



**Saunders
Boston
Architects**

Willmott Dixon Construction Limited
on behalf of North Hertfordshire District Council

**Hitchin Swimming Centre
NHDC Decarbonisation**

Design & Access Statement
March 2025 Rev P02



Revisions

Revision

P01 - 13/03/25

P02 - 02/04/25

Drawings & Documents

First issue

Revised issue incorporating relocated substation & updated PV arrangement

Introduction

Saunders Boston Architects (SBA) have been appointed by Willmott Dixon Construction Limited on behalf of North Hertfordshire District Council on the NHDC De-carbonisation project at the North Herts, Royston and Hitchin Leisure Centre sites across RIBA Stages 2-5. In addition to the proposed de-carbonisation works, Royston Leisure is also to include new two-story fitness extension on the north (primary) elevation, along with a reconfigured ground floor changing village. Funding for the de-carbonisation works is being provided via the SALIX Public Sector Decarbonisation Grant Scheme to support the NHDC commitment to Net Zero carbon target by 2040.

The decarbonisation works involve the replacement of existing gas boilers and CHP with air source heat pumps & PVs which requires upgrades to the thermal envelope of each building to facilitate this. This DAS covers the proposals at Hitchin Swimming Centre, please also refer to Bidwells' Planning Statement & RPS landscaping proposals submitted as part of the full planning application.

Project Team

Client - North Herts Council

Contractor - Willmott Dixon

Architect - Saunders Boston Architects

Structural & Civil Engineer - Conisbee

Landscape Architect - RPS

Planning & Heritage Consultant - Bidwells

MEP Consultant - Qoda

MEP Services (S.C. Partner) - CPS

Fire Engineer - Affinity Fire

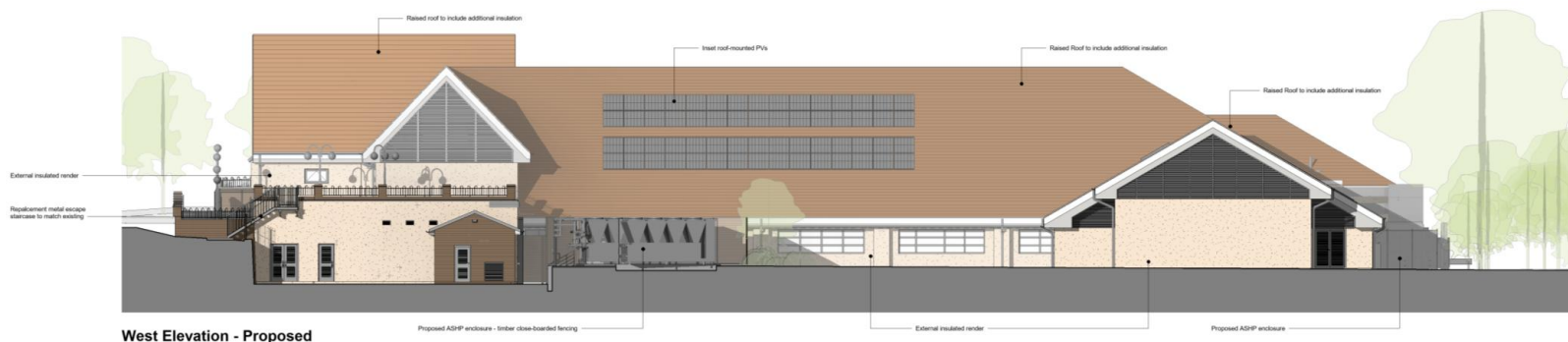
Acoustic Engineer - Mach Acoustics



Scheme Summary

The decarbonisation proposals at Hitchin Swimming Centre consist of the following upgrades to the thermal envelope of the building and services to facilitate the removal of fossil fuel-gas heating. As agreed as part of the formal pre-application advice (see overleaf), these items fall within the scope of permitted development requiring prior notification, are classed as *de minimis* or are within the scope of this formal application as follows;

- External insulated render to existing masonry external walls – *For consideration in this application*
- Upgraded insulation in flat roof terrace adjacent to café – *De Minimis*
- Upgrade insulation to pitched roofs & relay existing clay roof tiles. PVs to be set within roof finish – *De Minimis*
- Replacement windows, internal screens & rooflights with aluminium double glazed units – *De Minimis*
- External ASHP compound adjacent to the existing plant rooms – *For consideration in this application*
- Replace the existing gas fired boiler plant with air source heat pump technology & modify existing heating systems accordingly – *De Minimis*
- Modify the existing heating system as necessary to provide temperature zone control – *De Minimis*
- Introduce Passive InfraRed Sensors in Office areas – *De Minimis*
- Install Photovoltaic (PV) panels to pitched roof – *Falls under Permitted Development / Prior Notification*
- Proposed external substation – *Falls under Permitted Development*



Consultation

A pre-app submission was made by Bidwells to NHDC in October 2024, followed by a site visit with the Case Officer attended by SBA, Bidwells & Willmott Dixon. The formal response (ref: 24/02241/PRE) regarding external works from this site visit is summarised as follows;

It was confirmed that the following external works are De minimis and would not require planning permission;

- *F - Replace flat roof areas with new higher performing system. The flat roof terrace outside the café will be replaced with an inverted roof system. The finished roof level and material will be retained as existing (paving slabs).*
- *G - Remove existing roof tiles / pantiles, relay a higher performing insulation, relay roof tiles. This change will not require planning permission on the assumption that the existing roof tiles are relayed and general height of eaves remains similar. Details included within this application Design & Access Statement.*

It was confirmed that the following external works require planning permission;

- *H - Insulated render to the external walls of centre*

It was confirmed the following would meet the requirement for permitted development subject to prior notification;

- *J - PV array added to roof*

Whilst the following was confirmed in the pre-app response as no prior notification being required, it has since emerged that the ASHP enclosure will be slightly in excess of the 200m³ threshold, therefore is included within the full planning submission;

- *L - Air Source Heat Pumps and Enclosure*

The feedback on the following was received however is no longer proposed;

- *I - Additional PV above car park*
- *K - Additional PV on empty land adjacent to pool hall*

The site

The Hitchin Swimming Centre was originally constructed in 1991 adjacent to the 1938 outdoor Lido & Pavilion, consisting of a 25m indoor pool, learner pool, associated changing faculties and a upper ground floor Café. A new two story health & fitness annexe was constructed to the east in the late 90s followed by a single story extension to the southwest housing 3x dance studios, completed in 2015. The leisure centre is managed by Everyone Active and is owned by NHDC.

