

6

Architecture

6.1

Civic Centre

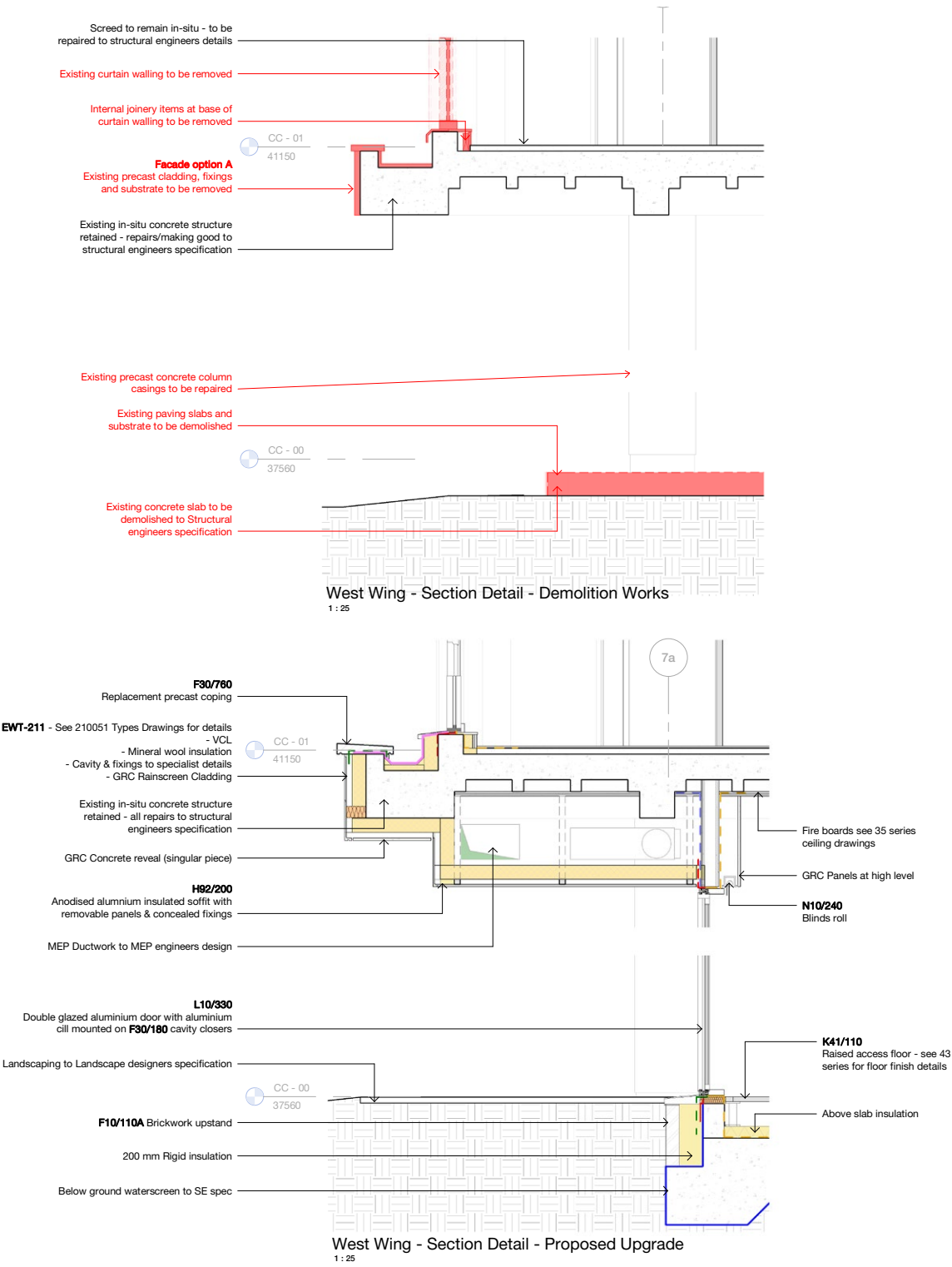
6.1.2

West wing undercroft

Proposal

The external undercroft space under the first floor west wing is to be enclosed with glazed screens to provide a light and airy welcome space opening out to the woodland garden area and central courtyard. The glazing is to be positioned to the inner face of the existing columns to retain the appearance of a wing on pilotis.

To avoid exposed ductwork running through the welcome space itself, it is proposed to route ductwork under the overhang to the south of the wing. The ductwork is to be concealed within a bulkhead clad in GRC panels as shown in the detail right. The perspective view (bottom right) illustrates the visual impact is relatively minimal.



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6.1

Civic Centre

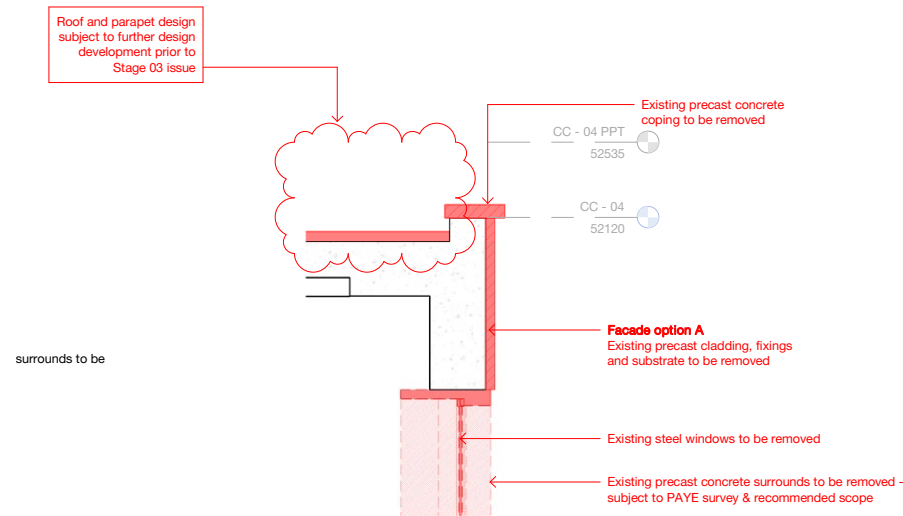
6.1.3

Attic Storey

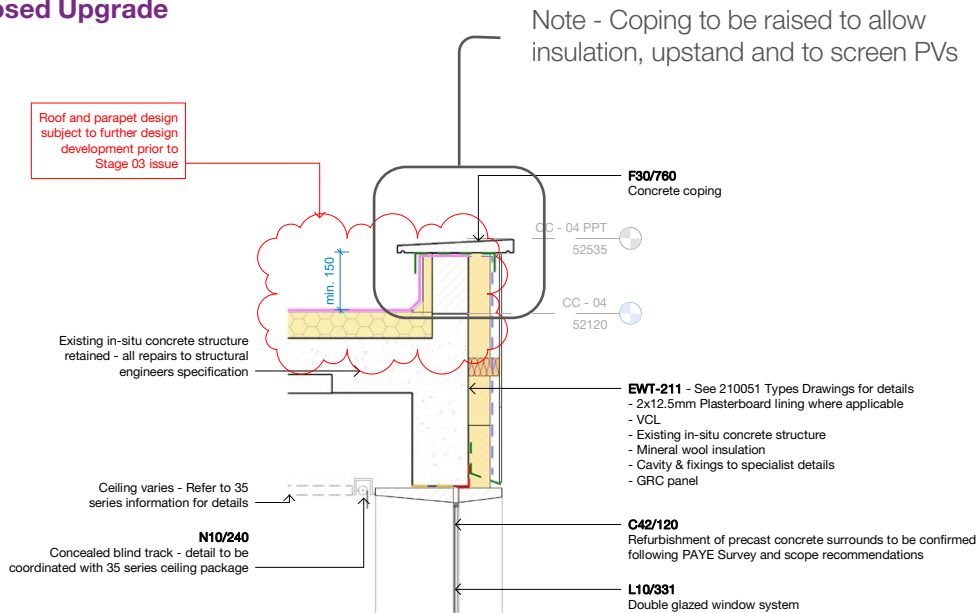
Proposal

The attic storey is currently clad in pre-cast panels. As described on the previous page the current proposal is to replace all pre-cast panels with insulated GRC panels. At attic level this provides the opportunity to lift the parapet height by 350mm in order to conceal new insulation to the roof and an improved 150mm upstand to the rear of the parapet. This upstand will provide a better weatherproofing detail and help to hide the photovoltaic panels proposed for this roof area (refer to Section 6.3.2)

Demolition Works



Proposed Upgrade



Perspective view - original height



Perspective view - additional 350mm parapet



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6.2 Trinity Road Building

6.2.1 Development of the building form and massing

Summary

To meet the councils requirements for additional floorspace, an extension of the existing Civic Centre is required - the car park site to the rear of the council is to be developed for this purpose.

The diagrams on the following page set out the design principles adopted to achieve the required floor area and connectivity, whilst respecting the heritage value of neighbouring buildings and the specific challenges of the context.

