

5

Site & Surrounding Context

5.7

Unique Requirements & Boundary Conditions

School Street

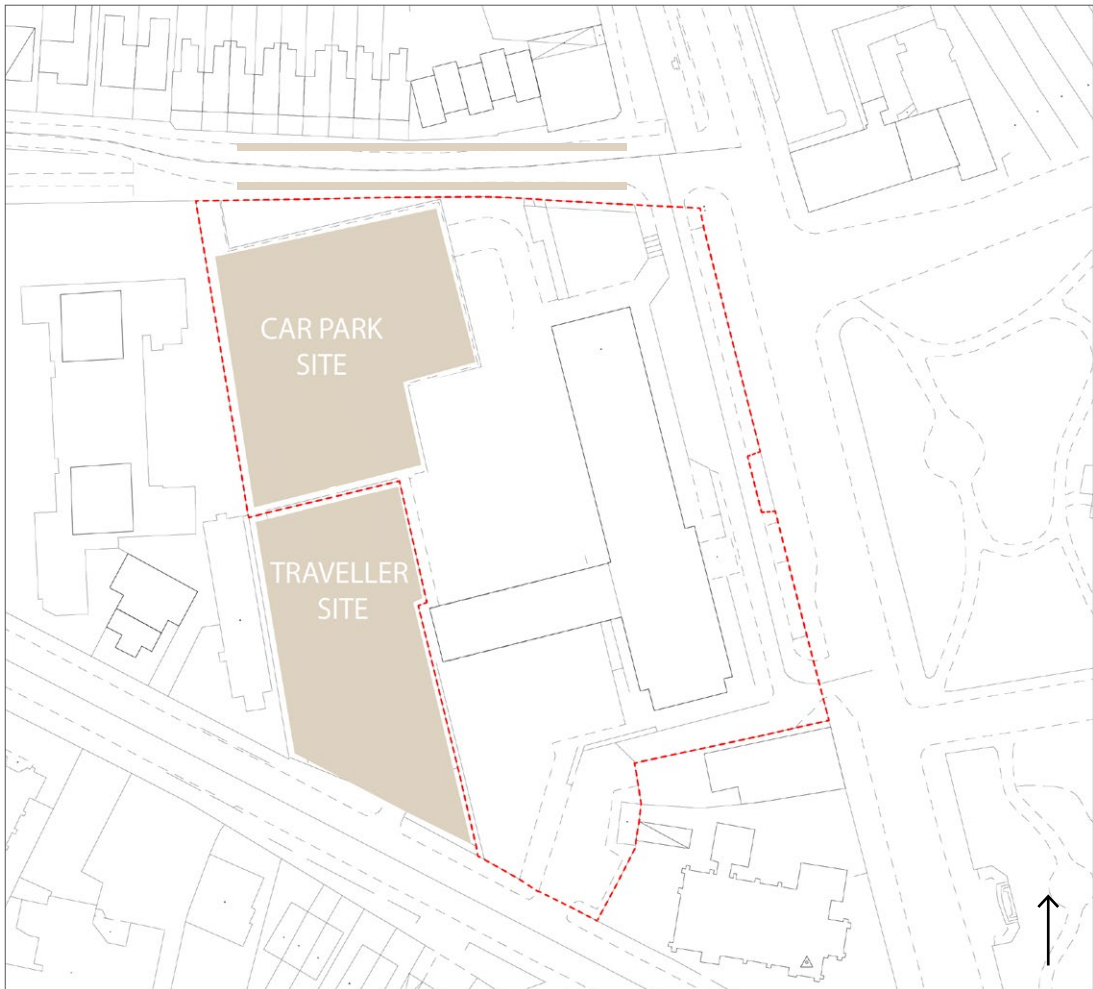
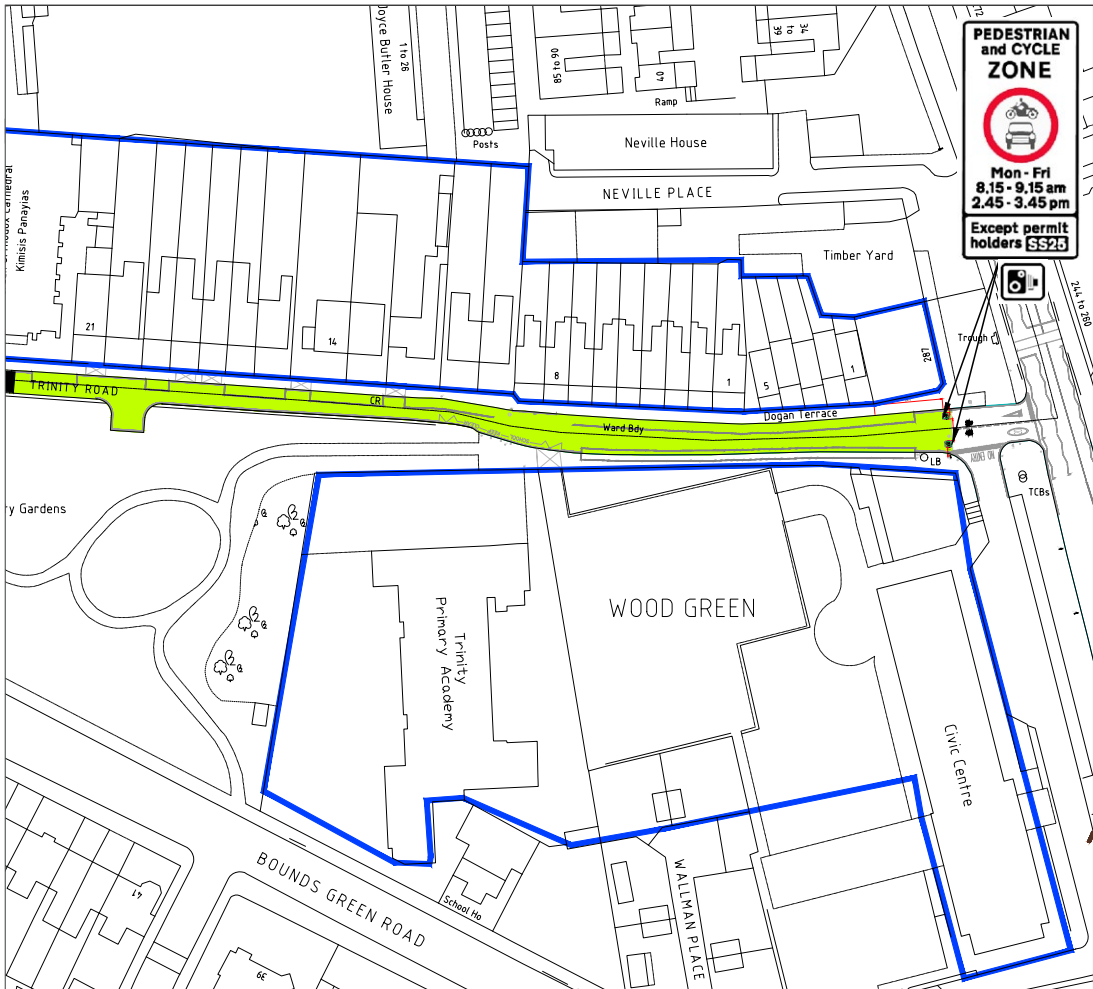
Trinity Road is proposed to be converted into a school street. The proposals call for a pedestrian friendly street and pavements, alongside vehicular restrictions between school starting and finishing hours. The new development bears this in mind by avoiding primary vehicular access to the rear of the site.

Traveller Site

The design team is conscious of the proximity with the Traveller site. Overlooking and daylight is carefully considered in the proposal.

Wood Green and Turnpike Lane Design Manual

The Manual is a tool for designing inclusive neighbourhoods based on the principles of environmental, social, cultural and economic sustainability; safe guarding locally distinctive features and heritage assets and making a place that is fit for purpose for all users.



Left & Centre

Existing town houses street-scape along Trinity Road.

Left

Aerial View of the Traveller site adjacent to the Car Park site.



5

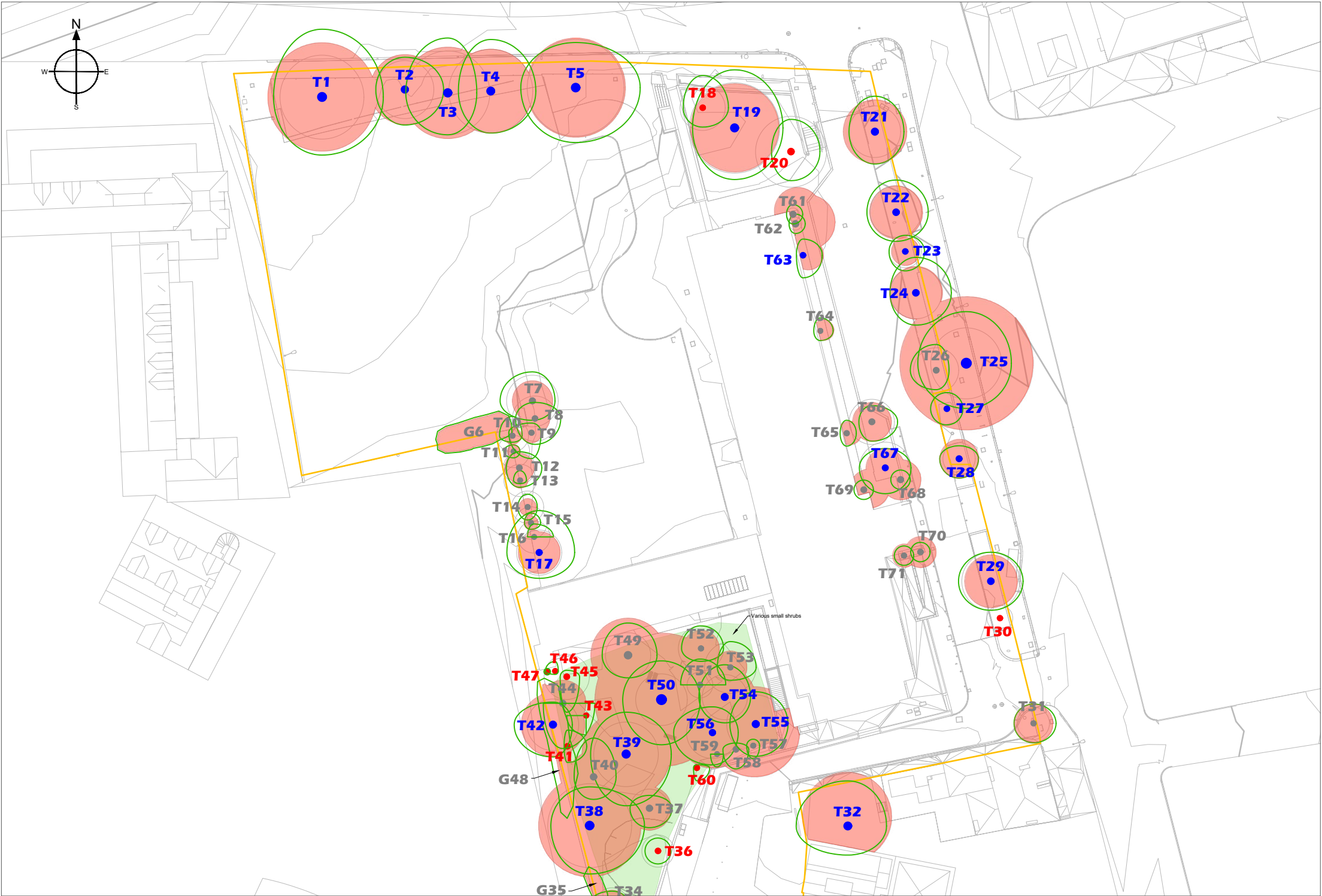
Site & Surrounding Context

5.8

Site Topography & Ground Conditions

Site topography

As it can be seen in the adjacent photos, the GF level of the Civic centre is higher than the current car park level. Therefore, the proposal for the new Trinity Building should be able to provide a more generous ground floor clear height, while providing 3 storeys of office accommodation, compared to the five storeys originally proposed.



