Aquabox Delivers Large-Scale Stormwater Storage for Charleston Apartment Complex

Capture	Conveyance	Storage	Treatment
50 Nyloplast Basins	80’ of 15” HP Storm 340’ of 18” HP Storm 880’ of 24” HP Storm 300’ of 36” HP Storm	8,523 Aquabox Cubes	One S4 Barracuda®

INSTALLATION DATE
Winter-Spring 2025

OWNER
ZP No 351 LLC (Zimmer Development), Wilmington, NC

ENGINEER
SeamonWhiteside, Mt. Pleasant, SC

CONTRACTOR
C. Herman Construction, Ridgeville, SC

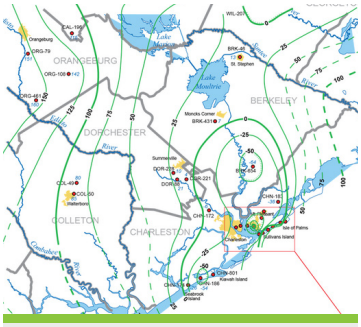
Challenge

In order for a new apartment complex, the William E. Murray Blvd Apartments, to be built, 145,000 cubic feet (4,106 cubic meters) of stormwater storage was required for runoff from the parking lot and buildings.

Besides the stormwater management system’s size, the project had numerous other challenges:



The stormwater system needed to be installed under the complex’s parking areas



System burial depth was shallow because of the high groundwater levels in Charleston



Onsite storage of product had to fit a tight footprint

Image Sorce: www.usgs.gov/centers/sawsc/science/simulation-groundwater-flow-charleston-aquifer-near-mount-pleasant-sc-update

