

DESIGN & ACCESS STATEMENT

TY-GWYN RD, CARDIFF, CF23 5QD

PROPOSED NEW TEACHING FACILITY





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1.0 INTRODUCTION

1.1 GENERAL

Chapter 3 Architects has been appointed by St David's Catholic College to act as Architects for the development of a new teaching facility on a site at St David Catholic College, Ty-Gwyn Road, Cardiff, CF23 5QD.

This Design & Access Statement:

- a) Describes the site and surrounding area and the context within which the proposal is being developed.
- b) Describes the design process that has been undertaken to explore the development brief.
- c) Specifies the quantum of development for which Design & Access Statement advice is being sought.
- d) Illustrates the scale and massing of the proposal to establish the three-dimensional building envelope.
- e) Describes the access and transportation links to the development.
- f) Provides a summary of the considerations that have been taken into account in the design of the scheme.



1.2 PROPOSALS

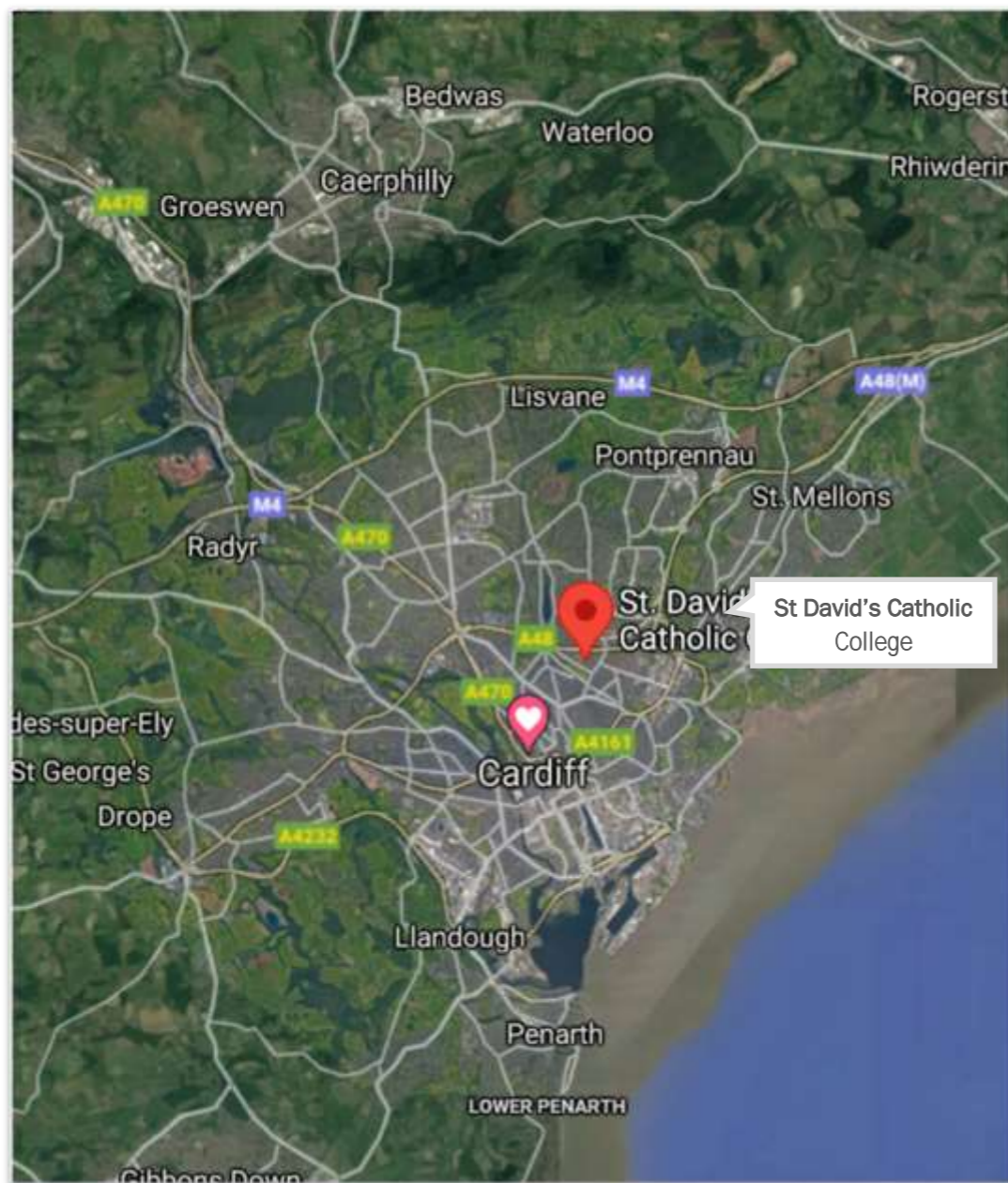
The Design & Access Statement proposals as illustrated both in written form and pictorially within this document has been produced to meet the Client brief, a study of the site and its setting.

The Design & Access Statement is supported by the plans and technical supporting documents which illustrate that the site is suitable for and can accommodate the proposed development and the works associated with it.

2.0 EXISTING SITE

2.1 GENERAL

The application site, currently part occupied by the Honour Block lecture theatre, small section of existing car park area and grass field, is located at the South side of the existing main St David's Catholic College building, Ty-Gwyn Road, Cardiff.



Site Location



Aerial View of Existing Site



Aerial View of Existing Area for development

2.2 EXTENT

The site is located on St David's Catholic College, which is situated on Ty Gwyn Road, Cardiff.

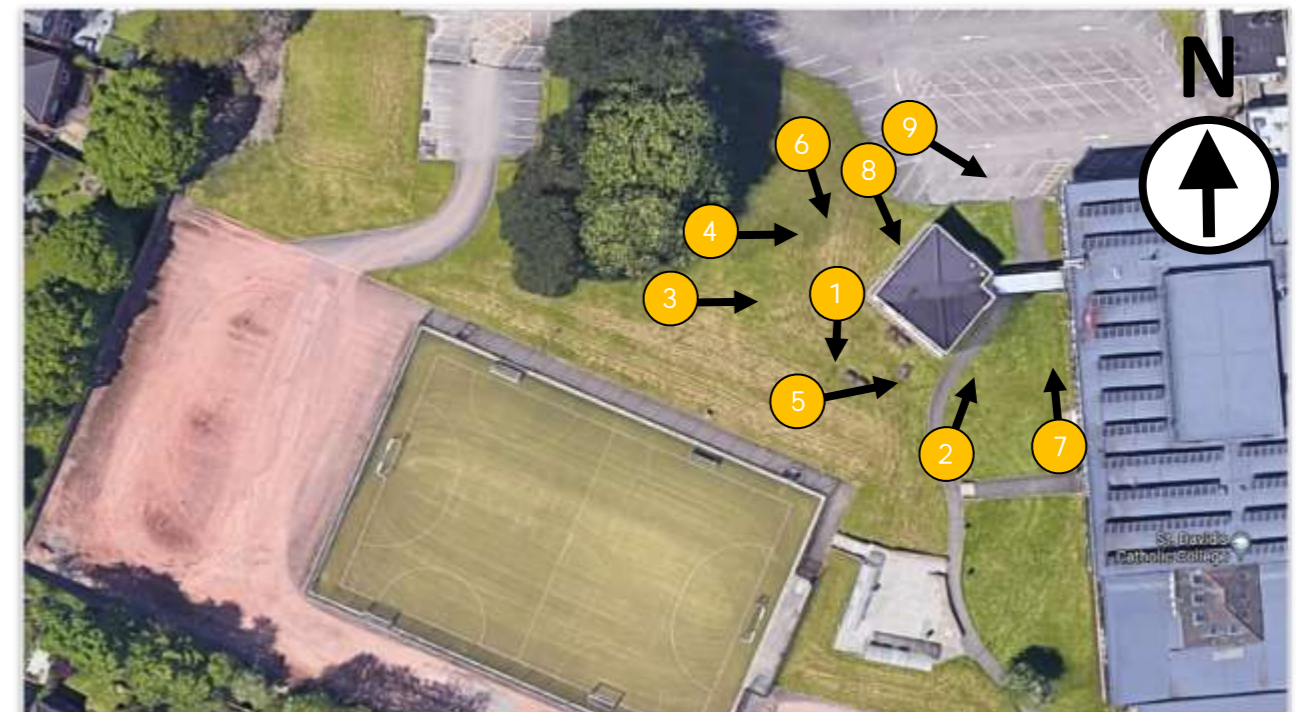
St David's Catholic College opened in 1987, dedicated to the education and progression of students between the ages of 16 to 19 years old. It occupies the building previously used by Heathfield High School. The existing Honour Theatre building, which is separate from the main College building consists of a lecture room as well as a resource library. Due to the College expanding their academic programme, there is a demand for additional classrooms, lecture theatre and ICT facilities to foster further academic development.



