

## CASE STUDY

# HP Storm Dual Run Encloses Dangerous Roadside Ditch

## Kingsville, TX

### OWNER

Texas Department of Transportation,  
Corpus Christi, TX

### ENGINEER

Texas Department of Transportation,  
Corpus Christi, TX

### CONTRACTOR

ICOS Management, Frisco, TX

### INSTALLATION DATE

May 2024

### PRODUCTS

1,000' (305 m) of 60" (1,500 mm) HP Storm  
20' (6 m) of 24" (600 mm) HP Storm  
2 30" (750 mm) Nyloplast® Inline Drains  
2 24" (600 mm) Inserta Tee® Fittings

### CHALLENGE

A section of U.S. Route 77 in Kingsville featured a hazardous open drainage ditch located beside a highway overpass. To eliminate the safety risk, the Texas Department of Transportation (TxDOT) decided that fully enclosing the ditch was the best solution.

### SOLUTION

Initially, TxDOT considered using box culverts and reinforced concrete pipe. However, ADS personnel were able to recommend an alternative design using 60" (1,500 mm) HP Storm pipe and Nyloplast Inline Drains. This shift to ADS products offered significant advantages—more than \$500,000 in savings on product and delivery costs, as well as reductions in installation time. Because ADS components are much lighter than concrete, they are also safer to handle, easier to transport and stage, and simpler to install.



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To accommodate the required stormwater flow, the enclosed system was constructed using a dual run of 60" (1,500 mm) HP Storm polypropylene pipe. Side-by-side Nyloplast Inline Drains were installed to direct stormwater into each pipe. A 24" (600 mm) HP Storm riser connected each inline drain to the main pipe, using Inserta Tees to tie the 24" (600 mm) pipe into the 60" (1,500 mm) HP Storm. The enclosed ditch conveys stormwater into a nearby dry creek bed.

### PRODUCT DESCRIPTION

HP Storm polypropylene pipe provides superior pipe stiffness, longer bells and spigots and a premium joint performance for a longer service life. The smooth interior wall offers additional strength and high flow capacity. HP Storm pipe, available in diameters from 12"-60" (300-1500 mm) meets or exceeds the standards specified in ASTM F2881 and AASHTO M330 and the extended bell and spigot meets ASTM D3212. Polypropylene is resistant to the effects of chemicals, abrasion, hot soils and effluent.

Nyloplast Inline Drains enter a storm drain line using a riser pipe, tee or elbow. Inline drains are easily adaptable in the field to meet final grade. The lightweight structures are shipped with rubber gaskets to ensure a watertight connection to prevent soil infiltration. The rugged PVC structure does not need grout, so the inline drain can be connected and backfilled immediately. Proven ductile iron grates make Nyloplast Inline Drains unique to the surface drainage industry.

Inserta Tee is a high-performance, cost-effective and easy-to-install lateral service connection. The fitting consists of a PVC hub, rubber sleeve and stainless steel band. Inserta Tee is watertight and can be connected to all drainage materials. Inserta Tees can be installed without disturbing bedding and there is not a need for glues, epoxies, grout or awkward gaskets.



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