

RAMBOLL HQ  
Southampton



## **GIFFORD HQ**

Southampton

This is a new low-energy headquarters building designed within a 'commercial green' ethos. The studio building provides open plan office space for 150 engineers on two floors. A new brick reception wing mediates between the client's current office, a 19th century coach house, and the larger studio building. The wing houses a double-height reception and exhibition area. In meeting its energy targets, the building will be the most energy efficient office in the UK.

This new development provides Ramboll with a unique facility at its headquarters campus in Southampton. The design balances a low energy approach with financial viability and is an exemplar in the application of a Commercial Green concept.











The brief was to produce a building that reflected the aims and values of the Ramboll organisation by providing high quality innovative and sustainable accommodation at a comparable cost to traditional office buildings. The massing of the new studios needed to be sensitively designed to compliment the existing brick buildings on the site.

The commercial Green approach developed by Ramboll minimises energy losses through the building fabric whilst ensuring a comfortable environment for those working in the building. The key was in the detail of the external envelope. This was super insulated, with the glazing optimised to ensure good natural light whilst minimising solar gain and glare at IT workstations.

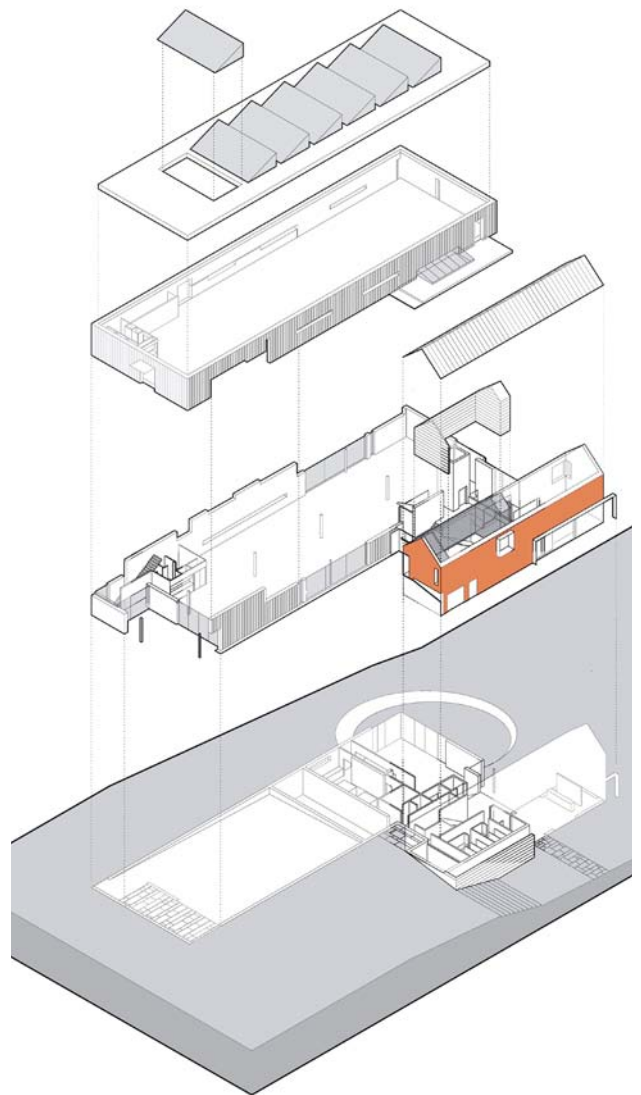
The wall construction was developed with TRADA to provide a highly insulated robust breathing wall system. This construction permitted the use of horizontally banded windows that provide connectivity to the surrounding countryside.

