# SuDS Planning and Design Processes

Table 1.: Suggested Pre-Application Checklist of Information To Be Agreed

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| **Ref** | **Requirements** | **Details (or reference documentation)** | **Accepted?** |
| (a) | Any planning and environmental objectives for the site that should influence the surface water management strategy. These objectives can be put forward by both the developer and the approving body/LPA and should be agreed by all parties. |  |  |
| (b) | The likely environmental or technical constraints to SuDS design for the site, These should be agreed by all parties. |  |  |
| (c) | The requirements of the local SuDS approval and adoption processes. These should be provided to the developer by the drainage approving body. |  |  |
| (d) | The suite of design criteria to be applied to the SuDS scheme (taking account of (a) to (c)). |  |  |
| (e) | Evidence that the initial development design proposals have considered the integration and linkage of the surface water management with street layouts, architectural and landscape proposals.  |  |  |
| (f) | An assessment of strategic opportunities for the surface water management system to deliver multiple benefits for the site (see Table 5, BS8582). This should be provided by the developer and should include the strategic use of public open space for SuDS.  |  |  |
| (h) | The statutory and recommended non-statutory consultees for the site. This should be provided by the approval body or LPA. |  |  |
| (i) | The likely land and infrastructure ownership for drainage routes and points of discharge (including sewerage assets). |  |  |
| (j) | An assessment of statutory consultee responsibilities and requirements, including timescales for any likely required approvals/consents. |  |  |
| (k) | Any potential local community impacts, health and safety issues or specific local community concerns/SAB requirements that should be addressed by the detailed design.  |  |  |
| (m) | An assessment of cost implications of stakeholder obligations |  |  |
| (n) | An agreed approach to the design and maintenance of the surface water management for the proposed site |  |  |

Note that all of the above should be agreed (where relevant) with the Local Planning Authority , Highways Authority, Internal Drainage Board, Environment Agency/SEPA, water companies and sewerage undertakers. The SuDs planning process should be closely linked to the development planning process and the drainage design should be integrated wherever possible with the design of the development as a whole.

Table 1.: Conceptual Drainage Design Documentation Suggested for Submission at Outline Planning

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| **Ref** | **Requirements** | **Details (or reference documentation)** | **Accepted?** |
| (a) | Definition of the natural drainage characteristics within and hydrologically linked to the site and demonstration that the drainage proposals will integrate with and not compromise the function of the natural drainage systems Natural flow paths for surface water runoff should be identified on a plan where appropriate. |  |  |
| (b) | Definition of state, performance and ownership of any existing site surface water drainage infrastructure and demonstration that the drainage proposals consider, use or protect these systems (where appropriate). |  |  |
| (c) | Proposed strategic approach to managing on-site flood risk from all sources (as part of or in alignment with the Flood Risk Assessment/Flood Consequences Assessment), and implications of existing flood risk for proposed SuDS design. |  |  |
| (d) | Outline assessment of existing geology, ground conditions (including contamination and stability) and permeability through desk-based research (eg a review of geological/hydrogeological maps, infiltration potential maps, and and site visit observations) – to determine the suitability of infiltration drainage for the site runoff. Infiltration tests should be carried out at this stage wherever possible. If infiltration is proposed but tests are not available an alternative outfall should be identified in case future tests show that infiltration is not possible. |  |  |
| (e) | Identification of the requirements of any environmentally sensitive potential receiving water bodies for the runoff (e.g. groundwater protection zones, archaeological features, receiving water body environmental designations).  |  |  |
| (f) | Confirmation of discharge points (i.e to ground, watercourse or public sewer) for all return period events. |  |  |
| (g) | Confirmation of the design criteria for the SuDS system (including an assessment of the need and opportunity for rainwater harvesting and use), including climate change and urban creep allowances. |  |  |
| (h) | Conceptual SuDS design including Interception, treatment, conveyance, peak flow and volume control, storage and exceedance routes and components (and demonstration that required indicative storages and conveyance flows can be delivered on site). |  |  |
| (i) | Proposed multi-functional use of SuDS ‘space’ to meet community and environmental requirements (where possible green infrastructure) and the potential contribution of the surface water management system (e.g BREEAM Community, Code for Sustainable Homes, Building for Life 12) to the development design objectives for sustainability (including climate resilience).  |  |  |
| (j) | Proposed split of the SuDS between private (i.e. within curtilage) and public (ie in public open space and/or highway) land. |  |  |
| (k) | Confirmation of approval and adoption arrangements for all SuDS components. |  |  |
| (m) | Details of any required offsite works and consents. |  |  |
| (n) | Appropriate consideration of the maintainability of the proposed SuDS . |  |  |
| (o) | Appropriate consideration of the constructability of the proposed SuDS (including the requirements for phasing or protection of components). |  |  |

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Table 1.: Detailed Drainage Design Documentation suggested for submission at Full Planning

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| **Ref** | **Requirements** | **Details (or reference documentation)** | **Accepted?** |
| (a) | Where infiltration is proposed, an acceptable Infiltration Assessment has been submitted. |  |  |
| (b) | A scheme design assessment with appropriate supporting calculations has been submitted that demonstrates design conformity with the required design criteria for the site.  |  |  |
| (c) | Plans of the proposed drainage system, showing:* drainage catchment areas (including impermeable and permeable zones, and any phasing details)
* existing and proposed site sections and levels
* long and cross sections for the proposed drainage system (including exceedance flow management routes) and final building finished floor levels
* details for connections to watercourses and sewers
* maintenance access and any ‘arisings’ storage and disposal arrangements
* operational characteristics of any mechanical features
 |  |  |
| (d) | All necessary consents required for off-site works |  |  |
| (e) | Commitments for approval and adoption arrangements for all elements of the system (including exceedance flow management components). Commitments to any cost contributions, valuation and security of any required non-performance bond. |  |  |
| (f) | Appropriate consideration and management of any health and safety issues relating to SuDS implementation. |  |  |
| (g) | The design of each element has been undertaken in accordance with best practice (using Detailed Design Checklists, where required) |  |  |
| (h) | A Construction Management Plan for the proposed SuDS system has been submitted including:* construction processes to protect the SuDS functionality (including the provision of any required temporary drainage systems)
* programming to protect the SuDS functionality
* landscape planting
* consideration of access for inspections by the approving or adopting organisation
 |  |  |
| (i) | A Maintenance Plan for the proposed SuDS has been submitted including:* a description of the system and how each part of the system is expected to work
* management objectives for the site
* inspection and maintenance schedules, material, tools and initial cost estimates
* maintenance access points, easements and outfalls
 |  |  |
| (j) | An Information and Communications Plan for the proposed SuDS scheme has been submitted where appropriate, including: * communication with and education of existing residents
* communication with and education of new residents
* site and SuDS component specific information boards
* local community education and education strategies (e.g. through schools)

Note this is only likely to be required on larger sites and may be provided by the SAB or the developer (to be agreed between them). |  |  |