

# Constructing Excellence in Wales

## Coleg Cymunedol y Dderwen

### Gateway to the Valleys (G2V)

Ed Evans  
Director, Exemplar and Demonstration Programme

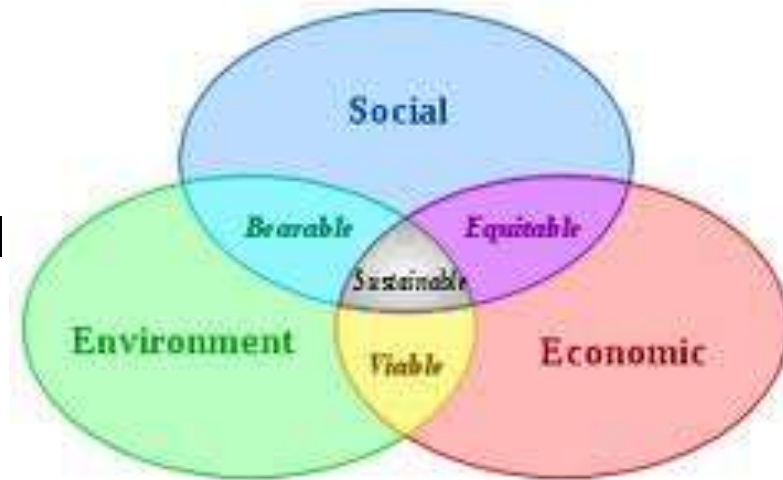
ADEILADU  
ARBENIGRWYDD  
YNG NGHYMRU



CONSTRUCTING  
EXCELLENCE  
IN WALES

# Exemplar Programme

- Launched in March 2011
- “Worthy of being copied”
- Innovative but “well rounded” (and evidenced)
- Key actions at key stages = successful outcomes
- “Telling the story”
- Based on the sustainability model



# Exemplar Programme

Case studies at 3 key stages :

- Post-design – intent
- Post-construction – delivery
- Post-occupation – outcomes

Panel review

Evidence based ie. KPI's



# Project Locator

<http://goo.gl/maps/3snqG>

**CEW Best Practice Programmes - Project Locator**

Exemplar Projects - Green  
Demonstration Projects - Purple  
Case Studies - Blue


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- Gateway to the Valleys School (G2V)**  
Exemplar Project Best Practice Themes Construction Site Impacts

**Gateway to the Valleys School (G2V)**  
Last Updated by Danielle on Feb 5  
**Exemplar Project**  
**Best Practice Themes**

- Construction Site Impacts
- Material Specification
- Building Energy in Use
- Community Engagement

[Download Design Case Study](#)

  
**Coleg Cymunedol Y Dderwen**  
Heol-yr-Ysgol, Tondy, Bridgend, CF32 9EL

**Bridgend County Borough Council**  
Angel Street, Bridgend, CF31 4WB

[Directions](#) [Search nearby](#) [Save to map](#) [more](#)

# Case Studies



# Contact us

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## **Constructing Excellence in Wales**