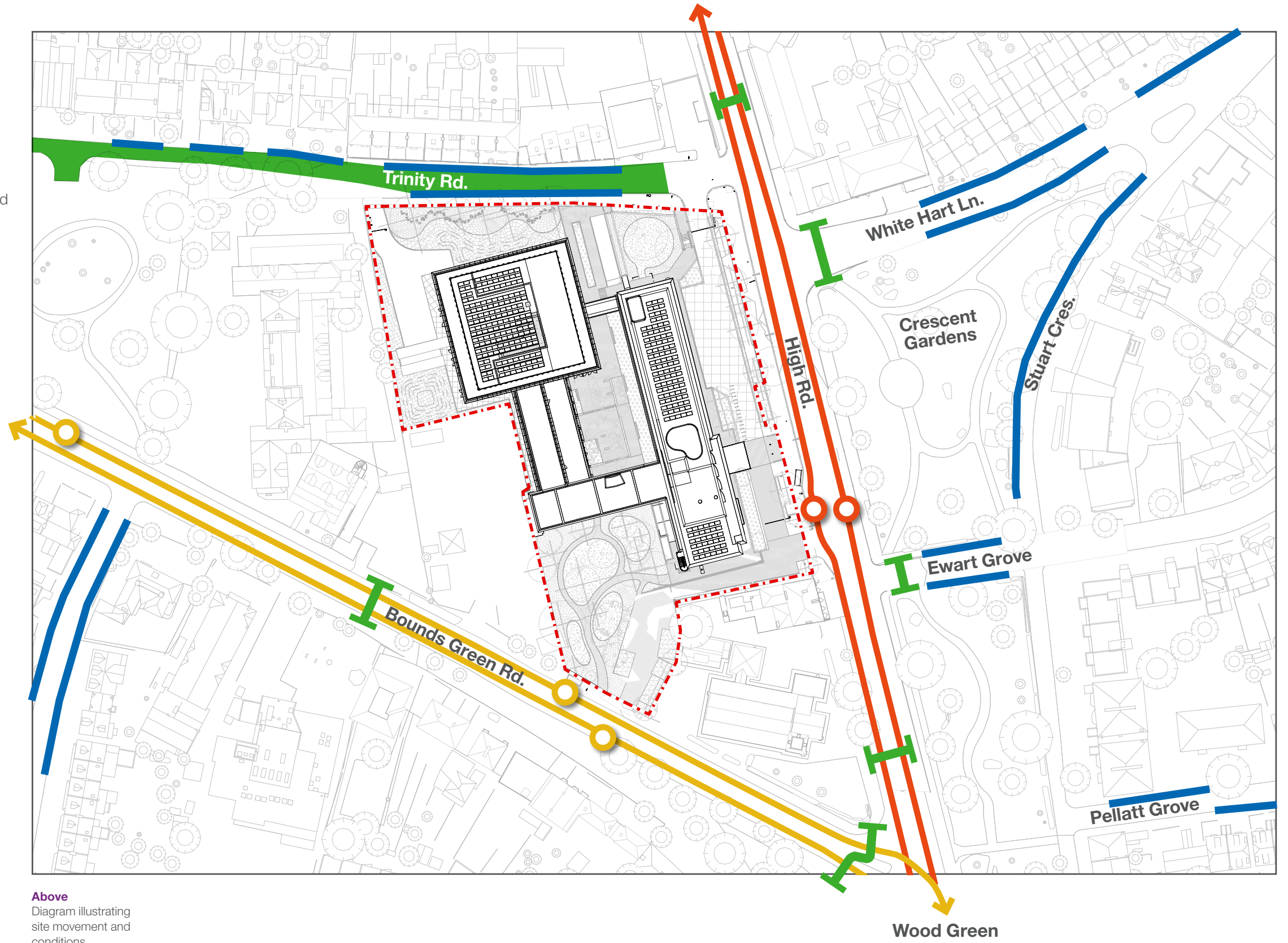
5.9 Transport Connections and Movement

Parking & Traffic Flow

Bounds Green Rd. and High Rd. are two-way single carriageway roads that provide a number of bus routes.

As mentioned previously, Trinity Road is proposed to be a 'School Street' meaning it will have restricted access during certain periods. It has Public Meter and Resident Permit parking spaces.

Other surrounding roads are two way single-carriageways and have Public meter and resident permit spaces as shown.



6 Architecture

6.1 Civic Centre

6.1.1 Repair and restoration of the civic centre

6.1.1.1 Curtain Walling and Windows

Overview.

The external envelope of the Civic Centre is in poor condition and is poorly insulated. Significant work is required to make the building safe, weathertight, robust and improve the overall appearance of the building. In addition the council wants to improve the thermal performance of the building to meet their sustainability objectives.

Curtain walling and windows

There are a number of problems with the current curtain walling and windows:

- Poor thermal performance
- Solar gain and glare
- Beading contaminated with asbestos
- Deemed to be end-of-service-life with repairs not recommended (Buro Happold Survey Report)
- Glazing at low level is float glass and does not meet current safety regulations

The current proposal is to replace all windows with new double glazed high performance glass with thermally broken frames. This will have a significant benefit in terms of heat loss, solar gain and result in lower running costs and an improved carbon footprint. As this is a listed building it is important to preserve the appearance, so the curtain walling and windows will be designed to replicate the existing windows in terms of panel size, frame size and materials.

The provision of high performance glass will help re-create the original design intent and restore a sense of openness and accessibility.



Extracts from section 5.5 on page 12 of Facade Systems Condition Survey

Buro Happold
0049545-BHE-XX-XX-RP-Y-0001 - 15 June 2021

Windows & Curtain Walling Generally - Ground Floor to Second Floor

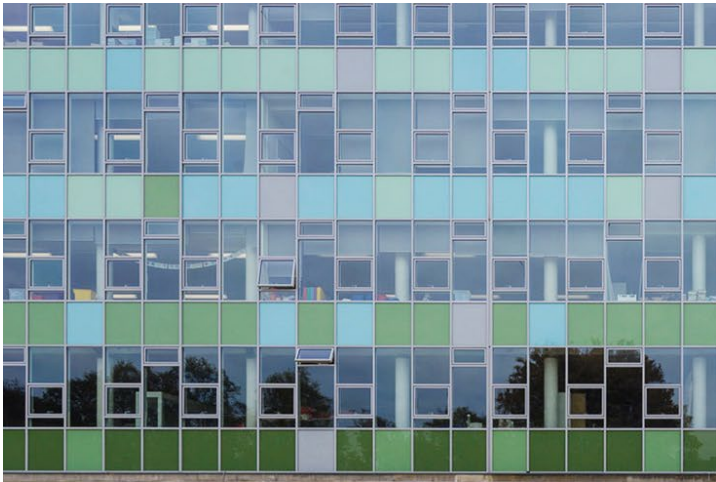
- Overall, these window systems are in poor condition and appear to have reached the end of service life.
- The framing is generally in poor condition: externally the painting or coating applied at some point to the aluminium mullions and transoms is degraded and patchy in places.
- The sealant between the frame and glass is brittle and patchy.
- A solar coating was present internally on most of the glazing inspected, marked as 'SOLAR SHIELD BS 6206/B FILM', which could be evidence of a perceived discomfort with the original glazing specification. The majority of this film applied was in good condition, but in many locations was starting to peel at the edges.
- A few panels on the West elevation curtain walling had an additional film applied externally with a 'blue' appearance, possibly a privacy filter, which appears to be in bad condition.
- It should also be noted that asides from the typical glass thicknesses identified in this paragraph, many of the aluminium windows/curtain walling presented variation in glazing configurations (i.e. lack of consistency in glass thicknesses/build-up between similar types).

Steel Windows - Third Floor

- Generally, the steel windows appear to be in poor condition and in need of a general refurbishment
- Here, the glass was measured as a single glazed 4 mm pane.
- In some locations, the concrete fins between the windows are also generally in poor condition and some of them have been repaired previously however with unsympathetic concrete patches.
- The sealant between the frame and glass has also become brittle and in need of general redoing.

Precedent: ARK Putney Academy - before and after renovation

Hawkins\Brown Architects



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Architecture

6.1

Civic Centre

6.1.1

Repair and restoration of the civic centre

6.1.1.1

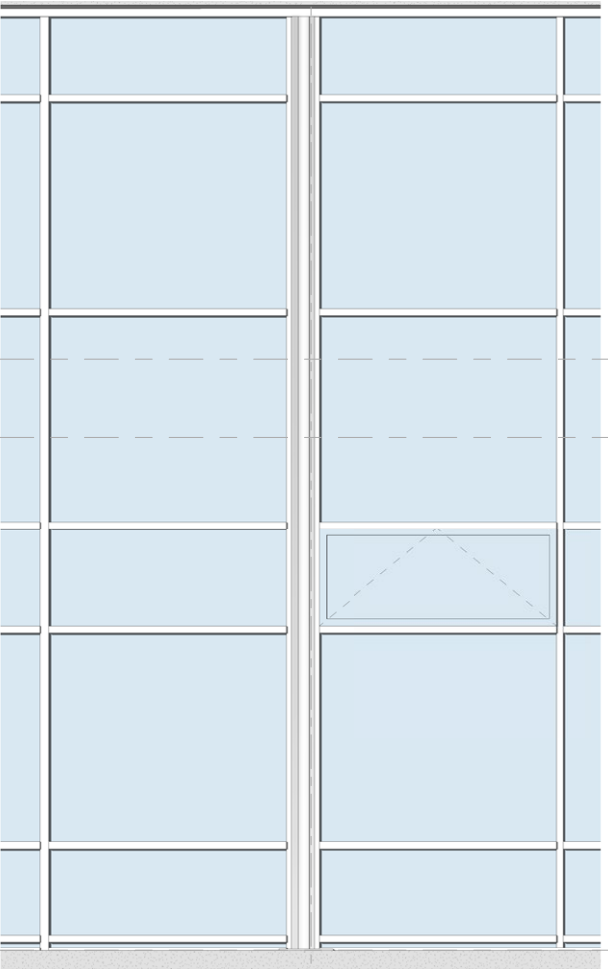
Curtain Walling and Windows

Type 01
Aluminium Curtain Walling System

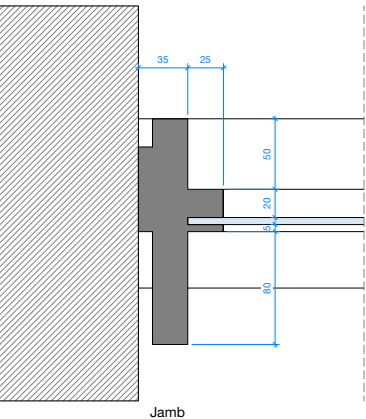


- Council Chamber and Entrance Lobby**
West Elevation Ground and first Floor
West (Committee) Wing
- Generally Single glazed
 - Inconsistent top-hung opening lights,
 - Internally solar control film in places - in some locations this is degrading/peeling
 - External privacy film in various locations
 - Secondary Steelwork in back-boxes of mullions with larger profiles
 - Several panels/bays have been replaced on west elevation ground floor
 - Double doors have been replaced in north and south elevations
 - Sealant/beading has degraded and contains asbestos

