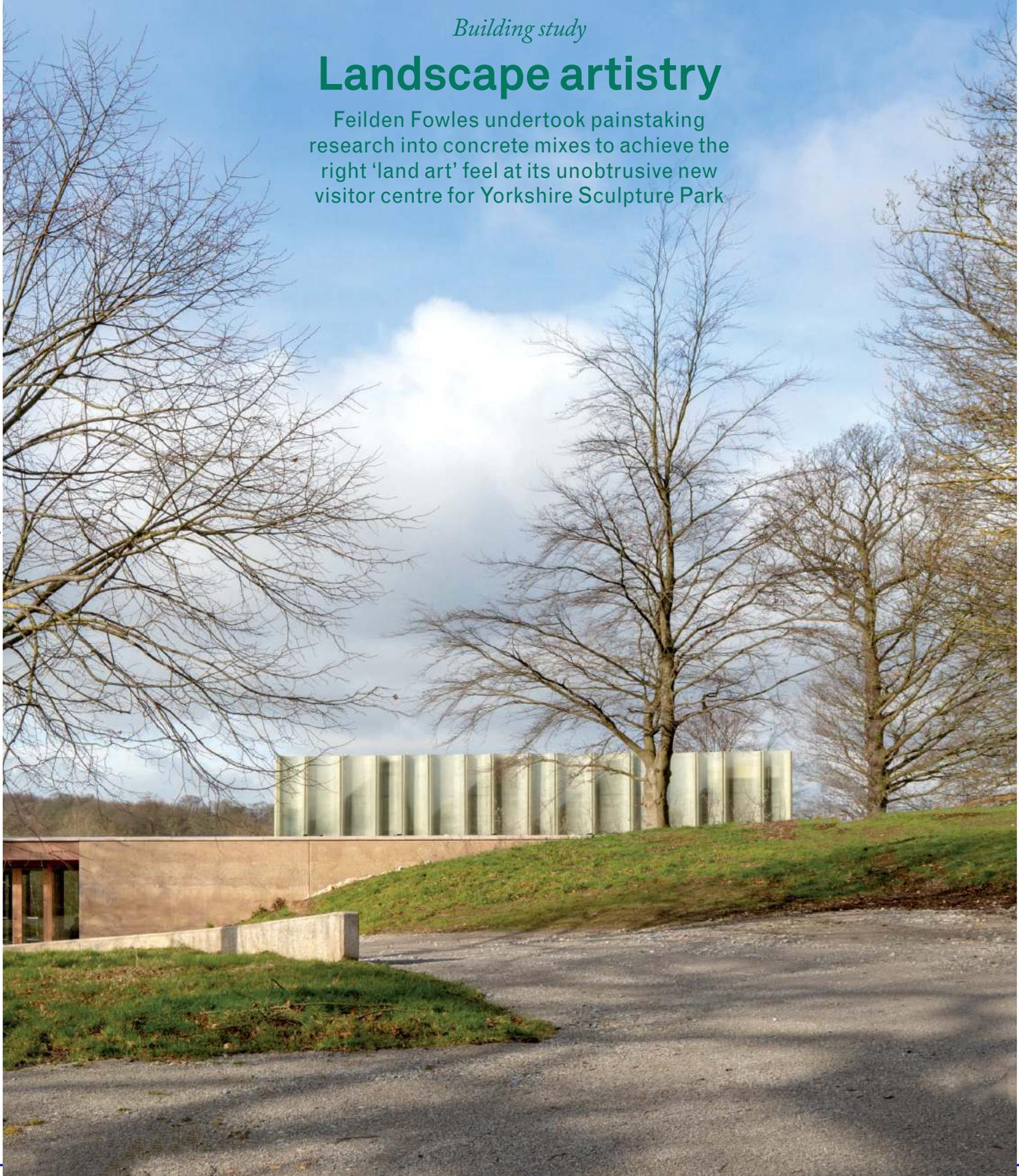




*Building study*

## Landscape artistry

Feilden Fowles undertook painstaking research into concrete mixes to achieve the right 'land art' feel at its unobtrusive new visitor centre for Yorkshire Sculpture Park



*The brief was to create a new visitor centre at the eastern gateway to the Yorkshire Sculpture Park at West Bretton, near Wakefield. The building, dubbed The Weston, provides a gallery, 80-cover restaurant, interpretation space and shop. It opened on 30 March.*

