

Nex—

Donald Insall Associates

WEBB
YATES

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OWEN

DHA Designs

— Exeter College, University of Oxford
The Library Renewed
Planning & Listed Building Consent
Design & Access Statement

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Exeter College The Library Renewed Design & Access Statement



Sketch showing reinstated library entrance

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1.1 Introduction—

Project Team

- Client: Exeter College
- Architect: Nex
- Heritage Consultant: Donald Insall Associates
- Landscape Architect: Todd Longstaff Gowan
- Planning Consultant: Carter Jonas
- Structural Engineer: Webb Yates
- MEP Engineer: Lawrence Owen
- Project Manager: Ridge
- Quantity Surveyor: Ridge
- Principal Designer: Nex
- Approved Inspector: Shore

Introduction

This Design and Access Statement has been prepared by Nex on behalf of Exeter College, Oxford, to illustrate the proposals for the refurbishment and alteration to the College Library at their Turl Street Campus.

These proposals build on previous pre-application consultations (20/02643/PAC) with Planning and Heritage officers undertaken in April and October 2020.

The design team is led by Nex Architects with Donald Insall Associates as conservation architects and historic building advisers. This design report should therefore be read in conjunction with their Historic Building Report.

Design development of the project has reached the end of RIBA Stage 3, and proposals have received approval from the College. Extensive stakeholder consultations have also been undertaken during design development and we have received constructive feedback and positive support from all parties.

Project Context

Exeter College Library is located within the Exeter College Turl Street Campus at the heart of Oxford, adjacent to the Bodleian Library and close to the Radcliffe Camera.

The library was built in 1856-7 by George Gilbert Scott. It is listed at Grade II and in the setting of the Bodleian and other important Grade I listed buildings.

The College Brief

The project scope includes conservation repair of the original structure, fabric and finishes; upgrading of all building services; a new toilet; a new library reading room and mezzanine in the annexe; an accessible lift, new stairs and a new entrance to provide safe means of escape.

The brief requirements for the refurbishment of the library may be grouped under two headings:

Conservation and Refurbishment:

- Refurbish the existing building fabric internally and externally.
- Rework unsympathetic alterations to original building fabric.

Improvements and Modernisation:

- Improve the workspaces and ancillary facilities for staff and students.
- Increase the number of reader spaces.
- Upgrade and improve the energy efficiency of the existing building fabric.
- Improve disabled access to the library.
- Improve the circulation strategy within the library offering full unassisted wheelchair access to all areas.

01. View from Fellows' Garden
02. Aerial View of Main Library



01.



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2.1 Site Context—

The Library

The Grade II listed library was built in the Gothic-Revival style in 1857 by George Gilbert Scott.

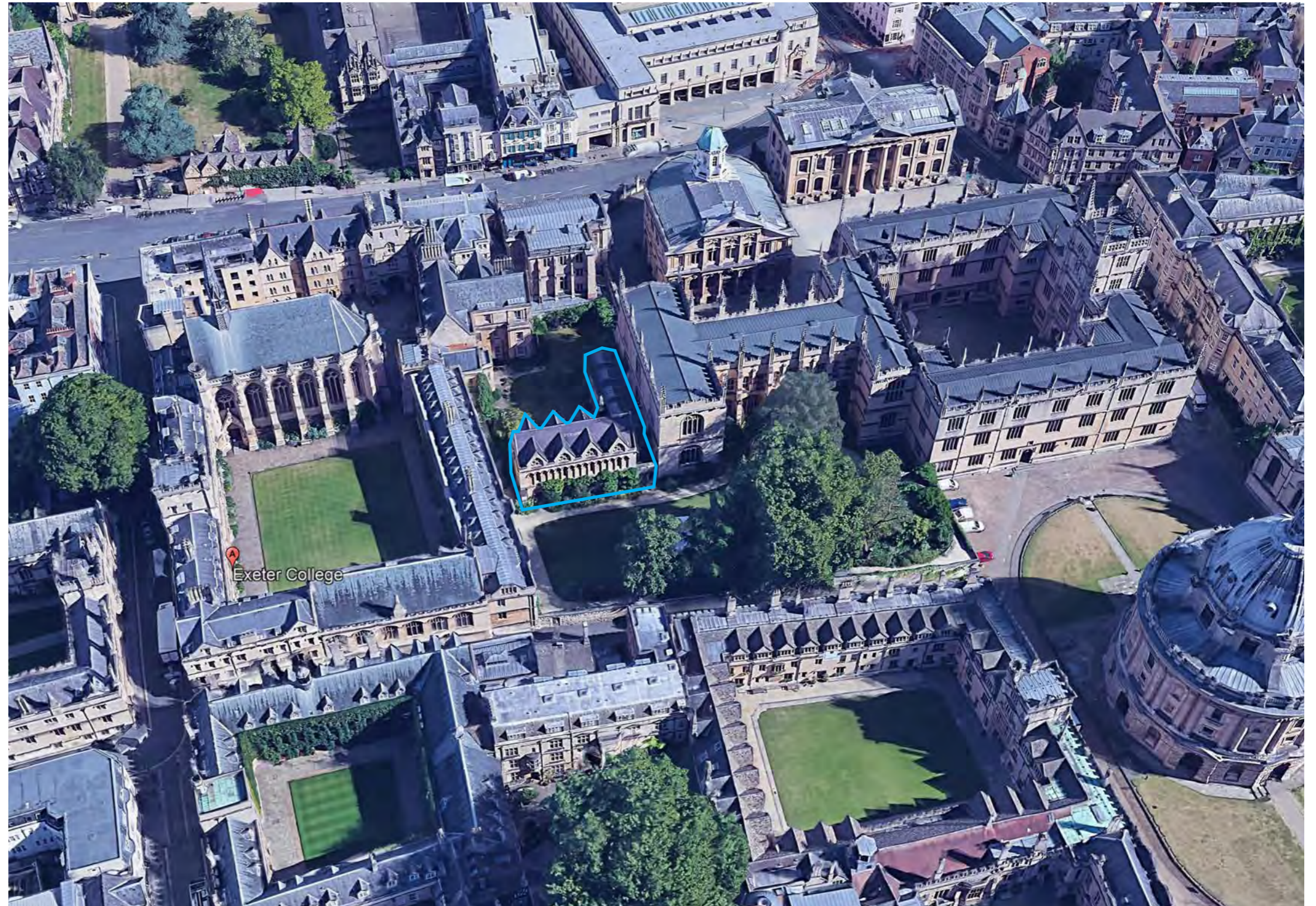
The Library occupies a prominent, central position within the College site to the west of the Front Quadrangle enclosed by Grade I listed Peryham Mansions. The building overlooks the Fellows' Garden to the south with the Rector's Garden to the north.

Other Scott buildings within the College campus include the Chapel completed in 1856 and the Rector's House completed in 1860.

The Library consists of a main two storey range and, built at the same time, a lower annexe building to the north which runs perpendicular to the axis of the main range.

Immediately to the east of the Library sits the Grade I listed westward addition to the Bodleian Library. Pre-dating the Scott Library, built in 1637, the ground floor rooms of this structure are known as Convocation House. The Bodleian shares a joint party wall with the Library along the southern part of its eastern boundary.

The two wings of the Library are connected by a modest, single storey stone structure which is referred to as the Link. While parts of this Link block are original, it has undergone extensive alterations during the late nineteenth and twentieth centuries. It is the re-working of this small, linchpin element combined with a new approach to the annexe interior that unlocks the renewal of the Library.



01. Exeter College, aerial view from south

2.2 Existing Building—



01. Fellows' Garden Elevation



02. Library Entrance from Fellows' Garden



03. Single storey Garden Store in Fellows' Garden



04. Library elevation and Annexe elevation from the Rector's Garden



05. Library elevation (North) from the Rector's Garden

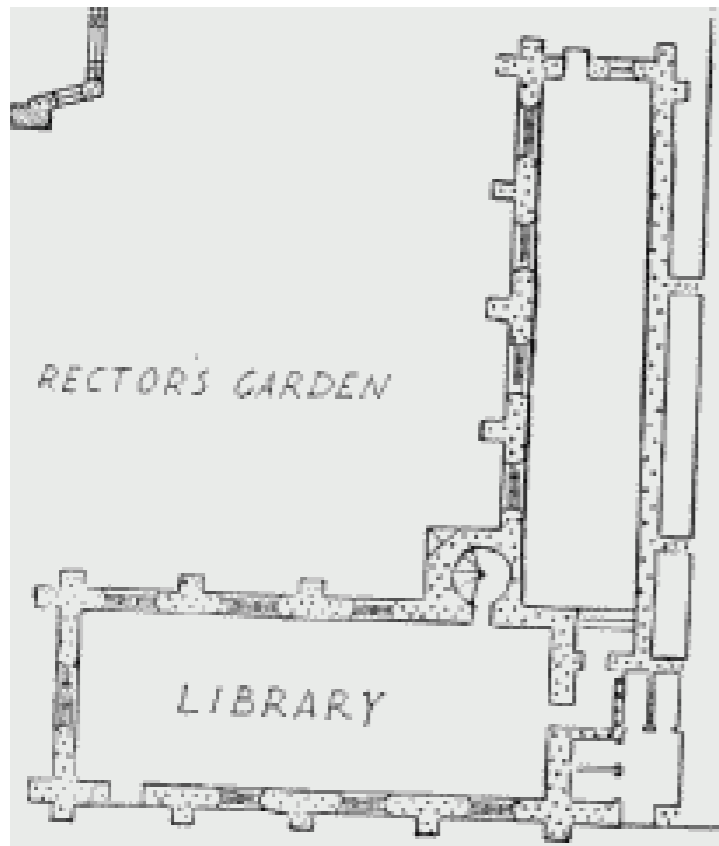


06. Annexe and Bodleian elevations from the Rector's Garden

2.2 Existing Building—



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Development History

No original detailed drawings of the building design or construction could be found in the College or University archives. The plans that are available show a consistent arrangement of the main wings of the library with some changes over time to the small link-block on the south-east corner. A full description of the buildings development is available in the Historic Buildings Report.

The plans of the building in Images 01, 02 and 04 appear to show the link block as a WC possibly only accessed from the Fellows' Garden. The plans also suggest a full width staircase to the lower ground level in the annexe, and indicate that the southern arch to the annexe was originally open, forming part of the route between main library and the annexe.

Image 03 shows what appears to be a pre-construction artist's impression of the library. It depicts the door to the 'link' block with a pointed arch sitting closer to the main library than the current entrance. The doorway as built is closer to the Bodleian and has a shouldered arch profile, suggesting that the layout in image 03 was not realised.

Current Arrangements

The door to the Fellows' Garden currently serves a garden store which is not connected to the interior spaces of the library. There is evidence that the garden store may have previously been a single WC or toilet stalls connected to a single soil outlet.

Within the library on the ground floor, the door from the main reading room leads to a store known today by library staff as the 'Strongroom'. The southern arch has been in-filled, and a new opening has been cut in the east wall to allow access into the annexe.

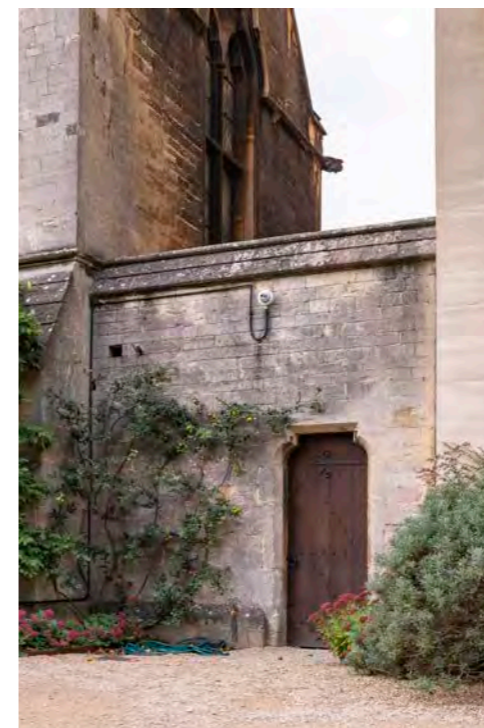
The garden store no longer contains a WC although there is evidence that it did contain a single WC until 15-20 years ago.



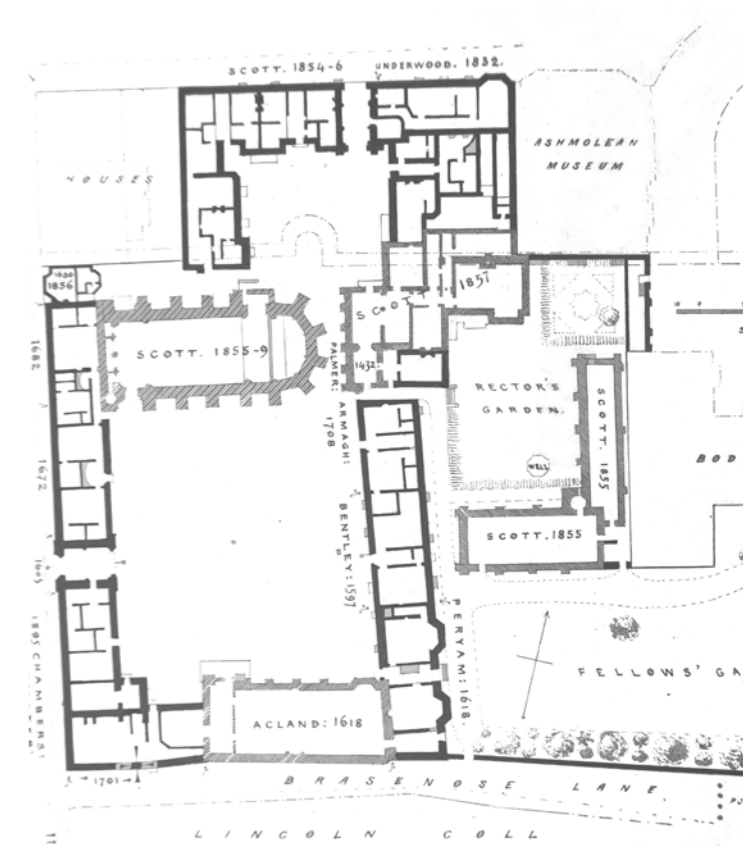
03. Magnified



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- 01. Extract from OS Town Plan of Oxford 1876-78
- 02. Extract from Exeter College Site plan 1954
- 03. Drawing of Exeter College showing the proposed library. J.I.Wyatt 1858 (Exeter College Archive)
- 04. c.1860 site plan showing the location of the new Library designed by George Gilbert Scott in 1855-7 (Exeter College Archives)
- 05. Existing 'Link block' - south wall

2.2 Existing Building—

A Summary of Historic Alterations

The Main Library - Steel Beams

In the ground floor of the main library wing, a series of steel beams support the original timber ceiling.

We understand that these beams were installed around the turn of the 20th Century most likely to strengthen the floors to take the increasing load of shelving and books.

Our proposals will replace the steel beams with a less intrusive but structurally sound alternative that will again fully reveal the ceiling.

The Main Library - Exposed Services

Later additions of exposed services - heating pipework, electrical & fire installations, and strip lighting add visual clutter throughout the building. These are particularly evident at ceiling level on the ground floor of the main library range.

Our proposals will strip out and install new services that are distributed and terminated in a more discreet manner.

Original Stone Arches to Annexe Entrance

Archive drawings suggest that both the north and south arches to the annexe were originally open. The south arch is currently partially in-filled to house a bookcase and close off the strongroom.

Main Entrance Draught Lobby

The history of the draught lobby at the main entrance is unclear, though it is clear that it is not original and that it was added to reduce heat loss and draughts. The size and design of the lobby detracts from the character of the original building and hinders access to bookcases.

