



SPECIFICATION

WALLS, CEILINGS & PARTITIONS

Orms
Hudson Architects
Chetwoods Architects



CASE STUDY CAVENDISH HOUSE, NORWICH HUDSON ARCHITECTS

Photography by Joakim Boren

Project description
Cavendish House is a major refurbishment and remodelling of an existing office building in Norwich city centre. It now houses a new public gallery, meeting spaces and supported incubation spaces for fledgling creative businesses. This flagship project for Norwich University of the Arts opened in late 2015, and is already established as a successful showcase for artists and creative businesses. It is one of a series of recently completed buildings for the university, and an important element in its continuing programme to develop its higher education and cultural facilities.

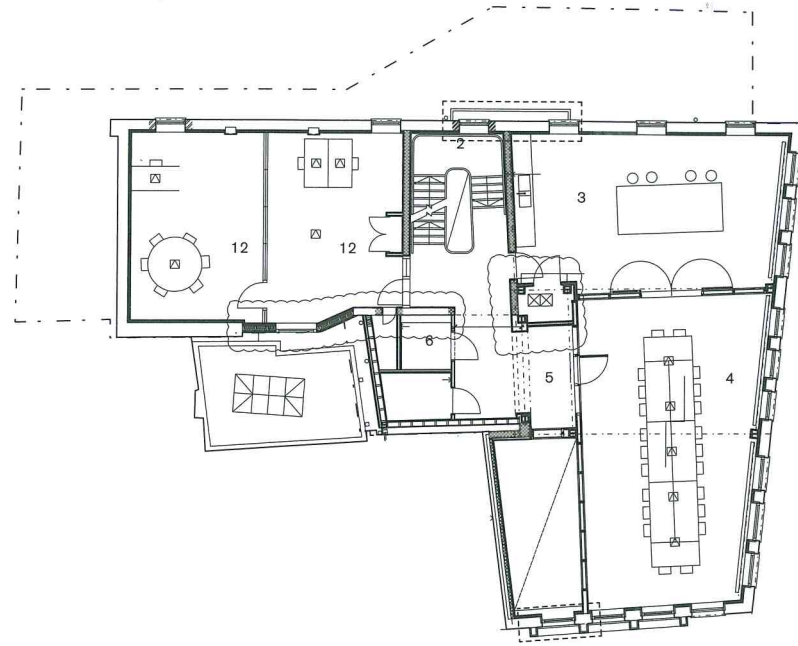
Cavendish House is located in the Norwich City Conservation Area, adjacent to the Grade I-listed St Andrew's Church. The original building was a mid-20th century, four-storey block, out of keeping with its older neighbours and offering a bland street presence. Hudson Architects' design approach has been to work with the existing building to create a distinctive presence for the university, while contributing to Norwich's diverse and intricate townscape and improving the public realm through a series of relatively simple yet highly effective new interventions.