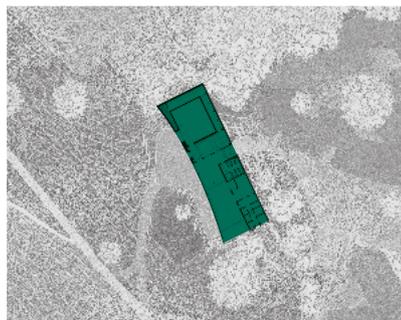
Words Lucy Bullivant  
Photography Peter Cook

The Weston's natural-textured, low-profile building, seemingly growing out of a hill on the 98-acre piece of land at the eastern perimeter of an historic estate, is the last piece in the Yorkshire Sculpture Park (YSP) jigsaw. The architect, Feilden Fowles, has not tried to invent form but to extend the sense of continuity and openness to nature that has been central to the architectural ethos of the park.

The home of the YSP, an independent charitable trust and museum with more than 480,000 visitors a year, lies seven miles outside of Wakefield on the 500-acre 18th century Bretton Hall estate, the home of Bretton Hall College of Education from 1949 until 2007. The new £3.6 million Weston building sits at the east entrance to the sculpture park in a former millstone grit quarry less than a mile from Junction 38 of the M1. Its unassuming character belies the practice's scrupulous preparatory research and testing of natural materials, exploring their textures, patinas and earthy qualities as a particular take on land art.

While the Bretton Hall estate's former deer park was never conceived to have any formality, the YSP programme includes a constant display of about 80 sculptures and installations at open-air sites across the estate and exhibitions at six galleries. YSP director Peter Murray has seen the organisation grow organically since the 1980s, with new buildings added and older existing structures creatively reused.

The Longside Gallery, Bauman Lyons' 615m<sup>2</sup> open-plan conversion of an equine training centre on a hilltop site enabled panoramic views of the park with its opening in 2000. Two years later, Tony Fretton converted the southern part of that building into a sculpture store, workshops, and 506m<sup>2</sup> gallery shared by YSP and Arts Council England. Feilden Clegg Bradley Studios' Visitor Centre (2002) and its 600m<sup>2</sup> Underground Gallery (2006), buried under



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the estate's old kitchen garden, introduced successful exercises in appealing linearity in their own way and upped the ante with further high-quality public facilities.

FCBS's masterplan for the whole of the estate incrementally improved access and the visitor experience, introducing a new entrance road and car park, and bringing about a gradual transformation of the grounds into an internationally renowned arts institution. A former kennel block was transformed into a learning centre and café in 2011 by DLA Architects, and this was followed by the restoration of the 1744 chapel in 2014, the completion of the Bothy Gallery in 2016 and, this spring, the new multipurpose visitor centre, The Weston, with its smaller 125m<sup>2</sup> gallery space.

Touring the site, flagstone buildings and a couple of old gatehouses are visible, along with the college buildings, currently being demolished to build a hotel and spa complex of an as-yet unknown aesthetic character. Across the vast and tranquil landscapes of the larger estate, architecture does not stand out in a monumental civic sense. Instead, the built structures feel like sanctuaries, each intimate with its particular natural context.

With its long, blank east wall shielding a glazed elevation, terrace and entrance on the west side, the 662m<sup>2</sup> single-storey Weston functions well as a gateway into the landscape. 'There was a stage when we looked at rammed earth, to reinforce the building's natural presence,' says the architecture practice's co-founder, Fergus Feilden; but they opted instead for a layered, pigmented in situ concrete, with local aggregates added to the mix for durability and thermal performance. The layering emulates the sandstone bedrock geology of the area, where it is visible in its many quarries.

Test panels were fabricated at the headquarters of the concrete contractor in Nottingham, and shotblasted to expose the variance of pigmentation and scale of aggregate (5-30mm), before the walls were batched on site. Mindful of the environmental impact of concrete, the practice endeavoured to reduce the cement content by nearly 100kg/m<sup>3</sup> in comparison with standard building specifications. This was achieved through a single layer of galvanised mesh reinforcement, reducing the depth of the wall, and using a leaner mix.

The saw-toothed gallery roof, accommodating north lights, is surrounded by a tactile GRP screen, like a backlit veil, giving The Weston an enigmatic, beacon-like quality. Its wildflower roof and planting by Jonathan Cook Landscape Architects include lots of Yorkshire species such as fog grass and blackthorn, inspired by local 19th century gardener Reginald Farrer. This







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lends a sense of indigenous timelessness to Feilden Fowles' interest in 'the particularities of place and sculptural land art influences', which Feilden says they wished to demonstrate here.

