

Case Study

NDS StormChamber[®] System

TRANSFORMING A SURFACE POND INTO USABLE LAND WITH UNDERGROUND CHAMBER SYSTEM

An existing single-family residence nestled on a beautiful waterfront property on the Ponce Inlet in Florida was going through a remodel and expansion. County regulations required new stormwater storage – primarily roof and hardscape drainage.

The contractor reached out to NDS to determine the best possible drainage solution for the homeowner, who wanted a system that was aesthetically pleasing and would complement the landscape and atmosphere of the yard. They didn't want a retention pond and were hoping for more usable green space.

An NDS representative was able to visit the jobsite and helped confirm an underground stormchamber solution would be ideal.

NDS STORMCHAMBER[®] SIZE PERFECT FOR RESIDENCE

One of the NDS StormChamber sizes is an 18 in. version. It is often the go-to solution for small residential applications since it's ideal for depth restrictions.

After assessing the site's exact needs, NDS Design Worx[®] services developed a StormChamber system layout, which married up to the overall site plan for the property. The placement of approximately 4 rows of 18 in. high chambers would need to be placed for a total of 1,300 cubic ft. of water storage capability.

Stormchambers are great for residential applications since they are a cost-effective way to store and infiltrate water. It's a simpler installation and less expensive than other types of underground stormwater management systems because it has no header pipe manifold to contend with, which is often required on competitive systems.



NDS StormChamber units are manufactured from thermoformed high-density weight polyethylene (HMWPE), provide a 100-year life expectancy and can handle H-20 loads.

DESIGN WORX SERVICES A BENEFIT DURING INSTALLATION

A pro-con meeting was held with the team to review the steps and make sure that the install would go well. An NDS rep was also on hand during construction of the new subsurface pond. Even with minor challenges related to excavating sandy soil, the contractor reported the installation was "quick and clean," and completed on schedule in less than two weeks.

This new underground system not only performs well during storms but has provided the homeowner with more usable green space in their backyard.

PROJECT SUMMARY

PROJECT TYPE
Infiltration

PROPERTY
Residence

NDS PRODUCTS USED

StormChamber[®] system units: (5) SC-1820-S-O,
(19) SC-1820-M-O, (5) SC-1820-E-O, (2) SC-WFF-75

NDS Design Worx Services Utilized:

1. Product specification
2. Drainage calculation
3. System layout
4. Installation instructions