

**BUILDING CONTROL GUIDANCE NOTE: 2023-03****DATE: 10-03-2023****SUBJECT: TGD Part 6 – Surface Water Drainage**

Surface water drainage is becoming more of a concern in recent times. Much of the existing infrastructure is loaded to capacity and several recent failures are causing concern to ourselves and colleagues in Liquid Waste Management.

Building Standards need to be more proactive in the approval and inspections of surface water drainage. However equally designers need to ensure adequate consideration is given to the most appropriate method of disposal, taking account of the available space, infrastructure, and ground conditions.

We have generally accepted that soakaways serving drained areas less than 60sqm do not require design calculations to be submitted, however this does not mean they do not require consideration by the designer and/or contractor.

It has also become common practice for designers to split larger drained areas into either linked soakaways or multiple each taking less than 60sqm, thereby omitting the need for design calculations. This approach does not solve the issues that are becoming apparent where ground conditions are not suitable for soakaways and finding an alternative for large areas post construction is causing concern.

**Current Guidance:**

TGD 6 States that soakaways should be designed to a return period of 1 in 10 years and the Guidance in BRE Digest 365 should be used.

Surface water drainage from hardstanding areas are only considered if they drain to the same location as the run off from the roof, although it is strongly recommended that these areas are given the same due consideration.

Rainwater shall discharge to one of the following in order of priority:

- An adequate soakaway or some other infiltration system; or where that is not reasonably practicable,
- A watercourse; or, where that is not reasonably practicable,
- A sewer.

**Going forwards:****Soakaways draining surface areas less than 60sqm:**

Building Standards will not request design calculations at application stage, provided the site trial holes indicate there is no risk of ground water being present at the base of the proposed soakaway location.

- Inspection of soakaway excavation to be notified to officers and photograph documented by the builder.
- The presence of groundwater at the base of the soakaway excavation will result in a redesign being requested which could cause delays to completion and difficulty achieving compliance.
- If no ground water is noted, then minimum soakaway size to be 1.3m<sup>3</sup> terram wrapped crates or 3.9m<sup>3</sup> of clean hardcore fill.
- Silt trap to be provided before soakaway.

**Soakaways draining surface areas greater than 60sqm:**

- Maintain existing guidance for 1:10 year storm. However additional allowance to be made for climate change at 30%. This is to be demonstrated and assessed by the provision of calculations at design stage in accordance with the latest version of BRE 365.
- If the designer proposes linked or multiple soakaways each taking less than 60sqm, site investigation to be provided with application demonstrating no ground water present. Soakaways to be linked at the base by a land drain, sizes and construction as above. Alternatively full design calculations to be provided.
- Ensure hardstanding areas are separated from roof run off or included in the design.

**Connections to surface water sewers:**

- Direct connection to surface water Sewers. Designed to 1:100 year storm period and ensure full consultation and approval from Liquid Waste Management prior to permit being issued.
- Attenuation tanks are to be designed to a return period of 1:100 year storm period in order to align ourselves with Liquid Waste Management requirements. Full consultation and approval from Liquid Waste Management prior to permit being issued.
- Additional allowance to be made for climate change (30%) and Urban Sprawl (10%).
- Silt traps to be provided before the attenuation tanks.
- Attenuation tanks to be sealed from ground water incursion.
- Inspection regime to be carried out prior to closing up.