

Rainwater treatment - Rehabilitation of existing concrete structures

Many concrete structures in operation for several decades are present on the rainwater networks. These structures no longer meet current standards and are obsolete. With the technology we offer, these structures, in some cases, can be rehabilitated to meet the new requirements.

Characteristics

Depending on the hydraulic and geological characteristics, a technical proposal will be sent to you to meet the discharge standards.

In many cases, counter-current lamellar settling on lamellar structure is used. This process ensures a perfectly controlled settling thanks to a perfectly laminar flow. The sludge is trapped on the undersides of the honeycomb structures, and slides naturally to the sludge silos beneath the lamellar structures.

A siphon located downstream of the structure allows the retention of light hydrocarbons.

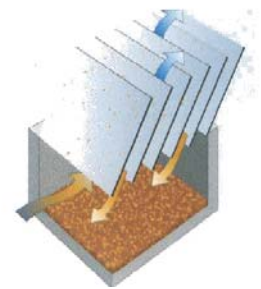


Figure 1 : Counter-current settling.

Study and design

The figures below represent a concrete structure rehabilitated with the "counter-current lamellar settling" technology. The watershed size was 4.5 ha with a traffic area of around 20'000 vehicles/day. The expected treatment rate is 254 l/s.

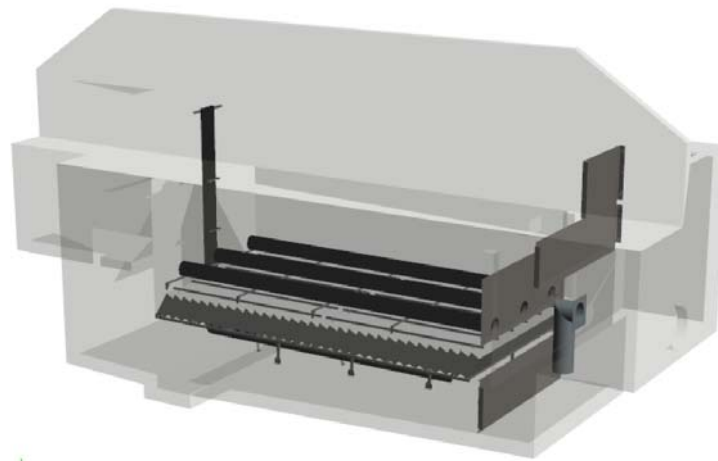


Figure 2 : 3D illustration of an existing concrete rehabilitation structure.

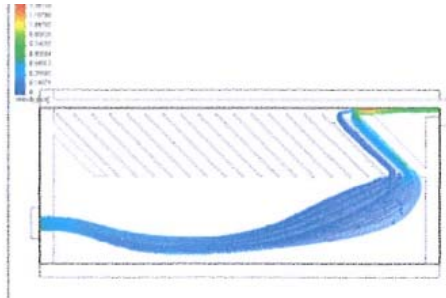


Figure 3 : Hydraulic flow before rehabilitation

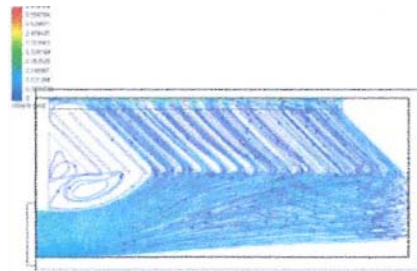


Figure 4 : Optimised flow after rehabilitation

Illustration

The images below represent real projects.



Figure 5 : Outlet siphon



Figure 6 : Overall view of the lamellar blocks upper part



Figure 7 : View of the lamellar blocks lower part



Figure 8 : Settled water channel