7.0

The Building

7.1 Adaptive Re-Use

7.1.1
Retaining the Ruskin Building's Facades

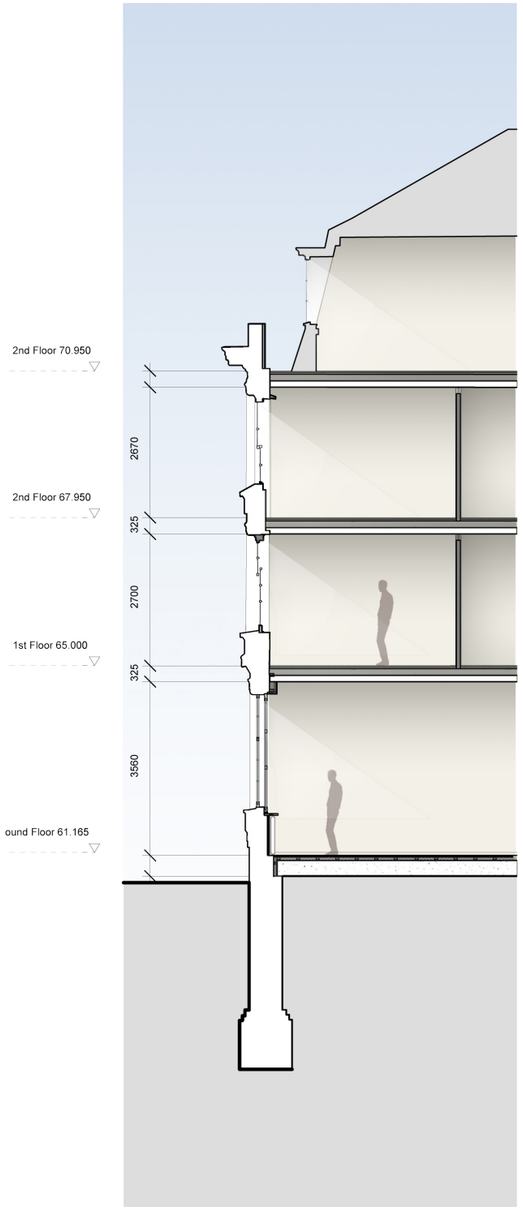
Further to a full conditions survey and conservation assessment, in-depth studies by all members of the design team produced a detailed analysis of the constraints and opportunities presented by the existing building fabric. The need for a fully accessible and environmentally sustainable building led the team to a solution that requires the full reconstruction of the Ruskin Building, save its primary facades.

The factors leading to this conclusion included:

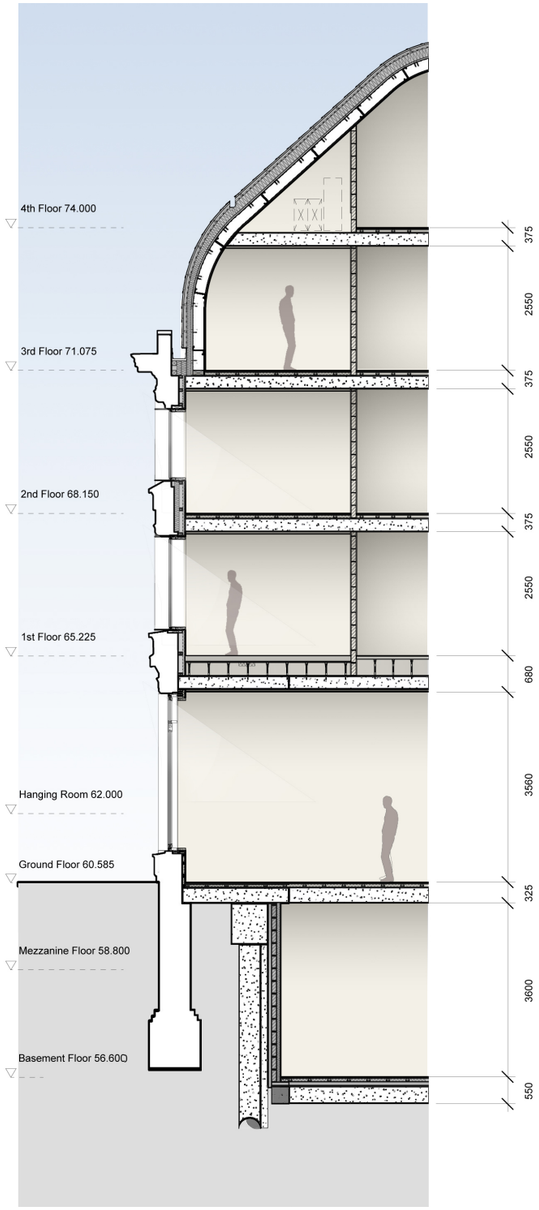
- The need to lower the ground floor structure for level disabled access to the entire building
- Poor quality of natural light and ventilation to all public spaces and student rooms
- No en-suite facilities for student rooms
- Non compliant corridor widths, constrained by the 1913 structure
- Non compliant stairs without wheelchair refuges, constrained by the 1913 structure
- Non compliant Fire Escape and smoke venting provision
- Inefficient internal space planning
- Poor quality internal finishes without historic significance
- Existing substation at basement level requiring total replacement

Analysis by structural consultants Stockley have proven that structural alterations required to adapt the existing Ruskin College building to the resolve the issues outlined above would make the existing cast iron and concrete filler joist structure non-viable.

