

### Water Stored: 151,000 L.

Large scale captured rainwater for landscape irrigation.

#### Project Overview:

SMART Watering Systems INC. was asked to assist in the design of a rainwater harvesting system capturing rainfall from a 200,000 square foot roof and integrate it into a commercial irrigation system, also designed by SWS.

The industrial property owner had been asked by a local conservation authority to “green their development” and to reduce off-site wet weather flow.

The available tank location (under the parking lot) was ideal for 4 pre-cast cisterns linked together creating a 151,000 litre capacity. A vortex style filter connected to the storm drain provide first flush filtration while a floating suction filter and skimmers provided secondary filtration steps.

After backfill, the system was connected to the irrigation on site through a custom built pump station complete with high and low tank level indicators. In the event that potable water is required, a valve opens automatically to feed the irrigation system. This avoids the filling of storage tanks with potable water. The 151,000 litres of rainwater supply the water requirement for the drought tolerant, no-mow variety of plant material on site.



#### Conservation Solutions Implemented:

**Storage:**  
Pre-formed concrete.

**Filtration:**  
Multi-stage.

**End Uses:**  
Landscape Irrigation.

**End Result:**  
Off-site storm water flow reduced, significant reduction in potable water usage.