- 01. Existing entrance lobby and RFID security gates.
- 02. Ground floor ceiling with steel beams.
- 03. View of main library showing steel beams at ceiling level and exposed heating pipes.
- 04. Stairs to annexe mezzanine.
- 05. Interior view of annexe windows showing mezzanine joinery intersecting the original window.
- 06. Mezzanine joinery intersecting Annexe windows.
- 07. Polycarbonate and wired glass roof-lights.

The Annexe

So-called, although it dates to the original phase of construction, the annexe currently incorporates a mezzanine floor, which was constructed in 1957.

This addition damaged original fabric and detracts from the character of the building. Its presence fragments the annexe space and divides the windows overlooking the Rector's garden. The ceiling height within the lower ground level is limited and the windows have been over-boarded. The external door and north-facing glazing are obscured.

Archive drawings and visual site inspections indicate that the alteration works included the lowering of the lower-ground floor level by approximately 300mm.

Annexe Roof-lights

Roof-lights were added to the annexe as part of the 1957 alterations. The current lights offer poor thermal performance and detract from the legibility of the original wood beam roof structure. Polycarbonate lining was added later in an attempt to reduce heat loss and reduce solar glare.



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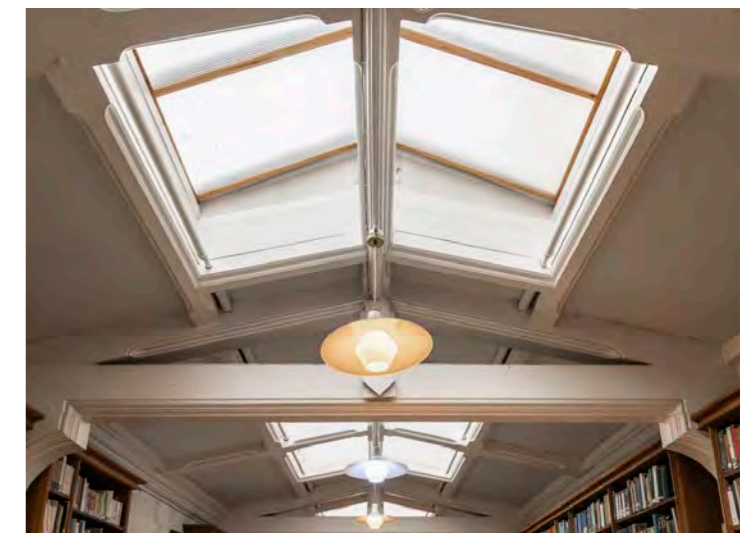
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2.2 Existing Building—

The Bodleian Boundary

The Library sits to the East of the College site, sharing a boundary with the Bodleian Library building. An external passage-like gap runs along the boundary, separating the Library annexe from the adjacent west wall of the Bodleian.

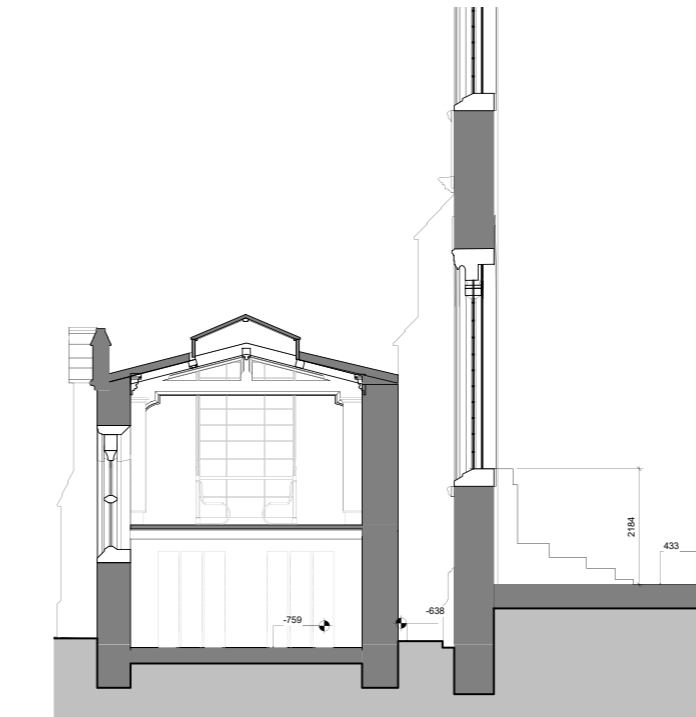
The space is divided by two buttresses which form part of the Bodleian wall. The northern buttress includes a small opening at ground level that allows access further into the space. The southern buttress includes a crawl opening and is difficult to access.

This buttress encloses an inaccessible 'slot' of external space. Beyond this, the Library and the Bodleian share a party wall, which encloses the single storey 'link' block between the two buildings currently occupied by the strongroom and garden store.

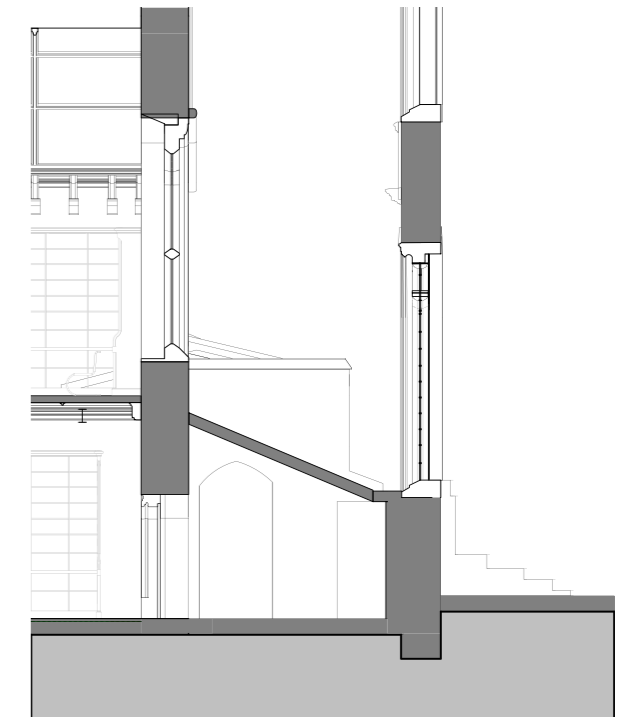
There are a number of windows on the Bodleian's west elevation. The ground floor windows admit light to Convocation House. The southern-most window at this level overlooks the link-block roof and limits the potential roof height where the two buildings meet. Currently, the strongroom slate roof slopes down to meet the party wall, flashing into the cill of the Bodleian window.



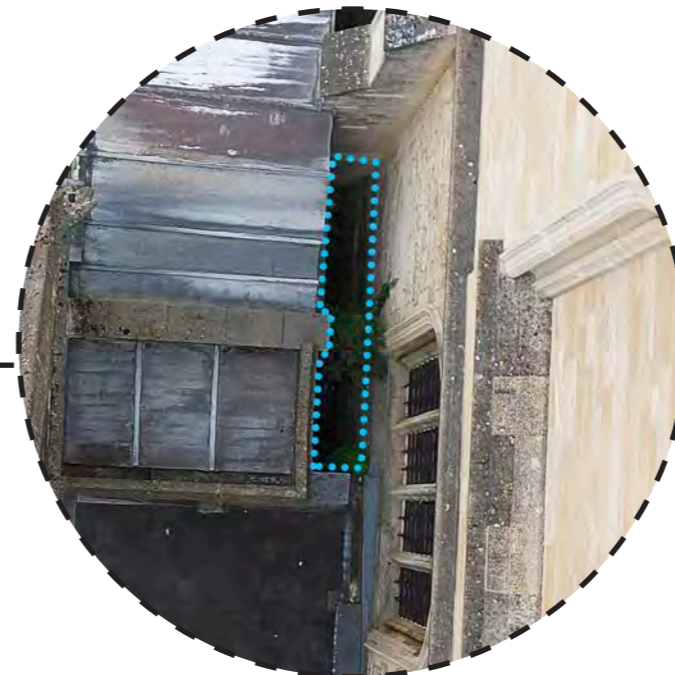
01. Aerial View (north up) to show link-block Bodleian roof interface



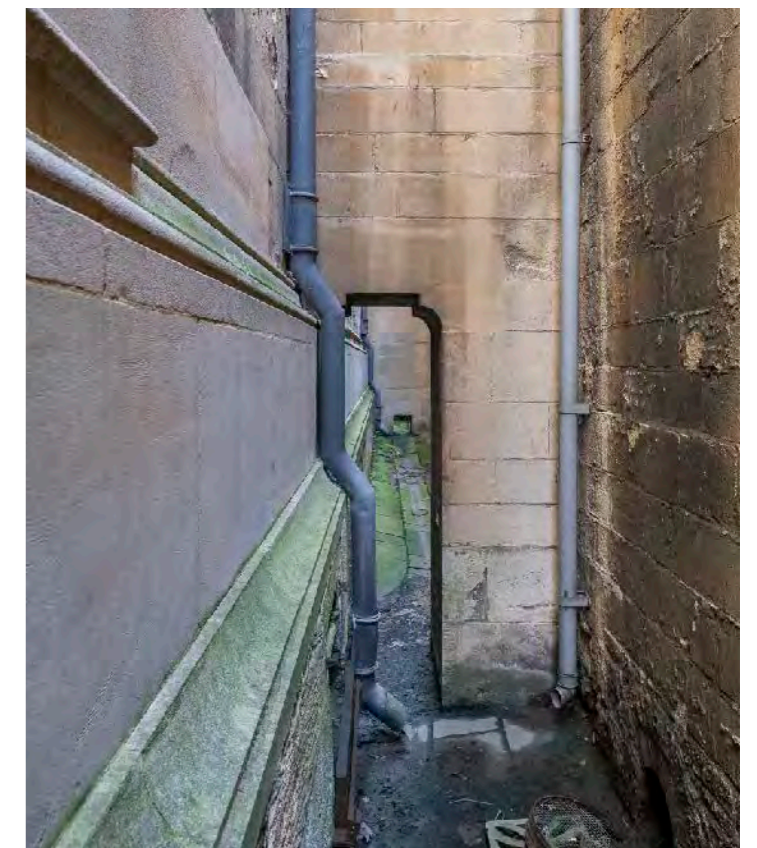
03. Existing section through Annexe and boundary. Bodleian to right



04. Existing section through strongroom and boundary showing interface with Bodleian Window



02. Aerial View (north up) to highlight Inaccessible gap alongside the Bodleian



05. View showing buttress. Bodleian to left

2.2 Existing Building—



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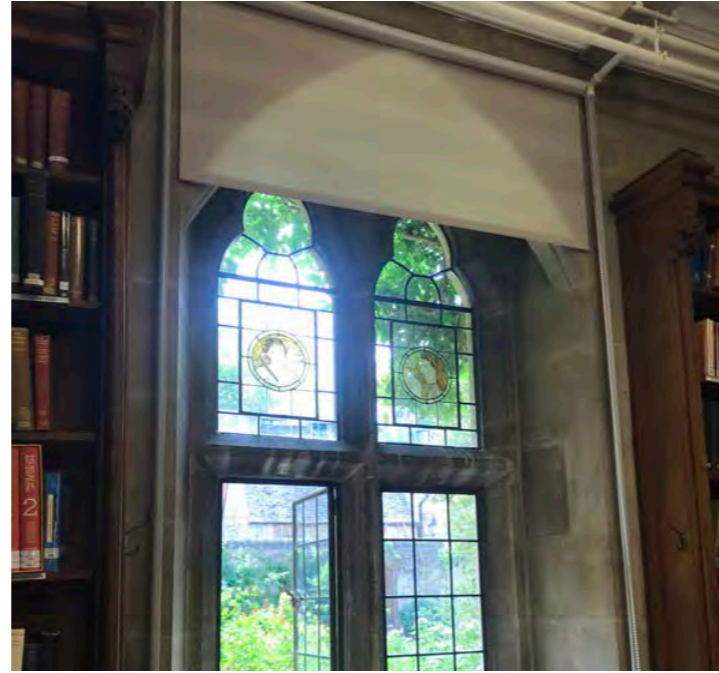
08.

- 01. Roof of Annexe with 1957 roof-lights
- 02. Staining of stonework.
- 03. Staining of stonework.
- 04. Repointing required on south facade.
- 05. Decayed stonework around window reveals.
- 06. Decayed stonework at ground level.
- 07. Damaged stonework around main entrance.
- 08. Overgrown wisteria on south facade.

2.2 Existing Building—



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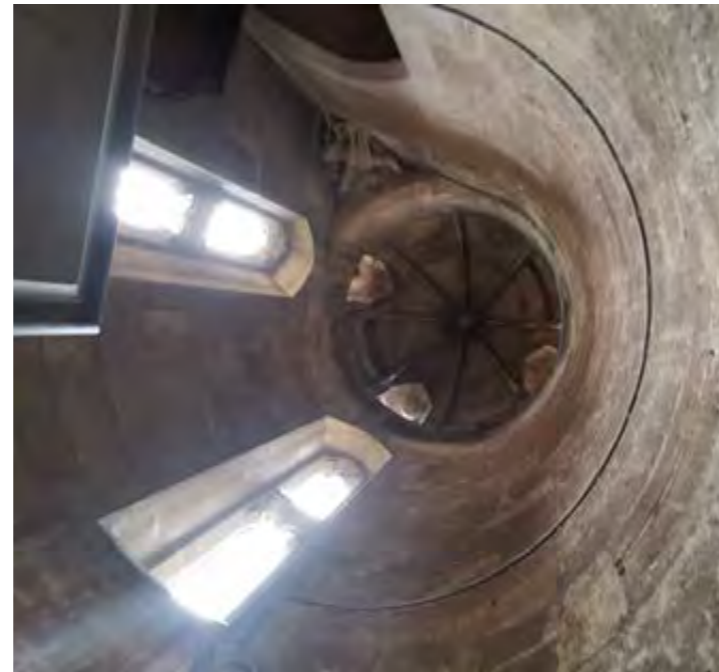
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- 01. Ground floor of main library.
- 02. Surface mounted services and blinds.
- 03. Strongroom interior.
- 04. Lower ground floor store in annexe.
- 05. Main entrance draft lobby.
- 06. Surface run services in stair turret.
- 07. Storage under annexe stairs.
- 08. Lower ground floor store in annexe.

2.4 Site Investigations—

The following site investigations were completed during summer 2020 to understand local ground conditions around and under the building, and to establish to depth of wall footings underneath the west wall of the Bodleian.

Geotechnical Site Investigation

A site investigation report was commissioned by the College to establish the presence, type and nature of any contamination on site, to identify the ground conditions and provide details of engineering properties of existing structures to facilitate geotechnical design of the proposed scheme.

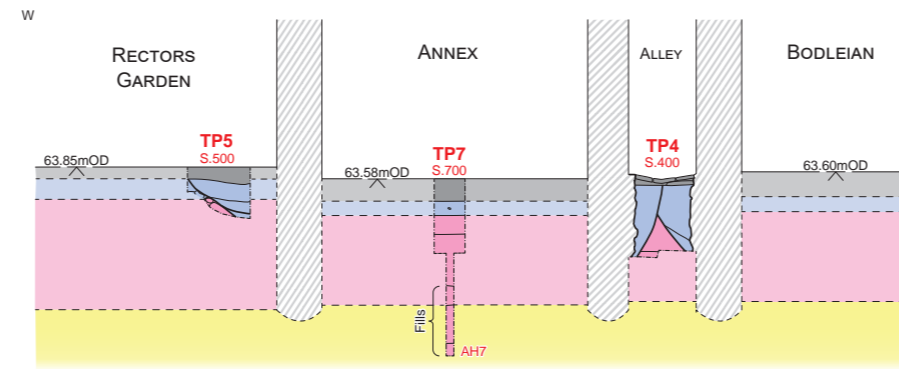
The ground investigation was designed by the Structural Engineer, Webb Yates and executed by GeoCon. The investigation comprised of the following works:

- 3 No. trial pits to a maximum depth of 1.20m to determine the existing foundations.
- 4 No. trial pits to determine the existing ground floor structure.
- 6 No. opening holes to allow inspection of existing structures including core drilling at two locations.
- Environmental and geotechnical sampling, and in-situ geotechnical testing.