Proposed Walton Street Elevation



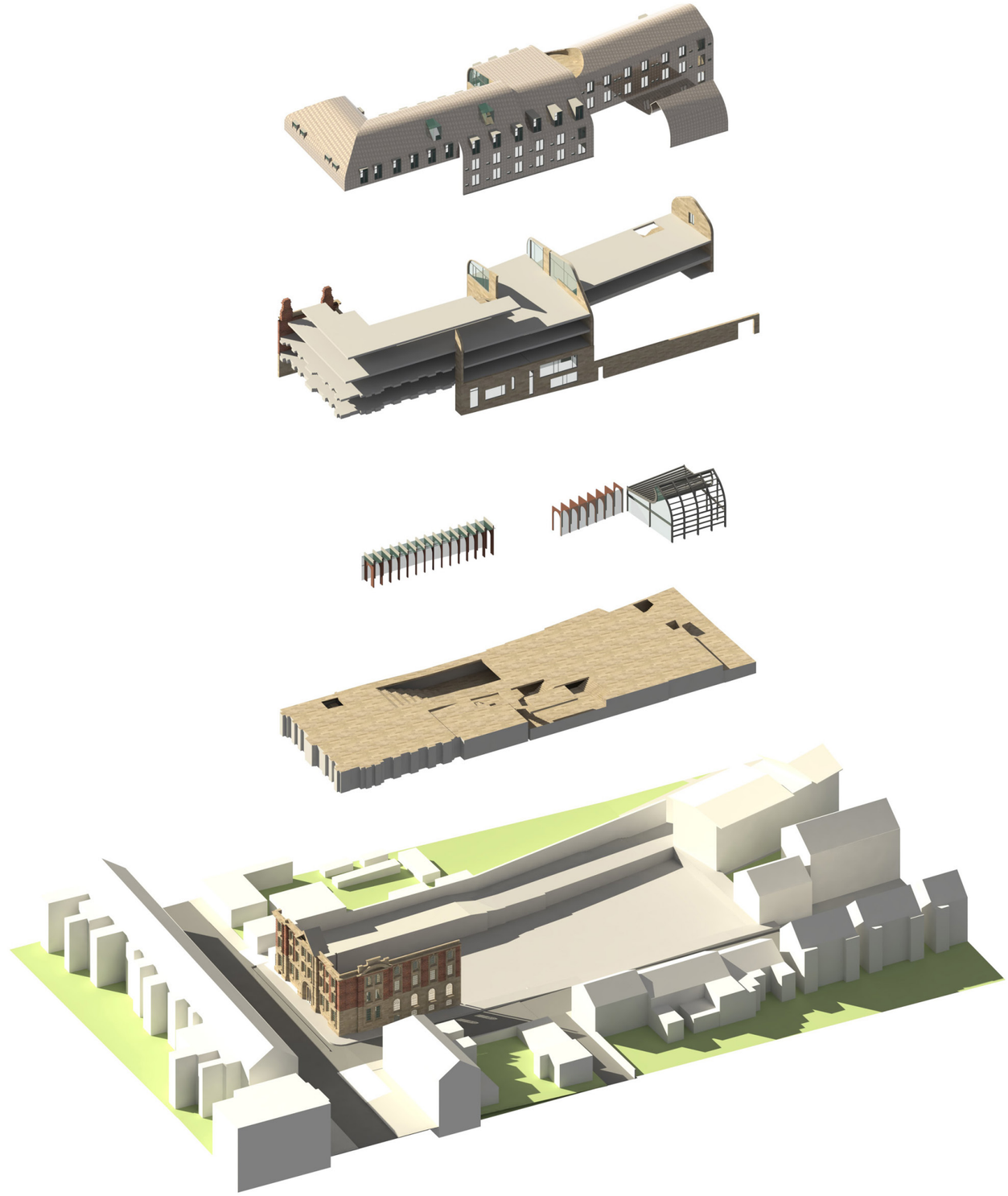
Existing Section Through Walton Street Elevation



Proposed Section Through Walton Street Elevation

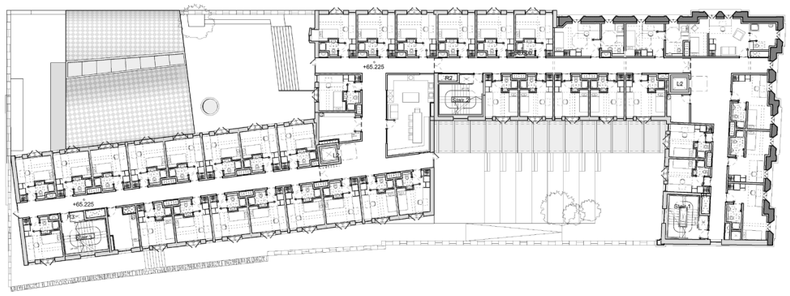
7.1.2
Retained Façade - A new Layer of Meaning

To ensure the significance of the Ruskin Building is maintained at the site, our proposals retain the primary street façades of the 1913 building, reconstructing the internal fabric of the building in a manner that closely reflects the current arrangement of rooms while providing a robust and significantly more sustainable building fabric for the long term use of the College.

