Rainwater Harvesting on Existing Properties.

Rainwater harvesting can be applied to most buildings; however, due to certain practical issues, it is a technology best suited to new-build properties. Having said that, it is some times desirable or necessary to incorporate it into an existing building.

With any existing property, there are certain problems from the point of view of collecting rainwater:

- it is conventional to install an underground storage tank. This could be very disruptive and expensive on an existing site and may even entail re-routing of some services.
- it will probably also necessitate re-laying some of the stormwater drainage. Fitting a tank and filter unit into an existing drainage scheme frequently involves changing the levels of some of the pipework.
- the drainage system supplying a rainwater harvesting scheme should only carry water from roof surfaces. If the existing drainage also takes water from trafficked areas, or worse still, from 'grey' water sources such as baths, basins etc. (not uncommon, particularly on older properties), then the drainage may require serious alterations.
- some changes to the rainwater downpipes and / or the internal plumbing will be required.

An alternative to underground storage is to use a tank located at or above ground level. This can either be within the building or external, but in either case, further problems may arise. It will only be practical if it is possible to direct some of the existing rainwater downpipes to where the tank is;

- the location of rainwater downpipes and their proximity to the storage tank will limit the amount of roof surface that can be harvested from.
- depending on pipe and tank locations, it could result in unsightly pipes running across the face of the building in order to get the water into the tank.
- external tanks are susceptible to freezing in extreme cold weather.
- if tank is within the building, then pipes from the rainwater downpipe filters will need to penetrate the walls of the building.

We therefore recommend that before proceeding any further, the practicalities of these issues need to be assessed.