Site Location 3

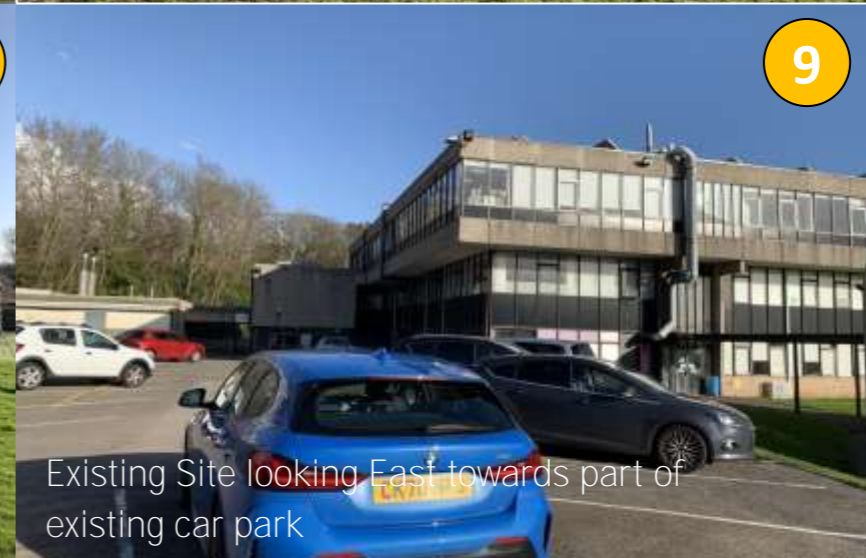
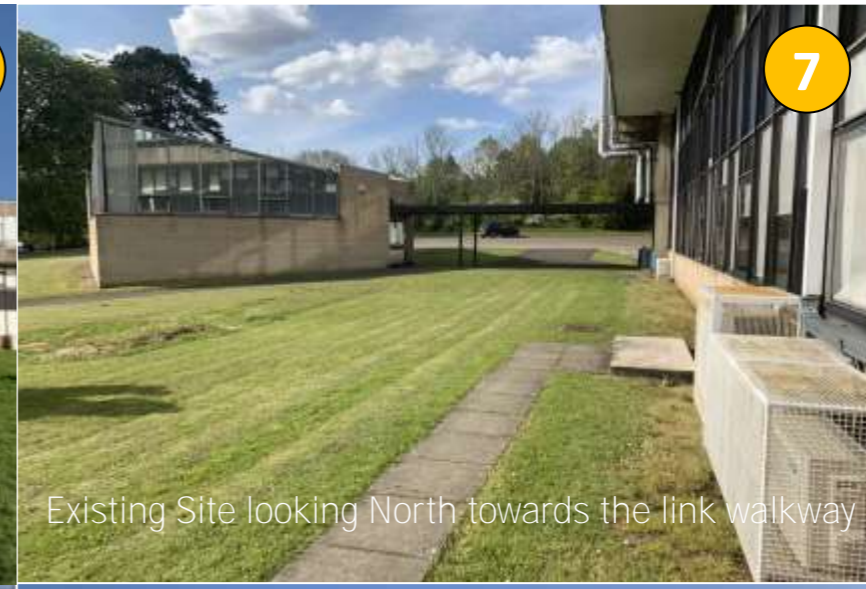
2.3 EXISTING USES

The current site of the proposed building is occupied by the existing Honour Theatre and a section of footpath link from the south, part of the grass field with picnic benches used by students, and a small section of the existing main car park.



Existing Photograph Location Key

2.4 PHOTOGRAPHS



3.0 CONTEXT

3.1 USE AND CHARACTER OF THE SURROUNDING AREA

The Development site is situated within the College campus, which has been surrounded by mainly residential properties and Cardiff University buildings. The area is known as the Ty Gwyn Road Area.

The existing buildings neighbouring the college campus are constructed in a mixture of styles and materials with no continuity, as can be seen in the following photos.



Building precedent within Ty Gwyn Road area



Site Context

 RESIDENTIAL

 SITE

 LEISURE

3.2 CONTEXT CONCLUSIONS

The application site is clearly located within a defined college campus, surrounded by educational establishments, therefore, in this context it would seem an appropriate location for a new teaching facility.

The adjacent main college buildings were built in 1987 and was previously occupied by Heathfield High School.

There is no precedence that has been followed from the existing development, therefore little evidence to inform the design of the proposed development.

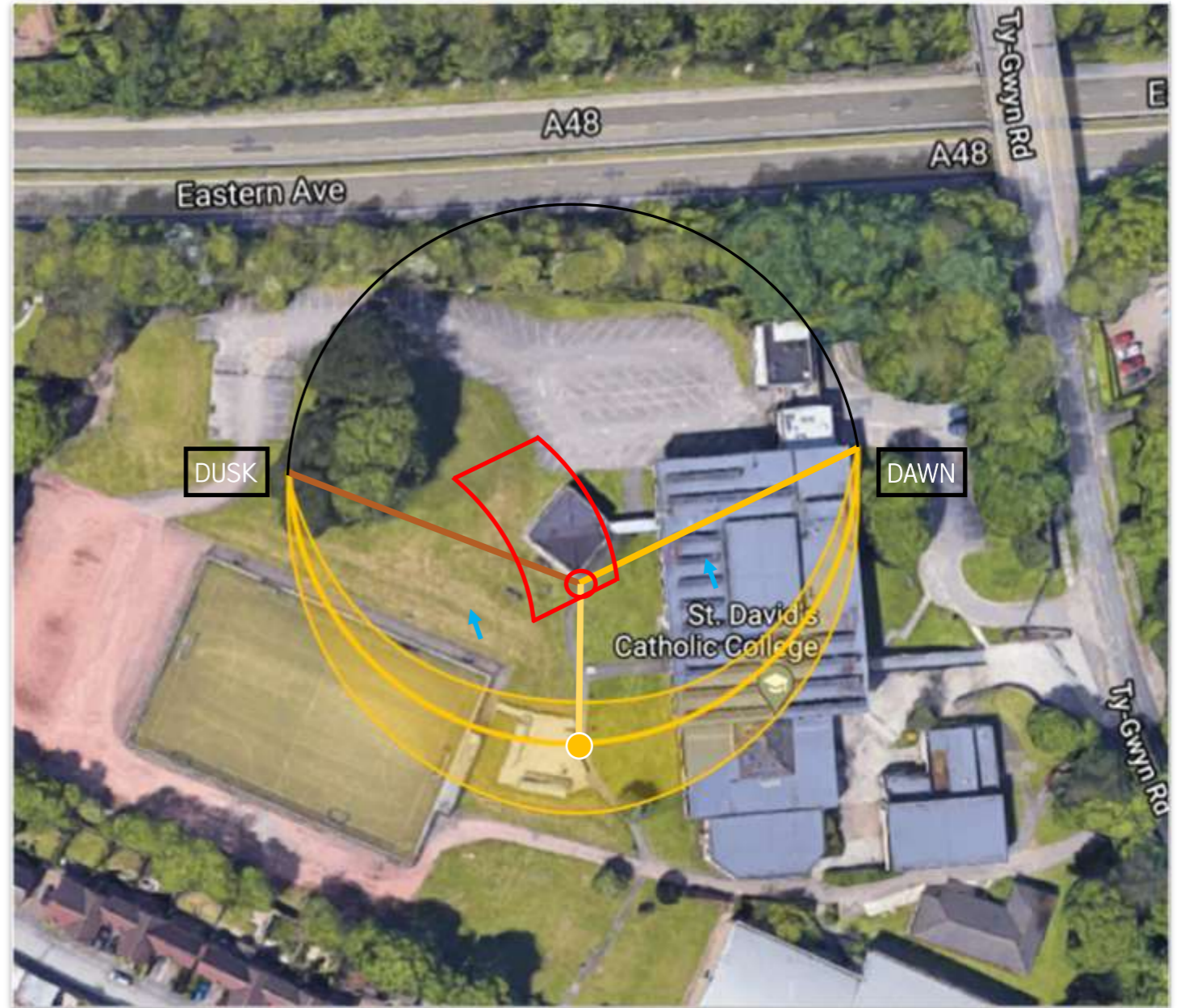
4.0 CONSTRAINTS & OPPORTUNITIES

4.1 CONSTRAINTS

The application site is located within the college campus and to be constructed on the plot where the existing Honour Lecture Theatre is currently occupied. This limits the size and layout of the development; however, the location also allows for good visibility and vehicular access. It is also of a suitable size to accommodate the proposed development with minimum impact on the existing main building and the sports pitch.

There is a group of mature Horse Chestnut and Pine trees immediately adjacent to the footprint of the proposed building. This is an important Green Infrastructure asset, being the only sizeable trees within the campus and providing shelter and screening as well as habitat and aesthetic benefits. These trees will be conserved and protected, with adjustments made to the building as necessary.

The site of the proposed building is on a gentle gradient with the adjacent car park to the north being higher and there is a steep bank down to the sports pitches at the southern edge of the site.



Sun Path diagram

4.2 OPPORTUNITIES

The site has the advantage that it is within an existing campus and given that it has good vista towards the existing sports pitch, a curved geometry layout seems to optimise the views out and the topography of the site.