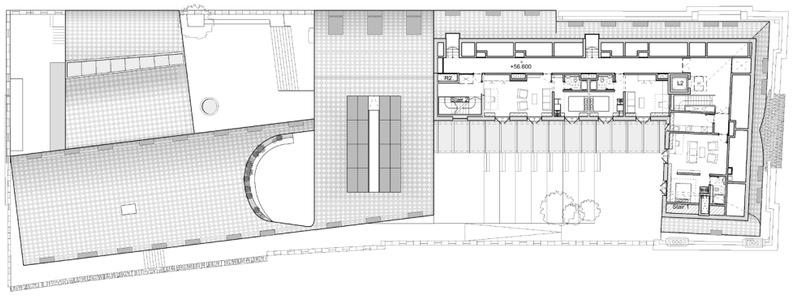


Exploded isometric of building layers

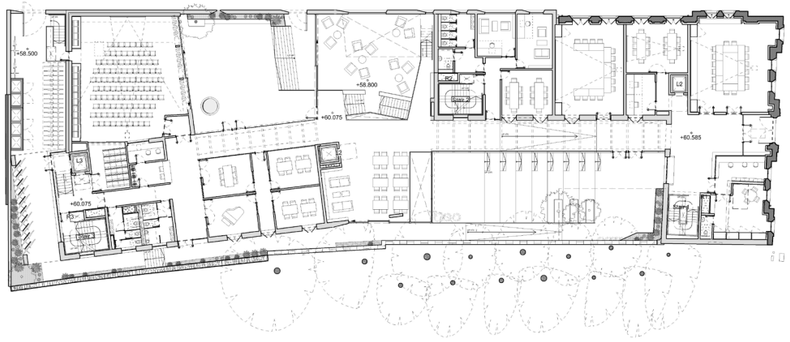
7.1 Floor Plans



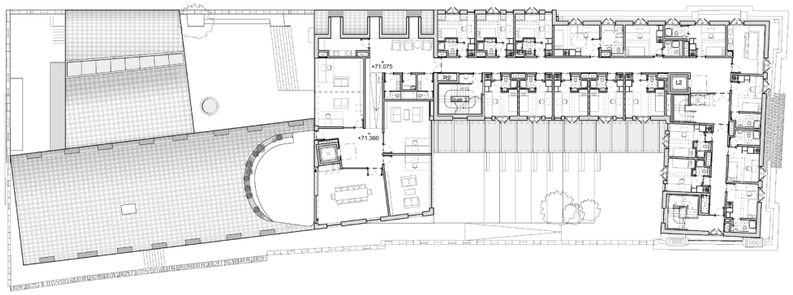
First Floor Plan



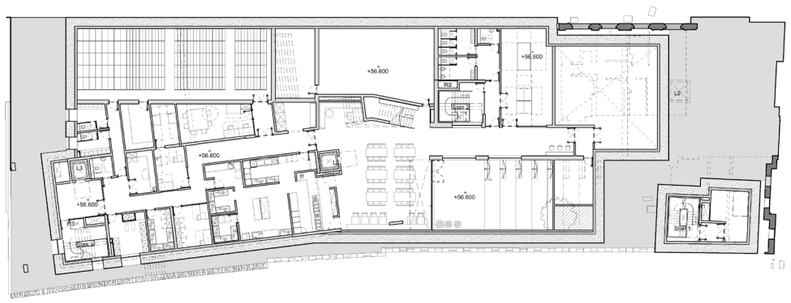
Fourth Floor Plan



Ground Floor Plan



Third Floor Plan

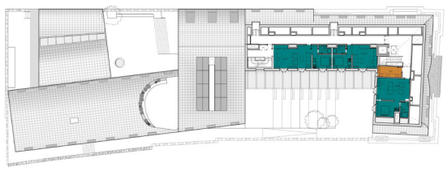


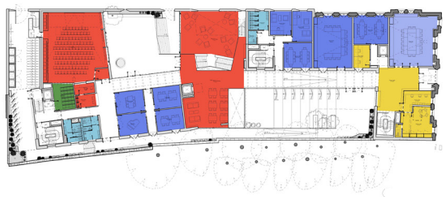
Basement Floor Plan

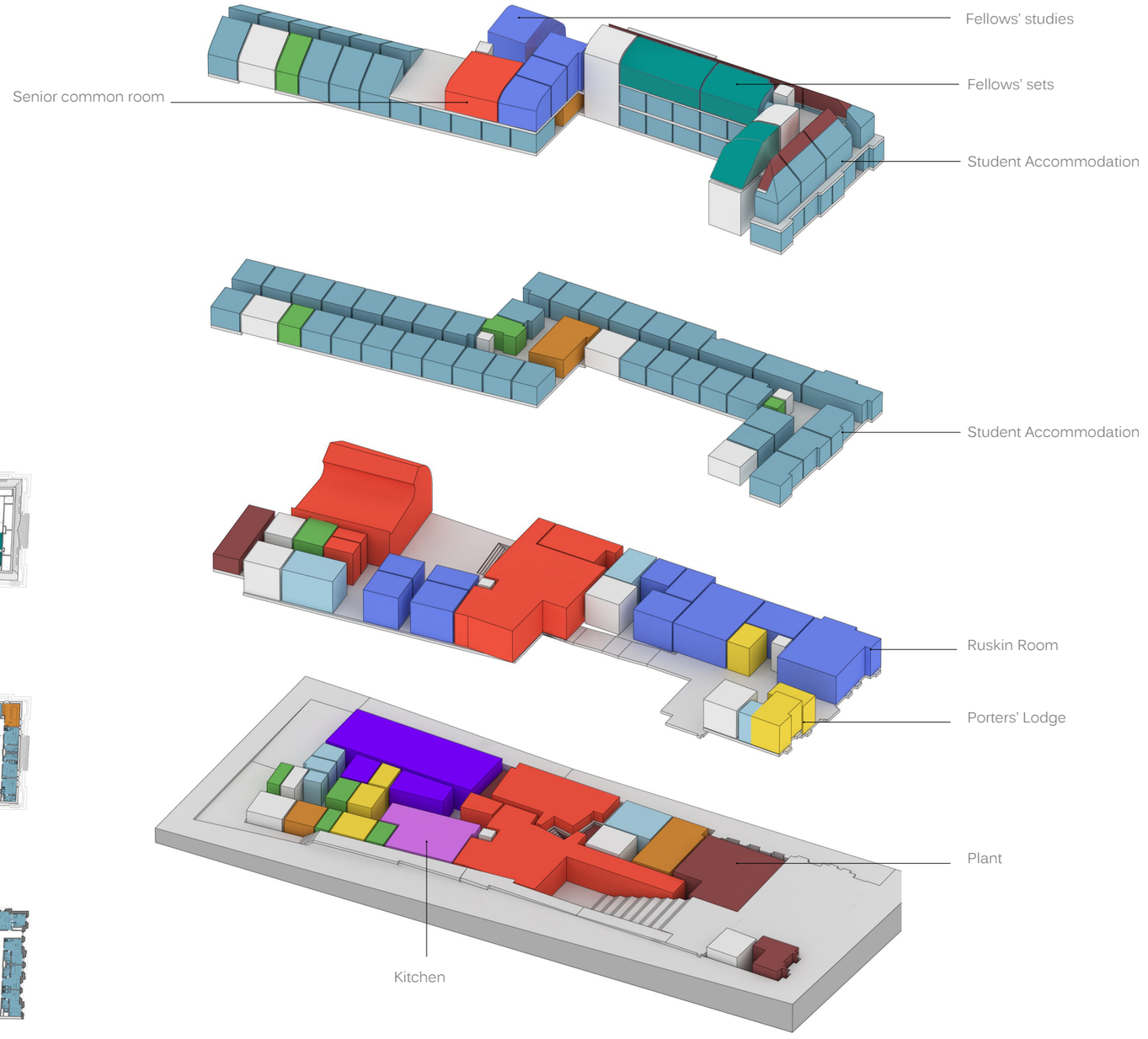
Second Floor Plan

The following diagrams serve to illustrate the distribution of the building programme throughout the building and identify key brief areas.

- ADMIN
- PUBLIC
- FELLOWS' ACCOMMODATION
- STUDENT ACCOMMODATION
- TOILETS
- PLANT
- CIRCULATION
- ARCHIVE
- KITCHEN
- STORAGE
- TEACHING ROOMS
- STUDENT ANCILLARY







