

FEATURED PROJECT

The City of Columbus, OH

PRECAST BIO RETENTION BASINS



Helping to Keep Rivers and Waterways Clean!

Bioretention is a process by which contaminants and sedimentation are removed from stormwater runoff.

Stormwater runoff can infiltrate a sanitary sewer system from a variety of sources including yards, roofs, downspouts, foundation drains, improperly connected sump pumps, uncapped cleanouts, manhole covers, holes, cracks and breaks in pipes, joint failure, faulty connections and other openings. When this happens, untreated sewage diluted by rainwater can overflow into rivers or back up into basements.

The City of Columbus, OH is leading the way in green infrastructure design, implementing their four-pillar program known as, 'Blueprint Columbus'. 'Blueprint Columbus' is a long-term civil engineering project, targeting older Columbus neighborhoods where sanitary and storm sewer systems are combined.



The new infrastructure will stop rainwater from getting into sanitary sewers. Precast bioretention basins will capture and hold stormwater, allowing runoff to slowly settle into bio/filtered swales strategically located throughout the city.

United Precast Industries, Inc. contracted with Delta Precast to provide conceptual drawings, shop drawings and design calculations for up to 56 bioretention units, ranging in size from 20' to 130' long and weighing up to 20,000 pounds.

Precast units were selected over the pour-in-place method for a variety of reasons. Safety—with minimal open excavations, and time—with few, if any street closures. Also, if for any reason damage occurs to the basin due to vehicle load or impact, repairs can be made by replacing an individual panel instead of incurring the cost of an entire unit.

The units are for placement in the Morse/Dominion neighborhood of Columbus, OH, with construction due to be completed in 2019.

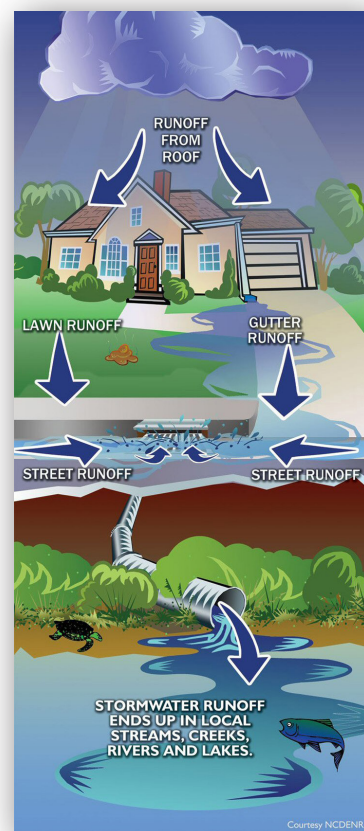


Illustration courtesy of NCDENR