The proposal can be summarized as follows:

- A square plan, three storey building with single storey recessed roof plant - currently referred to as the Trinity Road Building
- A two storey link block to the west of the site, connecting the Trinity Rd Building to the existing west wing
- A first floor bridge structure connecting the Trinity Rd Building to the existing north wing staircore.

Design Development

During RIBA Stage 1, the design team met with the Haringey Design and Conservation Officers to informally discuss alternative approaches to the development of the car park site. This led to the adoption of 'Option B (4 storey)' - the basis of the current design.

Over the course of Stages 2 and 3 this strategic approach to the site massing has been tested and refined taking into account comments from numerous Pre-application meetings and two Quality Review Panels. The design has undergone a variety of changes including:

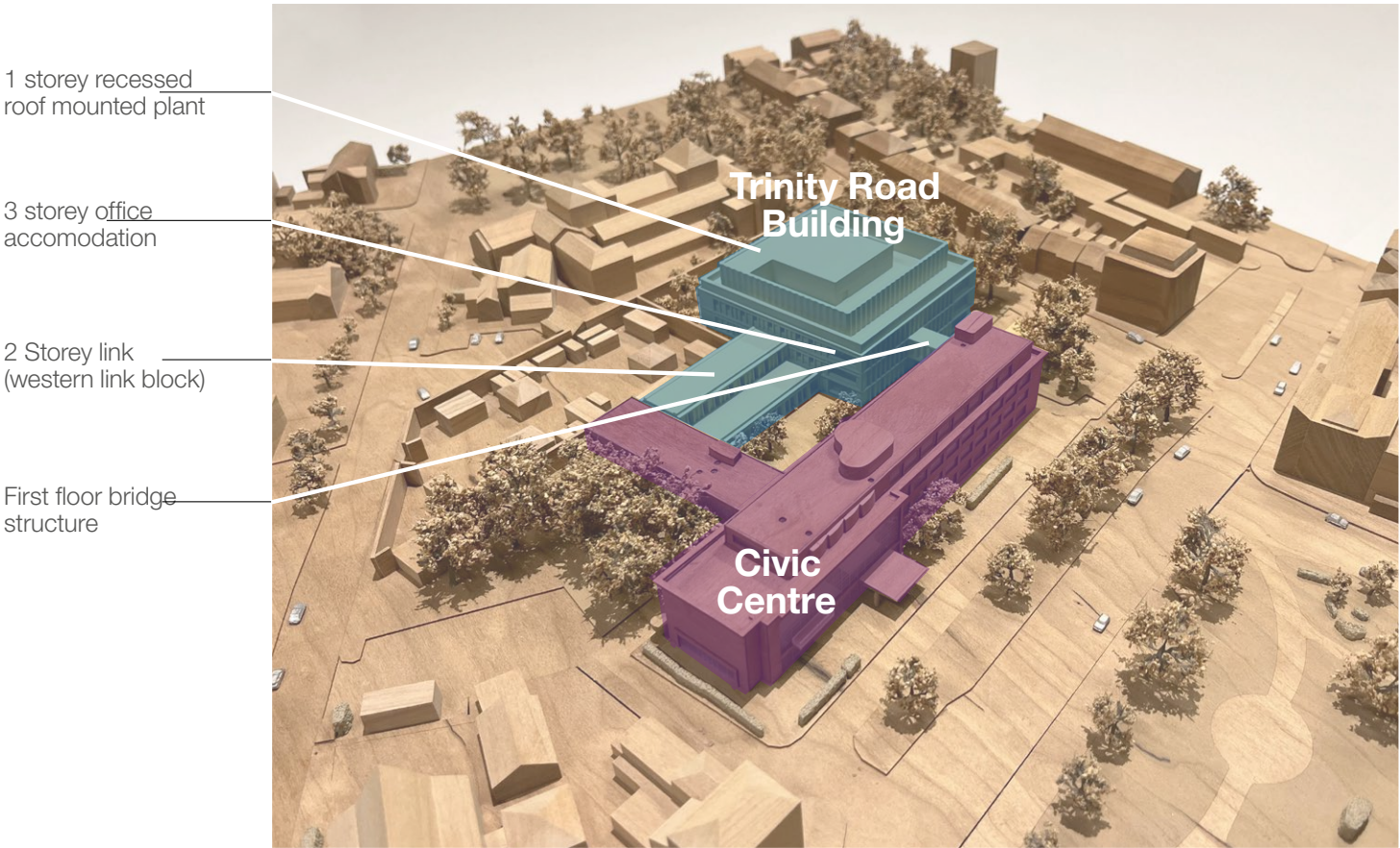
- Basement omitted
- Plant relocated to the roof
- Height of the Trinity Rd building reduced by 1 storey
- Floorplate reduced (distance from school increased)

A key discussion point during the Pre-app meetings was the height and design of the plant screen. Collaboration with MEP and Structure the plant screen has been reduced in height and set back from the perimeter. The design of the plant screen has also developed, providing additional articulation to the GRC panels.

The QRP panel provided the following feedback:

"The panel warmly supports the proposals. The project team has...presented a scheme that is sensitive, works well, and is in keeping with the spirit of the original building."

The height and massing are an appropriate response to both the existing Grade II building and the wider context."



Stage 1 Option B (4 Storey)



Revised Stage 02 Proposal



Early Stage 03 Proposal



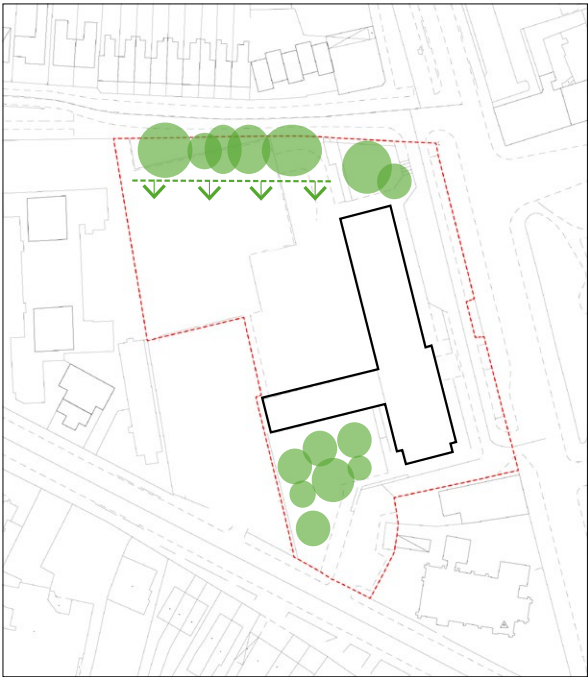
Current Proposal

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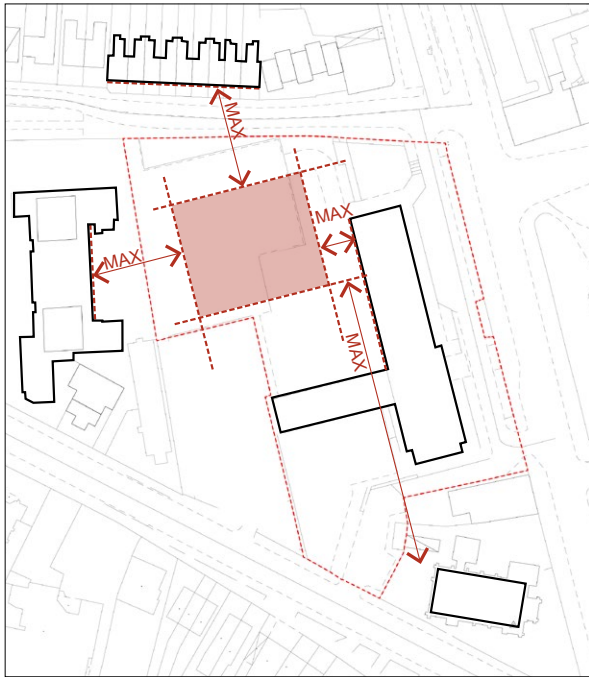
Architecture