Linear, and oriented along a north-south axis, the building captures natural light to maximum effect. Bespoke rooflights allow natural light into every room, and the 140m<sup>2</sup> meeting area and restaurant, with its open kitchen, beautifully holds the light and allows visitors to appreciate the surrounding landscape. A Scandinavian-inspired warm Douglas fir frame supports this connection to the outdoors, while the gesture of incorporating five doors along the restaurant walls echoes the public accessibility of the wider estate, through which run many ancient drovers' trails.

A bespoke rooflight in the 50m<sup>2</sup> shop helps showcase the work of artists, craftsmen, designers and food producers.

The gallery has splendid bull-nosed roof lights, making the light here much less harsh. It opened with an exhibition of work by Indian artists Thukral and Tagra.

The required mechanical functions of The Weston are successfully achieved in its architectural language. It is naturally ventilated throughout, and the gallery element is bounded on all sides by a massive buffer of concrete wall containing humidity-regulating air-dried bricks, lending thermal mass and robustness, its tactile presence resembling an abstract sculpture.

The building has an air-source heat pump, a low-energy environmental control system and, sunk below ground, a bespoke



wastewater treatment system capable of managing seasonal fluctuations in load.

At the end of the path to The Weston leading from the park entrance past a second, small building discreetly housing a kiosk and parking meters, is the cast iron *Walk of Art 2*, created by artist Gordon Young and designers Why Not Associates. This robust metal mat records the names of hundreds of benefactors to the project, one of which, the Garfield Weston Foundation, has lent its name to the building.

Feilden Fowles won the 2014 competition for The Weston, says Clare Lilley, director of programmes at YSP for the past 20 years, 'because they had the strongest artistic expression, a strong understanding of materials'. There was a compatibility, she explains, between the architects' sensibility and the park's core principles. It was important, for instance, for the practice to be alert to the range of visitors to YSP. 'They have come for complex reasons,' says Lilley. Visiting groups include lots of children and adults with learning difficulties. Many require a space that is 'not so precious', as Lilley puts it. Most arrive from within an hour's driving time, while 5 per cent are international visitors.

The Weston fits in a sculpture park where James Turrell's *Deer Shelter Skyspace* – a large square chamber in a listed underground deer shelter with an aperture cut into the roof – has equal status with Henry Moores set on plinths in the traditional style.

On Feilden's first trip to the park, by bicycle, he was caught in a storm and took shelter in the bowl of the quarry site.

Through its textures and tones, the finished building makes a credible connection with the 1960s and 70s land art of Robert Morris and Michael Heizer, which resonates within this mining context. The original brief was for a larger building, but one that would not dominate the landscape.

The architects have successfully achieved a slightly smaller, intriguing entryway to the park, a subtle contemporary place that people will seek out in all weathers.

*Lucy Bullivant is a curator and writer on architecture and urbanism.*

## Project data

Start on site April 2017  
Completion December 2018  
Gross internal floor area 673m<sup>2</sup>  
Construction cost £2.8 million  
Architect Feilden Fowles  
Client Yorkshire Sculpture Park  
Structural engineer engineersHRW  
M&E consultant Skelly & Couch  
Quantity surveyor BWA Europe  
Project manager Turner & Townsend  
Approved building inspector Wakefield BC  
Main contractor William Birch & Sons  
Concrete contractor Northfield Construction  
Timber structure and façade Pacegrade  
GRP screen Diespeker GRP  
Joinery Image Development Northern  
Precast concrete Cornish Concrete Products  
Lime plaster Ty Mawr Lime  
Concrete finishing Grey Matter  
Groundworks Alice Construction  
M&E installations Tricon  
CAD software used MicroStation, SketchUp





## Client's view

The Weston at Yorkshire Sculpture Park is one of five new buildings and conversions in which I've been involved and the process of working with Feilden Fowles has been energetic, exploratory and highly satisfying.

Our curatorial and educational ethos emphasises a physical, sensory affinity with material and between sculpture and landscape. Sharing these sensibilities was the foundation of our relationship with the architects who, from the outset, voiced values that established their empathy and were vital to the development of The Weston. The early days presented significant challenges as the materials and methods of construction needed to change and we enjoyed robust debates, seeing how Feilden Fowles advanced solutions and improvements.

For two generations, YSP has been a place of wonder, learning and exchange and we needed a building to be a welcoming social space to encourage the creation and appreciation of art, and to support our commercial business. With 500,000 visitors a year, The Weston opens up the eastern perimeter of the 500-acre estate, transforming a deadened area dominated by busy roadways into an active and enticing entrance, while from the west it is a compelling destination that encourages vigorous walks.

