



## case study

# environmental sustainability



Objective One is  
part-financed by  
the European Union



The Objective One Partnership  
for Cornwall & the Isles of Scilly

## WHEAL KITTY WORKSHOPS

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### *the project*

Carrick District Council received investment to develop Wheal Kitty Workshops Phase 2, restoring and converting the former engine house into office space, and building five new units providing flexible modern business accommodation ranging in size from 50 sq metres to 200 sq metres.

Carrick District Council received £412,932 investment from the European Regional Development Fund (ERDF) towards a total project cost of £1,032,331.

Drawing on the surrounding industrial architecture (within the Cornish Mining landscape World Heritage Site) for its inspiration, and utilising a mix of materials ranging from profiled steel to stone, timber and slate, the development aims to create an amalgam of related styles and textures which acknowledges the mining heritage of the complex whilst creating modern work spaces.

The project has received a commendation from the Cornish Buildings Group in their 2005/06 awards for 'Renovation and Reuse'.

### *measures of environmental sustainability adopted*

#### **To protect and improve the environment**

This project sought to refurbish, convert and reuse the engine house which is a Grade II listed Edwardian building iconic to the area. In this way this historic building was conserved and revitalised. It was logical to reuse previously developed land rather than a greenfield site in the sensitive landscape area surrounding St Agnes. Archaeological and ecological surveys were carried out to gain background knowledge of the site. This informed the landscaping which aims to reflect coastal habitats by using clifftop sward and maritime heathland species in the grass mix sown there. The buildings were designed with an approach very sympathetic to their previous use e.g. the timber is painted to be reminiscent of temporary mine buildings which you would have typically have found on a Cornish



mine site. Equally the roofs imitate corrugated iron visually. The car park is constructed of recycled plastic grids infilled with local aggregate giving a permeable surface and preventing surface runoff being created by the car park.

#### **To promote the prudent use of natural resources**

*Sustainable transport:* All the units have subsequently been leased to local firms; if tenants could walk or cycle to work they received an extra weighting in the tenant selection process. Therefore there is a mix of businesses with employees living within 4 miles of the site.

*Energy:* The project set out to halve the U value required by building regulations by installing a great deal of insulation. An earth energy system has been installed in the engine house which is supplemented by night storage heating. Individual electric water heaters are used in the bathrooms and kitchens.

*Local sourcing:* A local architect and construction firm won the contracts through competitive tendering, supported by a Council procurement policy which enables local purchasing. A local specialist was used for the repointing of the building. Many Cornish materials, such as stone and slate, were used in the construction.

*Water:* Greywater is collected in a tank under the permeable car parking surface and from the roofs. The water supplies the toilets.



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**Waste management:** The waste arisings have been kept onsite for reuse in landscaping in the construction phase of development.

### **To increase awareness of residents, businesses and visitors of the value and importance of the environment**

The contractors were asked if they had an environmental policy as part of the tendering process. Tenants receive a pack which informs them of all the materials used in the buildings. A DVD has been created recording the use of the engine house and outbuildings from the past and now into the future. A lot has been made of the historical significance of the buildings and site in the project media releases.

### **benefits of environmental sustainability**

There is an expectation that public monies should benefit the local economy as much as possible and this has been maximised through the use of local business and labour where it was available.

Using the local workforce has the added benefit of strengthening the skills base in the area and keeps these skills in Cornwall by providing the work for specialists. This is particularly important now that World Heritage Site status has been obtained as it would be preferable that Cornwall supply its own expert labour.

Favouring firms whose employees live within walking and cycling distance meant the council could still provide employment opportunities as part of its regeneration strategy for St Agnes without supplying a bus service to this remote area.

Installing above spec insulation levels has made the workspaces cheaper to run and reduces the carbon footprint of the site. It also helps fulfil the desire for this site to be an award winning exemplar scheme as does the use of earth energy heating and water harvesting systems. The project demonstrates that it is possible to use these methods in an office setting, thus helping to raise the bar higher for other developers in the district.

In summary the economic benefits created through the adoption of environmental sustainability measures include cost savings in the build and in the tenant's running costs, an upskilled local workforce and business for local suppliers of goods and services.

### **lessons learnt**

Roger Radcliffe, Economic Development Officer, Carrick District Council says: *"This project makes a*



*The restored engine house at Wheal Kitty Workshops, St Agnes*

*positive contribution to the World Heritage Site status by preserving an historic monument and landmark. And what's more, this building now earns its keep."*

Carleen Kelemen, Director of the Objective One Partnership, said: *"These types of units are much in demand in Cornwall and the Isles of Scilly. Objective One investment at Wheal Kitty is not only helping to preserve and enhance the region's historic landscape but also creating workspace, easing the move from the traditional mining industry to more modern businesses."*

**For more information about how you can incorporate environmental sustainability into your project please contact the Objective One Partnership Office on 01872 241379 or email [objectiveone@cornwall.gov.uk](mailto:objectiveone@cornwall.gov.uk).**