



Plas Coch Campus Development

Wrexham Glyndwr University

New Build

Design and Access Statement

June 201



Plas Coch Campus Development

Glyndwr University, Wrexham

CAMPUS 2025

Plas Coch Campus @ Glyndwr University, Wrexham



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Introduction to Campus 2025

Campus 2025 represents a major redevelopment of the Plas Coch Campus which is in need of extensive backlog maintenance in addition to investment into new facilities. This major redevelopment consists of a number of individual projects connected by extensive infrastructure and public realm works focused on enhancing the student experience within the Campus and as importantly, assisting in the delivery of state of the art academic tuition and study.

The planned works within the Academic Campus allow the currently disjointed parking provision on site to be consolidated towards the east of the Campus releasing land to the north west for redevelopment as Private Rented Sector Keyworker residential accommodation. All capital receipts from land sales will be invested back into Academic Campus improvement works. The existing student accommodation within the Northern Quarter area will be demolished as the University take ownership of the existing Wrexham Student Village accommodation to the north of the Racecourse Stadium. A further 197 new build student bedrooms are also proposed adjacent to the 323 already constructed bedrooms.



Within the Academic Campus, several new build structures and refurbishments are proposed as follows:

- New Learning Gateway Building: A striking, contemporary new build flexible space as a gateway into the redeveloped Campus;

- New Inner Gateway Building: A further central internal connection point within the Campus;

- New Engineering Building: A contemporary new build state of the art Engineering Building at the heart of the Campus;

- Sports Hall Extension: A two storey extension containing academic space and elevated spectator seating;

- Refurbishment of social learning and academic tuition space within the existing Listed and non Listed Buildings on Campus: Although not detailed within the application package, a series of internal refurbishment and reconfiguration works will move forward over the coming years and will be subject to individual applications as and when required;

- Extensive parking, infrastructure and public realm works: Consolidation of parking to create a pedestrian and cycle friendly , attractive green Campus;

- Demolition of several redundant buildings: Following redevelopment, a number of buildings will be surplus to requirement and will be demolished to make way for improved public realm works.

The Plas Coch Campus has been subdivided into three main areas of planning application submission, the Academic Campus redevelopment, the additional circa 200 new build student bedrooms adjacent to the existing Wrexham Student Village and circa 400 new build PRS keyworker apartments to the Northern Quarter of the Campus. This subdivision is required for funding purposes but all three applications have been developed in parallel with a consolidated Green Travel Plan and integrated design Masterplanning.

02 SiteAnalysis





Site Area





A StGilesChurchandHistoriccentre(inc.Hopestreet) B Wrexham Station C Bersham Ironworks D Erddig Hall E Acton Park Site Location





















Key Views











Existing Engineering Building

Existing Front Facade of University





Library

Existing Student Accommodation



Canolfan Edward Llwyd Centre



Public House

Stadium

Residential





Retail

Transport

















The surveyed trees are illustrated on this Constraints Plan which is prepared in accordance with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction -Recommendations'





Extensive traffic surveys have been completed to investigate the existing usage of the streets surrounding the university's main campus at Plas Coch and car park usage on the campus itself. Based on the results obtained, a strategy has been developed to minimise the impact on the highway network, particularly at key locations such as the Plas Coch Retail Park roundabout.

Access to the retained campus will be taken via an upgraded priority junction on Mold Road, with a secondary access retained on Crispin Lane. It is proposed that the existing Plas Coch access will principally be used by the proposed PRS residential development, thereby reducing the net impact on the Plas Coch Retail Park roundabout once university trips are rerouted away from this location. Junction capacity assessments have also been carried out at locations specified by WCBC Highways officers.

When examining the current use of the campus car parks, it is evident that there is an overprovision of car parking against demand, despite no parking control currently being enforced. The transfer of car parking spaces into the Private Rental Sector (PRS) residential development is therefore considered appropriate without causing significant impact on the surrounding highway network. An option will be retained to expand onsite car parking should parking demand increase significantly, however this has not been included within the initial phases of the planning application so as to not undermine the emerging Travel Plan and emphasis on shifting to sustainable travel modes.

