

# WilkinsonEyre completes gardening science hub at RHS Wisley

29 JUNE 2021 BY [ROB WILSON](#), PHOTOGRAPHY BY BEN BISEK

WilkinsonEyre has handed over RHS Hilltop, new facilities providing scientific laboratories, public exhibition space, teaching studios and an events hall for the Royal Horticultural Society at its base in Wisley, Surrey

Seventy RHS scientists and students will be based at the centre, which is surrounded by four acres of science gardens. These comprise a health and wellbeing garden outside the main entrance, a west-facing world kitchen garden and an east-facing wildlife garden. They were designed in detail by Matt Keightley and Ann-Marie Powell and form part of a masterplan by Christopher Bradley-Hole.

The building takes the form of a pair of two-storey concrete and steel-framed wings, which splay into the different gardens, maximising visual connections between indoors and outdoors. The east wing is dedicated to the laboratories and library collections, while the west wing accommodates more public-facing facilities, including educational activities.



The wings are clad in sustainably sourced and naturally weathering sweet chestnut timber, and the first-floor window frames protrude from the timber cladding to provide solar shading. The wings are connected by a double-height glazed public exhibition space, which features a pitched roof clad in standing seam metal with a cantilevered entrance canopy marking the entrance.

More than 86,000 herbarium specimens, 24,000 insect specimens, and 28,000 books, periodicals and other literature charting more than half a millennium of gardening history are now housed at the centre, some artefacts dating back five centuries.





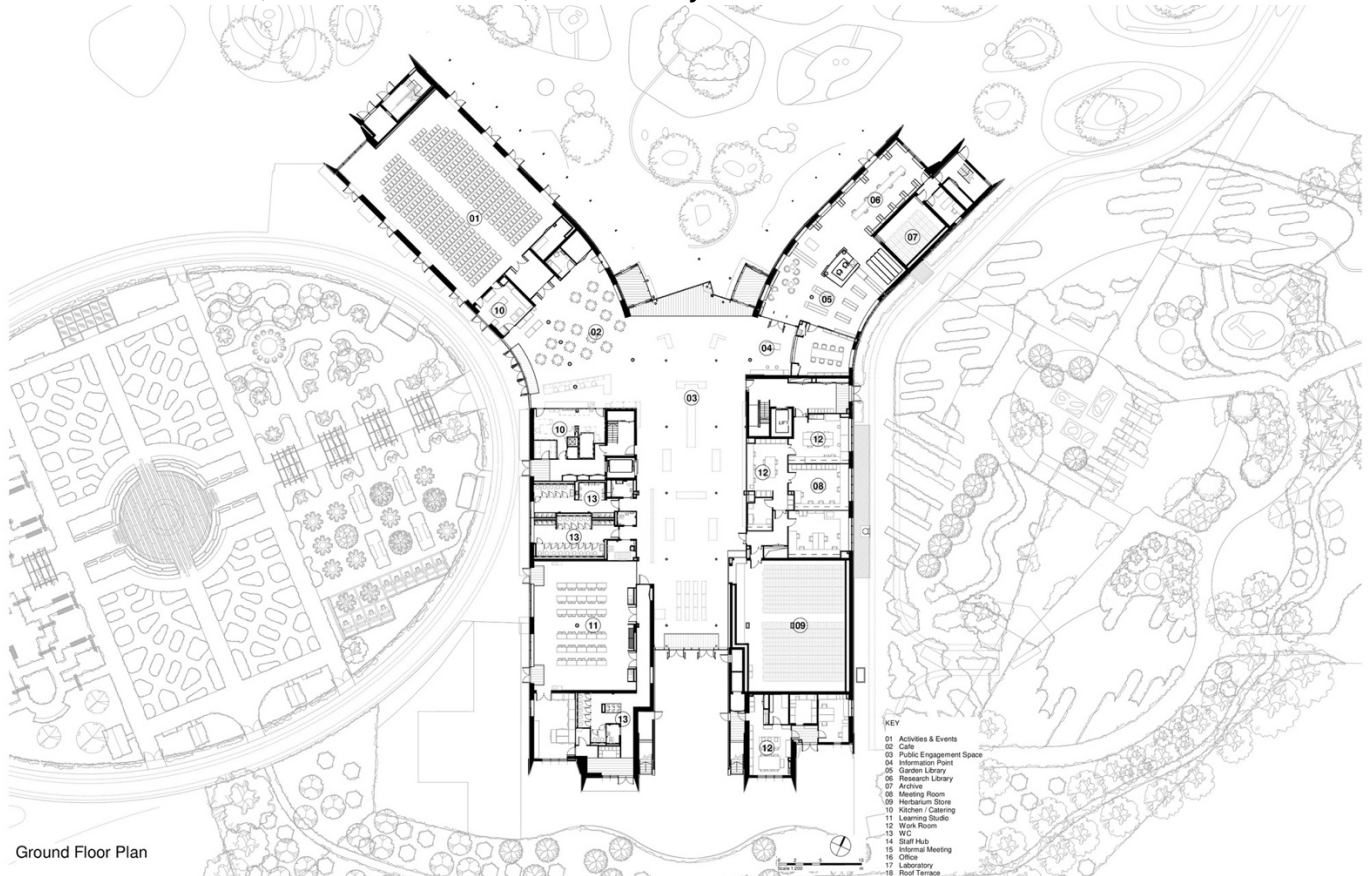
The research taking place at the centre addresses some of today's biggest climate challenges, exploring topics such as finding the best plants to soak up pollution, ease localised flooding, capture carbon and cool cities, as well as how gardening can be used to boost wellbeing and enable wildlife and plants to flourish.

