

P A U L V I C K

ARCHITECTS

Carbon Reduction Plan
and Sustainability Policy

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1. Carbon Reduction Plan

Supplier name: Paul Vick Architects

Publication date: 27th March 2024

Commitment to achieving Net Zero

Paul Vick is committed to achieving Net Zero emissions by 2050.

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year: 2024	
Additional Details relating to the Baseline Emissions calculations.	
This is the first year that we are calculating our baseline emissions.	
Baseline year emissions:	
EMISSIONS	TOTAL (tCO₂e)
Scope 1	Baseline currently being created
Scope 2	Baseline currently being created
Scope 3 (Included Sources)	Baseline currently being created. Scope 3 is addressed as an inherent part of the practice since its foundation 17 years ago prior to the Carbon Reduction Plan was introduced. Please see below Carbon Reduction and Sustainability policy.
Total Emissions	Baseline currently being created

2. Carbon reduction and sustainability policy

Paul Vick has lectured and produced buildings with a low energy approach throughout his career and Paul Vick Architects embodies it as something that needs to be considered inherently. It is a moral imperative touching the large, the small; local and global. General references are described in IPCC models and reports and other UN reports, quantified (eg in Stern Report and others), Government Energy policy and strategy.

The practice has undertaken Passivhaus standard and new build and retrofit over the last 17 years, since the practice's foundation. More recently, Carbon Reduction Plans have been introduced:

- Scope 1 and 2: This is the first year of data collection for the practice.
- Scope 3: Addresses Green House Gas emissions outside the operations of Paul Vick architects itself, including its supply chain. This is where most impact is expected from Paul Vick architects: through the buildings the practice designs. The report below details the inherent and long-term design approach of the practice (and prior to the practice being formed) which largely fall under Scope 3.

Paul Vick has been an architect for approximately 30 years, including drafting a zero carbon 8000 home scheme 20 years ago. Paul Vick was a member of LBHounslow's iLab for Low Carbon Neighbourhoods, is a member of a City Livery Company's Climate Action Group and talks and publishes regularly on the subject (see also Appendices).

3. Approach

Sustainability and our environment are sometimes easier to understand in abstract terms rather than the solid practice of design ideas that work and are implemented. The confusion usually first comes with knowing what issues can be resolved by an architectural intervention and how clearly the relevant issues can best be approached.

The boundary between project context and project content varies from project to project. Each is determined not just by the extent of the physical *ownership* boundary but also by that of adjacent and much further removed physical boundaries. Inherently, often the boundary of the user operations will extend the effects of the project beyond the strict physical site boundary for example.

'Should we be using a regional energy system, estate wide system or should our building be producing its own energy or partly all of these (and if so in what proportion)?' is a question that needs to be drawn directly out of the correct briefing process (Stages 1-2 of RIBA Work stages). In broader terms:

Who is involved in the project (**demography**)?

What is the environmental context and its relative priorities in this project (**environment**)?

What means do we have to give physical solutions (**technology**)?

These are the mainstays of the practice's interests and come from a fundamentally sustainable vision. Each of these three are inherent to the brief.

They are further developed into the design and then described under a design statement (issued with the planning permission) and included into Building Control submissions and tender documentation (RIBA Stages 3-4). The reuse of site material is also an inherent element of Paul Vick Architects' specification and a site waste management plan produced (which becomes a document 'owned' by the Contractor once appointed). The specifications include for the reuse of existing materials where relevant and the exclusion of harmful substances. Statutory requirements are regularly exceeded.

Feedback of local control systems and monitoring is encouraged by the practice to clients and has been included in contractor specifications (including monitoring of systems, thermal imaging etc...).

Most submissions today are electronic, rather than paper-based.