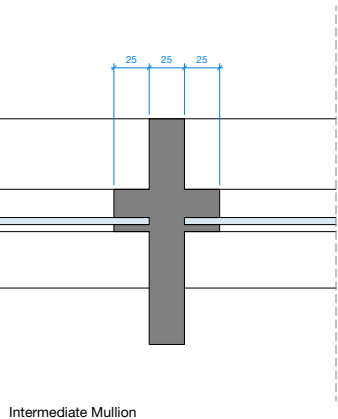
Existing Bay & Typical Profile Sections



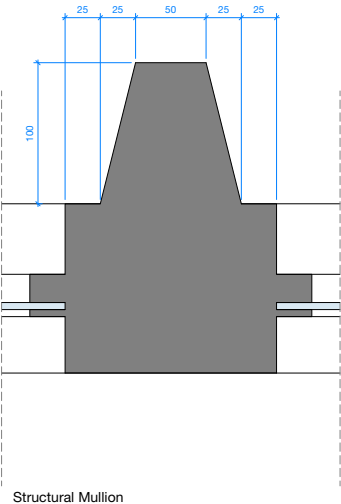
H11/110 - Typical Bay - Refer to 310310, 310311 & 310312
1:20



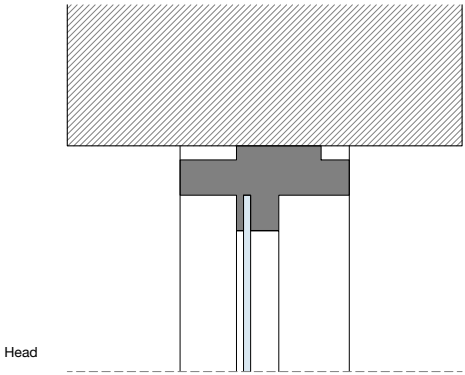
Civic Centre - Curtain Walling - Existing Plan Details
1:2



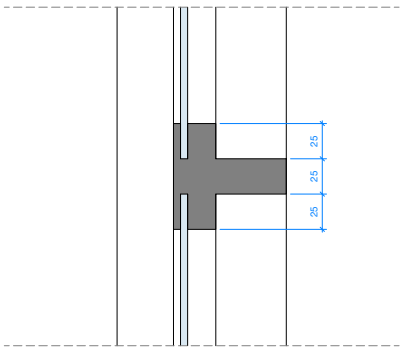
Intermediate Mullion



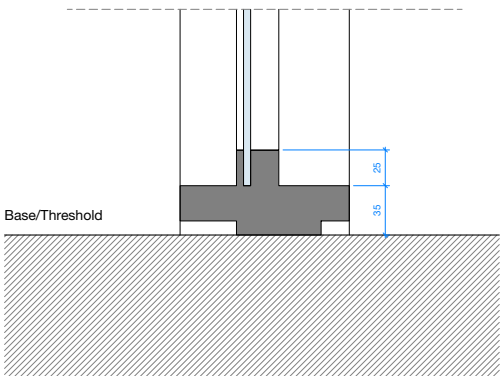
Structural Mullion



Head



Transom



Base/Threshold

Civic Centre - Curtain Walling - Existing Section Details
1:2

6

Architecture

6.1

Civic Centre

6.1.1

Repair and restoration of the civic centre

6.1.1.1

Curtain Walling and Windows

Type 02

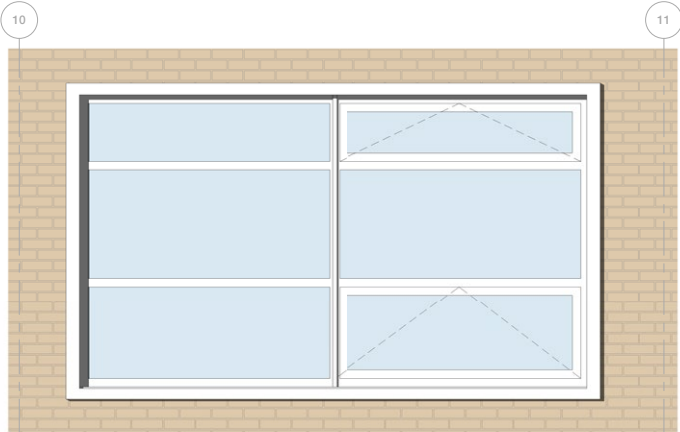
Aluminium Punch Windows - GF-L02



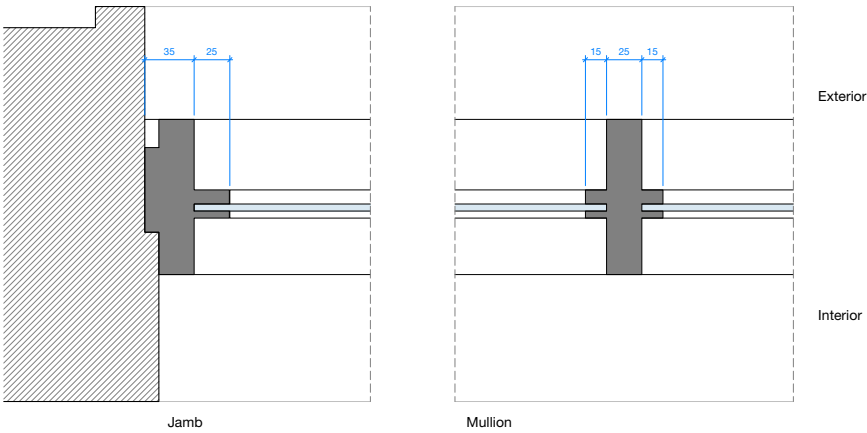
Ground floor to Second Floor
East (Front) & West (Courtyard) elevations

- Aluminium stick system
- Generally Single glazed
- Inconsistent positioning of top-hung opening lights,
- Internally solar control film in places - in some locations this is degrading/peeling
- Sealant/beading has degraded and contains asbestos

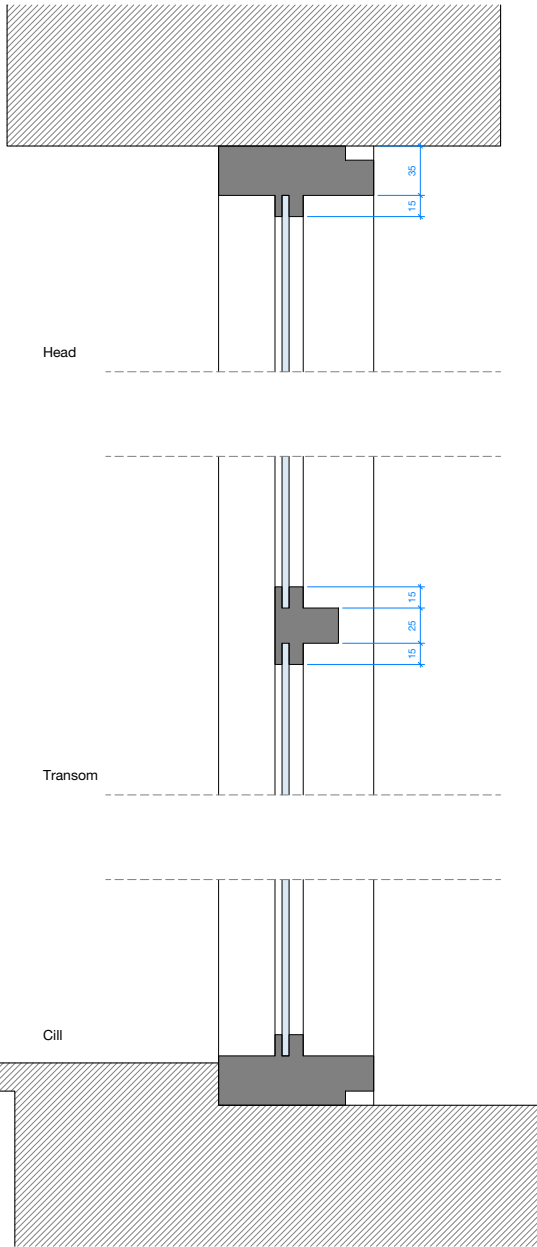
Existing Bay & Typical Profile Sections



L10/331 - Typical Bay - Refer to 310313 & 310314
1:20



Civic Centre - Existing Aluminium Window - Plan Details
1:2



Civic Centre - Existing Aluminium Window - Section Details
1:2

6

Architecture

6.1

Civic Centre

6.1.1

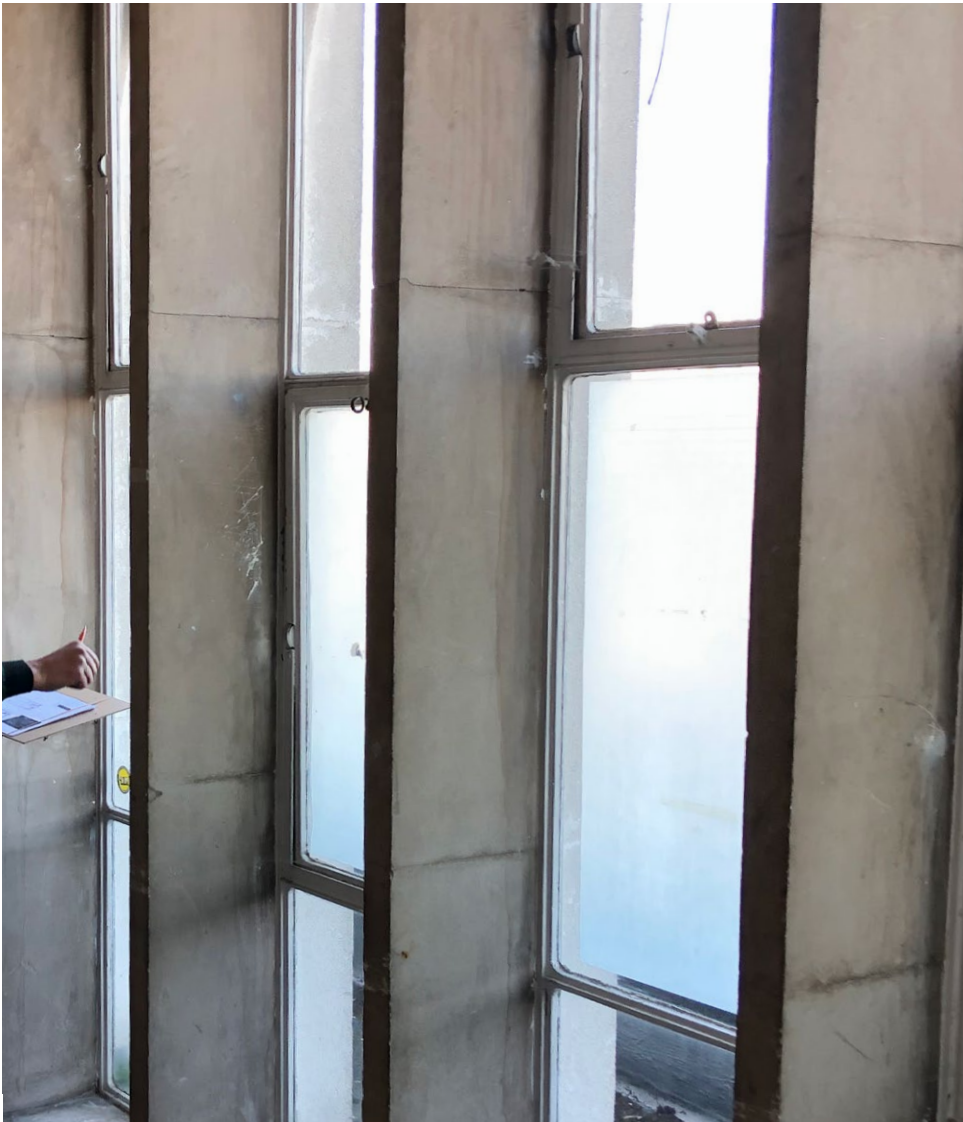
Repair and restoration of the civic centre