Matt Griggs, project architect, Hudson Architects

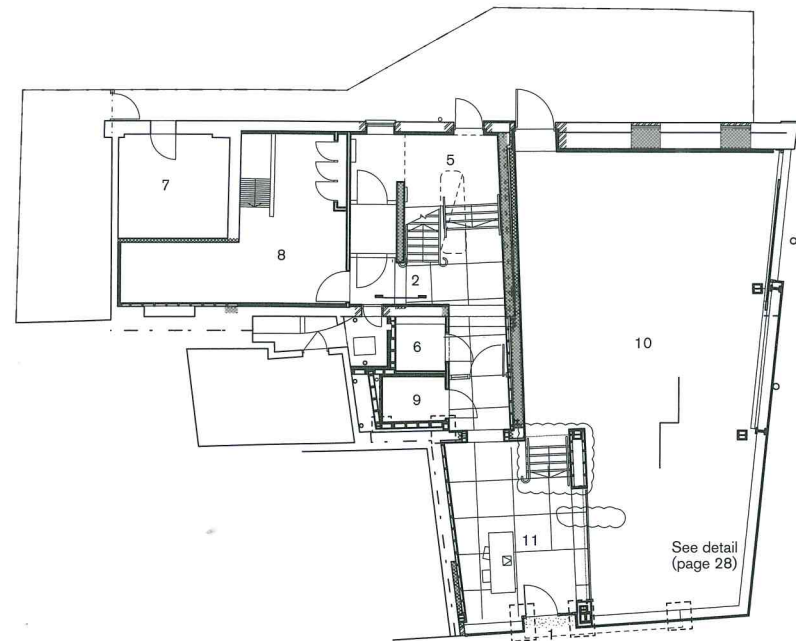


View from north with St Andrew's Church on left

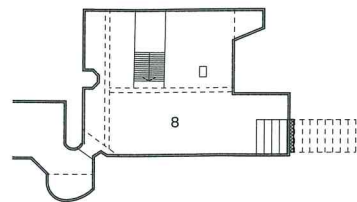
First floor plan



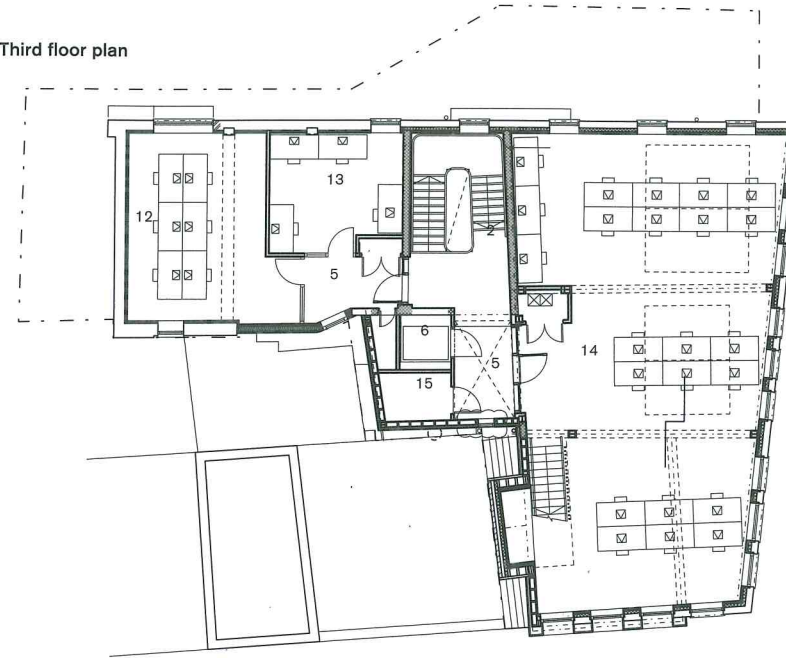
Ground floor plan



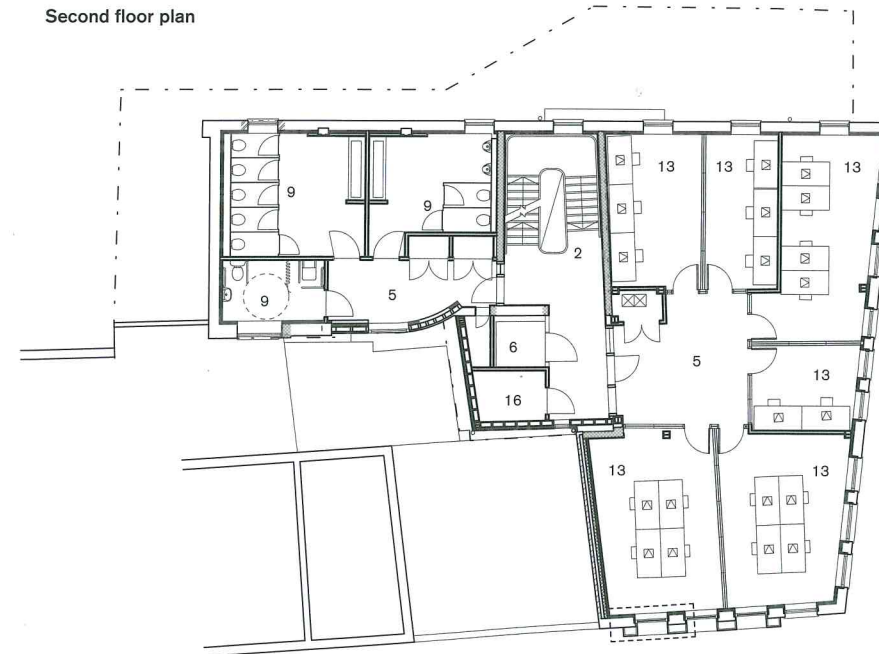
Basement plan



Third floor plan



Second floor plan



Selected products

Rainscreen cladding

Aliva Air, Jura Limestone
Aliva Facade Solutions U
www.alivauk.com

External glazing to gallery

Eco Futural powder coat finish
Aliplast Aluminium Systems
www.aliplast.be

Flooring

Forbo Marmoleum Walton Uni
Forbo Flooring Systems
www.forbo.com

Windows

Internorm
Home Pure HF210, powder coat finish externally
www.internorm.com

Internal glazed partitions

