



New Potable Water Treatment Plant – Warwick



ABOUT THIS PROJECT:

Market Segment:
Water Treatment Plant

Engineer:
EXP

Products Used:
Xypex Admix C-500 NF

Location:
Warwick, Quebec,
Canada

Owner:
City of Warwick

General Contractor:
Groupe Deric

The City of Warwick undertook construction of a new potable water treatment plant to modernize municipal water production infrastructure and improve long term reliability of the drinking water distribution system. The project included cast in place concrete structures that would be exposed to continuous moisture and the durability demands typical of municipal water treatment facilities.

Construction was carried out under winter conditions and within defined budget constraints. These factors created challenges for conventional surface applied waterproofing systems that require multiple installation steps and increased on site labour. To address these conditions, Xypex Admix C-500 NF crystalline waterproofing admixture was specified for the concrete used in the water treatment plant structures to provide integral waterproofing and long-term durability.

Approximately 2,000 m³ of concrete incorporating Xypex Admix C-500 NF was placed during construction. Added during batching, the crystalline admixture reacts with moisture and unhydrated cement particles within the concrete to form insoluble crystals that block capillary pores and microcracks, reducing permeability and protecting the concrete against water ingress throughout the full depth of the structure.

Using Xypex Admix C-500 NF eliminated the need for multi-step surface waterproofing systems, reduced on site labour requirements, and simplified construction during winter conditions. The integral waterproofing approach provides long term durability and low maintenance performance for the potable water treatment infrastructure serving the City of Warwick.