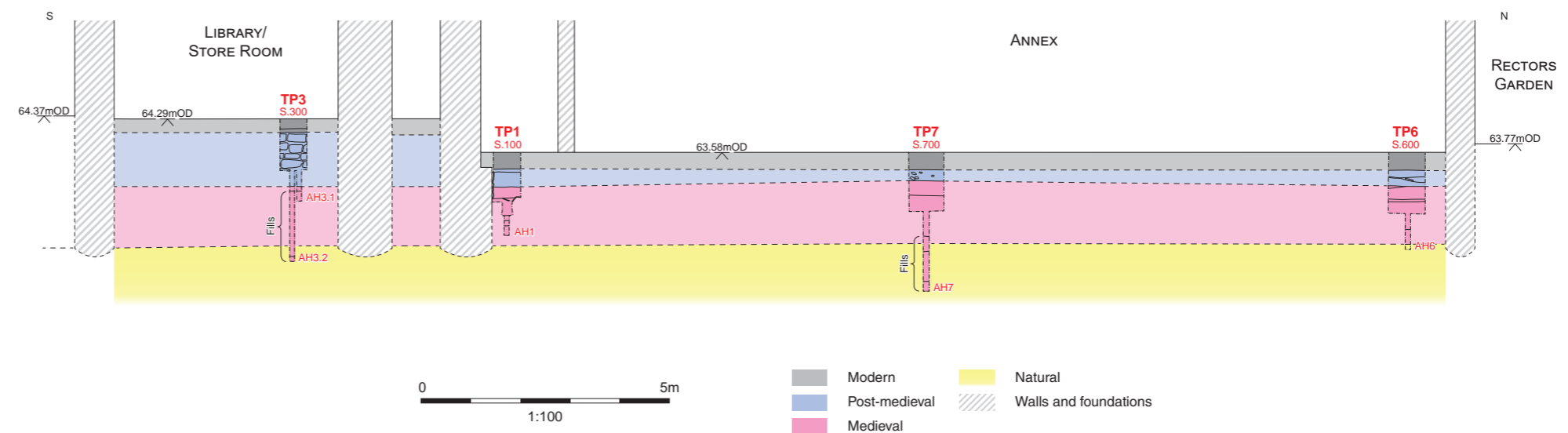
The primary objectives of the ground investigations were to determine the nature of the existing foundations of the library and adjacent west wall of the west wing of the Bodleian Library.

The foundation trial pits revealed that both the library and Bodleian foundations extended at least 1.20m below ground level. Webb Yates have confirmed that this offers sufficient depth for the structural design without underpinning the existing structure.

Comprehensive results of the investigation and laboratory testing are presented within the Geotechnical report.



01.Short section through Annexe showing Trial Pits



01.Long section through Annexe showing Trial Pits

Archaeological Watching Brief Report

Oxford Archaeology (OA) was commissioned by Donald Insall Associates to undertake an archaeological watching brief monitoring the Geocon site investigation. The full Oxford Archaeology report accompanies this Pre-Application submission. The archaeology team at Oxford City Council were notified and David Radford attended site to monitor the excavation of the geotechnical and archaeological test pits.

David noted that the test pits did not reveal great insight into deposits at depth, other than the presence of possible charnel remains towards the northern end of the Library. He advised that if significant underpinning is required there might be further archaeological investigation required. The items found during the excavation are listed within the archaeology report which accompanies this document.

The report identifies a number of historic layers; modern, post-modern, medieval and natural. It advises that disturbing the modern layer will be uncontroversial, and we should be able to disturb the post-modern layer with a watching brief to ensure any found archaeology is removed. The report suggests that we should minimise disturbance of the medieval layer below 580mm from the top of the existing slab.

The design team have concluded that underpinning will not be required, and the structural design will ensure that the excavation for the replacement annexe slab does not require excavations below 580mm, with the exception of the lift pit and one additional column support point at the south end of the annex.

We anticipate the requirement for an additional archaeological investigation to cover the lift pit, which will be excavated to approx 1.3m below the existing slab. We propose to complete this investigation post-planning when a contractor is on site. It may be monitored by a condition in the Planning and Listed Building Consent.

There may be 'soft spots' created by archaeological deposits which will need consideration in the design of the new annexe floor slab. Any excavation or compression of such areas would require a watching brief.

Further investigations have been undertaken to establish the presence of asbestos, paint composition, stonework, window and bookshelf conditions.

2.5 Site Surveys—

Bat Survey

Simecology Ltd was commissioned by Donald Inshall Associates to complete a Preliminary Roost Assessment in June 2020. The assessment identified that the library had a medium potential to support roosting bats.

One bat detector emergence survey and one re-entry survey of the library at Exeter College were recommended in accordance with the Bat Conservation Trust's 'Good Practice Guidelines' (BCT, 2016).

A third survey was added after a bat was seen to emerge from the building during the emergence survey carried out on 26th August 2020. Surveys were carried out on the 14th & 26th August as well as 21st September 2020.

During the emergence survey on 26th August 2020 one crevice roost of a common pipistrelle bat was identified; one bat emergence was recorded from the northern aspect of the library roof by the surveyor positioned at the rear of the library.

During the emergence survey on 21st September 2020 four common pipistrelle roosts were located. There were two on the northern elevation and two on the southern elevation of the library roof.

Since the library roof has been identified as supporting roosting bats we will need to apply for a Natural England European Protected Species Mitigation licence prior to commencement of any works which will impact upon the existing roosts.

Suitable mitigation measures will be devised in order to deal with any temporary impact on the bat roosts of the proposed works and in order to ensure that the favourable conservation status of the local bat populations will not be affected.

Ecologist

An Ecologist has been engaged to prepare a mitigation strategy which will be required for planning, as well as determine what type of licence may be required for the works.

The mitigation strategy will cover both temporary and permanent works, for example, including bat access tiles within the roof, erecting bat roosting boxes for the duration of the work, and having an ecologist on hand whilst the roof is being stripped. Full details will be submitted with the application for consent.



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- 01. Photo of Trial Pit 4 in the Bodleian gap
- 02. Photo of Trial Pit 3 in the Garden store
- 03. Photo of Trial Pit 5 in the Rector's Garden

3.1 Design Vision—

The proposed renewal is comprised of a number of key elements intended to reveal the building's beauty, restore its original character, and enhance its future use.

- **Re-Purposing Of Existing Garden Store And 'Strongroom' To Create A New Entrance.**

The existing Link block will be altered to provide an accessible WC, a new entrance and draught lobby with the insertion of new roof-lights to brighten circulation spaces and reveal new views out to the exterior of the upper floor of the library building.

- **Partial Extension Of Annexe And Link Block Into The Gap Alongside The Bodleian Library.**

The gap alongside the Bodleian is divided along its length by stone buttresses. Some of this space is accessible from the Rector's Garden. Some spaces are currently inaccessible.

The gap offers the opportunity to selectively expand the library without altering the external elevations. Our proposals infill this gap in some places to enable the installation of a new staircase accessing the mezzanine level, and further north to provide a much-needed staff office and archive store.

- **Insertion Of A Passenger New Lift To All Floors.**

The new lift shaft has been positioned so as to minimise the visual impact on the Fellows' Garden and the end elevation of the Bodleian.

- **Replacement Of 1957 Full Width Mezzanine.**

The existing mezzanine splits the original west facing annexe windows and obscures the glazing to the north facade.

Our proposal will replace this mezzanine with a finely crafted wood 'balcony' extending only half the width of the interior space. This intervention once again reveals the full-height of the west windows as originally intended, while providing the additional study spaces needed by the College.

- **New Annexe Roof-lights**

The roof-lights in the annexe reading room were installed in 1957. The design and detail of these roof-lights is unsympathetic to the character of Scott's building and compromises the clarity of the original finely crafted roof structure.

We propose to replace these roof-lights with a design of clerestory roof-lights that is more sympathetic to the character of the original building and suited to the proposed mezzanine arrangement.

- **Improved Circulation**

Many of the features of the proposed layouts follow from the aim to achieve a fully accessible library. This requires a safe fire evacuation strategy including wheelchair refuges, fire compartment lines and protected escape routes.

Our proposals balance these requirements and where possible incorporate compartment and refuge requirements into crafted elements of fitted furniture that will complement the existing library furniture. Wherever possible, these interventions are designed to be reversible.

- **Improved Safe Means of Escape.**

Our proposals reinstate the use of the timber door to the north of the annexe. The new entrance door will provide an alternative means of escape and enhance the overall fire strategy.

As part of our aim to make the building fully accessible, we will create safe wheelchair refuges at first floor and mezzanine levels. These are supported by a new protected escape route via an evacuation lift and a final exit through the new Link Block.

This requires new fire compartment enclosures at each level, which are shown in the plan and circulation strategy drawings.

- **Replacement Of The Entrance Draught Lobby.**

The draught lobby and automated door, together with the exposed services around the historic entrance door, will be removed. New glass doors will be carefully located between the first pair of bookshelves to create a full width entrance vestibule.

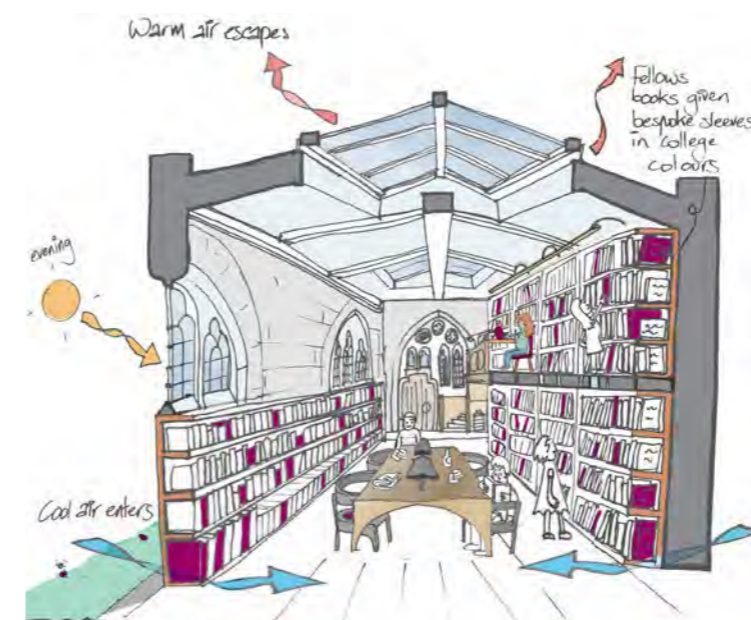
- **Removal Of First Floor Steel In The Main Library.**

We propose to substitute the steel beams with concealed floor strengthening. This will allow the timber ground floor ceiling to be fully visible as originally intended.

- **Materials and Craftsmanship**

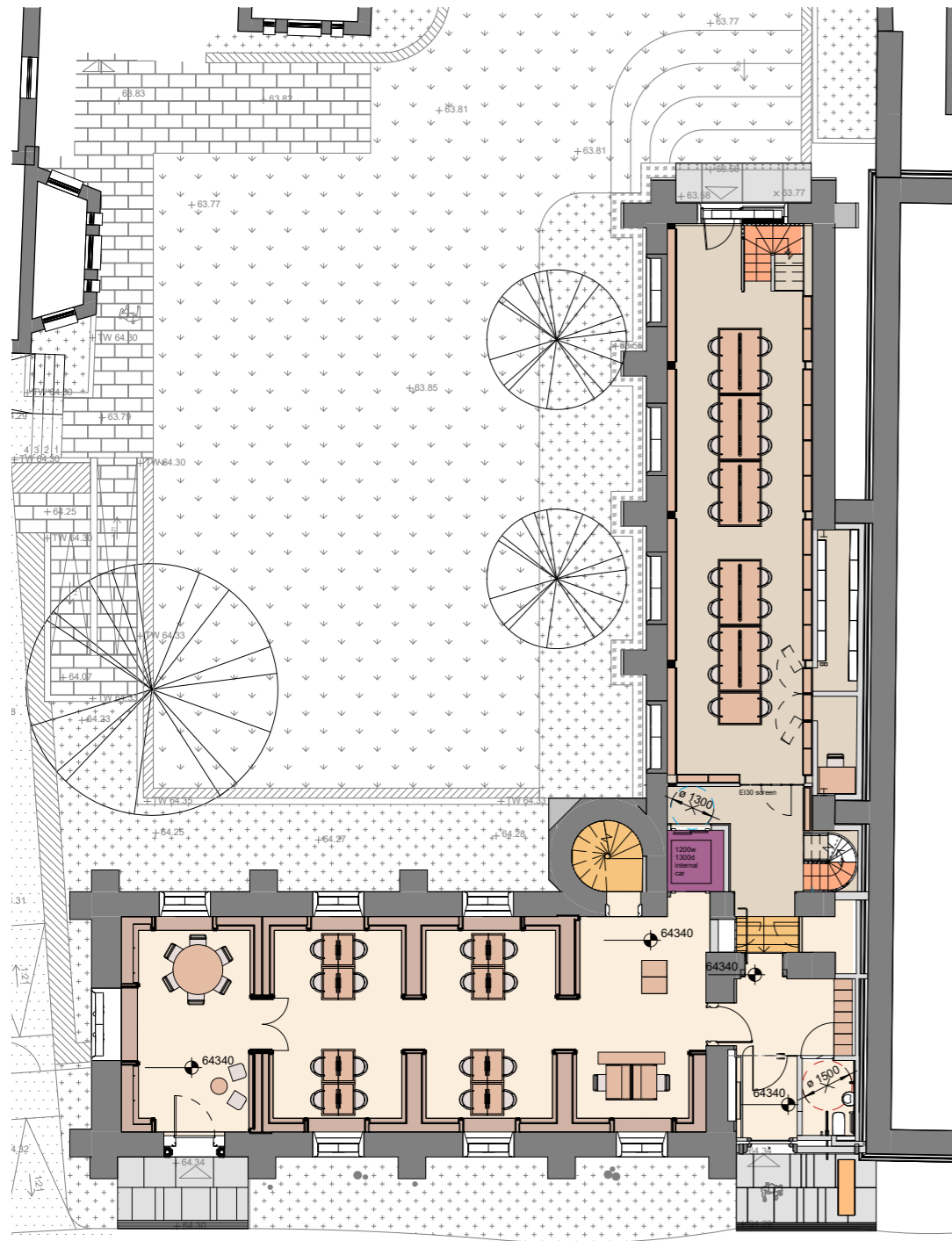
Our design proposals intend to enhance visitor experience of the library with new finely crafted spaces and fitted furniture, while the original Gilbert Scott interior and bookcases will be carefully refurbished.

Proposed materials for new elements include beech hardwood structure, oak joinery, cast iron lift-shaft cladding, glazed steel partitions, and stone ashlar walls and floors. Full details of material selection are provided in this document.

