THE

CONISBEE CARBON CIRCULAR

Edition 4 October 2025

The *Conisbee Carbon Circular* is brought to you by the Sustainability Group. Here we cover Conisbee's sustainability journey as well as global stories on carbon in construction. Stay informed, inspired, and empowered as we navigate the path to a greener future together.

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CONISBEE ACHIEVE CARBON NEUTRAL!

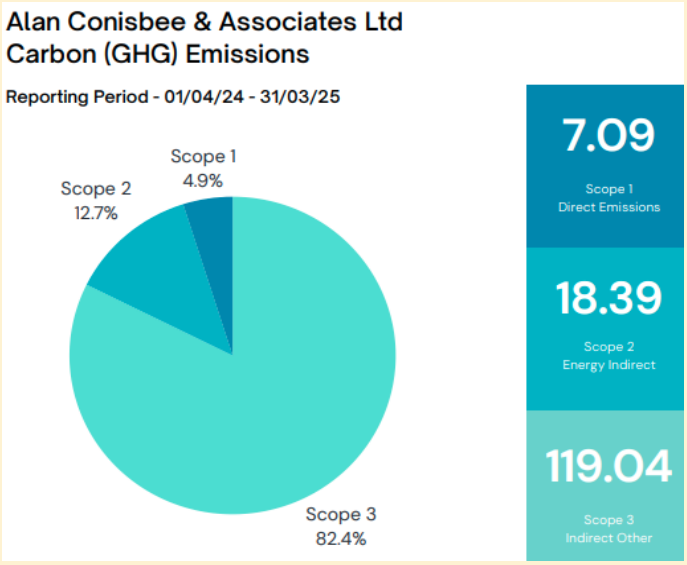
Carbon Neutral Britain™
CARBON NEUTRAL BUSINESS 2025

In line with Conisbee's Carbon Reduction Plan, we have become a Carbon Neutral business for the first time this year!

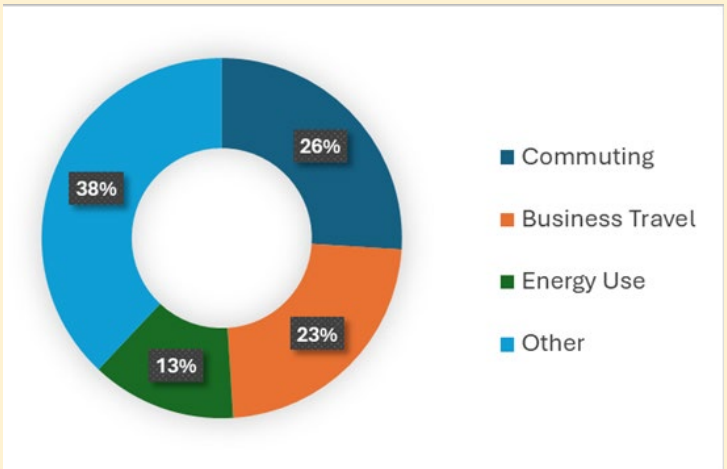


CONISBEE ACHIEVE CARBON NEUTRAL!

We have been working with a sustainability consultant, Carbon Neutral Britain, to achieve third party verification for our operational emissions calculation. Our Scope 1-3 emissions for the period April 2024 - March 2025 were 144.5 tonnes CO_2e. These emissions have been offset via schemes certified by the Verified Carbon Standard, Gold Standard and the UN Certified Emissions Reductions programmes.



Our three largest avoidable emissions sources are staff commuting (26%), business travel (23%), and energy usage in our offices (13%). Alongside our commitment to being a net-zero business through offsetting, we will continue to enact policies to reduce our emissions moving forward with the target of a 50% reduction in emissions by 2030. Transport is a key focus area for our emissions reductions, and we continue to encourage sustainable means of transport through a cycle to work scheme, annual expenses for bicycle repairs, communally available office bikes and generous mileage expenses for business travel journeys by bike.



IDEAS IN DEVELOPMENT

Guidance on Carbon Calculations

In July's Sustainability Update CPD, Conisbee's latest carbon calculator was launched, complete with new custom EPDs to aid in quicker carbon calculations for scheme design. A detailed guide on using these is in the works. See the article on page 6 for more information.

Material Reuse in Specs

One of the practice's sustainability goals is to promote materials reuse. The standard Conisbee specifications are being reviewed for the inclusion of additional clauses for the reuse of materials. If you have any example clauses or suggestions, please pass these on to the sustainability committee.

Regenerative Design

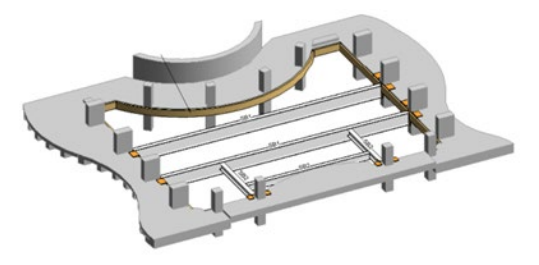
The sustainability committee are reviewing regenerative design guidance and case studies, with the aim of implementing regenerative principles on our projects. The practice has a copy of The Regenerative Structural Engineer, which any engineer in the company is welcome to borrow and read for inspiration on their projects.

