

## CASE STUDY

# SaniTite® HP Delivers Efficient Drainage from Battery Facility Windsor, ON

### OWNER

Stellantis, Amsterdam, the Netherlands

### ENGINEER

Morrison Hershfield, Markham, ON

### CONTRACTOR

GIP Contractors, Windsor, ON

### INSTALLATION DATE

2024

### PRODUCTS

1,665 m (5,460') of 300 mm (12") N-12® Dual Wall  
805 m (2,640') of 375 mm (15") N-12 Dual Wall  
450 m (1,480') of 525 mm (21") N-12 Dual Wall  
500 m (1,640') of 750 mm (30") N-12 Dual Wall  
700 m (2,300') of 1050 mm (42") SaniTite HP  
500 m (1,640') of 1200 mm (48") SaniTite HP  
700 m (2,300') of 1500 mm (60") SaniTite HP  
2 900 mm (36") Nyloplast® Drain Basins

### CHALLENGE

Stellantis constructed a new electric vehicle battery manufacturing facility in Windsor that was over 4.2 million square feet (390,000 square meters). The 220-acre site required a comprehensive stormwater management solution to effectively collect and convey runoff from the site, including parking areas and roof drainage.

### SOLUTION

Reinforced concrete pipe (RCP) was originally on the plans for the facility, which is currently manufacturing batteries for energy storage. Advanced Drainage Systems' representatives, along with assistance from GIP Contractors, was able to flip the conveyance pipe to high-density polyethylene pipe (HDPE) and polypropylene (PP) pipe.



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By leveraging ADS's Pipe Value Tool, ADS representatives demonstrated significant installation time and overall cost savings to Stellantis and GIP Contractors by utilizing N-12 Dual Wall pipe (HDPE) and SaniTite HP pipe (PP).

The stormwater was captured by two 900 mm (36") Nyloplast Drain Basins and was conveyed by the smaller diameter HDPE pipe into the mainlines. For the larger diameter mainlines, SaniTite HP was selected to meet the pipe stiffness requirements. The system effectively conveys the site's stormwater, which ultimately discharges into the city's stormwater sewer system.

## PRODUCT DESCRIPTIONS

N-12 Dual Wall Pipe has a corrugated exterior and smooth interior wall that provide exceptional hydraulics, strength and corrosion resistance. N-12 is available in 100-1500 mm (4"-60") diameters and in 6m (20') lengths to provide faster installation and lower installation costs. The integrated inline bell design allows for easy installation and eliminates chipping and cracking that is common to concrete bells. N-12 addresses subsurface and stormwater gravity-flow drainage needs.

SaniTite HP couples advanced polypropylene resin technology with a proven 300-750 mm (12"-30") dual wall and 750-1500 mm (30"-60") triple wall profile design for superior performance and durability. SaniTite HP meets and exceeds typical standards for pipe stiffness and joint integrity. The bell and spigot joining system provides an added factor of safety for design engineers by including polymer-reinforced bells and double gasket spigots on every stick of pipe. The polypropylene pipe is an inert material that is chemically resistant to hydrogen sulfide gas and sulfuric acid concentrations.

Nyloplast Engineered Surface Drainage products provide a dependable, project-specific solution for stormwater management. The combination of heavy-duty PVC structures and ductile iron grates deliver the strength and durability needed to meet site demands. With a range of structures from 200-900 mm (8"-36"), Nyloplast is tailored to project requirements. Seamless compatibility with plastic underground storm drain systems allow for smooth transitions between pipe sizes and materials, as well as adjustments in elevation and direction, supporting efficient installation and long-term performance.



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