CASE STUDY

RETAIL

Jenkins Mazda

Ocala, Florida

he Jenkins Mazda dealership in Ocala, Florida includes a showroom, administrative and maintenance space, and new and used car areas. It is located on 3.57 acres, which makes it a very small, and therefore, difficult site when it comes to selecting options for stormwater management. Space limitations usually preclude contractors and engineers from choosing



ponds or swales because they take up a lot of valuable land. Specific to this project, the developers needed the land to maximize the parking lot and car areas.

Contractor Phillip Williams at Beeline Development Inc. recommended an underground stormwater system for the dealership. Williams specified the company's newest Recharger[®] 330XL chamber with a storage capacity 12% larger than CULTEC's previous Recharger[®] 330 model. That resulted in a reduced number of units necessary for the installation. The chamber's self-manifolding ability also resulted in cost-savings and minimized the system's footprint. In addition, CULTEC customized the system design for the project, removing several extra catch-basins.

According to CULTEC representative Mike Buchberg at Marsh and Moore, the contractor ultimately selected CULTEC because of its cost-effectiveness.

"We had worked with CULTEC previously on another project," said Williams. "In this application, we

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preferred CULTEC to other options because its products proved to be the most cost-effective solution for the stormwater management plan."

The Jenkins Mazda development needed 142 Recharger 330XL chambers designed to both retain and detain run-off, as required by Florida state regulations. The system's concrete control structure retains a portion of the stormwater below the weir where infiltration occurs and places the stormwater back into the ground. The portion of the run-off above the weir, inside the control structure, is released into a pipe connected to the municipal stormwater system.

In just one week, the chambers were installed in two beds, providing 11,534 cubic feet of storage. The beds are hydraulically connected through a piping system to keep their water level even. To increase the longevity of the system, a separation row with polyethylene liner was used for sediment control. The liner, which prevents scouring and provides a smooth surface for the water to flow, was placed under the chamber row that is connected to the inlet. That allows for future maintenance and removal of the parking lot debris, increasing the system's service life.

As land availability in urban areas decreases but costs remain at a premium, underground storage systems provide significant stormwater recharge and, at the same time, allow the space above the system to be used for further development. Additionally, the Recharger 330XL chambers decrease the required space for the system due to their enhanced manifold design. This coupled with the chambers' cost-effectiveness and ease of installation, made the CULTEC system the optimal stormwater solution for the Jenkins Mazda development.



Installed: Contractor: February 2008 Beeline Development Inc. Ocala, FL Engineer: London Engineering & Associates Inc. Ocala, FL



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Protected by one or more of the following patents: U.S. Patent No. 5,087,151, U.S. Patent No. 5,419,838, U.S. Patent No. 6,129,482, U.S. Patent No. 6,322,288 B1 Other U.S. and Foreign patents. Other U.S. patents pending. RECHARGER®, CONTACTOR®, HVLV™ and STORMFILTER® are trade names of CULTEC, Inc.