The procedure of assessment of materials includes:

- Literature on pre-assessed materials (e.g. 'Handbook of eco materials,' 'The Green Guide', 'BREEAM'/ BRE guidance)
- Trade organisations e.g. copper association
- Look out for industry standard marks and accreditations e.g. FSC (Forestry Stewardship Council), content of recycled material,
- Suppliers own environmental statements
- Trade shows (e.g. at Earl's Court)
- Design life and life to first maintenance (e.g. through warranties included in the specification)
- Review of specifications of products and their make up

Sustainability and demography

The architecture needs to engage those people involved with it (**the demographic**). These include the following:

- Client
- Visitors – parents, future parents, sponsors and education to education liaison, public users (e.g. out of hours)
- Potential visitors
- Staff including teachers as well as those involved with the wider vision, its administration and visitor interface
- Visiting teachers/advisers
- External logistical support and deliveries
- Statutory authorities inc fire services

Sustainability and the Environment

Today's **environmental** context demands:

- an increase in energy efficiency, which at the same time will contribute to a reduction in energy costs, while protecting our heritage.
- a response to increased air pollution and improvement of Oxygen content. Carbon Dioxide, Methane, Nitrous Oxides, Sulphur Hexafluoride, HFCs and PFCs are growing 30 times faster than emissions that triggered global warming 55m years ago and are significant contributors to increased ozone depletion and continued growth in asthma and breathing difficulties.

How we best reuse, reduce and produce energy in the context of our buildings is essential.

A first question is: do we need this element of the brief? An economy of means is contingent with using less materials and energy.

Sustainability and technology

Intelligent and informed design combined with the **technological** opportunities of today allow us to undertake this task with increasing precision and effectiveness. Expected life of the building is essential to lifecycle understanding of the materiality of a building. We do not believe in the use of technology for the sake of it but rather a technological understanding that will fit the job. Passive means of energy conservation and ventilation for example may mean the employment of advanced modelling techniques to minimize the use of plant ('green' or otherwise) with simple, cost effective construction for example. This was the approach at Brentford School for Girls for example.

Close relationships with industry allows close access to the production and tailoring of materials to suit projects.

Measurement is desirable and not as easy as at first may be assumed: the context of the particular project may not neatly fit into predetermined systems, benchmarks or quantification though these have improved greatly over the last 20years.

Code for Sustainable Homes, BREEAM, Passivhaus, AECB, Leti and benchmarking against previous performance of a refurbished building, other buildings on a site and benchmarking against Building Regulations Standards and 'best of' buildings are very useful and drawn on. At the same time they do not necessarily embody the risk profile that may make some of their assumptions viable (in energy or cost terms) for a particular project. For example, some heritage clients like the addition of solar energy panels (pv or hot water) included for its moral purpose above all else in pushing the industry forward.

4. Our policies

Paul Vick Architects has a commitment to sustainability and we look to excel in contributing to a sustainable future. We aim to follow and promote good sustainability practice, to reduce the environmental impacts of all our activities and to help our clients, partners, contractors, and supply chain to do the same. It is our goal to design buildings with low energy requirements, resulting in minimum harm to the environment through the careful monitoring of the sustainable design process. We are careful to appoint consultants who subscribe to this policy, and communicate it clearly to them, along with all our staff and subcontractors.

Our workplace

We are committed to providing a quality service in a manner that ensures a safe and healthy workplace for our employees, visitors and minimises our potential impact on the environment. We will operate in compliance with all relevant environmental legislation and we will strive to use environmental aware practices in all we do.

We will:

- Support and comply with or exceed requirements of current environmental legislation and codes of practice.
- Integrate the consideration of environmental concerns and impacts into all of our decision making and activities
- Promote environmental awareness among our employees and encourage them to work in an environmentally responsible manner, such as by working electronically wherever it is safe and secure to do so while ensuring that all key information is fully and securely backed up
- Reduce waste through re-use and recycling (when possible) and by purchasing recycled, recyclable or refurbished equipment, products and materials where these alternatives are available, economical and suitable
- Ensure responsible disposal of remaining unavoidable waste promote efficient use of space heating/lighting, equipment, materials and resources including water, electricity, raw materials and other resources, particularly those that are non-renewable
- As far as possible, purchase products and services that do the least damage to the environment and encourage others to do the same.
- Avoid unnecessary use of hazardous materials and products, seek substitutions when feasible, and take all reasonable steps to protect human health and the environment when such materials must be used, stored and disposed of
- Where required by legislation or where significant health, safety or environmental hazards exist, develop and maintain appropriate emergency response programmes
- Communicate our environmental commitment to clients, customers and the public and encourage them to support it
- Strive to continually improve our environmental performance and minimise the social impact and damage of activities by periodically reviewing our environmental policy in light of our current and planned future activities
- Use public transport in preference to travel by car wherever it is possible and effective to do so.
- Strive to reach net zero by 2050.