The site is to the west of Hitchin town centre, located off Fishponds Road which bounds the north side of the site. To the south and west is Butts Close Park, and Hitchin Boys' School playing fields are to the east (the Grade II listed school building is circa 200m to the southeast). Hitchin Swimming Centre lies within the Butts Close Conservation Area, and the Lido & Pavilion are locally listed.

The original 1991 building and subsequent extensions are understood to be of masonry cavity construction (partially insulated in the 2015 extension) around a steel frame. The roofscape consists of a number of pitched clay tiled roofs of varying angles along with a flat roof terrace above the lower ground floor changing village. There is a lightweight uninsulated timber flat roof between the original building and health & fitness annexe with a plant-room below. The external windows are a mixture of single and double glazing. The changing facilities were reconfigured & refurbished at the same time as the 2015 southwest extension.



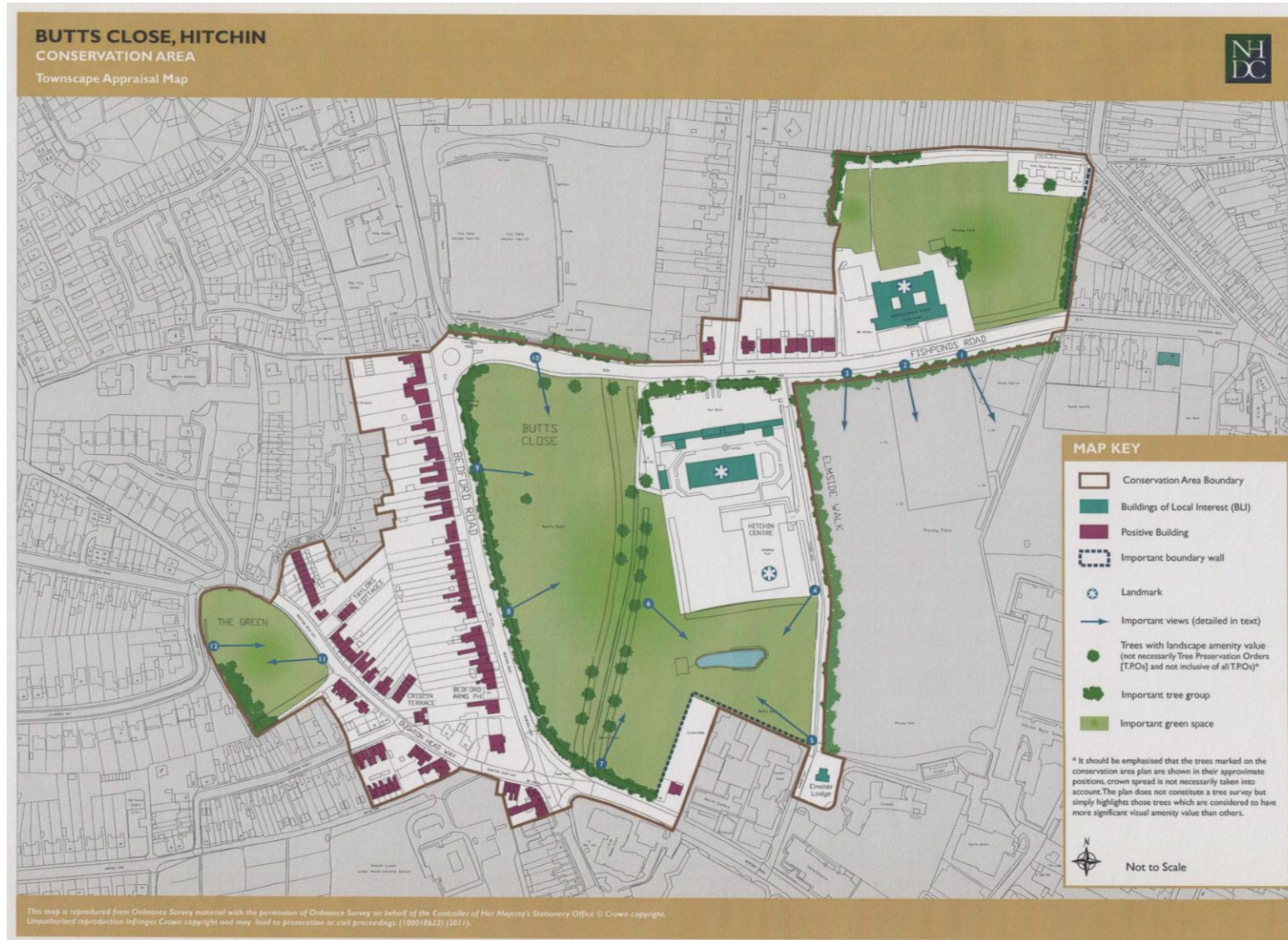
Site Location Plan (NTS)



Drone view (facing northeast)

Important Views

The import views noted below are taken from the NHDC website page for the Butts Close Conservation Area. Views 7, 8 & 9 look towards Hitchin Swim Centre. See overleaf for photos taken at approximate locations.



Important Views

View 7: This is the view for many of the users of the park on entering the park from the south before crossing the large open space by the winding central pathway. It takes in the grass, mature trees and general spaciousness of the area. Whilst the new swimming pool is a very large building, the simplicity of the red tiled roof, and the mature trees around the boundary, help to minimise its impact.

View 8 and View 9: These views from the pavement of Bedford Road look over the pleasantly green open space of the park towards the 1930s and 1990s buildings beyond. In the summer months the mature trees help to shield these buildings from these views.



