



DESIGN AND ACCESS STATEMENT

NEW PRIMARY SCHOOL

YSGOL Y GARNEDD, BANGOR



## PROJECT DIRECTORY

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## PROJECT DIRECTORY

NEW PRIMARY SCHOOL

YSGOL Y GARNEDD, BANGOR

**AG|A** AINSLEY GOMMON ARCHITECTS

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AINSLEY GOMMON ARCHITECTS AG|A

## 1.00 BACKGROUND TO THE PROPOSAL

### 1.1 INTRODUCTION

Ainsley Gommon Architects have been appointed by Gwynedd Council to design a new Area Primary School for Penrhosgarnedd. The Council intend to replace the existing School, Ysgol y Garnedd with a new 420 capacity area school to accommodate the children of Penrhosgarnedd, Tal-y-bont and Llandygai catchment area.

After considering a number of different sites within the area, the current School site at Ysgol y Garnedd along with a section of Friars School playing area was chosen as it was best suited for the proposal.

The proposed site includes the existing Primary School, its play ground, playing field and also a field north east of the current school which is currently the bottom of the playing fields of nearby secondary school, Ysgol Friars.

The new school will provide fourteen classrooms, two ALN classrooms, a cylch meithrin along with a number of different teaching spaces, staff and administration areas and a large hall.

This Design and Access statement accompanies the application for Full Planning Consent in conjunction with the drawings prepared by Ainsley Gommon Architects.

### 1.2 BACKGROUND

Gwynedd Council carried out an in depth review of its primary schools which resulted in the report "Review of Education Provision in Bangor Catchment Area" in January 2017 leading to the consultation on the future of schools in Bangor catchment area; namely Ysgol y Garnedd, Ysgol Babanod Coedmawr and Ysgol Glanadda in May 2018

There are 11 school in the Bangor catchment area, two secondary schools and nine primary schools. The schools are situated within and around the city of Bangor. The catchment area for Ysgol y Garnedd and Ein Harglwyddes includes the whole of Bangor. A new school building was opened at Ysgol Cae Top in September 2009 following an investment of £4million.

Gwynedd Council has considered several options for primary education in



Image 01 - Current Ysgol y Garnedd school

## 1.00 - BACKGROUND TO THE PROPOSAL

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Bangor in order to ensure a sustainable provision for the future, responding in particular to an increase in the demand for places in the Penrhosgarnedd area and improving the provision for learners in the city.

A new housing development at Goetre Uchaf, Penrhosgarnedd means that 245 new dwellings will be built and it is estimated that over 90 primary school pupils will reside in them. One of the nearest primary schools being Ysgol y Garnedd which is already 106 pupils over capacity.

### 1.3 THE APPLICATION SITE

The current Ysgol y Garnedd school site will be extended to include a portion of the Ysgol Friars playing field. Both parts of the site are publicly owned by Gwynedd Schools. To link the two portions of the site an access route will be created passing a wet woodland which backs onto part of the Eithinog nature reserve to the north.

The western part of the site is occupied by the existing Ysgol y Garnedd comprising of the main school building, a portable cabin for the Clwb Garnedd, hard surface playground and associated playing fields. Along the southern and western boundaries of the site are back gardens of adjoining houses, to the east is the aforementioned woodland and to the north is mixed scrub nature reserve separated partly by mature trees.

The eastern portion of the site forms part of the playing fields of Ysgol Friars secondary school. This area is relatively flat and currently occupied by sports pitches, but slopes gently to the North before rising more steeply in an embankment along the Northern edge. It is bordered by the woodland to the west, houses to the south and the remaining playing field of Ysgol Friars to the north and east.

### 1.4 VISION STATEMENT

Gwynedd Council has received approval for 6 projects within Band A of the 21st Century Schools Programme. The Government has also notified Local Authorities regarding their capacity to complete additional projects within Band A ( i.e. before the end of March 2019).

- The Education Department has identified Bangor as a catchment-area that requires urgent attention due to several factors relating to concerns about primary education that have been identified over several years.

- In December 2014, a letter was received from the Welsh Government seeking brief (outline) details and the cost of strategic projects in Gwynedd that required completion within Band B time-table for 21st Century Schools Programme. The Band B period will run between 2019-24. The Bangor catchment-area was identified as a catchment-area that would be considered if the Authority prepared future applications.
- A recent change has occurred at Bangor schools, especially the primary schools in the Penrhosgarnedd and Coed Mawr areas, that has raised concerns locally and in the Education Department.
- 2 primary schools in the Penrhosgarnedd area are over capacity. In September 2016, Ysgol Y Faenol exceeded capacity by 20 and Ysgol y Garnedd exceeded capacity by 106.
- The development of new houses at Goetre Uchaf, Penrhosgarnedd will lead to the construction of 245 dwellings and it is estimated that over 90 primary school age and 70 secondary school age pupils will reside in them.

The new area school seeks to accommodate:

- Reception and administration area
- Large and small, combinable halls with adjoining kitchen
- 1No. Cylch Meithin classroom
- 1No. Nursery Classroom
- 2No. Classrooms per year group from Reception through to year 6
- 2No. Dedicated ALN classrooms
- Food science/group room and library
- ICT room
- Supplementary teaching and group learning spaces
- Outdoor spaces for all classes at KS1
- Hygiene, WC and shower rooms for all users
- Plant and ancillary rooms

## 1.00 - BACKGROUND TO THE PROPOSAL

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## 2.00 - CONTEXT

### 2.1 LOCATION

The proposed new area school is located partly on the playing fields of Ysgol Friars and partly on the site of the current location of Ysgol y Garnedd. The site is located between the settlements of Penrhosgarnedd and Glanadda around one and a half miles outside the center of Bangor. The school is located off Penrhos Road which runs between the city of Bangor and Treborth. Connecting Bangor with Ysbyty Gwynedd to the west.

The majority of existing development in the direct area is built to the southern side of Penrhos Road. This historic road had little development up until the 1940s, following the war a large amount of houses were built along the road and creating a small settlement in the area.

The school is surrounded by a number of houses, predominantly built in the 1950s, the houses along the west of Penrhos Rd are mix of typical stock built semi-detached houses of the time and to the east are more individual, detached properties. The school also falls within the area of a former brewery on the site.

The northern side of the site is bordered by the Eithinog Nature Reserve; that was designate it as such following a 15 year campaign by local residents. It has since been classified as a Site of Special Scientific Interest for its fungal assemblages.

Outside of the site boundary to the east, part of the playing fields of Ysgol Friars school is outlined in the Unitary Development Plan as being playing fields to be protected

### 2.2 POLICY CONTEXT

#### 2.2.1 PLANNING POLICY WALES

This Design and Access Statement explains the approach to creating a sustainable development through good design in accordance with Planning Policy Wales. This goes beyond aesthetics to include the social, environmental and economic aspects of the development.

This Statement aims to explain how the principles of Inclusive Design referred to in Planning Policy Wales have been incorporated to create a development



Image 01 - The site within its context, showing its relationship with the Penrhosgarnedd area of Bangor

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## 2.00 - CONTEXT

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that will be accessible, provide flexibility in use, and an environment that is convenient and enjoyable to use for the pupils, teachers and local community.

