

(01





Scale - 1:100

4.3 Design Proposal Proposed Elevations



















05 Inner Gateway Building















8am

12pm

4pm





The Inner Gateway Building is a smaller version of the frontage Learning Gateway Building and performs a similar function in that it expresses an entrance location into the Listed Building. The proposed building is much smaller at 147sq/m with an identical architectural materiality.

The building sits adjacent to the Main Refectory and creates a central access point within the Campus utilising partially the land released by the demolition of the existing Student Union Building.















5.3 Design Proposal Proposed Ground Floor Plan











Scale - 1:100

06 Engineering Building























Concept and Design Development Initial Sketch - Site Plan





The existing Engineering Building on Campus is in need of much backlog maintenance and its layout and internal arrangement is no longer fit for purpose for current teaching methods. As such, it is proposed that this building is demolished - leaving the existing hangar and flight simulator buildings in place, and replaced with a new two storey state of the art facility.

The proposed building has a smaller overall footprint that the existing single storey building and sits to the immediate north of its current location meaning it can be constructed with the current building still in operation. It would then be demolished on completion of the new building. At ground floor, the building provides flexible usage workshop space with large glazed windows so that the internal activities can be viewed whilst at first floor, tuition classrooms are provided where there are less external distractions for students. The ground floor glazed workshop elevations also allow easy and direct access for large equipment and deliveries etc.

In terms of building area, the existing single storey Engineering Building to be demolished is 1,939sq/m with the replacement two storey building being 3,200sq/m.

In addition to the above, as the building will be a framed structure, changes associated with future academic trends, course and tuition variation can be accommodated through the use of relocatable internal partitioning.

The main entrance to the building is located immediately adjacent to the new Inner Learning Gateway Building and the new Central Landscaped Pedestrian Plaza giving the facility prominence and presence.

Elevationally, the proposed building is dynamic and contemporary and reflective of the activities within with silver / gold flat aluminium cladding panels combined with full height glazing to ground floor and continuous ribbon windows to first floor. A parapet at upper level screens a flat roof which will be utilised for sustainable technologies tuition and may well accommodate solar panels and wind turbines etc.

2 Concept and Design Development Initial Sketch - Entrance







01 Elevation A Scale - 1:100



02 Elevation B Scale - 1:100

Legend	A7 - Plant access
A1 - Anodised aluminium rainscreen cladding arranged in tessellated triangular pattern	A8 - Solar Panels in sustainable tech area
A2 - Ground attachment area for front canopy	A9 - Core and lift overrun to have louvred finish
A3 - Glazing panels to have frosted lower half at GF level	A10 - Area for potential wind turbine in sustainable tech area.
A4 - Openable sliding doors to allow access to large workshop spaces and shared surface areas.	A11 - Column encasement set back from anodised rain screen.
A5 - Fire Escape door	A12 - Existing hangar to be retained
A6 - Refuse/store access	A13 - Curtain wall to entrance exhibition area





01 Elevation C Scale - 1:100



02 Elevation D Scale - 1:100

Legend

- B1 Anodised aluminium rainscreen cladding arranged in tessellated triangular pattern
- B2 Ground attachment area for front canopy
- B3 Louvred panels obscure refuse area
- B4 Extent of existing hangar and flight simulator
- B5 Student access door
- B6 External seating area



- B8 Solar Panels in sustainable tech area
- B9 Area for potential wind turbine in sustainable tech area.
- B10 Curtain wall to entrance exhibition area




- C1 Large flexible workshop spaces
- C2 Breakout/Social learning space
- C3 Feature Staircase
- C4 Entrance Lobby
- C5 Covered canopy area.
- C6 Double height entrance area
- C7 Core Overrun



C10 - Area for potential wind turbine in sustainable tech area.