The project forms part of a wider five-year transformation of the 97ha site at RHS Garden Wisley, which was awarded £4 million in National Lottery Heritage Funding.



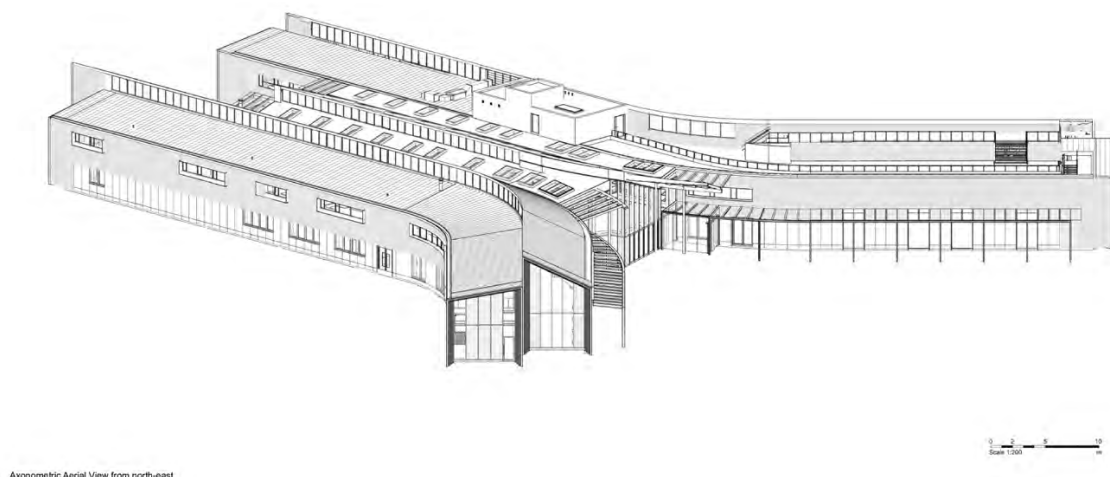
## Architect's view

The new centre is designed to integrate with the working gardens and provide a central hub for the scientific community based at RHS Garden Wisley and the million plus visitors that come each year. We hope it provides optimum facilities for the vital work taking place and inspires even greater public engagement with the world of horticultural science and its importance for a greener future. *Geoff Turner, associate director, WilkinsonEyre*



## Client's view

Creating a building that not only provides state-of-the-art facilities for our scientists but also delivers an incredible new public engagement experience is no mean feat, and we could not have found a better partner to help us realise our vision than WilkinsonEyre. RHS Hilltop is a significant legacy project for the RHS and for UK horticultural science, and we know that it will stand the test of time as a space of great architectural merit as well as safeguarding vital RHS collections and research for generations to come. *Andrew Jasper, RHS programme director, Wisley*