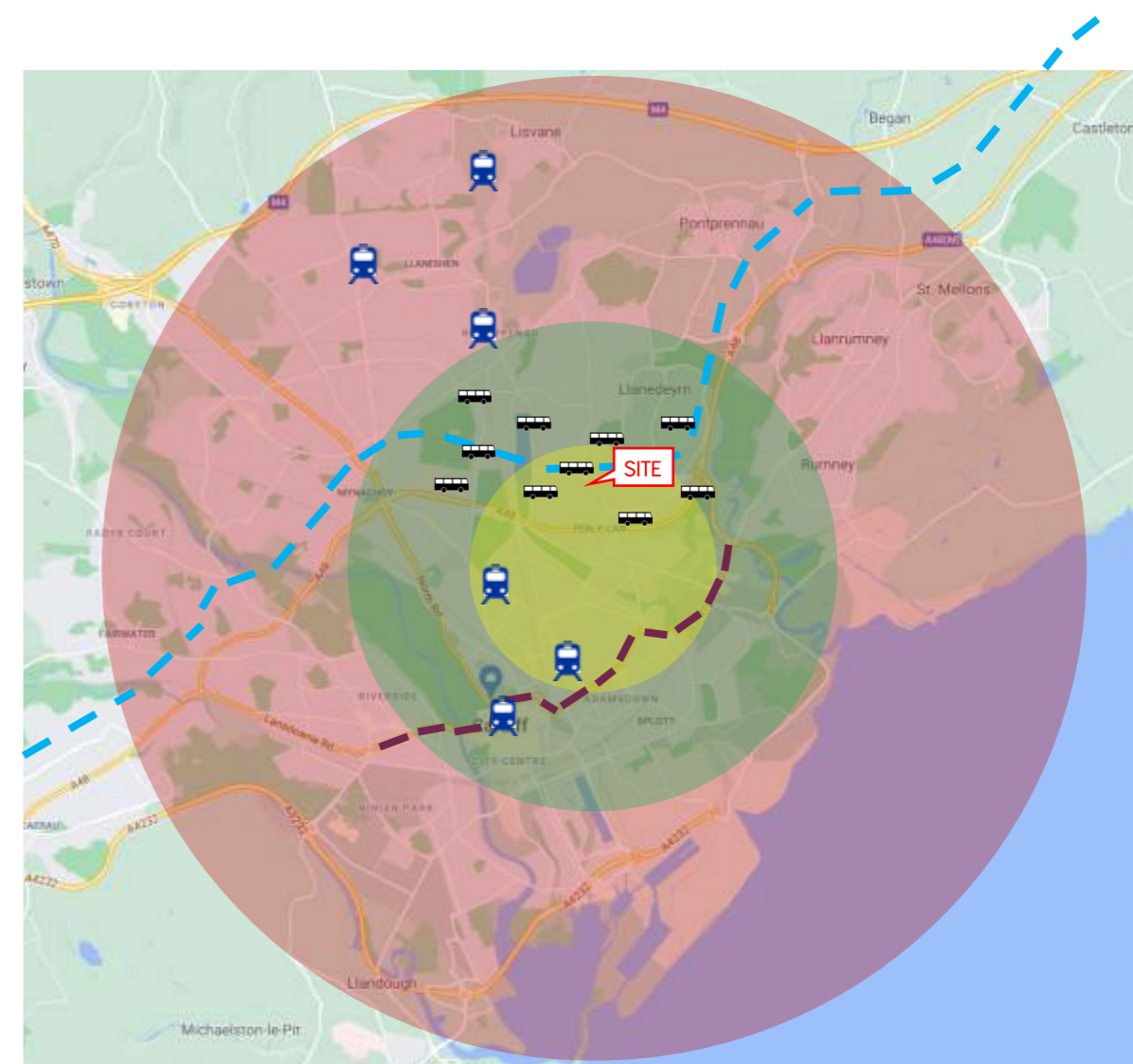
The aspect ratio of the plot, and curved shape form means that the proposed building can be accommodated without compromise, allowing for pedestrian access, direct access from the existing car park and maximising the green space. The site is on a slight gradient.

The site has excellent connections to local bus route. Cardiff Bus route 52 runs directly past the college as well as other routes which stop on Pen-y-lan Road nearby and are all within a short walk to the college.

The scale and massing of the existing buildings surrounding the site demonstrate that any new development could accommodate the precedent set by these buildings and reference them as a basis for its height and form.

There are opportunities to add to the biodiversity and amenity of the site with the inclusion of planting to integrate the building into its surroundings. The current close-mown grass has a low biodiversity value.

KEY		TRAIN STATION	
	4 MILE RADIUS		TRAIN STATION
	2 MILE RADIUS		BUS STOP
	1 MILE RADIUS		A48
			A4161



Local Transport

5.0 PLANNING POLICY FRAMEWORK

5.1 GENERAL

The planning policy framework for the development of this application is provided by the content and scope of National Planning Policy, which is contained within the Wales Spatial Plan, Planning Policy Wales (PPW) and its associated Technical Advice Notes (TANs), together with the Cardiff City Council Local Development Plan. A detailed consideration and appraisal of the relevant policies is provided in the Planning Statement.

5.2 WELL-BEING OF FUTURE GENERATIONS (WALES) ACT 2015

The Well-being of Future Generations Act sets out the following well-being goals that the proposal should accord with.

These include the following:

- A globally responsible Wales
- A Prosperous Wales
- A resilient Wales
- A healthier Wales
- A more equal Wales
- A Wales of cohesive communities
- A Wales of vibrant culture and thriving Welsh language

5.3 PLANNING POLICY WALES

Planning Policy Wales (PPW) is the principal document of the Welsh Government which sets out the context for sustainable land use planning policy, within which Local Planning Authorities (LPAs) Statutory Development Plans are prepared and Development Control Decisions on the individual planning application are made.

5.4 TECHNICAL ADVICE NOTES (TANS)

The following TANs are considered relevant to this application:

TAN 11: Noise

TAN 12: Design

TAN 15: Development and Flood Risk

TAN 18 Transport

TAN 23: Economic Development

5.5 SUPPLEMENTAL PLANNING GUIDANCE (SPGS)

Green Infrastructure SPG, including:

- Ecology and Biodiversity TGN
- Trees and Development TGN
- Soils and Development TGN

SPG 11: Parking Standards

6.0 SITE & BUILDING DESIGN EVOLUTION

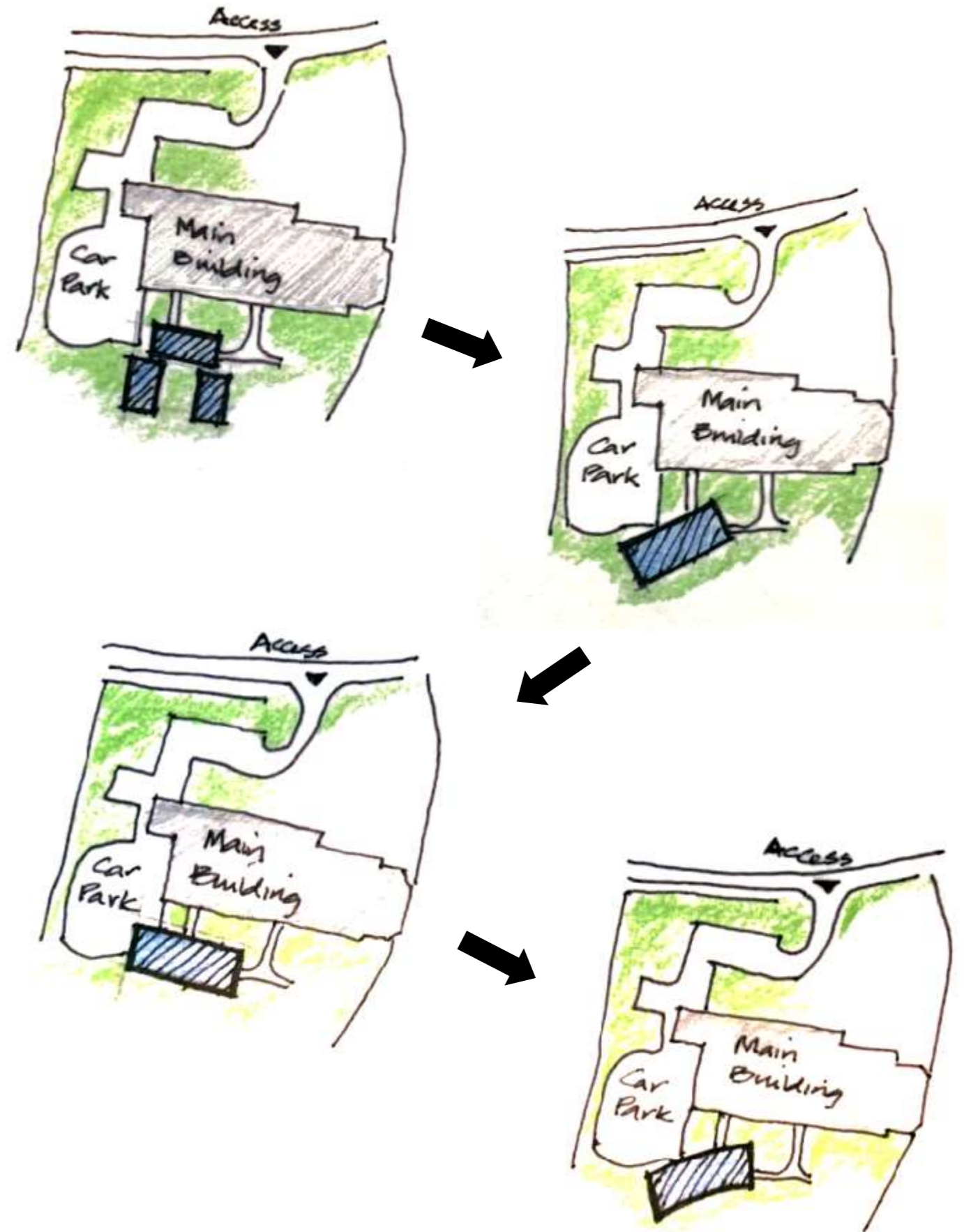
6.1 GENERAL

The design and form of the conceptual development proposal has been evolved as additional information on the site for example, existing and proposed drainage and services runs, topography, location and market demand have been taken into consideration. The conceptual scheme incorporates the feedback and comments that were sought from the client and their advisors.

Each design conceptual option was discussed and either implemented or dismissed to generate the scheme as illustrated, leading to the final solution.

The design evolution of the conceptual scheme took the following form;

- An initial conceptual idea was prepared to identify potential development opportunities for new education building.
- Advice was taken on whether this would be an appropriate use for the site.
- The business case was appraised by the client which informed the scale of the development.
- Access points were reviewed for pedestrians and vehicles, and the most efficient and favourable considered.
- The scale of development was limited by working within the physical constraints of the site and the typical size of building of this nature.
- Throughout the design evolutionary process of the conceptual scheme, design workshops have been held with the Client and their advisors. The comments on both the built form and the wider implications were reviewed and incorporated into the conceptual scheme where considered appropriate.