#### **2.22 TAN 12 - DESIGN**

The development has been designed in accordance with the principles of Technical Advice Note (TAN) 12 (2016 edition). As such the Design and Access Statement has been formatted to reflect the content of TAN.

#### **2.23 PPW Chapter 4 -PLANNING FOR SUSTAINABILITY**

It is understood that buildings have an impact on their environment and contribute to carbon emissions both during their construction and use. Since the change introduced by Edition 7 of the Planning Policy Wales withdrew the national policy requirement for sustainable building standards and cancelled TAN22, the policy for sustainable development has been contained in Chapter 4 'Planning for Sustainability'. The approach to the design of the new school has been in accordance with these principles and the accompanying 'Practice Guidance, Planning for sustainable Buildings' published by the Design Commission for Wales for Welsh Government.

#### **2.24 LOCAL PLANNING POLICY**

The references on this section are from the Anglesey and Gwynedd Joint Local Development Plan and demonstrate the thinking behind the development of the New Area School.

#### **POLICY PCYFF 1: DEVELOPMENT BOUNDARIES**

The new build part of the school would lie outside the development boundary as outlined in the LDP. However, policy PCYFF 1 will allow development outside the boundaries if the proposal is consistent with the relevant policies.

#### **POLICY ISA 4: SAFEGUARDING EXISTING OPEN SPACE**

The part of the site where the new school will be located is protected as an amenity open space - Policy ISA 4 is relevant but the amount of protected amenity space lost by the proposed development could be relocated to the new open space located to the west of the development. This development will be relevant to point 3 of this criteria by where the alternative provision of the same standard can be offered in an area equally accessible to the local community in question.

#### **POLICY PS 19: CONSERVING AND WHERE APPROPRIATE ENHANCING THE NATURAL ENVIRONMENT**

#### **POLICY AMG 6: PROTECTING SITES OF REGIONAL OR LOCAL SIGNIFICANCE**

Referring to both of the policies noted above, the development boundary is close to a local Site of Special Scientific Interest and the Eithnog Nature Reserve. An ecological survey and assessment have taken place to ensure there are appropriate mitigation measures in place in order to safeguard the site's biodiversity and geological importance. In addition to safeguarding what is already there, the development seeks to enhance the natural environment by creating a habitat area boarding the Brewers Field and nature Reserve; this will give pupils the opportunity to not only learn about their environment but actively engage in learning about how to enhance and protect the natural environment.

#### **POLICY ISA 2: COMMUNITY FACILITIES**

This development is consistent with ISA 2 in terms of the provision of a new area school building following the Review of Education Provision in Bangor Catchment Area. The development is an enhanced community facility in an appropriate and currently oversubscribed situation.

#### **POLICY PCYFF 5: CARBON MANAGEMENT**

In line with PCYFF 5, the scheme uses as many renewable sources for materials as possible and the design incorporates a number of renewable and low carbon technologies such as natural and hybrid ventilation systems and PV units. Analysis and research into suitability and viability of carbon management systems have been conducted by Davies Partnership, and details of this can be found in their Alternative Systems Review of the scheme.

#### **POLICY PCYFF 6: WATER CONSERVATION**

The Planning Application for the new school includes a Drainage Strategy where the proposal has been designed with flood minimisation in mind and seeks minimal impact on the site and the surrounding area. We have explored different ways to achieve water conservation on site but due to issues highlighted in the report this is not considered viable.

**2.3 SITE FEATURES AND CONDITION**

The site includes the existing Ysgol y Garnedd primary school along with a section of Ysgol y Friars playing area. It is proposed that the new school building will be constructed on the Friars School field while the existing Ysgol y Garnedd is still in use. Once the new school building is completed the existing buildings will be demolished to make way for an additional car park and sports fields.

The existing site is accessed via the private road leading from Penrhos Road which leads to an existing car park on the north east side with additional drop off spaces on the road that leads towards the school entrance. A steel gate encloses the site providing security for the school at the end of this road. Tarmacked hardstanding within the site leads to the existing building that sits central to the plot. The existing Ysgol y Garnedd sports field is located to the north of the school with hard play areas to the north west. Additional soft play is provided to the south on a raised section of land with staff car parking access from the private road to the south west corner of the site. Housing surrounds the site on three boundaries with open green space to the north.

The existing buildings structure is deemed to be in very poor condition. A condition and suitability survey of Ysgol y Garnedd carried out by 'Faithful and Gould' on behalf of the Welsh Government concluded there is a need for significant work to improve its current condition, before considering the exceedance in capacity of the school of over 50%.

The materials currently used on the existing school fit well into its environment, facing brick similar to that used on neighbouring houses, white upvc windows doors, fascias and rain water goods with faced stone work to some elements. The stone walls have weathered well but on the whole the building is looking in poor condition. Windows and doors have been replaced as and when needed and as such is a conglomeration of different window frames, different profiles and in places is still single glazed.

The existing Ysgol y Garnedd school, being built in the 1960's, has been deemed to come the end of its life cycle, and as such the proposal for a new replacement school is deemed necessary. The expansion of pupil numbers to the school has meant additional facilities have been brought onto site in the form of a portable cabin. Whilst not deemed architecturally significant the cabin now houses the Clwb y Garnedd, offering breakfast club, lunch club, clwb cwtsch and after school club. These facilities will be transferred to the new school and the cabin will be replaced with an accessible toilet and small store



Image 01 - View of Neighbouring field—site of proposed school location

Image 02 - Looking in to wet Woodland that borders the site to the north

Image 03 - Looking East along current path which will form access route to new school

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associated with the new sports field. It is imagined this will be retained on site and have its facilities improved, such as a new surface for the hard surface play area and new railings surrounding the outdoor space.

A footpath leads west towards the Friars School ground from the existing roundabout with this continuing around the school ground towards the west and north. A wet woodland area is located west to the site with the SSSI site north of this. A bank of trees runs along the southern boundary of the site which are within the rear gardens of the houses that face Penrhos Road.

There is evidence of ground improvement works having been carried out on Friars sports fields to improve surface water drainage but ground water levels remain high across the southern part of the field.



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Image 04 - Topographic Survey of Existing School  
 Image 05 - View of current Ysgol y Garnedd  
 Image 06 - View of current Ysgol y Garnedd

2.00 - CONTEXT

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### 3.00 - FACTORS AFFECTING DEVELOPMENT

#### 3.01 TAN 15- DEVELOPMENT AND FLOOD RISK

The National Resources Wales' website from which the Flood risk map to the right was attained confirms that the site in question is not within a fluvial floodplain. However, a Flood Consequences Assessment has been prepared by Waterco Consultants on behalf of the Applicant which will be submitted with the Planning Application.

#### 3.02 EXISTING GROUND CONDITIONS

Ground conditions are discussed in the Geo-Environmental Report which will be submitted as part of the planning application.

#### 3.03 ARCHAEOLOGY

We are unaware of any archaeological finds being made in this area or any significant sites of historical interest nearby, which would warrant any investigation of the site.