7.2 Materials

7.2.1
Primary Building Facades

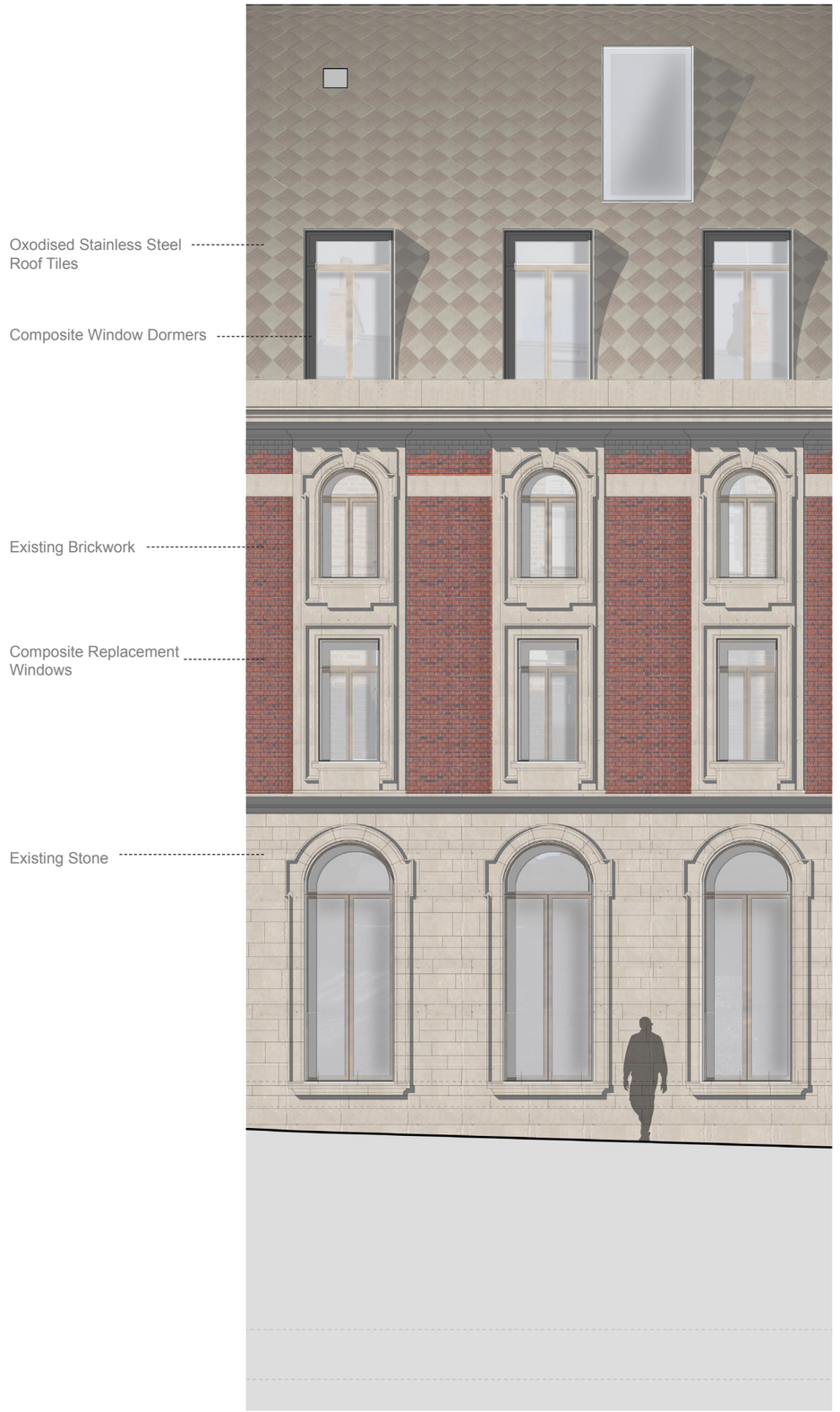
Exterior cladding materials for the new Walton Street site have been selected to refer specifically to Exeter College's central Oxford Quad, while complementing the Ruskin building's palette of dark red brick and dressed stone. The primary flooring and cladding material will be of ashlar stone, potentially sourced locally from the Bath Stoke Hill Mine.

7.2.2
Roof

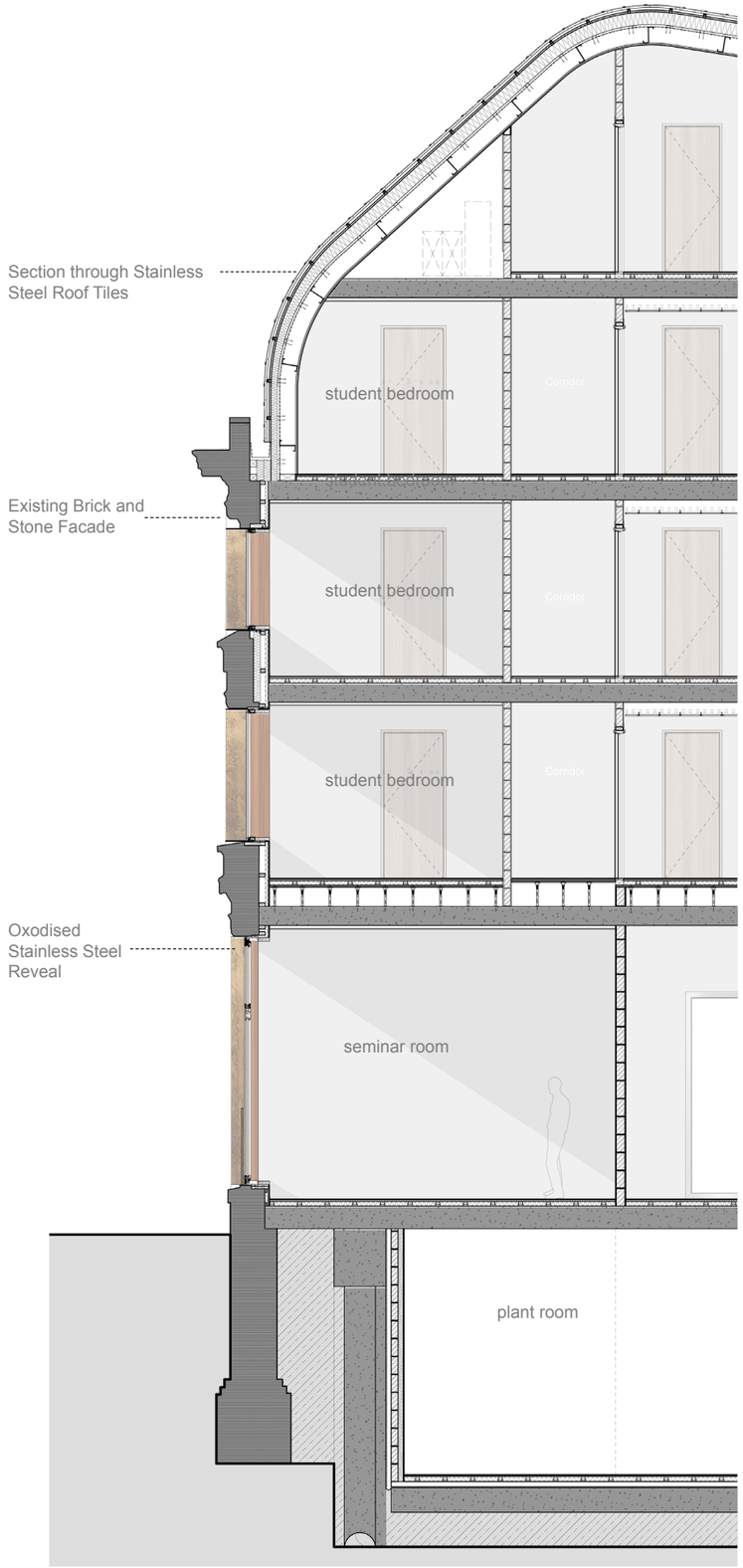
Our roof material and pattern is inspired by the leaded latticework of the Exeter Chapel Spire, and the flamboyant mosaic tiling of the College Chapel, translated into a contemporary metal cladding material suited to curved surfaces. We have illustrated an oxidised stainless steel tiling system, set in a rhomboid pattern. This material would soften and patinate over time like Oxford's many famed coppered roofs and spires.