View 07



View 08



View 09

Existing Site Block Plan NTS

Shelter

70.1m

69.8m

FISHPONDS ROAD

ED & Ward Bdy

68.6m

Mast

Car Park

Fountain

El
Sub Sta

Butt's Close

Swimming
Pool

Elmside Walk

Legend

- Site Development Boundary
- Site Ownership Boundary



Google Earth View External Photo Locations



External Site Photos



Internal & Roof Photos



Proposed Architectural Scheme

(To be read with proposed plans & elevations on following pages)

Thermal Upgrade of External Walls

- To the existing external masonry cavity wall add External Insulated Render utilising mineral wool insulation adhered to the existing masonry with a high quality one-coat, through-coloured mineral render or silicone render. To achieve overall U-Value Target $0.18 \text{ W/m}^2\text{k}$ – *For consideration in this application*

Thermal Upgrade of Existing Roof & Terrace

- Remove existing pantile roof covering. Lay new insulation over existing with cross-battens above existing rafter line. New roofing membrane to be placed above ventilated cavity zone, existing pantiles to be refixed as final roof finish. To meet target U-Value of $0.12 \text{ W/m}^2\text{k}$. Proposed PVs to be set within pantiles (flush) – *De Minimis*
- Remove existing inverted flat roof terrace outside café including insulation. Membrane to be checked and renewed with new Hot Melt inverted roof waterproof system with new higher performing XPS insulation with new encapsulating paving slabs above set to match existing FFL – *De Minimis*

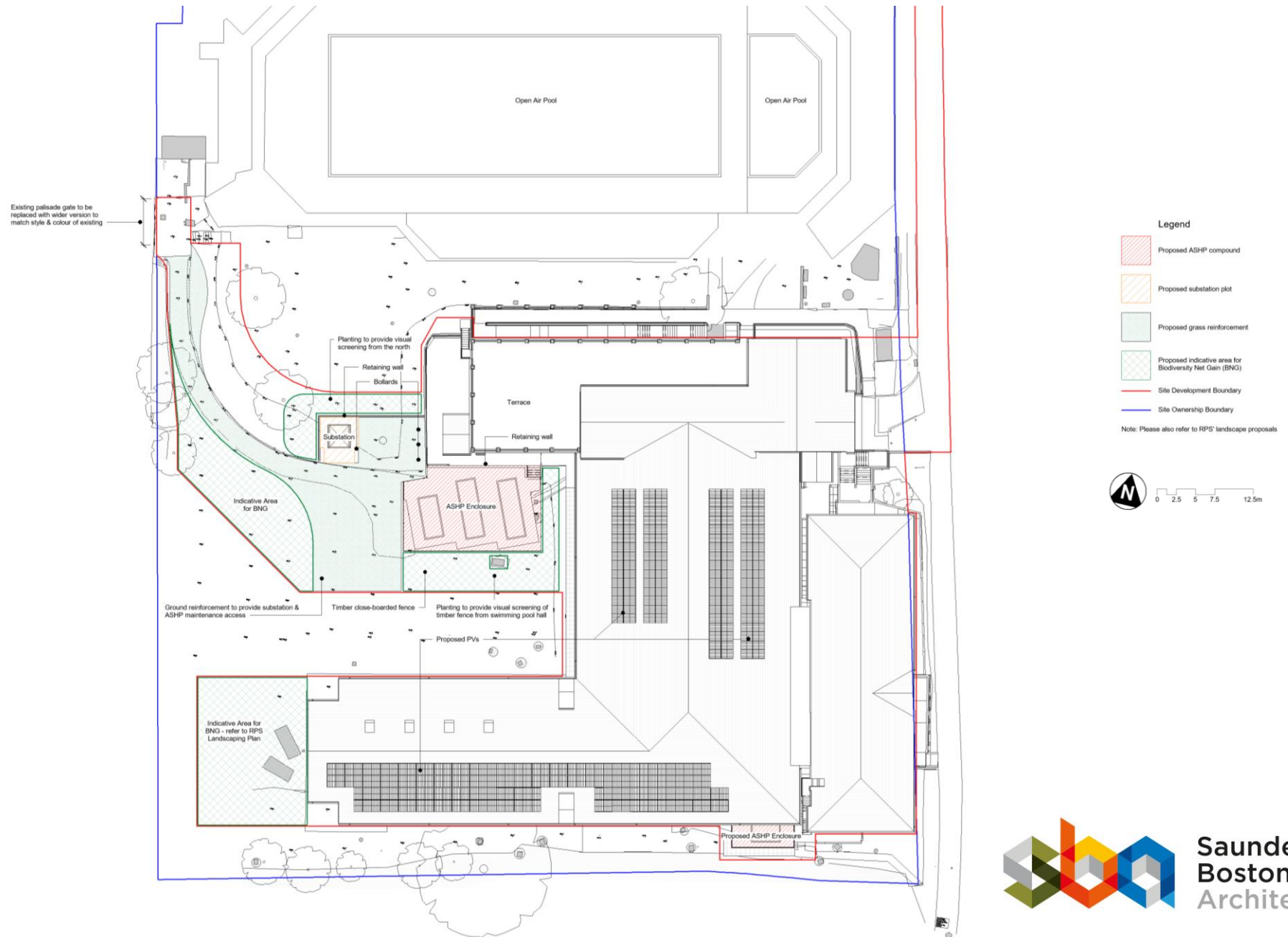
Replacement Glazing

- Replace all existing windows & curtaining walling with new thermally broken Aluminium polyester powder coated frames with double glazed high-performance coated glass to $1.2 \text{ W/m}^2\text{k}$, colour to be mid-grey to match existing – *De Minimis*
- Replace existing rooflights within studios to achieve $1.2 \text{ W/m}^2\text{k}$, to match existing – *De Minimis*

