

Upfront Carbon (A1-A5) Summary

Project Woolwich Works  
Typology Culture  
Location London, UK  
GIA 7,420 m<sup>2</sup>

RIBA Workstage 7  
Calculation Method Other Informal (External)  
Prepared by Bennetts Associates  
Checked by BH

NIA (Existing | New) 7,420 m<sup>2</sup> | 0 m<sup>2</sup>

**Project Overview**  
Carved out of five historic military buildings, Woolwich Works is a new cultural destination in London located in the royal Arsenal. The predominantly unused Grade II and II\* listed buildings have been converted to a 16,500-square-metre creative hub for multiple cultural occupiers, led by The Royal Borough of Greenwich. The new Woolwich Works now includes a 450-seat theatre, a music venue, a museum and a variety of rehearsal studios, as well as providing a base for a number of internationally acclaimed theatre and dance companies including Punchdrunk.

**Simplified Approach to Reporting Carbon Data**  
This calculation was approached in a simplified manner and does not follow the full RICS methodology. Instead, it aimed to act as a 'worst case scenario' assessment to estimate the upper limit for carbon impacts. As such, we have chosen to provide a more high level breakdown of the data, and the project total is provided as an upper limit rather than an absolute value.

Project Upper Limit	<290 kgCO <sub>2</sub> e/m <sup>2</sup>
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Building Element	A1-A5 TCO <sub>2</sub> e	A1-A5 kgCO <sub>2</sub> e/m <sup>2</sup>	Contingency kgCO <sub>2</sub> e/m <sup>2</sup>	Comment
Demolition and Facilitating Works	-	-	-	Excluded from Reporting
Substructure	97	13	1	
Superstructure	722	97	10	
Finishes	254	34	3	
FF&E	51	7	1	
Building Services	829	112	11	
Works to Existing Building	0	0	0	
External Works	-	-	-	Excluded from Reporting
A5 Site Emissions (If Separated)	-	-	-	Included in line items
Contingency (If Separated)	-	-	-	Included in line items
Subtotals	1953 TCO <sub>2</sub> e	263 kgCO <sub>2</sub> e/m <sup>2</sup>	+ 26 kgCO <sub>2</sub> e/m <sup>2</sup>	Shell + Core, Cat A
Total		290 kgCO <sub>2</sub> e/m <sup>2</sup>		Inclusive of Contingency

**Benchmarking against the UK Net Zero Carbon Building Standard**  
As a practice Bennetts Associates has supported the development of the UK Net Zero Carbon Building Standard and support the role it can play in providing a single unified definition of Net Zero. As such, we have adopted the standard as a default for benchmarking our projects against. We are not claiming alignment with the standard, only aiming to reference against the limits stated. Often our LCAs are conducted for Shell + Core and Cat A (as per LETI Targets' scope) and so where required, an uplift has been applied as a benchmark rate to align with the UK NZCBS scope of assessment.

Upfront Carbon Total	1953 TCO <sub>2</sub> e	263 kgCO <sub>2</sub> e/m <sup>2</sup>	+ 26 kgCO <sub>2</sub> e/m <sup>2</sup>	Shell + Core, Cat A
NZCBS Scope Uplift (if reqd.)		40 kgCO <sub>2</sub> e/m <sup>2</sup>		Uplift for Loose FFE assumed
Total		330 kgCO <sub>2</sub> e/m <sup>2</sup>		Mixed Use (Retrofit)