7.2.3
Interior

Interior materials would be limited to a palette of timber joinery, stone and porcelain tiles: durable and timeless materials that grow more beautiful with age. Timber in particular should be treated as a primary finish material. Prime consideration will be given to hard-wearing low maintenance interior fittings, particularly with respect to Student Rooms, WCs and Kitchens. Alison Brooks Architects' experience in both hotel and residential design at every end of the spectrum will serve the College well in addressing these issues of cost and quality detailing through design and detailing stages.

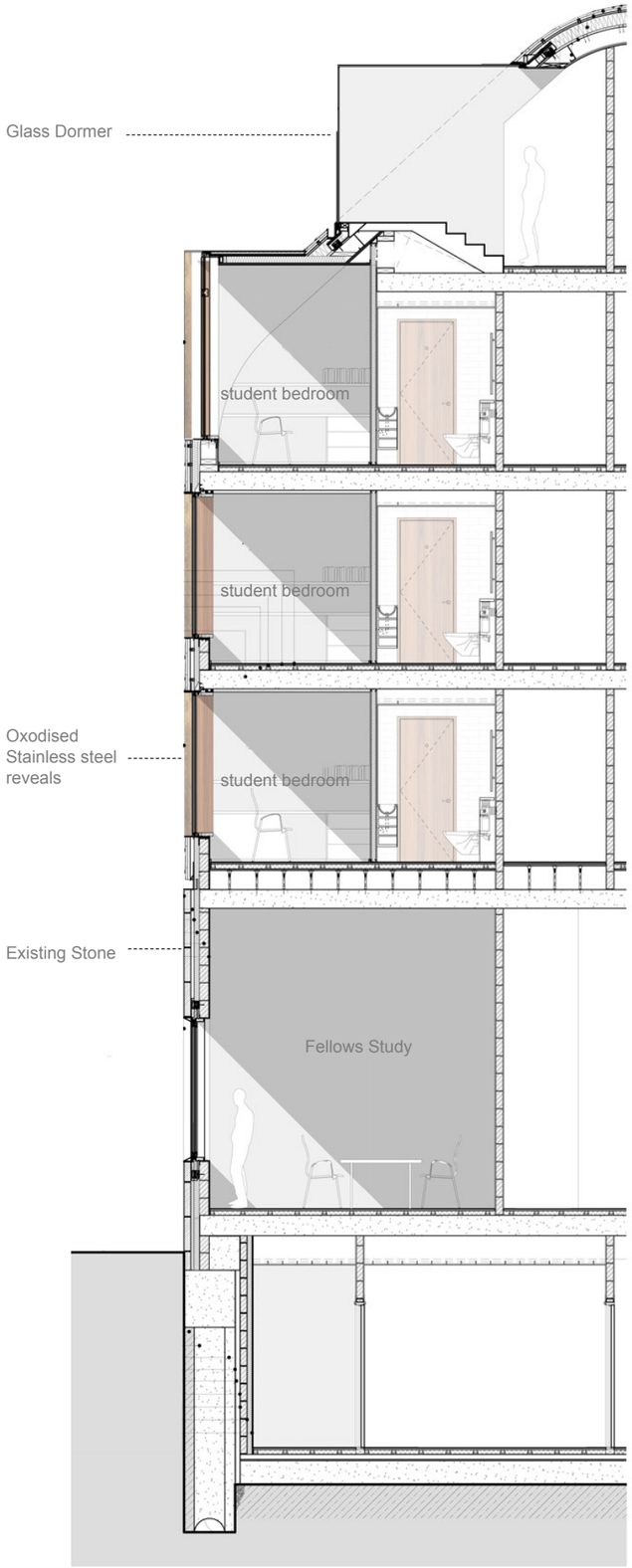


Walton Street Elevation

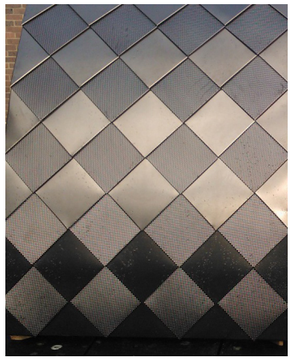


Section through Walton Street Elevation

Worcester Place Elevation



Section through Worcester Place Elevation



patinated stainless steel roof tiles

nautral stone walling

cherry wood

exposed concrete soffits

7.3 Windows

7.3.2 Window Performance: Thermal, Acoustic, Usability and Ventilation

The retained facades of the 1913 Building will be cleaned and restored, and new casement windows installed to provide greater thermal and acoustic performance. These windows will be composite windows, timber internally and bronze coated metal to the exterior. These are the highest quality windows on the market today.

The new window designs will provide better lighting and natural ventilation to the public spaces on the ground floor as well as the student rooms. The lowering of the ground floor windows to reflect the new proportions of the interior public spaces will both improve the quality of the public realm and represent the building's new accessibility.

Along with the new roof, the new metal and timber windows can be seen as adding a new layer of meaning representing both Ruskin's heritage and Exeter College at the Walton Street site.

Section through existing Ruskin Building ground floor windows

Section through proposed Ruskin Building ground floor windows

Walton Street View

7.3.3
A Dialogue Between old and New

The new Exeter College Quad at Walton street will be a more open and inviting building, providing greater access to the rich history of Ruskin College that will be celebrated with key artifacts and installations throughout the quadrangle.

We believe that the retention of the Ruskin Building facades and insertion of new windows do not cause unacceptable “harm or loss” to the building. As we have explained above, the historical significance of the Ruskin building does not adhere in the quality of its interior design or the quality of architectural composition as seen from the street, but is significant in its representation of Oxford’s social history. We are confident that our new layers of intervention on the site will mean that Exeter’s development will make a more positive contribution to the Conservation Area than the present ensemble. We are adding architectural layers for the future, but these layers are also in dialogue with the historic urban context of this important area of Oxford.

8.0

Landscape

8.1 Landscape

The landscape proposals deal with the newly created North and South Quadrangles, service lane, improved Worcester Place highways alterations and ambulatory walkway around the building.

North Quad

The North Quad sits in between the lecture hall and the learning commons, offering direct access out into the open space. The quad is completed by a high stone wall along Worcester Place and to the south by the north cloister.