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# Gateway to the Valleys

A Bridgend County Borough  
Council project

Supported by Welsh Government

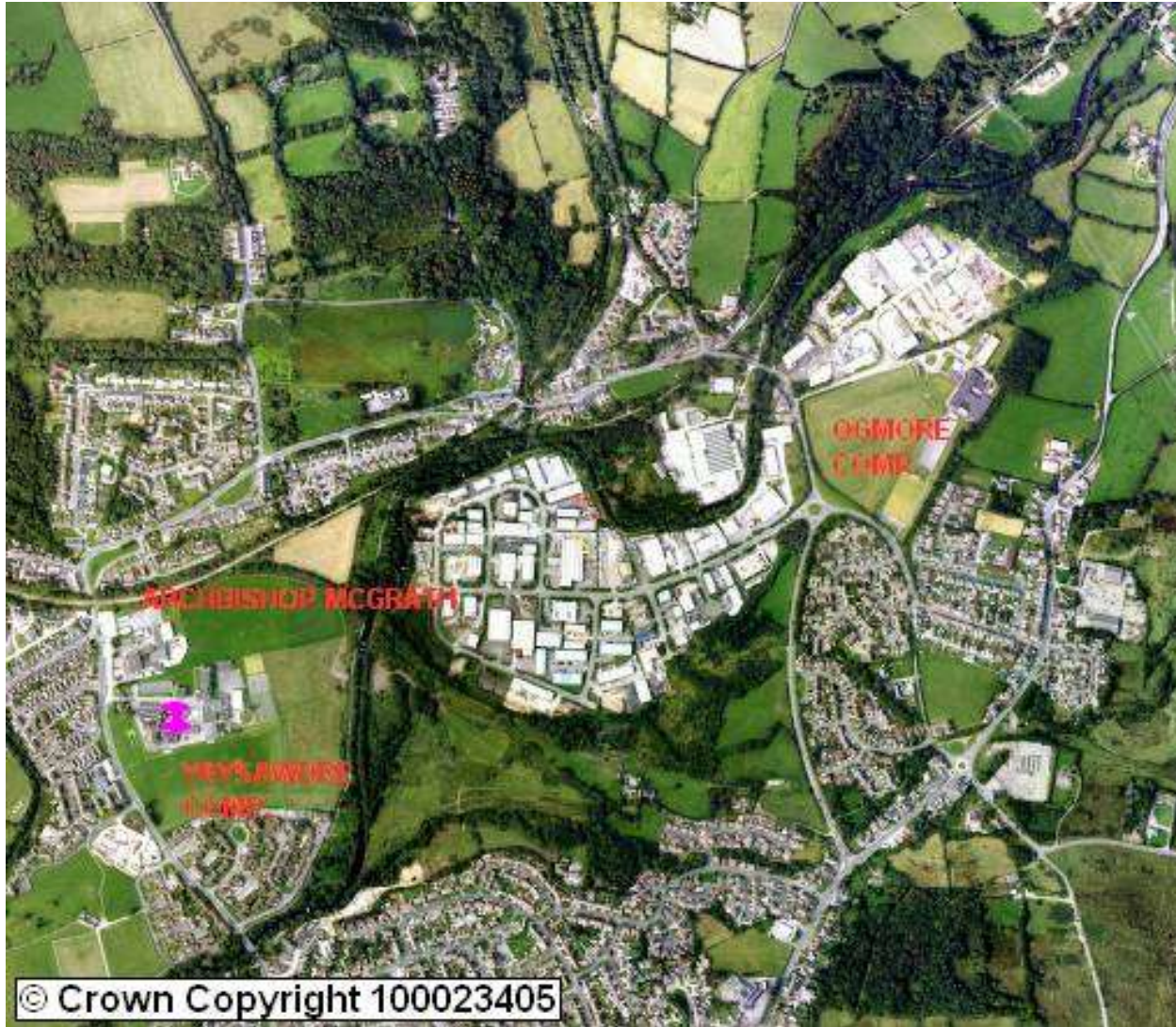


# Gateway to the Valleys

- Context
- Vision – school and community
- Project
- Consultation
- Building
- BREEAM
- Contractor involvement
- Community benefits
- School involvement



# Context



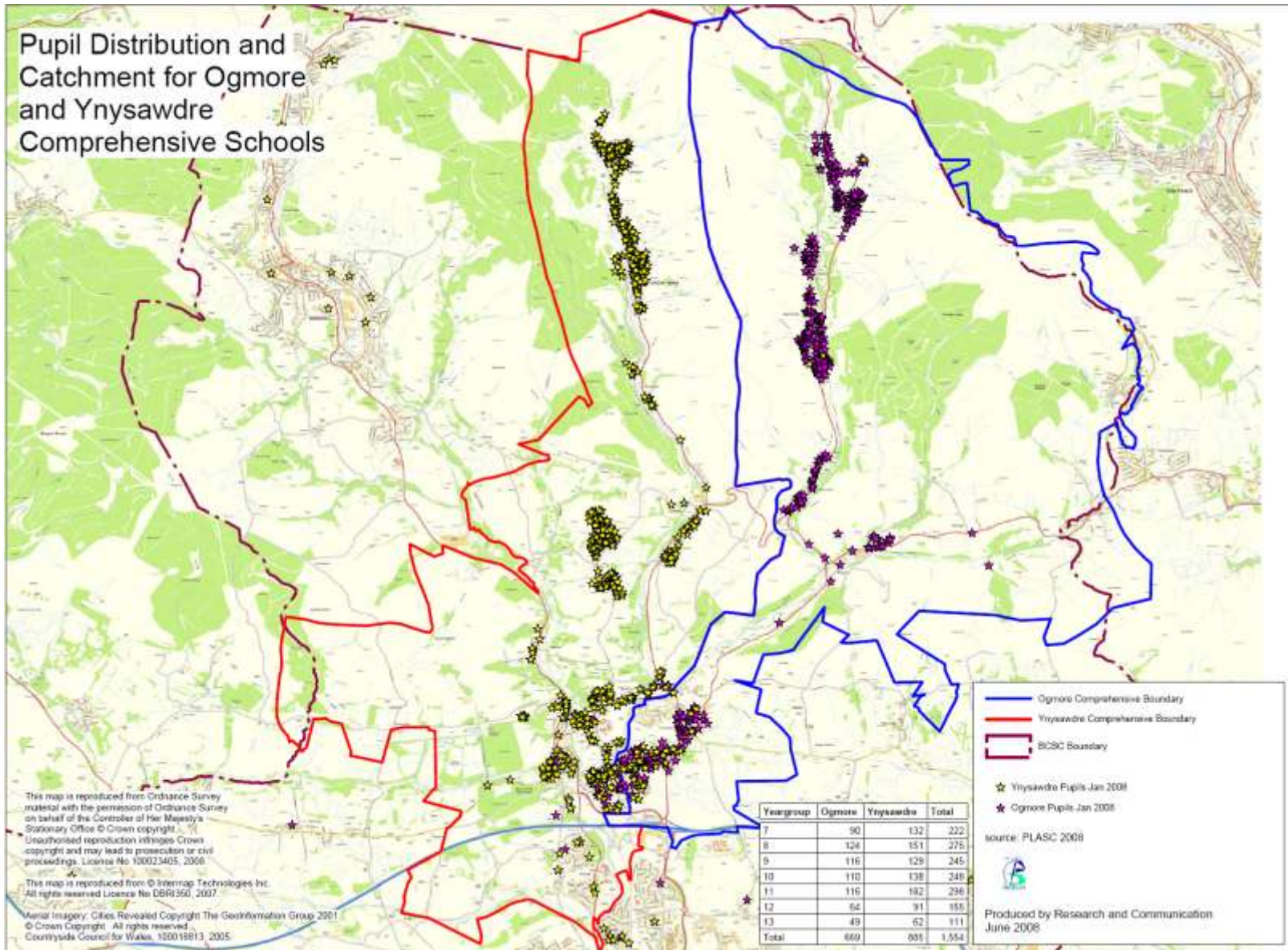
- Two large sites, three schools.
- A key area in the regeneration of Bridgend.
- A significant opportunity to bring about change for the better – in facilities, services and the lives of the community.