Komfort Polar Vision
Powder coating to frame
www.komfort.com

Internal walls to gallery

British Gypsum
Rigidur H Board, plaster skim and paint finish
www.british-gypsum.com

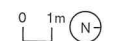
Acoustic ceiling

Rockfon Mono Acoustic
Self finish, white, standard range
www.rockfon.co.uk

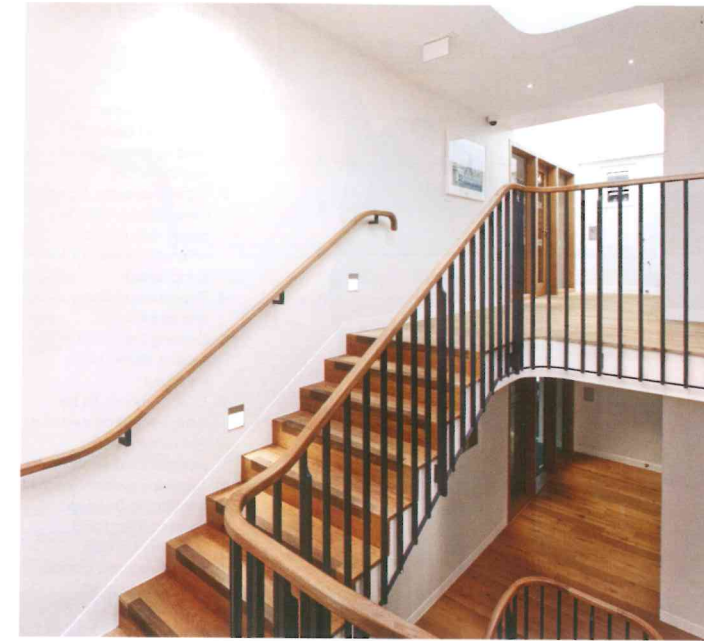
Timber flooring

Boen Flooring
20mm T&G Oiled European Oak Rustic Plank
www.Boen.com/en/

- | | |
|------------------|----------------------|
| 1. Main entrance | 12. Office |
| 2. Staircase | 13. Incubation space |
| 3. Kitchen | 14. Hatchery space |
| 4. Boardroom | 15. Printer room |
| 5. Lobby | 16. IT room |
| 6. Lift | |
| 7. Plant room | |
| 8. Gallery store | |
| 9. Washroom | |
| 10. Gallery | |
| 11. Reception | |



