

Carbon saving in perspective

Cundall Edinburgh,
New Clarendon, 113-116 George Street

Situated in a UNESCO World Heritage site, the fit-out of Cundall's Edinburgh office focused on the circular economy and prioritised the health and wellbeing of our people. Our building services and sustainability teams set new standards for office spaces by showcasing how putting carbon reduction at the forefront can enhance design.

From choosing the location to selecting the sofa fabrics, our engineers were involved in every step. Collaborating with SPACE Solutions, we created a cohesive workspace that adheres to circular design principles.

The upfront embodied carbon target for the project was **100kgCO₂e/m²**. Through a combination of lower carbon specification and circular design principles, Cundall successfully reduced the upfront embodied carbon to just **36kgCO₂e/m²**.

The total upfront embodied carbon saved is:

28,398 kgCO₂e

This is equivalent to:



8,875

4-oz beef cheeseburgers (515cal)



28,398

15 minute showers in a 11kW electric powered shower



2

Car journeys around the equator (in an average UK car at 36 miles/gallon).

1,495

Average men's pure cotton jeans



21,845

Glass bottles of wine from France or the UK



2

Average Briton's annual carbon footprint



399,978

Mugs of tea made with cow's milk

Source: "How Bad Are Bananas? The Carbon Footprint of Everything", Mike Berners-Lee (Revised 2020 Edition)

CUNDALL

How was carbon reduction achieved?

Low carbon materials and circularity in design

The completed fit-out of the Cundall Edinburgh Office at New Clarendon demonstrates a comprehensive approach to sustainable design, with a strong emphasis on material reuse, responsible sourcing, and embodied carbon reduction. A combination of in-situ material retention, refurbishment of existing assets, and integration of low-carbon materials was applied to minimise environmental impact.

Reuse and retention Strategy

Cundall, in collaboration with SPACE Solutions, carried out detailed audits of the previous office at 1 Semple Street and the new site to identify opportunities for reuse. This led to the successful retention/refurbishment of the following elements:

- **Base building components:** Raised access flooring, windows, internal doors, lighting fittings, and selected mechanical and electrical installations (e.g. pipework and ductwork).
- **Furniture and equipment:** Desks, chairs (task and meeting), glass partitions, kitchen units, carpet tiles, folding tables, coffee tables, high tables, IT/AV equipment, and storage cupboards.

These actions significantly reduced material demand, waste generation, and embodied carbon associated with new manufacturing and procurement.

Off-site furniture reuse from Rabobank, London

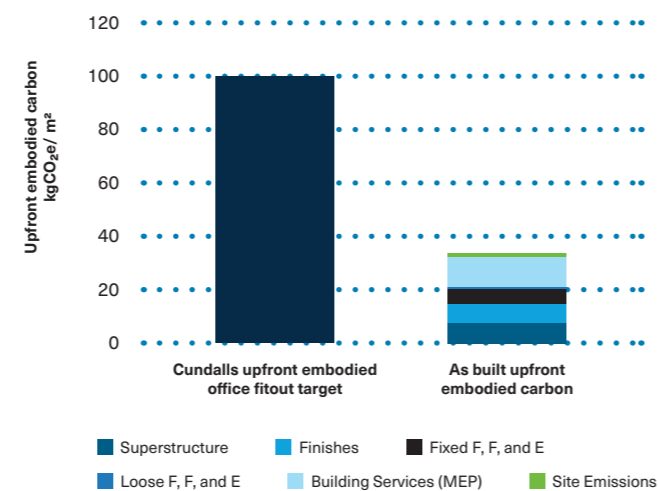
In addition to onsite reuse, Cundall sourced refurbished furniture, with the support of Recycle Scotland, from the decommissioned Rabobank office in Central London. Although this introduced higher transport-related emissions than local sourcing, the environmental benefit of avoiding new product manufacturing far outweighed the delivery

impact. This intervention extended the useful life of high-quality furniture that might otherwise have been recycled or sent to landfill, aligning with circular economy principles and further reducing the fit-out's embodied carbon footprint. This project highlights the effectiveness of a reuse-first strategy and inter-office resource sharing in delivering sustainable, low-impact commercial interiors.

Low carbon materials

Where new materials were required, the design team selected products based on recycled content, environmental certifications, and overall carbon performance. These included:

- Recycled gypsum plasterboard (up to 95% recycled content)
- Marmoleum flooring made from natural, renewable ingredients
- Autex Groove and BAUX acoustic panels with natural and recycled fibres
- Tarkett Airmaster Desso carpet tiles (83% recycled content and biobased backing)
- Joinery finishes including Paperstone (recycled paper), Graphenstone paint, Kvadrat biobased fabrics, and SMILE Plastics panels (recycled thermoplastics)
- Diamik Glass splashback with high post-consumer recycled glass content



Services Cundall provided



Acoustics



Air Quality and Odour



Audio Visual



Building Services Engineering



Health, Wellbeing and Productivity



Lighting Design



Structural Engineering



Sustainability

Helpful definitions

Embodied carbon - the supply chain carbon emissions of the materials and construction processes throughout the lifecycle of buildings.

Upfront embodied carbon - the supply chain carbon emissions of the materials and construction processes throughout the lifecycle of buildings.

Material passport - a digital document that lists information about the constituents of a product, building or piece of infrastructure, enabling them to be assessed for suitability against environmental criteria.

To access our entire glossary of sustainability and ESG terms [click here](#).