# Vision

- Develop a modern facility for Coleg Cymunedol Y Dderwen, which will be a landmark feature and a visible endorsement of the value placed upon the community of the area it serves.
- Have a vibrant and successful 11-18 school serving the Garw and Ogmere valleys and the Valleys Gateway area.
- Develop a multi-agency hub on the campus which lays the foundation for meeting a range of needs of the children and young people, their families and the wider community and, in so doing, raises aspirations.
- Establish a successful partnership between public, voluntary and private sector groups to serve the best interests of the local communities in this area of Bridgend County.
- Achieve a facility which is environmentally and economically sustainable.

# School catchment





## Vision - school

- Places for c1570 students (including ALN) with room to expand further if necessary.
- “schools within a school”.
- ICT rich learning.
- Strong focus on teaching, learning and high achievement.
- A broad and innovative curriculum.
- An aspirational environment.
- School provision part of an integrated service to students and families.



## Vision – community

- An inviting public realm, iconic building and dedicated community area.
- A natural community hub.
- Multi-agency team(s).
- Dual and multi-use areas.
- Inter-generational activity.
- A role for the voluntary and private sectors.
- Blurring of traditional school/community boundaries.



# Project

- Programme/project management
- Initial options appraisal 2007
- Feasibility study 2008
- Statutory process – public notice May 2009
- Ministerial approval November 2009
- Design team appointed December 2009
- RIBA Stage C - 3 options prepared for funding bid May 2010
- Leadbitter appointed May 2011
- Grant funding approved October 2011
- Start on site October 2011



# Project

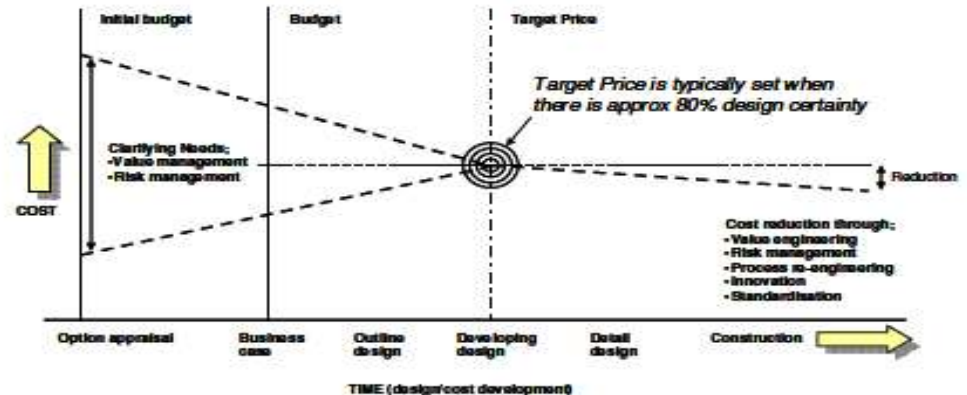
## Benefits

- Reduced risk through pre planning.
- Better buildability.
- Improved design quality.
- Two-way flow of information.
- Ability to start on site early.
- Shared goals of the project.
- Assess actual cost as project progresses.
- Early agreement on outturn costs.
- Ability to change.
- Shared risk.

## Early Contractor Involvement / Procurement

- Standstill period while the funding was secured.
- Tender process was delayed awaiting establishment of the SEWSCAP framework.
- Competitive mini tender based on NEC 3 Option C two stage, Target Cost with shared savings.
- 80% cost certainty.
- Open Book process.
- Authority fully supportive of the process.
- Collaborative working.