A south facing planter, 450mm high, with an incorporated bench runs along the base of the stone wall to Worcester Place. The planter will be decorated with autumnal canopy of mid height *Rhus Typhina (Staghorn Sumach)* and evergreen *Tracheloperum*. The quad will be paved in Bath Stone pavers.

The extended foot path along Worcester Place in front of the North quad will accommodate cycle racks with three medium high *Hawthorn Trees*, providing added greenery to Worcester Place.

South Quad

The South Quad adjacent to the south cloister connects the lower learning commons (café space), the south cloister and the Porters Lodge. The open air amphitheatre staircase provides spaces for gathering and college activities.

The south quad similarly to the north quad has added foliage in the form of three flush planting beds with medium height *Hawthorn Trees* at the top of the steps and potted Japanese Maple trees at the bottom of the quad providing autumnal colours. The walls to the quad are covered in climbing *Hera Pastuchovii,* providing evergreen foliage.

The quad faces south, but is shaded by the existing evergreen *Holm oaks trees* belonging to Worcester College. The ongoing sustainability of these trees requires careful consideration and planned maintenance to manage their long-term vigor, health, and shape.

The southern boundary to the south quad (green corridor) which leads round the building to the service lane and cycle storage area will contain self clinging climbers to the new stone wall.

Roof Terrace

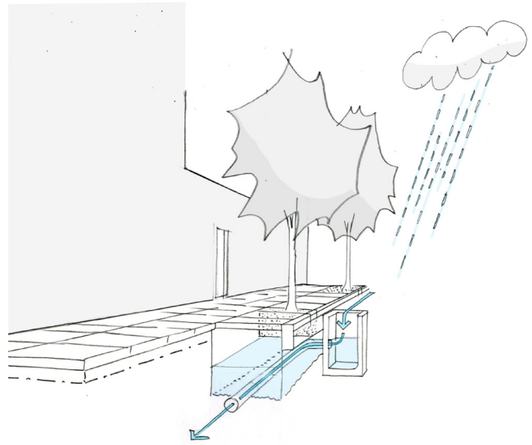
The scooped out architectural form of the roof terrace ‘holds’ a south-facing planter with an integrated bench that follows the tapering roof line.

The roof terrace will be planted with green olive vines and fig plants.

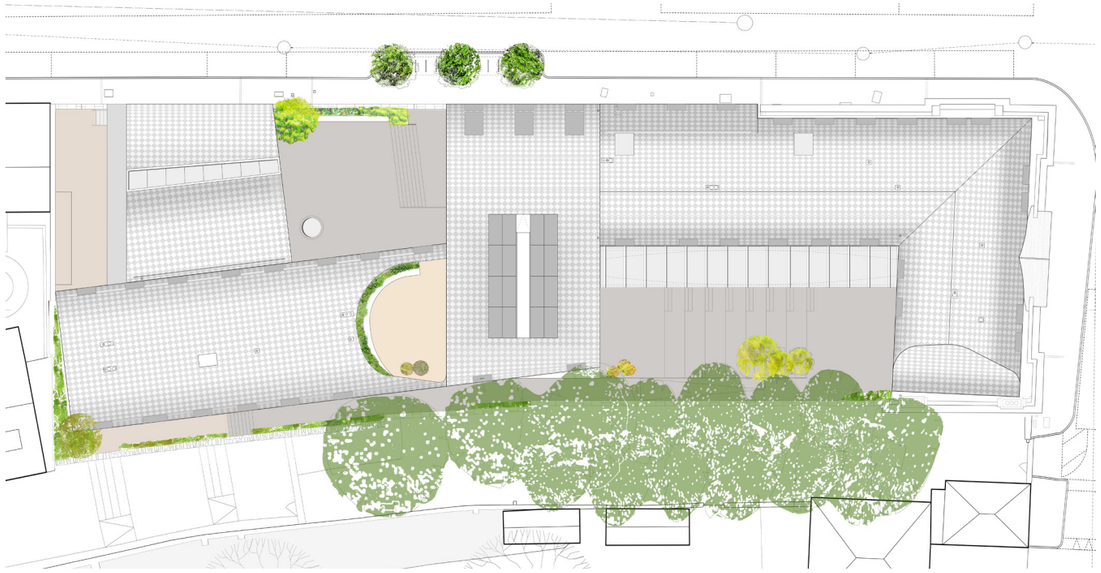
Ground Floor Landscape Plan

South Quad Section

South Quad



Irrigation System Worcester Place



Roof Landscape Plan

Surfaces

Natural stone slabs, facings and solid sleeper steps elevate the materiality throughout both the quads and unify the internal stone floor finish with the external. The rear service lane will be finished with serviceable and continuous resin bound gravel that runs around to meet the steps of the green corridor which will be paved in natural stone.

South Passage_ Green Corridor

A passage leads from the South Quad to the southwest corner and bicycle parks. This access improves circulation, and with the walls and margins planted, it provides attractive views from the suite of adjacent rooms.

The narrow width is maintained free of obstruction by employing deciduous self-clinging climbers held flat to the walls and a selection of tough dry-shade adapted plants to bolster the edges.*Hydrangea petiolaris* (Climbing Hydrangea) has an arterial system of paper-barked stems that break out with soft green foliage in spring and white lace-cap flower in the early summer. *Parthenocissus henryana* (Chinese Virginia Creeper) has a more elaborate winter tracery across the wall, clings with suckering feet, and the distinctively marked summer foliage turns from plum to a vivid autumn red.

The arid and shady slip of planting space at ground level is threaded with a tapestry of well-adapted perennials; *Viola riviniana* ‘Purpurea’ (Dog Violet), *Euphorbia cyparissias* ‘Fen’s Ruby’ (Cypress Spurge), *Epimedium sulphureum* (Barrenwort), *Euphorbia robbiae* var. *robbiae* (Wood Spurge), and assorted hart’s tongue and male ferns. This matrix of planting delivers an extended season of colour, texture, and sweetness that belies the essentially tough selection.