6.2 Trinity Road Building

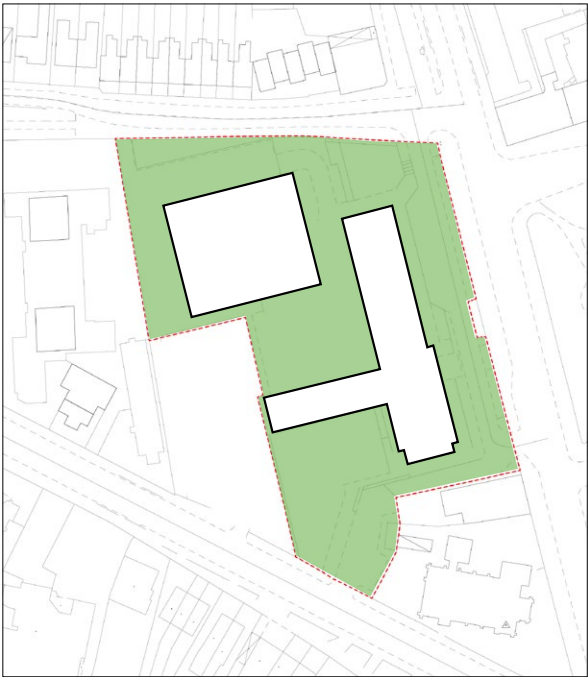
6.2.2 Design Principles



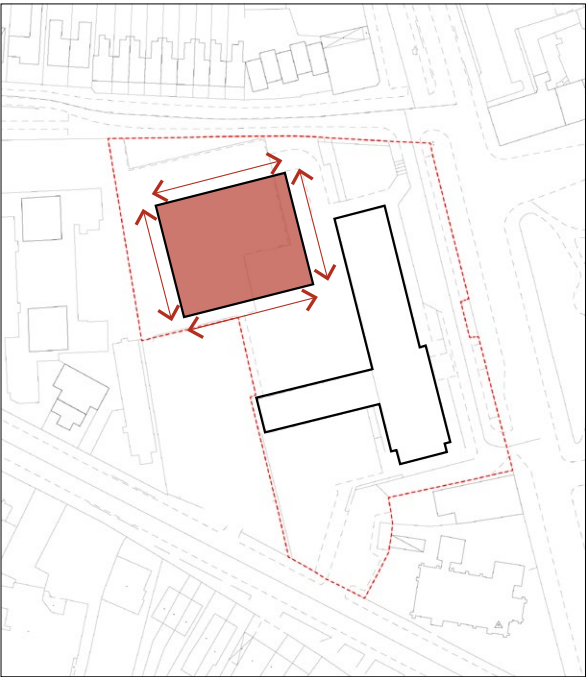
1. Retain existing trees on Trinity Road
New Trinity Building to be built outside of the root protection zone



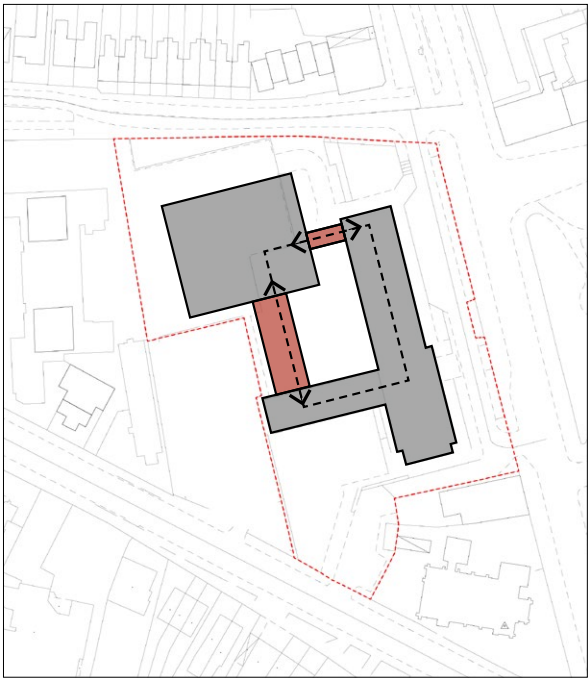
2. Offset from neighbouring buildings
Locating the Trinity Building to maximise distance from neighbouring buildings



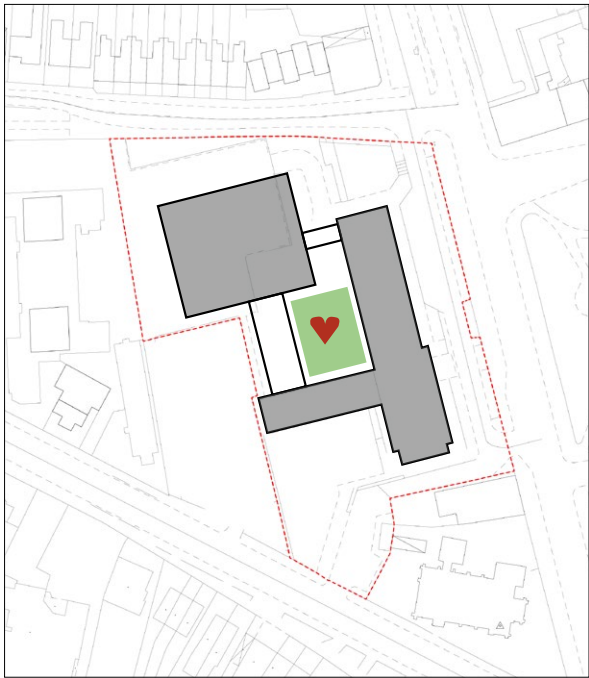
3. Adopt 1950s planning principles
The new building is designed as an object in a park, adopting design principles from the original 1950s master plan for the site



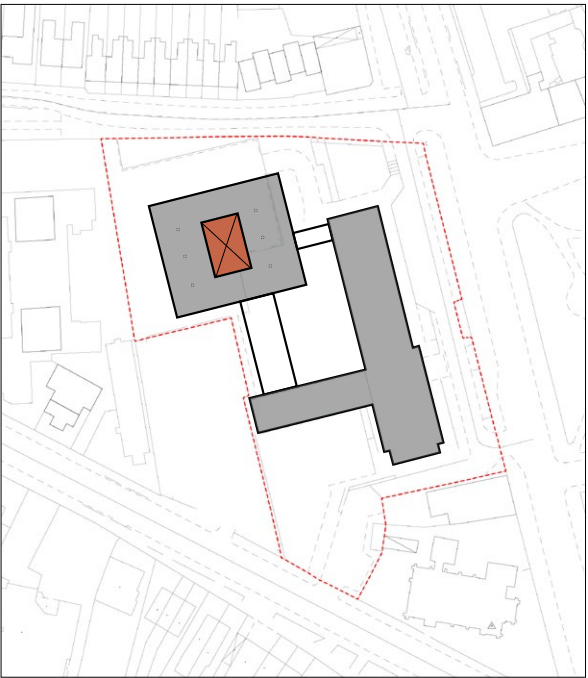
4. Building Form
Efficient & simple building form that maximises the form factor ratio between floor & facade area to reduce facade & increase floor space



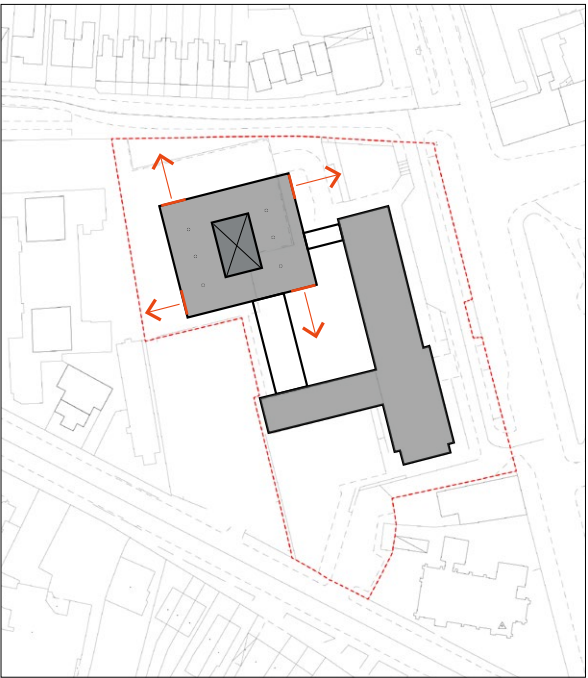
5. Connection to Civic Centre
Linking the Civic Centre to the new building maximising connectivity between the two buildings



6. Central courtyard
Creating an internal central courtyard at the heart of the development adopting the original master-plan for the site



7. Core Location
The Trinity Building core is centrally located on plan to offer maximum flexibility to the floor plate



8. Picture windows
Larger windows located on the corners of the new building frame views out of the building & allow views in from the public realm