SCORS SPECTRUM

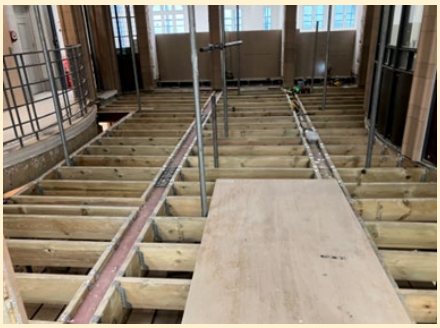
A++ for Refurbishment

7kgCO_2e/m^2

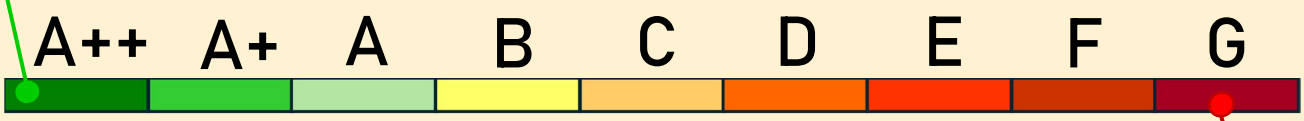
The existing building is a 6-storey office property, and the main objective of the refurbishment works is to increase the usable floor area. The proposed works involve infilling the existing central atria at four floor levels. The infills will be constructed from a combination of primary steel beams that will be supported on existing major columns, and secondary timber joists that will span between the steels and the surrounding atrium edges.



Due to this being a renovation to an existing structure rather than a new build, the gross internal area (GIA) measurement permitted for use in the SCORS assessment – comprising both the existing structure and the new floor area - is highly favourable, giving a SCORS rating of 7kgCO_2e/m^2 (A++). This very low SCORS rating emphasises the benefits of renovating an existing building to keep it in use rather than demolition and new build. However, in order to better understand the embodied carbon performance of the works, an additional calculation was undertaken using only the newly constructed floor area. This alternative assessment produced a SCORS rating of 185kgCO_2e/m^2 (B).



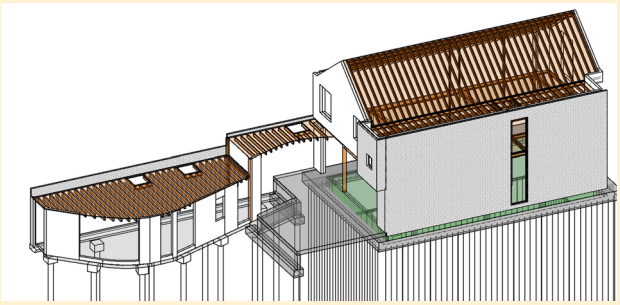
The scheme continues to perform reasonably well under this adjusted assessment due to the reuse of the existing foundations. It is evident, however, that the inclusion of the existing building's GIA in renovation projects often substantially influences the SCORS results. Consequently, while favourable ratings may be achieved under current methodology, care should be taken when interpreting the results of such assessments for refurbishment projects and the new structure should still be designed as efficiently as possible.



Basement and Transfers Result in G

459kgCO_2e/m^2

This new 2 storey + basement private residential property has a SCORS rating of 459kgCO_2e/m^2. The main driver behind the poor SCORS rating is the secant piled wall basement, with approximately 60% of the total embodied carbon in the scheme coming from the basement elements. The foundations in the non-basement areas are also piled – a decision driven by minimising the foundation area within a tree root protection zone and the economics of already having a pile rig on site, rather than the load bearing capacity of the shallower ground.