External works

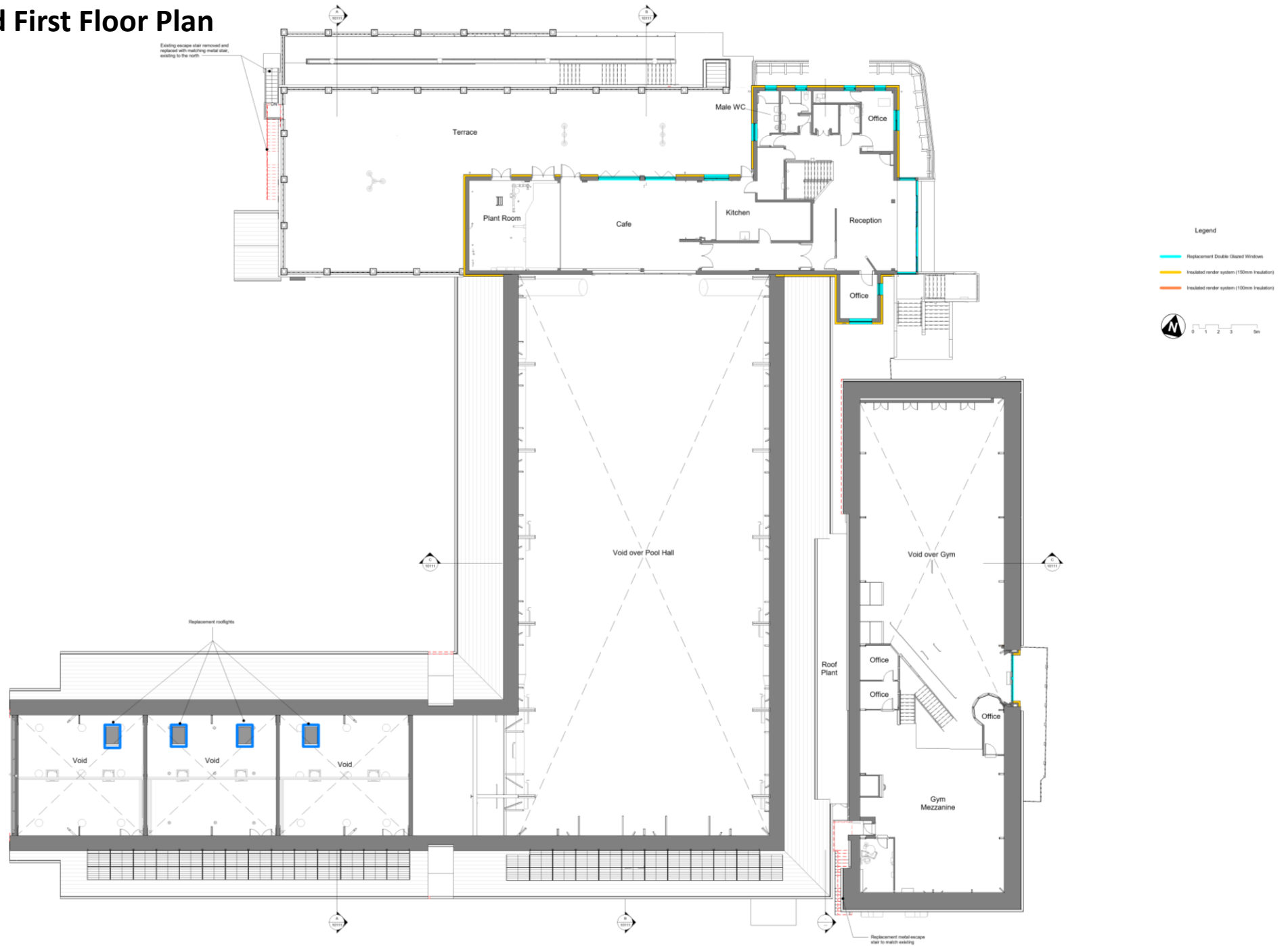
- Proposed ASHP enclosures & substation proposed externally adjacent to existing plant rooms – *For consideration in this application*
- Enhancements to associated soft & hard landscaping to meet 10% biodiverse net gain - *For consideration in this application*