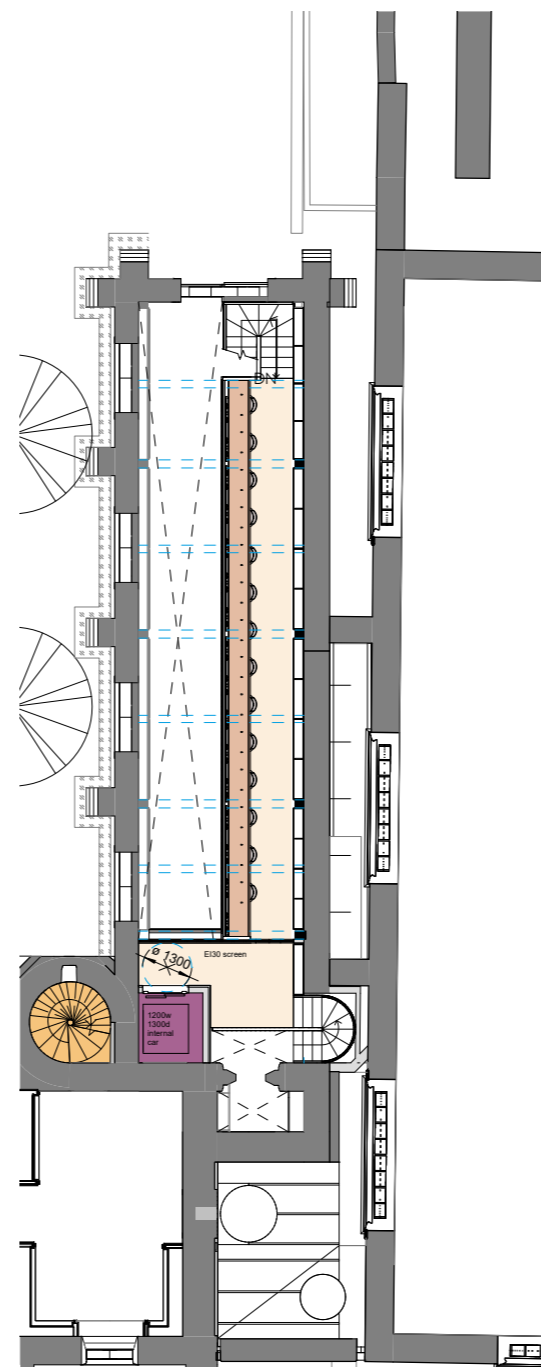


01. Concept section through proposed Annexe wing

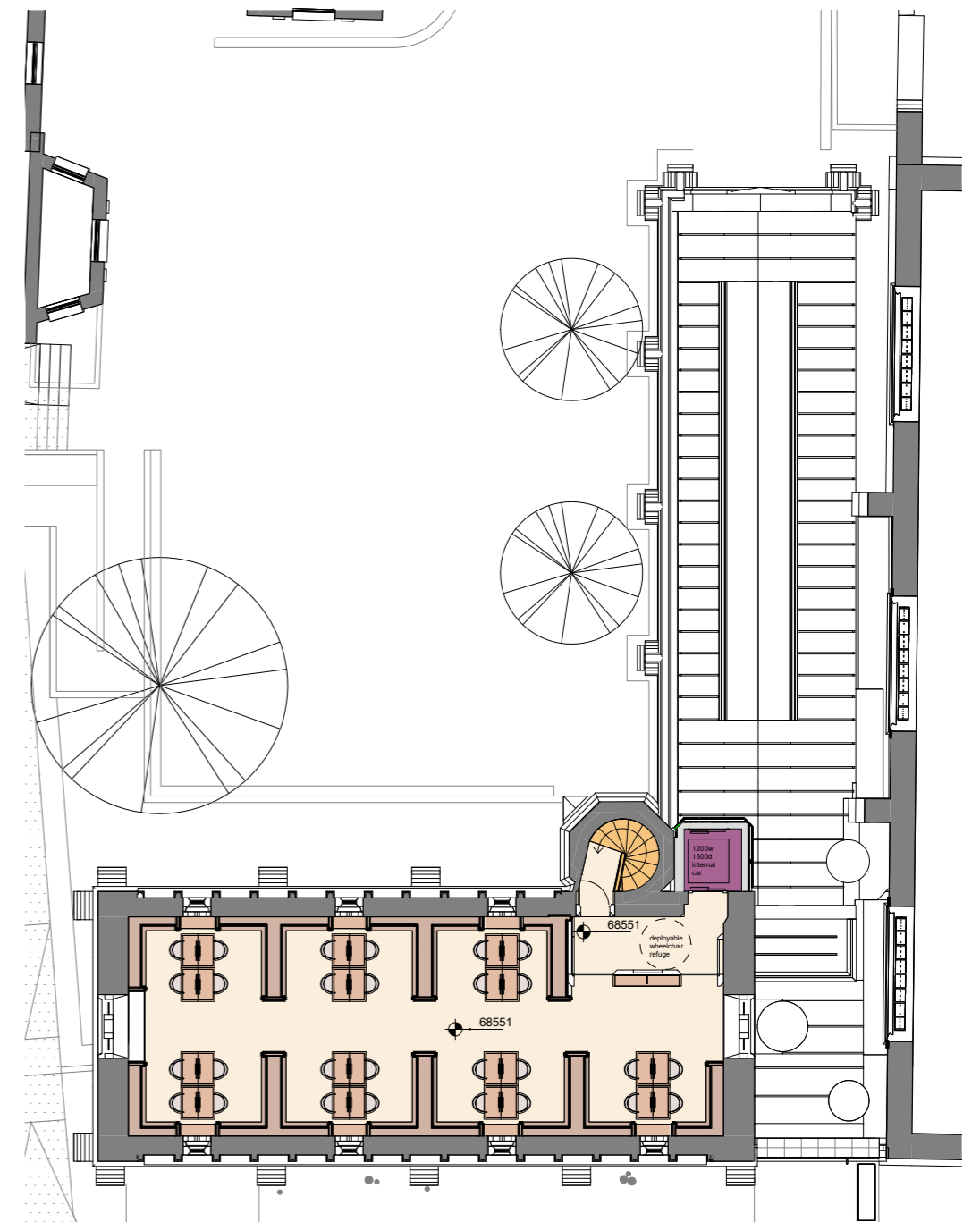
3.2 Proposed Layouts—



01. Ground + Lower Ground level



02. Mezzanine level



03. First Floor level

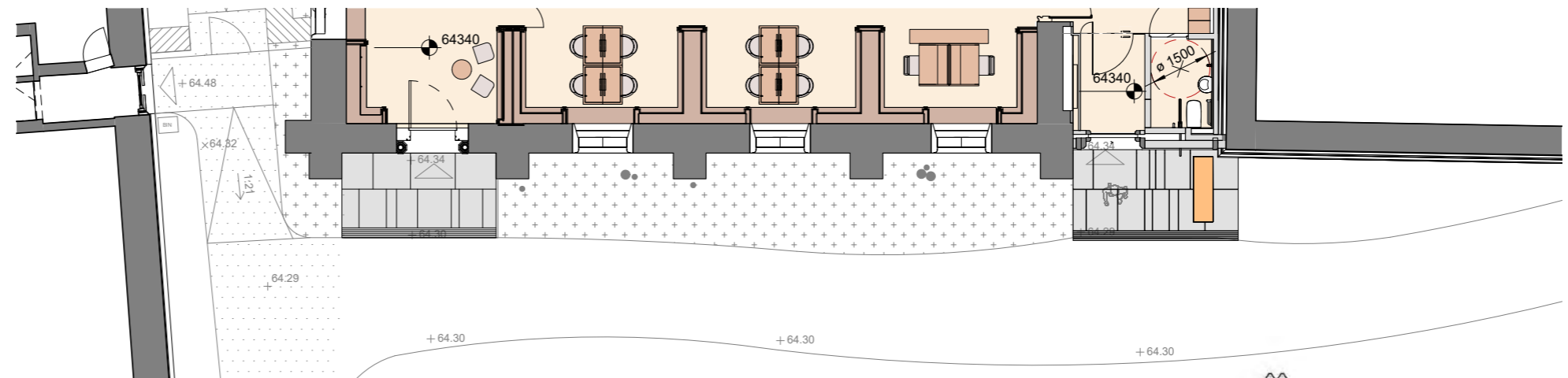
3.3 Fellows' Garden Elevation—

New South Entrance

The presence of a doorway in the existing link wall facing onto the Fellows' Garden offers the opportunity to create an alternative entrance to the library without causing significant harm to the character of the existing building.

Creating a new entrance in this location offers a number of significant benefits for the use of the library and long-term protection of the building fabric.

- A concentrated zone of circulation to access different reading rooms will reduce wear on the fabric and finishes of the main library spaces.
- It improves fire safety, provides a protected means of escape, and reduces escape distances.
- It minimises the disruption to library reader spaces from passing foot traffic.
- It allows us to create an accessible WC and new locker storage space for bags.
- The entrance improves the environmental performance of the building by reducing heat loss. The proposed entrance is lobbied to prevent cold air entering the reading rooms.



Ground Level Plan



Proposed South Elevation



Existing Link Elevation

3.3 Fellows' Garden Elevation—



Proposed South Elevation from Fellows' Garden

3.4 Main Entrance—

Existing Arrangements

Environmental and security considerations have required alterations to the main entrance over time, which have compromised its original character. A large glazed lobby was added inside the main door to reduce draughts. Security pillars were added to protect books, and services have been brought into the building and terminated in a cluttered arrangement around the entrance door.

On entering the building, the presence of the glass and wood lobby creates strong reflections that limit views of the interior and occlude the view through the building to the Rector's Garden.

Proposed Alterations

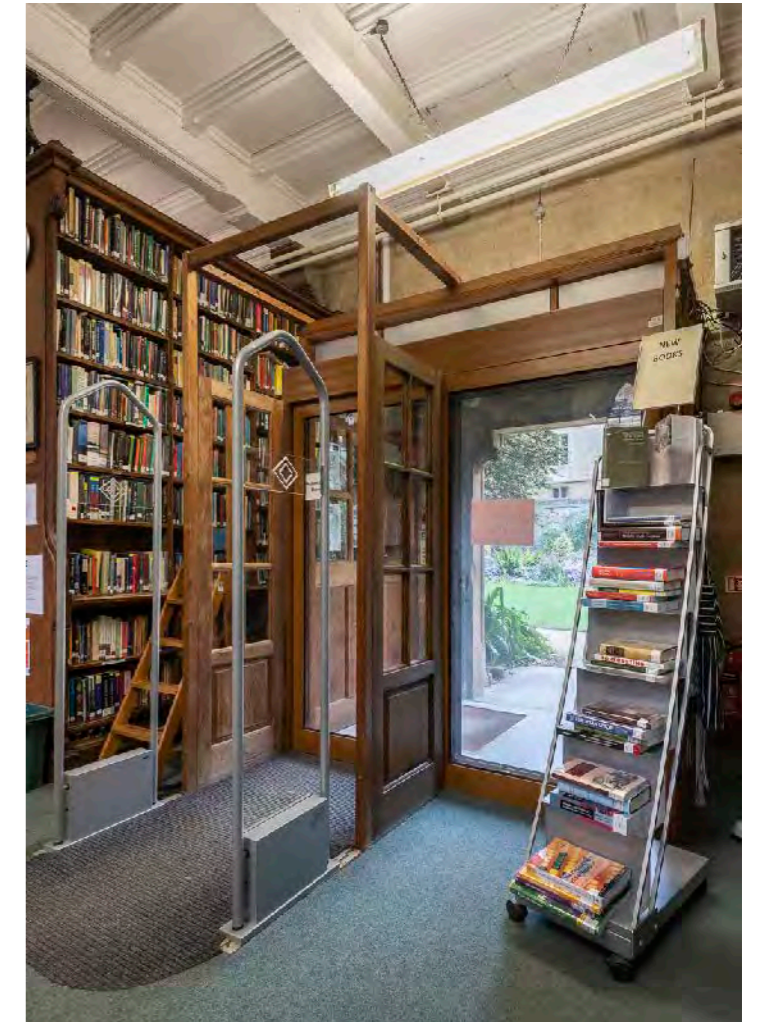
Our proposals will move the services to a more discrete location in the building and remove the draught lobby to create a new semi-conditioned space that will continue to remain a part of the ground floor reading room.

Secondary frameless glass doors will be neatly fitted in-line with the first bookshelf to create a thermal and wind buffer to the main library space. These are affixed back to the centreline of the dropped beam in the ceiling overhead.

The doors can be held open on warmer days when access to the building is controlled at the outer door.

Fixed glass screens will be fitted above each bookcase with minimal top and bottom channels, and the glass doors can be fitted requiring only minor alterations to the cornice line of two of the existing bookcases.

Glass will be low-iron toughened and laminated to allow for a transparent and frameless design. These will be fixed with small self-closing pivot hinges, which can also be fixed to hold-open.