Fig 1: When to set the Target Price



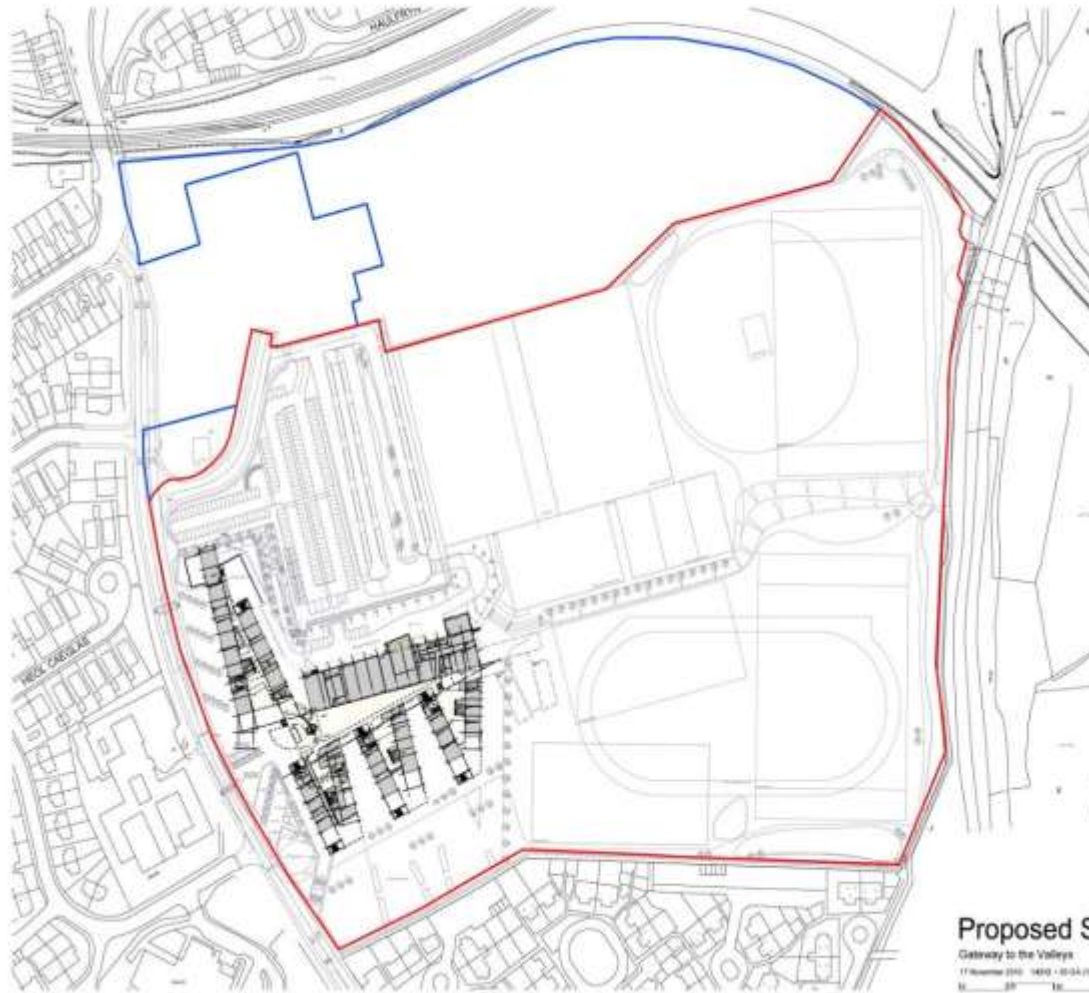


# Consultation

- Commenced at feasibility stage
- Wide range of stakeholders
- Variety of school and wider community engagement
- Communication plan
- Support of entire project team