Proposed Site Block Plan

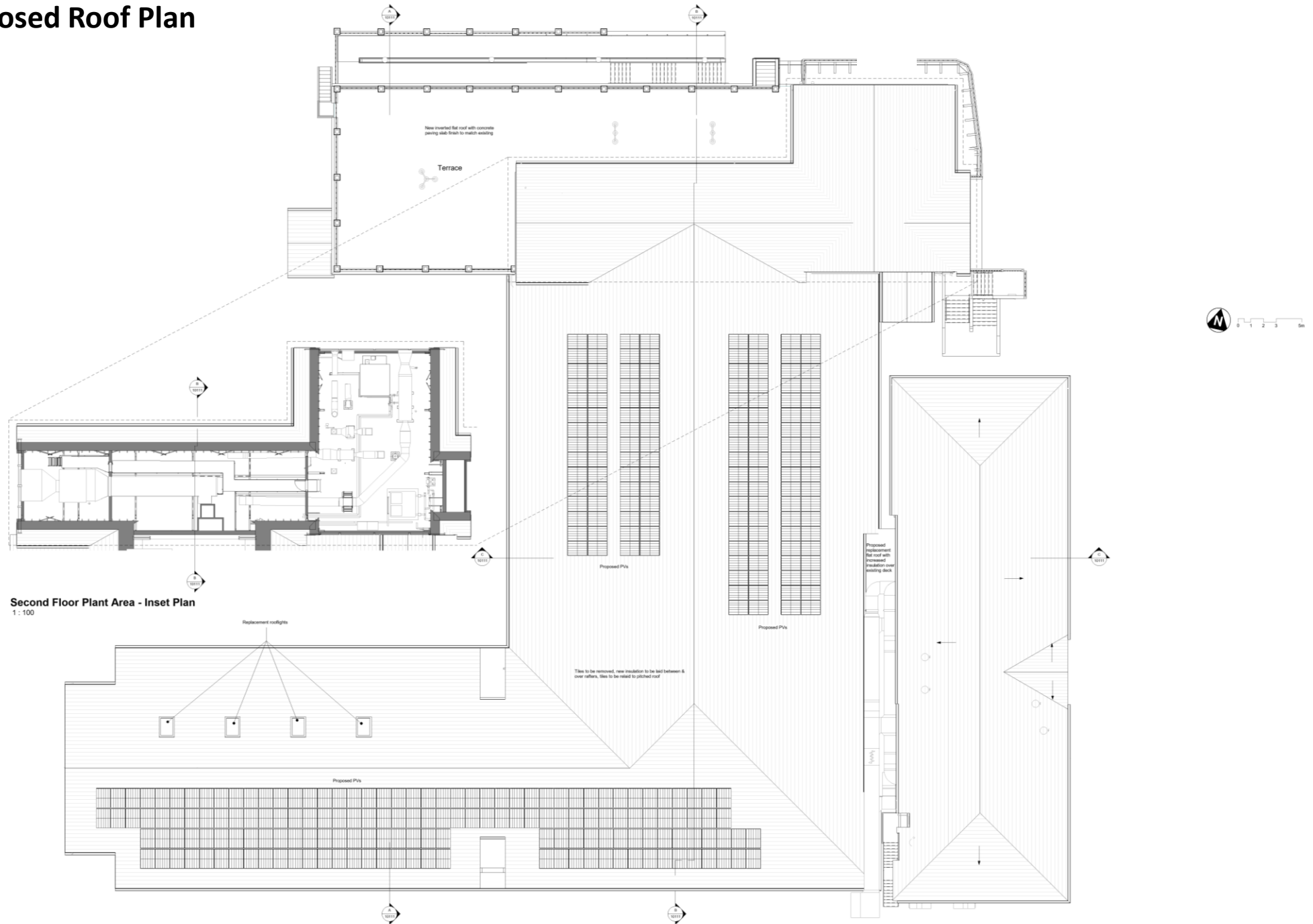




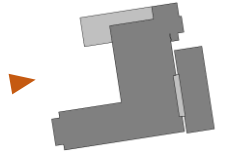
Proposed First Floor Plan



Proposed Roof Plan

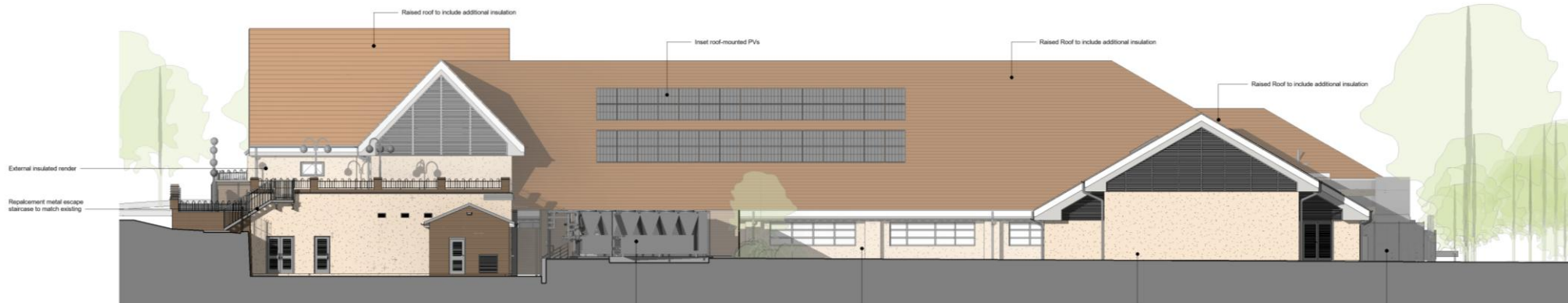


Existing & Proposed West Elevations



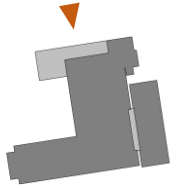
West Elevation - Existing

0 1 2 3 5m



West Elevation - Proposed

0 1 2 3 5m



Existing & Proposed North Elevations



North Elevation - Existing

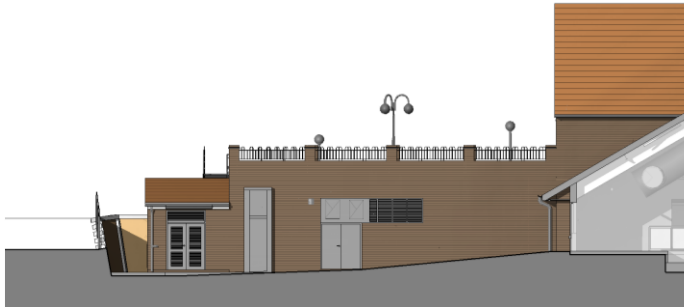
0 1 2 3 5m



North Elevation - Proposed

0 1 2 3 5m

Existing & Proposed North & South Partial Elevations



Plant Room South Elevation - Existing



Extension North Elevation - Existing

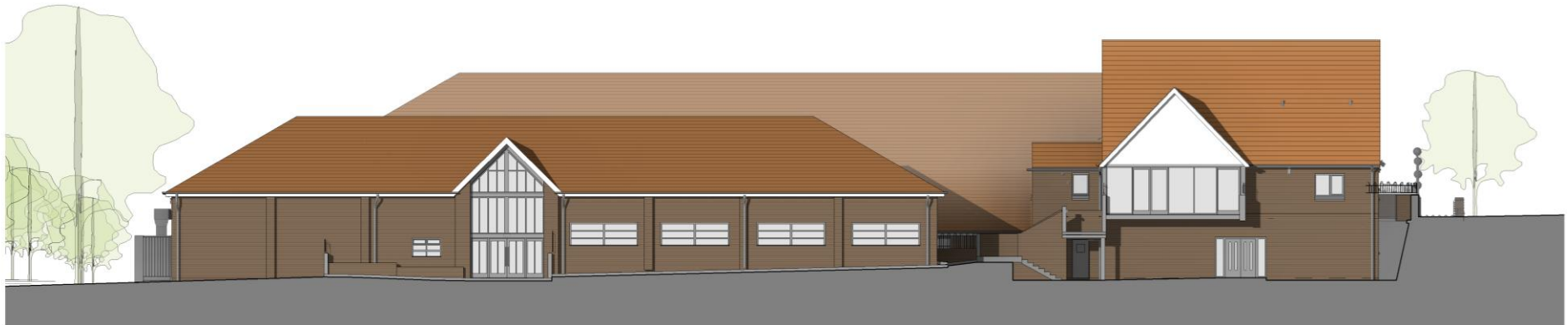
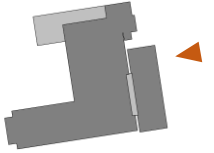