Trachelospermum asiatcium

Sempervivum arachnoideum

Sempervivum arachnoideum

Sleeper Steps

Chinese Virginia Creeper)

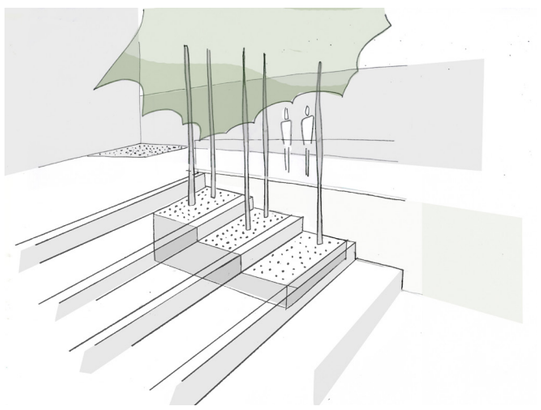
Natural York Stone

Acer palmatum

Pedestal Paveing System

Euphorbia cyparissias

Resin Bound Gravel



South Quad Tree Pits

Worcester Place Section

North Quad Section

9.0

Sustainability

9.1 Environmental Strategy

9.1.1 Approach to Sustainability

The approach to sustainability and environmental design for the new quad for Exeter College is focused on making energy savings in a cost efficient manner, firstly considering and implementing *'passive'* methods before looking at *'active'* methods.

The overall environmental strategy can be summarized as one which focuses on the use of natural ventilation (cross and stack ventilation within the learning commons), natural light, optimizing passive solar gain (and solar shading along the southern edge of the site), a high performance building envelope and an exposed structure to enable the thermal mass of the building to perform optimally. The scheme aims to deliver a low carbon, high energy efficient building, with reduced waste and spoil.

Ventilation

Teaching rooms, student bedrooms, fellows' sets and studies will be ventilated with mechanical heat recovery during the winter months and naturally ventilation during the summer. Natural cross ventilation is both expected and desirable, all openings will be designed to be secure and robust so that spaces can be left open when unoccupied and at night. Due to the southerly orientation of many of these spaces, effective solar shading will also be incorporated into the detailed design of the scheme. This may be in the form of integrated blinds.

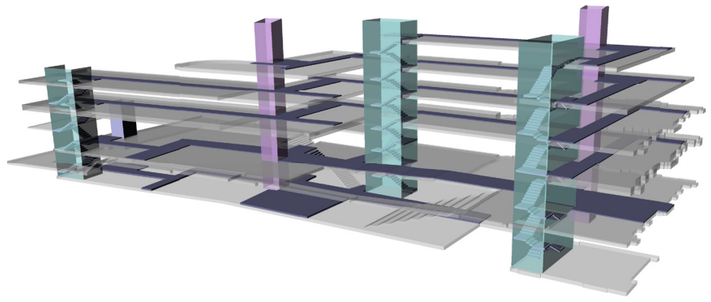
Additionally both the north and south cloisters will act as thermal buffering zones to the fellow's studies and teaching rooms.

Acoustics

Student rooms will be require acoustically separated in order to comply with Building Regulations Part E. All corridors and circulation spaces will be designed to dampen foot falls, particularly when adjacent to student bedrooms and teaching spaces. The teaching rooms, music practice room and lecture hall will all require attenuated openings to ensure adequate noise separation. The acoustic requirements of all the spaces (in particularly the halls, student rooms and teaching spaces) will be considered in more detail during detail design.

Active Controls

The energy use and consumption within the building will be showcased, in order to encourage good habits and healthy competition between user groups e.g. smart metering. The energy use of the site will not only be monitored accurately but will also be split up by function and zone. These facts and figures can then be displayed publically in real time. Recycling will also be encouraged within the college, with recycling bins being stored in all bedrooms, teaching rooms, family and galley kitchens etc.

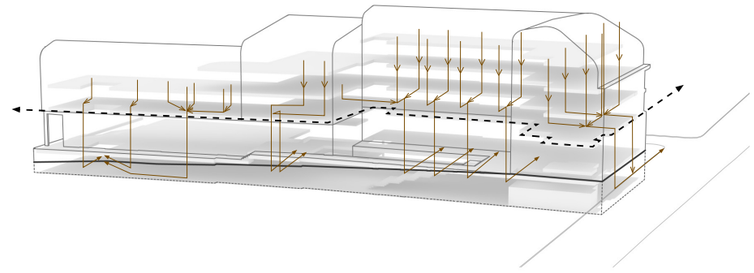


Circulation Diagrams

Lift Core

Stair Core

Horizontal Circulation



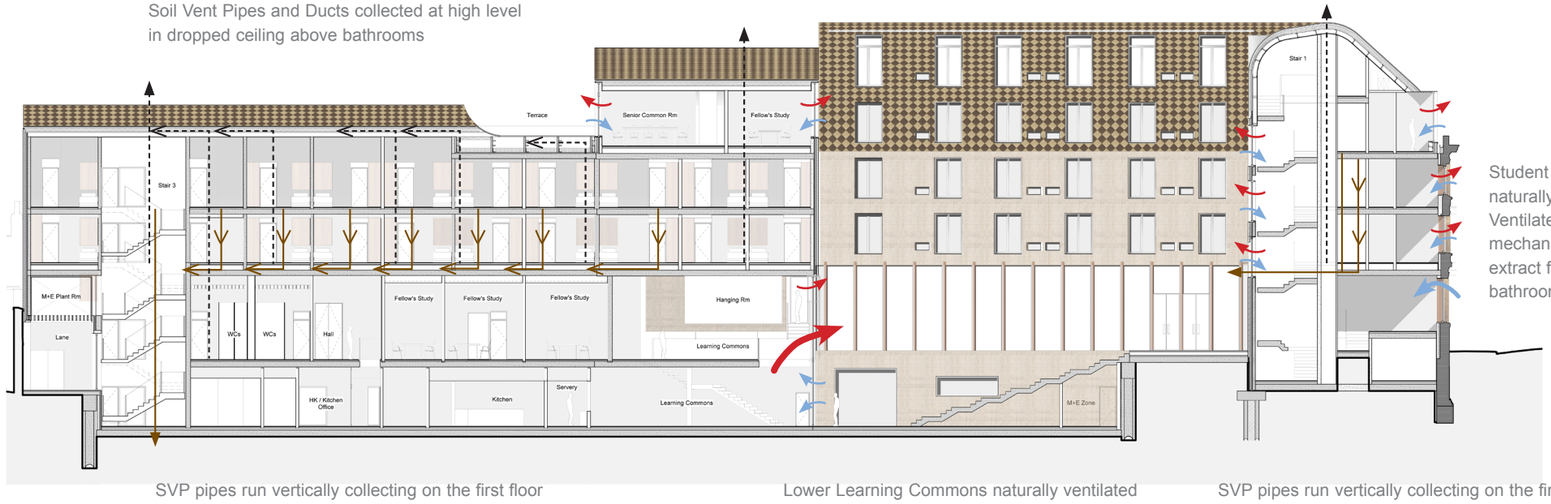
Soil Vent Pipe Diagram

SVP pipes run vertically collecting on the first floor in the raised floor and drops to the basement to be pumped to the sewer.