#### 3.04 EXISTING SERVICES

All service utility searches have been sought, which show all services entering Ysgol Y Garnedd site from the rear private road with services for the new site terminating near the end of Penrhos Road.

#### 3.05 DRAINAGE

A drainage strategy was produced by Waterco consultants looking at the current drainage connections and conditions on site, suggesting methods of dealing with water and how the development can lessen the impact future increase due to climate change and have concluded the following: "That the surface water runoff for the site will be no greater than pre-development, including an appropriate allowance for climate change." Caulmert has developed the drainage proposal further and their Drainage Strategy report will form part of the Planning Application. They state that there is a high water table on the site and the use of infiltration devices is consequently impractical. The ground levels surrounding the school will be raised so the use of porous paving will allow less concentrated volumes of water to be disposed of into the ground. It is also proposed to provide trench soakaways, connected to catchpits from the roof water drainage, to allow the first 5mm of rainfall to be disposed of by infiltration. Any surface water which cannot be disposed of by infiltration will be discharged into the culvert with below ground attenuation provided.

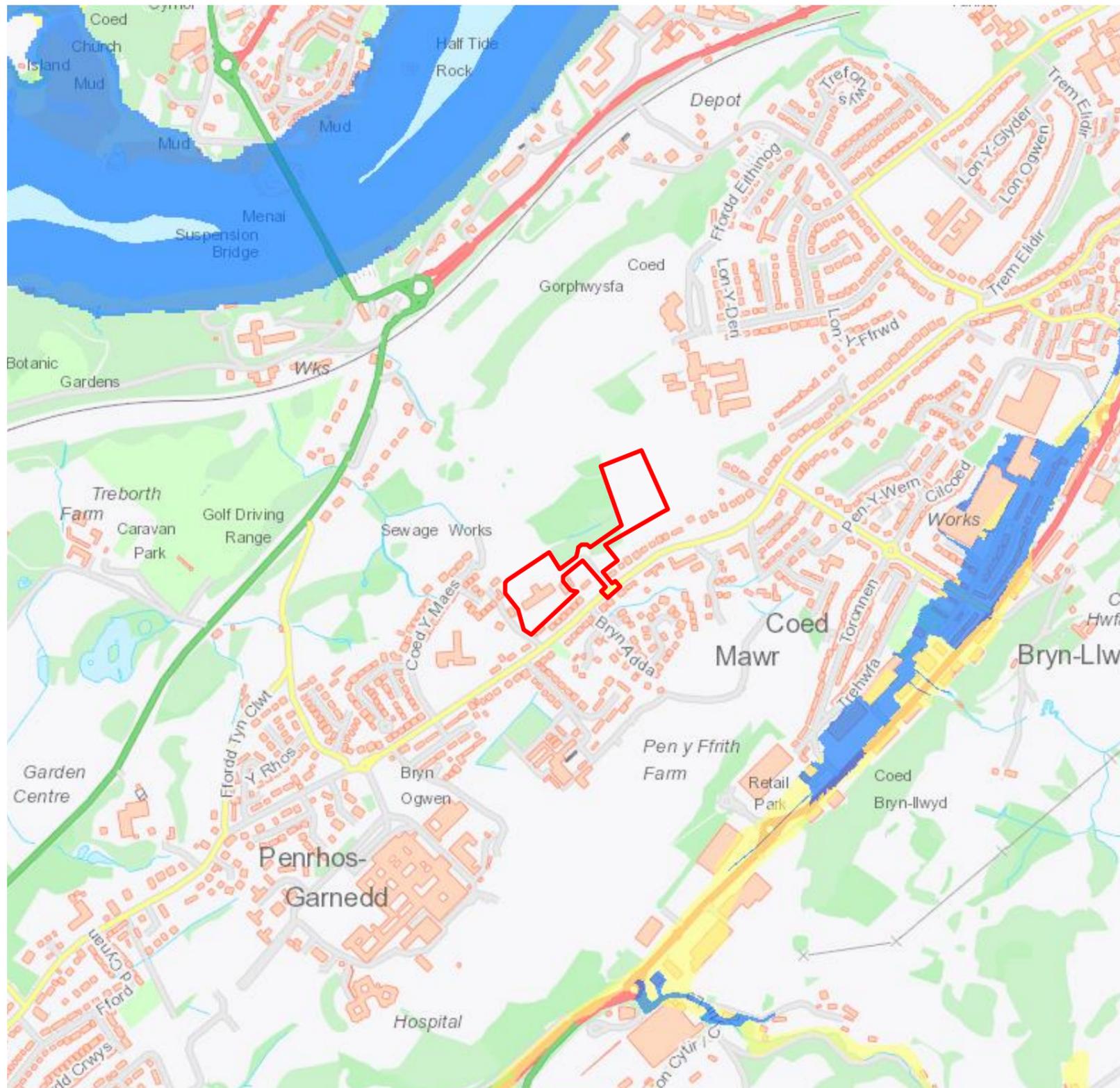


Image 01 - Image from the flood risk plan, Natural Resources Wales

### 3.00 - FACTORS AFFECTING DEVELOPMENT

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## 4.00 - DESIGN OBJECTIVES

### 4.01 THE BRIEF

The project involves the design and construction of a new Area Primary School on the original site of Ysgol y Garnedd and the adjacent land acquired of Ysgol Friars, Bangor.

The brief requires the demolition of the existing Ysgol y Garnedd and a development of a new primary school with 14 classrooms, 2 additional learning needs classrooms (ALN), a Cylch Meithrin along with a number of different teaching spaces, a large hall, staff and administration areas.

The school is needed to meet the demand for more spaces for pupils to relieve local primary schools, including Ysgol y Garnedd, that are overcapacity and accommodate additional pupils from the new housing development in the Penrhosgarnedd.

This project will be one of the schools in Gwynedd Council's 21st Century School Programme forming part of its Primary School Modernisation.

The key measure is to improve educational services for Ysgol y Garnedd by providing modern Primary Education facilities offering the potential for growth and facilitating improved services, integration and access for the area.



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Image 01 - 3D View of interior Courtyard

## 4.00 - DESIGN OBJECTIVES

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#### 4.02 DESIGN CONCEPT AND PRINCIPLES

From the outset it has been all parties aim, working closely with Ysgol y Garnedd, Gwynedd County Council, the local community and other stakeholders, to create a modern, well-equipped facility that will enhance the pupils learning environment. While being contemporary, the new development must sit comfortably within the landscape and being energy efficient, encouraging ease of operation and convenience, with the aim of achieving BREEAM excellent.

The building was established on the principles of orienting itself in the landscape in such a way as not to disturb semi-rural characteristics of the site yet still providing a safe, suitable and enriching environment for the pupils of the new school. The form of the building helps divide the school in terms of Key Stages but at the same time creates a safe play environment at the heart of the school. Passive surveillance of the central courtyard will create a safe space to play for the younger years of the school whilst the older pupils will have a larger space to the north. The scale of the southern wing of the new school was chosen to be reduced in height for the benefit of the west and north wing and courtyard to gain as much natural light as possible.