# Building



SCOTT  
BROWNRIGG

Proposed Site Plan

Gateway to the Valleys

17 November 2010 14:02 - 03:04 (03:00:00)

1:1000

SCALE 1:1000

Scott Brownrigg



LB

# Ground Floor Plan

SCOTT  
BROWN RIGG

14312  
100

Brighstow County Borough Council

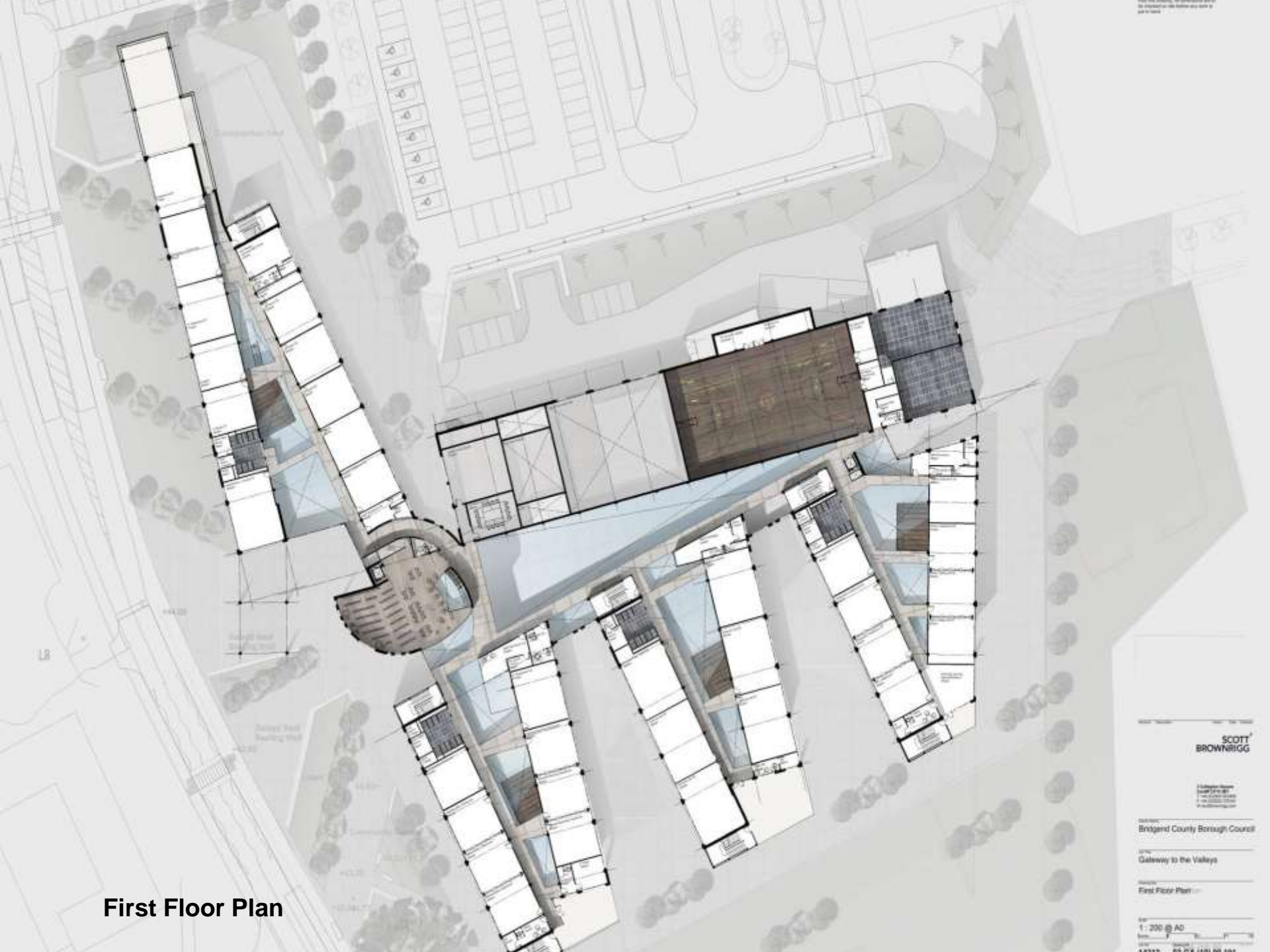
Gateway to the Valleys

Ground Floor Plan

1 : 200 @ A0

14312 93 GA (10) 00

100



**First Floor Plan**

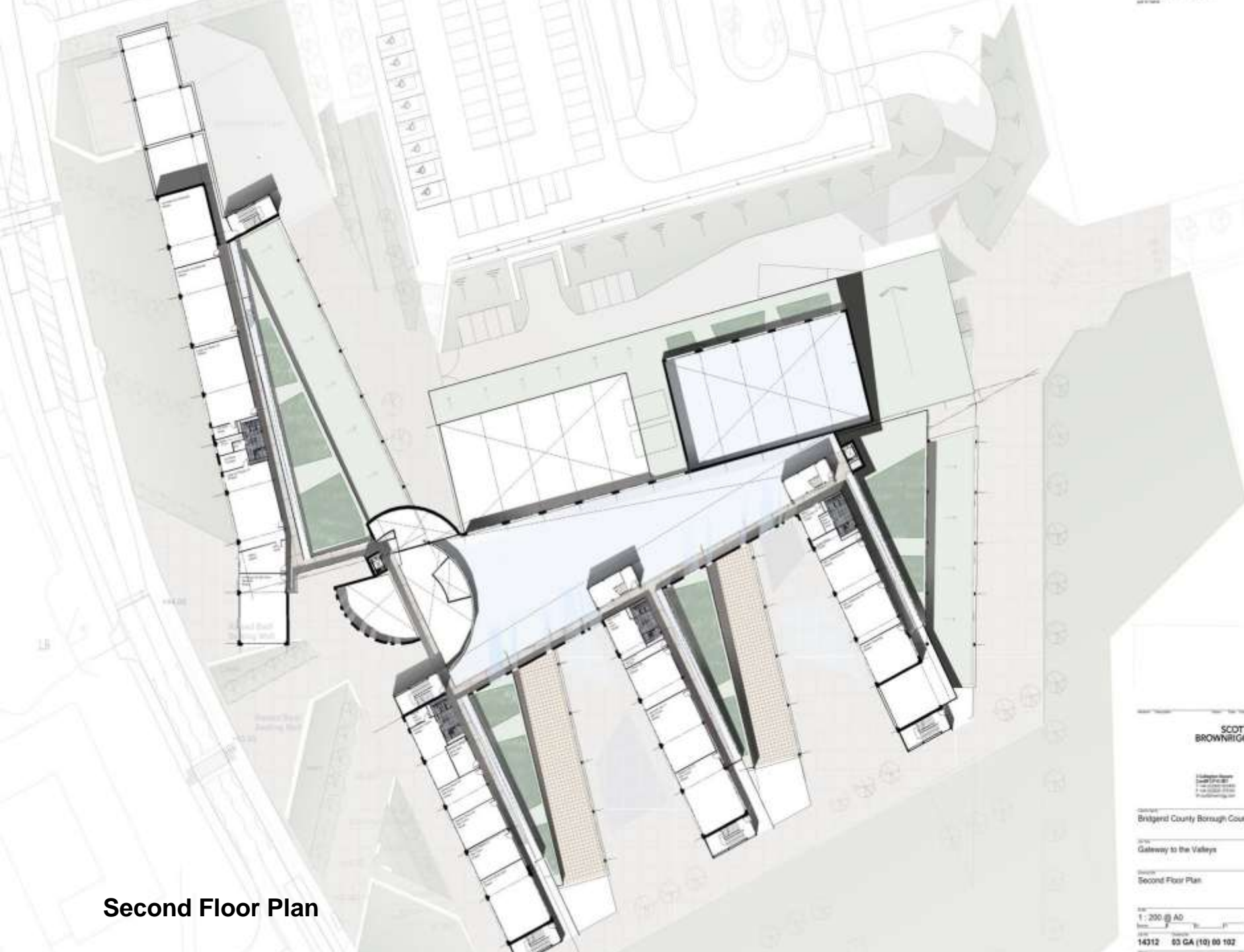
SCOTT  
BROWN RIGG

BRIDGEND COUNTY BOROUGH COUNCIL

Gateway to the Valleys

First Floor Plan

1:200 @ A0



# Second Floor Plan

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BROWNRIGG

1: 200 @ A0

14312 53 GA (10) 00 102



**Roof Plan**

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BROWN RIGG

BRIDGEND COUNTY BOROUGH COUNCIL

Gateway to the Valleys

Roof Plan

