Design Assessment Checklists for Proprietary Treatment Systems

**Table 2 Design Assessment Checklist: Proprietary Treatment System**

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| --- | --- |
| **GENERAL INFORMATION** |  |
| Site ID |  |
| Asset ID(s)  |  |
| System location(s) and co-ordinates |  | Drawing Reference(s) |  |
| Date of assessment |  | Specification Reference(s)  |  |
| Primary function(s) of system | Treatment |

| **Check** | **DtCR** | **Summary details** (*See Note)* | **Acceptable (Y/N)** | **Comments/ Remedial actions** |
| --- | --- | --- | --- | --- |
| **DIMENSIONS (SuDS Manual Ref.)** |  |  |  |  |
|  Dimension 1 (m) (describe) |  |  |  |  |
|  Dimension 2 (m) (describe) |  |  |  |  |
|  Dimension 3 (m) (describe) |  |  |  |  |
| Depth to base – maximum and minimum (m) |  |  |  |  |
| Cover – maximum and minimum (m) |  |  |  |  |
| **INFLOWS (SuDS Manual Ref.)** |  |  |  |  |
| Provide a description of the contributing catchment land use and its size (m2). |  |  |  |  |
| Does the design include suitable inlet system to manage design inflows? |  |  |  |  |
| **OUTFLOWS (SuDS Manual Ref)** |  |  |  |  |
| Provide details of any flow control systems, overflow arrangements (for events that exceed the treatment event) and limiting discharge rate (s) from basin. |  |  |  |  |
| Maximum flow rate (and return period) for flows to be conveyed through the system. |  |  |  |  |
| **WATER QUALITY PERFORMANCE (SuDS Manual Ref.)** |  |  |  |  |
| Provide test data to show that the system delivers adequate removal of pollutants for rainfall events up to the 1 year return period. The critical type (duration) of event must be considered where the hydraulic behaviour is an essential component of the effectiveness of the treatment achieved. |  |  |  |  |
| Provide test data to show that the design minimises the risk of pollutants being re-mobilised and washed through the system by subsequent rainfall events, whether small or large. |  |  |  |  |
| **STRUCTURAL (SuDS Manual Ref.)** |  |  |  |  |
| Confirm type of unit or structure to be used. |  |  |  |  |
| Confirm that calculations are provided to demonstrate acceptable structural capacity over the proposed system design life and approved by a Chartered Engineer. |  |  |  |  |
| **CRITICAL MATERIALS/ PRODUCT SPECIFICATIONS** |  |  |  |  |
| Geomembrane |  |  |  |  |
| Geotextile (non-woven) |  |  |  |  |
| Topsoil |  |  |  |  |
| Other (including proprietary systems) |  |  |  |  |
| **CONSTRUCTABILITY (SuDS Manual Ref.)** |  |  |  |  |
| Are there any identifiable construction risks? If yes, state and confirm acceptable risk management measures are proposed. |  |  |  |  |
| **MAINTAINABILITY (SuDS Manual Ref.)** |  |  |  |  |
| Confirm that access for maintenance is acceptable and summarise details. |  |  |  |  |
| Are there specific features that are likely to pose maintenance difficulties? If yes, identify mitigation measures required. |  |  |  |  |
| Confirm required maintenance frequency and cost of replacement filters, etc. |  |  |  |  |
| Identify any custom items required for maintenance that may be difficult to obtain from other suppliers. |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **SYSTEM DESIGN ACCEPTABILITY (SuDS Manual Ref.)** | **Summary details including any changes required** | **Acceptable (Y/N)** | **Date changes made** |
| Acceptable:Minor changes required: Major changes required / re-design: |  |  |  |

Note: Input range if applied to > 1 system. If there is a DtCR (as indicated) confirm whether or not this is met and provide details of any variations.