6.1.1.1

Curtain Walling and Windows

Type 03

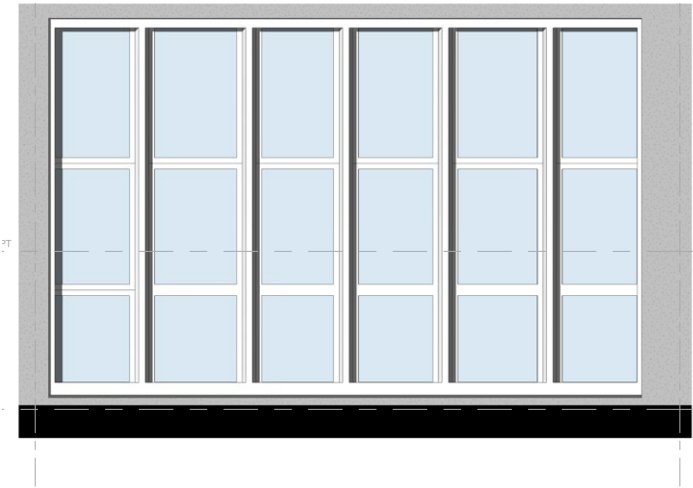
Steel Windows



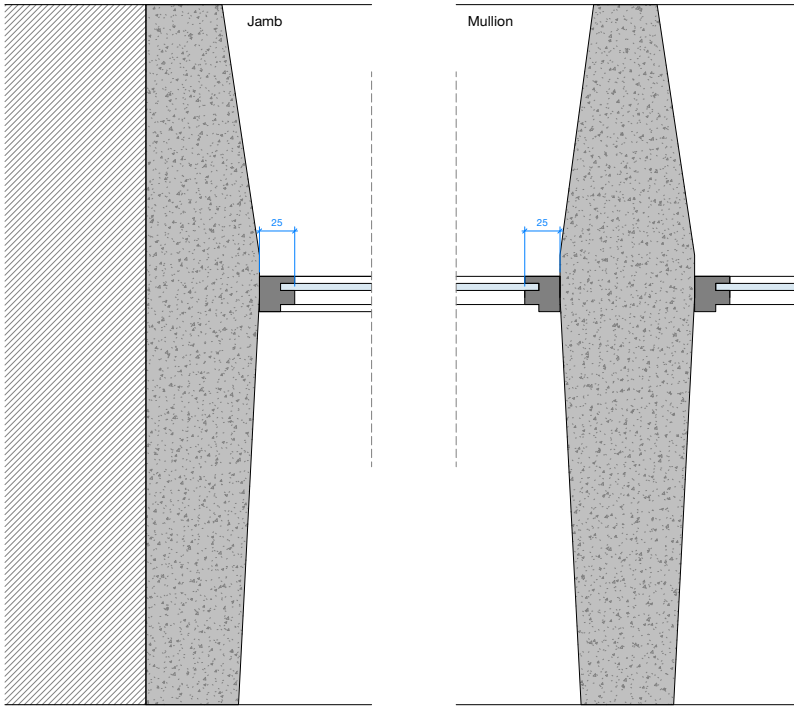
Third Floor (Attic)
All elevations

- Steel window system
- Precast concrete surrounds in need of urgent repair (Repaired in places previously unsympathetically), not thermally broken and signs of water ingress.
- Generally Single glazed
- Inconsistent positioning of top-hung opening lights,
- Internally solar control film in places - in some locations this is degrading/peeling
- Sealant/beading has degraded
- Paint added to frames has degraded

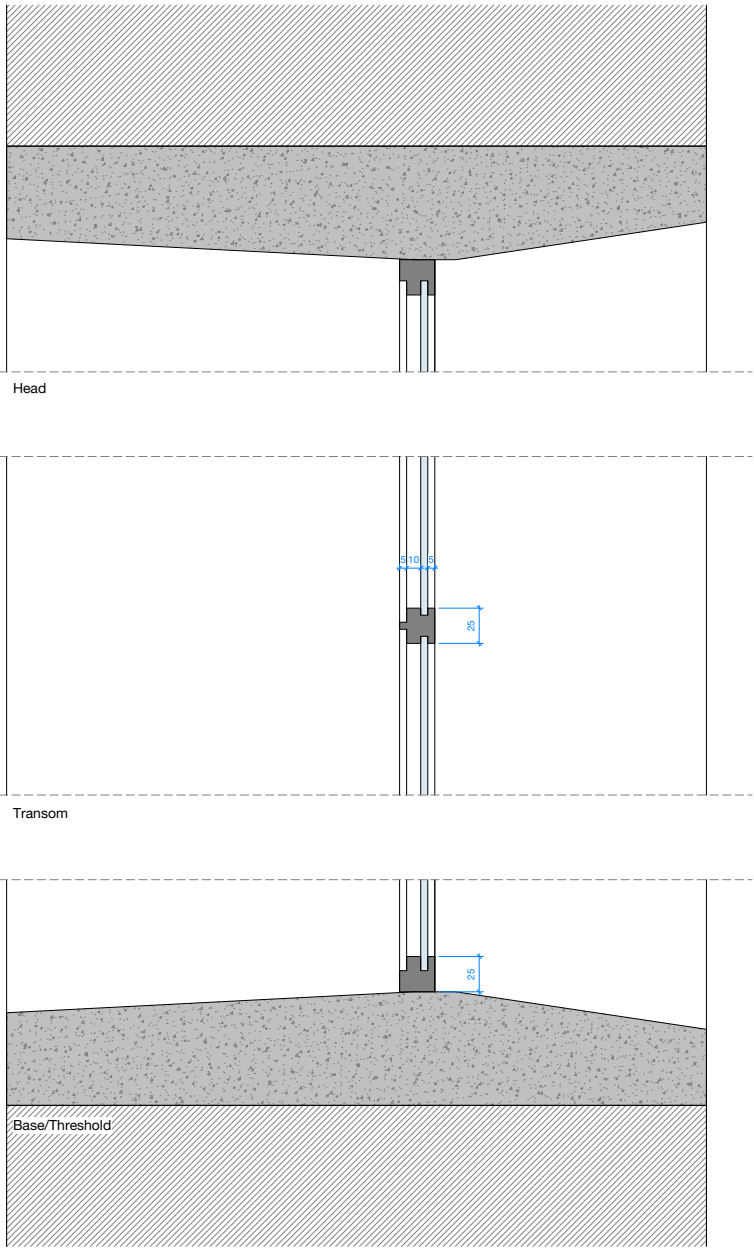
Existing Bay & Typical Profile Sections



L10/332 - Typical Bay - Refer to 310313 & 310314
1:20



Civic Centre - Existing Steel Window - Plan Details
1:2



Civic Centre - Existing Steel Window - Section Details
1:2

6 Architecture

6.1 Civic Centre

6.1.1 Repair and restoration of the civic centre

6.1.1.1 Curtain Walling and Windows

Curtain Walling Systems

The emerging preferred approach for the replacement of the existing curtain walling is a steel curtain walling system which is clad in an extruded aluminium profile cap. The adjacent details show the comparison between existing and emerging profiles.

Windows (Ground Floor to Second Floor)

The emerging preferred approach for the replacement of the existing aluminium windows is a steel system with a bespoke cover cap. Which will be coated in a finish to mimic the current anodised aluminium

Windows (Third Floor - Attic)

The emerging approach for the replacement of the windows on the Third floor is a steel system with a bespoke cover cap. Which will be coated in a finish to mimic the current

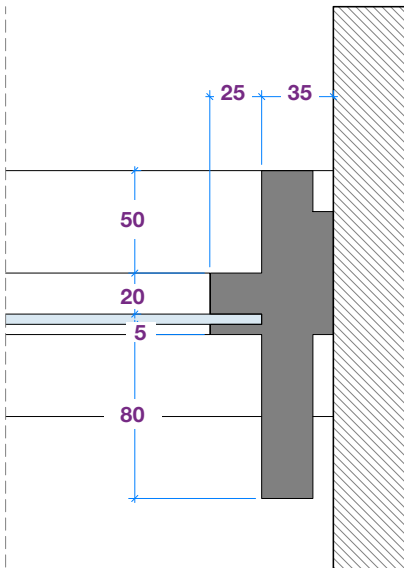
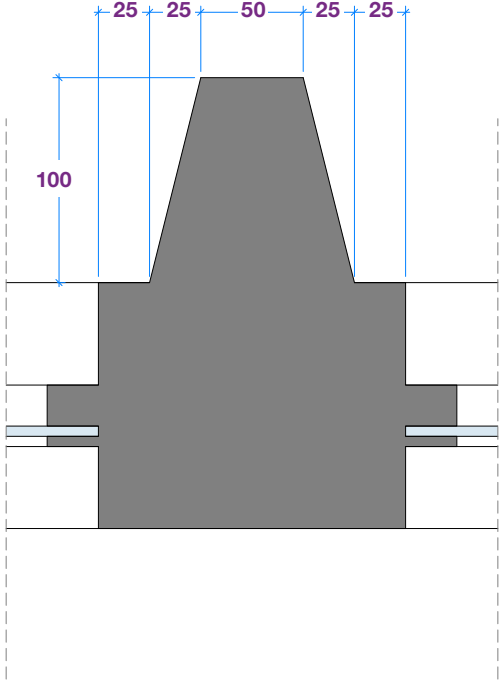
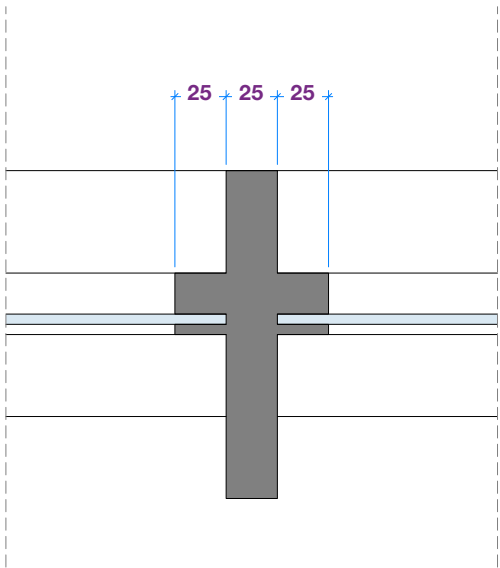
Glazing Generally

The mullions and transoms will match the setting out and proportions of the existing. Double glazed panels are proposed to improve thermal performance and higher g-value glass will reduce the need for shading devices and increase transparency. However, due to the additional weight of the double glazed panels, a steel system is required (clad in anodized aluminium to match existing) to provide the structural integrity without majorly increasing the sizes of the mullions and transoms.