# Project data

**Start on site** March 2019

**Completion date** November 2020

**Gross internal floor area** 4,750m<sup>2</sup>

**Gross (internal + external) floor area** 5,300m<sup>2</sup>

**Form of contract or procurement route** Two-stage Design and Build

**Construction cost** Building £26 million (building), £35 million (building and gardens)

**Architect** WilkinsonEyre

**Client** Royal Horticultural Society

**Structural engineer** Michael Barclay Partnership

**M&E consultant** Skelly & Couch

**QS** Synergy

**Landscape masterplan** Dan Pearson/Bradley-Hole Schoenlch

**Garden designers** Ann-Marie Powell, Matt Keightley

**Accessibility and inclusion consultant** CAE

**Fire engineer** Socotec

**BREEAM** MLM

**Interpretation designer** Agenda Design

**Interpretation contractor** The Hub

**Catering consultant** Keith Winton Design

**Acoustic consultant** Sandy Brown

**Project manager** Synergy

**Principal designer** PFB Construction/MLM

**Approved building inspector** Dunwoody

**Main contractor** Osborne

**CAD software used** Revit

# Environmental sustainability data

**Percentage of floor area with daylight factor** 100% (atrium and events space only)

**Percentage of floor area with daylight factor** Not available

**On-site energy generation** 2.07 kWh/m<sup>2</sup>/yr

**Annual mains water consumption** Not available

**Airtightness at 50Pa** 4.54 m<sup>3</sup>/h.m<sup>2</sup>

**Heating and hot water load** 23.28 + 58.28 kWh/m<sup>2</sup>/yr

**Design life** 60 years

**Embodied/whole-life carbon** Not calculated

**Annual CO<sub>2</sub> emissions** 28.2 kgCO<sub>2</sub>eq/m<sup>2</sup>



# GALLERY: RHS Wisley HILLTOP



1/35 Source: Chris Gorman



2/35





3/35



4/35



5/35





6/35



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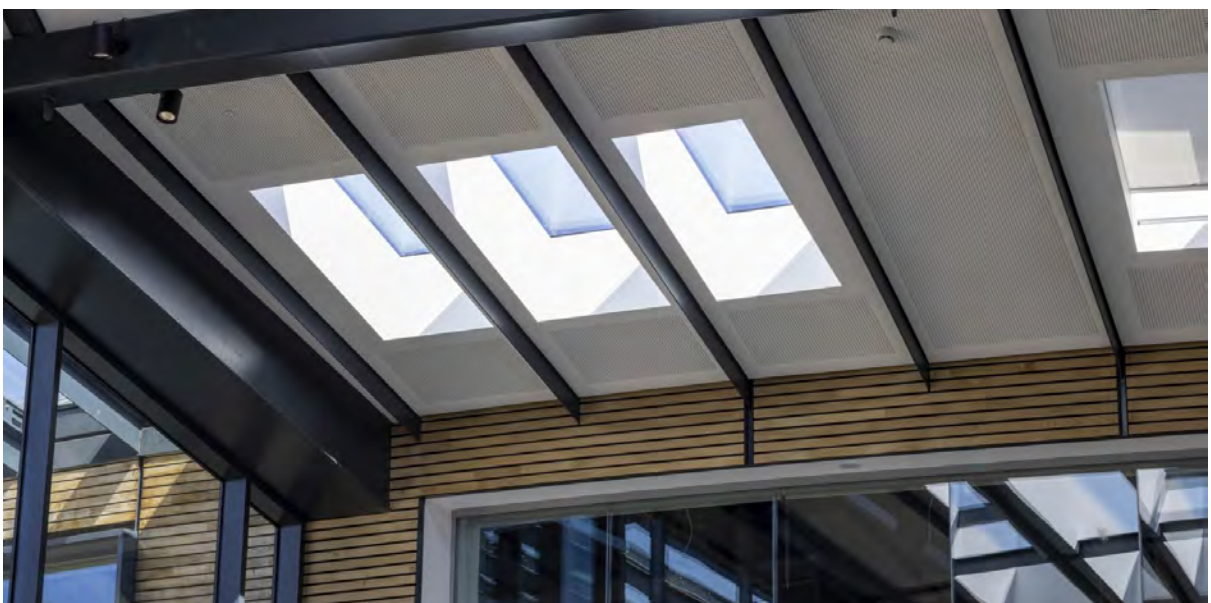