7.0 DEVELOPMENT PROPOSALS

7.1 GENERAL / USE

The proposals described in this document and shown on the plans reflect the brief set by the Client and their advisors to formulate a conceptual scheme for development within the education use class.

The proposals have been developed to address the requirements for a new teaching facility whilst integrating the site in a positive way which is appropriate to its local environment and context with well considered connectivity.

7.2 BRIEF

Redevelopment of the proposed site with a contemporary and functional teaching facility.

7.3 SCHEME PROPOSALS

The redevelopment of the site with a two storey education building.

7.4 QUANTUM OF PROPOSED DEVELOPMENT

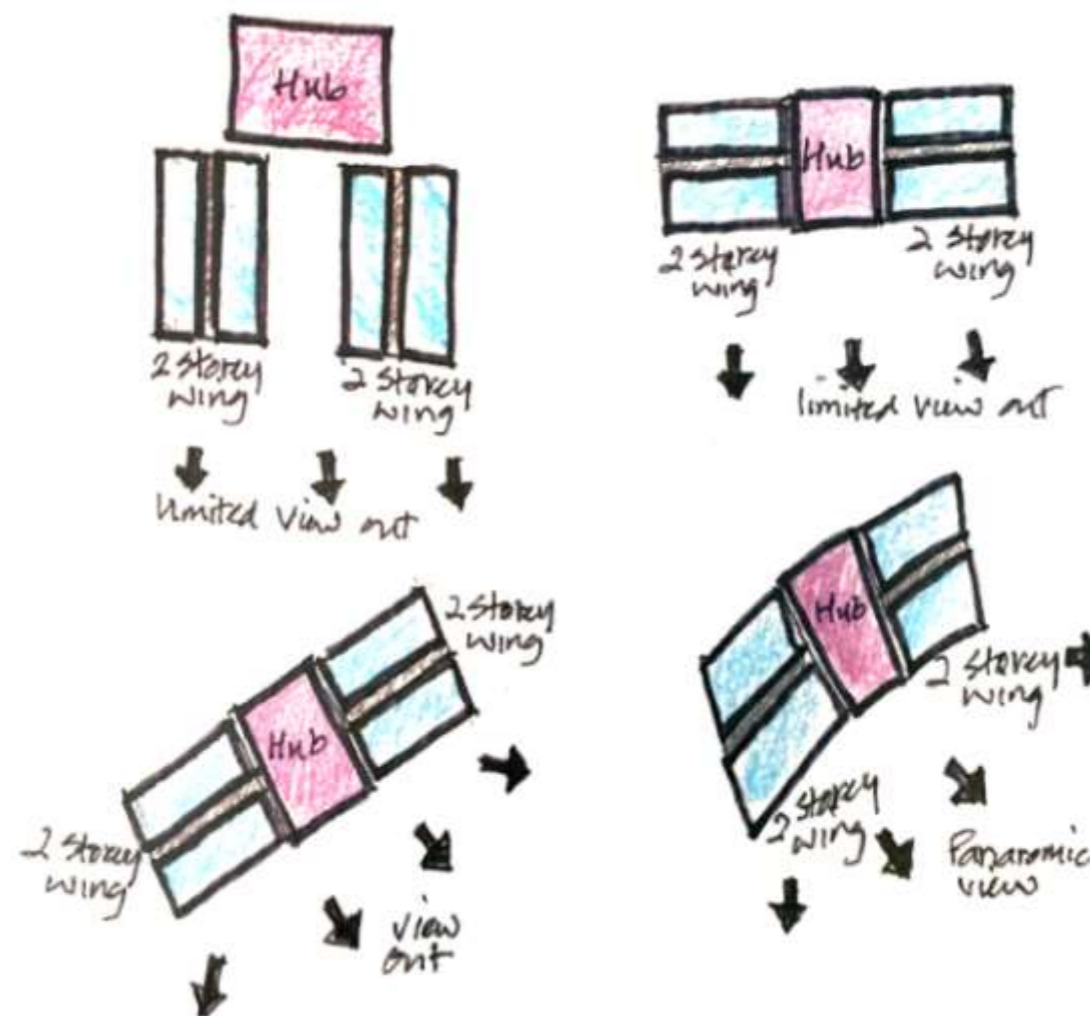
Total floor area of 1,017sqm (10,944sqft) which is the gross internal area.

7.5 SCALE

The height of the building has been dictated by the specific requirements of the client and their advisor, which is deemed to be a two storey height building.

7.6 PARKING PROVISION

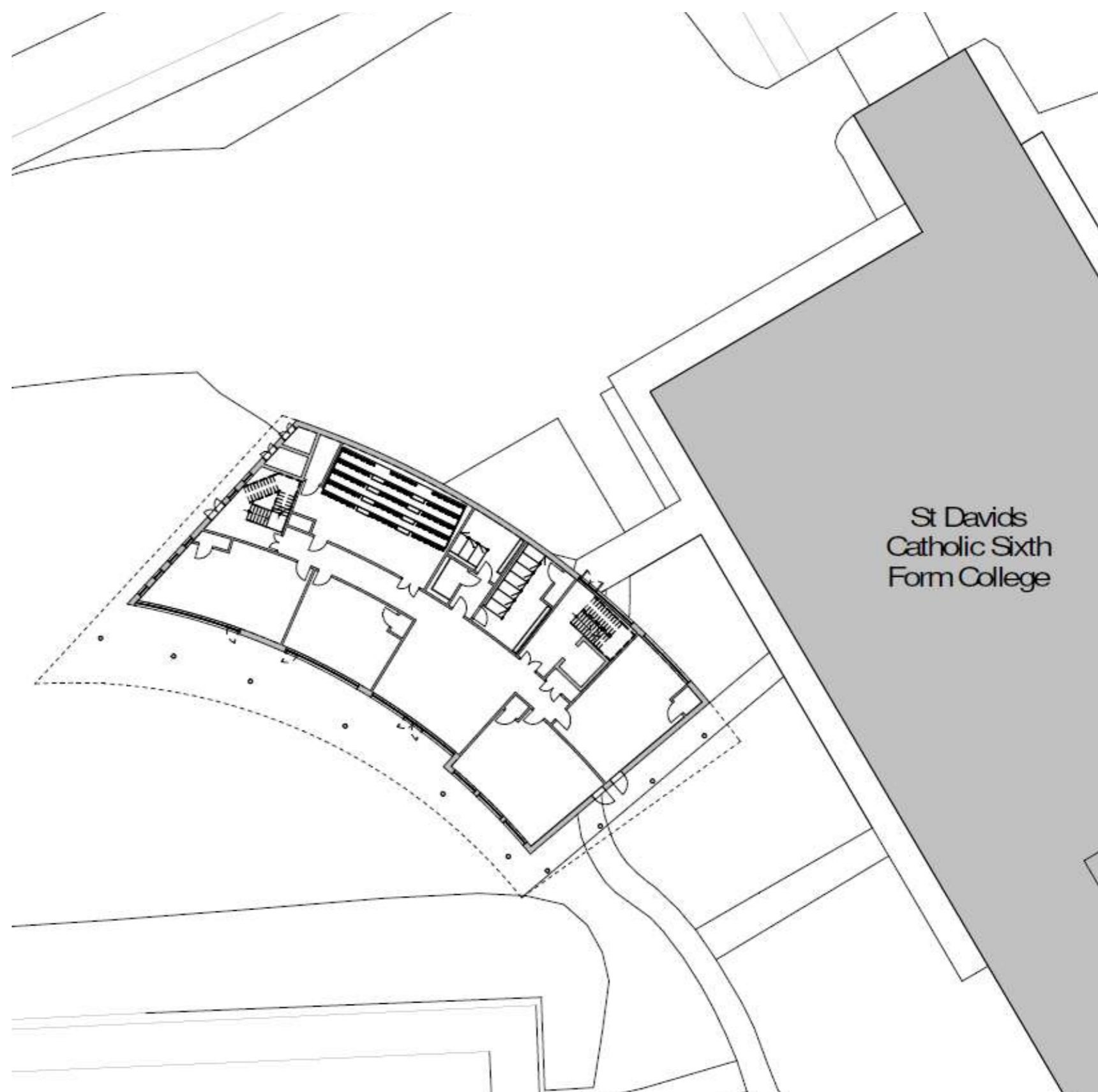
There are currently no provision for new car parking.



8.0 SETTING/ACCESS/LAYOUT

8.1 GENERAL

The five objectives of good design are set out as principal considerations within the Technical Advice Note (TAN) 12, to ensure that development effectively respond to local context so that they assimilate into the locality and are functional for their intended use. The five objectives of good design are access, movement, character, environment sustainability and community safety.



8.2 SITE LAYOUT

The access and shape of the site are the main features in determining the optimum layout of the scheme.

The access is only available from Ty Gwyn Road, running along the northern portion of the College Campus.