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6.2 Trinity Road Building

6.2.3 Building form and massing



6 Architecture
6.2 Trinity Road Building
6.2.3 Building form and massing



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Architecture

6.2

Trinity Road Building

6.2.4

Solar Control

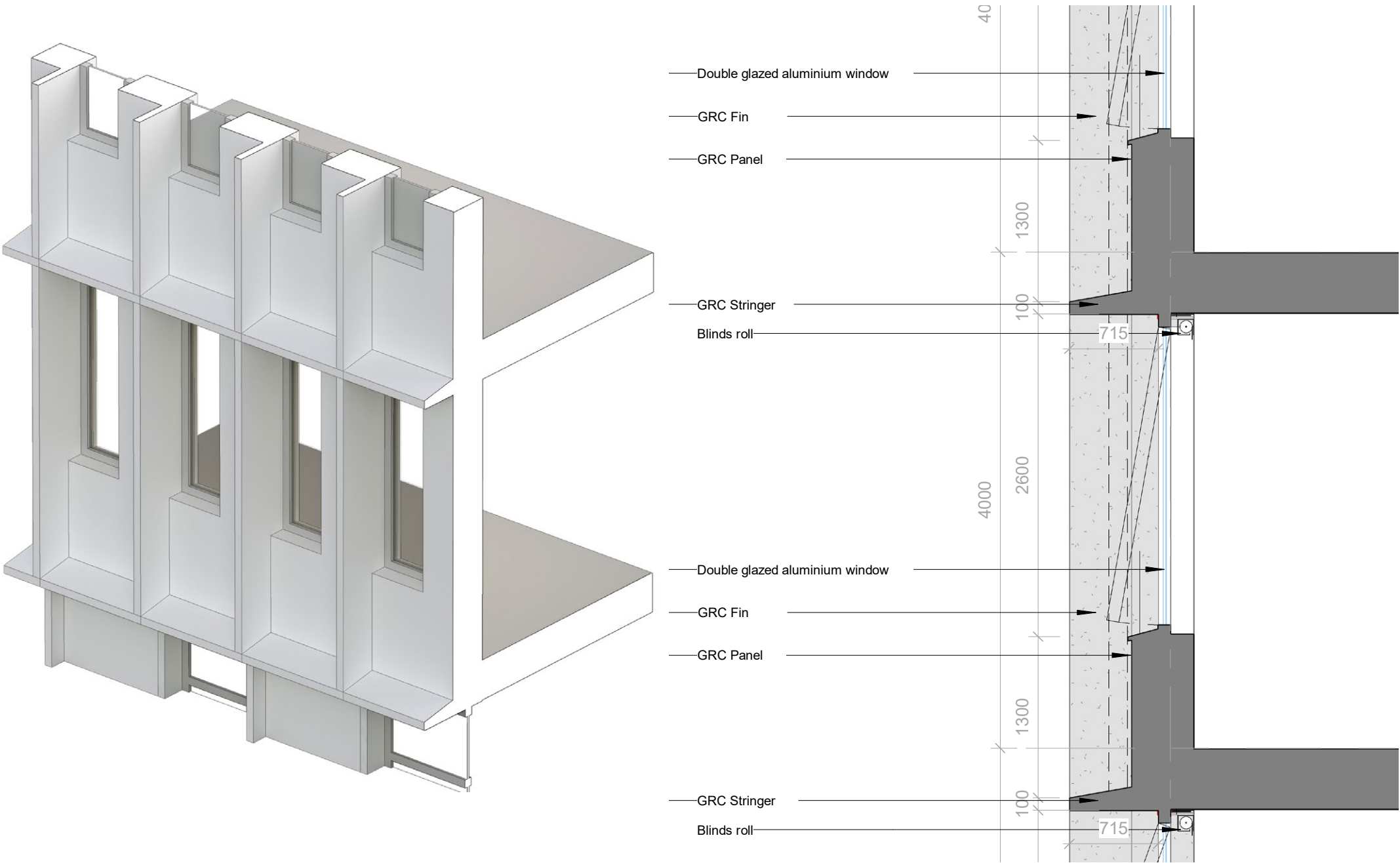
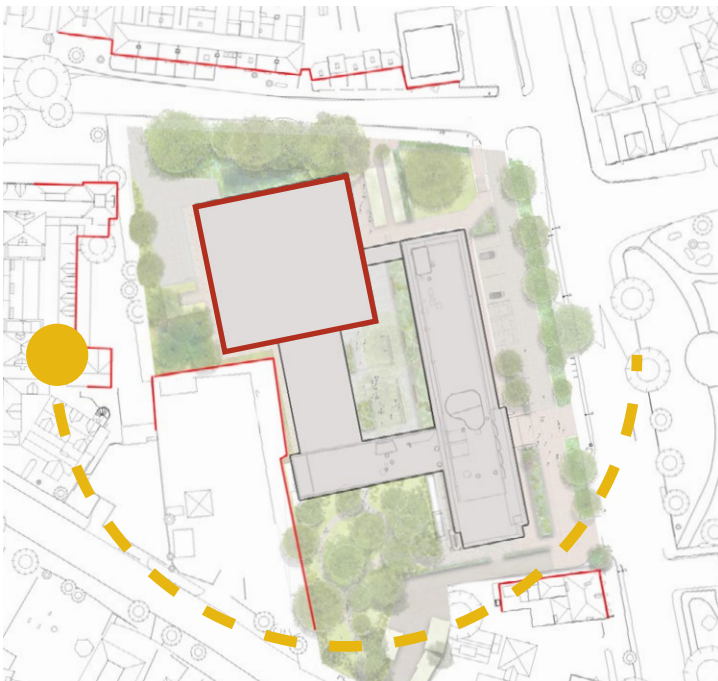
Solar control

The building envelope is 40% glazed to both maximize natural light within the interior and avoid overheating. To minimize solar gain (heat from the sun), the facade requires shading in the form of projecting vertical fins and horizontal stringers. These projecting elements will also provide an appealing pattern of light and shade. The fin spacing and positioning of adjacent windows responds to each façade's solar orientation. The window sill is aligned with desk height.

The windows, solid panels, fins and cornices are set out on a rational grid picking up on the regular panellised cladding and vertical windows of the Civic Centre attic. The grid follows a regular module, but changes on different floor levels and on different façades in response to different environmental conditions. This helps bring variety and animation to the facade and helps break down the mass of the building

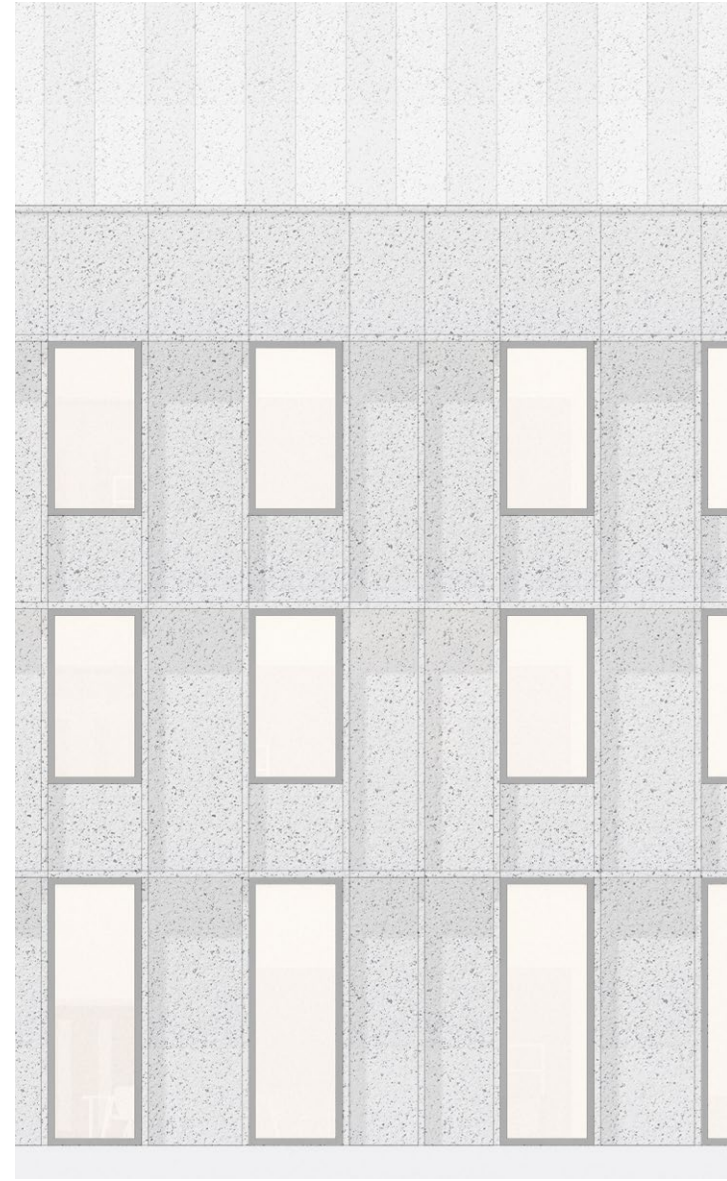
At key points around the building large picture windows are introduced to celebrate key internal spaces and allow this to be read on the elevation. This lets building users and visitors to understand the building organisation from the outside.