18/35



19/35



20/35





21/35 Source: Paul Debois

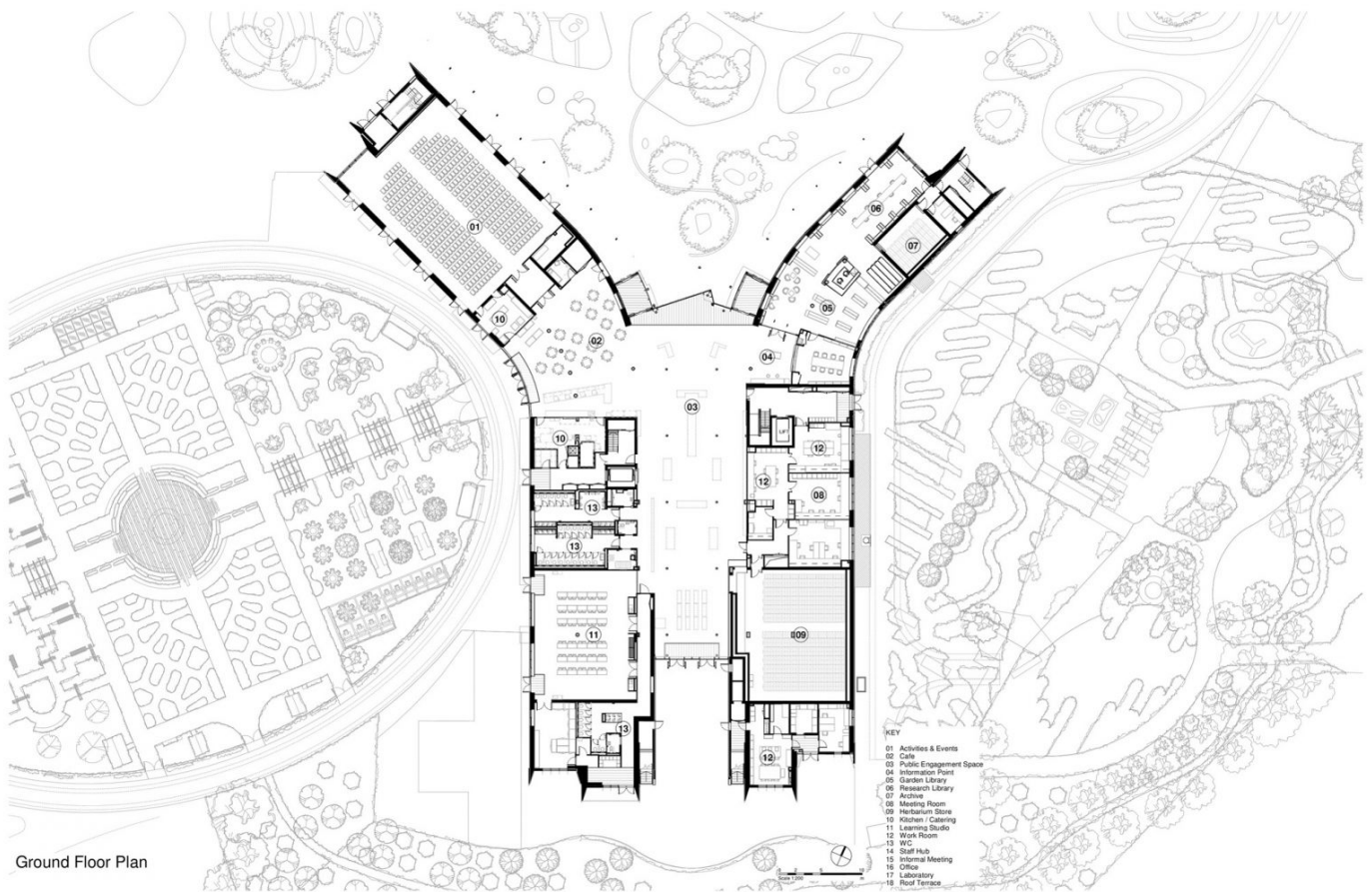


22/35 Source: Paul Debois

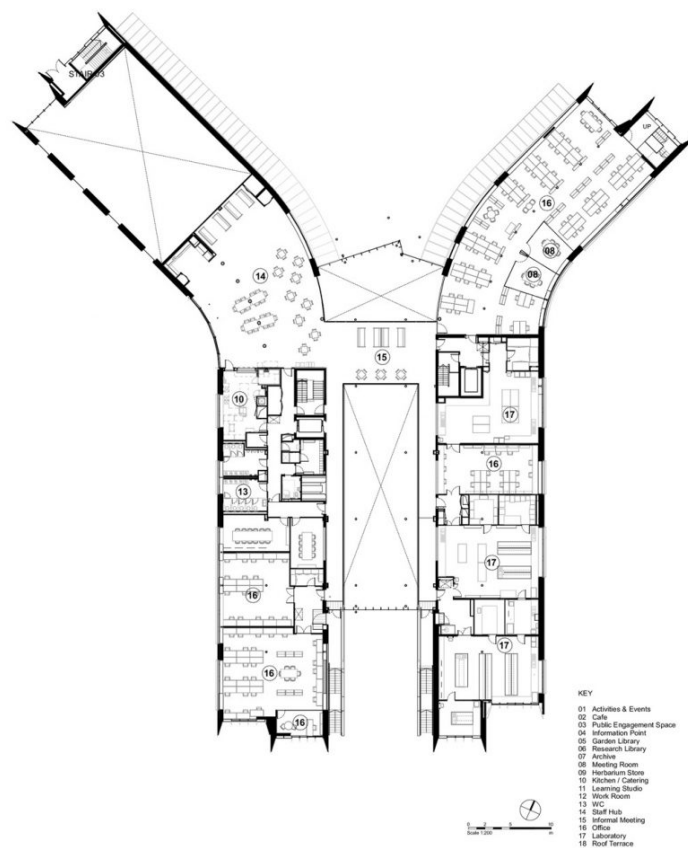


23/35



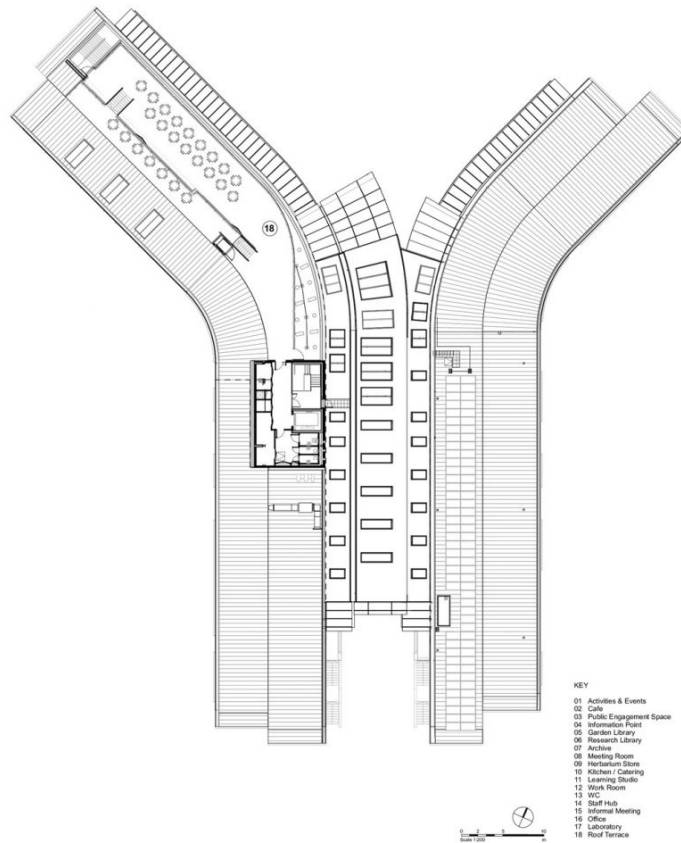


24/35 Ground floor plan Source: WilkinsonEyre



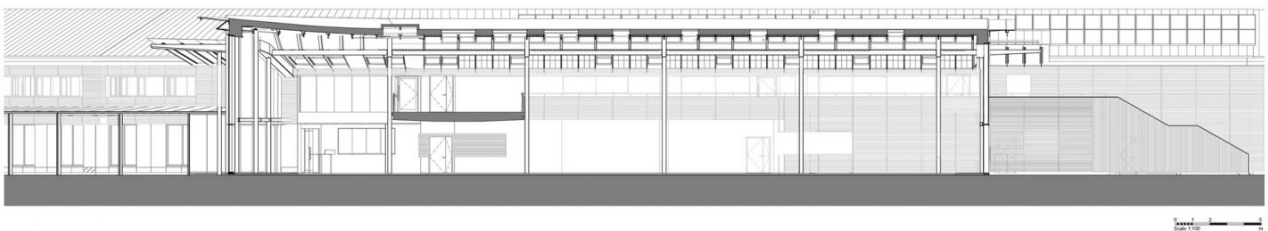