It is proposed that whilst the retained campus and extended student accommodation will continue to be served as it is today, the proposed PRS residential development has been laid out to allow the main internal roads to be adopted and therefore serviced by the local authority. This approach has been presented to WCBC Highways officers and feedback has been taken when developing the proposed masterplan.

Access To Northern Quarter Residential / Service Access to University Only



- —— Proposed Kerb Line
- ----- Proposed Lining
- Visibility Splay



Proposed Kerb Line

Proposed Lining Visibility Splay





Faculty Utilisation Key

Non Facullty Specific Teaching Areas

Prior to commencement of the preparation of these planning applications, Wrexham University commissioned DAY Architectural to carry out a Campus wide Space Utilisation Study. This Study examined the Plas Coch Campus to understand how both academic and non-academic space was being utilised and to what degree of efficiency. This Study was then utilised to prepare a formal Estates Strategy Document which has subsequently been submitted to HEFCW.

The findings of this Study established that the University had sufficient core space for its immediate and future plans in terms of academic strategy meaning that construction of new space should be minimised to communal and social space focused on improving student experience. Therefore, the bulk of the Campus 2025 Masterplan proposals is the refurbishment and remodelling of existing academic space - this space requires significant back log maintenance however, generating the need for asset utilisation by the University. This asset utilisation is at the core of the multiple planning applications being submitted by the University as these maintenance works are urgently required to the ageing estate.



Non Specialist Teaching Space (m ²)				
1	Nick Whitehead Lecture Theatre	150m²		
4	Block B	1232m²		
5	Block C	523m²		
8	Block E	180m²		
9	Edward Llwyd Centre	200m²		
11	Terry Hands Studio (Block J)	66m²		
12	Block K	1043m²		
13	Block M	118m²		
15	Centre for the Child	78m²		
22	Languages Hut	30m²		
Total Non Specialist Teaching Areas 3620m ² Total Campus GIA (m ²) 38966m ²				



Faculty Utilisation Key 8 0 8 8 8 8 Crispin Lane Blocks 888 á Beese 15 à 60 18

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	GIA (m ²)			
	-	Block J, K, M & Catrin Finch Centre	5612m²	
	-	Techniquest	1049m²	
	-	Human Performance Lab	1015m²	
	Total Floor Area (GIA)		7676m ²	
	Teaching Rooms (GIA) 2201		2201m ²	
	Teaching Offices (GIA)		844m ²	
1	Non Sp	pecialist Teaching Space (m²)		
	11	Terry Hands Studio (Block J)	66m²	
	12	Block K	1043m²	
	13	Block M	118m²	
1	15	Centre for the Child	78m²	
	17	Catrin Finch Centre	0m²	
	20	Techniquest	0m²	
	Total Non Faculty Specific Areas 1305m ²			

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In developing this detailed planning application for the redevelopment of the Academic Campus, the Design Team has engaged with all elements of the University to fully understand all of its functional and operational constraints. Multiple User Groups have been established across all areas of operation to ensure that the submitted solution takes account of several defining constraints which can be summarised as follows:

- Architectural and setting sensitivities of the existing Main Listed Building;
- The need to consolidate and rationalise car parking into one area with improved pedestrian and cycle linkage back into the Main Campus;
- The need to create a Campus wide Green Travel Plan that consolidates years of piecemeal parking development into a coherent and future proof sustainable solution;
- The need to make the University more visually prominent and accessible to the public;
- The need to create a new central heart to the Campus through the rebuilding and resiting of the Engineering Building;
- The opportunity to resite the existing poor condition MUGA sports pitches to the enhanced Colliers Park Facility;
- The need to move the existing Students Union Building from its current location which blocks circulation flow at the centre of the Campus;
- The need to provide an enhanced main vehicular entry point into the Campus from Mold Road;
- The need to link the existing Wrexham Student Village accommodation into the Campus through improved pedestrian and cycle routes.

The balancing of these multiple site constraints has taken nearly two years to fully resolve with the proposed Masterplan representing a simple and elegant solution to a complex multi site issue.








8am



12pm







2pm

4pm

6pm

03 Plas Coch Academic













8am

12pm





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3.2 Concept and Design Development Works to Listed Building



The extent of Listed Buildings on site is indicated on the attached Masterplan with the existing Student Union Listed Building to be removed. The Heritage Assessment elsewhere in this submission details the reasoning behind the removal of this building.