The school will be accessible to all with facilities such as ALN classrooms and hygiene facilities, the school is wheelchair accessible and level access throughout, satisfying Part M but also helping the building sit in its context. Lowering the height of the building reduces the visual impact of the development and with some key design choices regarding its layout and façade, helps blend in with its wooded surroundings.

To the north and west, the boundaries are being proposed as a diverse mix of native scrub-shrub species to generate a biodiverse hedgerow fully encompassing the new school building. The new boundary, in addition to creating meaningful habitat, will provide a safety barrier between pupils of the primary school and adjacent secondary school and also aid in screening the development from the surrounding area and safeguarding the children.

The choice of materials for the school building were decided on through careful study of the locale and a consideration for buildability; The stone was chosen to provide grounding in terms of its geological context and architectural similarities to buildings of the area. The metal coated composite panels are being used to break up the scale of the building and to articulate elements of the buildings such as windows and separating the floors of the school, the panels were also chosen because of their excellent environmental qualities.



Image 01 - 3D View showing Proposed interaction between classroom and outdoor space

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#### 4.00 - DESIGN OBJECTIVES

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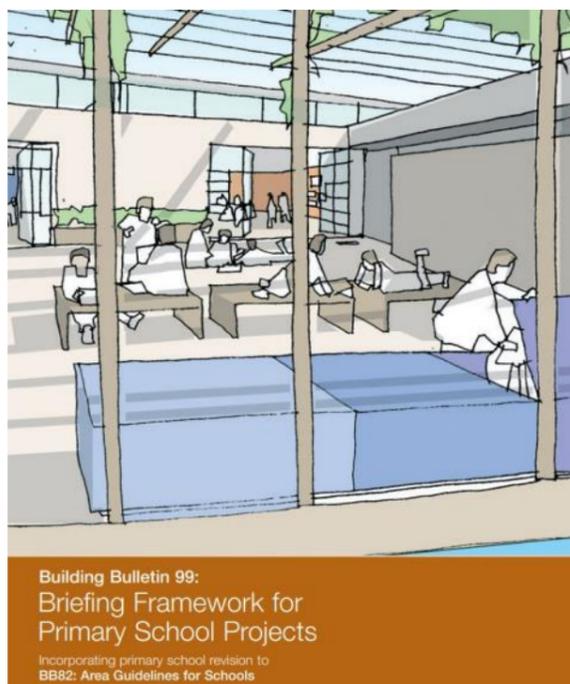
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4.03 REQUIREMENTS

The requirement is for a 420+ school with 2No. ALN classrooms, and a Cylch Meithrin which will provide the level of accommodation and facilities commensurate with the number of pupils and the guidance taken from Building Bulletin 99, The Department of Education and Skills Briefing Framework for Primary School Projects.

The plan of the building takes into account the levels of the surrounding area, the aspect from existing dwellings on the boundaries of the site and also the site analysis that was carried out prior to design work commencing.

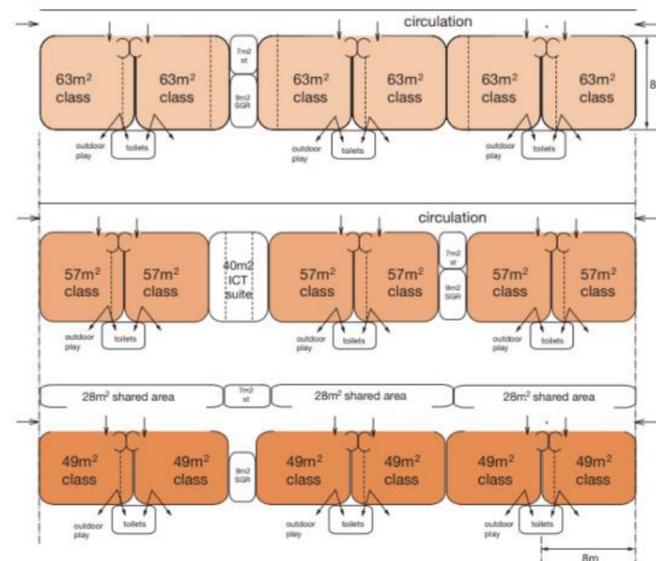
The building layout is designed in such a way to put associated rooms near to each other whilst considering their scale and activity.



Building Bulletin 99:  
Briefing Framework for  
Primary School Projects  
Incorporating primary school revision to  
BB92: Area Guidelines for Schools

Figure C.5: Six classroom options

This diagram indicates how a basic teaching area of 378m<sup>2</sup>, equivalent to six adaptable classroom areas of 63m<sup>2</sup> (which is at the top of zone C) plus a shared resources store, small group room (SGR), classroom stores and a circulation route can suit a variety of provision for different schools and for future learning options in KS1 or 2. Here, the partition walls are assumed to be moved, whereas toilets, windows and doors remain unaltered.



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Image 02 - Cover of BB99  
Image 03 - Typical diagrammatical arrangement outlined in BB99

4.00 - DESIGN OBJECTIVES

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## 5.00 CHARACTER

### 5.1 LAYOUT AND LANDSCAPE

The provision of the building on this site provides a much needed educational and community resource. The scale and massing of any new building is carefully considered, so that it fits in with the surrounding context. The built form is proportioned to allow for as much space as possible for soft and hard play areas and also the required sports facilities.

Whilst the plan shape is designed to create private and semi-private spaces for the school, it also considers the relationship between adjacent properties which abut the southern boundary of the site.

The general landscaping has to include for the following provision, outlined in our Client's brief and within BB99; sports area, multi-use games area, habitat teaching zone, kitchen garden and soft and hard play areas.

Further to the above a landscaping buffer is envisaged along the eastern and northern boundary of the site to protect the school and play areas from the adjacent secondary school and also reduce visual impact.

There is at present a mature woodland separating the two main parts of the site, and the southern margin of this woodland will have to be reduced to make way for expanding the width of the path to create a new access way to the new school building. To help mitigate any loss of habitat due to the partial loss of this existing landscape described above, the eastern and northern boundary will be reinforced with an indigenous hedge, to provide new habitat and foraging routes for local wildlife. The new boundary to the west will also use the same species to enhance the boundary of the school playing fields and provide more habitat to expand the boundary of the ecosystem present in the adjacent nature reserve to the north.

Where new hedging is being planted, the species used will be of significant ecological value and consist of the following species:

- Corylus avellane (Hazel)
- Prunus spinose (Blackthorn)
- Sambucus nigra (Elder)
- Crataegus monogyna (Hawthorn)
- Rosa canina (Dog rose)

The hedge to the south of the new school building will be retained and



reinforced with a secure boundary fence which runs from the gated entrance to the school to the service yard which will then meet the fence on the south-eastern edge, creating a boundary for the service yard and bin store area.

Around the roundabout and access roads, a metal railing will be erected to match the existing and extended as discussed with highways and a safety officer. The design and layout will be such to create a safe access route but also ensure pupils maintain awareness of the traffic whilst being kept safe.

The Architectural Liaison Officer who has been consulted suggests an additional 1.5m high weld mesh fence is located along the eastern boundary. New car parking areas will be constructed using permeable materials to attenuate water run-off. Whilst existing car parking facilities will be retained and improved.