1 : 200 @ A0

14312 03 GA (10) 00 103

# School at Tondu



01 Elevation  
North (12) & 01



02 Section AA  
North (12) & 01



03 Elevation  
North (12) & 01

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Figured dimensions only are to be taken from this drawing. All dimensions are to be checked on site before any work is put in hand.



A Planning DW 18/01/10 JJ  
Status: Approved Date: 18/01/10

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Client Name:  
Bridgend County Borough Council

Site Title:  
Gateway to the Valleys

Drawing Title:  
Section AA

Scale:  
1 : 200 @ A1, 1 : 400 @ A3

Job No:  
14312 03 TP (12) 00 101 A

Discipline:  
PLANNING

# School at Tondu



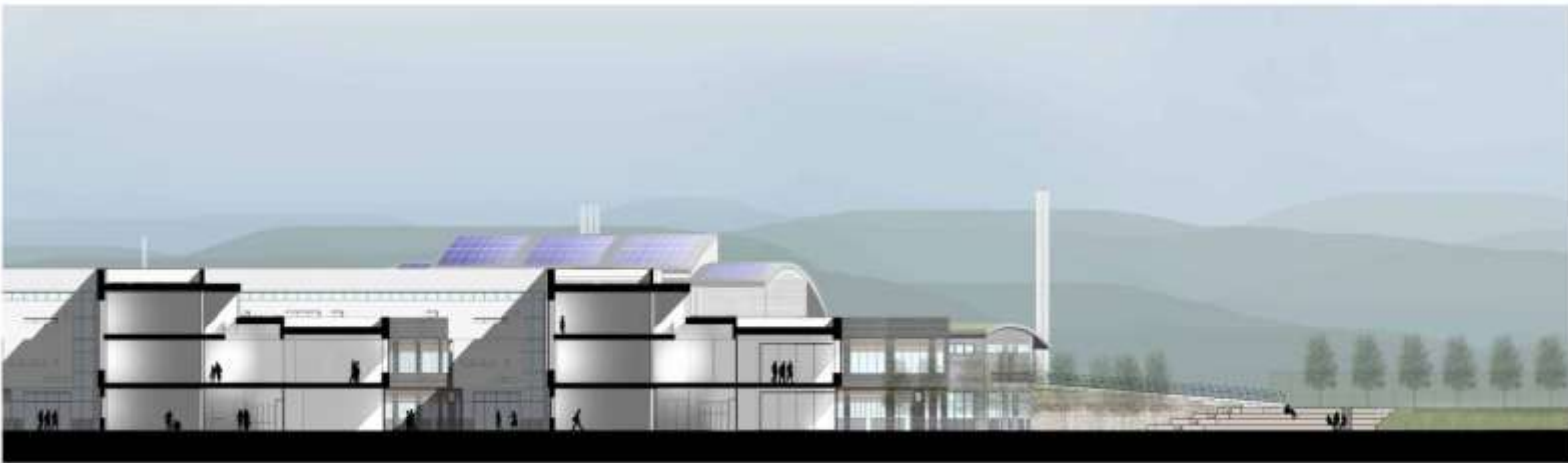
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A1  
 Scale 1:200 @ 01