We're especially gratified by the transition of entering through an enigmatic edifice into a building that amplifies and holds light, the landscape exploding before you. Also, the highly effective buffering of motorway noise, as well as the shift of tone in light and space on entering the gallery, subtly indicate a change of purpose. Such nuance does not come as a matter of course and demonstrates the acute attentiveness of the architects to both place and people. We know already that this will be a well-loved building.

*Clare Lilley, director of programme, Yorkshire Sculpture Park*

## Architect's view

Overlooking an historic landscape of lake, wood and deer park, The Weston emerges from its hillside setting, set low within a former quarry. Inspired by works of land art and sculpture, including vast site-specific artworks such as Michael Heizer's *Double Negative* and Robert Morris' *Observatory No. 5*, we arrived at a design concept of a monolithic form emerging from a cut in the land.

The single-storey building has two principal façades. The arc-shaped western elevation, which is glazed at the southern end where the restaurant is located, provides stunning views across the park. The east elevation is a 50m-long wall of layered concrete, centrally split by the main entrance. This sculptural, solid wall, through which visitors must pass when entering the park, was subject to extensive materials research

and testing to ensure it silenced the nearby M1 motorway.

Research exploring concrete mixes of different pigments and aggregates, combined with a retardant on the face of the shuttering and post-strike jet-washing, produced a layered concrete wall of local stone types – limestone, granite and sandstone – with a textured surface that subtly resembles layers in the millstone grit soil strata beneath.

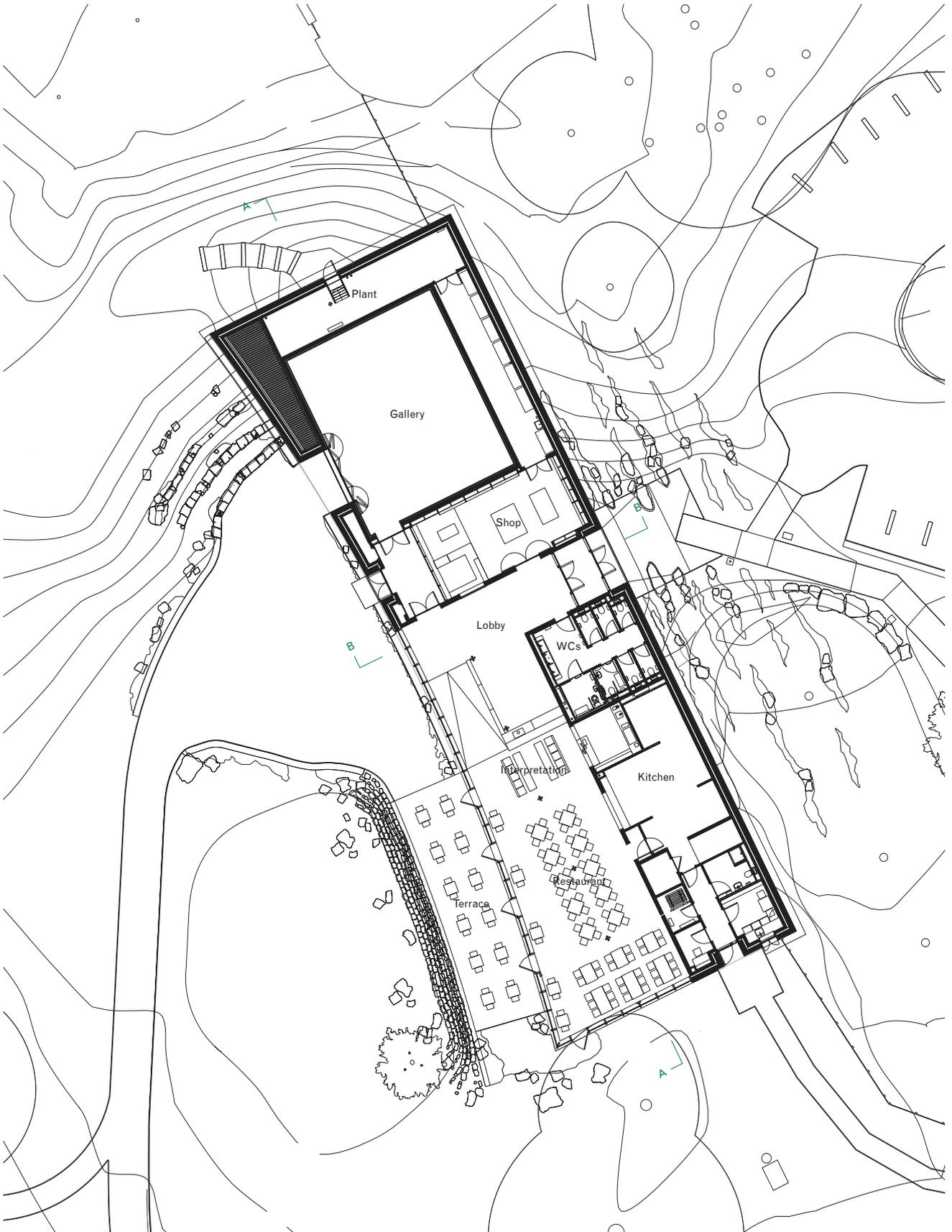
The gallery is distinguished from the rest of the building by a cast in-situ white pigmented concrete and board-marked soffit and rooflights with a semi-translucent GRP screen gently filtering light from above, protecting the artworks on show inside and creating playful shadows and reflections externally. The gallery will host temporary exhibitions of work by modern artists to complement the sculpture collection in the park's outdoor spaces.