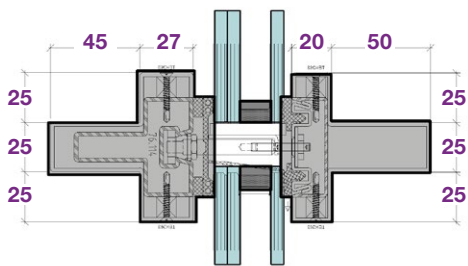
The design team is continuing to develop the preferred approach for the replacement of all glazing systems throughout the civic centre, balancing thermal and solar performance with heritage & conservation aspects.

This proposed solution is being developed to mimic as far as possible the appearance of the existing aluminium profiles & sight-lines. During the next stages, fabrication drawings will be developed ensuring the proposed replacements & profiles will mimic as closely as possible the existing systems.

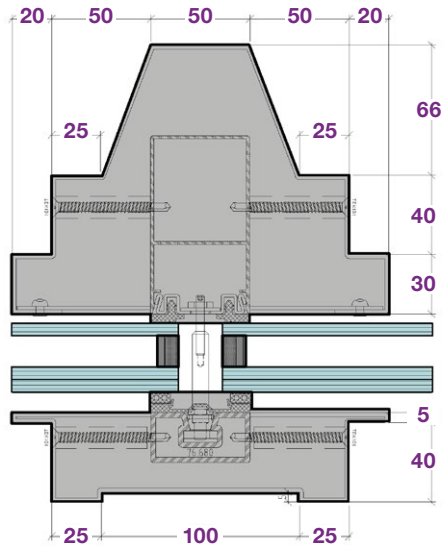
Existing Aluminium Curtain Walling System



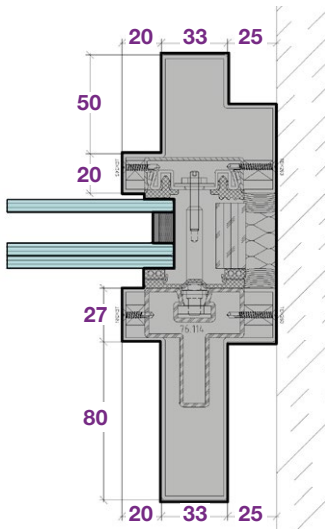
Proposed Steel Curtain Walling System with Extruded Aluminium Profiled Caps.



Transom



Jamb



Jamb



CIVIC
CENTRE

Haringey Civic Centre

OUR VALUES
We care
We listen
We take responsibility
We are Haringey's community

6

Architecture

6.1

Civic Centre

6.1.1

Repair and restoration of the civic centre

6.1.1.2

Existing pre-cast cladding / proposed GRC replacement

Solid walls - overview

The Civic Centre has two principle cladding materials - brickwork and pre-cast panels. In addition, there is an in-situ concrete cornice at the top of the second floor and in-situ / pre-cast window surrounds to the punched windows in the brickwork on east and west elevations.

Buro Happold carried out a condition survey in 2021 and PAYE were recently appointed by the council to carry out a further survey complete with a schedule of proposed repairs. At the time of writing this remains in-complete, although the initial verbal assessment is reported below.

Pre-cast panels: Existing Condition

The Buro Happold (BH) Facade System Condition Survey dated 15 June 2021 states:

Panel condition

“The precast concrete cladding condition is poor throughout the building, however there are some differences depending on level and location.”

The attic storey is of particular concern:

“..for both their appearance and structural integrity....many of the panels level are beyond the point where a concrete repair cycle could be effective in the long term.

At lower levels the cladding is in better condition, the BH report states *‘there might be scope for in-situ repairs as opposed to replacement.* But even at these levels (below the attic) there is inconsistency - BH reports specific problems of cracking on the East elevation, above the curtain walling at the main entrance and at the South East corner. They go on to state:

Panels....appear to have been refaced at some point with a thin layer of render, which is patchy and peeling off.’

Subsequent conversations with PAYE suggest the repair and cleaning of panels will be extremely challenging because of both the surface condition of the original panel and the thin layer of render - making a consistent, visually uniform appearance unachievable.

Fixing condition

The BH survey states *“The integrity of the fixings is also a cause of concern as the cast in channels to the concrete structure – where exposed – are heavily corroded and have*

possibly lost their restraint action.”

As there is only a very small cavity behind the panels (10-20mm), it will be impossible to access fixings to carry out any repair or maintenance without removing panels. Removal of the panels would inevitably lead to further damage.

At the time of writing PAYE have been instructed to carry out a further assessment of the condition of fixings.

Insulation

Panels are currently uninsulated.

Pre-cast panels: Recommendation

Full replacement of the pre-cast panels is recommended for the following reasons:

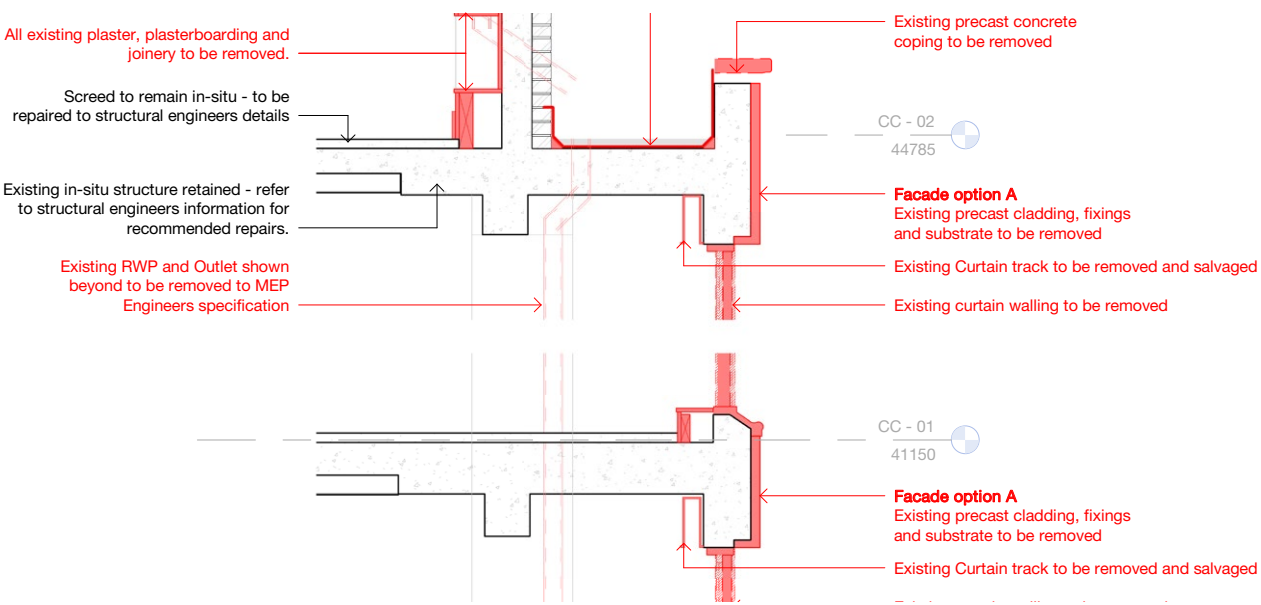
- The council require a safe and robust solution to the long term fixing of the panels.
- A large number of panels are deemed beyond repair. A hybrid repair and replacement strategy would not produce a uniform appearance.
- For any panels where repair may be technically possible, repairs are likely to be visually unacceptable. (A trial repair has been suggested to clarify this point, but is not currently instructed).
- Replacement with GRC will allow insulation in the wall build-up - helping to meet the council’s sustainability targets.

Replacement of Pre-cast panels with GRC cladding

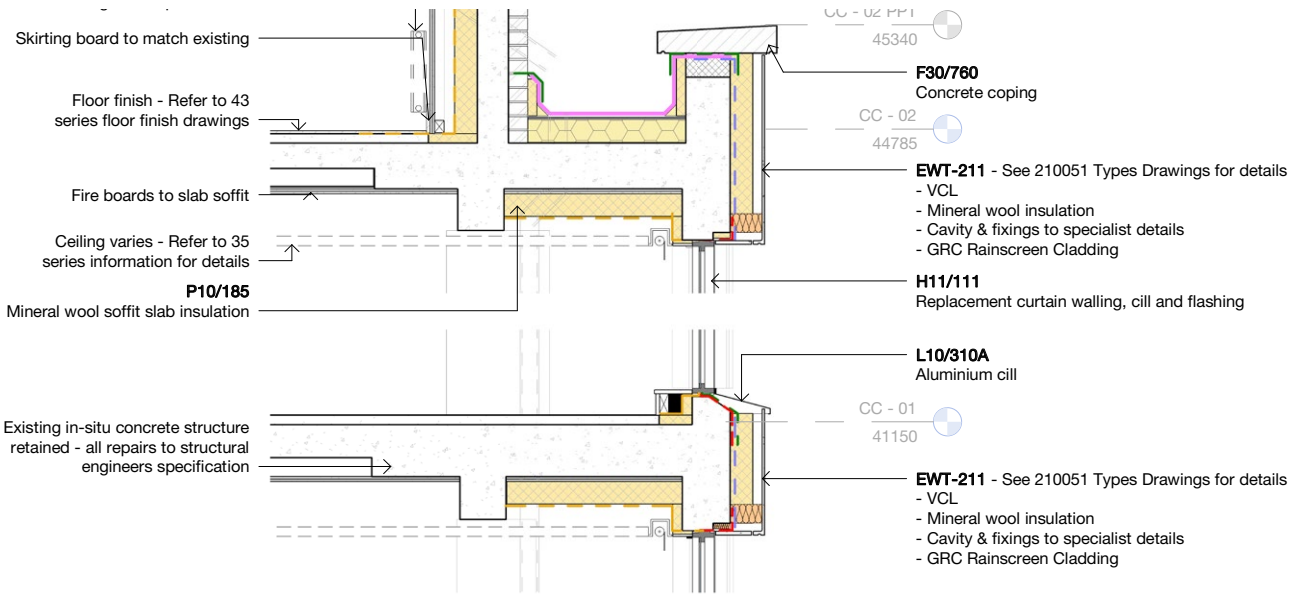
It is proposed to replace the pre-cast panels with insulated GRC (glass reinforced concrete). GRC is a lightweight product available in a colour and texture to match the existing pre-cast. Because it can be made in thinner panels than pre-cast, it provides an opportunity to insulate the building. The detail right illustrates the proposal to replicate the appearance of the existing pre-cast but integrate 100mm of mineral wool insulation. This will create a thicker overall build-up than the existing (approx 60mm thicker), but will not significantly change the appearance of the building. This will achieve the target U-value of 0.3W/m2/K

The extent of the pre-cast / GRC areas is highlighted on the elevations overleaf - different colours represent different substrates - all will adopt the same basic approach for the new cladding.