BB  
 Scale 1:200 @ 01



BB  
 Scale 1:200 @ 01

A Planning 03 TP (12) 00 102

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Client Name  
 Bridgend County Borough Council

Site Name  
 Gateway to the Valleys

Section Name  
 Section BB

Scale  
 1 : 200 @ A1, 1 : 400 @ A3

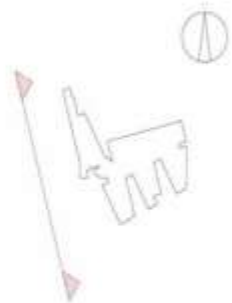
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 14312 Drawing No  
 03 TP (12) 00 102 A

Discipline  
 PLANNING

# School at Tondu



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West Elevation  
 Scale 1:200 @ A1



West Elevation  
 Scale 1:200 @ A1



West Elevation  
 Scale 1:200 @ A1

B	For comment	MR_18Nov15_A1
A	For comment	MR_28Oct15_A1

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Client Name  
 Bridgend County Borough Council

Site Name  
 Gateway to the Valleys

Elevation Name  
 West Elevation

Scale  
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Job No. Drawing No. Revision  
 14312 03 TP (11) 00 101 B

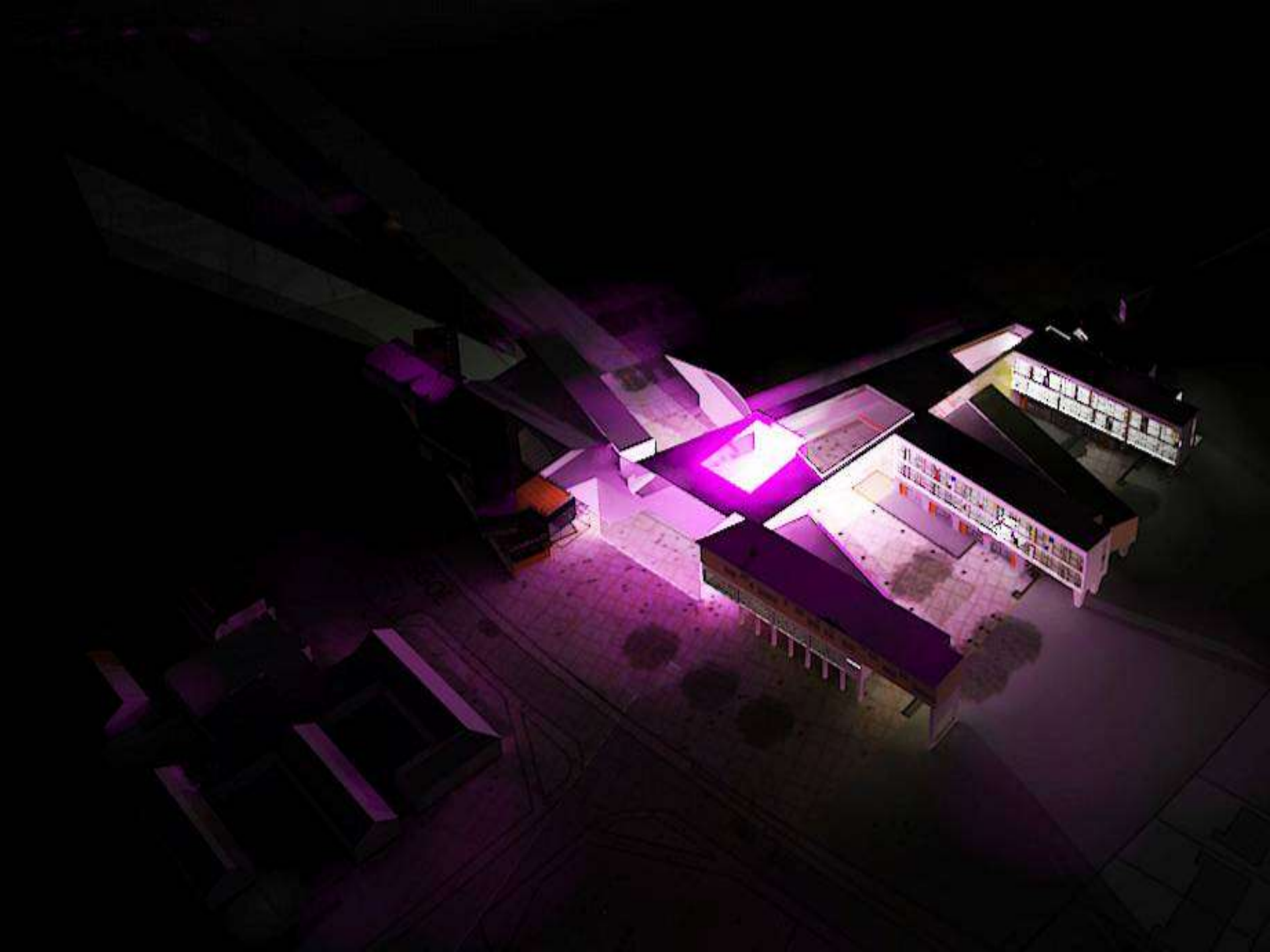
Notes  
 Planning



# School at Tondur – Flythru'



101122 G2V for fly through hi res.avi





# Sustainability - BREEAM

- Designed to have very low energy demand (EPC CO2 index of 8) and incorporates solar hot water and PV technologies to further reduce CO2 emissions by 39%
- Target airtightness set at 5 m<sup>3</sup>/m<sup>2</sup>.h, but design team hopeful of achieving 3-3.5 m<sup>3</sup>/m<sup>2</sup>.h. - specialist airtightness consultant employed to identify points to focus on in the design in order to minimise potential air permeability
- Heating via a biomass boiler that is sized to deliver 78% of the annual heating load - secondary gas boiler will deliver remaining peak load and will serve as a backup
- Low impact materials specified extensively across the scheme and consideration given to product lifecycle and maintenance impacts
- Over 15% recycled content, as measured by the WRAP toolkit, is forecast to be achieved on the scheme, while over 90% of the total aggregate used will be from secondary/recycled sources
- Life Cycle Assessments (LCA) carried out on both a steel frame and a concrete frame construction option, with the steel frame solution demonstrated as being more preferable

# Sustainability - BREEAM



- Early consideration of BREEAM issues resulted in achievement of a BREEAM Education 2008 Outstanding rating with a pre-construction score of 89.82%
