

APPENDIX B: GREEN INFRASTRUCTURE APPROACH CASE STUDIES

CASE STUDY 1: PENCOED BUSINESS CENTRE



The site is located at the edge of town and the proposals provide a smooth transition from urban development to countryside by utilising the landscape structure originally created for the technology park.

Strategic links to the surrounding area to ensure very good connectivity are also a central part of the proposal.

The proposals are designed to offer businesses a sustainable working environment in a **park setting**.

The existing waterscape and landscape features formed a **positive 'starting point'** for the GI proposals with the aim of providing a variety of open spaces to cater for a range of employee needs.

The premise of providing a **healthy work environment** is also at the core of the design rationale, with the opportunity to create 'break out' spaces from the controlled office environments for relaxation and exercise during breaks.

The redevelopment proposals for the former Sony manufacturing site in Pencoed were prepared on behalf of Macquarie Global Property Advisors (MGPA). The site forms part of the Pencoed Technology Park and is occupied by a large manufacturing building and ancillary buildings and extensive, related car parking areas.

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The following features form part of the GI network:

The existing retained trees and planting provide a strong framework for the layout. The proposals create a 'green loop' providing 'threaded' routes through the existing landscape and around water features for employees to stroll or run around. Spaces along the route incorporate outdoor gym equipment and markers to indicate distances run. The green infrastructure network provides green links for safe pedestrian and cycle movement across the business park.

Contemplation zones are located within quieter parts of the 'green loop' for employees to have access to peaceful spaces within a rich, biodiverse landscaped setting. Benches would be orientated to provide visual interest to those sitting on them.

The proposals integrate the existing wildlife features to enhance biodiversity. Protecting and enhancing the ecological value of the site is fundamental to the development of the scheme. Key elements include the retention of existing hedgerows and trees to ensure the preservation of existing habitats and the creation of new ones. Landscaping materials will be selected on the basis of low embodied energy and would be locally sourced. Long term management and maintenance will be considered including minimal mowing regimes, avoiding pesticides and sprays, encouraging natural pest control, and encouraging minimal use of water and fertilizer.

Flood risk and water quality management will be achieved through the integral design of a Sustainable Drainage System, which is designed to manage surface water by retention and natural infiltration. As part of this system are a series of linked linear ponds which also provide visual interest. The surface water drainage from impermeable areas of development will be controlled and managed within the GI network to reduce the risk of flooding and control pollutants whilst maximising the principles of more natural drainage mechanisms across the site.

The rectilinear structure of the layout in place of the current large parking areas is formed by creating green links in an east-west and north-south direction. This complements the rectilinear form of the retained buildings and provides a strong landscaped setting for new buildings.

The orientation of buildings on the site complements the green infrastructure approach, making a significant difference to the energy demands and quality of life for new occupiers of the business park. The layout of the buildings also minimises the wind chill factor for those using the green links. Parking blocks are subdivided with structural landscaping to soften impact of the parking areas, designed into the GI network.