Photos of existing entrance and draught lobby

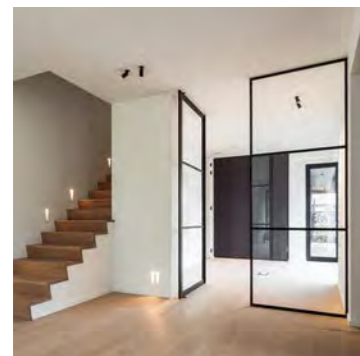


Competition Stage illustration showing original entrance reinstated

3.4 Main Entrance—



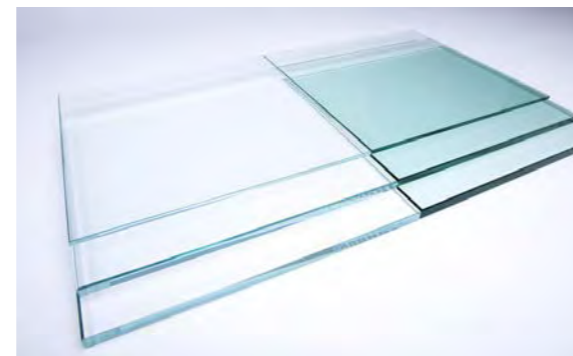
View of the glass partition and doors



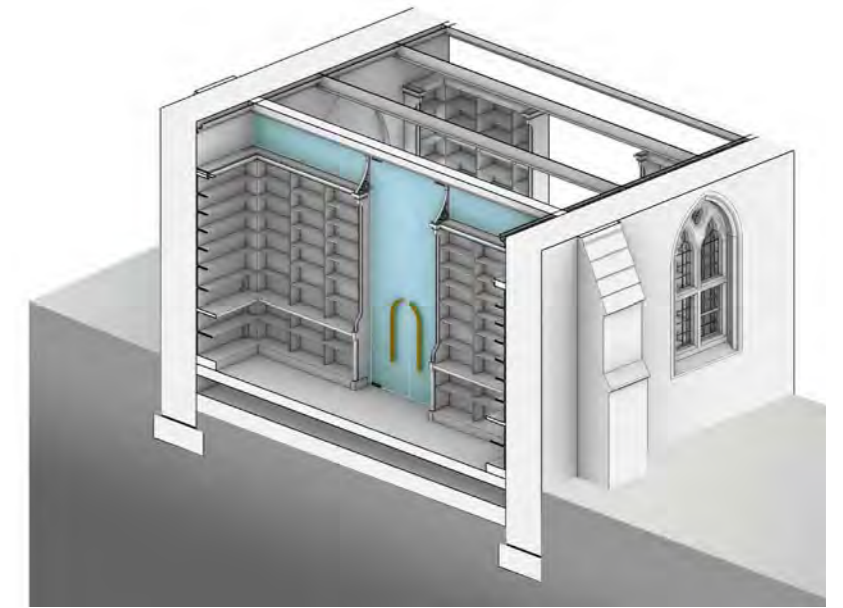
Glass pivot door



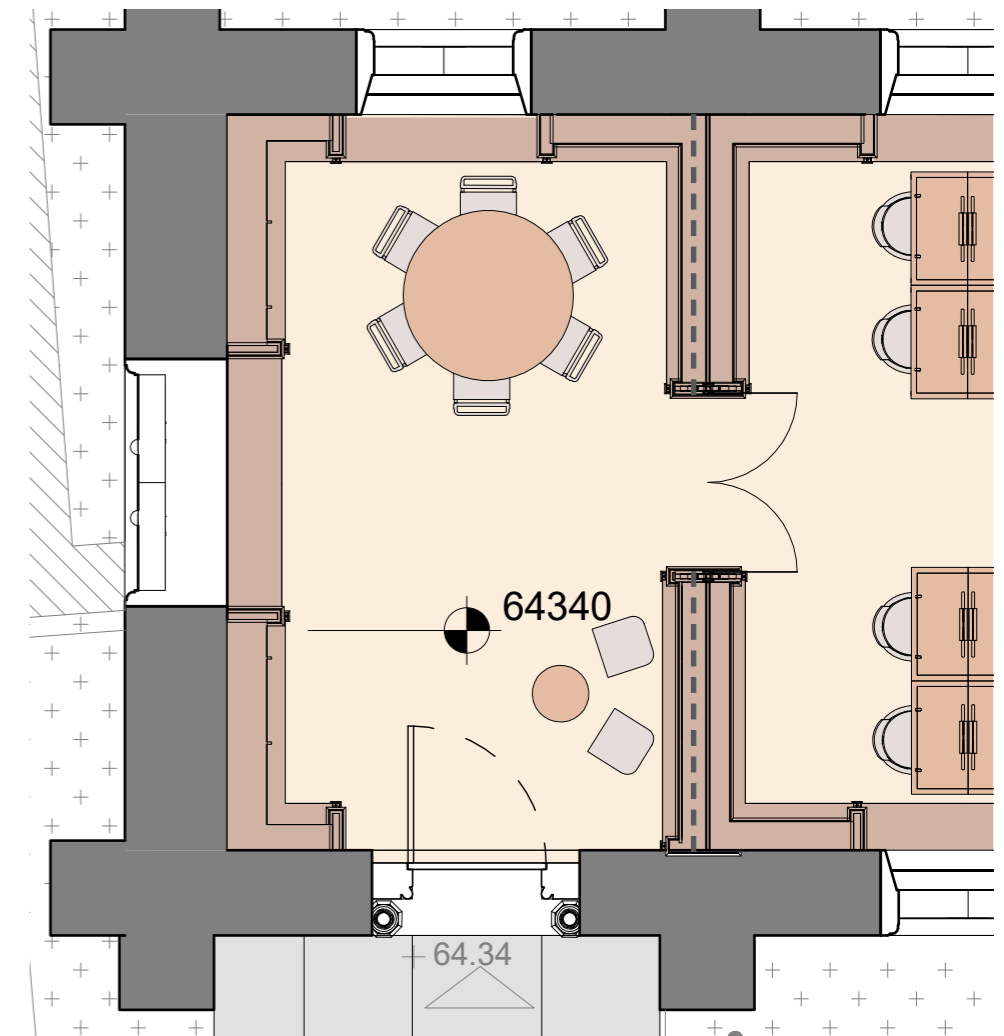
Glass pivot door



Comparison of low-iron and standard glass



View of proposed doors



Plan showing location of proposed doors

3.5 First Floor Steel Beams—

Steel floor beam removal

A series of supporting steel beams running under the ground floor ceiling and supporting the first floor construction are proposed to be removed. It is understood these beams were added in 1898, but the reason for their installation is unclear.

From preliminary analysis the existing floor structure appears to have an unacceptably low natural frequency (if the steel beams are ignored.) This may explain the reasons for addition of the steel beams.

At present, an option which proposes a steel flange plate screwed to the existing timber beams has been proposed (See App A). A plywood deck, also fixed to the top of the existing floor beams adds to the general stiffness, load sharing, and diaphragm action. This option works well with the proposals to provide new services, also located within the floor depth.

From our preliminary analysis, this proposal reduces long term deflections and in-service vibrations to within acceptable limits however further analysis is to be undertaken during the following stages of work.

Construction of new mezzanine

New additions to the building will need to respect its historic significance and heritage fabric. At present, structural additions are limited to the provision of a reduced footprint mezzanine, the installation of new stairs and lift to access the mezzanine, and the installation of a new rooflight within the existing garden store roof.

The design of the proposed mezzanine is to be approached on the basis of a large scale 'piece of furniture' which sits lightly within the space. The design and construction quality of this item is intended to be to a very high level.

Analysis methods

A global analysis model of the proposed mezzanine structure is to be constructed using a coordinated REVIT 3D model and SAP2000, a Finite Element Analysis package. This is used to provide design loads for global stability design.

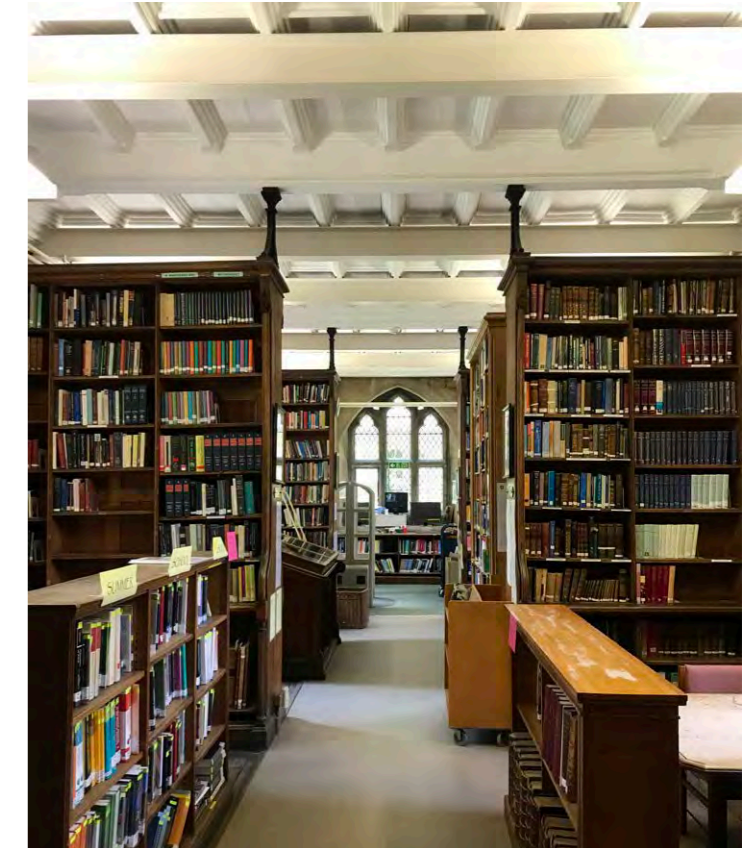
Local component structural design is to be based on simplified load take down analysis of the structure or otherwise output from the global analysis model.

Fire resistance / protection

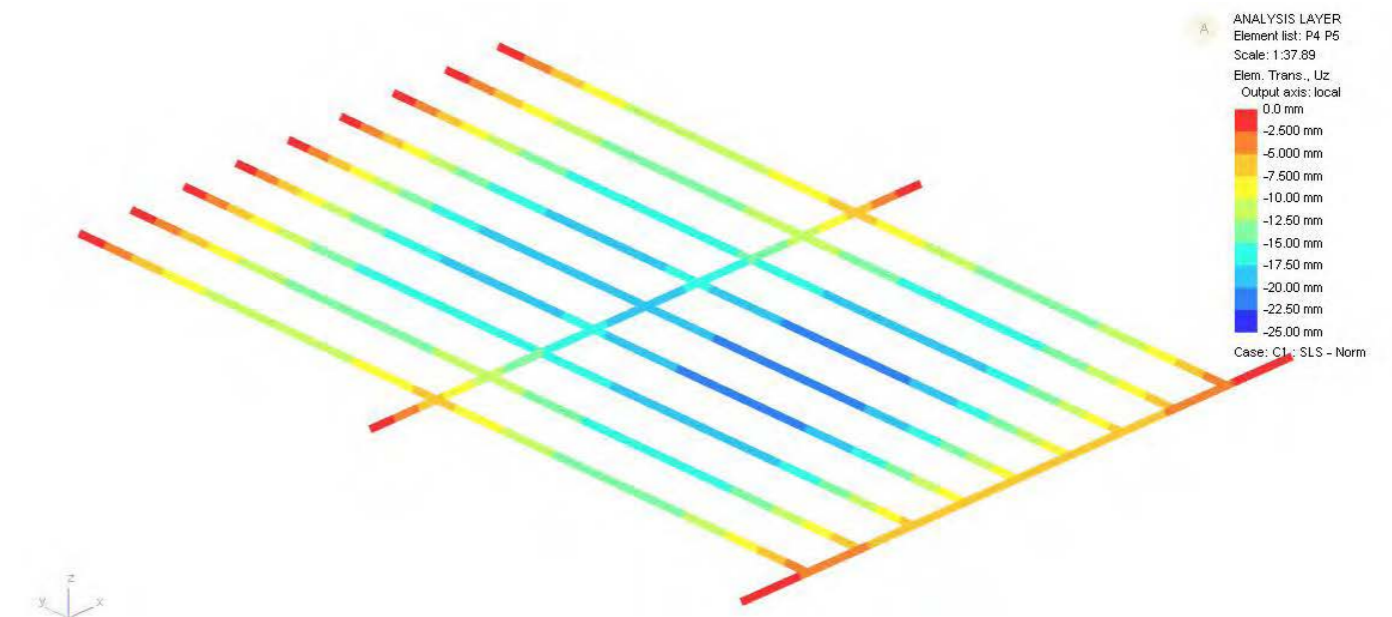
Fire protection is generally provided by the architectural finishes and detailing and is to be specified by the Architect. Steel supporting elements are to have intumescent paint treatment where required.



01.



02.



03.

01. Annex roof structure (existing)
02. Annex roof structure (existing)
03. 1st Floor Deflection analysis (modified)

3.5 First Floor Steel Beams—



3.6 Passenger Lift—

Accessible Lift

A significant technical challenge of the project is the sensitive integration of a passenger lift with the Grade II listed fabric to provide wheelchair access to all areas of the building.

The proposed location minimises the impact on the main library interior, which remains largely as the original Gilbert Scott design.

Externally, the visibility of the lift overrun is minimal from the Fellows' Garden, and is tucked behind the stair turret when viewed from the Rector's Garden.

The top of the overrun has a chamfered profile that sits below the trefoil window on the stair turret. The chamfered profile contains a secret gutter and internal downpipe.

The configuration of lift doors has been studied in detail with access, fire, and lift consultants to ensure technical feasibility.

The proposed lift offers a through-car design, with doors on alternate floors located on opposite sides of the car, offering easier access for wheelchair users. The lift brief can be summarised as follows:

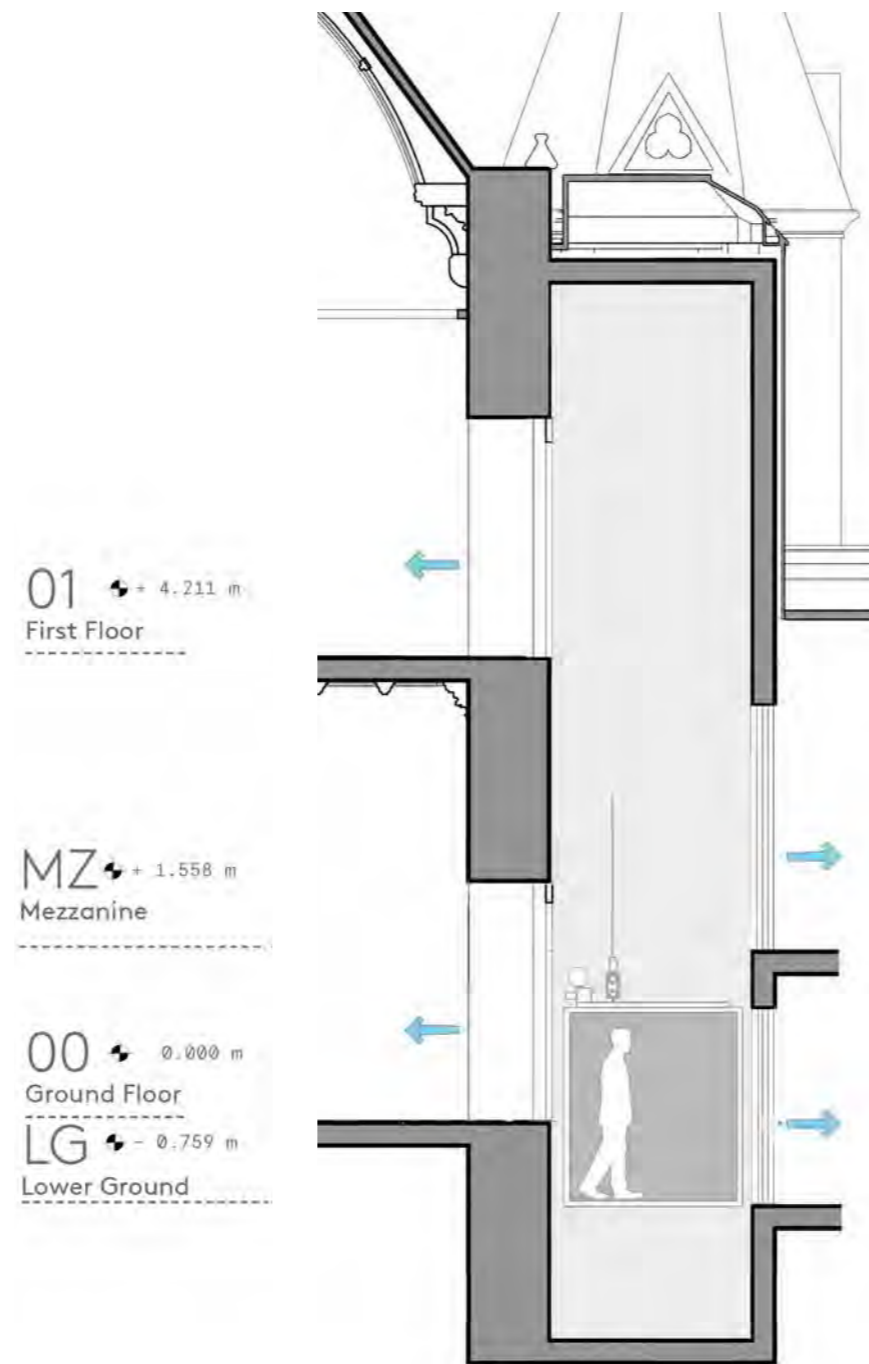
- Provide compliant wheelchair access with 4 stops.
 - Lower ground -0.759m
 - Ground level 0.00m
 - Mezzanine Level 1.558m
 - First Level 4.211m
- Operate as an evacuation lift, complete with an alternative power supply for use in emergency.
- The lift shaft overrun enclosure should remain below the existing building cornice line.
- Minimum Car Size - 1200mm x 1300mm although we understand a number of manufacturers will be able to produce an 1100mm x 1400mm car within the available shaft dimension.

The landing dimensions to the north lift exits are slightly lower than regulations for a new-build scheme, but have been accepted in principle by the Approved Inspector.

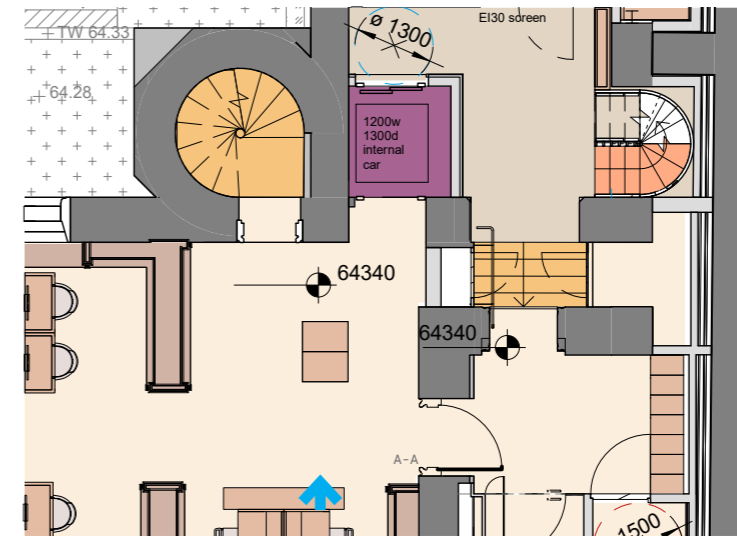
Lift car finishes have been developed and will be sympathetic to the other materials specified in the building.