Site plan below

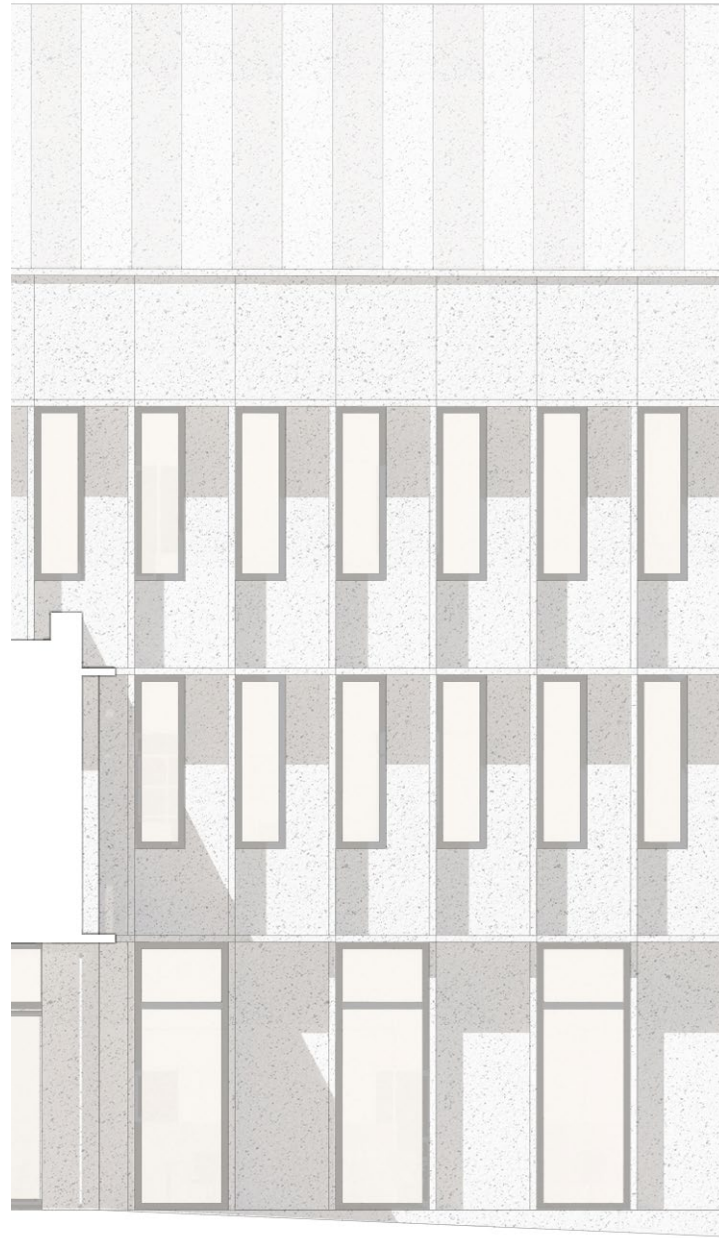
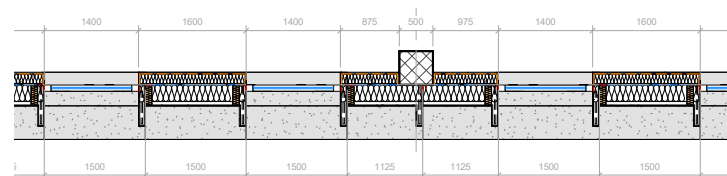


6.2.4 Solar Control

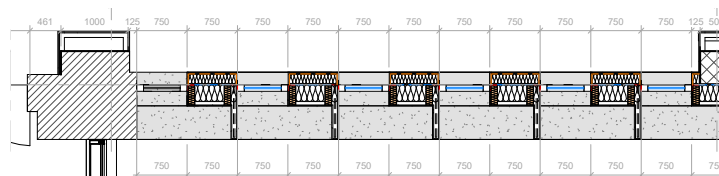
The fin spacing and positioning of adjacent windows responds to each façade's solar orientation.



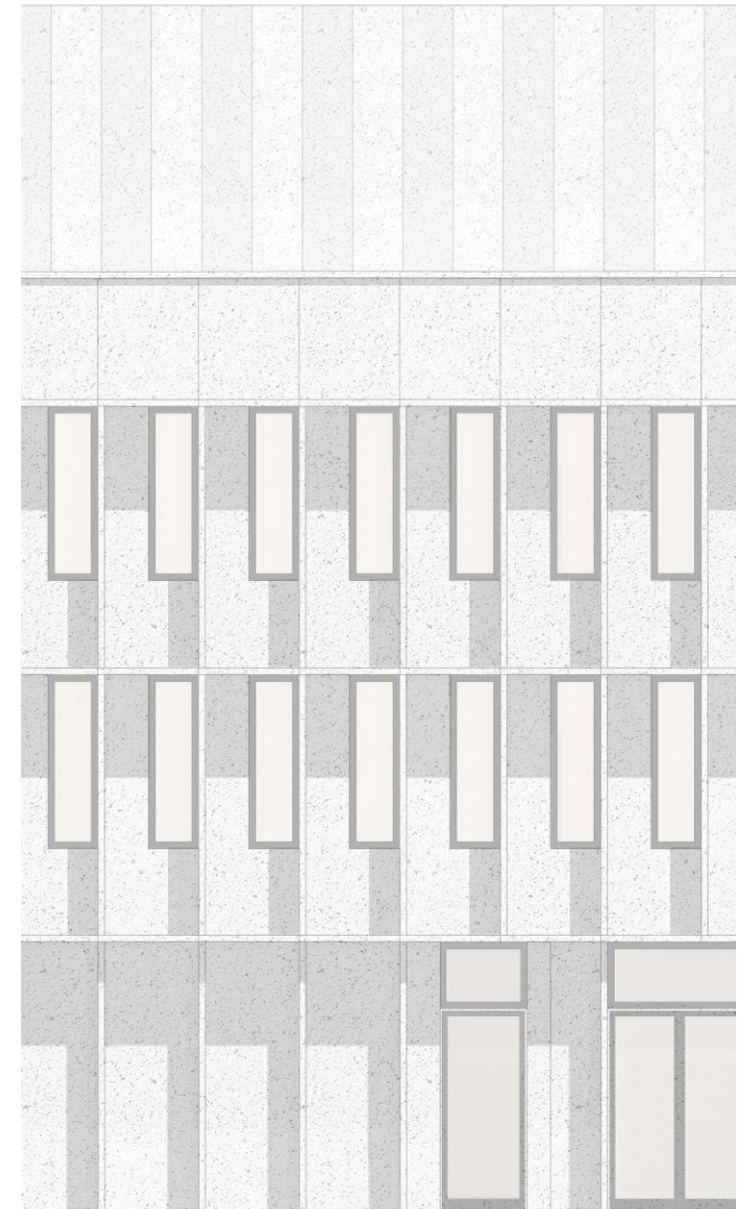
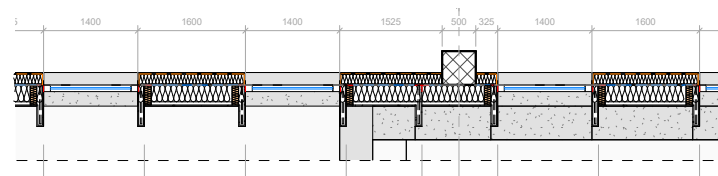
North



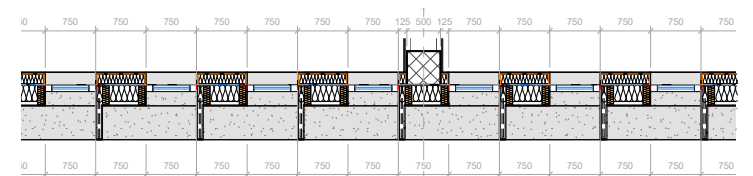
East



South



West



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Architecture

6.2

Trinity Building

6.2.5

Materials - Drawing inspiration from the existing building

Material Palette

The starting point for the design development of the annexe is the existing Civic Centre. The design team has drawn inspiration from the existing building and the original design intent for the original 1950s master plan.

Key features of the existing facade:

- 1
- Use of artificial stone (pre-cast)
- Highlighting the lobby, registrar and council chamber to the High Rd elevation
 - For the attic storey
 - West wing
 - Elements of the west facade

2

Attic to the Civic Centre is setback and submissive to the primary façade,

3

Attic has rational grid of panellised material, vertical windows and fins

4

Sculptural concrete forms to the lift over run and plant room.

* A piece of the pre-cast artificial stone panel from the Civic Centre third story attic knocked off by remedial works. The design team have been reviewing material samples of artificial stone cladding (GRC) , to find a suitable match to the original colouring of the concrete and stone cladding of the Civic Centre.

Embodied Carbon

The façade of a building is a high proportion of the potential embodied carbon within a building. The design team are working reduce any embodied carbon through several ways:

- Where possible, simplify the massing of the building to produce an efficient form factor (ratio of internal floor area to external wall area)
 - Develop a low carbon façade build up using low embodied carbon materials and construction techniques

The material selection is vitally important to any building as it forms the first visual impression. The balance between visual appearance and carbon will need to be carefully struck as some materials have higher embodied carbon than others.

To help the design team in these decisions Hawkins Brown have developed a tool (HBERT) for analysing materials to better understand how aesthetics can be achieved using lower carbon materials. The tool is a compendium which can analyse and compare different materials and wall build-ups as well as being able to analyse the BIM model and give an accurate value for embodied carbon within the project as a whole.

A selection of external wall build ups have been analysed using the HBERT tool and are shown right for the Civic Centre. As can be seen from the data, a proposed artificial stone (GRC) build-up offers significant reduction in embodied carbon over options such as aluminium rain-screen.



