BRIAN ROBERTS

BRITISH LIBRARY LONDON 1998 ASHRAE NEW GLOBAL HQ GEORGIA 2021 PORTCULLIS HOUSE LONDON 2001

HI-TECH BUILDINGS PART FOUR



BRITISH LIBRARY LONDON

<2>

ASHRAE NEW GLOBAL HQ GEORGIA





New Global Headquarters 180 Technology Parkway, Peachtree Corners, GA 30092

<3> PORTCULLIS HOUSE LONDON



BRITISH LIBRARY

LOCATION Euston Road, London ARCHITECT Colin St John Wilson & Mary Jane Long ENGINEER Ove Arup HVAC CONTRACTOR Haden-Young LISTED Grade I

ASHRAE GLOBAL HEADQUARTERS

LOCATION Peachtree Plaza, Nr. Atlanta, Georgia Compiled from ASHRAE website by Brian Roberts, Life Member ASHRAE

PORTCULLIS LONDON

LOCATION Bridge Street, London TYPE Parliamentary Offices/Conference Facilities ARCHITECT Michael Hopkins & Partners ENGINEER Ove Arup and Partners SERVICES ENGINEER Arup Associates HVAC CONTRACTOR Crown House LISTED Grade I







<5> BRITISH LIBRARY



<6> BRITISH LIBRARY



<7> BRITISH LIBRARY





















<11> BRITISH LIBRARY





<12> ASHRAE NEW GLOBAL HQ



"ASHRAE's first-of-its-kind headquarters building was designed as a living showcase of what's possible through technology integration to increase efficiency, protect people, and enhance the occupant experience."

Examples of technical features include:

Radiant ceiling panel system for heating and cooling and dedicated outdoor air system for ventilation and enthalpy heat recovery. Overhead fresh air distribution system augmented with reversible ceiling fans in the open office areas and displacement distribution in the learning centre. Six water-source heat pumps. Demand control ventilation. Modelling Energy Use Intensity. On-site electric vehicle charging stations. Roof-top and ground mounted photovoltaic energy systems. Useful daylight illuminance (>300 lux). Window Wall Ratio 79.9%.

<13> ASHRAE NEW GLOBAL HQ



New Global Headquarters 180 Technology Parkway, Peachtree Corners, GA 30092

ASHRAE



<14> ASHRAE NEW GLOBAL HQ





<15> ASHRAE NEW GLOBAL HQ



Innovative mechanical systems visible through open ceiling.

<16> ASHRAE NEW GLOBAL HQ





New Global Headquarters

180 Technology Parkway, Peachtree Corners, GA 30092

<17> ASHRAE NEW GLOBAL HQ



<18> ASHRAE NEW GLOBAL HQ



ASHRAE's recently installed photovoltaic (PV) system.









<20> PORTCULLIS HOUSE



<21> PORTCULLIS HOUSE





<22> PORTCULLIS HOUSE











<25> PORTCULLIS HOUSE





<26> PORTCULLIS HOUSE



Portcullis House, New Parliamentary Building, Westminster, London

New 23,000m² of MPs offices and Committee room accommodation constructed in the air-rights over new station serving three Tube lines. Designed for almost entirely off-site manufacturing. The building fabric thermal capacity is used to

control indoor climate. Night ventilation natural cooling. Highly integrated services, structure and architecture. Ventilated facade with full heat recovery. Direct aquifer cooling source without chillers. Low energy use services systems. Collaborators: Hopkins Architects, Parliamentary Works Directorate Image ©Hopkins



<27> PORTCULLIS HOUSE



<28> PORTCULLIS HOUSE









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REFERENCES AND FURTHER READING



HI-TECH BUILDINGS PART FOUR

BRITISH LIBRARY LONDON 1998 ASHRAE HQ GEORGIA 2021 PORTCULLIS HOUSE LONDON 2001

- 1978 Engineering into the Eighties (Brian Roberts), Drake & Scull.
- 1999 Pioneering British High-Tech: Architecture: Articles on both featured buildings were originally published in *Architecture in Detail*, 1993& 1994.
- 2014 100 Buildings 100 Years, Susannah Charlton with Elain Hardwood (Eds), Twentieth Century Society, Batsford, Pavilion Books, London.
- 2016 The Arup Journal-50, 1966-2016, Arup, London.