



STORMCAPTURE[®] UNDERGROUND DETENTION SYSTEM IS MUSIC TO NASHVILLE'S EARS

Nashville, TN

The Pine Street Flats project in “The Gulch” section of old Nashville included construction of a new 296-unit apartment building and an adjacent parking garage that was to be sandwiched between the Velocity retail space and Icon, a mixed-use property.

Due to a relatively small amount of open space on the site, an underground stormwater management system was designed to manage post-construction stormwater runoff. The system, manufactured by Oldcastle Infrastructure,



included a collection system consisting of multiple drainage structures, reinforced concrete pipe (RCP), as well as a StormCapture[®] detention system.

DESIGN & CONSTRUCTION TEAM

Owner

Stonehenge DCM

Civil Engineer

Civil Site

General Contractor

Cambridge Builders

Manufacturing Facility

Oldcastle Infrastructure
Lebanon, TN

StormCapture® Underground Detention System is Music to Nashville's Ears, Nashville, TN



CONSTRUCTION CHALLENGE

The original design included an RCP detention system to be installed under the parking garage. Once it became apparent that the footprint of the RCP system would interfere with footings for the parking garage, the StormCapture system was selected to improve storage efficiency with a reduced overall footprint.

PRECAST SOLUTION

In collaboration with Cambridge Builders, Oldcastle Infrastructure provided the design and final submittals for the StormCapture system to integrate with the proposed stormwater drainage system. Precast concrete components supplied by Oldcastle for the project included: 10 drainage structures, 516 linear feet of 15-inch RCP, 344 linear feet of 24-inch RCP, as well as 44 6' by 12' by 5' StormCapture modules to provide 15,800 cubic feet of underground stormwater detention.



The drainage structures and pipe were installed to transport stormwater from the rooftop and surface collection areas to the StormCapture detention system, and then to the downstream stormwater drainage system.

INSTALLATION

Installation of the StormCapture system consisted of 44 two-piece, clamshell-style modules configured in four rows of 11 modules. An impermeable, polyethylene membrane was used to wrap the entire StormCapture system to provide a watertight, self-contained unit.



About Oldcastle Infrastructure

Oldcastle Infrastructure, A CRH Company, is the leading provider of building materials, products and services for infrastructure projects to several market sectors nationwide, including: Building Structures, Communications, Energy, Transportation and Water.

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