Section through West Elevation - Proposed demolition



Section through West Elevation - Proposal



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Architecture

6.1

Civic Centre

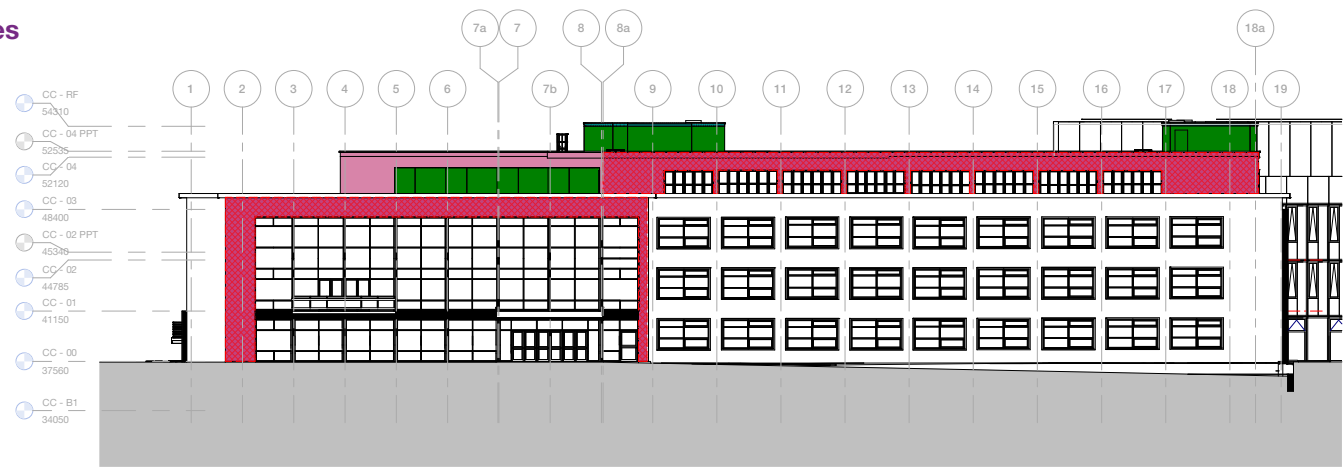
6.1.1

Repair and restoration of the civic centre

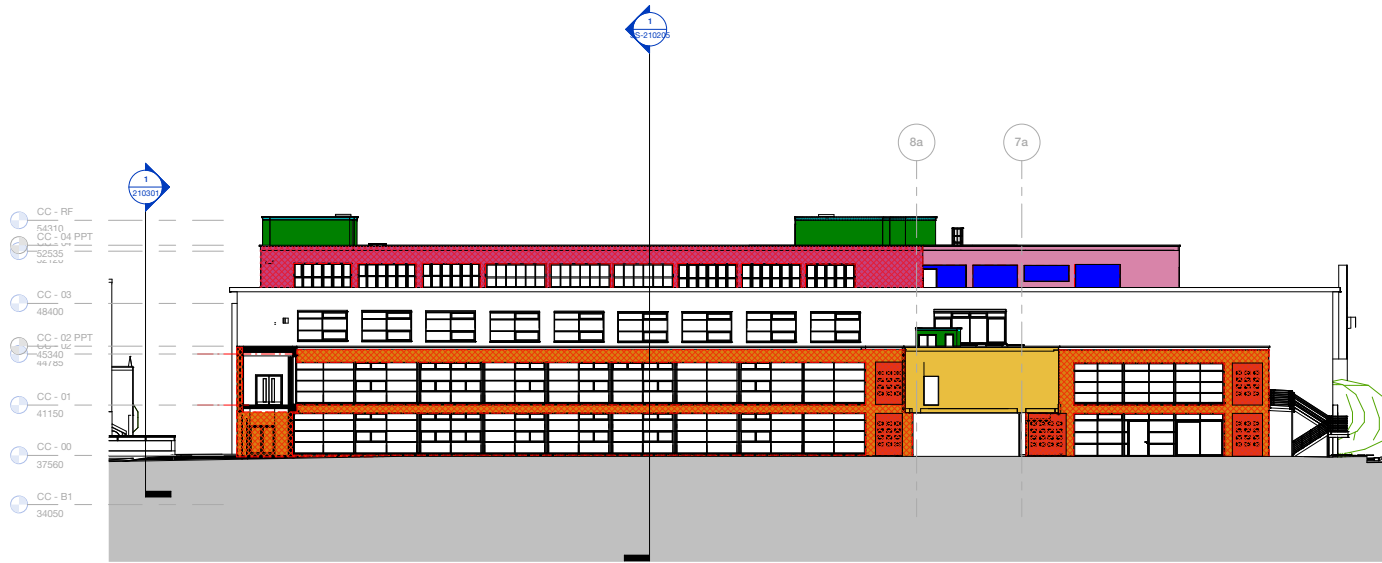
6.1.1.2

Existing pre-cast cladding / proposed GRC replacement

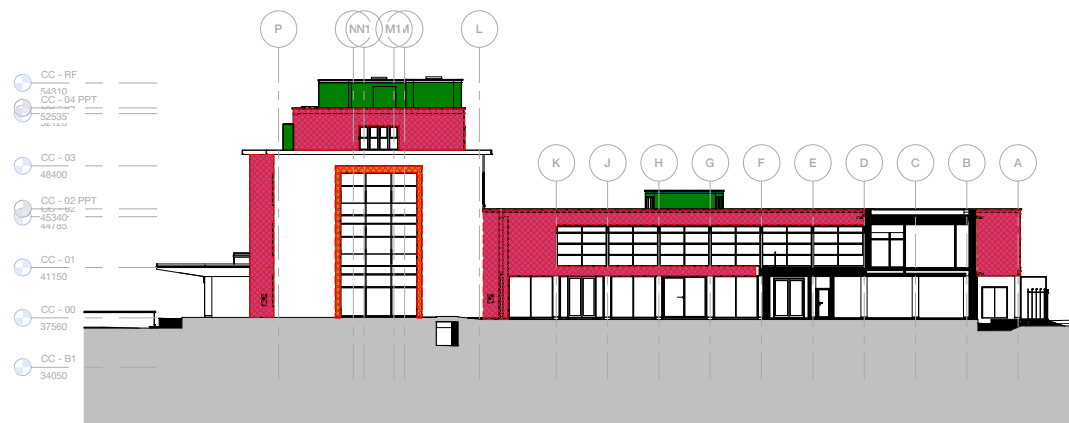
GRC Wall Types



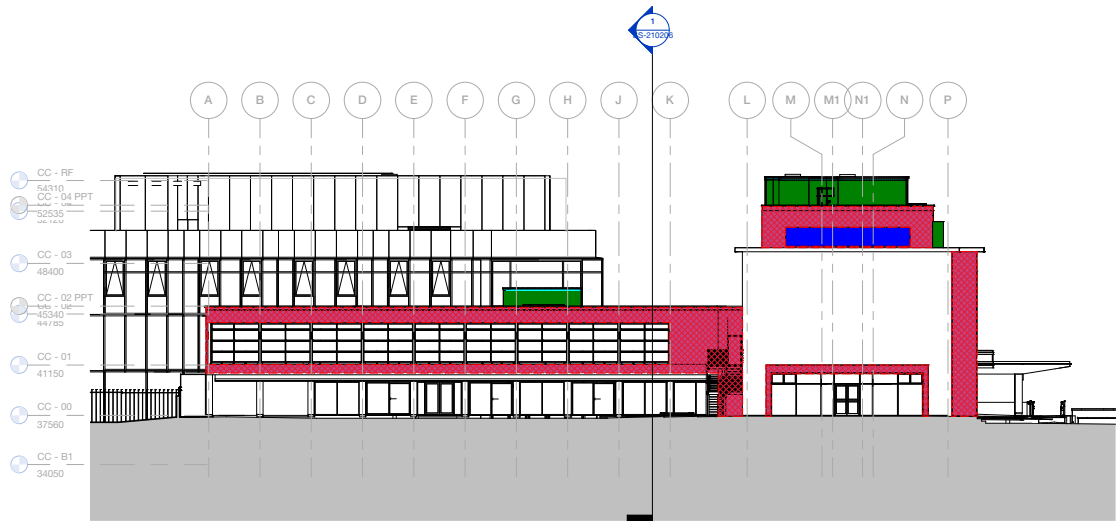
External Concrete & Render Wall Types - East Elevation
1 : 200



External Concrete & Render Wall Types - West Elevation
1 : 200



External Concrete & Render Wall Types - North Elevation
1 : 200



External Concrete & Render Wall Types - South Elevation
1 : 200

WALL TYPES KEY:

Precast/GRC panel Systems - Refer to DWG 210051

EWT-201

Concrete Panels on Solid Brick - Insulated

EWT-202

Concrete Panels on Solid Brick - Uninsulated

EWT-211

Concrete Panels on Concrete upstand - Insulated

EWT-301

Concrete Panels infill walls - Uninsulated

Miscellaneous - Refer to DWG 210052

EWT-302

Render Solid Brickwork - Insulated

EWT-311

Feature Wall - Precast with integrated glazing

EWT-312

Reinforced Concrete Wall

6

Architecture

6.1

Civic Centre

6.1.1

Repair and restoration of the civic centre

6.1.1.3

Brickwork

Brickwork

The existing brickwork is in relatively good condition and requires only minor repair work.

To enhance thermal performance of the brick faced walls it is proposed to insulate internally.

The extent of the brickwork areas is illustrated in the diagrams overleaf. The different colour coding represents conditions / wall types as described below.

Wall Type EWT-111 East and west walls of north wing

Existing condition: brickwork on concrete substrate (minimal cavity) with uninsulated plastered lining.

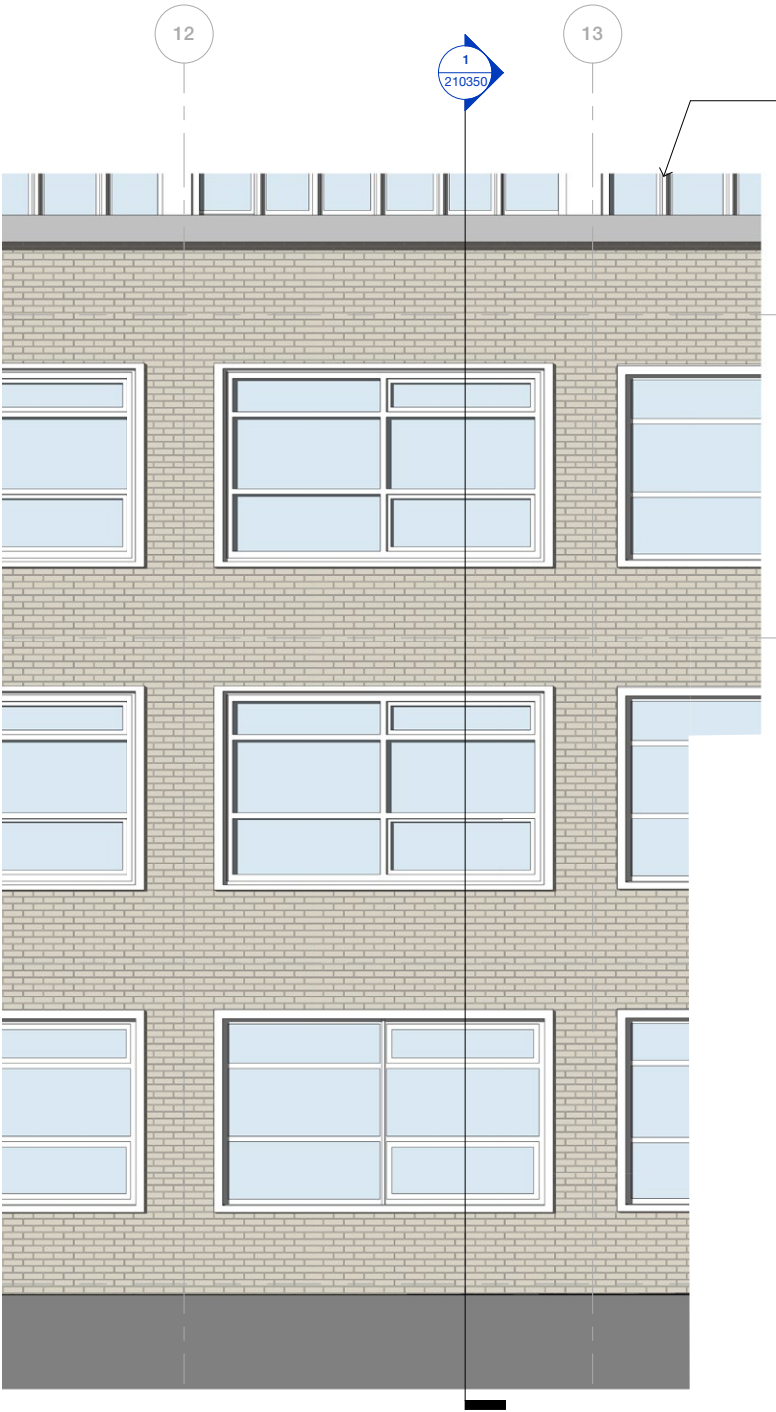
Proposal: the uninsulated plastered lining is to be removed and replaced with an insulated plasterboard lining.