Discounted Options

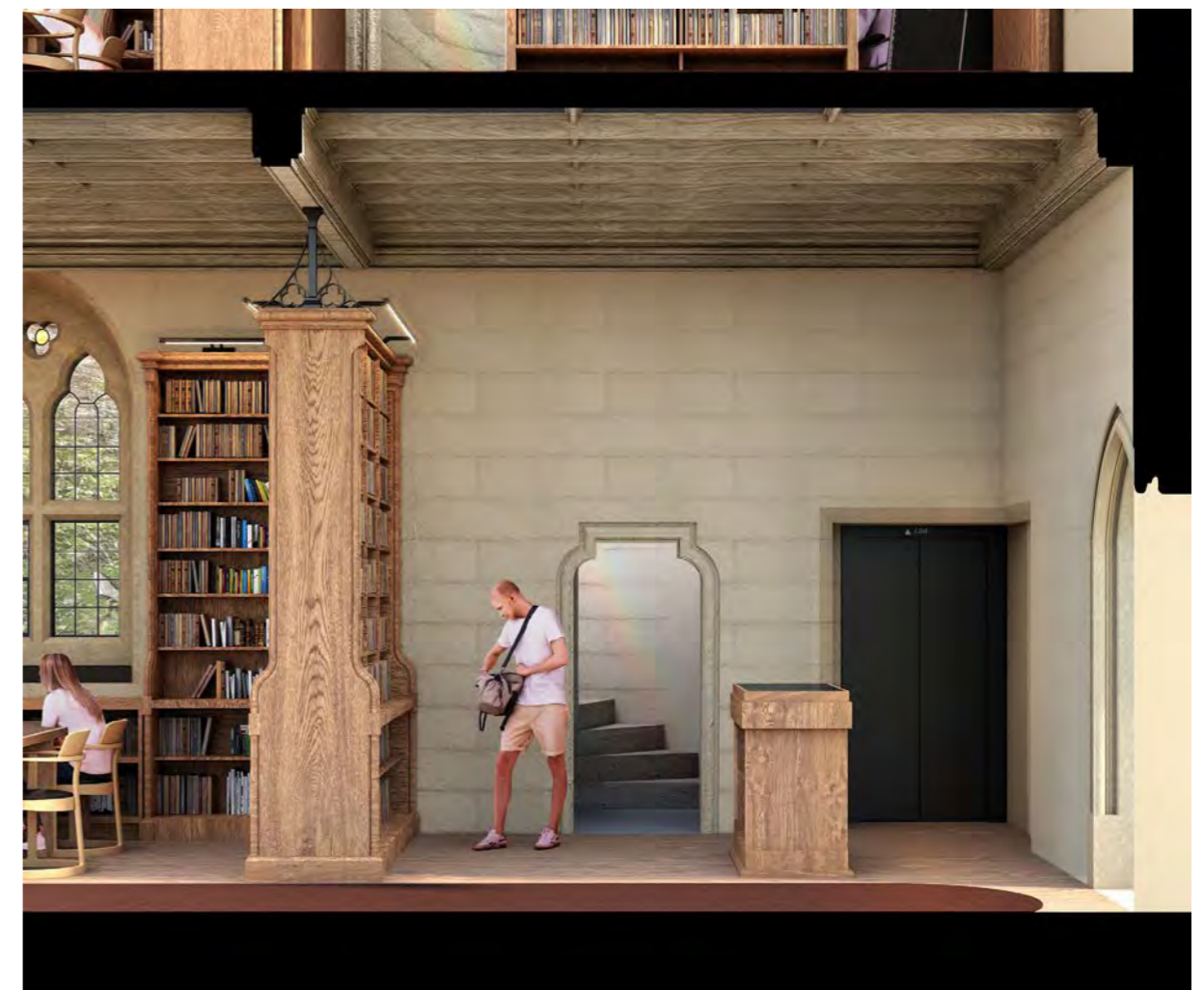
A range of alternative options were examined for the lift to arrive at the proposed location. The options study sought to balance the requirement to provide access to all 4 levels of the library while minimising the harm caused original fabric and the character of the building. A selection of these options is presented on pages 28-30.



01.A-A Schematic Section through lift enclosure

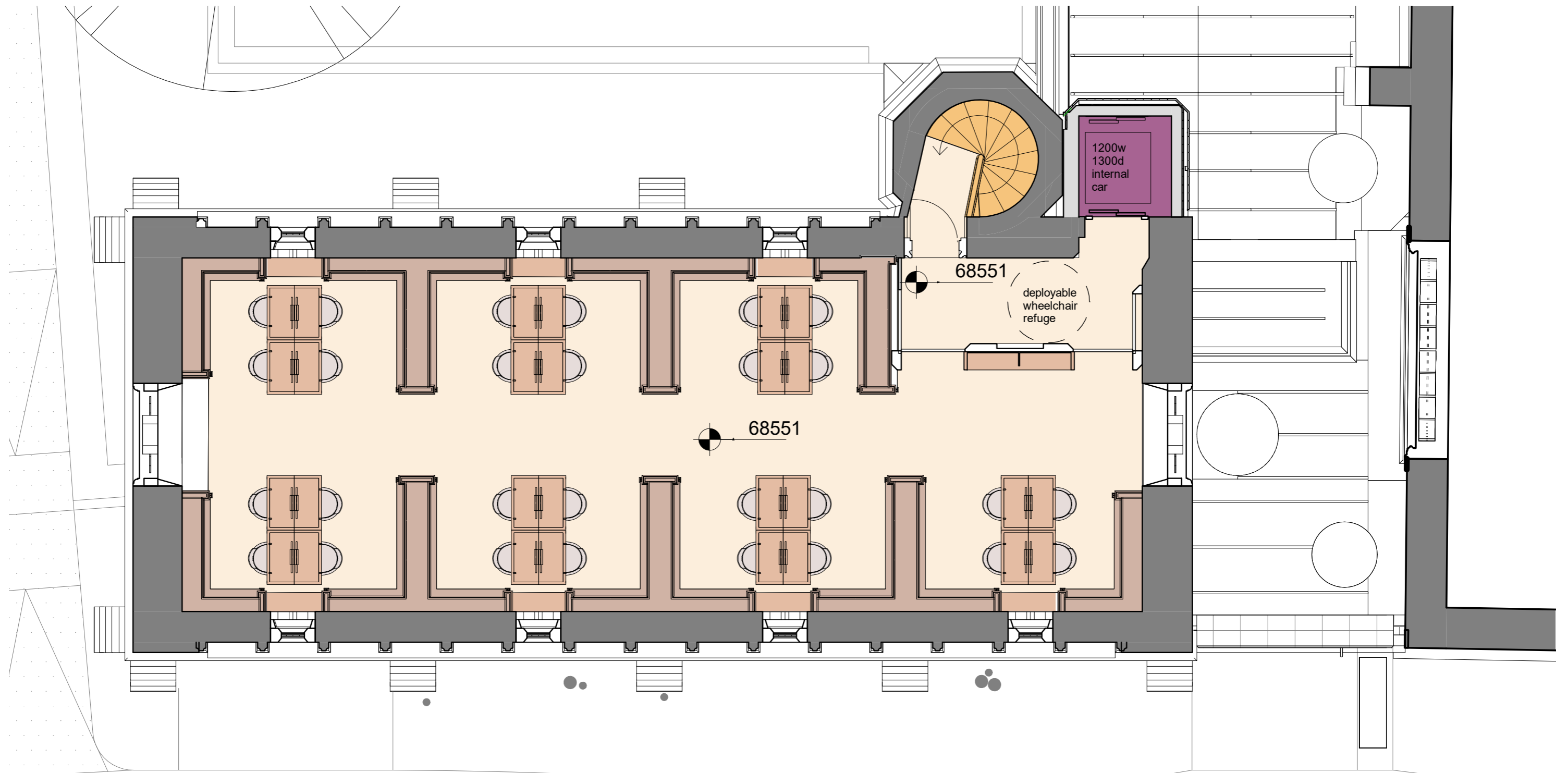


Ground floor plan of lift area



Ground floor sectional view of lift entrance area

3.6 Passenger Lift—



3.6 Passenger Lift—

First Floor Fire Escape

Our proposals include a fire evacuation lift with a separate back-up power supply. In the event of an emergency this will allow people of all abilities to safely evacuate the building.

In the unlikely event that the lift fails to operate in an emergency, evacuation from the first floor level will also require a safe wheelchair refuge: a 30 minute fire and smoke protected compartment that allows a wheelchair user to wait until they can be safely assisted out of the building with the aid of an evacuation chair.

Conventionally, this would require the construction of a fire-rated partition and ceiling enclosing both the top of the stair and lift door at first floor level. In the case of the Library, this would have an unacceptable impact on the listed interiors.

Our proposals use a deployable refuge, which will provide a fire-rated enclosure that closes when a fire alarm is activated. Under normal day-to-day operation, fire doors will be held open. The top will also be open to the wood ceiling above. In the event of an alarm, a horizontal fire curtain will roll out automatically to create a protected compartment.

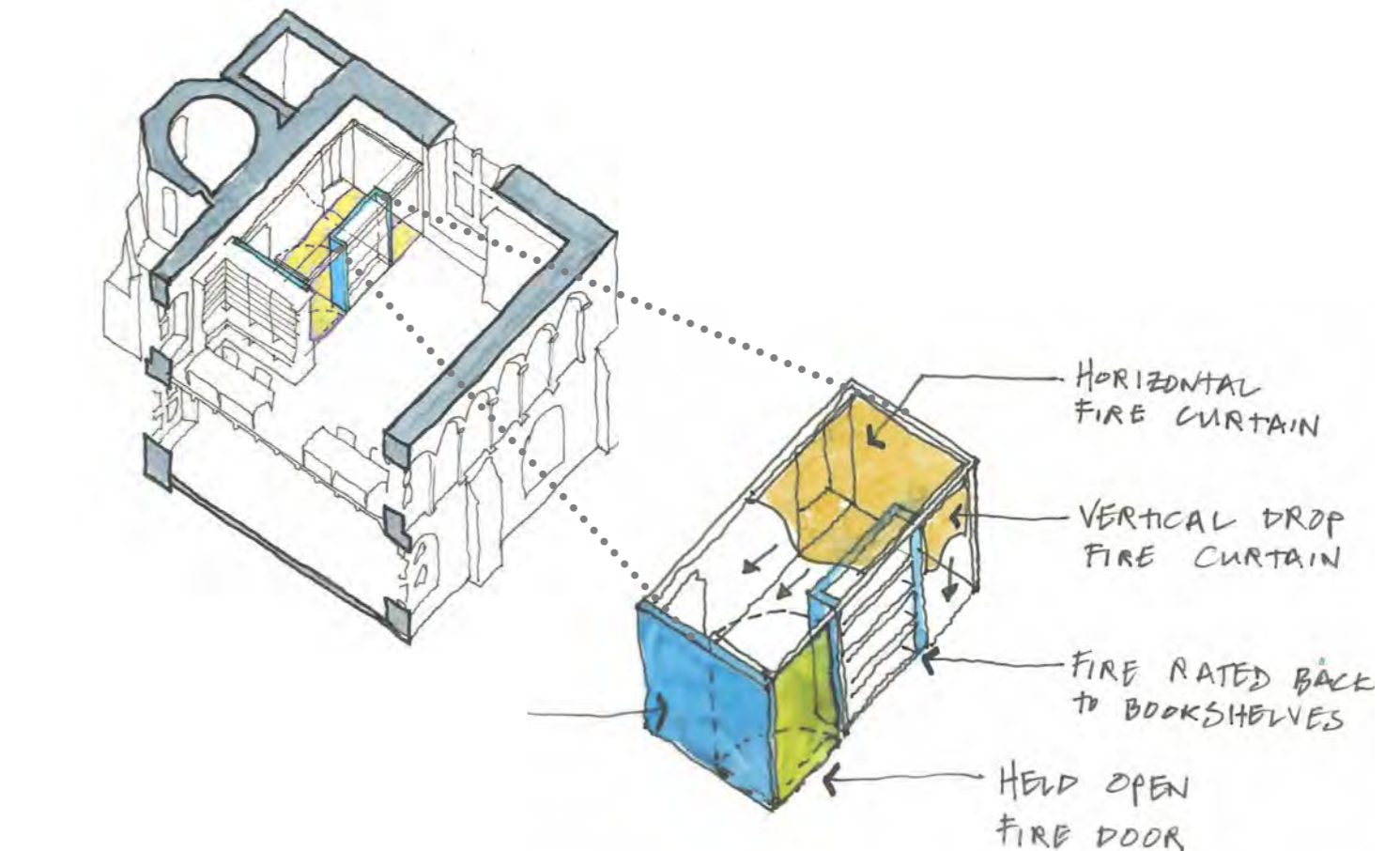
This approach has been agreed with the Approved Building Inspector. Enquiries with specialist manufacturers and submissions to the Approved Inspector will be followed-up with detailed technical development during Stage 4 technical design.

The enclosure is designed to sit neatly into the corner of the first floor adjacent to an original bookcase. The enclosure is intended to be read as a piece of fitted furniture made from oak wood and contains additional book shelving.

- 01. Photo of first floor of Library
- 02. Cutaway Sketch showing deployable refuge
- 03. Photo of First Floor stair entrance
- 04. Example of horizontal fire curtain open
- 05. Example of horizontal fire curtain closed



01.



02.



03.

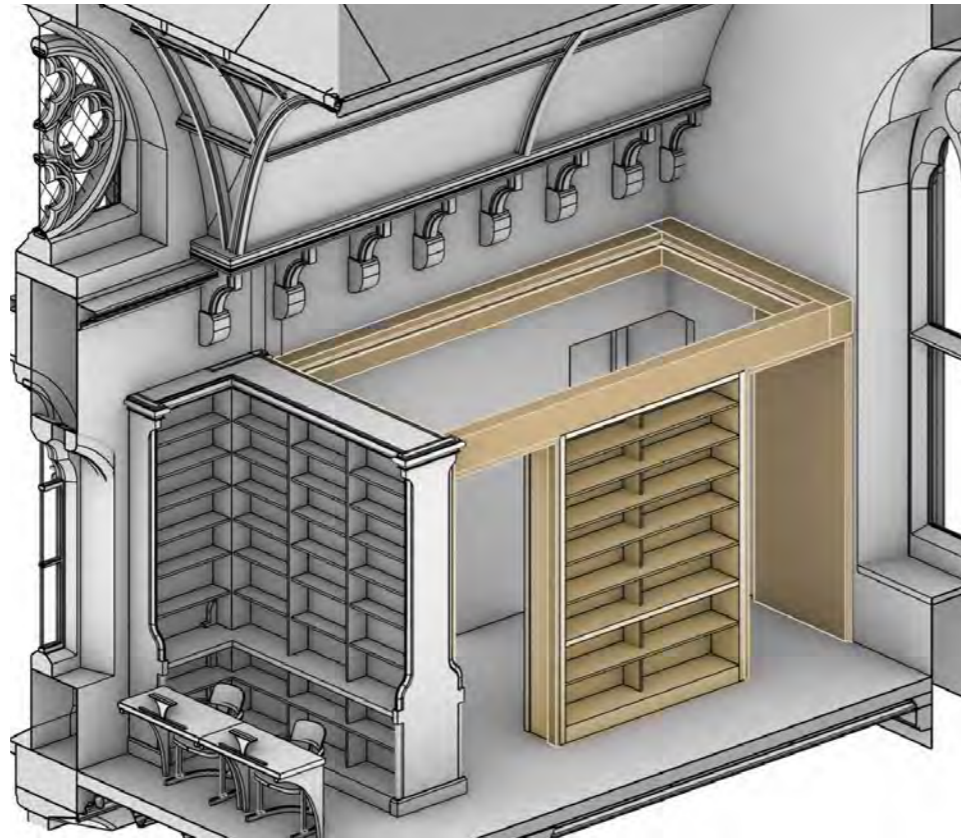


04.