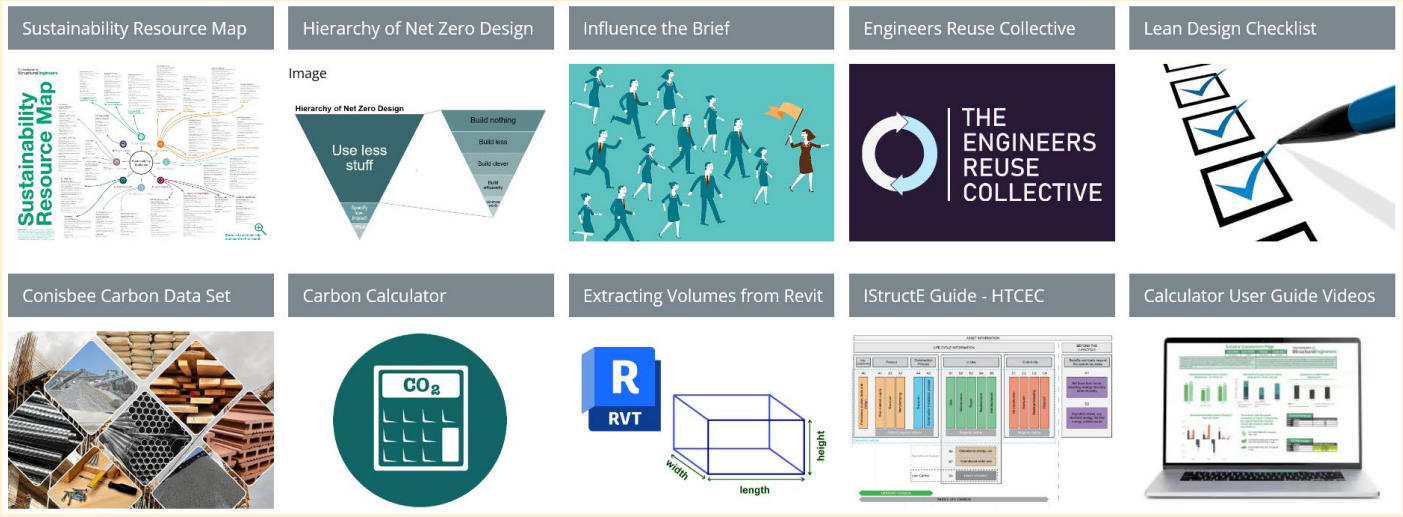
Two overhanging cantilevered areas at first floor and the large open plan layout at ground floor also contribute to the poor SCORS rating, with 5 of the 8 columns supporting the roof being transferred by steel beams at first floor level. Additionally, the structural zone is restricted to 254mm deep, leading to the use of some heavier UC sections in place of lighter but deeper UBs.

ECO-ENDEAVOURS

What have we busy 'conis'-BEES been up to?

New Sustainability Landing Page

In our company intranet system, the Sustainability landing page (formerly named Embodied Carbon) has been refreshed with new resource links added. Links to our carbon dataset and calculator can still be found here but links to useful external websites have also been added. For example, there is a link to the IStructE Sustainability Resource Map, which is a great starting point if you're looking for guidance on a particular sustainability topic, or indeed guidance on where to start with all things sustainability generally!

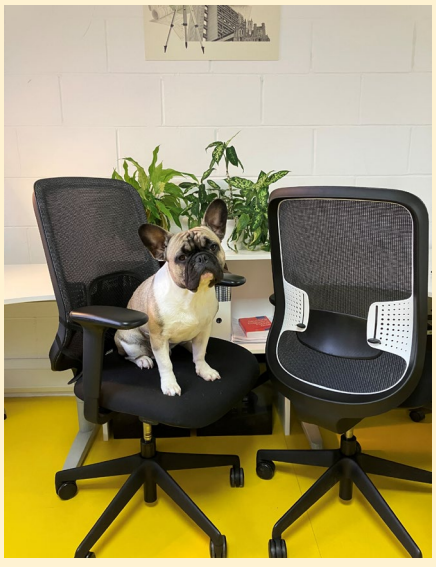


Quicker Carbon Calculations

The sustainability committee have been working hard to make carbon calculations quicker to carry out, particularly for early-stage scheme design. The latest version of Conisbee's carbon calculator includes some custom EPDs for a sample range of floor types. These cover a range of timber joist, posi-joist, composite, and beam & block floors. These custom EPDs are for use with quickly calculated 'bulk' volumes, i.e. floor area x maximum depth, and cover the different materials within the floor in one line item, e.g. the profiled metal deck and the concrete slab (with reinforcement mesh) of a composite floor. For more information on these, read the full article on page 6.

Refurbished Chairs

The Cambridge office has new desk chairs, and we've gone down the sustainability route. Instead of buying brand new ones, we chose refurbished chairs, giving quality furniture a second life while reducing waste and environmental impact. It's a simple but effective way to refresh the office, cut down on carbon, and support the circular economy.



Cambridge Office Bikes

Following a successful bike trial in the London office, the Cambridge office has newly acquired two second hand bikes for traveling to external meetings and site visits. It's a sustainable and healthy way to get around, especially in a bike-friendly city like Cambridge.



Spread the Word – please help to spread the word on all things sustainability by sharing this newsletter with other industry professionals.

ECO-ENDEAVOURS

What have we busy 'conis'-BEES been up to?

Footprint+

At this year's Footprint+, Gavin McLachlan, Associate at Conisbee, joined a panel with Noel Pells (PRP) and Patrick Hayes (IStructE) to discuss how the Building Safety Act (BSA) creates new opportunities for clients and design teams. Topics included leveraging structural and fire safety case insights for retrofit and refresh works, expanding housing through vertical and horizontal extensions, and reintroducing buildings into the circular economy – all aligned with Net Zero goals. The discussion is available as a podcast.



Islington Sustainability Fair

It was great to be at the Islington Assembly Hall to see the success of the inaugural Islington Sustainability Fair this summer. Organised by the Islington Sustainability Network, for which Conisbee sit on the steering committee, this eclectic event hosted more than 25 local businesses and not-for-profit organisations and was attended by over 250 members of the public. The organisations running stalls ranged from architects to expert fixers/repairers and from community-led renewable energy initiatives to local food suppliers. There was something for everyone to enjoy and a wide range of knowledgeable people to learn from and to share ideas with on how we can holistically tackle sustainability issues across the spectrum. Hopefully the event will continue in future years and Conisbee can continue to find ways to get involved and contribute.