The layout includes the following principles:

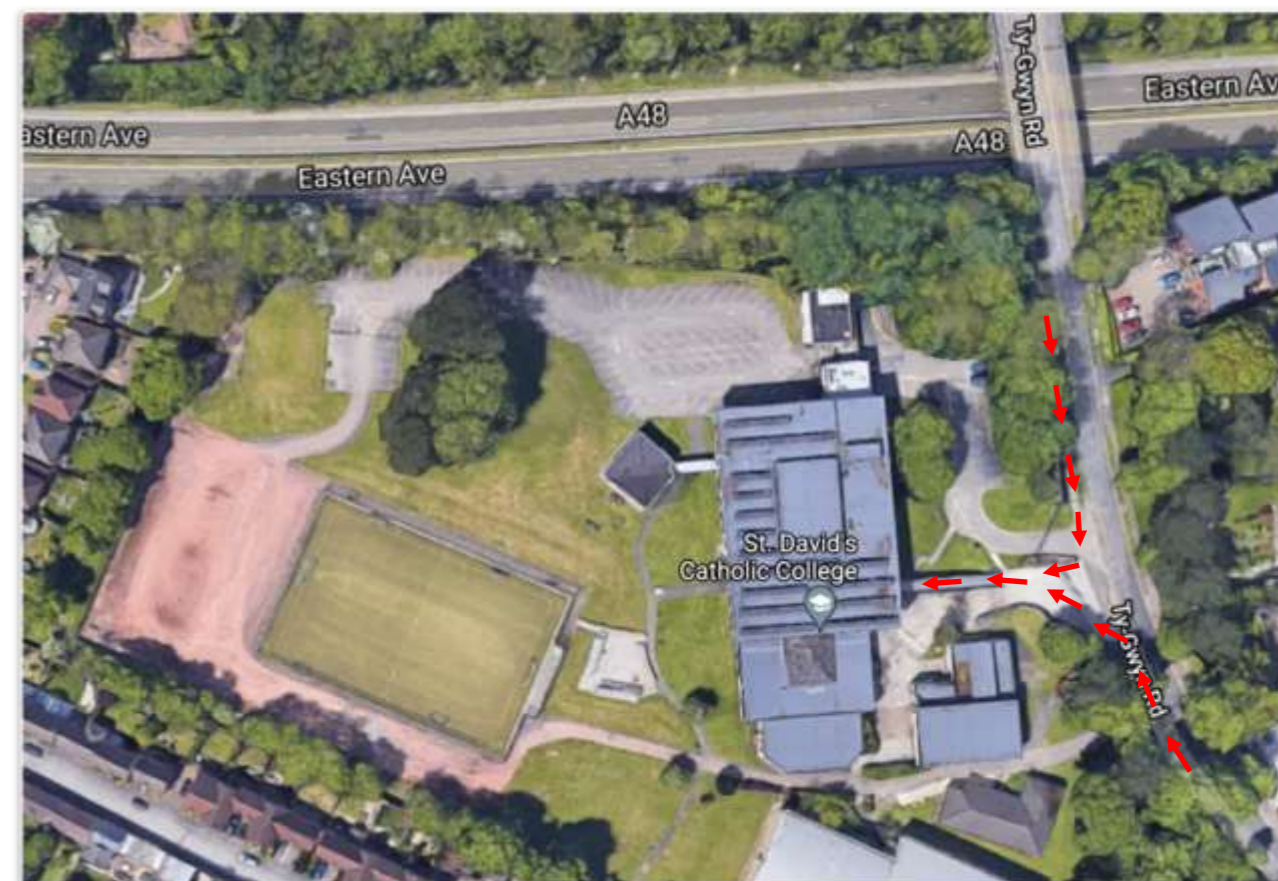
- Access taken from the existing campus entrance from Ty Gwyn Road.
- Safe access provided throughout the site for pedestrians and cyclists.
- Covered pedestrian walkway provided from the development site to the college main building.
- The development site conveniently located adjacent to the existing car park.
- Maximise the vista towards the sports pitch.
- Minimise impact on existing green area.
- Existing trees protected and conserved
- Pedestrian access to entrances from car park, main building and other parts of the campus to be DDA compliant.
- Provision of attractive usable outdoor space between main frontage and sports pitch with planting, including rain garden, and seating/breakout space.

← Vehicular Access ← Delivery / Events Access ○ Turning Circle



Vehicular Access

← Pedestrian Access



Pedestrian Routes

8.3 FLOOR LEVEL PLAN

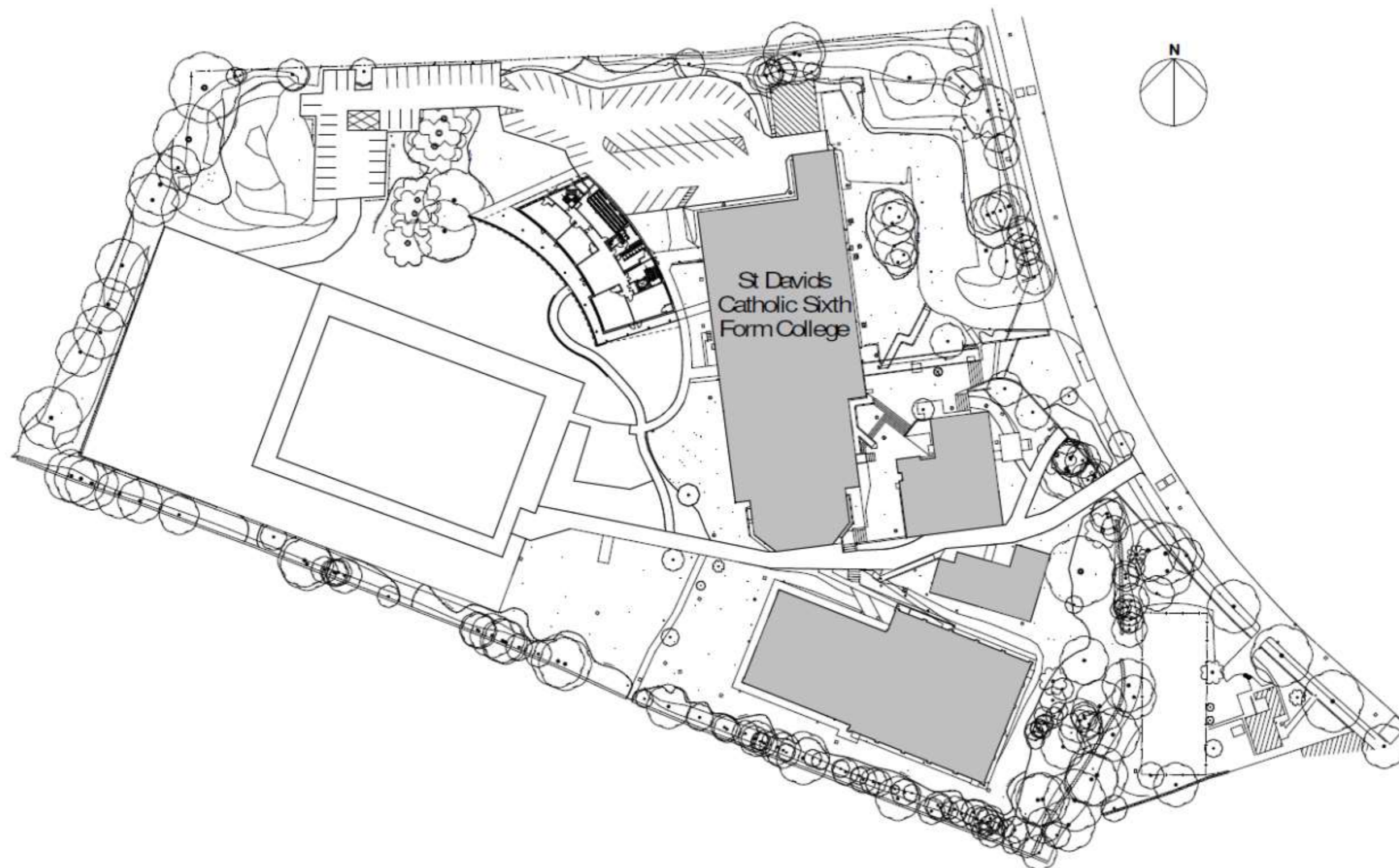
The floor level for the scheme has been developed to relate to the surrounding site levels and drainage strategy, whilst maximising the reuse of on-site materials wherever possible so that a minimal amount of material, if any is taken off site.