25/35 First floor plan Source: WilkinsonEyre





Roof Plan

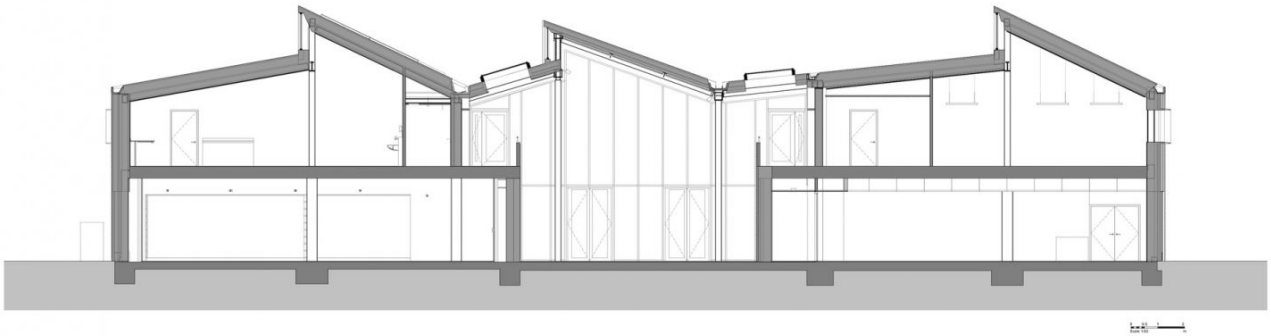
26/35 Roof plan Source: WilkinsonEyre



Long Section through Public Engagement Space

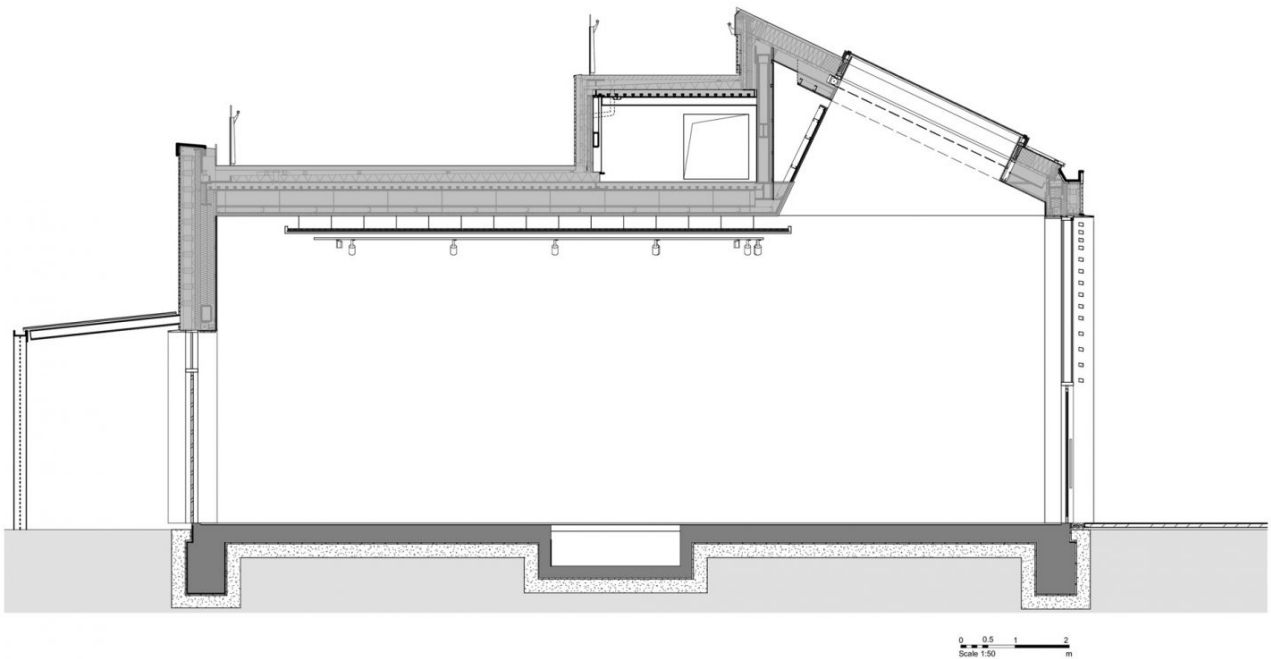
27/35 Section through public engagement space  
Source: WilkinsonEyre