Conisbee Host Reuse Conversations

We were delighted to host a number of industry talks in our London office event space: Maximising the Potential of Education Campus Buildings and Existing Stock with Conisbee's Director Allan Dunsmore on the expert panel, delivered a dynamic discussion on key challenges facing the sector, including decarbonisation, adaptive reuse, and the complexities of decanting existing buildings across university and higher education estates.



The Housing Forum Talk, Existing Stock Forum – Repurposing, Retrofit and Procurement. Conisbee experts Gary Johns and Gavin McLachlan presented our work on repurposing existing stock and delivering new-build infill at Harvist Estate. They addressed the challenges of working with LPS system buildings, along with key considerations for client and asset management.

Cultural Sector Decarbonisation



Conisbee have been supporting Historic England on their Cultural Sector Decarbonisation project by undertaking fabric condition surveys of three properties across the country: Shire Hall Museum in Dorchester, The Royal & Derngate Theatre complex in Northampton and The Literary & Philosophical Society Library in Newcastle. Our surveys will help inform Historic England's pilot study, investigating the application of decarbonisation opportunities across all three buildings by confirming the condition of the fabric before the implementation of energy efficiency improvements. This will enable us to future proof our historic buildings from environmental changes and economical challenges. We've been working alongside other conservation experts: Haworth Tompkins, Skelly & Couch, and Gardiner & Theobald LLP, with the support of Historic England and Arts Council England.

CARBON CALCULATOR CORNER

The Third Version and Conisbee's Custom EPDs

Our carbon calculator has been updated to version 3 of the IStructE Structural Carbon Tool. This latest version includes new life cycle modules to align with the second edition of RICS Whole Life Carbon Assessment (WLCA) for the Built Environment, updates to the materials and their carbon factors, more detailed breakdown of results for refurbishment / extension, and an added uncertainty factor. The additional breakdown of results means that as well as seeing the carbon score for the whole project, the results for new build / extension areas and retained areas can be viewed separately – read the article on the A++ project in the SCORS Spectrum section for why this is useful.

The introduction of the uncertainty factor is to align with WLCA and accounts for a contingency factor for the project design phase, uncertainty in the carbon factors of the materials due to variability, and uncertainty in the quantity of the materials used. IStructE guidance suggests that for most projects, an uncertainty factor of 15% for early design stages and 10% at detailed design would be appropriate. The impact of this uncertainty factor on the total carbon should be considered when comparing calculations at different stages. Conisbee's embodied carbon dataset has been updated to better suit the new calculator, with a column for the uncertainty factor added and totals displayed with and without the uncertainty factor applied.

Within the Conisbee version of the calculator, we've also added some new custom EPDs to make carbon calculations quicker. These cover a sample range of timber joist & plywood floors, posi-joist & plywood floors, composite floors, and beam & block floors. To use these custom EPDs, simply enter the 'bulk' volume of the floor, i.e. floor area x *maximum* depth (including plywood), to give a volume which will *include* air gaps between joists and around profiled shapes. This 'bulk' volume should be quick to calculate from early stage scheme design drawings. If extracting the volume from Revit, the 'bulk' volume will be the volume our Revit models typically give (i.e. individual floor components and profiled shapes have not been modelled).

The spreadsheet will then output the carbon results for the floor, making an adjustment for the air gaps included in the volume and accounting for the fact that the floor is made up of different materials. For example, the composite floor custom EPDs include both the profiled metal deck and the concrete slab with reinforcement mesh. The timber and posi-joist floor EPDs include the joists themselves and 18mm plywood. Note that these custom EPDs should only be used for the sizing and spacing specified in the custom EPD title. Other combinations should be calculated manually by finding the exact volume/mass of the different floor components (not including air volume) and entering them as separate line items. If there is a common combination you'd like added as a custom EPD, please let the sustainability committee know.



More information on the new calculator and Conisbee's custom EPDs can be found by rewatching July's Sustainability Update CPD.

We also intend to publish a separate guide on using the custom EPDs. If you have any questions in the meantime, or there are any further custom EPDs you'd like added to the calculator, please get in touch with a member of the sustainability committee.

Material	Material Type	Material Specification	Structural Element
Custom_EPD	Other_EPD	Comflor 46 120DP 0.9Gauge C32/40 (REVIT BULK VOLUME)	
Custom_EPD	Concrete_EPD	Beam and Block 155 @ 398 c/c (REVIT BULK VOLUME)	
Custom_EPD	Timber_EPD		
		Timber Joist Floor - 150 x 50 @600c/c + 18mm Ply (REVIT BULK VOLUME)	
		Timber Joist Floor - 200 x 50 @400c/c + 18mm Ply (REVIT BULK VOLUME)	
		Timber Joist Floor - 300 x 75 @400c/c + 18mm Ply (REVIT BULK VOLUME)	
		Posi-Joist Floor - PS9 (225x72) @ 600 c/c + 18mm Ply (REVIT BULK VOLUME)	
		Posi-Joist Floor - PS12 (304x97) @ 400c/c + 18mm Ply (REVIT BULK VOLUME)	

