Bremerton Tunnel

Bremerton, Washington, USA

This time it's the $30.7 million tunnel that will divert offloading vehicles from surface roads through the new tunnel. The ferry off-load traffic includes autos, heavy trucks and buses. Recent waterfront improvements and the tunnel provide a scenic, pedestrian-friendly atmosphere. The surge in off-loading vehicles, most of whose destination is outside the downtown core, is now diverted from surface streets. The results are a safer, more accessible waterfront for pedestrians, cyclists, and Bremerton residents. Traffic backups and street congestion has been dramatically reduced.

Traditional waterproofing membrane systems were deemed unsuitable by Brenden Clarke, on-site project engineer for the Washington State Department of Transportation (WSDOT). There were numerous concerns: the tunnel was to be built on a high water table and its entire length needed waterproofing; shoring of the walls would interfere with any barrier-type system; considerable rebar work was needed on the floor, thus raising the risk of damaging a membrane; and the ceiling would be covered with a 10-ft.-deep backfill making a membrane impractical to repair.

Xypex Admix was the answer to all these concerns. Because it is added to the concrete at the time of batching, the waterproofing benefits, even under extreme hydrostatic pressure, are immediate—from the moment the concrete is poured. And, because Xypex Crystalline Technology is formulated to work inside the concrete, it is not reliant on performance at the concrete surface. This eliminates the waterproofing concerns that result from surface damage—a constant problem of traditional barrier systems.