*Fergus Feilden, director, Feilden Fowles*

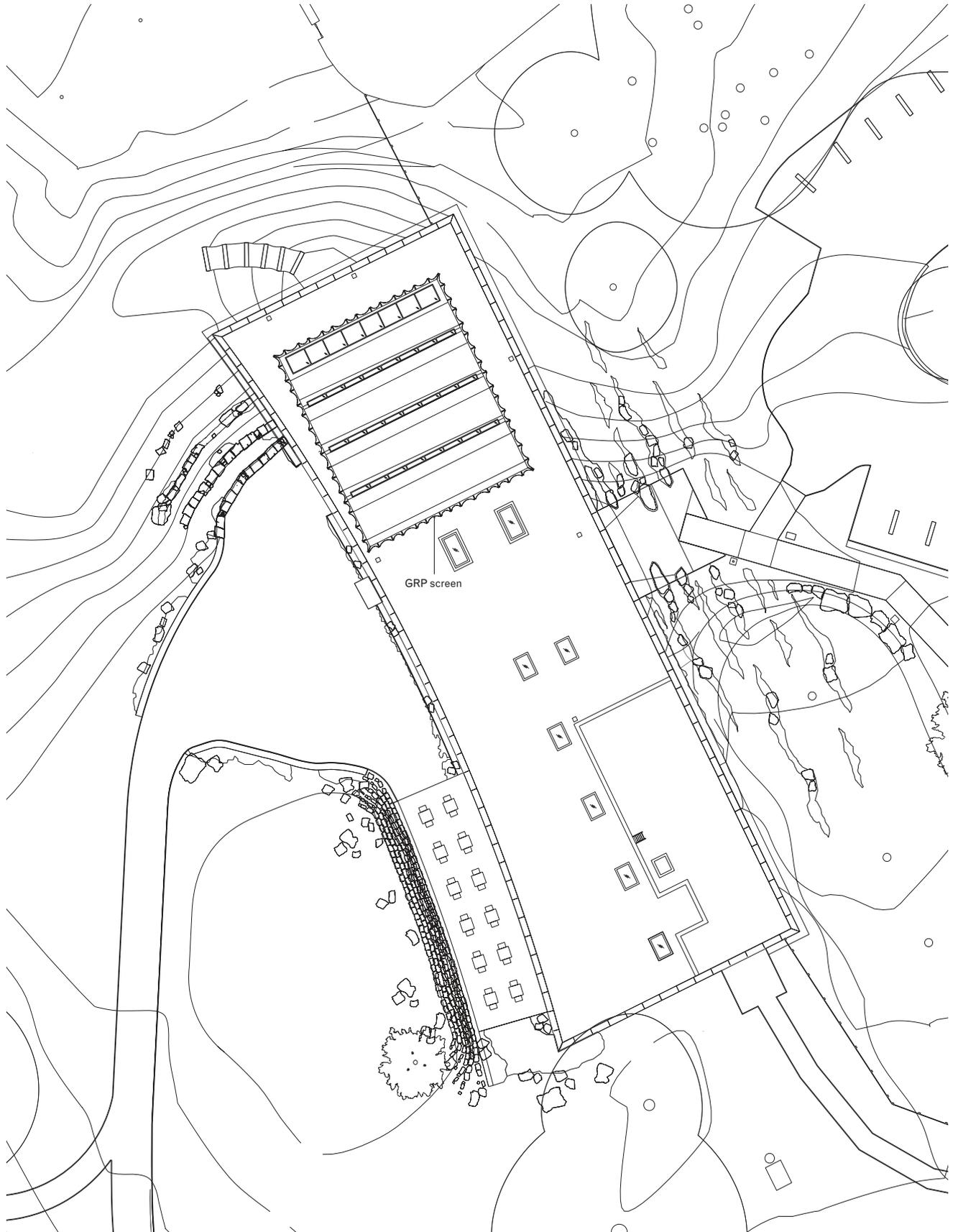


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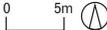