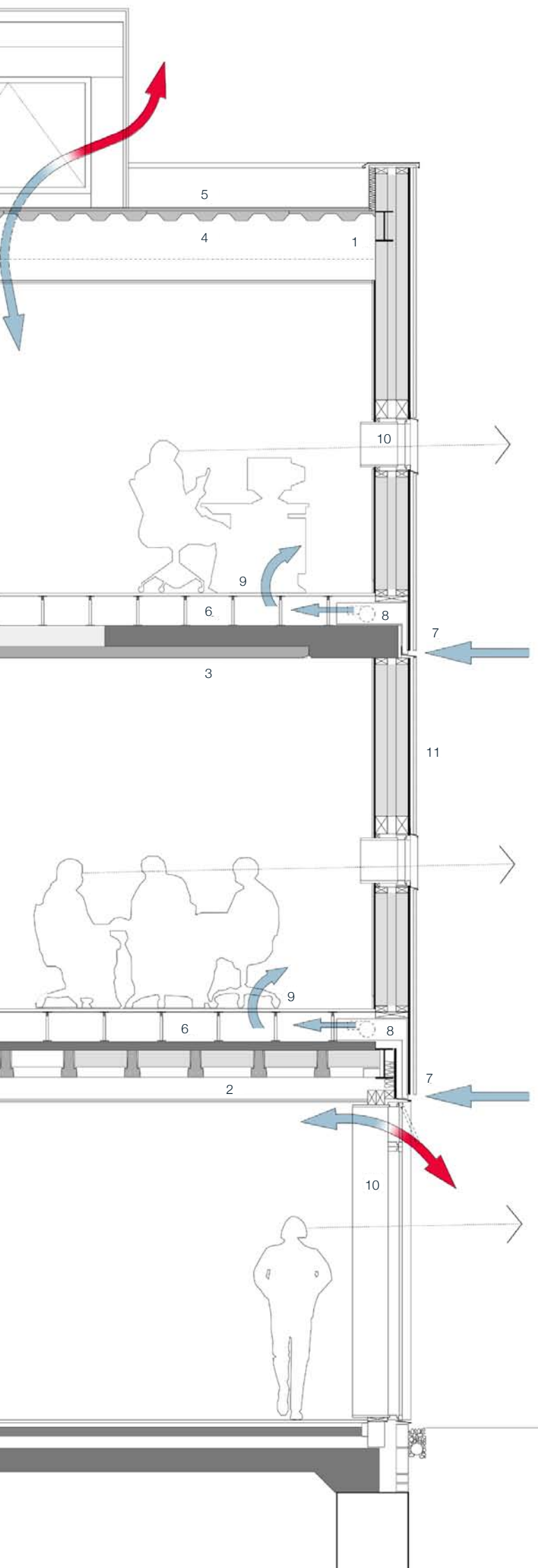
At roof level thermal mass was enhanced through the use of appropriate lining boards.

Fresh air is introduced into the building via the plenum formed by the 290mm deep raised access floor. The air is supplied by low pressure fans drawing in through vents in the cladding and discharging into the office through swirl diffusers. The air is cooled or warmed by passing over an underfloor heating/cooling system integrated within the raised access floor.

Exposed thermal mass was an integral part of the building services design. At ground floor level this was achieved through having an exposed concrete ceiling. An extended structural grid of 9.6m was achieved by the innovative use of a pre-cast concrete soffit, an in-situ post tensioned concrete topping and tubular steel columns.

A flush inner face to the walls was achieved by using steel columns contained within the walls.





Typical section through the external envelope

- 1 steel frame
- 2 beam and block floor with 75mm screed
- 3 pre-cast concrete shuttering with post tensioned concrete slab
- 4 composite roof panel
- 5 single ply flat roof membrane
- 6 floor plenum
- 7 air intake duct
- 8 fan unit
- 9 swirl diffuser
- 10 'velfac' composite window system with PPC aluminium reveal
- 11 verticle cedar cladding



## Project Details

Location  
**Southampton SO40 7HT**

Completion Date  
**2005**

Contract Value  
**£2.4m**

Area  
**1700 sqm**

## Awards

Winner  
Best Office Project  
Building Services Awards  
**2005**

Winner  
David Alsop Award  
Institution of  
Structural Engineers  
**2005**

## Project Team

Client  
**Gifford (Now Ramboll)**

Architect  
**Design Engine**

Structural Engineer  
**Gifford (Now Ramboll)**

Building Services Engineer  
**Gifford (Now Ramboll)**

Quantity Surveyor  
**Gentle Consulting**

Specification Writer  
**Design Engine**

Fire Engineering Consultant  
**Gifford (Now Ramboll)**

Acoustic Consultants  
**Gifford (Now Ramboll)**

Landscape Consultants  
**Plincke**

Furniture Consultants  
**Design Engine**

CDMC  
**Gentle Consulting**

Building Control Approved  
Inspector  
**STMC**

BREEAM Assessor  
**Gifford (Now Ramboll)**

Main Contractor  
**Leonard Field**





**Design Engine** Architects Ltd  
The Studio, Coker Close  
Winchester SO22 5FF

T.+44(0)1962 890111

[www.designengine.co.uk](http://www.designengine.co.uk)