Gweithdy Building Information

Project Name	
A basic description of the project and building	Gweithdy (the Welsh word for workshop), will be an iconic, multi-purpose sustainable building. This new gallery/activity space will celebrate the skills of makers past and present, and encourage visitors of all ages to experience traditional skills first-hand. Activities will bring people together, allowing them to draw inspiration from the products of past craftspeople and use the flexible space to make artefacts that reflect their own lives and experience. Gweithdy's learning facilities will include a wet activity space to share expertise with visitors through, for example, craft courses, science workshops and archaeological experiments. The structure will also have a canopied outdoor activity space with a built-in forge for metalwork demonstrations and other heavy crafts activities. Adjacent to the building, an open-air events space will be constructed for outdoor performance and festivals. The Gweithdy will also house a café also with an external seating area. The development of a sustainability travel plan seeks to achieve a modal shift in how visitors and staff come to the museum. Initiatives include: • Improvements to cycling routes and facilities in conjunction with Cardiff Council. • Improved public bus services through Cardiff Council. • Improved bus timetabling information.

	• Inclusion of museum on City Sightseeing bus tour route from the city centre.(summer only).
BREEAM Target Rating and Score	BREEAM Excellent targeted
The key innovative and low-impact design features	The key innovative and low-impact design features of Gweithdy include: • The building will achieve an 'Excellent' BREEAM rating • The building will contain minimum 10% recycled material content. • The building will use as many materials as possible to be sourced locally. • An 'A' rated Energy Performance Certificate • An emphasis on 'Passive' as opposed to 'active' systems of sustainability – in other words the building envelope is designed to be as efficient as possible before 'bolt on' active systems are relied upon. The thermal performance of the building envelope, and the levels or air tightness between components, far exceed the minimum standards dictated by statute. Solar gains have been reduced to a minimum to avoid overheating, balanced with high levels of natural daylight to avoid artificial lighting • Once the envelope was designed to be as efficient as possible, 'active' systems were then brought in to complete the picture, so an air source heat pump provides heat to under floor heating systems. • The natural hygroscopic properties of timber are being utilised in the main gallery space to stabilise humidity levels, as opposed to relying upon energy-hungry mechanical systems. • A rainwater harvesting system will

	store water gathered from the roof and use it to flush WCs and provide external irrigation. • Environmental conditions for the objects on display in the gallery is being achieved without full air conditioning systems. This is achieved through high levels of air tightness, humidity control, air tight display cases and use of hygroscopic materials in construction.
Basic Building Cost - £/m^2	£2,265/m2
Services Costs - £/m^2	£902/m2
External Works - £/m^2	£514/m2
Gross floor area - m^2	1149.50 (m^2)
Total area of site - hectares	100
Function areas and their size (m^2)	Exhibition Activity Spaces 602.9 (m^2) Café 106.2 (m^2) Welfare Facilities 84.6 (m^2) Plant 57.7 (m^2)
Area of circulation (m^2)	130.70 (m^2)
Area of storage (m^2)	103.7 (m^2)
% area of grounds to be used by community (where relevant)	100%
% area of buildings to be used by community (where relevant)	69%
Predicted electricity consumption - kWh/m^2	72.5
Predicted fossil fuel consumption - kWh/m^2	32.8
Predicted renewable energy generation - kWh/m^2	None. The Existing Admin building (not part of redevelopment) has PV arrays
Predicted water use - m^3/person/year	0.006
% predicted water use to be provided by rainwater or greywater	10%
The steps taken during the construction process to reduce environmental impacts, i.e. innovative construction management	Good U-values and insulation, natural ventilation where appropriate, exposed thermal mass and air permeability well beyond that required by Building Regulations .A rainwater harvesting

techniques	system for WC flushing will reduce water consumption .A transparent length of internal pipe will show water being harvested off the roof to promote and educate sustainability initiatives. The monitoring of energy consumption in the building will also help the museum to record usage and hence reduce specific energy usages.
A list of any social or economically sustainable measures achieved/piloted.	Making History at St Fagans is an ambitious and exciting project that will open up the history of Wales like never before. This will also deliver considerable social and educational benefits and will help to secure the position of St Fagans National History Museum as a world class cultural and heritage facility. The museum already plays an important role in Cardiff's cultural and tourism economy but the Making History at St Fagans project is expected to deliver a radical step change in this contribution. In summary, the key economic benefits associated with the Making History at St Fagans project is: • An economic impact assessment for the project estimated that the project will generate 130 FTE jobs, directly and indirectly during the construction phase and 49 FTE jobs, directly and indirectly on a permanent basis. • It also aims to create significant volunteer and casual worker opportunities, apprenticeships and work placements through construction work and through training in craft and interpretation skills through its Activity Plan. • The museum anticipates that it will generate an additional £0.5m of income per year and create an estimated £5.5m of additional income for the Cardiff area by 2021 as a result of the project. • As well as playing a significant contribution to supporting the overall economic vitality and

'place branding' of Cardiff, through its gateway role to other heritage attractions in Wales it will extend economic benefits to the rest of Wales.

Public engagement and participation is about the way we operate as a museum as much as the experiences we provide for our visitors. We want to create a museum which is driven by the needs of the communities we serve. As a means of reducing inequalities in participation AC has developed an Activity Plan, with over 200 organisations in Wales, for implementation during the construction process pre, during and post construction stages of the project. It outlines in detail how the museum will create visitor access to the museum, its collection and the knowledge it holds for young people, families on low income, schools in community first areas, adults, Black Asian and Minority Ethnic groups and Welsh speakers and learners.

The successful contractor will be required to support the achievement of the above aims through the development and implementation of a Community Benefits Action Plan (CBAP).As part of the CBAP the contractor for the work commits to investing a minimum 52Person weeks/£M construction cost on training and recruitment initiatives.