- Project team proactive in approach to achieving BREEAM credits - early scoping study ensured that the client was able to record all “credited” activities during the options appraisal and feasibility stages
- Innovation – building connected to CHP unit which was installed as part of this scheme in the adjacent swimming pool and shall provide electricity to the main school
- High scores in 4 out of the 9 BREEAM categories:
  - Management – 100%
  - Waste – 100%
  - Energy – 92%
  - Water – 87.5%





# Contractor Involvement

- Vast knowledge base gained from similar projects.
- Lessons learnt carried forward
- Tried and tested supply chain.
- Proven track record.
- Continual improvement.
- Developed relationships with Designers.



## Community Benefits

### Aspirations

- First major project to apply community benefits in BCBC.
- Lasting benefit for the local community.
- Aims:
  - jobs – opportunities for locally unemployed. 1 person employed per £1m capital spend (£34m);
  - skills – locally skilled and locally trained people;
  - local supplier engagement – where possible, 25% subcontractors from Bridgend plus a further 50% from wider CF area.
  - involvement in community led projects – jobs, skills and support.
- Governance set up and partnership arrangements with Leadbitter.

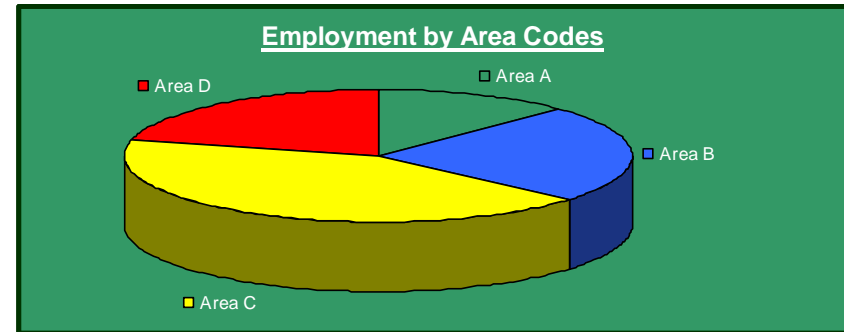


# Delivery

## Jobs and Skills

Local is defined as **Bridgend postcodes (Area A) plus a 22 mile radius from CF32 9EL (Area B)**

- **443 local people** have worked on this project;
- **153** of these live in **Bridgend**;
- **75** of these people were **previously unemployed**;
- **27** of these live in **Bridgend**.



# Delivery



## Jobs and Skills

**53 Bridgend based** people have been trained on this project which include:

- **17 Apprentices**
- **16 Trainees**
- **20 Work Experience/  
Placements**







# Delivery

## Supplier Engagement

- 67 local companies attended our supply chain event
- £1.2m of work has been given to these companies
- Over £6m (21%) has been spent with companies based in Bridgend
- A further £9m (53%) has been spent in our Area B (22 mile radius)





# Delivery

## Community Involvement

17 schools and colleges & 12 local community organisations engaged – 4949 pupils engaged with!





# School Involvement