This image
Ground floor exhibition space viewed from reception
Opposite from top
Elegant new timber staircase, with rooflight overhead, in stripped-out circulation space; ground-floor exhibition space with floor-to-ceiling glazing on St Andrews Street frontage; internal walls to gallery with British Gypsum Rigidur H Board, plaster skim and paint finish



Specification description

The ground floor is now fully glazed at street level to create an active, welcoming facade. Above, a new roof extension and much of the east elevation below is clad with a mineral-filled acrylic material, reading as a distinctive new tower topped with a decorative frieze. The tower's materials complement adjacent buildings, while its volume enhances the building's street presence, offering a contemporary focal point in contrast to the medieval church opposite. The original building's brick elevations and stone dressings have been repaired to improve their durability and appearance, while new powder-coated windows enhance the building's crisp new aesthetic.

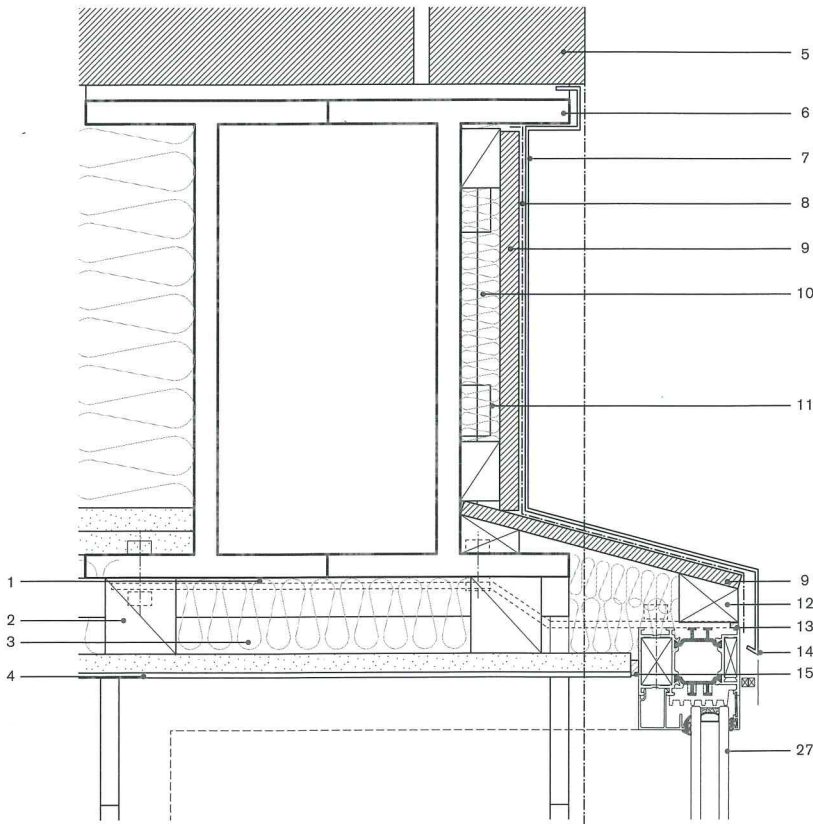
Inside, excellent daylighting and a flexible layout have created an outstanding new exhibition space on the ground floor. Offices and meeting rooms on the upper floors have been fitted out to a high specification, and all enjoy excellent daylighting and views across the city centre through the tall new windows.

A disused internal courtyard now accommodates a lift and ancillary spaces, and cluttered and disorientating circulation spaces have been stripped out. In their place an elegant new timber staircase rises through the building, topped with a rooflight that floods the spaces below with light.