Internal floor structures and retained internal walls create cold bridges where they meet the external wall. These will be minimized through insulation of the structures at the perimeter. Air tightness and vapour permeability and condensation risks will be considered and addressed through the use of vapour barriers and air tightness membranes. These details will be developed at the next stage.

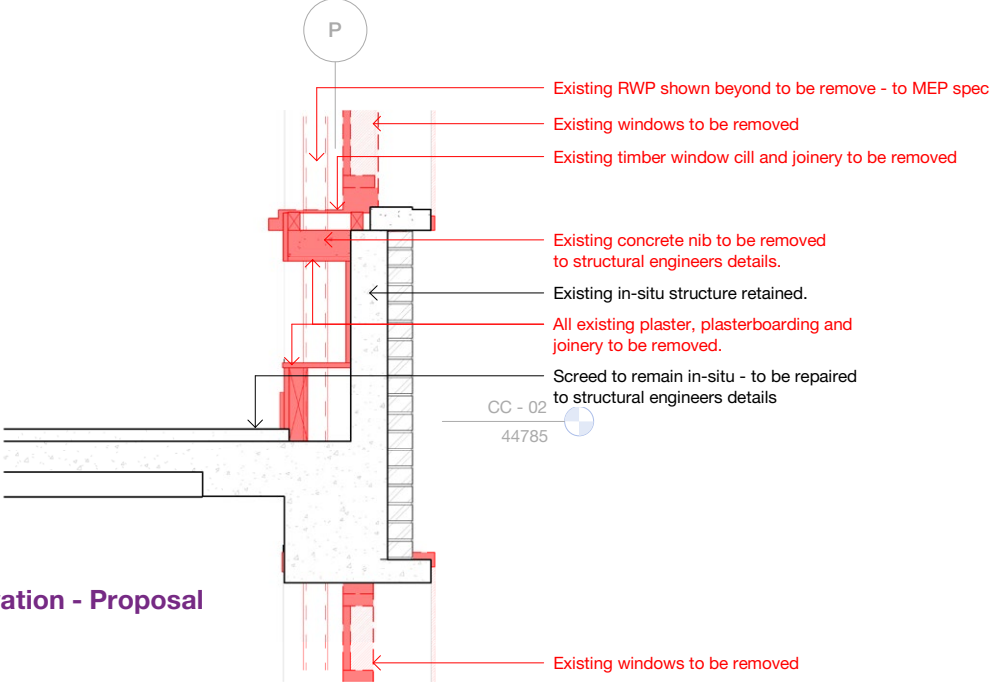
Proposed demolition of internal finishes



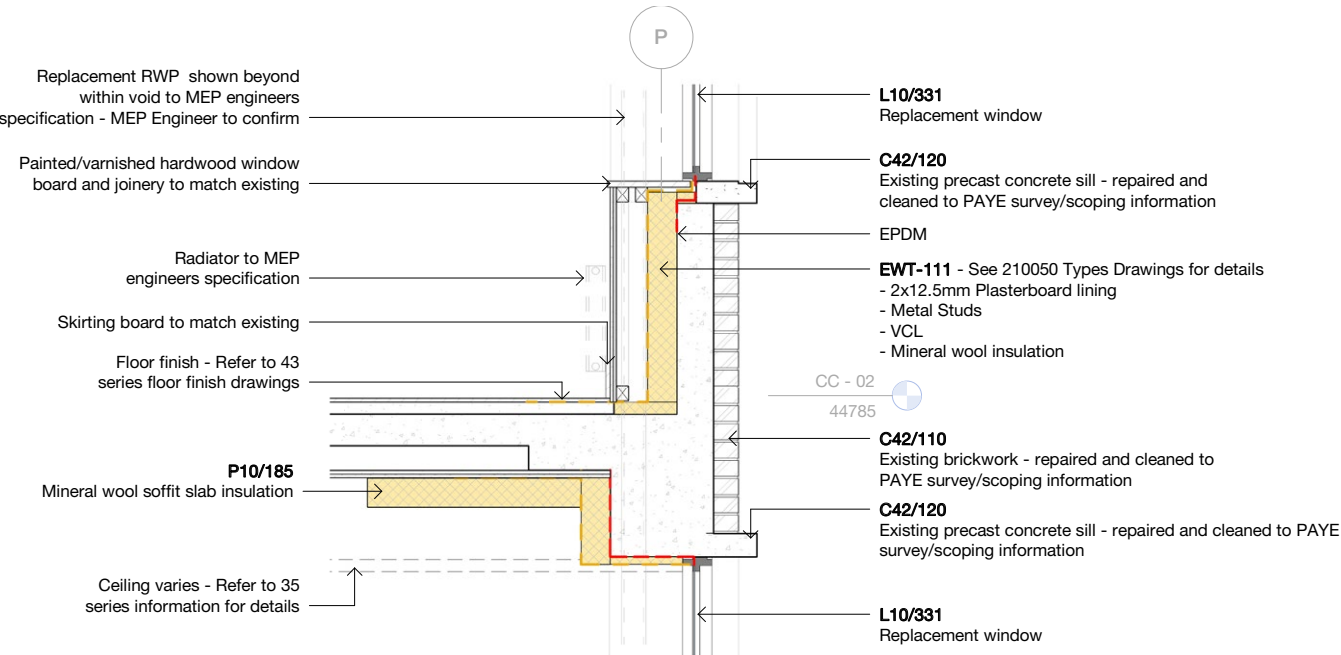
North Wing - East Elevation



Section through East Elevation - Proposed demolition



Section through East Elevation - Proposal



6

Architecture

6.1

Civic Centre

6.1.1

Repair and restoration of the civic centre

6.1.1.3

Brickwork

Brickwork continued.

Wall Types EWT-101A and 101B. Council chamber.

Existing condition: cavity wall with brickwork inner and out leaf. Type 101A is unlined, Type 101B areas have fine finish linings such as the marble behind the podium and podium itself, or timber panelling.

Proposal: In 101A areas (bare brickwork) - the walls can simply be lined with insulation (they will be concealed by the replacement ceiling).

Proposal: In 101B areas the fine finishes are to be de-mounted, the walls insulated and the finishes re-placed

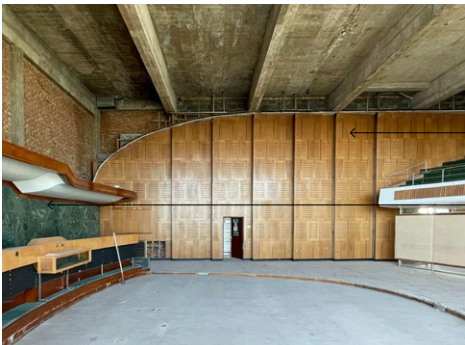
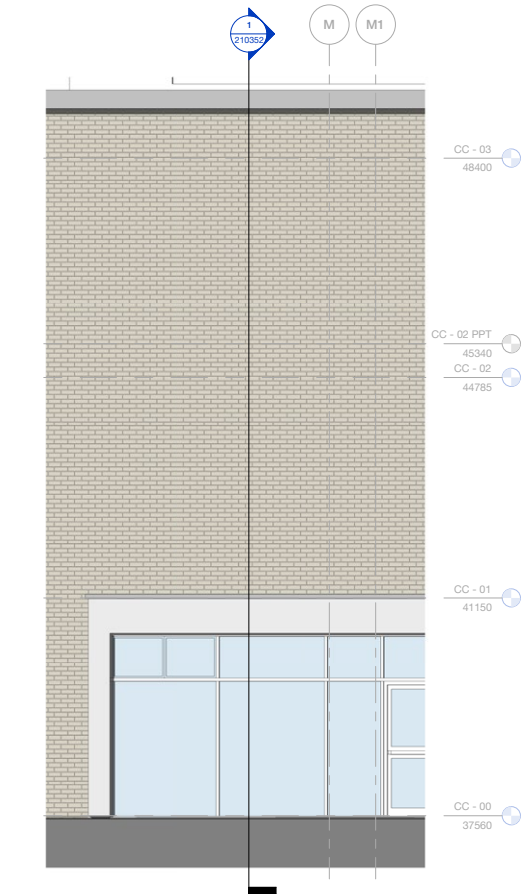
Internal floor structures and the concrete podium canopy structure create cold bridges where they meet the external wall. These will be minimized through insulation of the structures at the perimeter. Air tightness and vapour permeability and condensation risks will be considered and addressed through the use of vapour barriers and air tightness membranes. These details will be developed at the next stage.

Wall Type EWT 102A. North wing / north stair (north elevation)

Existing condition: cavity wall with brickwork inner and out leaf, plastered internally.

