

Project Title

Tamar Science Park Phase 4, Plymouth



Overview

Tamar Science Park was initiated in 1998 and is currently the only built example of a science park in the South West. Phase 4 was completed in November 2008 and provides a 3,450m² stand alone cluster of four buildings in addition to the existing facility. Accommodation comprises office space, boardrooms, breakout spaces with kitchenettes, a bistro and travel hub.

The development is a flexible, sustainable low energy solution. The narrow plan shape of the buildings allows the utilisation of natural light, heat and ventilation. A central data hub has been incorporated which serves the whole science park.

Vision for development

The buildings provide accommodation in units between 16m² – 245m². Each unit can be extended or sub-divided as required, allowing the buildings to sell themselves as a total business environment. Crisp detailing will contribute to long term low maintenance costs combined with a sustainable vision of development.

Designers brief

The design team were asked to deliver a high quality sustainable development. The site was challenging in itself, steep in nature and dropping away sharply into a local nature reserve. All members of the design and construction team worked hard to minimise these difficulties and have achieved a BREEAM very good assessment.

The NEC Form of procurement allowed the design and construction team members to meet and combine ideas at an early stage in project development leading to a balanced design solution.

The 3900mm floor to ceiling height together with raised flooring adds to the flexibility of the internal space. External services all run in within a central spine road and feed all four buildings.

The brise soleil has been designed to provide the optimum shading required to reduce glare and heat build up but allowing maximum light to reduce the need for artificial lighting.

Delivery Approach

The project was delivered by Tamar Science Park using a number of funding partners. The Tamar Science Park engaged the Professional team via the OJEU process to form an integrated team. In order to involve the Contractor at an early stage a two stage tender using the NEC form option C was used.

Funders

The principal funders of this project were:



EUROPEAN UNION
European Regional
Development Fund



South West of England
Regional Development Agency

Site Plan



Sustainability / development features

Tamar science Park Phase 4 has been designed to minimise its impact on the environment and achieve a BREEAM environmental rating of "very good". The building cluster incorporates "green" technologies and sustainable design principals such as:-

- A narrow footprint to facilitate natural cross ventilation.
- Exposed concrete slabs to floors and roofs to absorb excessive heat gain during the day.
- Solar shading on southern and westerly elevations provided using deep overhanging eaves and "brise-solil at lower levels.
- Generous horizontal low energy glazing to maximise on natural daylight and minimise the need for artificial lighting coupled with intelligent lighting control.
- Water saving sanitary appliances and taps.
- Highly insulated walls, roof and floor slabs.
- Recycling zones for office waste provided

The following are the design stage carbon dioxide emissions from the regulated appliances for each building.

Building	Kg C02/m2/yr (Includes the data hub and café)
Drake	29.47
Scott	15.37
Frobisher	20.89
Raleigh	20.89

The key transport criteria for this development is to encourage sustainable transport and accessibility by other means beside the car. To achieve this a travel hub has been incorporated as part of the scheme. Accommodation includes secure cycle parking facilities, changing lockers, showers and a secure store for outdoor clothing. The site has a dedicated bus service with a covered waiting area. This service runs every 15 minutes during the working day.

Milestone dates (this phase only)

- Consultants appointed 1st May 2006
- Planning consent 26th January 2007
- Enabling works 15th March 2007
- Construction start 31st May 2007
- Practical completion 25th September 2008

Capital costs

Total cost	£9,630,000
Enabling works total cost	£1,200,000
Building works total cost (3,450m ²)	£7,050,000 (£2,050/m ²)
Fit out costs	£450,000
External works costs	£900,000