Matt Griggs, project architect, Hudson Architects

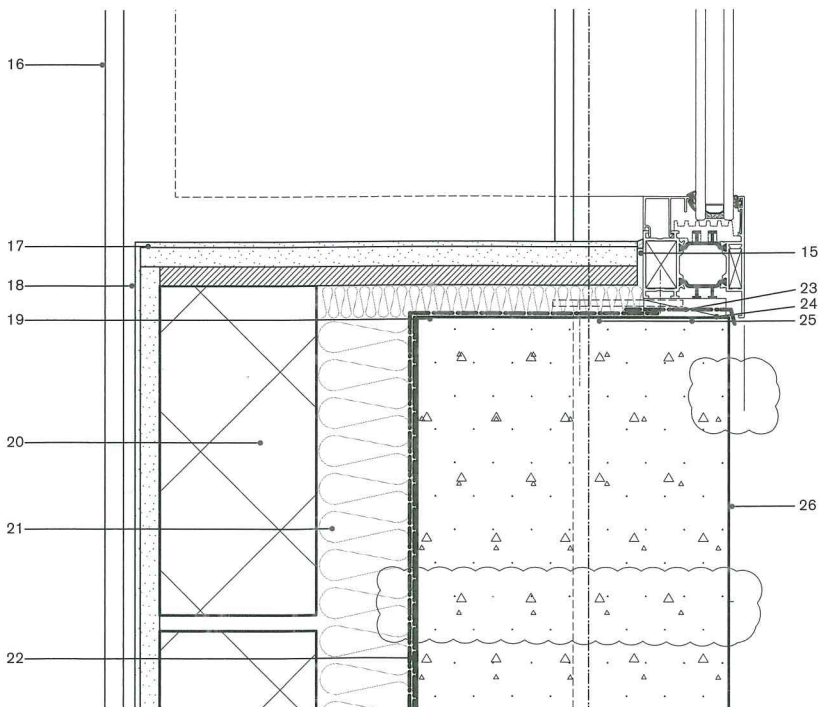
Project data

Start on site July 2014
Completion November 2015
Gross internal area 850m ²
Project value £2,234,214
Cost per m² £2,628
Form of contract JCT standard building contract without quantities
Client Norwich University of the Arts
M&E Mott MacDonald
Main contractor Pentaco Construction
Quantity surveyor REAL Consulting
Structural engineer Rossi Long Consulting
Estimated annual CO₂ emissions 39.5kg/m ²



Detail: Ground floor glazing

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Fixing strap fixed to underside of existing beams 2. Softwood battens fixed to underside of existing beam 3. Rigid insulation, 50mm thick (25mm thick to below cap plates to columns, holes cut for fixing bolts) 4. Plasterboard lining, skim and paint finish 5. Existing brickwork, course above beam replaced 6. Existing beam, to be intumescent coated 7. Aluminium profile, powder coat finish 8. Separating/damp-proof membrane between cement board and aluminium profile 9. 12mm external cement board on treated softwood battens fixed to existing beam 10. 25mm mineral wool insulation to voids behind cement board 11. Existing bolts and plates to beam 12. Ex 38 x 50mm treated softwood batten 13. Mastic seal to top of frame to glazing | <ol style="list-style-type: none"> 14. Drip detail to aluminium profile 15. Mastic seal between internal lining and frame to glazing 16. Existing steel column, to be intumescent coated 17. Polished plaster, on 12.5mm plasterboard, on 12mm ply, on 25mm rigid insulation to top of upstand. 18. Polished plaster, on 12.5mm plasterboard to vertical faces of upstand 19. Liquid-applied waterproof membrane 20. Block plinth wall, to be tied back to concrete plinth 21. Rigid insulation, 60mm thick 22. RIW Cementseal applied to vertical face of concrete upstand 23. Fixing straps 24. DPC, lapped and taped to DPM 25. Packing/shims to below frame to glazing 26. Concrete upstand with colour additive and high-quality finish 27. Double-glazed unit in polyester powder coated frame |
|--|--|



Below North elevation on St Andrews Street with new powder-coated ground floor windows

0 100m



SPONSORED CASE STUDY

ALIVA AIR STONE FACADE CAVENDISH HOUSE, NORWICH UNIVERSITY OF THE ARTS HUDSON ARCHITECTS

Aliva UK has honed a distinctive limestone facade that gives a classic, contemporary finish to Cavendish House, a £2.2m refurbishment project for Norwich University of the Arts.