Plant Room South Elevation - Proposed



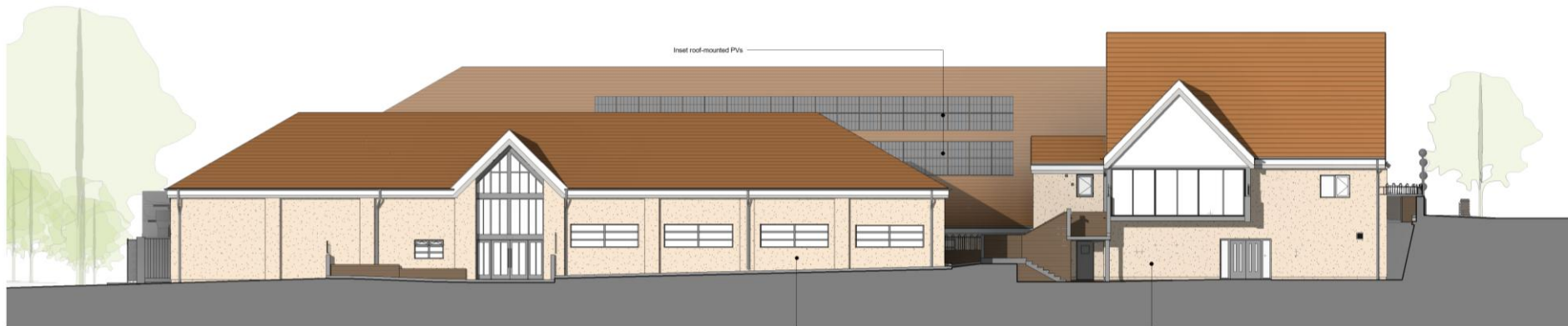
Extension North Elevation - Proposed

Existing & Proposed East Elevations



East Elevation - Existing

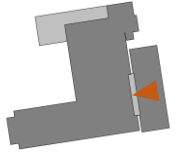
0 1 2 3 5m



East Elevation - Proposed

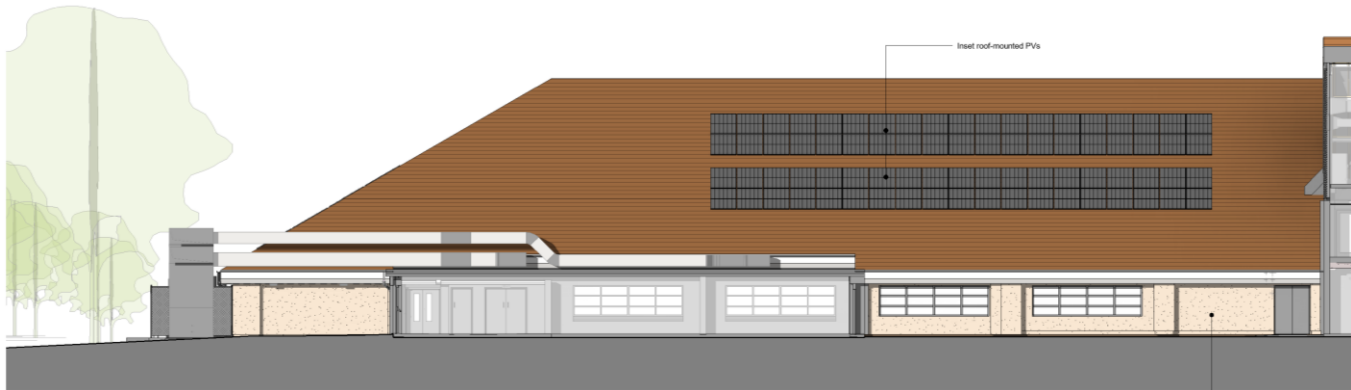
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Existing & Proposed East Swimming Pool Wing Elevations



East Elevation Swimming Pool - Existing

0 1 2 3 5m

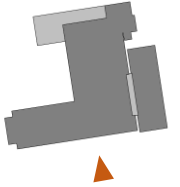


East Elevation Swimming Pool - Proposed

1 : 100

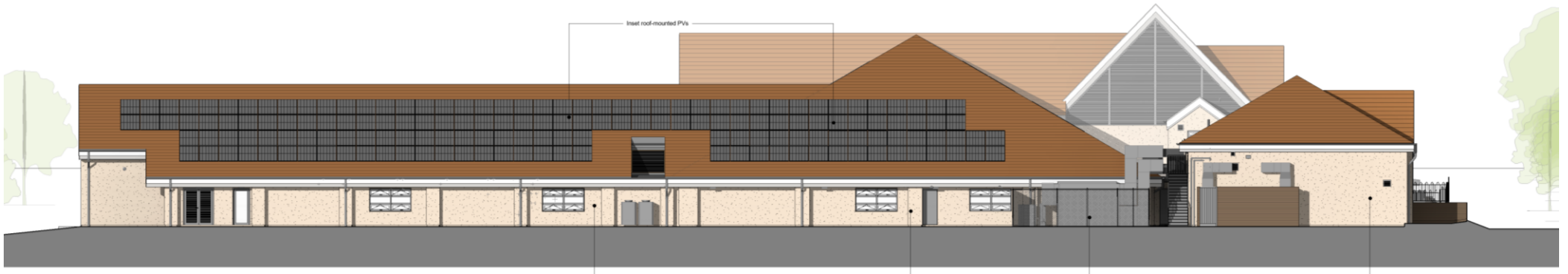
0 1 2 3 5m

Existing & Proposed South Elevations



South Elevation - Existing

0 1 2 3 5m



South Elevation - Proposed

0 1 2 3 5m

Amount / Scale

Amount

- The Insulated Render System will be applied to the entire perimeter of the existing building (consisting of the original building, Gym wing and 2015 extension), from ground level up to the existing soffits.
- The proposed PV array is proposed to the primary roof to the Swimming Pool building to the east & west, and to the south elevation of the 2015 extension.
- Externally, the primary ASHP enclosure and substation is proposed within the central external area to the south of the main plant room, and a secondary smaller ASHP enclosure is proposed to the south of the Archers Gym wing.

Scale

- The overall existing form & massing of the existing buildings will remain unchanged, however the existing roofs will be nominally raised to accommodate increased insulation.