Access from Penrhos Road will remain in the same location but highways have suggested that the possibility of introducing a speed table at the end of this junction would improve road safety and alleviate the problems on Penrhos Road caused by current school traffic at pick up and drop off times. Further drop off provision on private access roads and additional car parking and new drop off spaces on the western part of the site will all help to improve traffic flow and reduce the impact on non-school traffic in the area.

Image 01 - View showing a glimpse of the proposed courtyard

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## 5.00 - CHARACTER

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Within the site, traffic enters a 'one way system' which allows parents a multitude of drop off areas to drop their children off on the pavement either side of the access road, once entering the initial access road there will be a drop off facility on the left, if there is insufficient space here, parents have the opportunity to turn left on the roundabout and return from the parking area to another drop off area or to the existing car park and drop off there. This layout allows parents to enter and leave the site without complex vehicular movements but also provides a vastly larger opportunity for entering and leaving the site without traffic congestion of other parents dropping off. The design of the roundabout currently allows a 30 seat bus to manoeuvre safely on site but doesn't provide a safe drop off point. The proposed design will provide a setting down position away from the roundabout and can enter and leave the site without reversing, or performing any complex/dangerous traffic movements.

The figures regarding the parking standards for the site as agreed with Gwynedd Council's Highways Department can be found in the Traffic Survey conducted by Caulmert. We have considered the appropriate location of the following to generate the proposed layout:

- School and Nursery
- Disabled spaces (inc Visitors)
- Drop off zone
- Commercial Vehicle
- Cycles pupils & staff

#### 5.02 SCALE

The proposed development site is located in a semi-rural area, and the scale of the proposed building will reflect this. The building will vary between one and two storey elements, reflecting the general nature of the surrounding residential buildings. The building will be designed in a way to help reduce the overall scale and visual impact of the building on the surrounding environment. The building will also be designed to take into account the relationship to the adjacent woodland.

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Image 02—Site sections of the development

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### 5.03 APPEARANCE

The semi-rural character of the development site means a suitable palette of materials is key to ensuring the development does not sit completely out of character and the choice aims to complement the surrounding context. Materials will be used in a way to articulate the function of the building in certain areas and will help to break down the scale of the development to bring it to a human scale.

It is proposed that the new development will be sympathetic to the existing character whilst also providing some architectural interest and variety within the building forms and detailing to create an uplifting scheme within the area. The external built form of the buildings have been designed with pitched roofs mimicking the angles of roofs surrounding the school, heavy built stone walls and reserved, expressive fenestration. A palette of materials has been chosen in a sensitive manner in order to reduce the impact of the building and allow the development to be sympathetic to the local vernacular. The proposed external materials are:

**STONE WALLS:** Some areas of boundary/retaining walls and buildings external walls to the ground floor will be clad in natural stone which will be salvaged from the demolition process or sourced locally and allow the building to fit into its context.

**COLOUR COATED METAL COMPOSITE PANELS:** The composite panels will take form in an array of colours and profiles. As the primary cladding material, the panels will allow easy and fast construction of the new school but will be used in a way that gives the opportunity to articulate elements such as windows and doors; through using a patchwork of panels, this will help to reduce the overall scale of the building. The verticality of the woodland will be reflected by the orientation of the cladding on the ground floor, with a lighter colour and finish on the upper floor to help reduce the visual impact of the development whilst still giving architectural merit to the new school.

**ROOFING:** A different profile of composite panel will be used to help continue the theme of the building. The colour chosen is based on the tones of roofs in the surrounding area and the low pitch to help minimise visual impact once again.

**PV ROOF:** A fully integrated Photovoltaic roof is proposed to the large south-facing slope of the hall, this will not be too dominating visually from the main approach of the building as the walls around this roof will have a parapet upstand.

**WINDOWS:** Grey PVC windows are proposed throughout. The scale of these windows will change along the elevation which adds interest and variety to the elevation, whilst the rhythm reflects the internal layout; smaller windows in the corridors and cloakrooms and larger windows in the classrooms.



Image 01– Aerial view of proposed school, looking South

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## 5.00 - CHARACTER

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5.05 EXTERNAL SPACES

As part of the site plan, shown on the right, an initial landscape design demonstrates the treatment of the external spaces, courtyards and parking areas. Small scale sheltered areas are adopted providing clear relationships with new built form and neighbouring boundary conditions. The scheme's layout has been carefully considered to maximise the relationship between the new school and its surroundings. The lower years of the school - from nursery to year 2 have been situated on the ground floor and have been allocated dedicated fenced external spaces for each class or year group.

Access Road Entrance and Carpark:

A redesigned one way road system will be created for access from Fford Penrhos, with 2 dedicated drop off areas and one of the car park areas. A bike path will be introduced to this area to encourage a healthier and more environmentally aware lifestyle.

Western Carpark and Field Boundaries:

In this area, an additional car park will be located, where the former school building and associated cabin used to be. Two new unlit sports pitches and soft play area will be created after a slight terracing of the site to allow level playing. The northern boundary of this site will have a wide hedging area suitable for habitat creation and reduction of visual impact of the development on the Eithnog nature reserve. In addition, this area will now be served with a new accessible toilet and store associated with the sports field.

Habitat Area:

The north east part of the old school site will be utilised as a habitat development area. A mixture of native trees, shrubs perennials and annuals will be planted to create a genuine biodiverse environment that the pupils will be able to actively engage and be able to become a part of as the school develops this area over time. A path will wind through this area and also provide an area capable of facilitating learning in this environment.

Main Entrance and ALN/Meithrin drop off:

The main entrance will be accessed on hard level surfacing with a logical way to approach. Easy way finding to the main entrance for staff, parents and visitors, whilst students will use a separate dedicated entrance.

Internal Courtyard:

The courtyard will be faced with private play spaces for classrooms leading onto this space and then also provide a large hard surface play area for KS1 students at break times.

MUGA Playing Field Area:

A MUGA will be unlit with fences will be provided for sports and break times for the students as well as hard play surface and soft play for the KS2 pupils.