8.4 BUILDING DESIGN

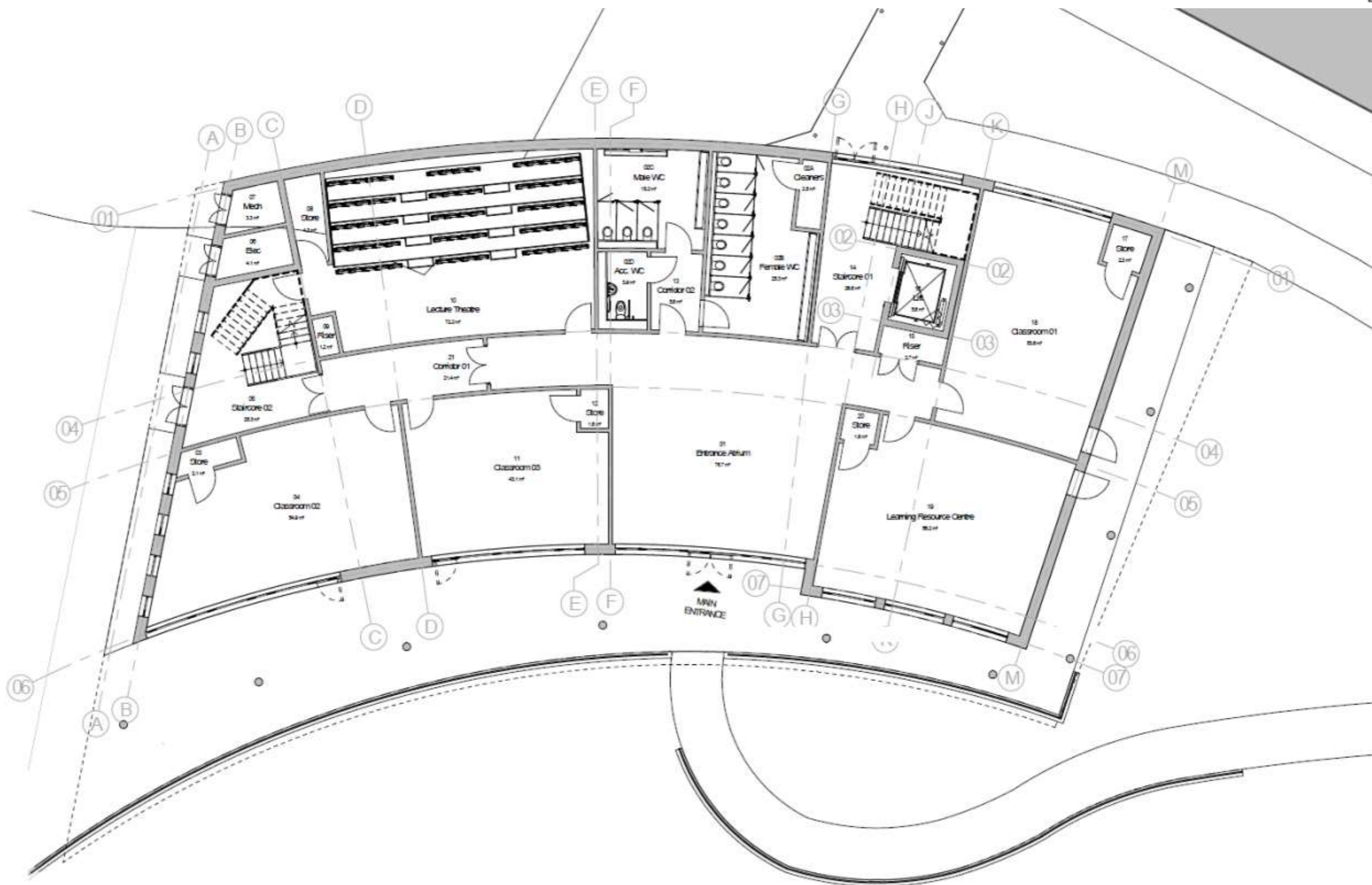
There are clear requirements for internal height and volumes for education building to provide spacious and airy environment with sufficient height to allow for the installation of terraced seating lecture theatre. There will also be allowance for flexibility to potentially future proof should the building become vacant in the future. It is these characteristics that have principally determined the form and design which has resulted in a building that is simple curved geometry, well-proportioned and of a scale that is consistent with the surrounding area. The use of a flat roof is to avoid awkward junctions to roof geometry and create a uniform and consistent eaves line to all elevations of the building.

The elevations have been designed to combine contemporary materials and features with crisp, clean modern elements and detail to add interest to the facades.

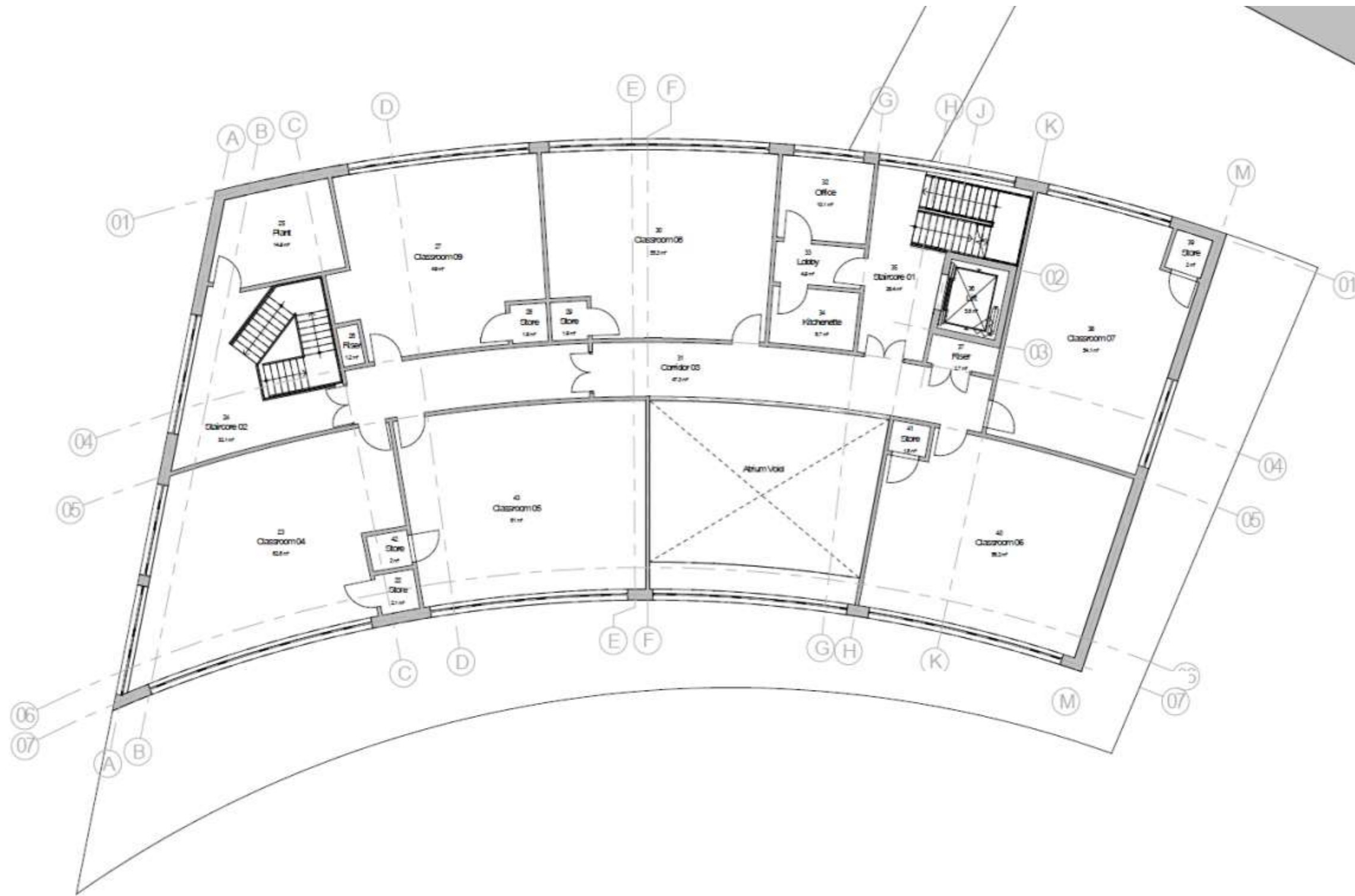




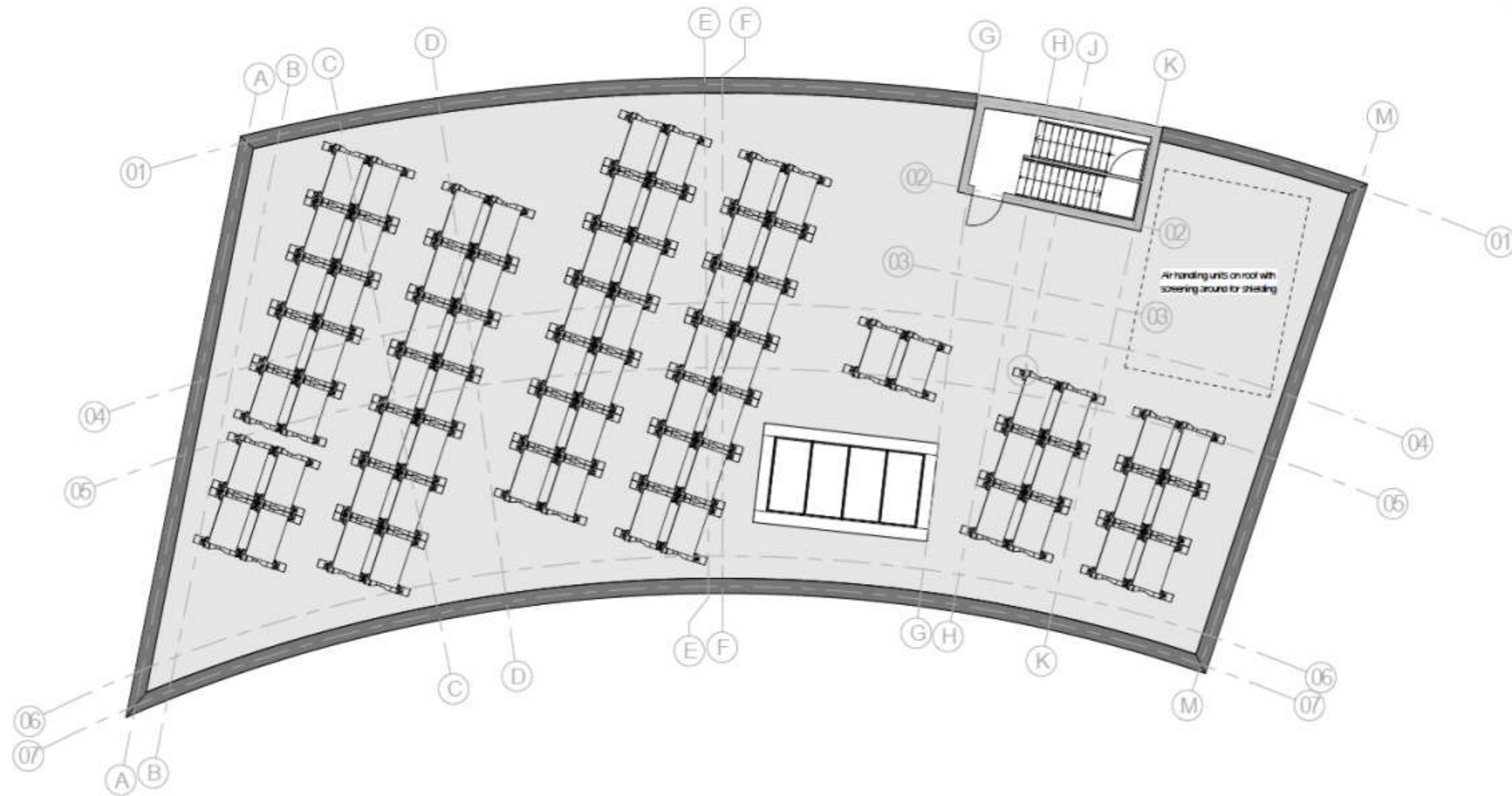
Proposed Conceptual Site Plan



Proposed Conceptual Ground Floor Plan



Proposed Conceptual First Floor Plan



Proposed Conceptual Roof Plan

Materials List	
01	Timber Effect Cladding
02	PPC Aluminium Parapet Capping
03	Aluminium Windows
04	Green Roof
05	External Buff Brick
06	Precast Concrete Columns
07	Aluminium Glazed Double Doors
08	Aluminium Glazed Single Door
09	Steel External Door
10	Aluminium Curtain Walling