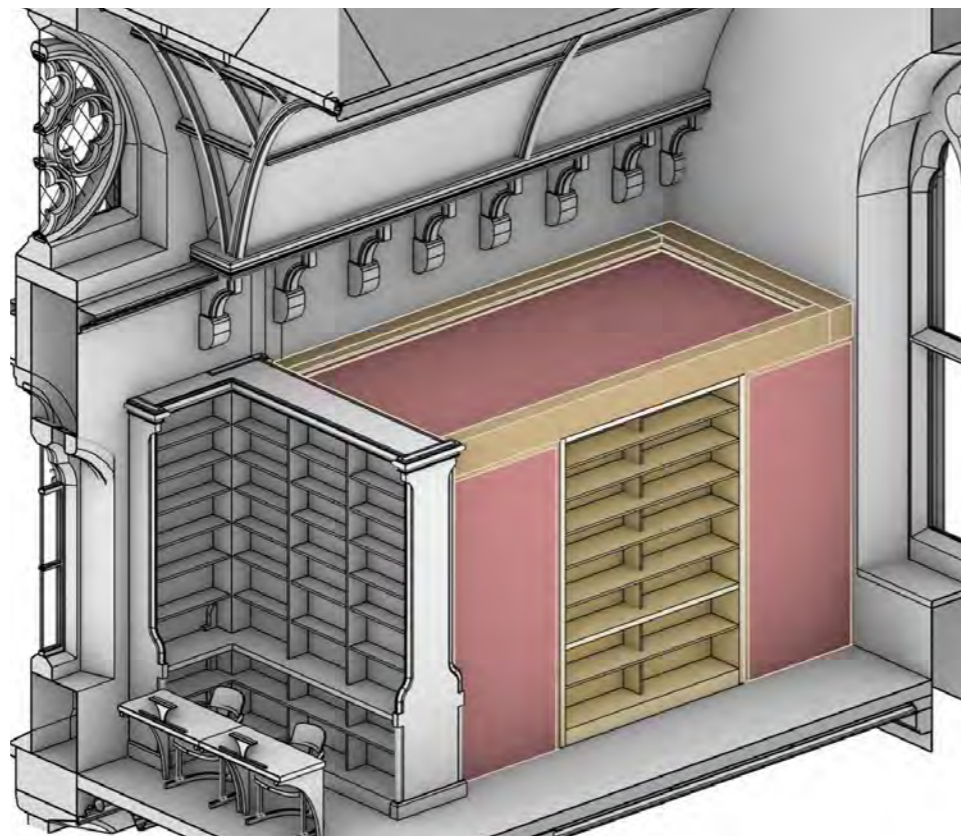


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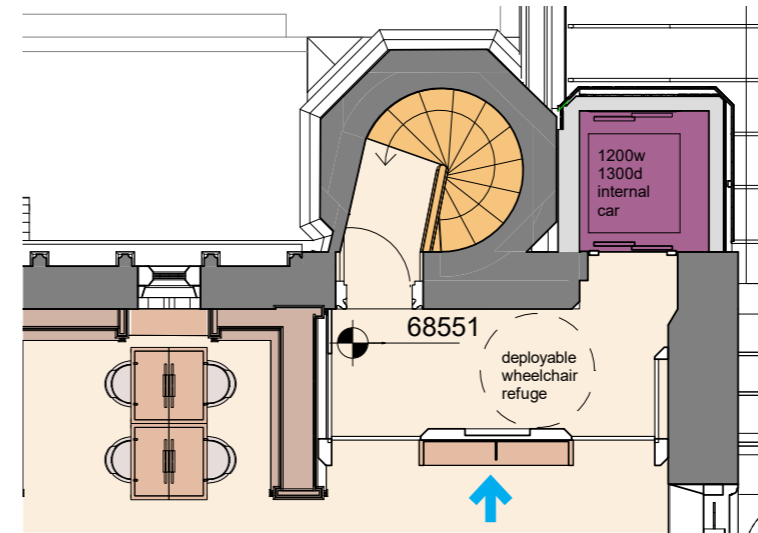
3.6 Passenger Lift—



Deployable Refuge Open



Deployable Refuge Closed



First floor plan of lift area



3.6 Passenger Lift—

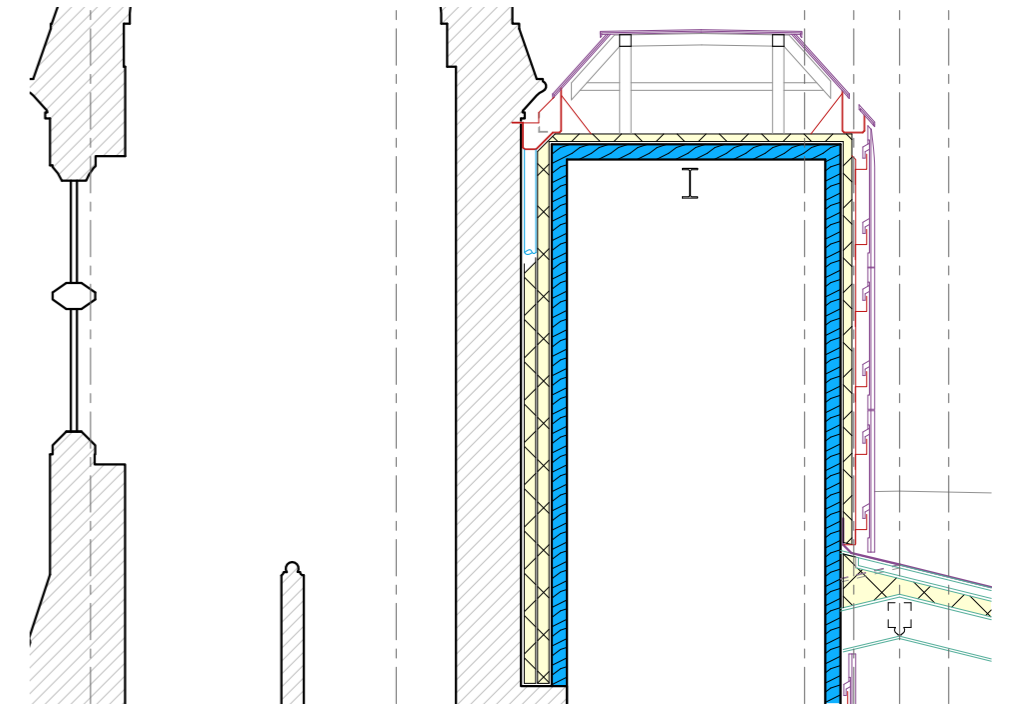


View of first floor of library looking towards west gable end. Disabled fire refuge can be seen on the right.

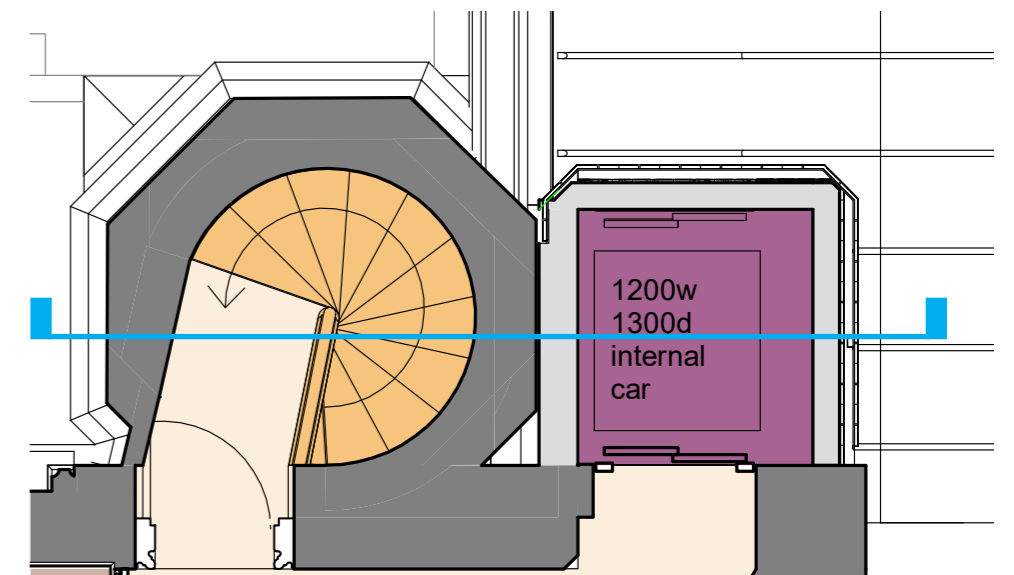
3.6 Passenger Lift—



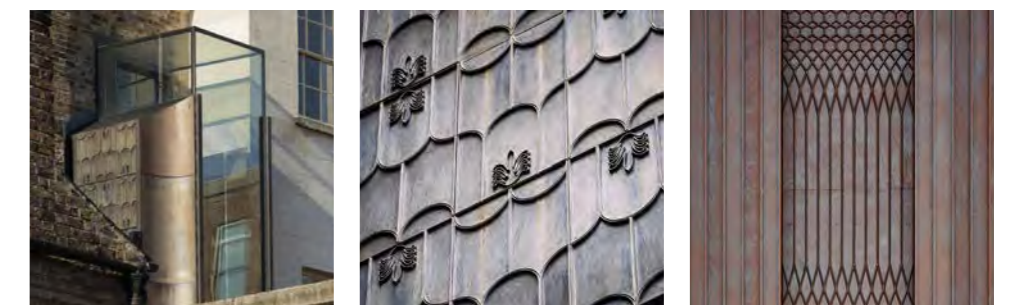
View of lift overrun from Rector's Garden



Vertical section through lift overrun and stair turret

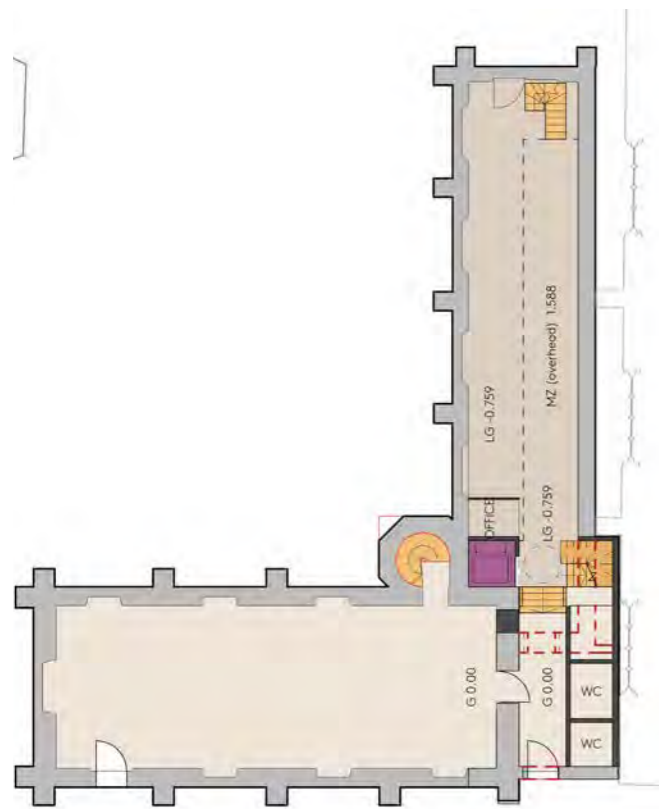


First floor plan of lift shaft

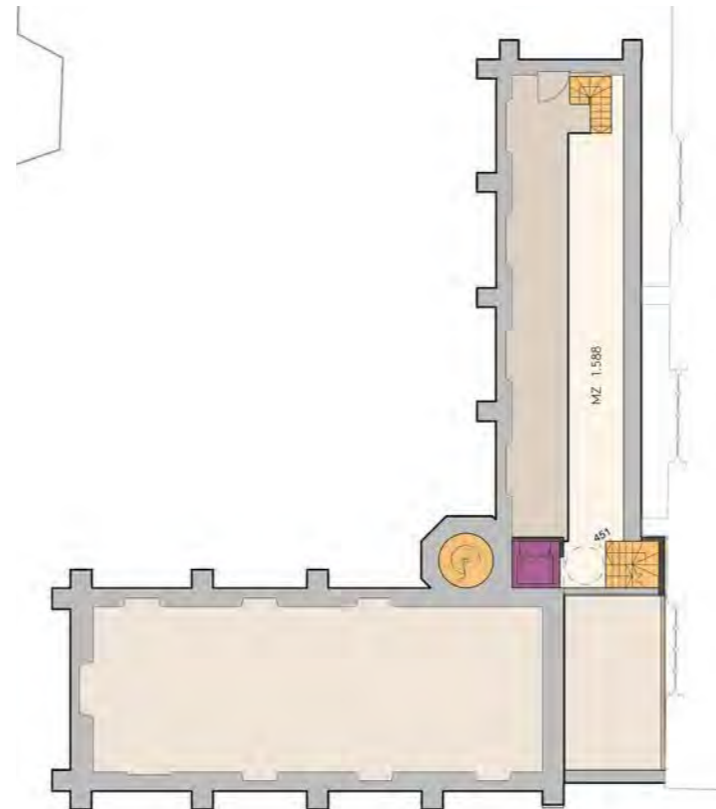


Cast Iron Cladding Panel References

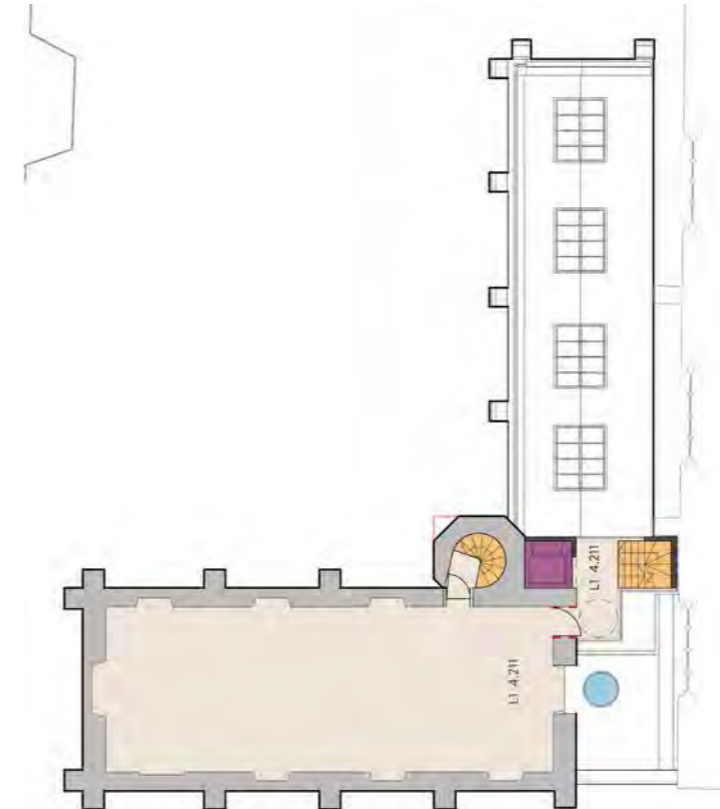
3.6 Passenger Lift—



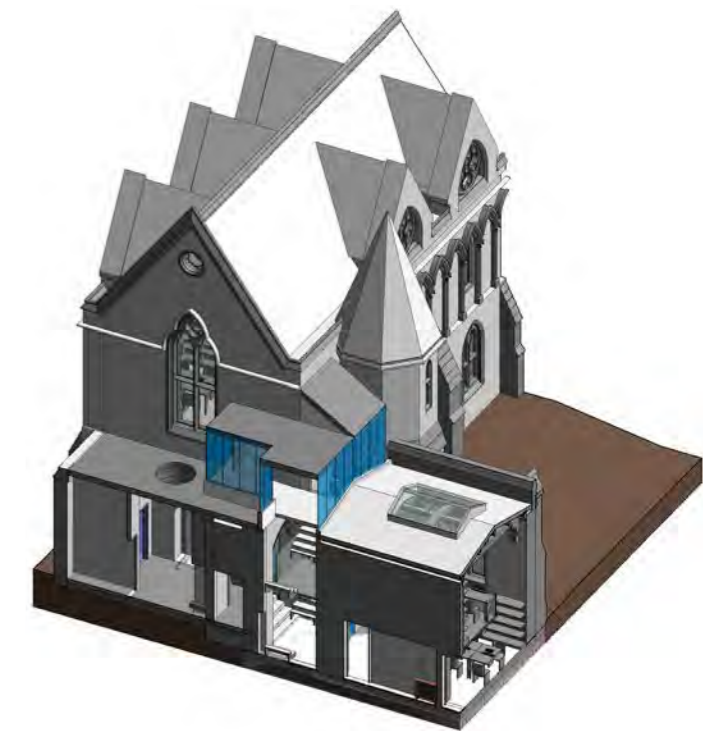
01.



