

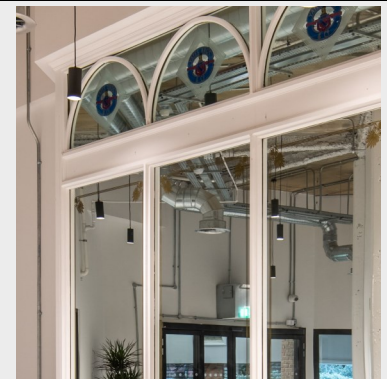
CASE STUDY BIRMINGHAM DIOCESE MOVES TO A MORE SUSTAINABLE OFFICE



N.B. This case study considers only one possible approach, which will not be suitable for every church. Always seek professional advice.

Key Points

- The Diocese of Birmingham has recently moved offices to a newly retrofitted building which benefits from a range of carbon-saving technologies, including heat pumps.
- As well as running entirely on a green electricity tariff, the building has benefits in terms of accessibility and lower rental costs.



1 As a retrofit Victorian building, The Citadel is now highly energy efficient, without having incurred major additional embodied carbon in the way a new-build would have.

2 The contemporary open-plan office space will enable productive work in a pleasant and, importantly, inclusive environment.

3 Key elements of the historic building have been retained, demonstrating the wider benefits of retrofitting.

The context

The Diocese of Birmingham contains over 200 churches, centred around the midlands city. Its work consists of providing support in a range of fields to these churches, including pastoral care and environmental schemes.

For more information visit the [Diocese website](#) or its [Environment page](#).

The need for change

The previous office leased for use by Birmingham Diocese was located on the 7th and 8th floors of a corporate office building in an area of similar blocks in central Birmingham. With accessibility, cost, sustainability and general impression all important considerations for when the contract came up for renewal, the decision was taken to move.

What were the options?

In order to address the desire for greater accessibility, particularly for the physically impaired, moving to an office closer to the ground within the same or nearby buildings was considered. However, with the landlord unwilling to switch away from gas heating, this idea was unviable.

Although there was a desire to find a new building that would give off a less corporate impression to visitors, it was calculated that up to 80% employees would have a longer commute if they moved out of the city centre.

- A suitable office space was found in the Citadel building, which was still being retrofitted at the time.

What was done?

- The building was originally constructed in the Late Victorian era for the Salvation Army. Retrofitting it meant avoiding the embodied carbon of a new-build.
- As part of the renovations, the developer removed the gas supply and switched entirely to electricity, provided on a green tariff, with the heating delivered by a Air Source Heat Pumps.
- An Air Handling Unit on the roof operates a Mechanical Ventilation with Heat Recovery system, whereby 90% energy can be recycled in keeping the space warm. Along with LED lighting throughout, the use of this system makes energy use very efficient.
- Electric Vehicle charging points were also added outside, enabling zero-emission travel for some staff.
- Mechanically-adjustable desks were installed, meaning that they were suitable for wheelchair users, as well for those with medical (e.g. osteopathic) requirements for a specific set-up.
- In recognition of contemporary working practices, video-call work pods were also installed, to best facilitate hybrid-working.
- 9000 feet² of office space was taken on by Birmingham Diocese, split over 3 floors, as a ten year lease. This represents around 20% capacity of the whole office building.

How well does it work?

The heat-pumps have also proven to be a great success. Within the office environment, there is the capacity for local control over temperatures, meaning that everyone can optimise their comfort without waste.

Staff and visitors have benefitted from a modern, accessible office space fit for the hybrid-working era.

From August 2022 - January 2023, the average monthly energy usage was roughly 1600 kWh.

It is estimated that the saved carbon of retrofit, rather than demolition and the construction of an equivalent office, is 2,600 Tonnes of CO².

How much did it cost?

Compared to the rental agreement for the previous Diocese office, the base cost has reduced by 15% from £30 per foot² to £25. On top of this, the service charges are also lower at £7 per foot², compared to £16 in the previous office.

“Revising a heritage rich and characterful building, whilst transitioning it into the 21st Century with modern technology that runs off 100% green energy, will set it up for the next 25 years of occupation. The retention of the existing building’s structure and fabric was pivotal in our environmental goal to reducing the embodied impact of Citadel’s revival.”

Kilian Kleine, representative of the building developers