Existing Material Palette



Proposed Material Palette

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Trinity Road Building

6.2.5

Materials

Axonometric Bay Study

The artificial stone (GRC) panels can be formed into a variety of shapes and sizes through a mould. As the panels are formed in this way they can be very thin, reducing the embodied carbon within them and the total weight of the material. This lightweight facade further reduces the need secondary steel supports which again is of benefit to lower embodied carbon.

The image below shows how the material can be formed into elegant thin fins which the design team are proposing for the basis of the solar shading strategy within the Annex.

GRC has been selected because the material:

- can be colour matched to the existing building
- can be formed into highly articulated panels to create the required solar shading fins and stringers (see below)
- is sufficiently robust that the panels can be thin and lightweight.
- has low embodied carbon



1. ARTIFICIAL STONE (GRC)
Rainscreen cladding system as main facade material

2. ROCKWOOL INSULATION
250mm A non-combustible rainscreen installation.

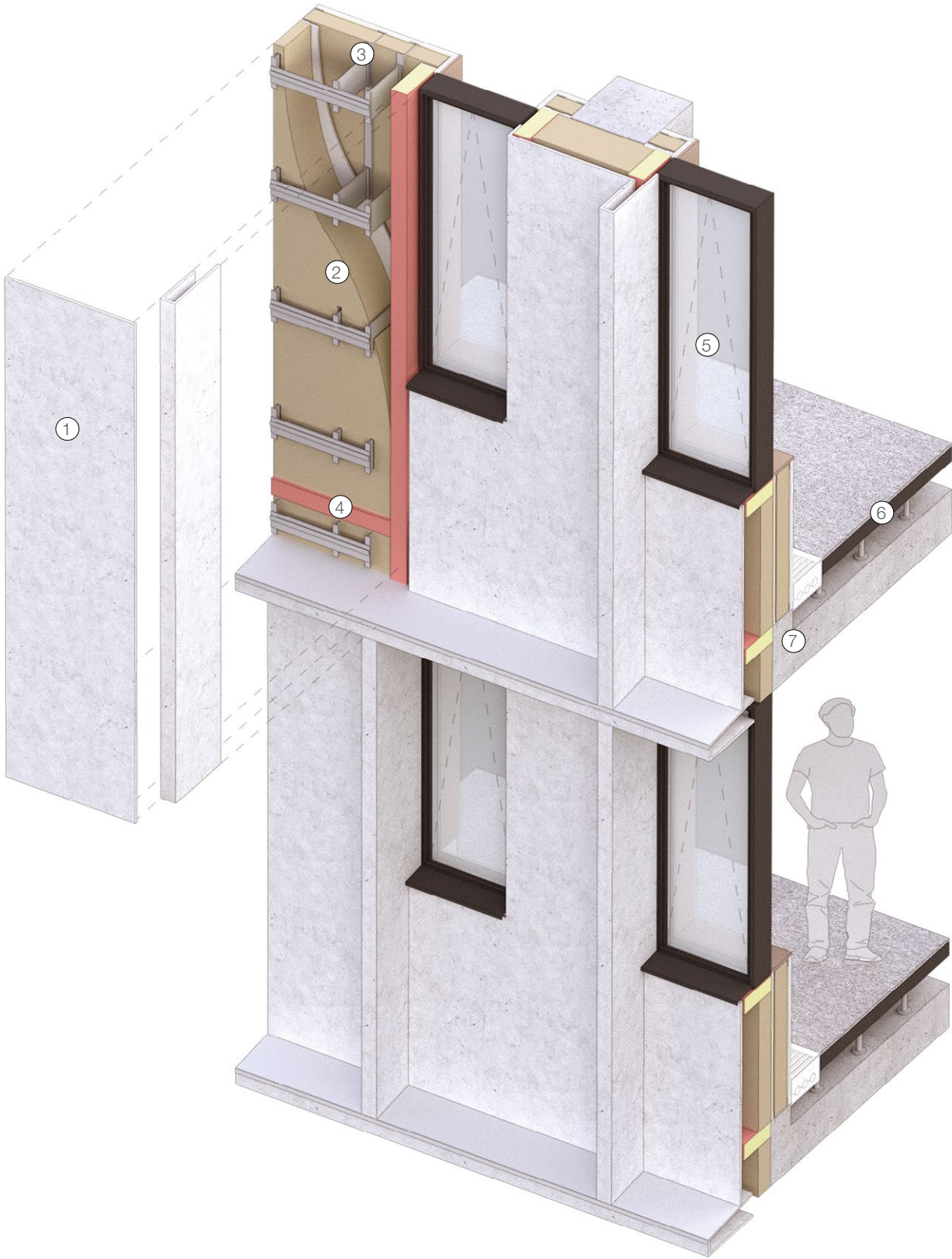
3. SFS FRAME
Lightweight secondary frame fully filled with non-combustible insulation.

4. FIRE-STOP
Fire stops will be installed horizontally and vertically to break the facade into compartments.

5. WINDOW
Smaller windows will be openeable for natural ventilation.

6. RAISED ACCESS FLOOR
Raised access floor with 150mm clear void.

7. PT Slab
For further information on the concrete frame refer to structures report.



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6.2 Trinity Road Building

6.2.6 Facade Development

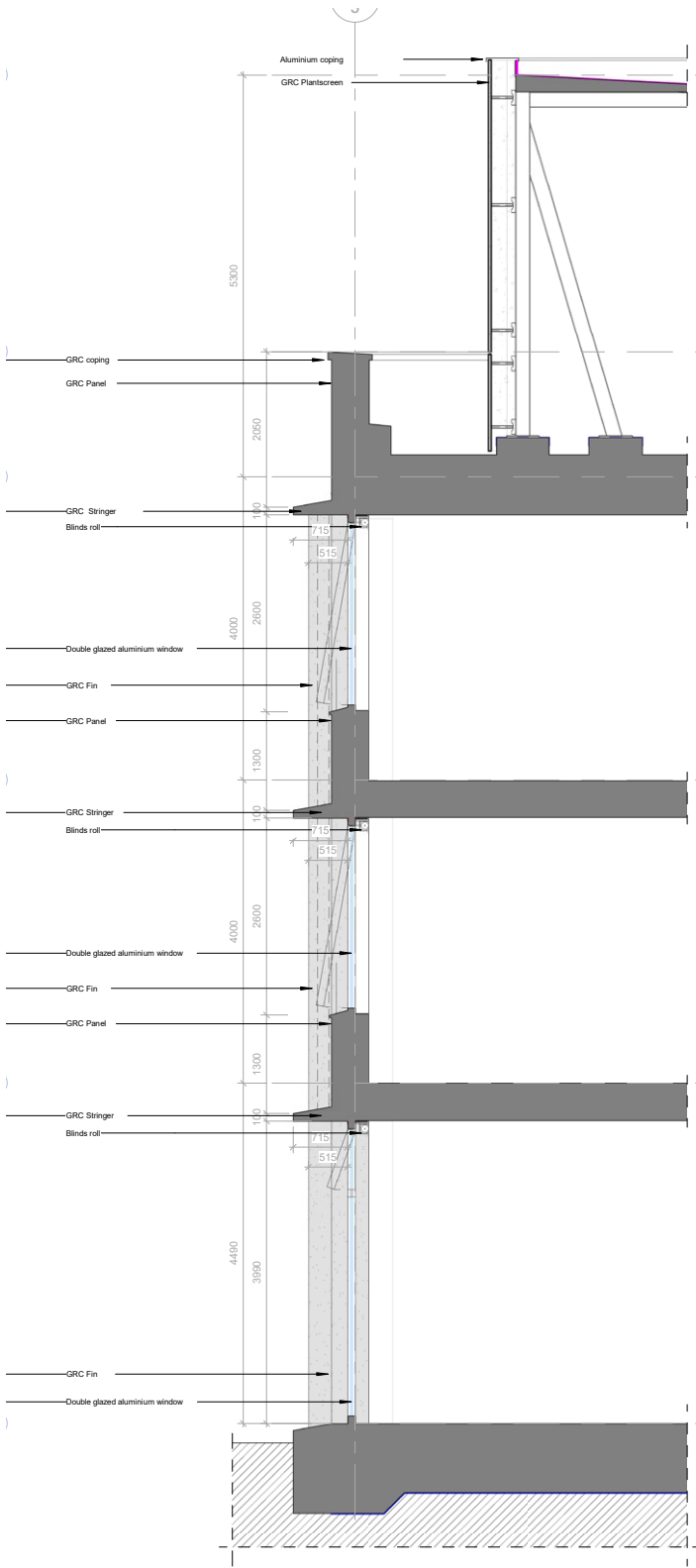
The optimum working module size for the facade grid and is reflected in the rhythm of flat panel framing. Large picture windows punctuate the GRC units, providing framed views out from the internal spaces as well as relief and depth to the facade externally. The materiality and depth of the panels also assist in the building's performance, adding thermal mass for a controlled environment. The grid is further sub-divided to achieve a more human scale, as well as providing multiple external mullions for necessary solar shading.

The rational grid allows for good areas of glazing within the standard bay. These are divided by protruding GRC fins that follow the proportions established. At key spaces, the bay height follows the internal space to allow this to be clearly read from the building approach.