Section through central space, east and west wings

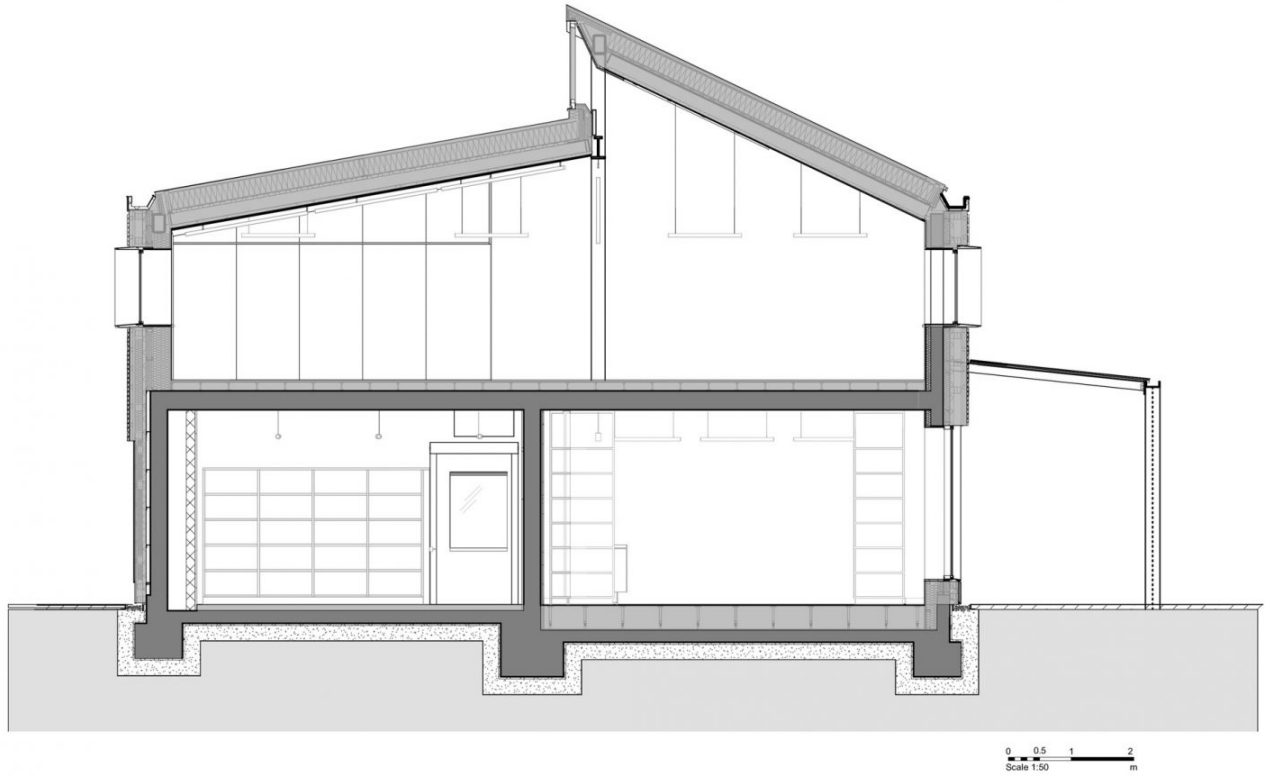
28/35 Section through central space and east and west wings  
Source: WilkinsonEyre



Section through Events Hall in north-west wing

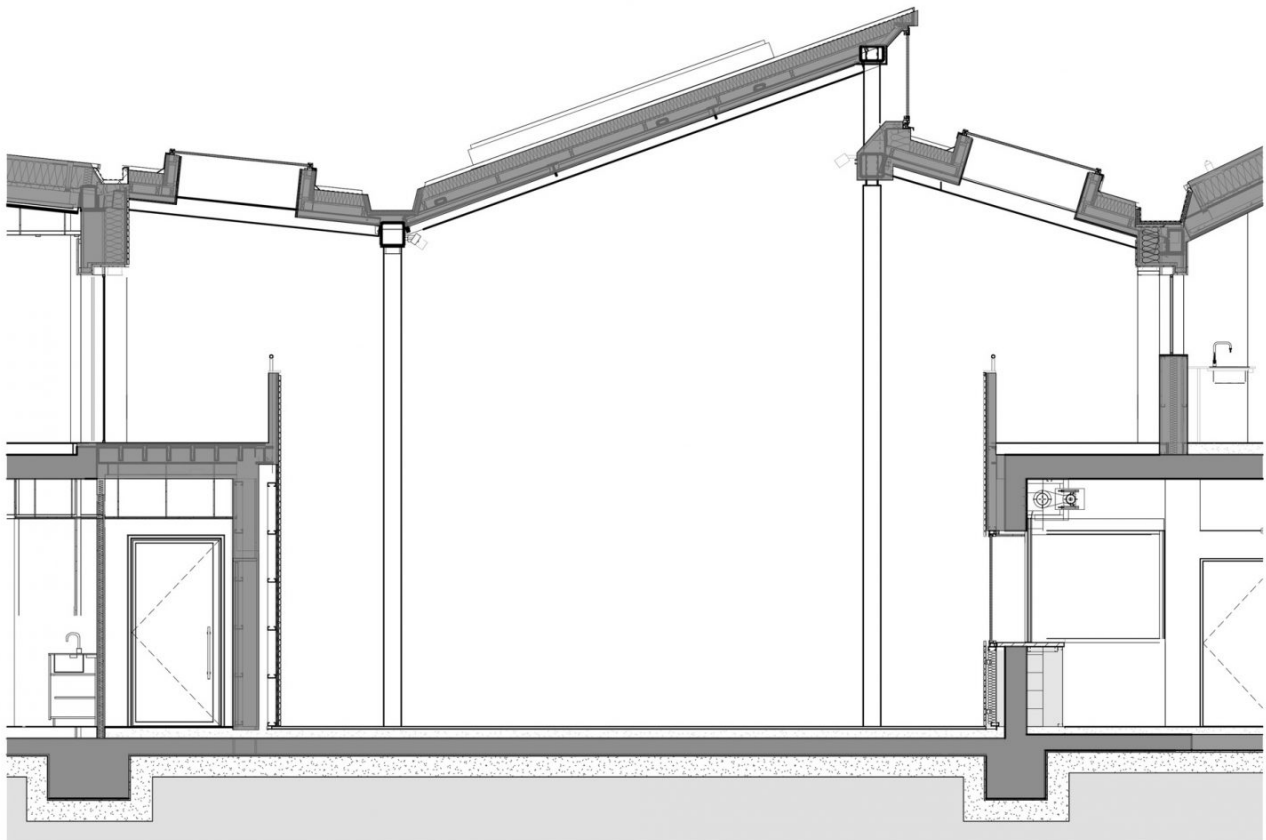
29/35 Section through events hall  
Source: WilkinsonEyre