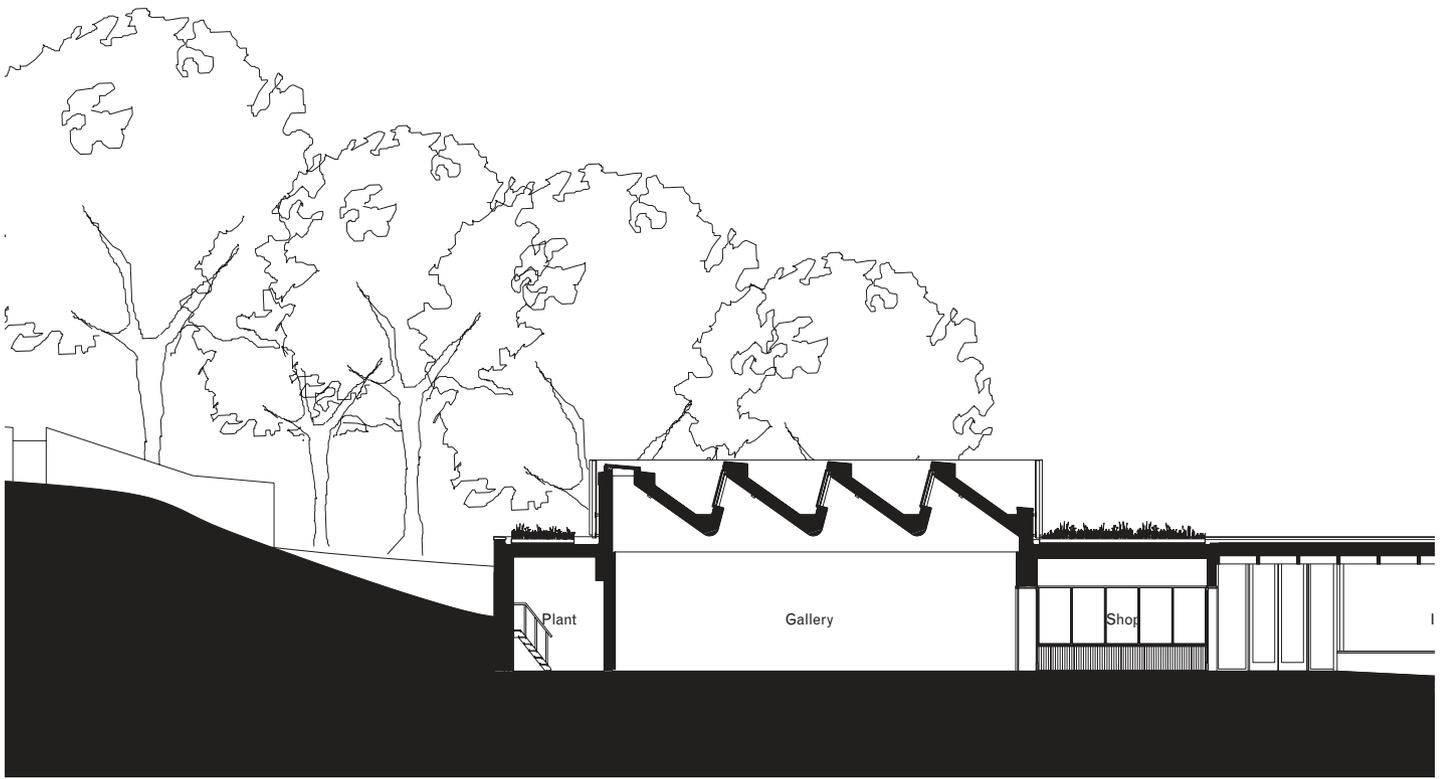
Ground floor plan



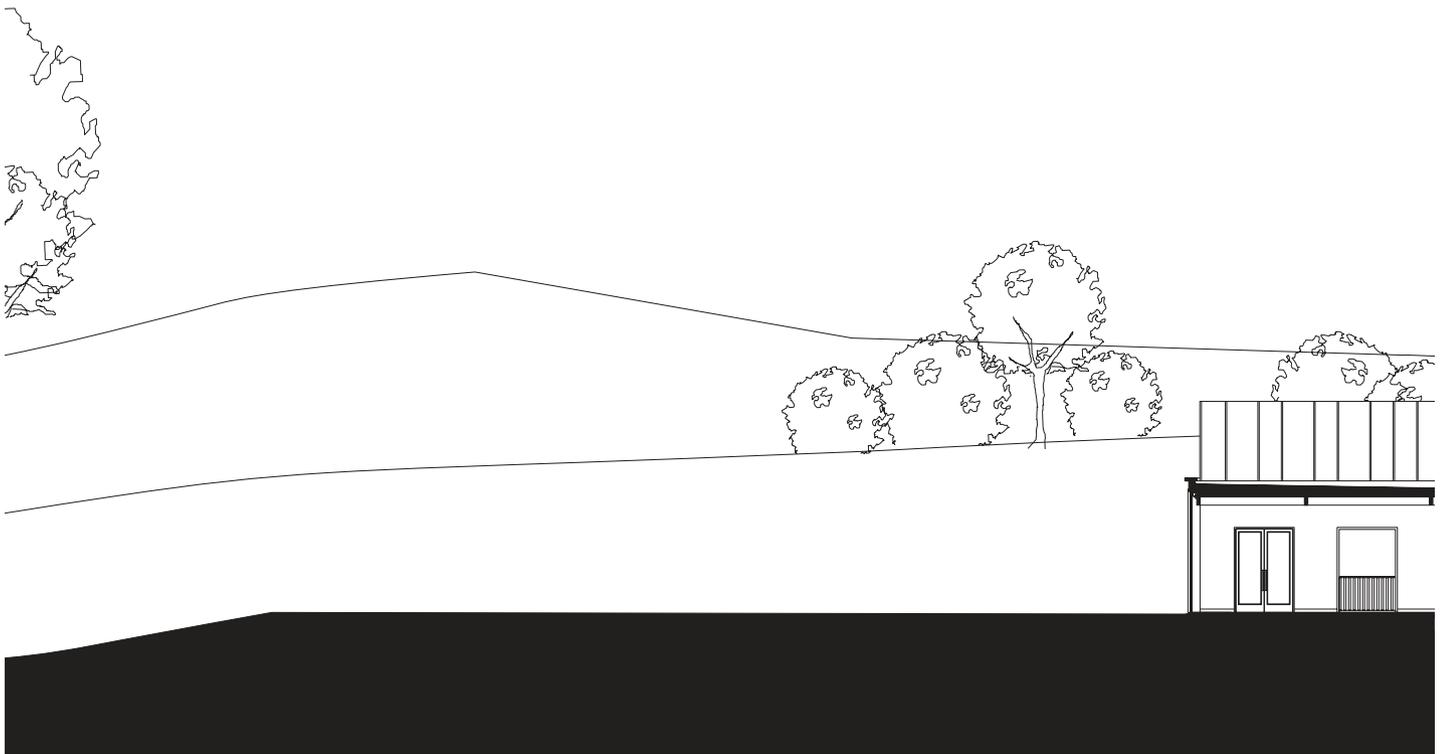
GRP screen

Roof plan





Section A-A



Section B-B



## Working detail

The specification for The Weston's layered, textured concrete walls evolved through the use of trial panels that were tested to achieve the appearance of layered rock strata resembling a slice through millions of years of geological deposits and formations.

We found four key variables affected the visual appearance. First was the quantity of pigment added to achieve the desired colour, and second, the type of aggregate used, of which we selected three local stones – millstone grit, Leicestershire granite and magnesium limestone – which were graded in proportions on the wall, with the hardest, granite, in the lower layers. Aggregate size was the third variable; our trial sizes ranged from 10 to 30mm diameters.

The final variable was the extent of jet washing after formwork is removed.

Light, medium and heavy pressures were tested to scour away different surface depths to expose the larger aggregates in different amounts.

The final specification combined these variables to create a nuanced and natural variation across the wall, evoking weathered bands of sedimentary rock. Large detail drawings of each wall section were drawn to clearly communicate the colour, mix and aggregate exposure to the contractor.