Datums that respond to the immediate context. The datums help relate the building to its context.



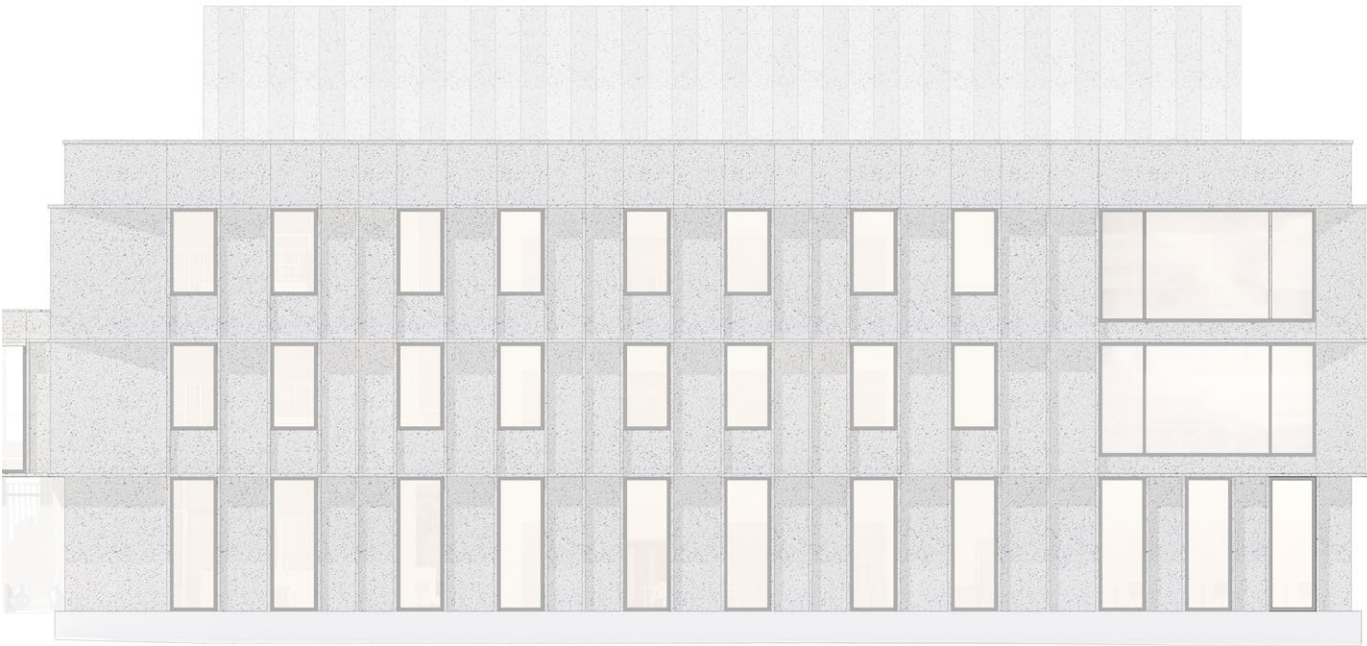
Precedents



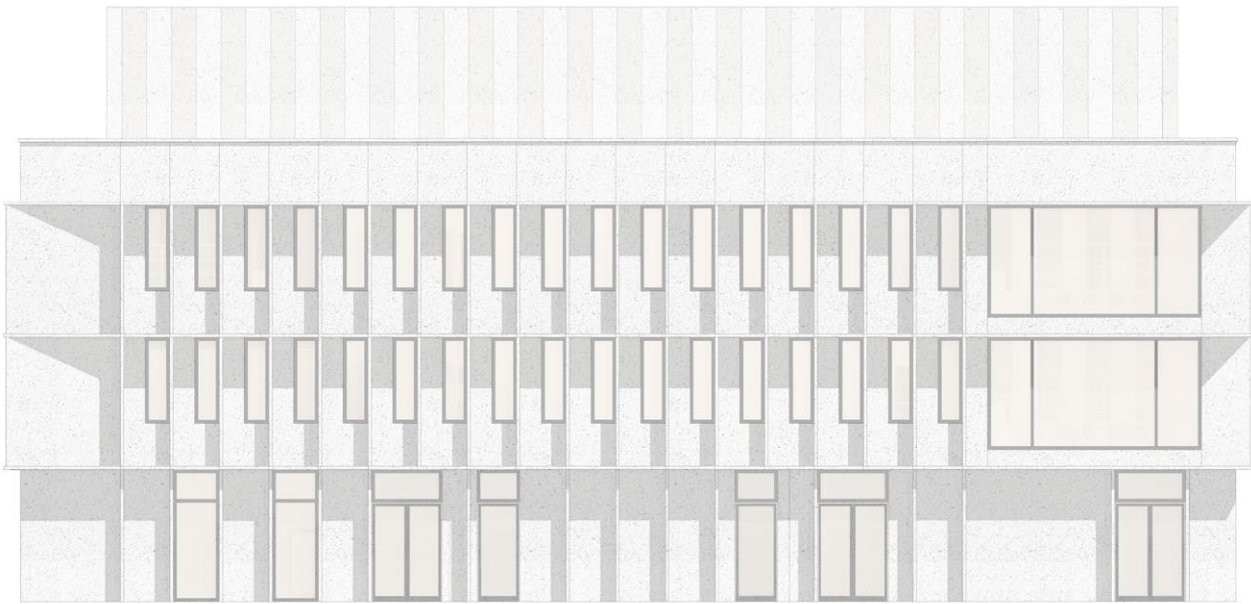
Physical model

A physical model of the proposed facade has been created as a key design tool, providing an opportunity to review.

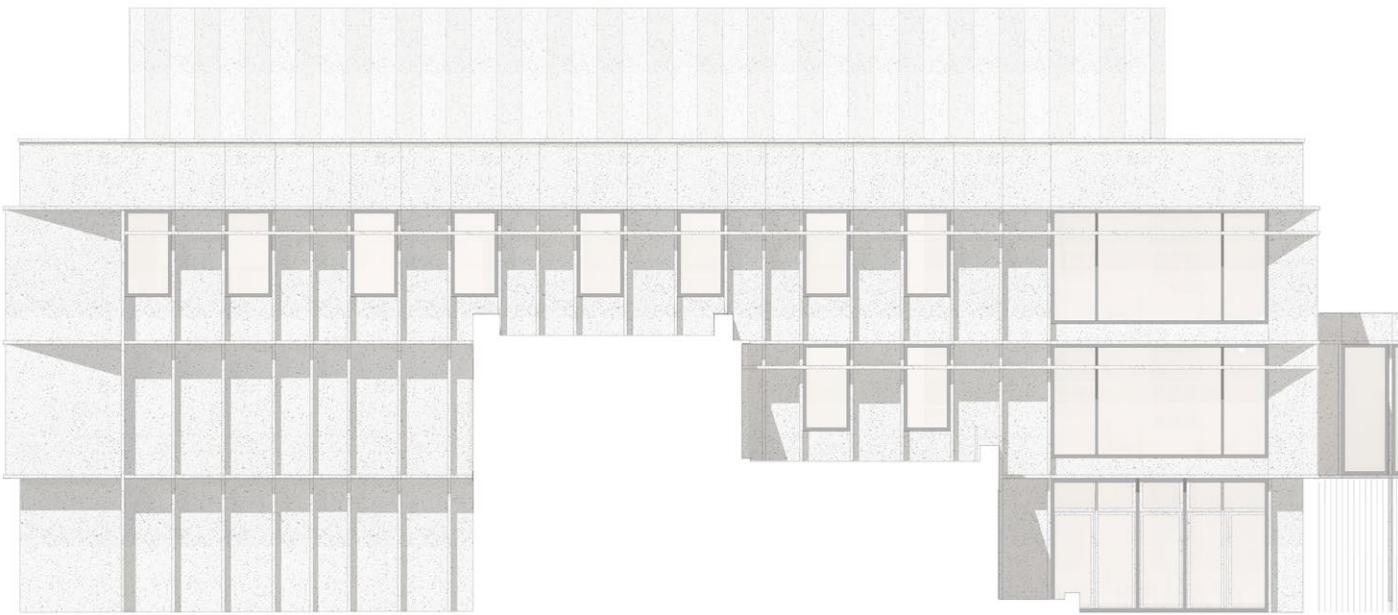
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6.2 Trinity Road Building
6.2.6 Facade Development