Section through Library and Office in north-east wing

### 30/35 Section through library and office

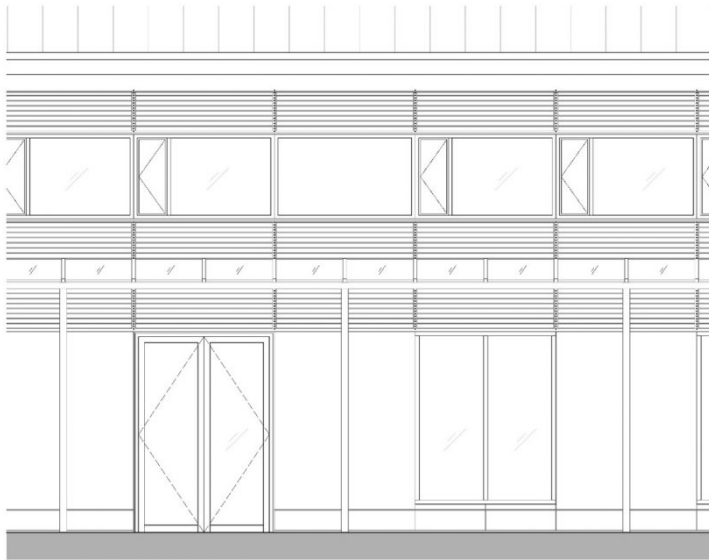


Section through central Public Engagement Space

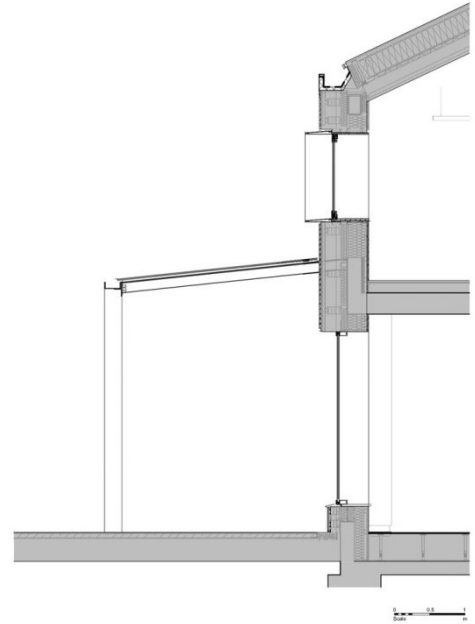
### 31/35 Section through central public engagement space

Source: WilkinsonEyre

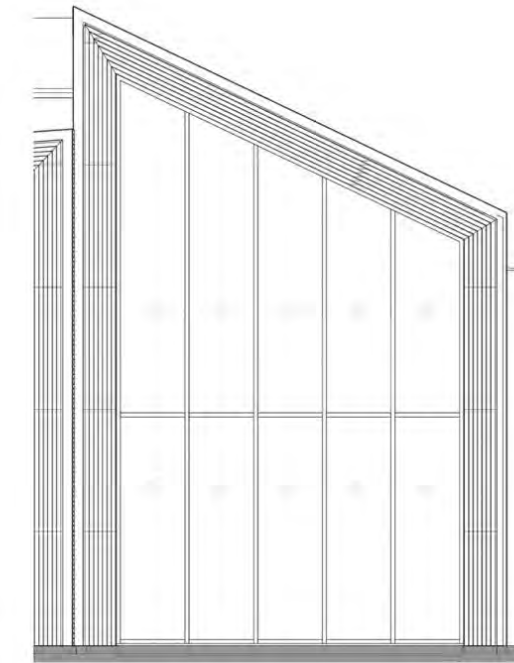




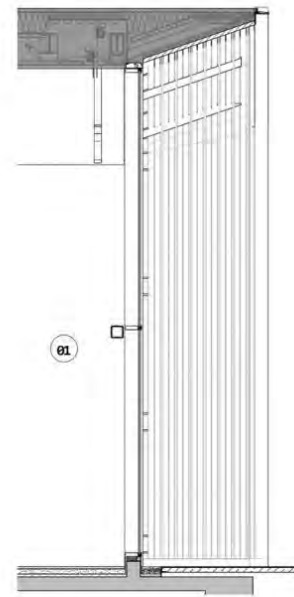
Typical Bay of Façade in north-east wing



