

Dale City Fire Department Case Study



Objective:

To completely eliminate municipal water usage for irrigation and attain LEED certification at the Dale City, Virginia Volunteer Fire Department's new Station 10 facility.

Site Specifications & Known Requirements:

- Harvested water usage to be 100% irrigation.
- Maximum irrigation cycle: 3600 gallons
- Tank location: Under turf in planted area
- Desired tank size: 11,000 gallons
- Roof square footage: 13,500
- 1" rain event yield: 7,700 gallons.
- Average rainfall March - November: 28.5"
- Maximum collected rainwater March - November: 220,000 gallons
- # of irrigation cycles possible: 61

Dale City Fire Station #10 designed their irrigation system to run solely on rainwater. Their decision to cut the municipal water usage for irrigation by 100% earned them the maximum LEED points available for irrigation water conservation.

The Sky Harvester's tank level controls automatically enable and disable the system based upon how many gallons of water are in the tank at a given time. This system is unique because it re-enables itself based upon rainfall. Their system contains 100 micron automatic filtration to prepare the water for standard drip irrigation.



Project Team

General Contractor: Jack Bays Inc., Paul Quigg. Mclean, VA

Irrigation Contractor: Hydro-Tech Irrigation Co., Joe Horvath. Sterling, VA

Irrigation Designer: Lynch & Associates Ltd., Brendan Lynch, Dan Lynch, Chwan Lee.
Annapolis, MD

Testimonial

“A big thumbs up on the details. Our local sales rep did a terrific job in providing us the information we needed. We were able to get everything from the inlet of the tank to the outlet of the pump station in one shot – this makes our lives so much easier... When the (Sky Harvester) unit hits the job site everyone looks at it like a new car. The fit & finish is impeccable – great workmanship.”

- Brendan Lynch, Lynch & Associates Ltd.