SUSTAINABILITY SCOOP

Scrap Steel's Role in Decarbonisation

The global iron and steel industry accounts for 7-9% of global carbon emissions, meaning steel and its use in infrastructure is critical for achieving net zero emissions. A recently published IStructE paper, The role of scrap in steel decarbonisation, states that "maximising the recovery and recycling of ferrous scrap is fundamental" to reducing emissions. However, ferrous scrap is a constrained resource, with global scrap only sufficient to meet approximately one third of global steel demand, so the paper recommends a dual decarbonisation approach. For primary steelmaking and ironmaking, this requires increasing the supply of low and zero carbon iron production facilities and incentivising improvements in existing facilities. For secondary steelmaking, investments in decarbonising the electrical grid supplying the furnaces is needed, as well as increasing the quality and quantity of scrap supplied. When it comes to design, minimising the use of steel (through efficiency) is the best solution. Circular economy principles, such as recovery & reuse and design for disassembly, should also be considered, as well as specifying steel from producers aligned with a dual decarbonisation approach.



Court Rules on Climate Change Obligations

In July of this year, The International Court of Justice (ICJ) issued an advisory opinion on the Obligations of States in respect of Climate Change. This affirmed that states have a legal obligation to address climate change. An IStructE article touches on some of the implications of this for the construction industry: "It is becoming increasingly likely that laws will evolve to mandate climate action across all sectors… [The advisory opinion] makes clear that inaction is as legally consequential as negative action when it comes to climate obligations – referring to 'actions' and 'omissions' as equal."



UK Architects Declare

UK Architects Declare Climate and Biodiversity Emergency host regular events discussing sustainability issues. Their recent events have included a Circularity Catalyst workshop, held with UK Engineer Declare and UK Built Environment Declare, in which current barriers to circular economy principles were discussed. Other news from Architects Declare includes the launch of the Regenerative Architecture website, in conjunction with Architecture Today. This new site is intended to be a forum to share knowledge, ideas and expertise to transition to regenerative practice.

Carbon Capture to Decarbonise Cement

Heidelberg Materials are using carbon capture and storage (CCS) technology to decarbonise cement. They have just received planning permission to build a carbon capture plant in Padeswood, north Wales. The new plant is proposed to be in commercial operation by 2029. A range of net-zero cements (evoZero) and low carbon concretes (evoBuild) accompanies this strategy. Remember that careful consideration should be given before specifying concrete with a high GGBS content due to the limited available supply of GGBS.

Timber Development Conference

Conisbee attended the annual UK Timber Development Conference discussing using timber to drive transformation to low carbon construction. Among our highlights was a talk covering the challenges with moisture during construction, and a panel session on British timber sources, in particular CLT manufacturers.



IStructE's concrete technology tracker provides high level guidance on the current and emerging low carbon technologies in the UK.

SUSTAINABILITY SCOOP

Second-hand Steel Suppliers Update

As reflected on by Conisbee director Allan, "on any project using steelwork, we should be looking to use second-hand steel sections where possible". The current stockists of second-hand steel are: John Lawrie Tubulars – selling tubular steel sections; Cleveland Steel and Tubes - selling tubular and open sections; Ainscough Metals – selling open sections and whole second-hand portal frame structures; and Severfield – smaller personal stock but possibility can sell to others.



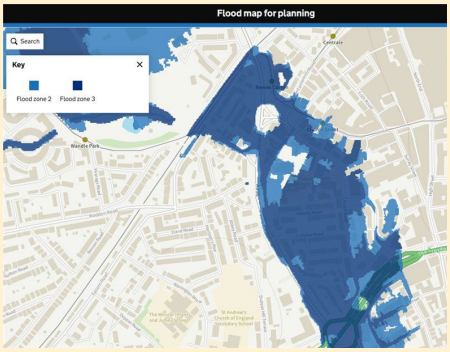
Policy 43 – Retrofit First

Westminster City Council's recently introduced Policy 43 (Retrofit First) places strong emphasis on reducing embodied carbon and promoting a circular approach to materials. It requires design teams to demonstrate that reuse or adaptation of existing structures has been considered before demolition, supported by a Retrofit Plan and whole life carbon assessments. It also encourages pre-demolition audits and sets ambitious expectations for reused and recycled content across all building elements. A design team might, for example, target at least 20% by value reused or recycled materials for building elements, with a particular focus on post-consumer recycled content.

EA Flood Map Changes

In March 2025, the Environment Agency updated the Flood Map for Planning, a key tool in guiding what types of development are appropriate in areas at risk of flooding. Previously, this map only considered fluvial (river) and tidal (sea) flood risk. However, the latest update now includes surface water flooding which is a major shift that has significantly expanded the areas classified as Flood Zone 2 (medium risk) and Flood Zone 3 (high risk). Many areas previously considered low risk (Flood Zone 1) have now been reclassified as higher risk. These changes are already affecting planning applications and could impact the ability of newly built properties to obtain insurance.

