



SOLENO
Mastering Storm Water

**THE MOST POWERFUL
APPROACH**
FOR STORM WATER MANAGEMENT



HYDROSTOR UNDERGROUND RETENTION SYSTEM IN LAVAL

For the constructor, Construction G-Nesis inc., the installation of Hydrostor chambers was a first. Among the numerous benefits of the product, it was the economic aspect, and the simple and rapid installation of it that were Patrick Giguere's, project manager at Construction G-Nesis inc., primary motivations in trusting Soleno's storage product with groundwater table regeneration.

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THE CONTEXT

The system in question was thought to allow the replacement of the opened retention system with the target to regain space and be able to expand Construction G-Nesis' yard; situated at 4915 Louis B. Mayer street. In the hopes to maximize the yard's storage surface, the underground retention system's layout of 1037 m³ (36621 pi³) was required to compensate for the initial retention system's volume already in place.

THE SOLUTION

The HydroStor retention system with groundwater table regeneration was therefore selected by the constructor as the solution and installed. The staturated installation of around 190 HydroStor HS 180 chambers surrounded by clean stone in a restrained pond of 36 m (118 pi) in length by 29 m (95 pi) in width, made it possible to now stock 1037 m³ (36621 pi³) of water during a harsh rainstorm. In addition, a HydroStor pretreatment unit, included in the upstream system of the diffuser, was installed as well.

THE BENEFITS

This system, made of high density polypropylene and polyethylene, which is easy to install due to its lightweight, permitted an installation in only 4 days; including the excavation part of the labour. The HS 180 HydroStor chambers designed for projects with big volumes, as well as with restrained areas, permit to store over 5.1 m³ (180.1 pi³) of stormwater per chamber and offer 5% more volume than originally specified to the plan, making it more economic by reducing by a large amount the construction site's surface area.

Exclusive to Soleno, the pretreatment unit, made of extremely durable material, captures the hydrocarbons and floating debris, therefore, preserving the quality of the groundwater table by eliminating the possibility of sediments migration towards the chambers; which eliminates all risks of clogging. The pretreatment system allows the recuperation of the suspended matter, oil and grease, while assuring the sustainability of the system. As well, it eliminates the work in confined spaces, which facilitates the overall periodical maintenance.