In terms of the proposed works to the interior of the Main Listed University Building, these are not detailed within this submission and will be addressed individually as and when works commence if Listed Building elements are affected. These works will include full mechanical and electrical refurbishment plus refurbishment and reconfiguration of space to deliver new social learning and academic tuition spaces.

There is a significant amount of outstanding backlog maintenance within the Listed Buildings, and others, on Campus which currently cannot be funded by the University, hence the need to release potential residential sites that are not required for academic purposes.











The first element of internal refurbishment works has already been completed as it did not require Listed Building consent - this space was 'The Study' social learning space which is now in successful use. A further social learning space is planned and 'The Gallery' will soon provide the next social learning space at first floor above the main reception area. As important is the provision of refurbished and state of the art academic tuition space of which there is a large quantum within the Main Listed Building.

Proposed Inner Gateway Building



Existing Elevation - Planned Works to the Main Listed Building

Externally, works planned to the Main Listed Building include elevational refurbishment consisting of the following:

- brickwork cleaning and repointing as required;
- stonework cleaning and repointing as required;
- roofing repair works;
- repainting of existing window frames or replacement of units with double glazing;
- external lighting upgrades.



Proposed New Build Structure to the Main Listed Building - the Learning Gateway Building

With regards to the two new build structures proposed that abut the Main Listed Building, the Learning Gateway Building and the Inner Gateway Building have been sympathetically designed through close collaboration with the Planning Authority and Conservation Officer. Their designs are appropriate to their adjacency to the Listed Building for the following reasons:

- the buildings are visually lightweight with extensive glazing allowing continued views through to the Listed Building beyond;
- their size is secondary to the scale of the Listed Building;
- the physical junctions of the buildings to the Listed Building is delicate and sympathetic;
- materiality of the proposed buildings is aligned with the existing Listed Building;
- the Listed planter and plaques adjacent to the main entrance are encapsulated and retained at the request of the Planning Authority.

A significant part of the reasoning behind the two new buildings is the improvement of disabled access which is currently poor. Each building will provide easy, direct and obvious disabled access which is currently lacking in both locations.

04 Learning Gateway Building













2 Concept and Design Development - Learning Gateway Building



The existing site has varying conditions on each boundary. The front edge addresses the road, but the boundaries on either side create great opportunity for architectural diversity.

The long grassed walkway to the northwest is reminiscent of a controlled park that would contain lakes and managed areras of interest. This leads into the concept of pavilion architecture.

The pavilion acts as a marker of architectural character, expressing the tastes of the donor, and in this case would express the character of the university.

To the southeast, the hard landscaped areas present an opportunity for transformation into a civic area that feeds back into the campus and surrounds a key corner of the campus. A new hard landscaping area could become a location to socialise.



New Entrance / Circulation

Public Realm / Consolidated Parking

Formal Gardens





L.2 Concept and Design Development - Learning Gateway Building Proposed Site Layout



A-The site is placed at the end of a prominent green walkway that allows maximum visibility to the long facade and regimented facade of Plas Coch Block B. New designs should understand and remain sensitive to this facade.

B - The prominent extension away from the existing building makes a key element that is easily visible along the length of the road parallel. This garners interest from passers by that would normally have little contact of the university.

C - Moving the site away from the stadium edge also allows visibility back into the campus allowing those entering to appreciate the depth of the campus. 1.2 Concept and Design Development Other University Developments



















4.2 Concept and Design Development Design Precedents



















4.2 Concept and Design Development Massing Development



The Site

The site chosen not only maximises visual links, but also enhances an already important aspect of the university by bringing pedestrians closer to the existing artwork elements present.



Maximising Visibility

The mass is raised on a plinth to increase visibility within all vistas and to express the concept of celebration for the new aspects of the university.

The proportion of the mass has been created by examining the existing buildings an expressing heir geometry further.



The Grid

A strong and regimented grid formation is a quintessential element of modern pavilion design; it describes a clear logic whilst allowing internal elements to not be overshadowed.

4.2 Concept and Design Development











Concept and Design Development



The solid and the void

The grid structure creates a matrix within which spaces of varying dynamics can be created.

