

## Appendix A: NZCB – Construction Minimum Reporting Template

These minimum reporting requirements align with the RICS Professional Statement ‘Whole life carbon assessment for the built environment’<sup>1</sup>.

Date of assessment	02/09/2021			
Verified by	Dr Colin Beattie, JRA			
Project type	Refurbishment – Cat B fit-out			
Assessment objective	To undertake embodied carbon analysis for the purpose of achieving UKGBC NZC construction verification			
Project location	29 Rathbone Street, London			
Date of project completion	April 2021			
Property type	Office			
Building description	4 storeys plus mezzanine with internal atrium. Steel beam upper floors with reinforced concrete planks, brick façade. No associated external areas or ancillary structures.			
Size	1421 m2 GIFA			
Project design life	10 years			
Assessment scope	Building parts included - 2.2, 2.4, 2.6, 2.7, 2.8, 3.1-3.3, 4.0, 5.0 and 7.1, Life stages/modules included - A1-A5, B1, C1-C4			
Assessment stage	Post completion			
Data sources	Materials and quantities: Cost plan, as built drawings, schedules, technical datasheets, asset register etc Embodied carbon data: Product EPDs where available, otherwise OneClick LCA database Construction energy and water consumption data: Metered data from Atomico.			
Building elements coverage	#	Building parts/ element groups	Building elements	Coverage (%)
	0	Facilitating works	0.1 Temporary/Enabling works/Preliminaries	N/A
			0.2 Specialist groundworks	N/A
	1	Substructure	1.1 Substructure	N/A
	2	Substructure	2.1 Frame	N/A
			2.2 Upper floors incl. balconies	100%
			2.3 Roof	N/A
		Superstructure	2.4 Stairs and ramps	100%
			2.5 External Walls	N/A
			2.6 Windows and External Doors	100%
			2.7 Internal Walls and Partitions	100%
			2.8 Internal Doors	100%
	3	Finishes	3.1 Wall finishes 3.2 Floor finishes 3.3 Ceiling finishes	100%
4	Fittings, furnishings and equipment (FF&E)	Building-related	Building related only	
		Non-building-related		
5	Building services / MEP	5.1–5.14 Building-related* services	100%	
		Non-building-related	N/A	
6	Prefabricated Buildings and Building Units	6.1 Prefabricated Buildings and Building Units	N/A	
7	Work to Existing Building	7.1 Minor Demolition and Alteration Works	100%	

	8	External works	8.1 Site preparation works 8.2 Roads, Paths, Pavings and Surfacing 8.3 Soft landscaping, Planting and Irrigation Systems 8.4 Fencing, Railings and Walls 8.5 External fixtures 8.6 External drainage 8.7 External Services 8.8 Minor Building Works and Ancillary Buildings	N/A
Assumptions and scenarios	Construction site waste: Site waste was not monitored on site, OneClick default material wastage values were used which are set based on typical wastages and vary based on construction process, building and design.  Transport distances: Where known the transport distances were updated in the OneClick model, where unknown the OneClick default values were used.			

## Embodied Carbon

Indicator	Amount
Total embodied carbon (tCO <sub>2</sub> & kgCO <sub>2</sub> e/m <sup>2</sup> ) from construction (modules A1 to A5 of EN15978) at practical completion	195 tCO <sub>2</sub> e 137 kgCO <sub>2</sub> e/m <sup>2</sup> GIFA
Total embodied carbon offset (tCO <sub>2</sub> e) at practical completion	195 tCO <sub>2</sub> e
Net embodied carbon (tCO <sub>2</sub> e) at practical completion	0

## Offsets

Carbon offset approach used	Minimum
International carbon offset standard used, amount and type of offset credit procured	195 tCO <sub>2</sub> e Gold Standard credits
Registry link	Split across several projects: 58 tCO <sub>2</sub> e Clean cookstoves, Africa - <a href="https://registry.goldstandard.org/credit-blocks/details/202376">https://registry.goldstandard.org/credit-blocks/details/202376</a>  10 tCO <sub>2</sub> e Solar PV – <a href="https://registry.goldstandard.org/credit-blocks/details/202379">https://registry.goldstandard.org/credit-blocks/details/202379</a>  10 tCO <sub>2</sub> e Wind – <a href="https://registry.goldstandard.org/credit-blocks/details/202382">https://registry.goldstandard.org/credit-blocks/details/202382</a>  20 tCO <sub>2</sub> e Biogas, Cambodia - <a href="https://registry.goldstandard.org/credit-blocks/details/202385">https://registry.goldstandard.org/credit-blocks/details/202385</a>  29 tCO <sub>2</sub> e Biogas, Kenya - <a href="https://registry.goldstandard.org/credit-blocks/details/202390">https://registry.goldstandard.org/credit-blocks/details/202390</a>  20 tCO <sub>2</sub> e Clean water, Africa - <a href="https://registry.goldstandard.org/credit-blocks/details/202400">https://registry.goldstandard.org/credit-blocks/details/202400</a>  39 tCO <sub>2</sub> e Forestry – <a href="https://registry.goldstandard.org/credit-blocks/details/202393">https://registry.goldstandard.org/credit-blocks/details/202393</a>
Domestic carbon unit standard used, amount and type of offset unit procured	

Registry link	
Weighted average cost per tonne of CO <sub>2</sub> e for carbon credits/units bought	£7 ex. VAT per tCO <sub>2</sub> e
Transition Fund – carbon price, cost per tonne of CO <sub>2</sub> e (if applicable)	

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<sup>1</sup> Royal Institution of Chartered Surveyors (RICS) (2017). Whole life carbon assessment for the built environment RICS professional statement, UK. [online] Available at: <https://www.rics.org/globalassets/rics-website/media/upholding-professional-standards/sector-standards/building-surveying/whole-life-carbon-assessment-for-the-built-environment-1st-edition-rics.pdf>

\* Building-related items: Building-integrated technical systems and furniture, fittings and fixtures built into the fabric. Building-related MEP and FF&E typically include the items classified under shell and core and Category A fit-out.