Existing East Gym Entrance



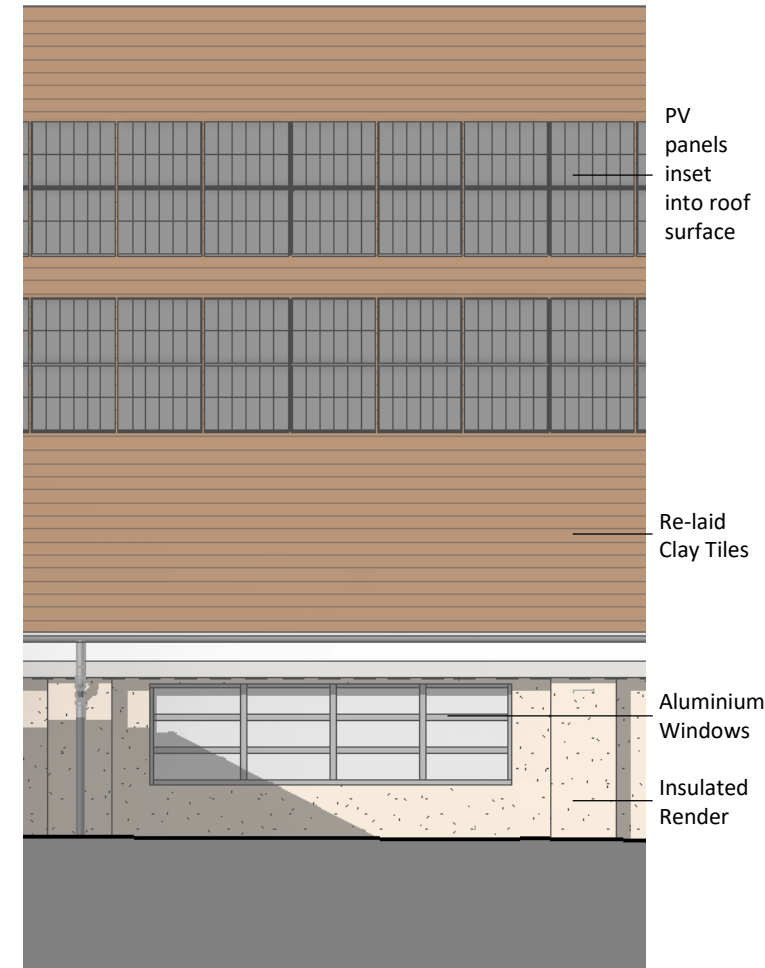
Proposed East Gym Entrance

Appearance

- The Insulated Render System will be an off-white / beige colour to compliment the existing brickwork and re-instated clay roof tiles. A through-colour or silicone based render will be specified to ensure a high-quality long lasting finish.
- The PVs will be set into the roof (replacing the tiles) to maintain a low profile and minimise the visual impact.
- Replaced windows & rooflights will be like for like in appearance, to be of the same mid-grey colour as existing and a similar profile size subject to thermal performance requirements.
- The fascia depth will increase to accommodate additional insulation above the rafter line. The new fascia will have a visual step to reduce its impact. Minor adjustments will be undertaken to rainwater goods accordingly.
- Perimeter fencing to the northern ASHP enclosure to be timber close-boarded fence to provide visual screening from the internal pool hall and from the adjacent Butts Close park. The southern enclosure will be open metal fencing for security purposes; this area is not accessed nor visible to the general public



Existing West Bay Elevation (Pool Wing)



Proposed West Bay Elevation (Pool Wing)