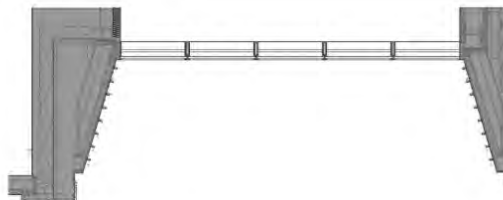
### 32/35 Façade bay elevation and section



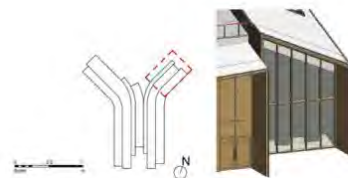
2 WEST WING NORTH GABLE END ELEVATION  
1:25



3 WEST WING NORTH GABLE END SECTION  
1:25

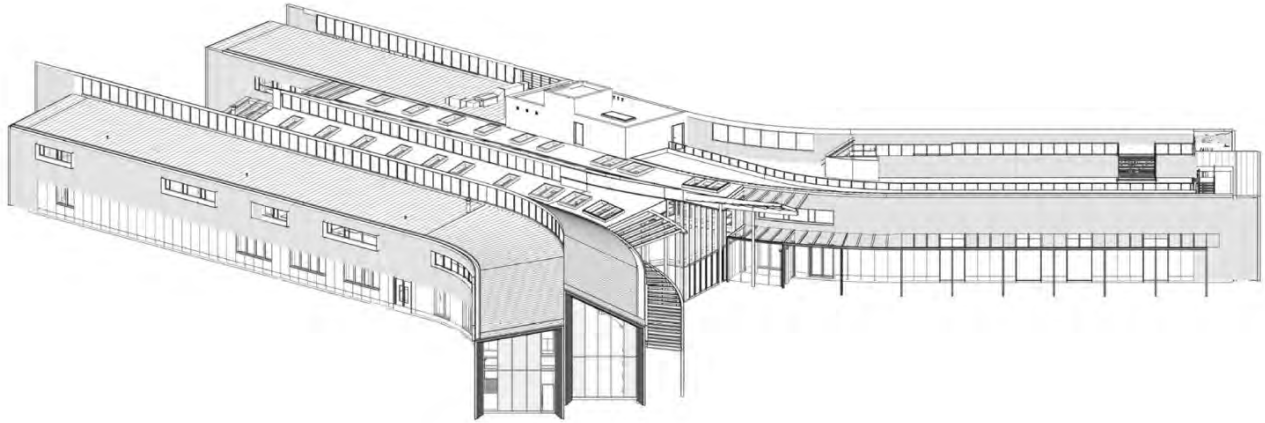


1 WEST WING NORTH GABLE END PLAN  
1:25



Details of Gable End to north-west Wing

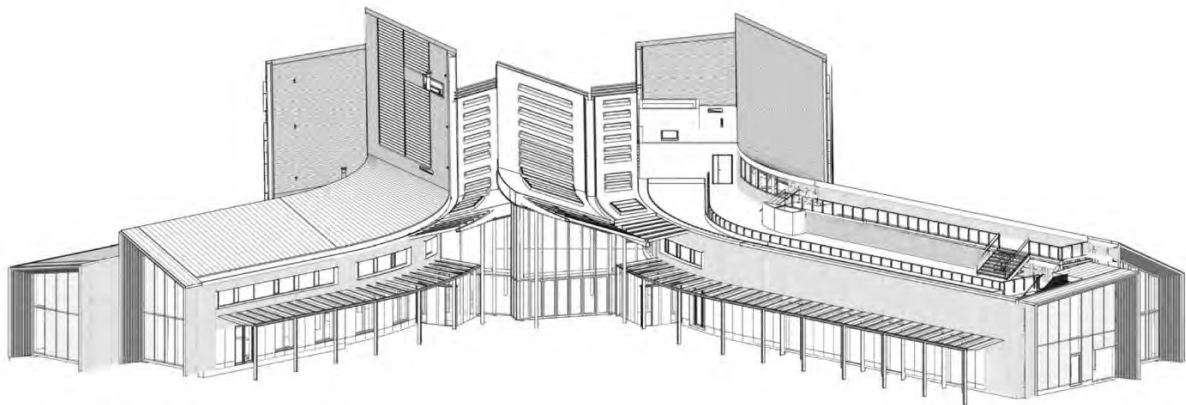
### 33/35 Gable end elevation, section and pan



0 2 4 6 8  
Scale 1:200  
m

Axonometric Aerial View from north-east

34/35 Axonometric  
Source: WilkinsonEyre



Axonometric Aerial View from north

35/35 Axonometric  
Source: WilkinsonEyre