



The Discovery Building

Climate and Biodiversity research facility in Antarctica

Named for the discovery of Antarctica 200 years ago, The Discovery Building is a science and research facility, part of the modernization of the Rothera Research Station for the British Antarctic Survey (BAS). Commissioned by the Natural Environment Research Council (NERC), this long-term programme will enable a world-leading capability to ensure that Britain remains at the forefront of climate, biodiversity and ocean research in the polar regions. The design vision is to update and restore infrastructure, and to consolidate a series of outdated structures into a new 50,000-square-foot facility to be completed in 2024.

Minimizing environmental impact and embracing the highest environmental standards are critical to this project. The use of renewable energy, including photovoltaic solar panels, the building will minimize snow accumulation around the entire perimeter and feature a slight pitched roof and wind deflector, the largest of its kind in Antarctica. Using BREEAM accreditation systems, the building has energy-saving features, including a thermally-efficient building envelope, heat recovery generators and thermal stores, and a ventilation system with air exchanges based on occupancy. Vibrant colors, natural roof lights and open-office concepts help boost mood and wellbeing during long winters.

Delivering the new energy-efficient building is the Antarctic Infrastructure Modernisation Programme (AIMP) partnership, which includes construction partner BAM and their team – design consultants Sweco, and Hugh Broughton Architects providing delivery design. Ramboll is acting as British Antarctic Survey’s Technical Advisors, with their team – architects NORR providing concept design and Turner & Townsend providing cost management. The partnership encompasses a range of suppliers and subcontractors providing knowledge, materials and equipment to execute the project in extreme conditions.

Visualization credit: ©HBA, BAS Science and Operations Building at Rothera Research Station.

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| CLIENT | British Antarctic Survey (BAS) |
| PORTFOLIO | Science & Research |
| SIZE | 50,000 SF (4500 SM) |
| LOCATION | Adelaide Island, Antarctica |
| DATE | Ongoing |
| SERVICES | Architecture |

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| AWARDS | 2021 BCI Awards, Partnership Initiative of the Year: Highly Commended AIMP Partnership: UKRI/NERC/BAS, Ramboll, BAM, Sweco, NORR, Antarctic Infrastructure Modernisation Programme – British Antarctic Survey 2020 Chartered Institute of Public Relations (CIPR) Excellence Awards, Mark of Excellence for our joint campaign, to celebrate the naming of the RRS Sir David Attenborough. |
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Science & Research

Purpose-driven design of science and research structures is a specialty at NORR. We are uniquely positioned to provide our clients with fully-integrated design services from master planning to architecture and engineering for complex research and development parks and facilities, bio-incubators and state-of-the-art laboratories. This work spans the bioscience, pharmaceutical, nuclear, medical, education and commercial sectors.

Our Design Approach

Our approach to the design of Science and Research buildings is based on a clear understanding of the project brief from the beginning, together with making key decisions at the right time, at briefing stage through concept, detail, technical design and construction. We believe that key to the success of science facilities is the organization and inter-relationship of the elements of the building for their use in the short term and for their continued use over the long. We consider the lifecycle of buildings throughout their lifespan.

Evolving at the Pace of the Sector

NORR's work in the Science and Research sector has been continuous which has allowed us to keep pace with our client's evolving needs. We take our experience and lessons learned forward from one project to the next. In designing Science and Research projects, we manage every detail recognizing that these projects are complex structures that are:

- Highly serviced
- High energy users and can therefore be expensive to run
- Required to house delicate and expensive instruments
- Potentially hazardous work places
- Extremely liable to change and must therefore be flexible and adaptable

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