Aztec West Business Park, South Gloucestershire

SuDS used

- Retention ponds
- Detention basins

Benefits

- SuDS components provided amenity and added value to the office development.
- Substantial improvement in the biodiversity, ecology and subsequent quality of life.

1. Location

Aztec West Business Park, Waterside Dr, Almondsbury, Bristol, South Gloucestershire, BS32 4UF.

2. Main SuDS components used

Retention ponds and detention basins, with fountains, to promote the aerobic degradation of hydrocarbons.

Figure 1 Aztec Business Park SuDS Scheme (1)

3. How it works

The local authority dictated a limited flow rate of site discharge. The client endorsed and encouraged this solution, whereby excess water is dealt with in a high quality, aesthetically pleasing way. The site has a series of ponds arranged in series, two retention ponds with permanent water and then a detention pond which remains dry most of the time.

Figure 2 Aztec Business Park SuDS Scheme (2)

4. Specific details

The system is discussed in detail by Aidan Millerick in 'A Review of 20 years of SuDS specifications in the UK including a review of the operational experience of a 22 year old SuDS scheme and how recent developments may alter the design approach'

The large amenity ponds were fed from road and car park drainage. Instead of costly oil separators

to pre-treat runoff, large ornamental fountains were installed to aerate the water and promote breakdown of hydrocarbons.

Figure 3 Aztec Business Park SuDS Scheme (3)

5. Benefits & achievements

The SuDS are an integral part of the landscaping, provide amenity and added value to the office development. The area provides an amenity for office workers. The ponds were stocked with carp and silver fish, with some being subsequently removed due to overpopulation. There are normally a large number of wildfowl in the vicinity of the ponds.

6. Challenges

The site was designed nearly 30 years ago. At that time many of the SuDS components now considered as best-practice were not available for use.

7. Lesson learned

Consideration of infiltration trenches or stone-filled drains would now be given to supplement water treatment. Manholes were provided to allow for the retrofitting of oil interceptors, rockery inlets could have been otherwise provided to provide further aeration and aesthetic interest. The ponds could include a greater vegetated margin and accommodate more shallows and native vegetation.

Figure 4 Aztec Business Park SuDS Scheme (4)

8. Maintenance

The maintenance has been minimal. The fountains are inspected quarterly and a little silt build up has been noted but never removed from the ponds.

9. Date of completion

Project completion: 1978-82

10. Project team

Designer: Peter Brett Associates