

CASE STUDY

HP Storm Conveys Stormwater at NewAge Facility Conroe, TX

OWNER

EE Reed L.P., San Antonio, TX

ENGINEER

Langan Engineering, Houston, TX

CONTRACTOR

W.T. Byler, Co. LP, Conroe, TX

INSTALLATION DATE

January 2021

PRODUCTS

740' (226 m) of 12" (300 mm) HP Storm
2,200' (671 m) of 18" (450 mm) HP Storm
780' (238 m) of 24" (600 mm) HP Storm
1,800' (549 m) of 36" (900 mm) HP Storm
880' (268 m) of 48" (1200 mm) HP Storm
980' (299 m) of 60" (1500mm) HP Storm
Two 4' (1.2 m) Barracuda® Hydrodynamic Separators
One 8' (2.4 m) Barracuda Hydrodynamic Separator

CHALLENGE

NewAge Products® built a new distribution center in Conroe, just north of Houston. To support the facility, a dedicated stormwater system was needed to effectively convey and treat the site's runoff.

SOLUTION

Advanced Drainage Systems (ADS) engaged early in the bidding process and introduced HP Storm as an alternative to reinforced concrete pipe (RCP) for the conveyance system. ADS had a working relationship with the engineer, who was launching Langan Engineering's Houston office, and he was familiar with the performance and efficiency of ADS products.

ADS was successful in getting the specified RCP flipped to 60" (1500 mm) HP Storm for the main trunk line. Once the 60" (1500 mm) pipe was approved, ADS also secured approval for HP Storm



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in diameters ranging from 12"-48" (300-1200 mm). The smaller pipes were used as laterals to feed the main line, which ultimately tied into the municipal stormwater system.

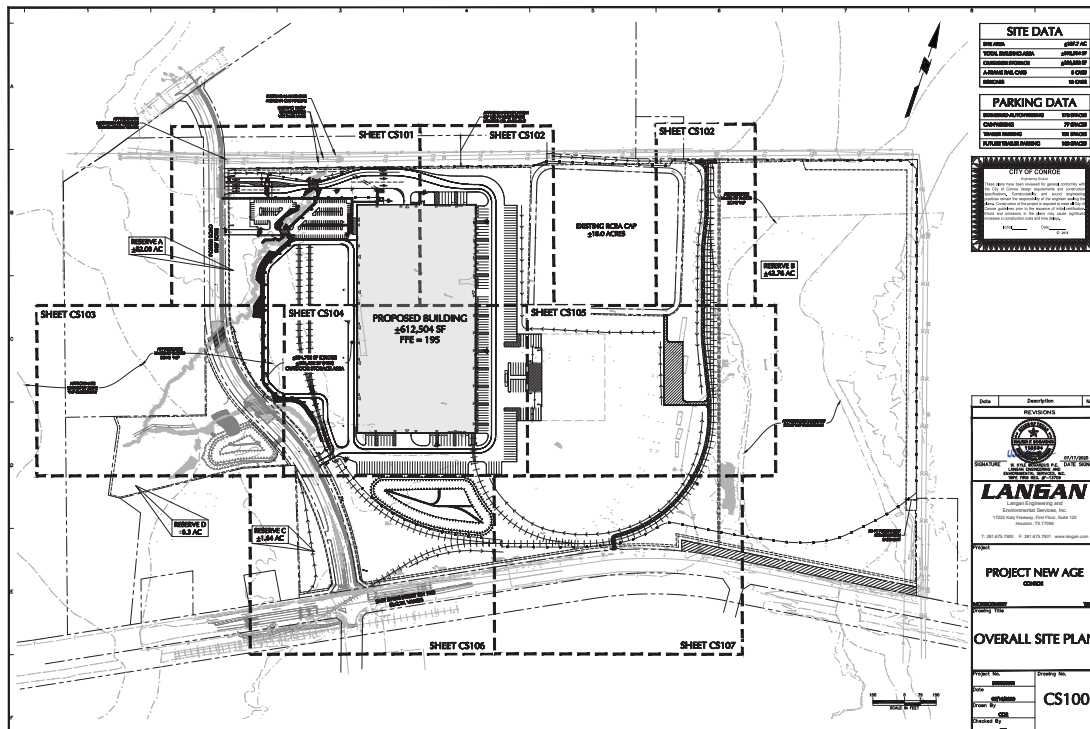
The project flip was driven by the ease and speed of installation as well as significant cost savings. Even with burial depths reaching 18' (5.5 m), the contractor, W.T. Byler, was able to install approximately 200' (61 m) of pipe per day.

ADS also converted the project's water quality units to three Barracuda Hydrodynamic Separators for total suspended solids (TSS) removal. The system included two 4' (1.2 m) units and one 8' (2.4 m) unit. Based on third-party OK-110 testing, Barracuda units are designed to remove at least 80% of TSS on an annual aggregate basis.

PRODUCT DESCRIPTIONS

HP Storm is a high-performance polypropylene pipe for gravity-flow storm drainage applications with premium joint performance and increased pipe stiffness. HP Storm couples advanced polypropylene resin technology with a proven, dual-wall profile design for superior performance and durability. The smooth interior wall offers additional strength as well as superior flow. HP Storm has an extended bell that adds an additional factor of safety within each joint. This innovative product meets or exceeds typical standards for pipe stiffness and joint integrity and meets ASTM F2881 and AASHTO M330 for the respective diameters. HP Storm pipe is approved for use by the Army Corps of Engineers, FAA, and AREMA.

Barracuda hydrodynamic separator is a high performance, vortex hydrodynamic separator that 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 weir wall allows the unit to bypass excessive stormwater flows internally. The Barracuda can also be configured as an offline system utilizing a diversion structure for higher bypass flow rates, or at the design engineer's discretion to meet design objectives or to minimize resuspension.



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