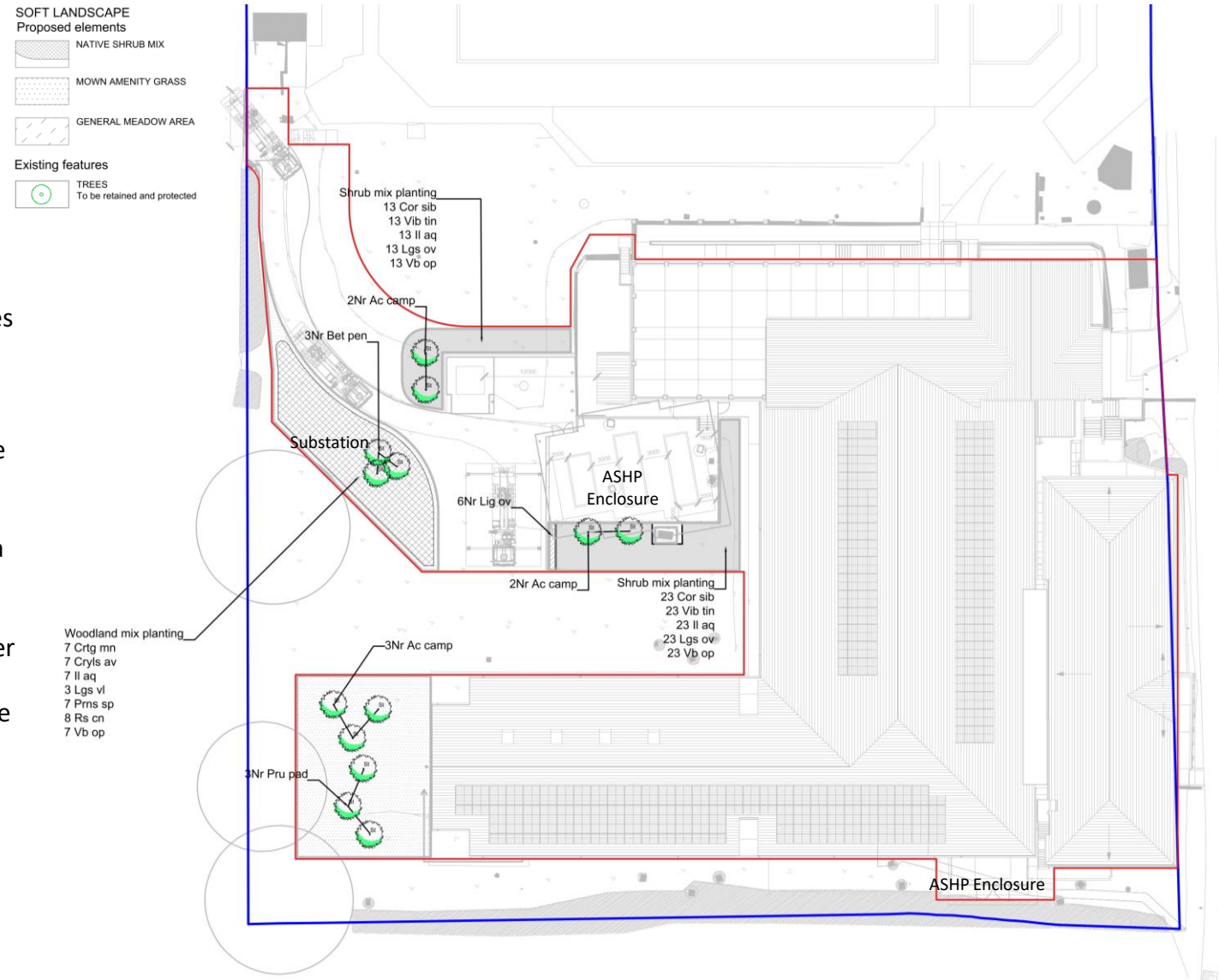
Landscaping / Access

Landscaping

- To be read in conjunction with RPS';
 - Preliminary Ecological Appraisal
 - Biodiversity Net Gain Assessment
 - Landscape Planting Plan
- Two Air Source Heat Pump (ASHP) enclosures and a new substation are proposed over existing hardstanding and grass landscaping. Additional ground reinforcement will be introduced along the access route to provide appropriate maintenance access.
- The Biodiversity on site is to be improved via the reinforcement of existing green areas on site via the planting of trees, shrubs and a more diverse range of native plant and flower species appropriate to the local area. This is proposed to the southwest of the site, where there is currently relatively little human activity, and around the substation to act as screening. Please refer to the above RPS documents submitted with this application.

Access

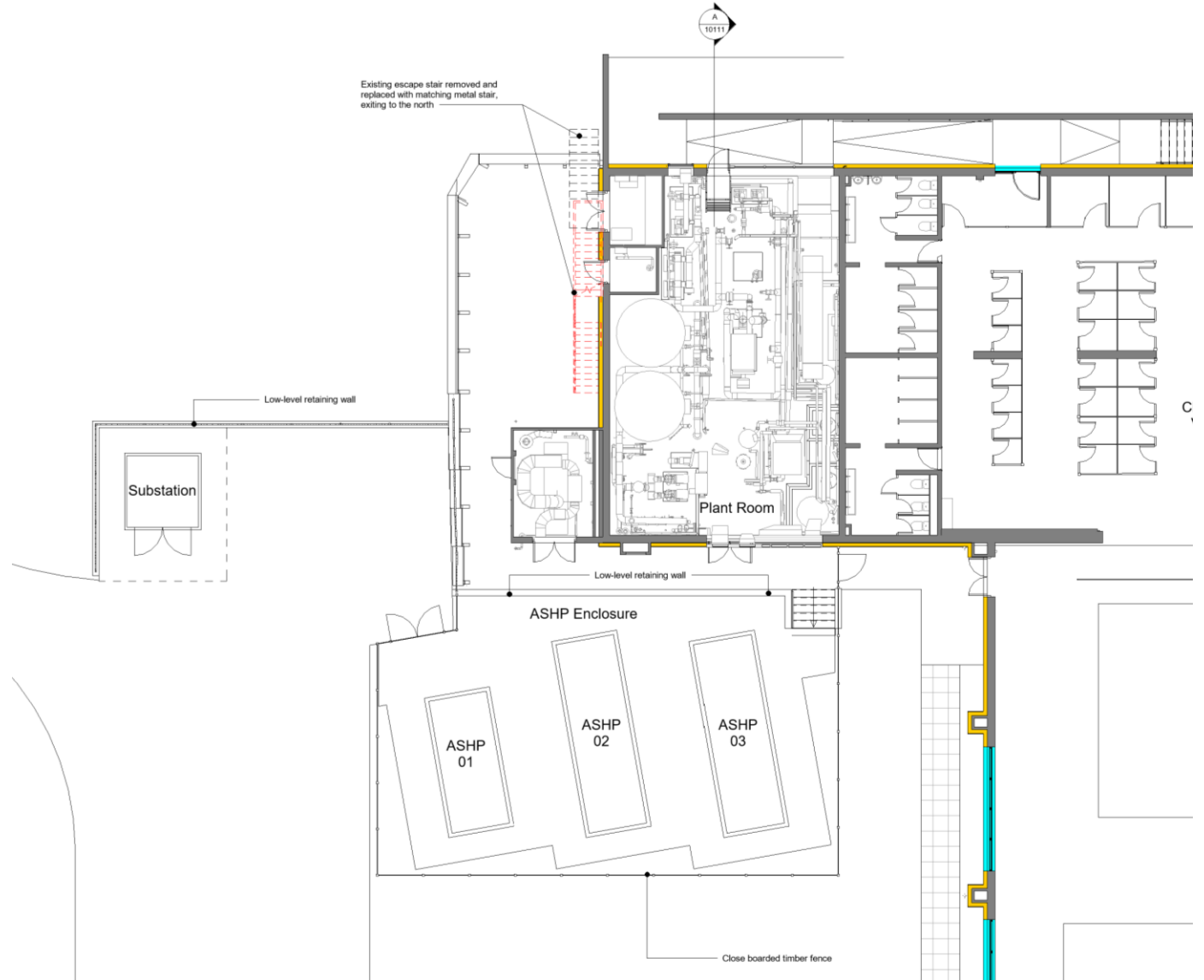
- No changes to the existing access arrangements to the buildings are proposed. Site access to both the northern ASHP enclosure and substation for maintenance will be via existing vehicular access to the



west which will be enlarged to suit UKPN maintenance lorry tracking. The smaller ASHP enclosure to the southeast will be accessed from the existing footpath to the east.

MEP Services

- As part of the SALIX decarbonisation initiative, the current gas-fired boilers will be replaced with Air Source Heat Pump (ASHP) systems to provide domestic hot water (DHW), including heating for the pool, as well as space heating. Whilst the scheme does not cover the replacement of the existing Combined Heat and Power (CHP) plant the CHP plant will be decommissioned and the building will transition heating entirely to ASHP.
- To optimize energy usage, Passive Infrared (PIR) sensors will be installed in office areas to ensure energy is only consumed when required. Additionally, photovoltaic (PV) panels will be installed on the roof to contribute to carbon savings.
- The electrification of the building's heating system necessitates upgrades to the electrical infrastructure. This will include increasing the capacity of the incoming power supply and upsizing the Main LV switchgear. A new substation is proposed to the west of the existing building.
- Existing freestanding external lighting will be retained. Existing wall-mounted lighting fixtures will be removed to facilitate addition of External Render System then reinstated & recommissioned



Primary site service area