ADS®

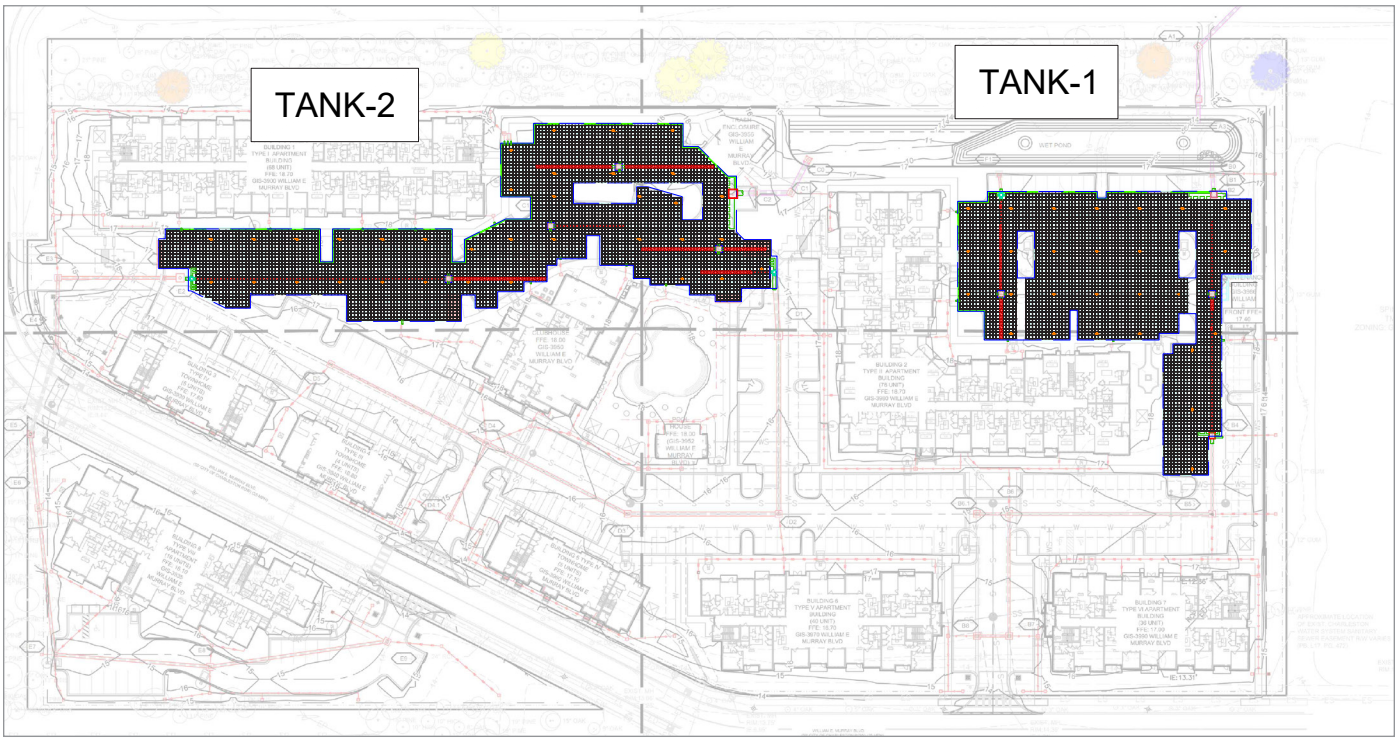
adspipe.com

Solution

Advanced Drainage Systems (ADS) personnel presented a lunch and learn with SeamonWhiteside (SW+) to discuss water quality initiatives prior to the complex being built. During the talk, ADS mentioned its new crate storage product, Aquabox.

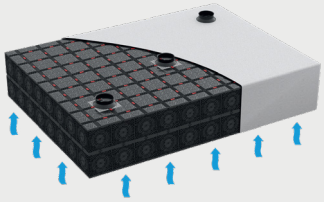
After the lunch and learn, SW+ engineers inquired about Aquabox and mentioned the William E. Murray Apartments. ADS completed a design layout showing that the crate system could achieve the desired results.

In total, 8,523 Aquabox modules were used over two separate systems. The systems store stormwater before it is released into a small onsite pond and then into a drainage ditch and the city stormwater system.



Aquabox Drives Complete Stormwater System Success

ADS' product quality was a key for ADS products to be utilized. But Aquabox was the driving force behind ADS being selected:



Aquabox was the only retention system that could meet high groundwater requirements.



Modules stack and ship on a pallet, which allowed for easy on site storage in a tight footprint



Aquabox modules are assembled in the trench, perfect for a small project footprint, requires less time and less personnel.

Since the contractor, Carolina Site Logistics, had never installed a crate system previously, ADS personnel provided a personal touch in working with the contractor. ADS did pre-construction meetings and also made multiple site visits during the installation.

Once Aquabox had been chosen for the system, ADS personnel were able to provide the entire package to capture, convey, store and treat the stormwater.

Products Utilized

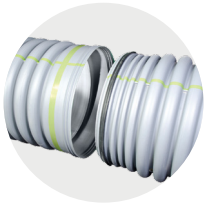
Capture



Nyloplast Drainage Structures

Innovative stormwater solutions, featuring heavy-duty PVC construction and a variety of ductile iron grate options. Ideal for stormwater projects, they include inline drains, drain basins, curb inlets, road structures, and grates, all compatible with plastic underground drainage systems.

Conveyance



HP Storm Pipe

A high-performance polypropylene pipe for gravity-flow storm drainage. HP Storm is the perfect choice with premium joint performance and increased stiffness. HP Storm has a smooth interior wall and offers additional strength as well as superior flow.

Storage



Aquabox Modular Underground System

Suitable for varying stormwater management requirements using both detention and retention applications. Stormwater detention with a controlled release to the watershed and/or receiving waters helps to mitigate the potential negative impacts by helping to reduce flooding and degraded water quality during heavy rainfall events.

Treatment



Barracuda Vortex Hydrodynamic Separator

This device removes total suspended solids (TSS), offers quick installation and multiple pipe configurations. The device employs a cone structure with a vertical weir wall separating the inlet(s) and outlet pipes. This wall allows the unit to bypass excessive stormwater flows internally.

5 Reasons ADS is the Only Partner You Need for the Entire Stormwater Package

One Point of Contact.

We are the only company that can deliver the entire package as a fully integrated system.

Simplified Delivery.

By purchasing the entire system from ADS, your products arrive on time, so your project stays on schedule and runs efficiently.

Our Solutions Scale to Your Needs.

From airport and roadway projects to residential builds, we have the solutions you need.

Free Online Tools.

Only ADS gives you the digital tools to do it all. From product specification and calculations to project value assessments and more.

Support from Start to Finish.

From design to installation, ADS has more experts ready to provide guidance and technical knowledge when you need it.

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