Soil Vent Pipes and Ducts collected at high level in dropped ceiling above bathrooms

Soil Vent Pipes and Ducts collected at high level in dropped ceiling above bathrooms

Soil Vent Pipes and Ducts collected at high level in dropped ceiling above bathrooms



Student Bedrooms naturally Ventilated with mechanical extract from student bathrooms

SVP pipes run vertically collecting on the first floor in the raised floor and drops to the basement to be pumped to the sewer.

Lower Learning Commons naturally ventilated through openable windows

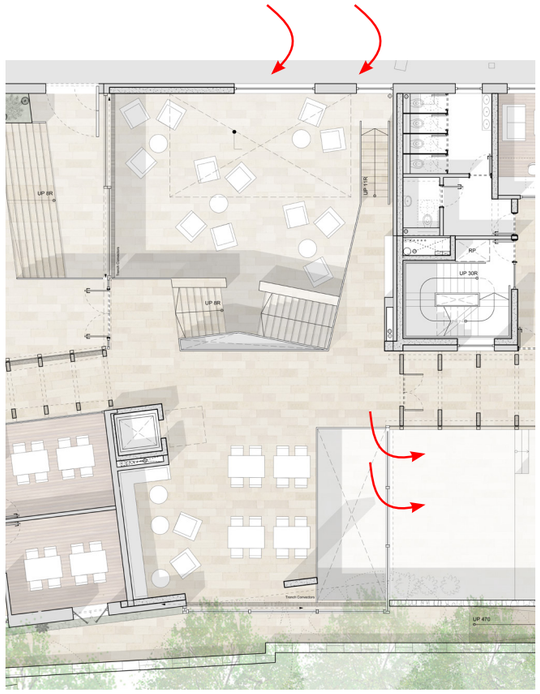
SVP pipes run vertically collecting on the first floor in the raised floor and drops to the basement to be pumped to the sewer.

Sectional Servicing and Ventilation Strategy

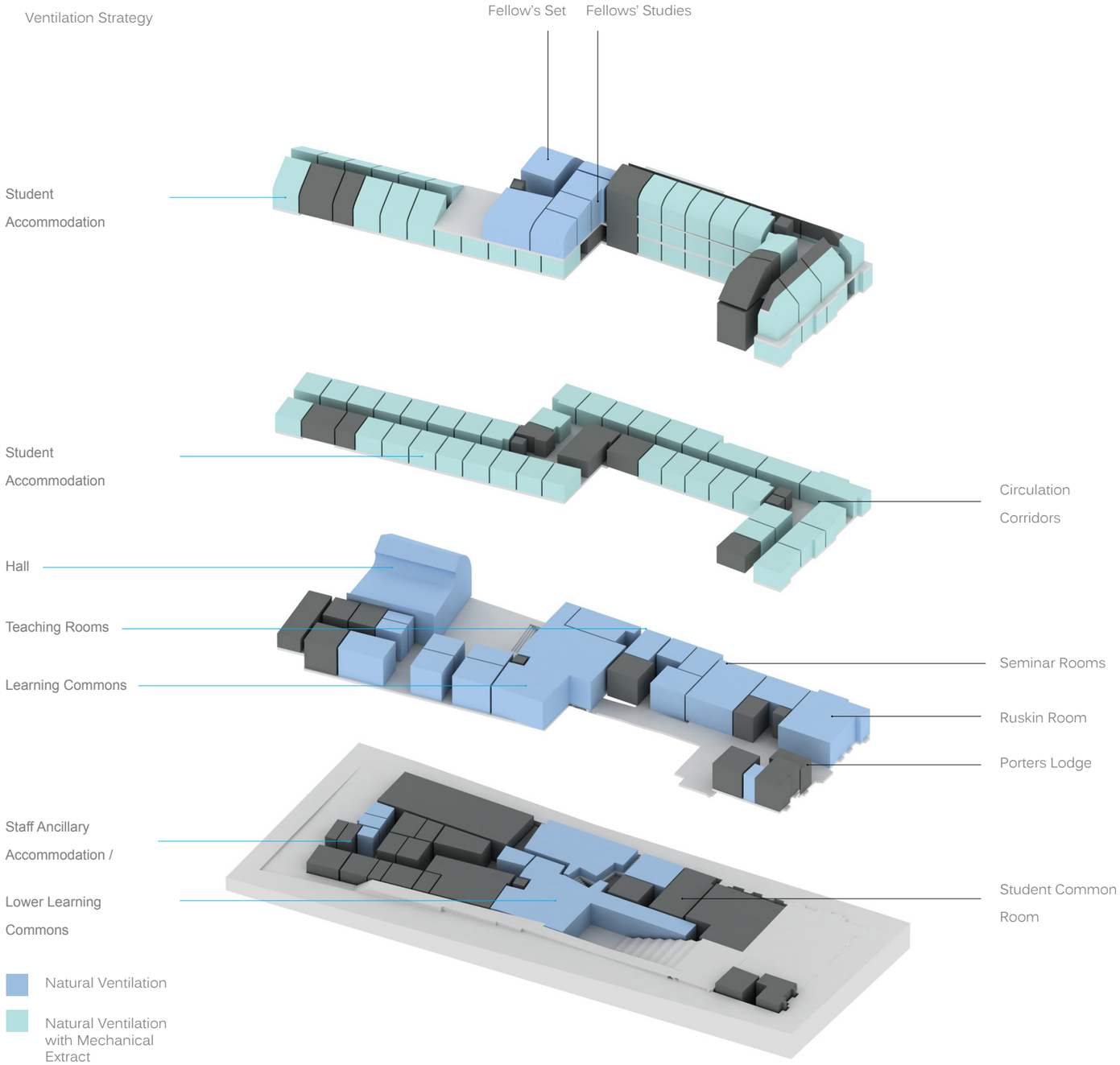
The heating demand on the site will be met primarily by 2 – 3 heating only air source heat pumps, with a 4th heat pump providing peak heating during the winter, hot water and cooling in the summer. A gas boiler will pick up the hot water heating and the mid winter peak space heating loads in an inexpensive and relatively efficient way with only minimal impact to the annual carbon emissions.

Adaptability

One of the key sustainable principles for the proposed design is that of adaptability. Most modern higher education institutions consider adaptability a primary objective of campus development planning. Exeter College and its four main communities require a building of timeless quality and durability. The quality and systems used for 'adaptable' and 'flexible' architecture are often at odds with this idea of timeless construction systems and craftsmanship. The primary factor in adaptable architecture is a robust building fabric, non intrusive structural strategy, high ceilings and generous circulation spaces. It has always been important that the structural strategy for the scheme would reflect this and allow for the spaces to be adaptable and reconfigured in the future.



The Learning Commons is naturally ventilated at all levels. The Lower Learning Commons is naturally ventilated through the ground floor void and exhausted at high level.



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