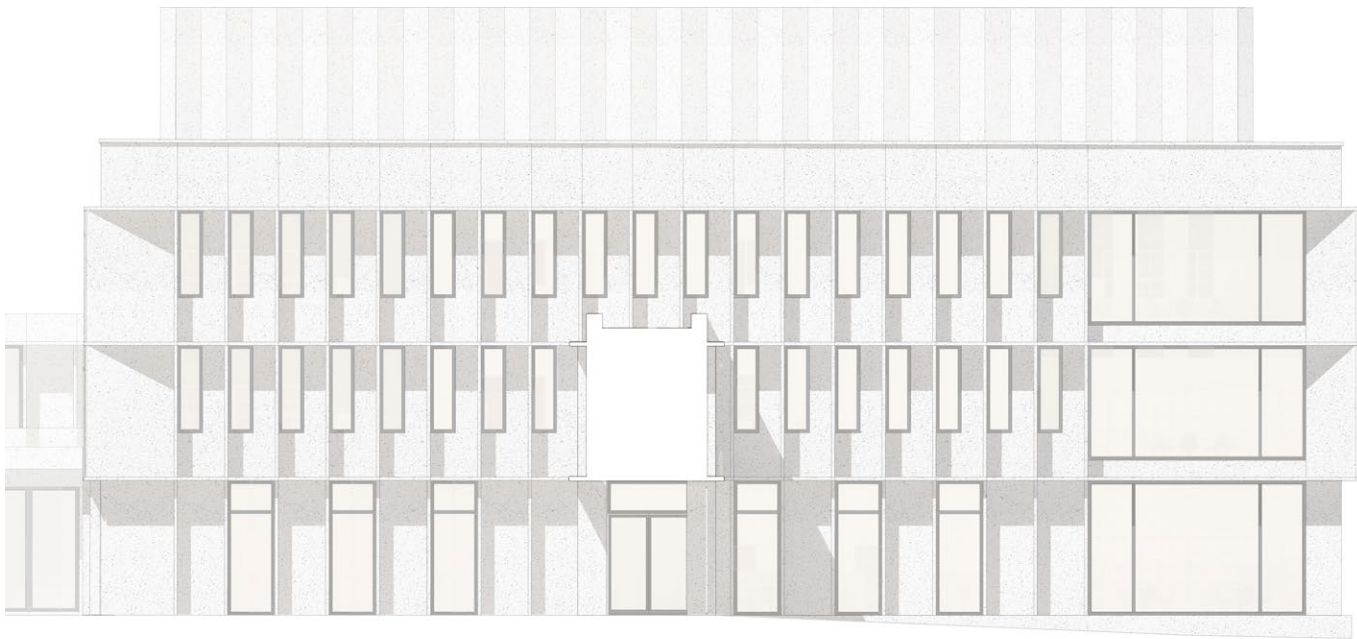
North Facade



West Facade (opposite to school)



South Facade



East Facade (opposite to Civic Centre)

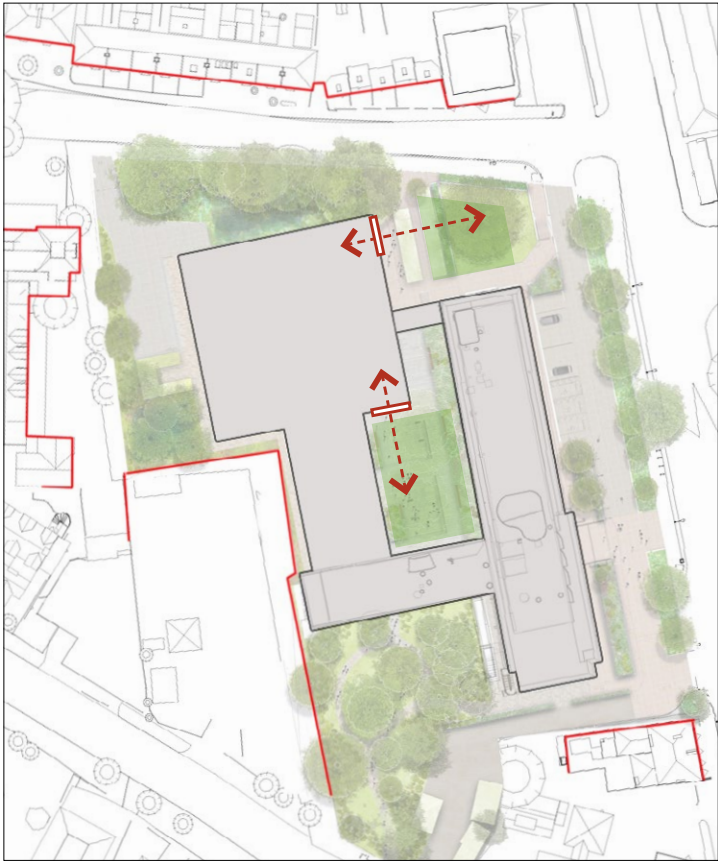
6.2.7 Picture Windows

activities

The East and South elevations incorporate large picture windows at the corners of the building to orientate the building, provide views and connection to the surrounding street-scapes and the internal courtyard. These large windows also allow views into the building from outside - reflecting the intent for transparency and openness in the original civic centre design.

Key Plan

 Large picture windows



Key Plan



East (Courtyard) Elevation



South (High St) Elevation

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6.2 Trinity Road Building

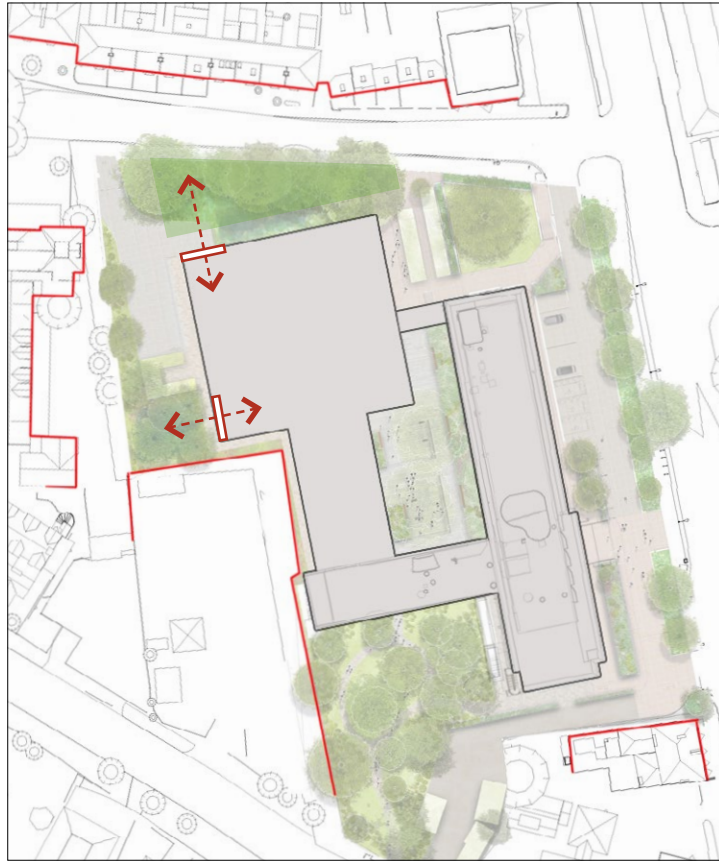
6.2.7 Picture Windows

Picture windows to frame key views and activities

The North and West elevations also incorporates large picture windows at the NW corner (looking toward the mature trees on Trinity Rd) and the SW corner - looking toward Alexandra Palace.

Key Plan

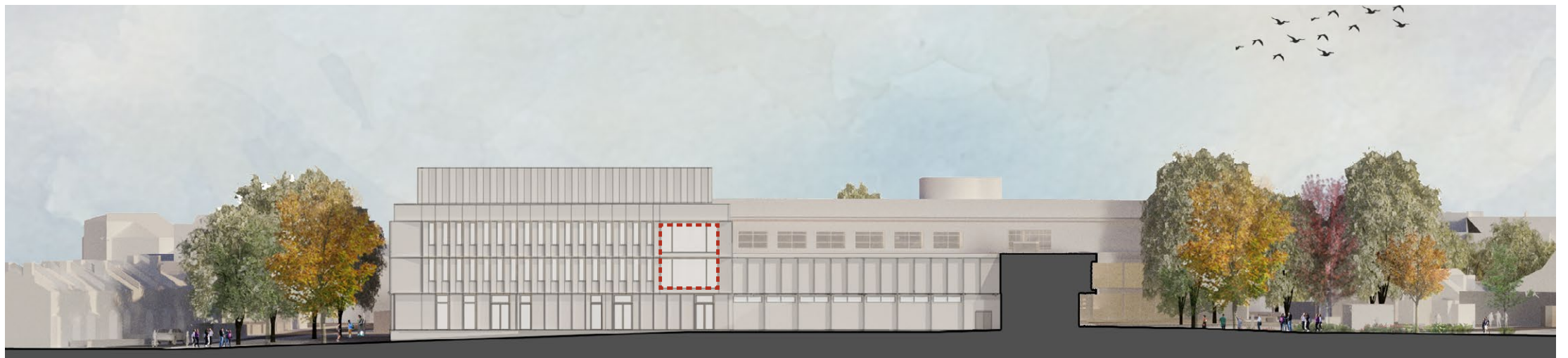
 Large picture windows



Key Plan



North (Trinity Rd) Elevation



West Elevation (facing Trinity School)

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6.2 Trinity Road Building
6.2.8 Key views from around the site