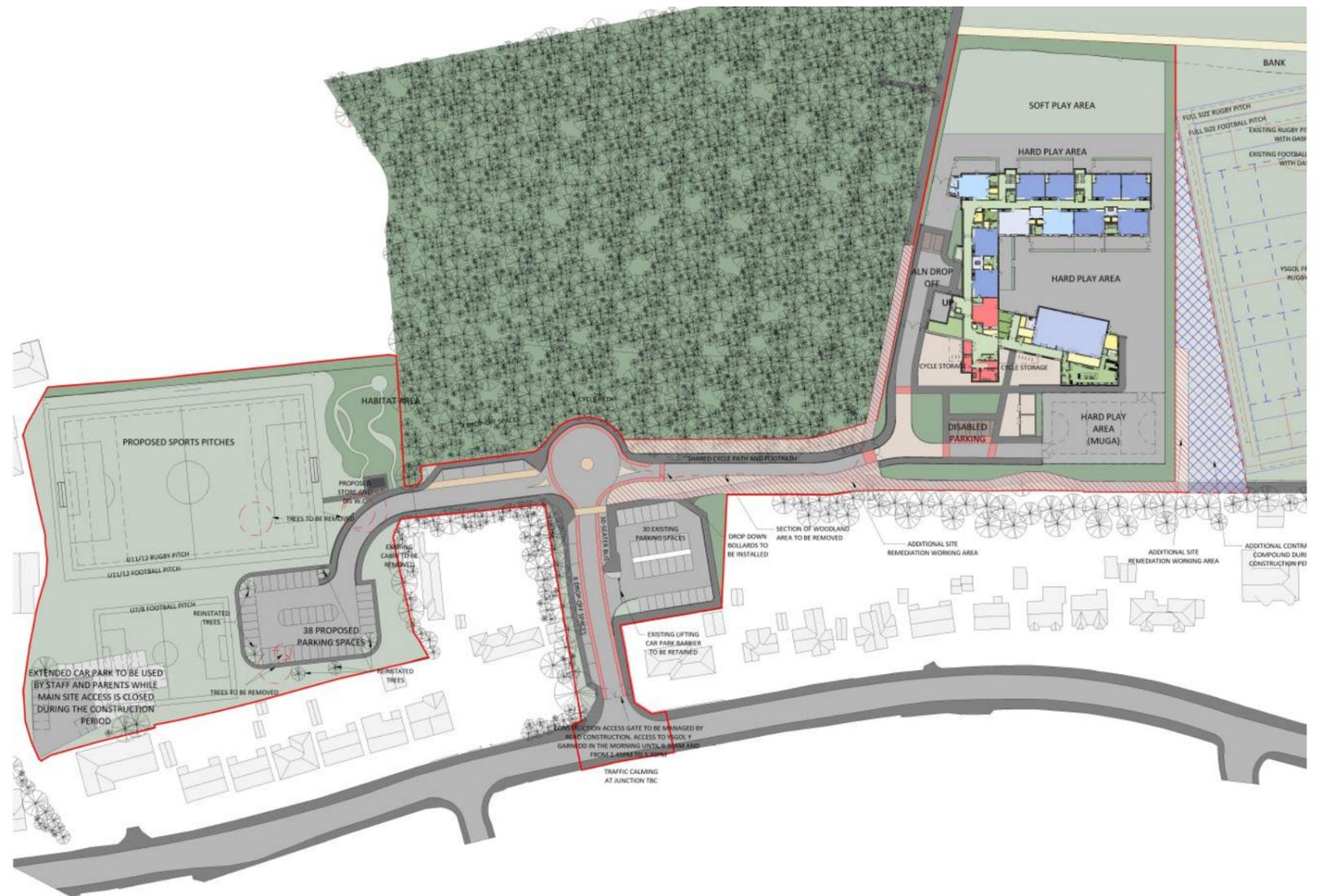


Image 01 - Proposed Site Plan showing external area (NTS)

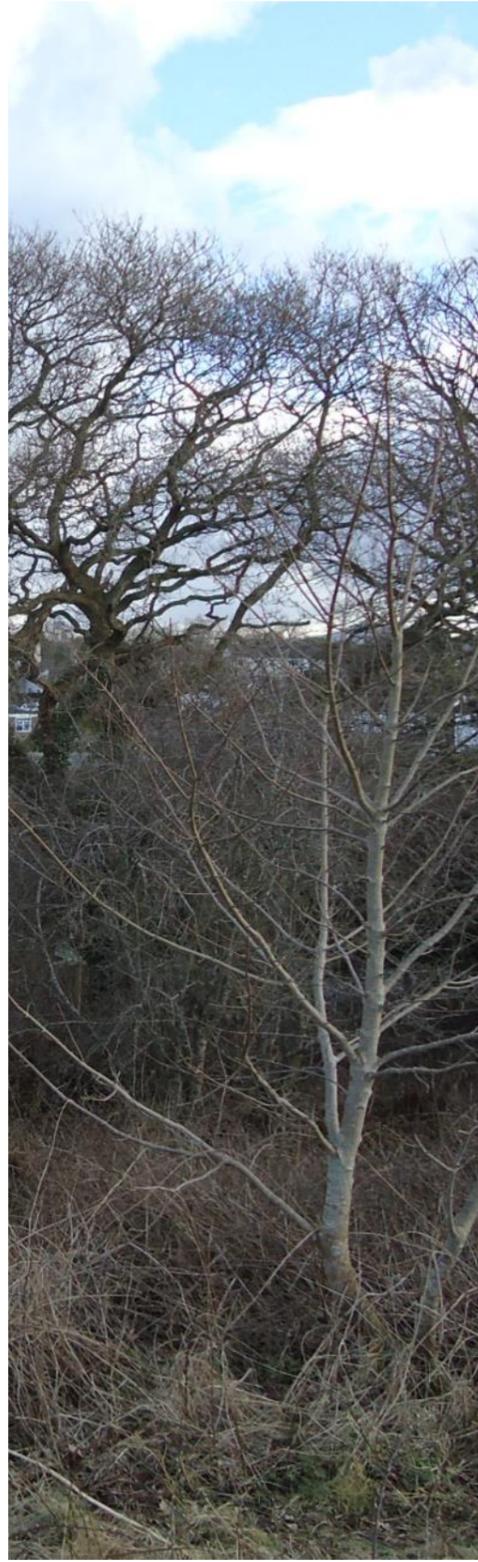
5.00 - CHARACTER

NEW PRIMARY SCHOOL

YSGOL Y GARNEDD, BANGOR



01



**6.00 - ENVIRONMENTAL SUSTAINABILITY**

**6.01 LANDSCAPE/TOWNSCAPE SETTING**

The proposed new Area School will be located within the existing Ysgol y Garnedd and Ysgol Friars grounds. Part of the existing sports pitch of Ysgol Friars will be used for the new build of this school and the playing field will be reduced in size to accommodate this. Additional playing fields and soft surface play area will be provided on the current site of Ysgol y Garnedd. To enhance the semi rural environment, boundaries that are exposed will be enhanced with a diverse native species hedge.

From the outset the proposed development has been designed to work with the important site and its landscape context. The surrounding properties are mainly houses to the south and west of the site. With close proximity to the surrounding dwellings, the context has been carefully considered and the scheme has been designed to compliment the existing pattern and form of the area. The scheme also works hard to sit in with its rural environment to the north. The new development seeks to replicate this intimacy and relationship with the woodland on a human scale while making a positive contribution to the biodiversity of the site by planting more native species and in area increasing species variety and creating more habitat opportunities.

A detailed soft landscape scheme will be provided for the site and incorporate habitat areas, raised planting beds for the children’s use, soft and hard surfaces along with a number of different external learning zones. New trees and plants will take into account the user group and its relation to the surrounding landscape and residential area.

**6.02 BIODIVERSITY & LOCAL ENVIRONMENT**

An Ecology Survey was carried out by Gritten Ecology and will be submitted with the Planning Application. The school will be located on part of the Friars School site where the ground has been regularly rolled and mown with additional underground drainage improvements carried out a few years ago. This means that the vegetation has generally altered from wetland species to drier grassland species with the exception of the bank to the North of the site which is floristically rich and will be left untouched apart from a small reduction along its southern edge.