At present, the EA has not yet released the detailed methodology behind the new modelling or provided updated flood data for many affected



areas. Historically, surface water flood mapping has been limited by inaccuracies, particularly where local drainage infrastructure wasn't accounted for, potentially overstating actual flood risks. At Conisbee, we have agreed that most projects in these areas will now require flood modelling to confirm the full extent of flood risk. While this work will be undertaken by others, it will increase both our input and the overall programme.

Carbon Capture into Depleted Gas Fields

Porthos is developing a project to capture and bury CO_2 from industry using the ports of Rotterdam, Antwerp and Ghent. 37Mtonnes of CO_2 over 15 years (2.5Mtonnes/year) will be piped into a porous reservoir (a former depleted North Sea gasfield) 3km below the seabed, making it the biggest project of this kind in the world. Work started in Rotterdam in 2024 and is expected to be completed by 2026. The next 4 years will then be spent creating a cross-border pipeline to connect Antwerp and Ghent. Similar projects, such as Aramis (expected to be ready 2030) are also utilising depleted offshore gas fields. In July, the UK government announced backing for the Peak Cluster project, which aims to capture carbon emitted by cement and lime factories in the Peak District and bury it in depleted gas fields below the Irish Sea.

AJ Retrofit Live

This year's event focused on circular economy strategies, material reuse, and sustainable retrofit. One of the key projects discussed was HSBC Tower Overhaul, Canary Wharf. This is a planned refurbishment by KPF, cited as a flagship example of reuse over demolition, with one of the team commenting "the idea that we would demolish a building that is 25 or 35 years old is absurd". The event also included a talk from the Engineers Reuse Collective which challenged the industry's hesitation around reuse, calling for collaboration and a change in mindset to address the urgent need to reduce carbon spend in the built environment.

The IStructE Sustainability Resource Map is a great starting point when looking for any sustainability literature and is regularly updated with new resources.

SUSTAINABILITY SCOOP

Talking Reuse

The Engineers Reuse Collective (tERC) host regular events to discuss reuse of different materials, case studies and how to promote reuse. As members, Conisbee have been regular attendees at these events. The 'No Silly Questions' session on steel reuse saw a panel of experts answer questions on supply, deconstruction, costs, production, certification, testing, surveys, insurance and design. A key takeaway for design was that reused steel should generally only be used on a project if it has a utilisation above 70%, otherwise it may be reused more effectively elsewhere. It was also interesting to hear that insurers generally don't raise issues with the use of certified reused steel – the point was made that existing steel members are often not all inspected on refurb jobs, and this doesn't create insurance concerns.

The event on foundation reuse reviewed the pros and cons for different foundation types, talked through the steps required for foundation reuse and discussed the risks and rewards of reuse. Members can view a recording of the session and download the slides. A separate session on concrete reuse reviewed reusing sections of concrete slab, not only as slab, but also as lintels, beam and block flooring, stair treads and pad footings. Again, a recording and slides are available for members. As with most sustainability topics, a key message across all the talks was that early conversations with clients are key.

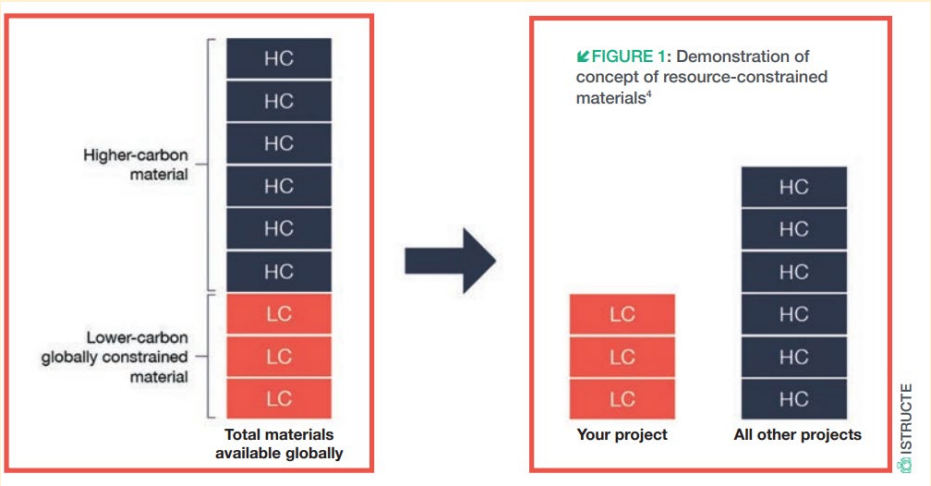
UK Net Zero Carbon Building Standards



An event was hosted by Ramboll at King's College, Cambridge to discuss the upcoming UK Net Zero Carbon Building Standards (UKNZCBS) framework. Findings from the pilot version were discussed and the applications for designers, contractors and clients of the new standard for the future. During the talk, work done at King's College was used as a case study for the UKNZCBS. In 2022, Conisbee was proud to contribute to the King's College Chapel roof renewal project, a landmark piece of conservation and infrastructure work. As part of wider sustainability efforts at the Chapel, Conisbee provided guidance on a rainwater harvesting system, designed to collect and reuse rainwater for irrigation, supporting the landscaping team and helping reduce water use while building resilience during periods of drought.