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6.3 Design Proposal Proposed Ground Floor Plan







Sports Hall Extension

7.1 Site
7.2 Concept and Development
7.3 Design Proposal











86.72

DATUM 85.00m ELEVATION B





86.73

DATUM 85.00m ELEVATION B

86.77 DATUM 85.00m ELEVATION D





86.78

86.90

DATUM 85.00m ELEVATION D











The Sports Hall extension is required to replace the Human Performance Laboratory to the north of the Campus which is being demolished due to its poor condition plus the addition of much needed spectator seating at first floor level. The proposed extension is to the north side of the existing facility and is screened from all external views from outside of the Campus.

The extension is simple in its form and appearance in that it is a two storey red brick structure with ribbon windows to match the existing hall. Its proposed ground floor area is 250sq/m with an identical footprint at first floor.





Ground Floor Plan

First Floor Plan







Legend

1 - Colour through render to external walls - colour/texture to be confirmed.

2 - Aluminium powder coated windows, colour dark grey or similar approved. Neutral tint glazing.

3 - Eaves and soffit powder coated aluminium panels - profiled soffit to match existing building. Colour mid grey to match existing.

4 - External rain water pipes - colour mid grey

5 - Roof - profiled metal sheet, colour and profile to match existing building roof.

6 - External door sets - powder coated aluminium frames with glazed panels, colour dark grey or similar approved.









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Materials

The predominant material is brick, in red and brown tones, with brick paved pathways and edges. There are large areas of tarmac car parking that site within an open flat landscape.

Trees

The site has a green character, with simple tree planting, open lawns, linear hedges and block shrub planting. There is limited ornamental planting. Poplar trees in three linear bands are a prominent feature within the campus landscape

Existing Wayfinding

The campus currently lacks a sense of arrival or navigability. The proposals for a new entrance pavilion on Mold road would clearly announce the entrance and help new users navigate the campus.

Campus focal landscapes

There are limited existing formal landscape areas where people could gather and meet, or work externally. The landscape does not reflect the creative nature of the courses or a modern attractive landscape.









Pedestrian Movement and Destinations

For users of the campus the main arrival point is from the south, where bus stops are located along Mold Road and the train station is accessed in the south east.

A new plaza space central to Mold Road is proposed to offer a modern arrival space in conjunction with a new entrance pavilion. The key movement would be for users to travel northwards to a central plaza space and then onwards either north, west or east to their selected destination.

If people arrive by car and park within one of the campus car parks, they require direct pedestrian links to their destinations. These are typically along linear pathway routes.





Existing and Proposed Green Infrastructure

The existing campus has large areas of open lawn, low maintenance shrub planting, linear hedgerows and mixed age trees across the campus. The most notable vegetation being the three linear bands of poplar trees in the east. The poplar trees provide a linear tall screen to the stadium.

The location of the existing sports pitch creates a wide open area fronting Crispin Lane, with the proposals for the pitches to become surface level car parking, tree planting to the site boundary would help screen the parking area.

Within the parking zones, tree planting should be considered to visually soften the large areas of hard landscaping to create attractive zones at the heart of the campus site.

Trees help to reduce storm water run off, provide oxygen and offer wildlife habitats.

An existing hedge fronting Mold Road provides a linear green edge to the campus and should be retained.







Arrival and Central Plaza

An arrival plaza is proposed to the south of the campus located adjacent to Mold Road. The plaza will frame the setting and arrival space to the new pavilion entrance building.

A linear boulevard will physically and visually link northwards to a central plaza space which will be designed in a similar narrative to the entrance plaza to create a coherent look and character. High quality materials are envisaged to create too formal landscapes. Linear landscape walls and seats will extend from the pavilion to create meeting spaces and visually cues between the two spaces.





Extract of Central Plaza













Rain Garden Boulevard

The linear connection between the two plaza spaces cuts through proposed parking areas, It is therefore the design intention that the route will have a green lush character as a contrast to the more open civic plaza spaces. There is the opportunity that surface water can be collected and directed into the planting zones to create rain gardens that help to slow surface water run off.

The linear nature of the walkway could be tree lined with seating positioned adjacent for resting spaces.

The plaza and linear boulevard benefit from a south facing sunny aspect.

















