

Water Harvesting Tank

Project Location

7001 West 59th Street, Chicago, IL, USA

Project Details

Valley Forge Park and Fieldhouse Rainwater Harvesting

Completion Date

December 2010

Project Partners

Client: Public Building Commission of Chicago
 Consultant: WaHaSo
 Distributor: WaHaSo

Type of Installation

Rain Water Harvesting Tank

Catchment Area:

950 square metres (10,200 square foot)

Capacity

16,000 litres (4,200 gallon)



Left: Picture of area before project



The Challenge:

The Chicago Public Building Commission, in coordination with the Chicago Parks Division, wanted its newest Field House on Valley Forge Road to serve as an example of sustainable building practices. So there was interest in retaining and reusing the rainwater and stormwater from the property rather than send it to Chicago's combined sewer and stormwater system.



The Solution:

Working closely with architects Booth Hansen of Chicago, the Wahaso team designed and built a rainwater harvesting system that will flush toilets in the building more than 90% of the time. The system captures rainwater from the 950 square metres (10,200 square foot) roof into a 16,000 litres (4,200 gallon) underground Atlantis D-Raintank system. Water from the cistern is pumped to a processing room and day tank where it is filtered, chlorinated and pressurized to flush all the toilets in the building. The smart control system automatically reverts to the municipal supply when the cistern is empty, or a problem is detected with the processing system.



Results:

The system should save 250,000 – 265,000 litres (65-70,000 gallons) of municipal water annually, while detaining stormwater from entering the city's combined sewer system during rain events. During his viewing of the system at the building's ribbon-cutting on December 4, 2010, Mayor Daley confirmed his commitment to sustainable water practices - and to his continued support of harvesting systems in all Chicago public buildings.