Carbon Assessment of Resource Constrained Materials

Resource constrained materials are materials for which the supply volume is limited and less than current demand, and for which the supply does not readily increase in response to further increases in demand. Ground granulated blast-furnace slag (GGBS) and scrap steel are examples. The constrained nature of these resources means that specifying high quantities of these carbon beneficial materials can make an individual project score well on paper but have no net effect on global carbon emissions - other projects without this specification end up using a higher carbon 'rebound material' instead. To help quantify these global implications, the authors of this IStructE article propose a 'global availability fraction', with this used to make an adjustment to carbon calculations to account for 'rebound emissions'. This recalibrates embodied carbon calculations so projects can only benefit from the globally available fraction of a resource constrained material. This approach is not yet incorporated into official standards or targets and should be communicated as a below-the-line adjustment in options appraisals for the time being. Further details and answers to FAQs are available in the article.



SUSTAINABILITY SCOOP

Imposed Loading

The second generation Eurocode for actions on structures has now been published and contains higher imposed load values than the first generation version. For example, the first generation version gives office loading of 2.0 – 3.0kN/m^2 for office areas, while the latest version gives a single value of 3.0kN/m^2 for offices above ground floor. In practice, the values we currently use in the UK come not from the core Eurocode itself, but from the values in the UK National Annex (NA), e.g. 2.5kN/m^2 for offices above ground floor. The second generation version of the UK NA has not yet been published.

Why, you might ask, are we discussing the rather dry topic of new codes? Research shows that loadings used in design are significantly higher than those reached in real buildings, so an argument could be put forward for reducing imposed loads in the second generation UK NA. An article by IStructE highlights research which found the mean load for an office to be 0.60 kN/m^2, with a standard deviation of 0.34kN/m^2. 99.97% of the measured floor area had a load below 2.5kN/m^2. In the accompanying images above, our Conisbee Cambridge team demonstrate what floor loading of 2.5kN/m^2 and 5.0kN/m^2 looks like – imagine filling the whole floor of an office with this density of people. Similar images across a range of loads





can be viewed on MEICON's website. Reducing imposed loading is a simple change that can directly reduce embodied carbon. Understandably most engineers will want to stick to codified values, but as the IStructE article concludes "choosing loads above the minimum codified value is rarely justifiable". Any live load reduction available in the codes, for example for elements supporting multiple storeys, should also be taken advantage of.

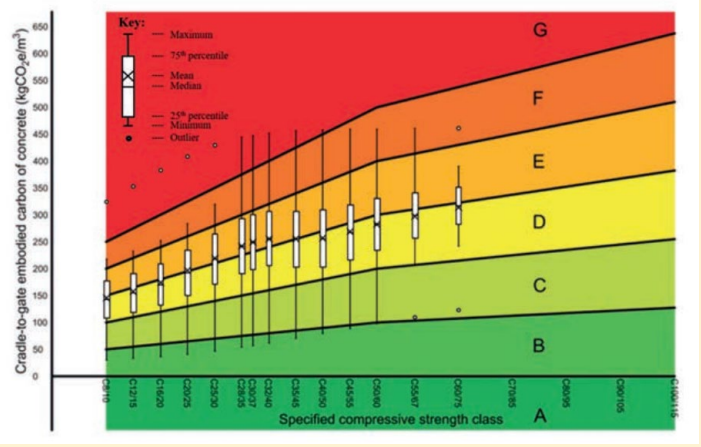
IStructE Climate Emergency Conference

This year's IStructE climate emergency conference marked five years since the inaugural conference. The conference reflected on progress that has been made to date, from the initial focus of raising awareness to the array of tools, resources and case studies now available. Some of the tools available today for different project types were reviewed, and then the conference finished by considering five bold visions for the future: circular, natural materials, using less stuff, ethical, and digital. All the talks from the conference can be viewed on the IStructE website

Regenerative Masonry Units

Compressed earth blocks are a proposed alternative to conventional masonry units to meet decarbonisation aims. They are a low carbon building material and have strong circularity potential because they can be entirely sourced from secondary sources (rather than requiring primary raw materials), so are theoretically infinitely recyclable. Their use to date has been limited within the industrialised construction sector, but new standards in Germany are now allowing their use in buildings up to five storeys.

Specifying Sustainable Concrete



There are three recent tools available to asses and record the embodied carbon of concrete, which can be used to set embodied carbon targets on projects – take a look at this IStructE article for a review of these tools and how they can be applied in industry. These tools can be used in conjunction with the 5th edition of the National Structural Concrete Specification (NSCS), which was published in July of this year and includes additional sections on specifying sustainable concrete. The new NSCS also includes novel materials such as non-ferrous reinforcement, additional types of cement and calcined clay concretes to align with the latest BS 8500, and guidance on how to use 56-day concrete strengths.