Our designs

We recognise that the products of our designs will have far more environmental impact than our own operations therefore we are further committed to exercising our professional skills in such a way as to minimise environmental impact in so far as this is possible within the instructions received from our clients. This then includes Green House Gases outside Paul Vick architects' own operation (i.e. Scope 3 of the Carbon Reduction Plan).

We are committed:

- To raise the awareness of clients about sustainability and environmental protection, and help the members of the design team to develop a shared vision of environmental aspirations
- To ensure as far as possible that building projects are supported by a travel plan that promotes sustainable travel choices through public transport and cycling provision
- To assess sites for their ecological value and microclimate, and ensure buildings make best use of the natural features of the site including sun, wind and landscape
- To ascertain the potential for local power generation from renewable energy sources locally or on site
- To ensure that biodiversity is protected or enhanced
- To make best use of orientation and shape to reduce the need for artificial forms of conditioning
- To operate a 'right-first-time' culture (through our qm system) for our production information in order to avoid wasteful site reworking
- To minimise the use of construction materials, and specify materials and components with the optimum balance between environmental impact and performance in use
- To ensure that building services are inherently efficient and controllable, and that metering encourages monitoring and management of resource use
- To ensure that buildings are commissioned fully before handover, and that full operating manuals are provided
- To support clients in the first few months of operation by providing on-site training and advice to ensure that systems are fine-tuned and operate in accordance with the design intent.

5. Examples

Paul Vick Architects takes a robust approach to energy across all project types e.g. promoting low energy passive ventilation for the studio theatre and sixth form centre at Brentford School for Girls (completed Feb 2009) and also the same school's masterplan. The school studio theatre and sixth form centre has been published in the Architect's Journal and World Architecture News specifically describing the environmental approach (as well as being a finalist for the Architect of the Year and RIBA Regional Award).

A low energy house in the west country (completed August 2011) meets AECB (Passivhaus silver) standard and has a thermal efficiency 3-4x that of standard building regulations. The challenge that it met was to make a beautiful dwelling tailored to the light with large expanses of glass at a low cost. In 2015, a low energy retrofit house was completed to Passivhaus EnerPHIT standards. Subsequent designs include new and proposed buildings e.g. drafting the vision for the Diocese of London, units for 20acre regeneration site and buildings, new build low energy flats (in construction), Care Home new build and adaptations to existing buildings (submitted to planning).

Previous projects that Paul Vick has been directly involved include the delivering of Evelina (children's hospital) at Guy's and St Thomas' Hospital where the use of a large, enclosed atrium on the south side acted as a covered, play area and thermal buffer to the ward rooms under a 'solar approach'. The project was a finalist for the Stirling Prize and most importantly was described as a hospital that was 'getting people better quicker'.

Paul Vick also drafted the British Museum masterplan for the next 50 to 100years prior to establishing Paul Vick architects. One of the twelve sections concerned the environment. He also drafted an 8000 home zero carbon development and was project managing architect for the £600m Whitecity Development at Shepherd's Bush which was designed (although not entirely fulfilled by a later client) to be the first purpose built, naturally ventilated shopping centre in the UK. The proposal for a new square (currently under construction) and enhancement of Euston Road near to King's Cross which Paul Vick co-drafted was an urban proposal promoting better approaches to emissions, energy, health and landscape.

Paul Vick has developed internal research papers from and for these projects: 'New opportunities in Urban Sustainability' and 'Managing the Risks of the environmental context' and also presented and continues to present on these issues (see Appendices).