02.



03.



01. Ground and Lower Ground Floor plan
02. Mezzanine Level Floor plan
03. First Level Floor plan

Discounted Option: External Refuge

Option 2 utilises the inaccessible 'slot' of land along the Bodleian boundary to allow the insertion of a new staircase connecting lower ground, mezzanine and first floor. Lift access is also provided to these levels with a sesame or platform lift linking ground and lower ground floors.

A new landing at first floor level is enclosed by a glazed volume, providing an alternative means of escape from the first floor via a new opening formed within the gable-end wall.

Alterations

- Requires the removal of southern arch currently enclosing strongroom space.
- Requires re-modelling of party wall along Bodleian boundary and roof to link block.
- Potential for level access to annex north door via lowering of landscape level in new 'library garden.'
- At first floor level a new opening will be formed in the main library gable-end wall to provide access to the lift /stair lobby.
- Removal of existing mezzanine and associated steelwork. Removal of steelwork in old library.

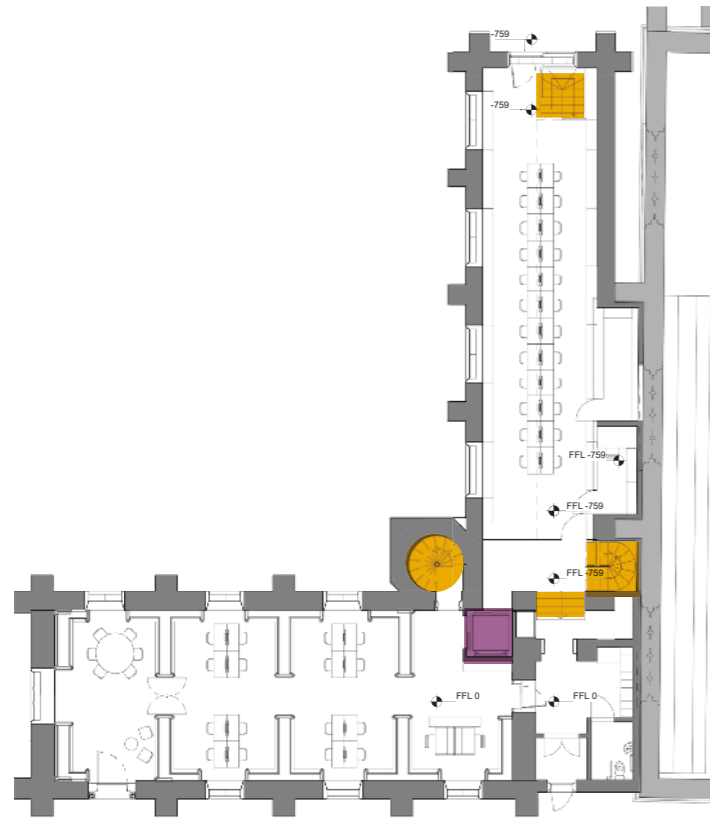
Benefits

- Provides alternative access to first floor level via a simple, minimal glazed volume.
- Offers wheelchair access to all levels.
- Offers consolidated staircase arrangement linking all levels with additional staircase access to first floor.
- Offers alternative escape from first floor level refuge.

Challenges

- Risk associated with extending into courtyard 'slot' along Bodleian boundary.
- Proximity of new construction to Bodleian external wall /Convocation House window.
- Heritage impact of forming opening within gable-end wall.
- Re-modelling of stone walls within 'link block'
- Visibility of new glazed circulation volume from fellows garden will need to be justified to planners.
- Questionable benefit of lift access to mezzanine level.

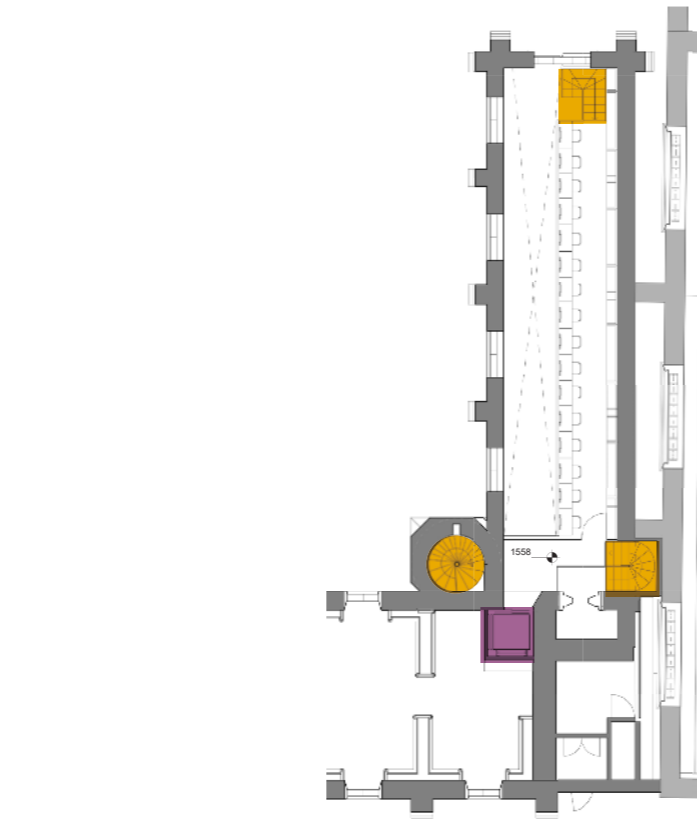
3.6 Passenger Lift—



01.

Discounted Option: Liftshaft Within Main Library

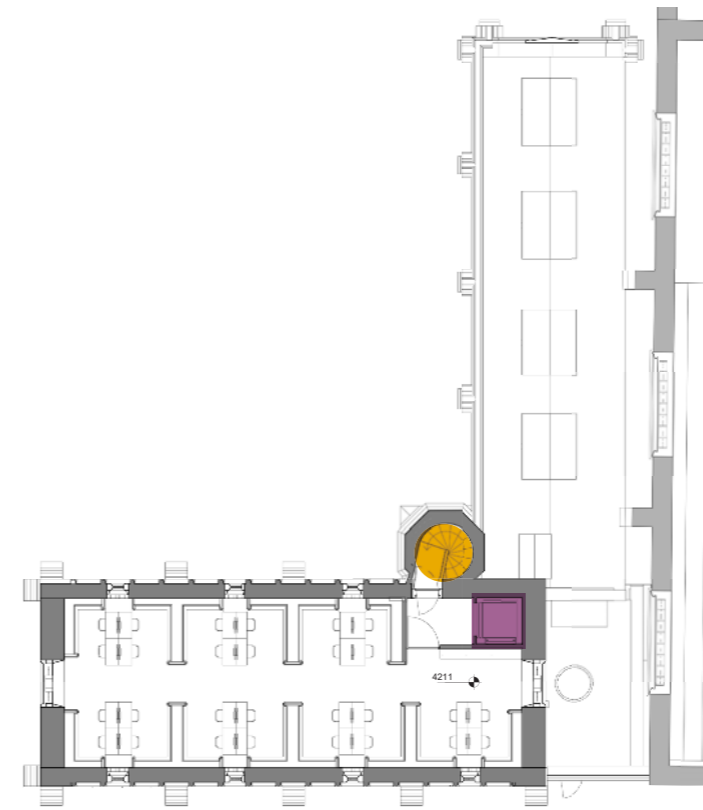
The options position the lift within the main library volume with the shaft penetrating through the first floor of the library. A wheelchair refuge is constructed within the library space at first floor.



02.

Alterations

- Alteration of north external wall to create lift openings on lower ground and mezzanine levels.
- A new opening will be formed in the first floor of the main library requiring the removal of original floors, beams, ceiling and stone corbels.
- Removal of existing mezzanine and associated steelwork. Removal of steelwork in old library.



03.

Benefits

- Impact of alterations is minimal to the external walls or roof.
- Offers wheelchair access to all levels.
- Offers alternative escape from first floor level refuge.

Challenges

- An internal lift shaft has a significant detrimental impact to the character of high-value interior spaces of the main library at ground and first floor.
- Experience of upper floor ceiling is compromised due to required fire enclosure.



- 01. Ground and Lower Ground Floor plan
- 02. Mezzanine Level Floor plan
- 03. First Level Floor plan
- 04. Section view showing impact of internal lift shaft



04.

3.6 Passenger Lift—



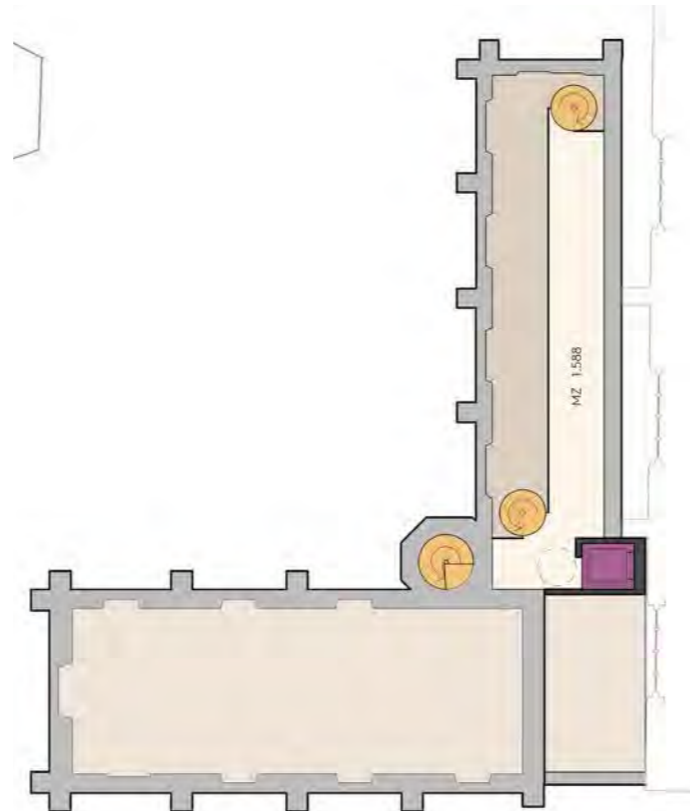
01.

Discounted Option: Lift on East Wall

This option utilises the inaccessible 'slot' of land along the Bodleian boundary to insert the lift. The lift serves all levels of the building and offers a possible alternative means of escape from first floor level.

The new landing at first floor level is enclosed by a simple glazed volume set back from the south facade minimising the impact on the building roof-scape.

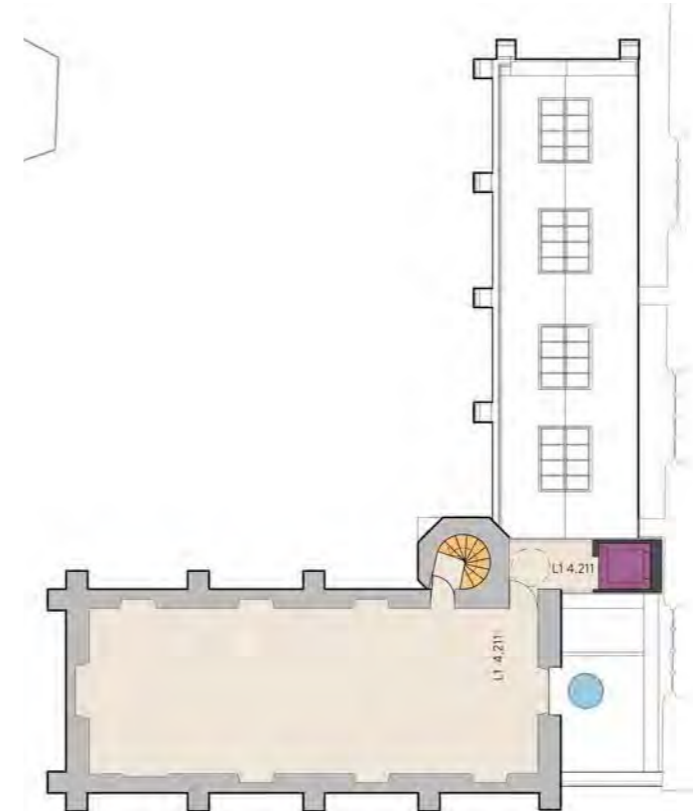
The proposal offers a secondary entrance along the south facade and potential long views through the annex volume.



02.

Alterations

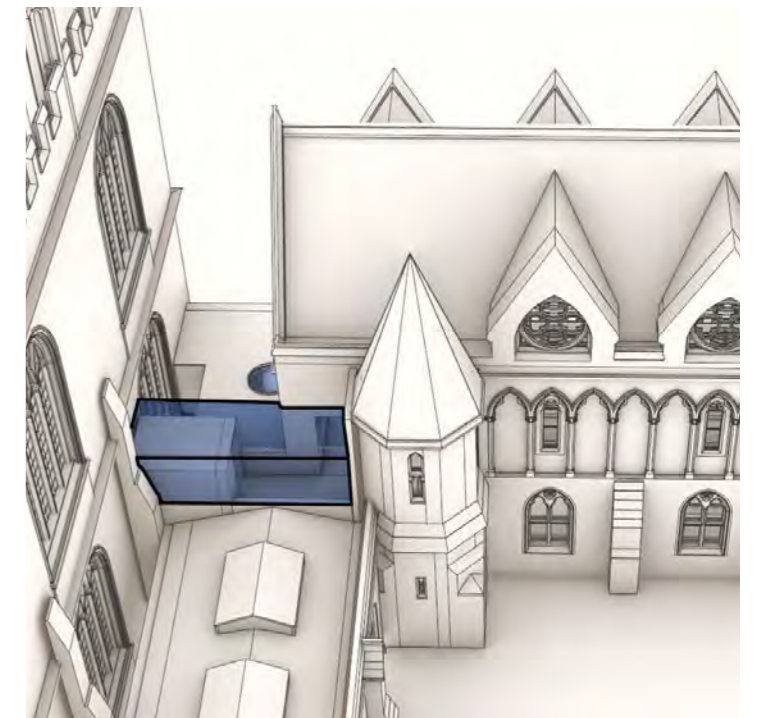
- Requires the removal of both stone archways and stone walls within the annex volume.
- Requires re-modelling of party wall along Bodleian boundary and roof to link block.
- Potential for level access to annex north door via lowering of landscape level in new 'library garden'
- At first floor level a new opening will be formed in main library external wall adjacent to the turret to provide access to the lift lobby.
- Removal of existing mezzanine and associated steelwork. Removal of steelwork in old library.



03.

Benefits

- Provides alternative access to first floor level via lift and lobby enclosed within a simple, minimal, glazed volume.
- Offers wheelchair access to all levels.
- Lift overrun positioned away from stair turret preserving integrity of stair turret volume.



- 01. Ground and Lower Ground Floor plan
- 02. Mezzanine Level Floor plan
- 03. First Level Floor plan

Challenges

- Risk associated with extending into courtyard 'slot' along Bodleian boundary.
- Proximity of new construction to Bodleian external wall / Convocation House window.
- Low Ceiling height within link block due to interface with Bodleian window.
- Risk associated with lift pit excavation on Bodleian boundary.
- Extensive re-modelling of stone walls within 'link block.'
- Narrow Entrance to annex with fully DDA compliant lift.
- Questionable benefit of lift access to mezzanine level.
- No protected stair escape route from refuge.