

Smart Streetscaping Uses 40 Percent Less Water With XFS Subsurface Dripline



Project Details:

LOCATION

Yanbu, Kingdom of Saudi Arabia

PROJECT LEADER

Yanbu Royal Commission

IRRIGATION CONTRACTOR

Engineer Wael Ba Khidar

RAIN BIRD PRODUCTS USED

- XFS Subsurface Dripline
- Air Relief Valves
- Flush Valves
- Inline RBY Filter

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*- Wael Ba Khidar
Project Engineer, Yanbu Commission*

PROJECT OVERVIEW:

In the Kingdom of Saudi Arabia, water used for irrigation is costly, and the weather is challenging. The Yanbu Royal Commission, the government entity in charge of developing the city of Yanbu, places high priority on finding solutions that will provide the most efficient irrigation method possible. When the commission began several streetscaping projects, they chose XFS Subsurface Dripline to irrigate the grass median strips because it helped to achieve water savings of 40 percent and solved key challenges while providing beautiful green areas for its citizens.

CHALLENGE:

When irrigating narrow medians and walkways, accident prevention, pedestrian safety and increased maintenance due to vandalism top the list of concerns when choosing an irrigation method. Yanbu experiences windy conditions that prevail most of the year, which makes overhead irrigation in these areas less than ideal. Plus, broken heads caused by car accidents and vandals create additional runoff, which wastes water and can cause accidents. In addition, high temperatures throughout the year make water loss due to evaporation another concern.

RESULTS:

The commission chose XFS Subsurface Dripline for their streetscaping projects because it eliminated overspray and evaporation due to wind drift as well as additional maintenance costs and water waste due to vandalism and car accidents. Using XFS has helped to not only reduce water use by 40 percent but also produce green spaces that are a benefit to the community.

XFS is installed below grade and uses a tiny copper chip placed in the emitter to inhibit roots from entering the emitter. The Copper Shield™ Technology eliminates the need to use harsh chemicals or treated filters to keep the dripline free of roots. XFS also uses a self-flushing emitter that keeps dirt from clogging the emitter, further reducing any maintenance or performance issues. As a best practice, air relief and flush valves were also installed to ensure trouble-free performance and ease of maintenance.

"We have had great success with XFS. It has helped reduce our water use by 40 percent and eliminated any challenges with regard to overspray on streets and walkways," said Wael Ba Khidar, the commission's project engineer. "We have made many site visits since the installation and found that the emitters show no sign of root intrusion, and the grass quality is consistent throughout."