



Development Design Guide

Appendix 6 – SuDS Components

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The following details provide examples of various types of SuDS components that are considered appropriate to a sustainable drainage system.

Rainwater harvesting



Systems that collect runoff from roofs or other impermeable surfaces and make it available for non-potable use.

See *CIRIA C753 The SuDS Manual Chapter 11*.

Green Roofs



Green roofs cover the roof of a structure with a multi layered system to intercept and retain precipitation. Note that maintenance requirements must be given significant consideration.

See *CIRIA C753 The SuDS Manual Chapter 12*.

Permeable Surfacing



Permeable surfacing can provide a suitable pavement for pedestrians and vehicular traffic while allowing surface water storage, conveyance and infiltration.

See *CIRIA C753 The SuDS Manual Chapter 20*.

See *BS 7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers. Guide for the design of permeable pavements constructed with concrete paving blocks and flags, natural stone*

slabs and setts and clay pavers.

See Interpave, The Precast Concrete Paving and Kerb Association www.paving.org.uk

Infiltration



Soakaways can store surface water run-off and allow for its efficient infiltration into the adjacent soil. It must be demonstrated that the groundwater level at the site always remains a minimum of 1m below the base of any soakaway.

See *CIRIA C753 The SuDS Manual Chapter 13*.

See *BRE Digest 365 Soakaway Design*.

Filter Drain



Filter drains/trenches are trenches filled with aggregate that create subsurface storage and conveyance and can also allow infiltration.

See *CIRIA C753 The SuDS Manual Chapter 16*.

Filter Strips



Filter strips are vegetated strips of land which treat runoff by filtering and the promotion of settlement of pollutants.

See *CIRIA C753 The SuDS Manual Chapter 15*.

Swales



These are linear vegetated drainage features that convey and store surface water and provide pollutant treatment by allowing settlement.

See *CIRIA C753 The SuDS Manual Chapter 17*.

Inlets and Outlets



Inlets and outlets, including vortex controls, orifice controls and weirs provide hydraulic control and their design is an opportunity for a reduction in maintenance requirements.

See *CIRIA C753 The SuDS Manual Chapter 28*.

Detention Basins



Detention basins use flow control and provide storage of runoff. They can also provide water quality benefits via the settlement of pollutants. Note that off-line normally dry detention basins can be adopted by the local Water and Sewerage Company with their agreement.

See *CIRIA C753 The SuDS Manual Chapter 22*.

Infiltration Basins



Infiltration basins are vegetated depressions that allow storage of surface water and infiltration of that water.

See *CIRIA C753 The SuDS Manual Chapter 13*.

Ponds



Ponds provide surface water storage and treatment benefits.

See *CIRIA C753 The SuDS Manual Chapter 23*.

Wetlands



As ponds, wetlands provide both storage and treatment but on a larger scale. In addition, further ecological benefits can be obtained.

See *CIRIA C753 The SuDS Manual Chapter 23*.