Proposed Conceptual West Elevation



Proposed Conceptual East Elevation

Materials List	
01	Timber Effect Cladding
02	PPC Aluminium Parapet Capping
03	Aluminium Windows
04	Green Roof
05	External Buff Brick
06	Precast Concrete Columns
07	Aluminium Glazed Double Doors
08	Aluminium Glazed Single Door
09	Steel External Door
10	Aluminium Curtain Walling

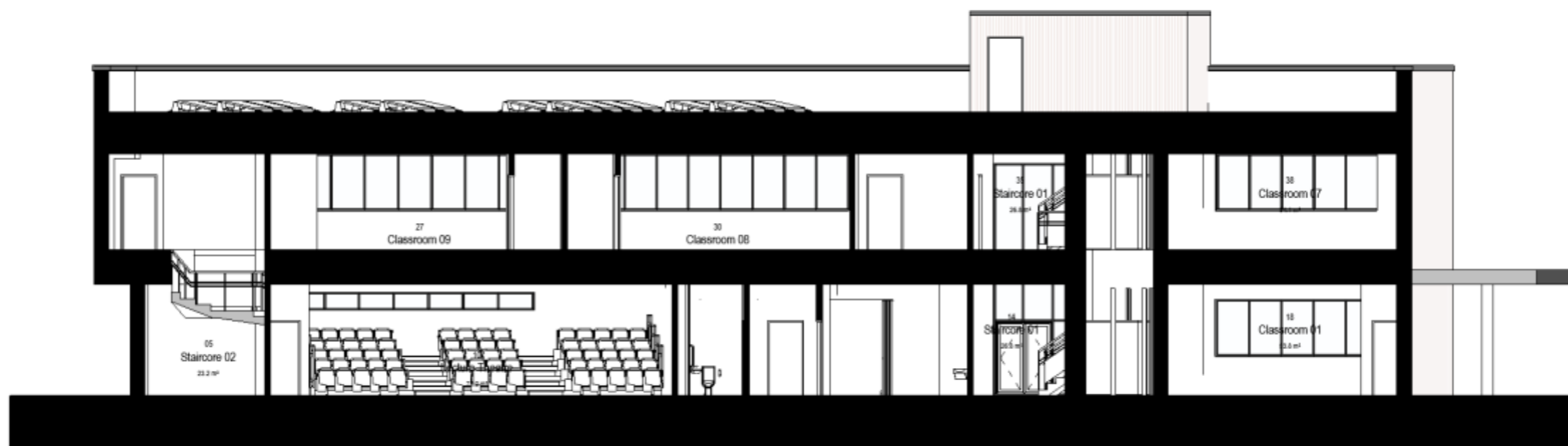


Proposed Conceptual South Elevation



Proposed Conceptual North Elevation





Proposed Conceptual Section 01



Proposed Conceptual Section 02



Proposed Conceptual Perspective From N/W



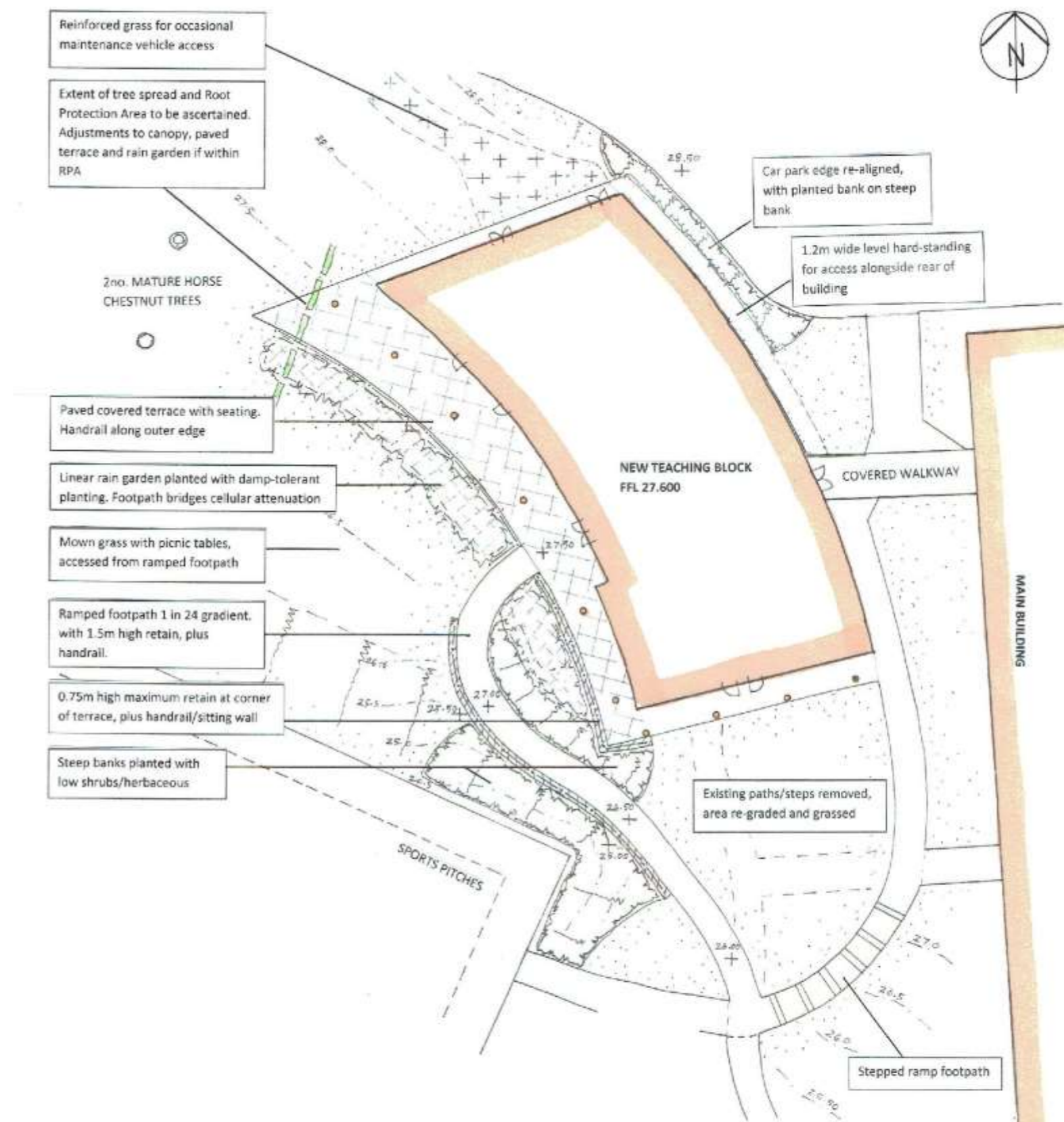
Proposed Conceptual Perspective From S/W



8.5 LANDSCAPE STRATEGY

The layout and design of the spaces around the building take account of:

- Existing features and qualities to conserve and enhance: -
 - Mature trees and the biodiversity and other amenity value that they provide
 - Pleasant views southwards over Cardiff;
 - Space to sit/relax outdoors.
- The need to provide new DDA compliant access to the building frontage;
- Incorporating linear rain garden areas to accommodate Suds and create attractive plant beds;
- Planted embankments to take up changes in level to rear and front.