Formal 'Learning' Linear Park

Connecting between the central plaza and the library along the new Engineering Building is a proposed formal 'learning' linear park. Outdoor learning zones and spaces that could be used for collaborative work should be designed into the landscape whilst retaining and open character to the space.

The integrated of soft landscape would soften the landscape and provide a transition between the informal linear park in the east and the more civic central plaza.

SUDs solutions could also be explored within the linear space.

















Extract of Informal Linear Park









Informal Linear Park

An informal linear park is proposed between the stadium and the surface level car parking connecting users of the car park and residents within Wrexham Village accommodation towards the campus.

The large mature poplar trees run parallel to the space along the southern boundary. Where space and tree roots allow the integrated of swales/ SUD's ponds could be explored to alleviate surface water run off.

A softer more naturalistic planting style could be adopted, with meadow planting, bulbs and swathes of ornamental shrubs.

To visually tie the linear park to the plaza spaces a landscape structure/ small pavilion could be integrated at the pathway junction of the car park pathway and pathway connecting to Wrexham Village accommodation. To improve connections to the current student accommodation a small arrival space and connection to the south is required. This may require the removal of a couple of the poplar trees (awaiting tree survey).



Pedestrian Crossing Zones

Pedestrian priority zones should be designed in line with the pedestrian movement routes. Paved raised tables create a contrast to the highway surface that in turn slows vehicles down and highlights the pedestrian crossing locations.







Tree planting within car park locations

The new proposed car parking areas are located along the key vehicle routes. The size of the parking bays needs to be broken with vegetation in the form of tree planting. The car parks have been designed to maximise numbers within limited space for planting zones. Therefore it is proposed that trees should be planted with underground structural solutions to allow them to have uncompacted roots and sufficient soil volume to reach maturity.

Surface water run off could be designed to flow through the tree pit to slow surface water run off.







Residential Development

To the northwest corner a private residential development is proposed with a series of residential blocks. This will be a gated community with areas of car parking and courtyard spaces located between the buildings. The larger amenity spaces are to the north of the development and are aligned north-south and will therefore have a sunny aspect. Parking courts should be softened with block paving bays.

To the east of the campus a new student accommodation block is proposed adjacent to the existing Wrexham Village accommodation blocks. The courtyard space will be extended to incorporate further surface level parking.













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Planting Strategy

A simple planting palette will be incorporated to complement the contemporary style of the development whilst also being inkeeping with the locality on the site.

Planting will be used to visually connect areas creating character areas through foliage and colour. e.g. linear bands of evergreen hedges and ornamental grasses.

As there a dominant lines of Poplar trees noted on site, a similar approach can be used utilising different tree species to add to the visually connectivity.









Hard Landscape Palette

The prestigious development requires high quality paving at key locations to complement the contemporary pavilions at the entrance plaza and inner plaza.

A simple paving palette has been selected to create a unifying landscape where detailing and plan size of units creates interest and zones. Locally sourced materials are proposed in the plazas, with a complimentary material to link the spaces together and create connectivity between spaces.

The step units are designed to be monolithic and to subtly blend in with the plaza designs. Softer materials are proposed to the informal linear park to tie in with naturalistic approach to this character area.











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Street Furniture

A simple collection of furniture is proposed throughout the development for consistency and to create uniformity.

Linear benches and clusters of small seating elements are located at key gathering spaces/ resting points to allow for either individual or group seating.

Level changes offer the opportunity for integrated seating rather than stand alone benches.

Where trees can be planted in the ground recessed tree grills are proposed to create a seamless look and retain an open route around the tree. Where services require inspection hatches these will be recessed to take the paving to further add to a high quality design.

Cycle parking are also located throughout at key locations.













Lighting Concept

Lighting throughout the development will create a safe and welcoming environment for usage in the hours of darkness.

Varying lighting elements are proposed within each of the character areas to provide both functional and accent lighting.

Feature lighting columns could be integrated into the plaza spaces to provide verticality to the space and also incorporate art work/ detailing.

The large terrace steps offer the opportunity for lighting to be incorporated into the edge of the unit to provide accent lighting and also act as a visual cue for the level change.












10 Design Development Appendix