Of the trial walls, four have remained at the contractor's premises in order for this material research to be available to others in the future, and one panel was struck in-situ, forming part of the building's north elevation. This was used as a contextual reference and agreed prototype. The resulting walls have depth, tone and patterns of erosion which tie it back to the millstone grit boulders extracted from the former quarry and surrounding the building.  
*Fergus Feilden, director, Feilden Fowles*

## Performance data

Percentage of floor area with daylight factor >2% N/A

Percentage of floor area with daylight factor >5% N/A

On-site energy generation Nil

Annual mains water consumption Unavailable

Airtightness at 50Pa  $2\text{m}^3/\text{h}\cdot\text{m}^2$

Heating and hot water load  $20.9\text{kWh}/\text{m}^2/\text{yr}$

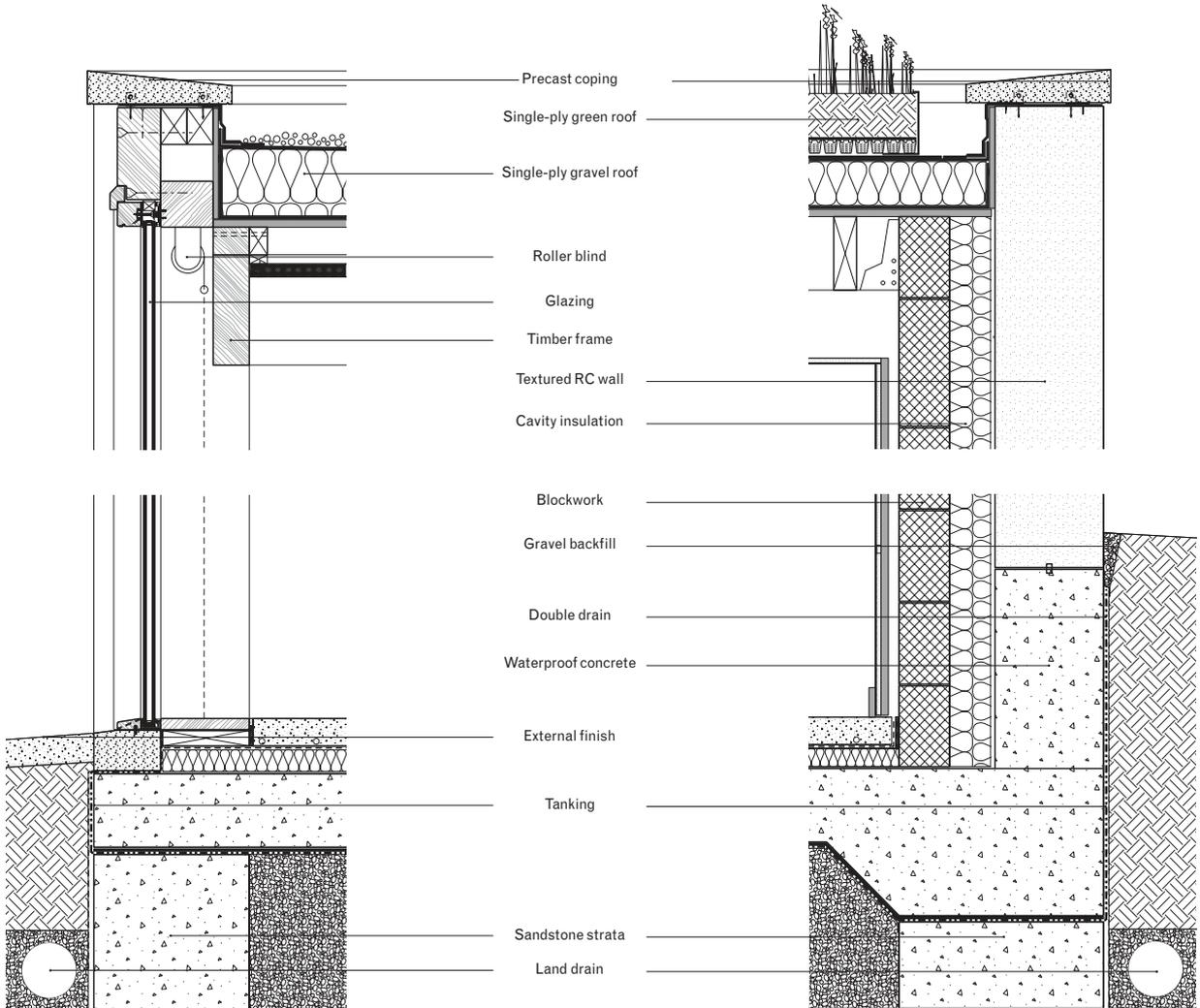
Overall area-weighted U-values

Exterior walls  $0.2\text{W}/\text{m}^2\text{K}$

Roofs  $0.18\text{W}/\text{m}^2\text{K}$

Exterior doors  $1.67\text{W}/\text{m}^2\text{K}$

Exterior windows and glazing  $\text{W}/\text{m}^2\text{K}$



External glazed wall detail section

External concrete wall detail section

0 2m