Today, the practice looks to create carbon negative schemes. While under the statutory planning system, which Paul Vick architects unusually holds a 100% record of success, zero carbon schemes are now becoming a requirement.

Appendix 1 **Some Relevant Publications**

- Good Cop Bad Cop – Article and attendance at COP26 – <https://www.paulvick.co.uk/wp-content/uploads/2021/12/69-Life-after-COP26.pdf>
- Most Innovative Architecture Firm, London, 2020 – Award by Acquisition International – https://www.paulvick.co.uk/wp-content/uploads/2020/11/Acquisition-International_Issue-8_40-41.pdf
- Cleantech and Sustainable Construction Talk at West London Business – <https://www.youtube.com/watch?v=tzc0Z-mm-pE>

For more see www.paulvick.co.uk

Appendix 2 **Forthcoming Talk on Sustainability at Gresham College, City of London**

The **City of London Lord Mayor's working theme** for the year is '*Connect To Prosper - The Knowledge Miles In The World's Coffeehouse*': to celebrate the many Knowledge Miles of The Square Mile. "Knowledge Miles: The 695th Lord Mayor's Lecture Series" is an online webinar series that explores the connections of the Square Mile and its roles as "The World's Coffeehouse" addressing diverse global challenges and utilising the intellectual opportunities of the City.

As part of the lecture series, Freeman and Liveryman of the City of London, **Paul Vick founder of Paul Vick architects, is giving a talk on 'Are We Asking the Right Questions About Profit?'** with examples from his experience. **23rd May 2024 1500-1545** online. Talk plus Q+A. <https://www.greshamsociety.org/webinar/11811/>

Are We Asking The Right Questions About Profit? How We Hold The Keys To Innovation And Resolving The Climate Challenges Through Architecture

Background:

How badly is it all going in terms of climate change and development solutions? Nearly 40 years ago, the Brundtland report identified political and economic issues (rather than technological ones) as the greatest challenges affecting climate change - so has anything improved since then? The answer might lie further back in time when de Tocqueville in the early C19th maintained that power may be more distributed than we think. We have agency, individually and together, to affect change.

In today's world there are already design solutions and approaches that we can use to tackle climate change, and this is both empowering, and a form of power and profitability.

Founder of Paul Vick architects, Paul Vick, tackles some shibboleths in a talk that looks at whether we are asking the right questions about profitability and value. They discuss some of the approaches they use to understand value and if they really are mutually exclusive; and how good design thinking can create value from the knowledge we have, and the knowledge we continue to gain.

One such question the architect focussed on was 'what is the value of creating a building that helps you live longer (for you, your users, clients)?' And 'How do you create and innovate in a world which is often complex, uncertain, unaccounted and unaccountable?' Where 'art' is the changing of perceptions and 'design' problem solving, good architecture addresses both. The talk illustrates with projects the practice has and is undertaking to create this profitability. There are questions it has going forward for us all.

Speaker

Paul Vick is a professional architect (RIBA, ARB) and Fellow of the Royal Society of Arts who has lectured on architecture at University College London, MIT and the National Building Museum. His work has also been published in the Architect's Journal and World Architecture News amongst others. He trained at Cambridge University and Oxford Brookes University with extended periods in Washington DC and Beijing.

He founded Paul Vick architects in 2007, and the firm won Build's Best Commercial architecture Firm, London 2023, Most Innovative Architecture Firm London 2018, 2019 and 2020, Best Cultural Architecture Practice UK 2019 and Best Construction Adviser UK 2017 as well as others. Work includes with the City of London Corporation including at Innovation Warehouse at Smithfield Market, a glass bridge and additions for a global telecoms HQ, as well as ongoing 24acre and 5acre grade 2 listed regeneration sites, new build and retrofit low energy buildings. Prior to founding the practice he drafted an 8000home zero carbon development, drafted the British Museum space plan and masterplan, and ran Whitecity at Shepherd's Bush.

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