The internal areas can display the new and exciting elements of Wrexham Glyndwr university, whilst the use of external areas ensures the building remains attached to the campus.

The boundaries between internal and external can be changed using openings in the building grid.



Creating the gateway

The building not only acts as a signature, but also as a beacon.

Clear architectural language informs visitors and students of the building function and presents the entrance to the campus as a whole.



Controlling flow

Within the building mass itself the pedestrian flow can be harnessesd further, exhibiting the key features of the university while dissecting the space into clear areas of character.

This disection then pushes flow deeper into the campus, to explore further.



2 Concept and Design Development Design and Materiality



The existing main entrance into the University has poor visibility and low prominence to the Mold Road frontage aswell as having sub standard DDA access. The proposed Learning Gateway Building forms a new entrance portico to the University to act as both a new security / reception point and a flexible use multi function space.

The location of the Learning Gateway Building is immediately adjacent to the existing entrance doors into the University and sits on the senior management team car park and in only access from Mold Road. Its footprint is 560sq/m and its architectural concept is that it forms a transparent glazed box that can be viewed through to see the retained Listed Building beyond.

The design of the building has been developed in collaboration with the Local Authority Planning and Conservation Officers and represents a striking and contemporary addition to the front of the University but in a sensitive and sympathetic manner. The building itself is then junctioned with the surrounding area through a large area of public realm works which removes cars from this zone to create an attractive pedestrian / cycle friendly plaza.

Internally, the building has a large glazed automated door entrance lobby leading through to a new security / reception point. Behind this reception point is a centralised toilet block with a mezzanine viewing deck that can also be used as a flexible usage space for functions and events. To the building's southern frontage facing Mold Road, large glazed doors allow the internal space to open out onto the canopied portico to allow uses to flow out externally.

Externally, proposed materiality is simple and reflective of the adjacent Listed Building with brickwork structural piers and exposed concrete roof structure and base plinth. Elevations are full height glazed with a large glazed rooflight helping to illuminate and express the Listed Building gable end exposed internally within the newly created space. The roof of the proposed building sits slightly above that of the Listed Building gable so that the respective roof structures do not clash.

4.2 Concept and Design Development











4.2 Concept and Design Development Addressing Facades



Different aspects of the university can be displayed in diffrent areas of the space with some zones acting as social hubs and others acting as exhibitions.

The space is naturally bisected by the flow of pedestrian travel, which creates the first splitting geometry. Other angles such as a visual cue pointing towards the existing facade artwork further separate the space.



The space can then be refined into areas of mass and void that leave points of interest to travel to, rather than past. These areas can be elevated to give the space a more dynamic quality whilst allowing area for amenities and more functional accommodation. 4.2 Concept and Design Development Pedestrian Flow



4.2 Concept and Design Development Visual Assessment









4.2 Concept and Design Development












(01) KOOI piai Scale - 1:100

and path of Mansafe system for

roof maintenance and cleaning

4.3 Design Proposal Proposed Sections



02 Section B-B

Scale - 1:100





A-Landscaped area (See Landscape Architect Proposals)

B-TheGatewayentrance;Sculpturalelements thatactasarchitecturalmarkerstorepresent the entrance to the campus

C-ExhibitionZone;todisplayinnovativework being performed by the university with the existing cade acting as a backdrop.

D - The pathway; an area that guides users through the building using material change and an overhead skylight that illuminates the way.

E - The Servery; a seating space and facilities capable of serving students and visitors placed next to the opening facade that would allow breakout in nice weather conditions.

F-Staff interaction area; a reception area and seating allows users to interact with staff in a location that is easy to find on campus and will be visible for any student in doubt.

G - The podium; a raised block that provides social seating above and closer views of any work suspended from the ceiling. Within, the areaisusedforfuntionalaccommodation such astoilets, servery storage, storage for exhibition furniture and staff areas.

















In order to celebrate the existing buildings on site, the new construction will be centred on the key aesthetic aspects of the current site. In the case of the Gateway Building, the key aspect is the existing architectural frieze on the front facade.

In order to maximise visibility to this point the structural grid has been created with the curved from wall as a central axis and the structural columns have been offset to ensure a clear viewing point from the front of the building.

In addition to this the thin circular columns throughout the building have been chosen to ensure clear views as you travel around the building.