A wet woodland sits to the west of the Friars site which will be untouched. There are a number of shallow pools within the wood testifying to the poor soil drainage.

02	03	04
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Image 02-04—Typical view of the existing conditions on and around the development site

**6.00 - ENVIRONMENTAL SUSTAINABILITY**

NEW PRIMARY SCHOOL

YSGOL Y GARNEDD, BANGOR

The tarmac path that joins the existing primary school with the back of the Ysgol Friars playing fields where it borders the southern edge of the woodland will require a little widening to accommodate vehicular access, so the verge vegetation either side was surveyed. This ruderal vegetation is difficult to categorise into an NVC type since it is irregularly mowed and is subjected to some disturbance. No significant trees will have to be removed in widening this access

On the Ysgol y Garnedd site the single storey school buildings are surrounded by tarmacked car parking areas and small pockets of regularly mowed grassland. Since there was virtually no floristic value to these small areas of amenity grassland, they were not considered worthy of detailed survey.

Bats, Otters, Water voles and Badgers - No signs of bats were found on site however its suggested another survey is carried out prior to the demolition of the school in 2020.

Reptiles - It is considered unlikely that reptiles will be affected by the proposal.

Great Crested Newts - eDNA analysis was carried out for the site but no signs were detected so the conclusion was that the species will not be affected by the proposal.

Birds - Birds will not be negatively affected by the proposal. However, demolition works on the primary school should not be carried out during the bird nesting season in case birds are nesting here. If works are likely to coincide with this period, an additional bird survey is recommended.

### 6.03 ENERGY EFFICIENCY/CARBON REDUCTION

The aim of the sustainability strategy is to minimise the energy demand and carbon emissions associated with the proposed area school and therefore limit the effect on the environment. The new school will include a number of renewable energy sources which will reduce the development's carbon emissions. The new school will include roof mounted Photovoltaic panels and a heat exchanging passive ventilation system to minimise the heating and cooling loads of the building. The orientation, micro-climate and built form have all been carefully considered to allow the new area school to benefit from passive solar gain and plentiful natural light.

Due to the nature of the build the new school is required to be assessed under BREEAM, the proposals will follow the principles as far as possible in order to

achieve an energy efficient and sustainable building. The sustainability strategy will concentrate on a 'fabric first' approach by maximising the thermal performance and airtightness of the building fabric, whilst using an energy efficient heating, hot water and lighting approach, to see a reduction in CO2 emission greater than required for Part L Building Regulations. In line with the funding conditions the new build must achieve a minimum of A rating EPC.

### 6.04 SUSTAINABLE MATERIALS

Environmentally responsible methods of construction and materials will be used where possible in order to achieve a building that is both energy efficient and environmentally responsible. Materials will be selected from local sources wherever possible to minimise transport energy use and help sustain the local economy.

The school will be constructed from a steel frame structure with composite insulated metal cladding panels to the majority of the walls and roof. Small sections of stone clad walls will be provided near the main entrance. We aim for the construction 'build up's' to achieve a Green Guide for Specification A+ and A ratings where possible.

### 6.05 WATER

In order to reduce the water consumption of the new area school, all new toilets will be dual flush and low flow sanitary fittings will be fitted. Permeable paving will be used around the building to reduce ground water run off.

### 6.06 WASTE MANAGEMENT

A waste minimisation plan will be produced to follow the WG 'Construction Waste Minimisation Good Practice Guide, and the contractor will be a member of the Considerate Constructors Scheme. A recycling strategy for internal waste will be implemented in line with the existing Schools procedure.

### 6.07 CLIMATE RESILIENCE

To ensure the proposed development will cope with any future climate changes, the school has been designed to be as energy efficient as possible.

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## 6.00 - ENVIRONMENTAL SUSTAINABILITY

### NEW PRIMARY SCHOOL

#### YSGOL Y GARNEDD, BANGOR



## 7.00 - ACCESS

### 7.01 SITE LOCATION

The proposed site along Penrhos Road between Bangor city centre and Ysbyty Gwynedd and has good public transport links, allowing staff, pupils and parents the opportunity to access the school either within walking distance or easily accessible public transport routes. The prime location within the local settlements allows the school to have a positive relationship with the community. In addition to being dropped off by parent or guardian, some pupils who live further away may arrive by a school bus and new provision for this has been made in the site layout. Bus stops (shown on the plan adjacent) are located along Penrhos Road which carries a number of different bus routes in and out of Bangor.

### 7.02 INCLUSIVE DESIGN

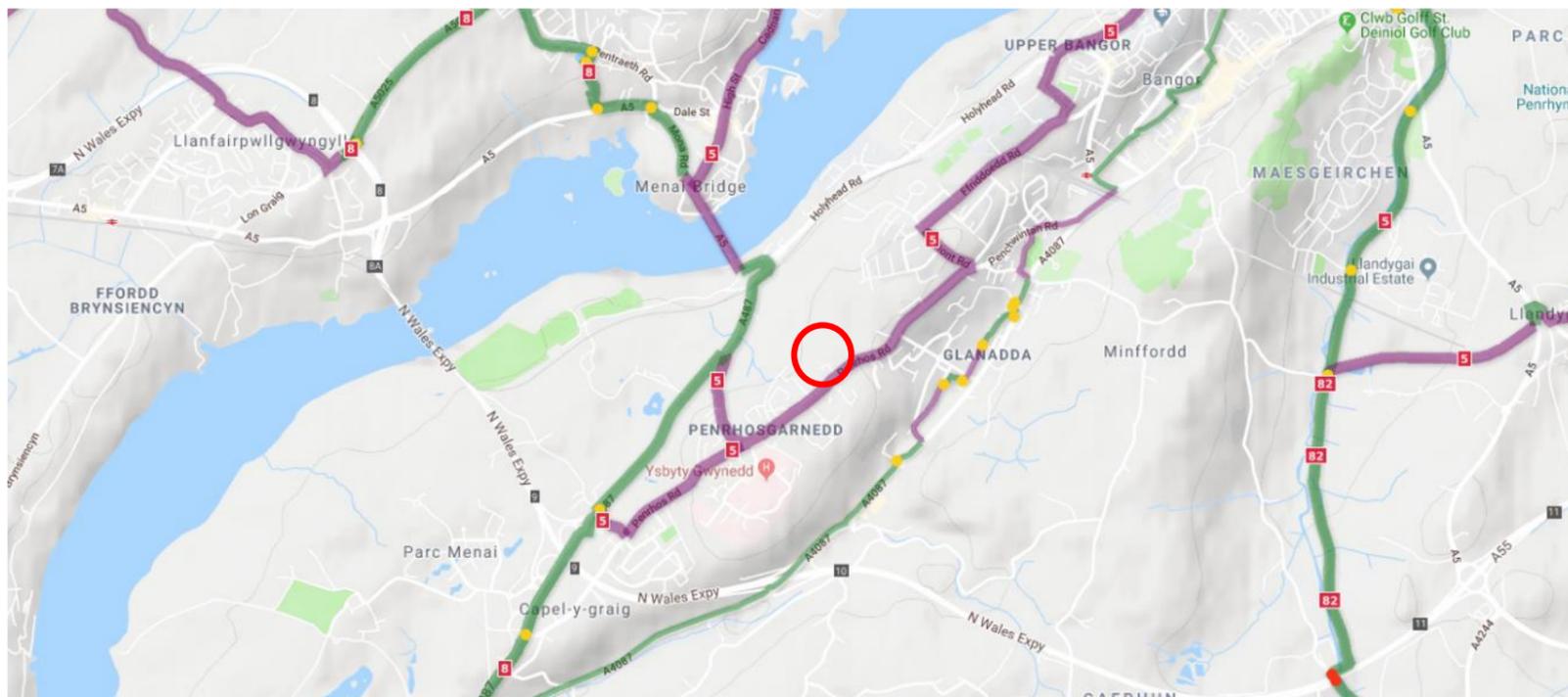
The primary aim of the scheme is to create a place that is easily accessible to everyone using the school.