8.6 DRAINAGE STRATEGY & GROUND CONDITIONS

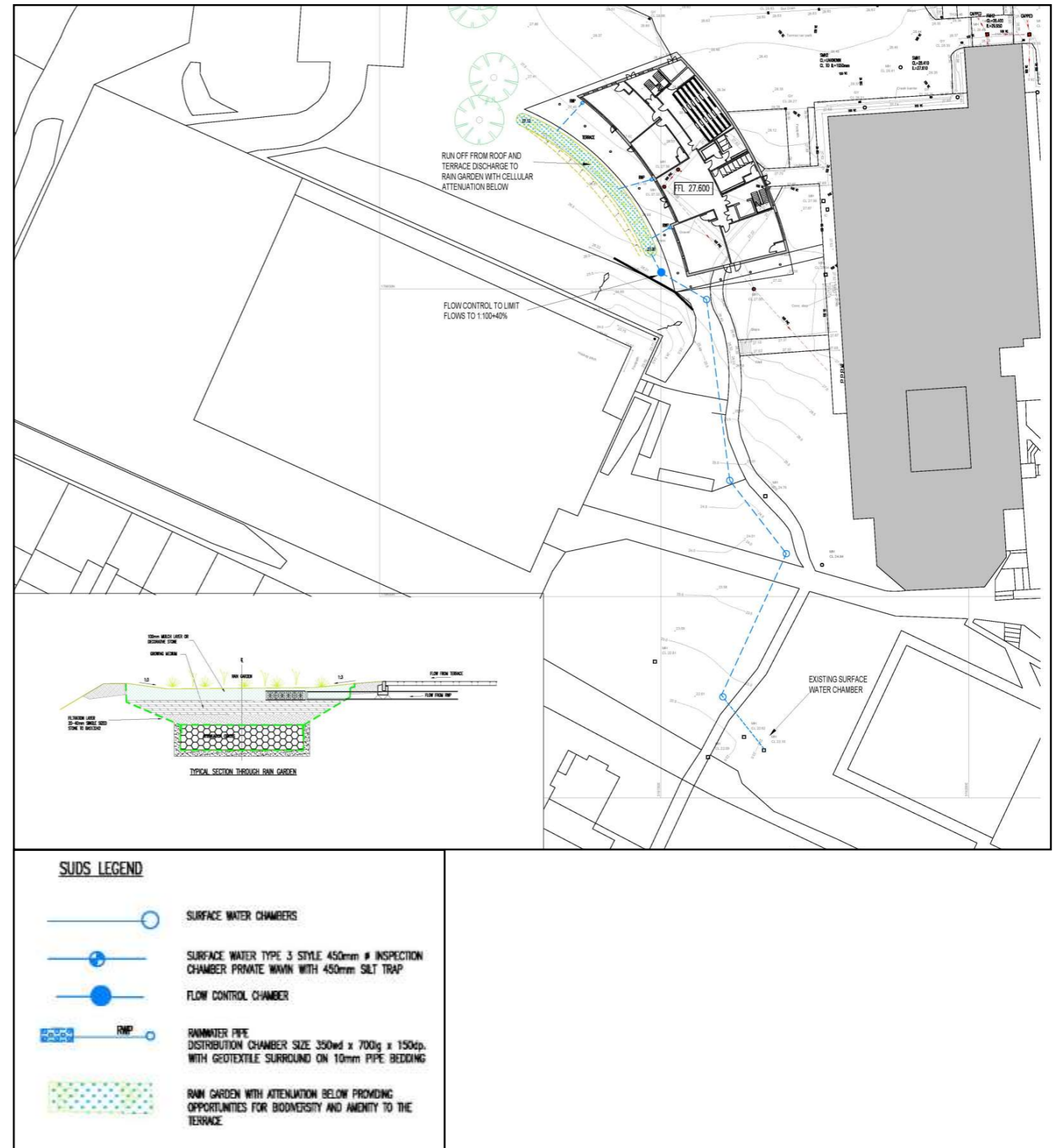
DRAINAGE STRATEGY

A site investigation has confirmed that infiltration to ground is not a viable option as the underlying strata is impermeable. Based on these findings it is proposed to provide filtration for roof water and terrace run off through a rain garden. Below the rain garden we will be installing cellular attenuation crates designed for the 1:100 year storm event plus a 40% allowance for climate change. Flow from the attenuation will pass through a flow control chamber limiting flows to a rate to be agreed with DCWW. From the flow control chamber a network of pipes and chambers will convey the run off to the existing surface water chamber at the southern boundary of the site before existing to the public network.

GROUND CONDITIONS

The existing underlying ground conditions at the proposed development site has been investigated by Integral Geotechnique (Report Ref;12840/RAH/21/SI/Rev A) which has confirmed the following;

1. The Historical usage of the site has been investigated which confirms that prior to the Campus development, the site remained was un-developed.
2. Laboratory testing of retrieved soil samples has confirmed the benign former use of the site which may be considered as un-contaminated.
3. The underlying ground conditions comprise a variable sandy, silty, Clay/ clayey fine silty Sand. Accordingly, shallow foundations are appropriate which will comprise reinforced concrete strip foundations locally deepened where influenced by the mature trees.
4. Insitu permeability testing has proven that the underlying cohesive stratum is impermeable such that ground soakaways are NOT viable at this site. This will inform the proposed drainage strategy which will comprise a buried attenuation system.



8.7 INCLUSIVE LEVEL ACCESS

The conceptual scheme has been designed with a policy of non-discrimination in mind. Access facilities will be provided in accordance with Part M of the Building Regulations, BS4748 and the requirements of the Disabled Discrimination Act.

The design of the entrance will provide level access and will be clearly defined with contrasting colours to assist people with sight impairment.

8.8 TRAVELLING TO WORK / PARKING

- No new Car Parking will be provided.
- Footpaths are provided throughout the site for pedestrian access.
- The site has excellent connections to local bus routes.

8.9 EMERGENCY ACCESS

Adequate emergency access will be provided to the proposed building in accordance with Part B of the Building Regulations and the advice of the Local Fire and Rescue Services.

9.0 SERVICING

All servicing facilities will remain as existing.

9.1 EXTERNAL LIGHTING & SECURITY

Exterior lighting will be designed taking into account the following standards:

- BS 5489-1:2013 Code of Practice for the Design of Road Lighting
- BS EN 12464-2:2014 Light and Lighting- Lighting of work places
- GN01:2011 Institution of Lighting Professionals (ILP) Guidance Note for the Reduction of Obtrusive Light.
- Lighting and the Environment – A Guide to Good Urban Lighting, Chartered Institution of Building Service Engineers (CIBSE).

The new lighting will be a combination of building mounted lighting units. The lighting design will utilise good quality, attractive fittings with no spillage above the horizontal to avoid light pollution.

The mounting height of lighting units will be no greater than 8 to 10 metres. All light will be directed downwards, therefore, there will be very little light pollution towards hard surfaced areas.

10.0 ENERGY EFFICIENCY & SUSTAINABILITY

10.1 GENERAL

The development will look at identifying opportunities to deliver on site renewable energy sources and exceed the requirements of Part L of the Building Regulations, where the market is receptive and the proposals are economically viable, especially for buildings of this size.

10.2 BREEAM

The Building will target a BREEAM rating of 'Very Good'.

10.3 ENERGY

The energy requirements of the development will be addressed on the basis that the heating and ventilation system within the units will make maximum use of heating and cooling processes that occur naturally in order to minimise energy consumption.

The glazing has been maximised to contribute to natural lighting whilst offsetting the impact of solar gain.

The building will incorporate a Building Energy Management System (BEMS) to control the heating, lighting, ventilation and hot water supply in accordance with CIBSE guidelines to control the use of and minimise energy consumption.

Prior to their implementation, the energy efficiency and sustainability measures will be assessed for suitability, technical review, installation costs, running costs, payback periods and plant space availability.

10.4 MATERIALS

Maximising the use of reclaimed and recycled materials will be considered where practicable throughout the construction process. This will be reviewed during the early detailed design stages of the project.

Material samples, appropriate to the buildings location and design will be submitted to the Local Authority for approval at the relevant time. The materials will be selected for their aesthetic qualities, robustness, recyclability, cost and availability from local and sustainable sources.

Only materials that maintain a good internal air quality will be considered, and preference given to those that have a low environmental impact.

10.5 ENVIRONMENTAL CONSIDERATIONS

Given the nature of the site and its former use, the impact of the development upon human health and water quality has been considered and a surface water strategy will be provided as part of the full application submission.

Light pollution of the surrounding environment will be minimised. Light intrusion on the neighbouring will be limited. All external light fittings around the building will have non-translucent covers.

10.6 ACCESSIBILITY

The impact of the development upon all the traffic forms has been considered and a Transport Statement will be provided as part of the Full application submission.

The new development will be fully DDA compliant with all areas being fully accessible. All entrances and exits will be designed with level thresholds and appropriate vertical access to all levels will be provided. Accessible parking areas will be located adjacent to the main entrance area.

10.7 WASTE & RECYCLING

Provision of recycling and waste storage will be considered at the early design stages of the project. It is envisaged that storage for waste will be provided inside the unit as the unit is being developed on a speculative basis. In addition, recycling and waste will be considered during the construction phase of the project.

Waste Management Plan will be provided by an appointed contractor which will outline the provision of waste and recycling containers on site.

10.8 WATER

The water requirements of the development will be assessed on the basis that a drainage scheme will be provided that is in full compliance of the requirement of CIRIA guidance on SUDS.

11.0 TRANSPORT STATEMENT

- The site location will encourage and promote sustainable travel behaviour and discourage car use and is therefore fully in accordance with transport policies in Future Wales, TAN18, PPW11 and the Cardiff Council LDP.
- Data does not indicate a road safety issue which would be exacerbated by the proposals. The development would not have a material impact on road safety and the access arrangements and pedestrian routes will remain as currently.
- The proposed parking provision is appropriate and acceptable across the site and is in accordance with the Cardiff Parking Standards as well as the objectives for encouraging sustainable travel and reducing car use as set out in PPW11 and Future Wales.
- The proposals will not have a material impact on the operation of the highway network or on overspill parking and no highway mitigation is required.
- The analysis presented within this Transport Statement allows the highway authority to provide a positive recommendation on the planning application.

For more information please refer to separate Transport Statement prepared by Apex for detail.

12.0 ECOLOGY

12.1 BAT SURVEY

Please refer to bat survey report provided separately.

12.2 TREE SURVEY

Please refer to tree survey report provided separately.

13.0 CONCLUSION

The design proposal set out in this Design & Access Statement document has been developed having analysed the existing site and its immediate surrounding context, to create an appropriate site layout and size/geometry of the buildings with associated features, which will allow to optimise views and topography of the site.

The layout and form of the building have been carefully explored, alongside the relationship with the site and its surroundings, together with the external materials and landscaping strategy.

The proposed development will enhance the College's academic development and improve the setting of the surrounding buildings.

It is considered that this proposal provides a form of development and quality of design appropriate to the location and the proposed building use.