is recognised that the ECA sets out exclusions due to either:

- A lack of detailed structural, civil, MEP (mechanical, electrical and plumbing) or landscaping information at the time of the assessment. Due to the design being at RIBA Stage 2 (Concept Design), the level of detail required was not available for some elements; or
- Relevant Environmental Product Declarations (EPDs) were unavailable on One Click LCA at the time of the assessment.

For the avoidance of doubt, the below sets out detailed justification for each of the building elements excluded from the scope of the ECA.

Building Element	Reason for Exclusion
Raised access floor	Information unavailable at the time of assessment. It has since been confirmed that there will be no raised floors within the Proposed Development and therefore no additional embodied carbon is to be included at further stages.
Furniture (i.e. seating and tables), doors, fixtures (i.e. sinks, toilets, showers etc.)	Guidance ³ from the City of London sets out that this is not required to be included at this stage. This guidance relates to UK Green Building Council (UKGBC) minimum reporting requirements.
Lifts	Information on lift capacity and type unavailable at the time of assessment.
Floor finishes	Specification unavailable at the time of assessment.

² MCC (2025) 'Draft Manchester Local Plan'. Available from:

https://www.manchester.gov.uk/downloads/download/7837/draft_manchester_local_plan

³ City of London and Hilson Moran (2021) 'Whole Lifecycle Carbon Optioneering'. Available from:

https://democracy.cityoflondon.gov.uk/documents/s170400/220525_WLCA%20optioneering_Final_06.pdf

Building Element	Reason for Exclusion
Equipment such as water meters and fire alarms	Specification and quantities unavailable at the time of assessment.
Lightweight balconies	Information unavailable at the time of assessment. It has since been confirmed that there will be no lightweight balconies within the Proposed Development and therefore no additional embodied carbon is to be included at further stages.
Any form of services i.e. Mechanical, Electrical, Plumbing etc.	Specification and quantities unavailable at the time of assessment.
Demolition from previous structures	GIA information not known at the time of the assessment. The demolition of the existing structures has also been consented under a separate Prior Notice for Demolition application (141706/DEM/2024).
Ground floor internal fit out	Guidance ³ from the City of London sets out that this is not required to be included at this stage.
Bedding concrete / sub-base around pipework	Civils information unavailable at the time of assessment.
Resin bound gravelled areas	EPD not available on One Click LCA.
Grass and trees	Relevant EPD not available on One Click LCA at the time of the assessment.
Pergola and climbing plant support structures	EPD not available on One Click LCA and no material and quantity details available at the time of assessment.
Railings	Material and quantity unavailable at the time of assessment.
Outdoor entertainment features and games	Guidance ³ from the City of London sets out that this is not required to be included at this stage.
Sculptures	Guidance ³ from the City of London sets out that this is not required to be included at this stage.

As set out in response to Point 1, the recommended targets for '2030 onwards' and '2035 onwards' are not relevant to the Proposed Development as construction is scheduled to be completed by Q4 2029. Therefore, the suggestion that the inclusion of the above building elements would cause exceedance of these targets by a greater margin is not considered to be relevant to the ECA.

The assumption that inclusion of the excluded elements would cause the lifecycle embodied carbon emissions to exceed the '2025 onwards' target is speculative without formal assessment. PAS 2080: 2023

Carbon Management in Infrastructure and Built Environment⁴ states that “Carbon management shall be proportionate to the level of information available and appropriate to the project stage”. The document acknowledges that many systems and elements are undetermined at early-stage assessments, but it encourages the documentation of assumptions and exclusions so that the limitations of the assessment are understood. Furthermore, it acknowledges that assessments can be further updated and refined as the design develops.

The ECA was carried out based on all available information at the time of the assessment. Furthermore, the ECA acknowledges these limitations and states that the assessment “could be updated as the design of the Proposed Development progresses in order to provide a more wholistic view of the carbon emissions”. Reduction opportunities and recommendations to further lower the lifecycle embodied carbon of the Proposed Development during future design stages were included within Section 5 of the ECA.

Conclusion

The ECA submitted with the application demonstrated that the Proposed Development currently meets the relevant recommended target for lifecycle embodied carbon, with emissions of **561** kgCO₂e/m² compared to the benchmark of **720** kgCO₂e/m². As the Proposed Development is scheduled to be completed in Q4 2029, the threshold for ‘2025 onwards’ is considered to be the appropriate one to assess against. Whilst it is acknowledged there are exclusions within the ECA, in accordance with PAS 2080:23, these exclusions have been outlined and justified, and the assessment can be updated as more information becomes available as the design of the Proposed Development progresses.

Yours sincerely

Ronan Monaghan

Ronan Monaghan MSc (Hons), PGDip, GradIEMA
Environmental Consultant – Sustainability – Advisory Division
M: 07436 032 425 | E: Ronan.Monaghan@bwbconsulting.com



⁴ BSI (2023) Carbon Management in Infrastructure and Built Environment - PAS 2080. Available at: <https://www.bsigroup.com/en-GB/insights-and-media/insights/brochures/pas-2080-carbon-management-in-infrastructure-and-built-environment/>