All external surfaces on the site will have minimum undulation, be non-slip and well laid. Any joints between paving or between changes of material will be no more than 10mm wide and any utility access covers featuring within the hard landscaping will protrude no more than 5mm above the paving level. Where there are any changes in height or direction the surfaces will be clearly marked by a change of texture and a contrasting colour and where appropriate up stand kerb or low rail.

All paths will be a minimum width of 900mm and will be continuous with no obstructions. It is anticipated that paths around the buildings will be a minimum of 1200mm for wheelchair access, and where possible will be 1500mm wide. Building entrances will be highly visible and ramped approaches to entrances will be a minimum of 1200mm wide with a maximum gradient of 1:12. All doors will have a minimum effective clear width of 800mm.

### 7.03 PROVIDING ALTERNATIVE MODES OF TRANSPORT

As well as the development being well located for pedestrians it is hoped that some of the staff and pupils will be able to cycle into school. Bicycle storage will be provided around the new building in close proximity to the entrances, so it will be convenient to gain access to the school once parked up. In addition, the new school will provide changing facilities for pupils along with additional shower facilities for staff. A cycle track will be allocated along the access roads off Penrhos Road to the school. The school is well located on an established cycle route as designated on Sustran's cycle network (shown left). The route is on National Cycle Route 5 which connects Holyhead to Reading via the North Wales Coast.



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02

Image 01-02 - Connections plan

## 7.00 - ACCESS

NEW PRIMARY SCHOOL

YSGOL Y GARNEDD, BANGOR

## 8.00 MOVEMENT

### 8.1 SITE INTEGRATION / CONNECTIONS

The proposals maintain and improve all current access and connectivity to the surrounding area and there will be enhanced cycle provision through the addition of a cycle lane on the improved access roads

### 8.2 TRANSPORT MODES

All existing transport connections to the site are to be utilised and sustainable methods of transportation will be encouraged.

### 8.3 SERVICING

An enclosed secure service yard is provided near the main entrance for deliveries and waste storage.

### 8.4 PARKING

Currently, the existing car park is too small for the school and traffic builds up on the main road during the busy periods. The new area school will require a much greater parking provision and more efficient drop off due to the increase in pupils, staff and visitor numbers.

A one way road system will provide a safer and more manageable drop off and parking areas for the staff and parents within the school boundary. Some of the students will also be arriving on site by school bus and using the new bus drop off area.

Car parking is provided within the existing area to the south of the roundabout with additional drop off and pick up points located near the roundabout area, additional car parking facilities will be provided in place of the existing school and also more parking spaces adjacent to the new school for users with reduced mobility. The proposals result in the provision of 80No. car parking spaces spread between the two main car parks and the drop off spaces. Three additional disabled spaces have been provided near the main entrance with another 2 spaces near the ALN entrance. While school concerts or parent evenings are held where the car parking demand may increase the gates to the games court can be opened and additional overflow parking will be provided.



Image 01 - Image of the main entrance

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## 8.00 - MOVEMENT

NEW PRIMARY SCHOOL

YSGOL Y GARNEDD, BANGOR

**AG|A** AINSLEY GOMMON ARCHITECTS

## 9.00 COMMUNITY SAFETY

As the new School is located in a residential area it is naturally overlooked by the surrounding dwellings, Ysgol Friars school during day time and passing pedestrians

### 9.10 SECURED BY DESIGN

Security is of paramount importance within the proposed development and methods to prevent crime have been considered from the outset of design. Secured By Design Approval will be sought for the scheme.

A Secured by Design application has been submitted and discussions regarding the scheme are being held with the Crime Prevention Design Officer, PC Norman Hughes.

The initial consultation meeting was very informative and its outcome helped to shape the present design of the scheme. CCTV will be provided externally around the school. A CCTV layout will be provided to the Planning Department at a later date.

SBD accredited bicycle racks will be provided within the boundary of the school so children and staff can lock them up in a safe location throughout the day.

### 9.20 BOUNDARY TREATMENTS

To enclose and protect the site there are a range of proposed boundary treatments. The school and the surrounding playing areas will be enclosed by a variety of fences with varying degrees of security based on a hierarchy of deemed importance. Anti-climb fences will be used to deter people from trying to access the new building. Where there is an existing fence, these will be surveyed, improved or replaced, as deemed necessary by their quality and condition.

Metal gates will be used for access between the playing areas and ALN drop off area and similarly to the main entrance, between the courtyard and service yard a stone wall with timber gates separate the two spaces.

A 900mm high hoop top railing fence will be around the class/year group outdoor play spaces to allow for the space to appear open but provide a safe enclosure to any children playing within.

A 900mm high retaining stone faced wall runs along the front of the western part of the new build site with railing on top of this to prevent falling from the upper side to provide a boundary between the school and the public footpath.

The existing boundary treatments will remain around most of the sports field but a new hedge will be provided to the north of both sports pitches and along the boundary to Ysgol Friars to the east.

### 9.30 SURVEILLANCE

The numerous windows within the enclosed design of the building allows natural surveillance of its surroundings and of the school itself. The position of the staff offices help this as they are located to face the enclosed courtyard.

All classrooms are also outwards looking, allowing surveillance of the soft landscaped areas surrounding the school. The staff room overlooks the internal courtyard and hard play area for additional observation during the children's breaks.

External motion sensor lighting will highlight to the neighbours any intruders during the evening or night time and help deter them from trying to enter the building. CCTV cameras will provide surveillance along with any evidence of intruders within the site.

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## 9.00 COMMUNITY SAFETY.

NEW PRIMARY SCHOOL

YSGOL Y GARNEDD, BANGOR

## 10.0 COMMUNITY CONSULTATION

### 10.01 CONSULTATION

Full Pre-application Consultation is currently being undertaken with the local community and all stakeholders before the full application will be submitted. Where necessary the Design Team will respond to the consultees comments in the Consultation Report.

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## 10.0 COMMUNITY CONSULTATION

NEW PRIMARY SCHOOL

YSGOL Y GARNEDD, BANGOR

**AG|A** AINSLEY GOMMON ARCHITECTS

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10.0 COMMUNITY CONSULTATION

NEW PRIMARY SCHOOL

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