

Description

- ◆ The Sports Hub is Treviglas' £2 million investment in state of the art sports facilities
- ◆ SDS carried out the detailed design of the M&E services for the new 2,250m² 4 court sports hub with 15 showers, 3 disabled showers, 120m² fitness suite, and 80m² break-out community area, along with reception, staff room, first aid, storage, and office.

Involvement

- ◆ Initially we were appointed to assist in reducing the capital cost of the M&E which was over budget due to over specification
- ◆ We proposed revised strategies in terms of heating, hot water and ventilation thus reducing the cost of the building services by over 25% and meeting Sport England Standards
- ◆ Heating in the courts was achieved by radiant panels with underfloor heating co-ordinated into the Junckers sprung floor in the sports hall
- ◆ Solar heating was provided to reduce hot water costs with hot water generation sized to meet the simultaneous usage of the 18 shower units
- ◆ Lighting to the cricket lanes was enhanced and coordinated high level installations with cricket nets
- ◆ Design and modification to site infrastructure
- ◆ Design of gas installation to gas distribution systems
- ◆ Full incoming LV Switchgear design for final distribution
- ◆ Design of full fire alarm systems interfaced to the existing school facility
- ◆ Full electrical wiring design including new lighting small power and ancillary services.

The Hub also plays its part in the sustainable running of the school, with the fitted solar panels helping save 15,497kg in carbon emission in 2013



Benefits Delivered

- ◆ The tender documents were prepared in a traditional manner by others and the resulting costs significantly exceeded the available budget
- ◆ SDS were called in by the main contractor to work collaboratively with their specialist engineering contractor, the original consultants and Cornwall Council to reduce the cost base for the scheme to try and achieve budget
- ◆ Through a series of value engineering workshops we were able to identify alternative methods of approach and delivery to meet the scheme cost plan
- ◆ This included alternative means of heating, redesign of the lighting to a reduced capital cost for the same performance, redesign and selection of the fire alarm system to afford an appropriate level of protection, recalculation of boiler and hot water demand to reduce primary plant, reengineering of the building management system to reduce complexity and omission of duplication in a number of systems
- ◆ Through this collaborative working and value engineering process we were able to reduce the capital cost of the engineering services installation by over 35% allowing the project to proceed to construction stage.