FOOD FOR THOUGHT

Ethics and Net Zero

Contemplating ethical dilemmas may sound closer to the work of philosophers than structural engineers but, as three recent articles in The Structural Engineer highlight, engineers are increasingly facing such dilemmas as we strive towards net-zero targets. Climate change, shifting to net zero, and personal ethics in the midst of this can easily be overwhelming topics.

The article, Grounding carbon emissions in ethics, takes the classic engineering approach of starting with a 'back of the envelope' calculation. These approximate calculations find that every year, for every 200,000 tonnes of greenhouse gas emissions (GHGs), someone will die prematurely due to the effects of climate change. An alternative way of phrasing this is that average construction deaths in the UK in 2023/24 indicate approximately one death for every 20 skyscrapers built, while an indirect death due to climate change occurs for approximately *every* skyscraper built. As ethical practitioners, this leaves us to reflect what we can do to reduce the indirect downsides of our work as much as we can.

Another of the recent articles, Breaking the silence: ethics in net zero embodied carbon, reviews some of the ethical questions that can arise when seeking to achieve decarbonisation goals. For example, is it ethical to claim a building is sustainable if it uses more than the UK's fair share of GGBS? Aligning global sustainability perspectives, such as fairly sharing resources, with project level aims can be challenging. Specifying a material carbon target for concrete on a project, rather than naming a specific cement replacement product, could help to drive supply chain innovation and support global decarbonisation. The article also notes that while carbon is often the starting point for conversations, sustainable development should "consider the full spectrum of social, environmental and economic impacts". The article concludes that "the ethical dilemmas we face will not disappear if we ignore them" – it is important to ask the hard questions.

This closing sentiment is also echoed in the article, What will no longer be OK? Ethics, engineering and the climate. This third article reports on recent work by IStructE and ICE to investigate the ethical dilemmas currently facing those in the construction industry. The participants identified seven common dilemmas faced today which they thought would be ethically or legally unacceptable by 2035: over-design, over-demolition, business-as-usual materials, short-term finance, procurement failure, carbon illiteracy and silence.

The issues highlighted were social & systematic, rather than technical – "what turns them into dilemmas is that the system is still stacked against doing the right thing – for now". It is often easier to promote sustainable solutions on a planning or regulatory basis, rather than on individuals' morals. If we stay silent, however, norms and laws which could help us make our case are far less likely to change.



All three articles are worth a read in their own right and leave the reader with plenty to consider. A final closing quote to reflect on:

"Ethics isn't just about what we do. It's also about what we tolerate".

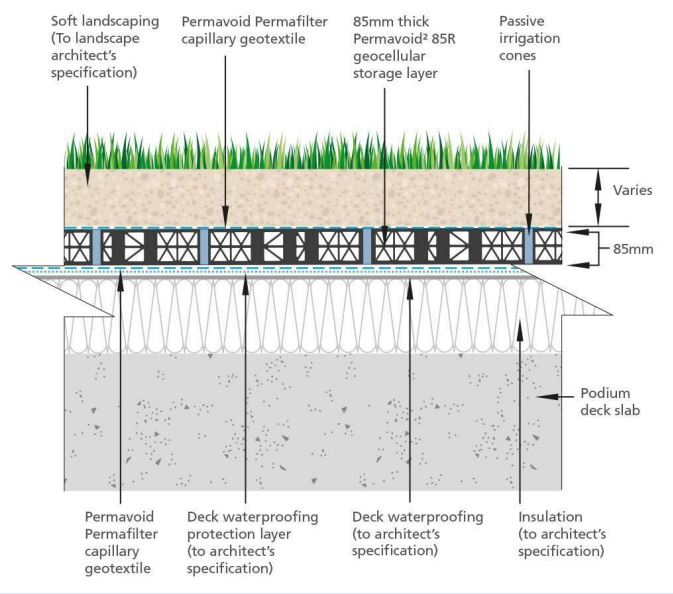
Spread the Word – please help to spread the word on all things sustainability by sharing this newsletter with other industry professionals.

CASE STUDY

Evolution of SuDS

SuDS aren't just about slowing water down anymore. New government guidance makes that as clear as water...
Local councils are now assessing proposed developments against the entire SuDS hierarchy (which they should have done since day one):

- Water quality
- Water quantity
- Biodiversity
- Amenity



Green/blue roofs area a classic example that tick many of the SuDS pillar boxes. They don't just provide storage and reduce the flow rate, they 'typically' irrigate the first 5mm of rainfall and give back with greener and useable spaces. Compared with a usual tank in the ground, you're stacking multiple end user benefits, plus alignment with the London Plan's push for green over grey.

SuDS have never just been about flow rates, but now more than ever the four SuDS pillars serve as cornerstones!

Lambeth Council came back with a pre-planning advice saying they would accept a 90% surface water flow rate reduction (over the usual greenfield rate which in one case was 99%) if a multi phased SuDS scheme is proposed (like the green roof with active irrigation in the image!).

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If you would like to contribute to a future newsletter, please let someone in the sustainability group know.