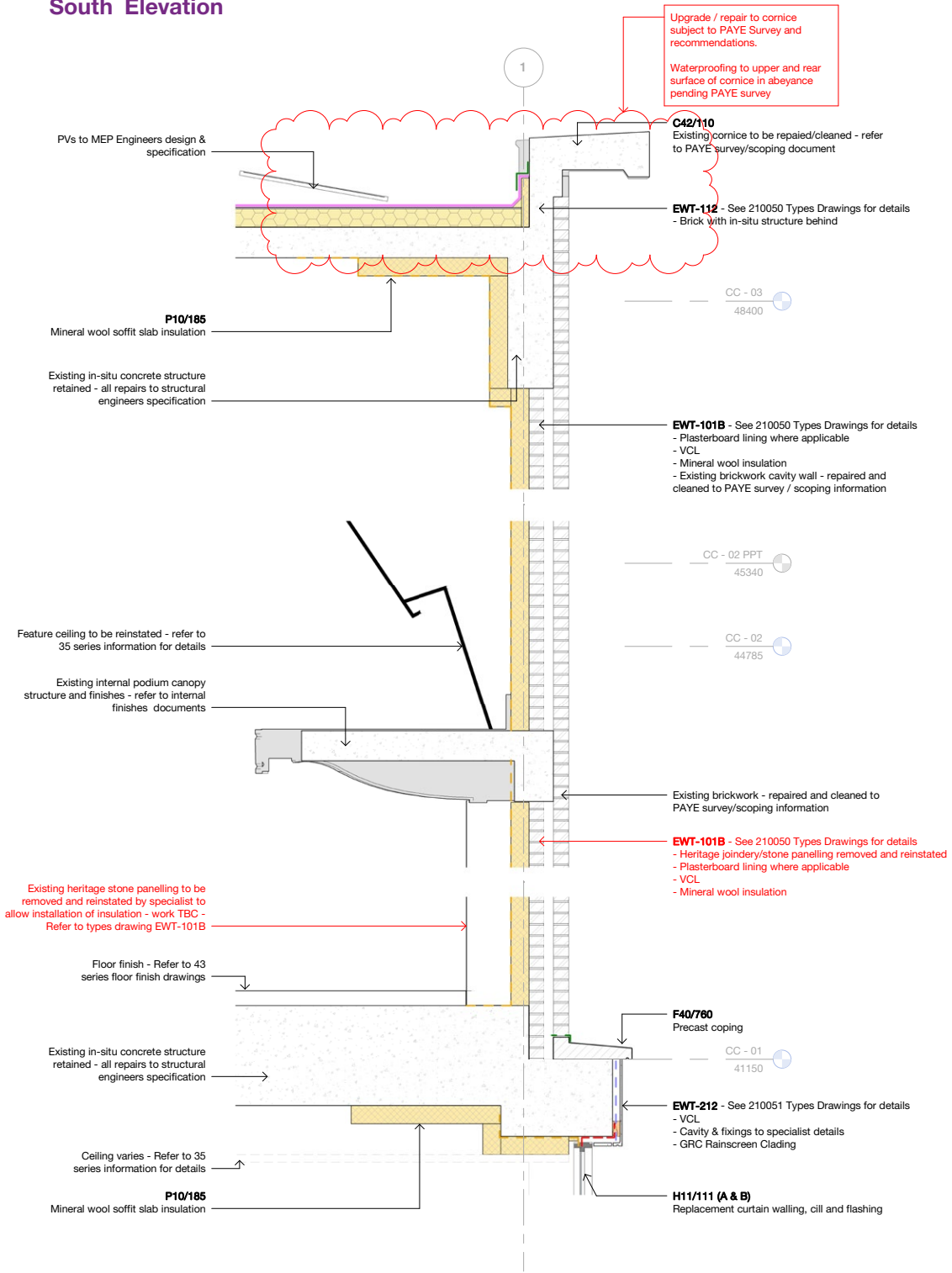
Proposal: The existing terrazzo stair butts up against the wall making an insulated internal lining impossible. The preferred option to limit heat loss is to remove existing plaster and replace with an insulating plaster. This will not achieve the target 0.3 W/m2/K but will reduce heat loss. As this is a transitory area, the council may wish to set the thermostat level lower than elsewhere in the building to further reduce heat loss.

South Elevation - Council Chamber



Left: Council chamber. Right: North stairwell

South Elevation



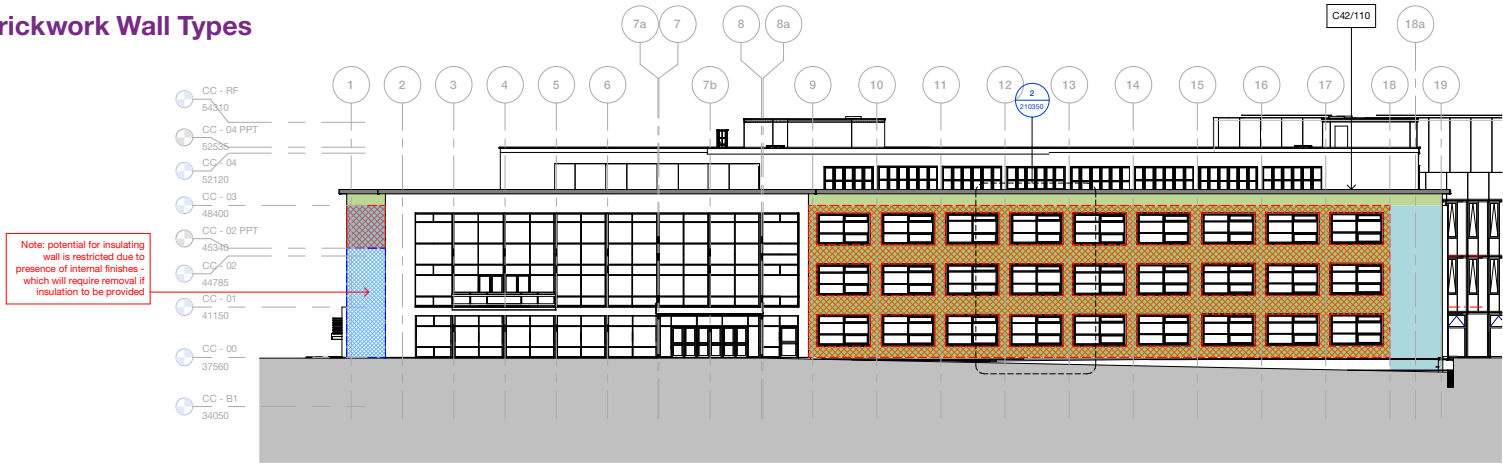
6 Architecture

6.1 Civic Centre

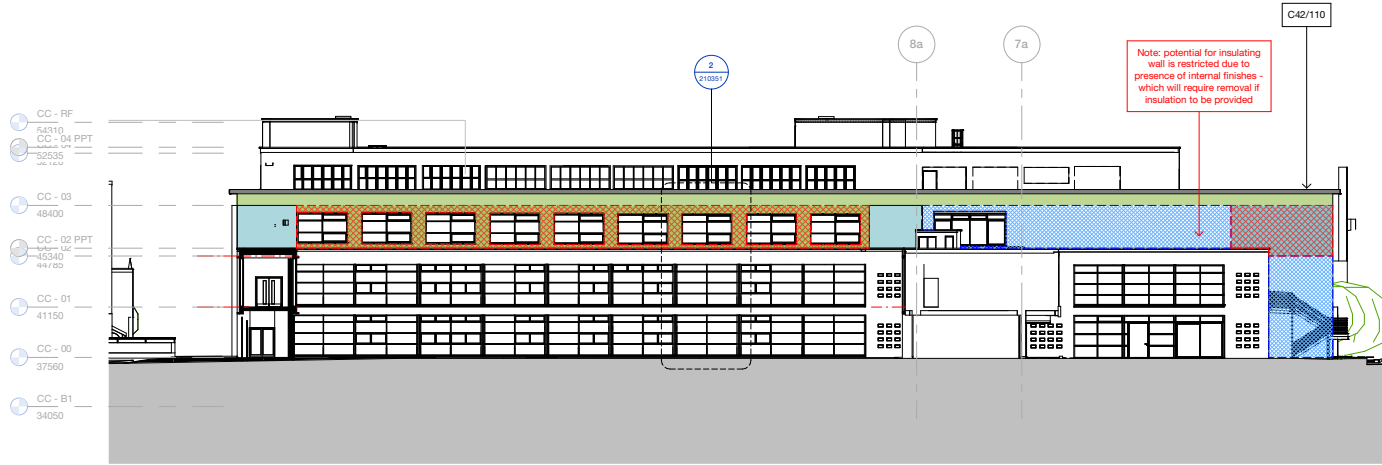
6.1.1 Repair and restoration of the civic centre

6.1.1.3 Brickwork

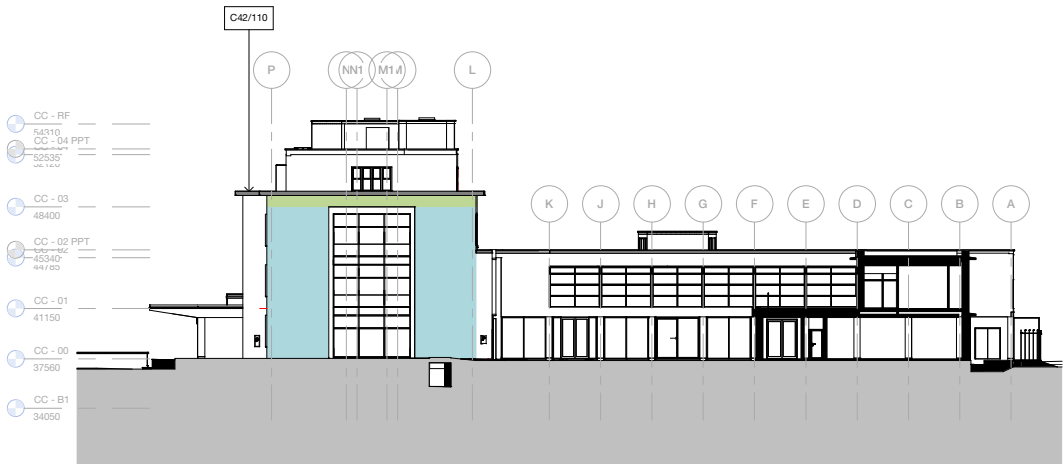
Brickwork Wall Types



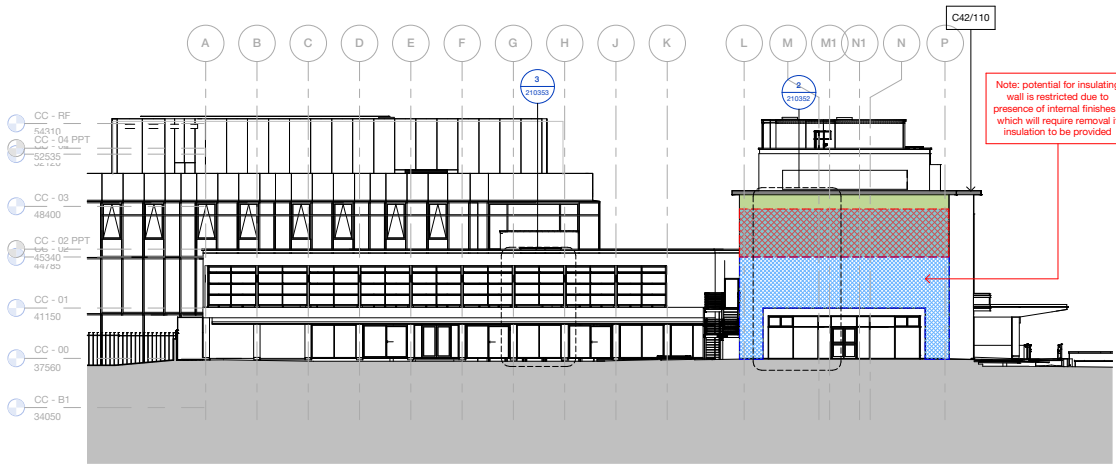
External Brickwork Wall Types - East Elevation
1 : 200



External Brickwork Wall Types - West Elevation
1 : 200



External Brickwork Wall Types - North Elevation
1 : 200



External Brickwork Wall Types - South Elevation
1 : 200

WALL TYPES KEY:

Facing Brickwork Systems - Refer to DWG 210050

- EWT-101A**
Brickwork Cavity Wall - Insulated internally
- EWT-101B**
Brickwork Cavity Wall - Insulated internally
- EWT-102A**
Brickwork Cavity Wall - Uninsulated
- EWT-111**
Brick with Concrete upstand - Insulated
- EWT-112**
Refer to 27 series roof package