Hudson Architects specified lightweight stone cladding with a monolithic look for the five storey building, home to an art gallery and start-up space for creative businesses. The facade had to harmonise with nearby buildings, particularly the medieval Grade I-listed St Andrew's Church opposite. To minimise reflection of sunlight and satisfy local planning regulations, an unpolished finish was required.

Our design team supplied Aliva Air in grey limestone. Matt Griggs of Hudson Architects said: 'The facade needed to be a

distinctive and contemporary focal point for the building, while enhancing its street presence.

'We needed a material that was natural, with variation in the surface appearance. The Aliva Air facade ties together the new mezzanine extension below with the rest of the east elevation below, giving the appearance of a solid object inserted into the existing building.'

About Aliva Air

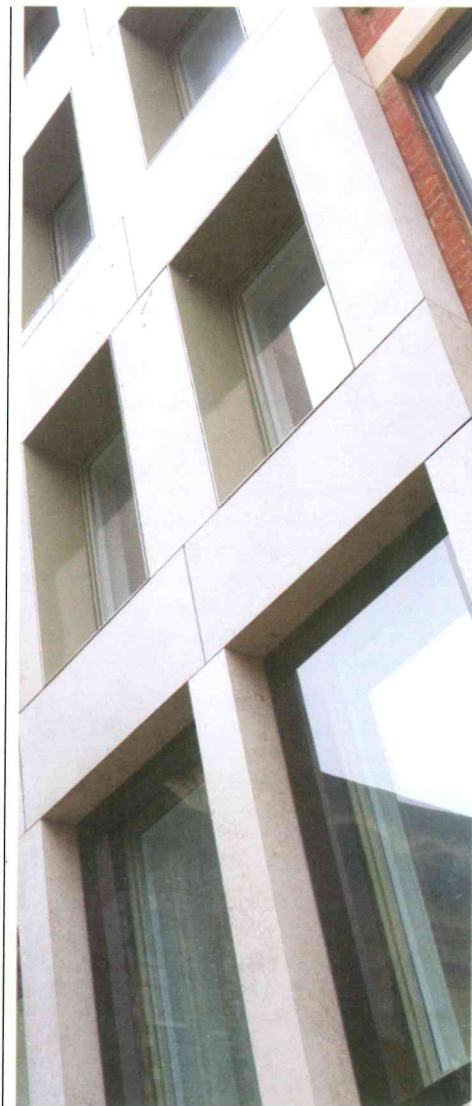
Aliva Air is our solution for architects who wish to use stone, glass or ceramic cladding in combination with lightweight, modern construction methods.

Panels are formed from a layer of stone, ceramic, glass or GRC (approx. 10mm) that is cut and then bonded to a high-performance composite core panel with a stainless steel backing, using a patented and BBA accredited production system.

As well as being ultra-lightweight, the panels can be manufactured in larger formats than traditional cladding – up to 4.5m by 1.5m.

With land prices at a premium, modern projects are reaching dizzying new heights. It is no longer possible to utilise stone slabs weighing in at well over a tonne per square metre. Modern lightweight steel frames, SFS type walling systems and CDM lifting regulations all further restrict the use of traditional stone.

Architects constantly strive to minimise the eco-footprint of new buildings, and Aliva Air stone meets the brief here, too. Our ultra-thin panels allow greater yield of the quarried slabs.



Project data

Architect

Hudson Architects www.hudsonarchitects.co.uk

Client

Norwich University of the Arts

Cladding supplier

Aliva UK www.alivauk.com

Contractor

Pentaco

Facade spec

Aliva Air panels, various sizes (some over 2m in length) grey limestone, honed finish with bonded corners and soffit pieces

Fixing system

Aliva Ali S, an aluminium system using T-shaped or omega vertical profiles, upon which the panels are secured by hidden fixings to a horizontal profile