

PROJECT:

Lining of a water main under Escalier Casse-Cou in Old Québec, a staircase dating back to 1890



CHALLENGES

Lining of the water main passing under the Escalier Casse-Cou in Old Québec, between Côte de la Montagne and Rue Sous-le-Fort. The 37 m pipe was 300 mm in diameter and had a drop of over 12 m. The use of conventional trenching techniques would have been complex, in particular because of the trajectory of the pipe, running under the terraces of historic Escalier Casse-Cou, and would have caused major disruption and greatly disturbed neighbouring businesses for several weeks.

BACKGROUND

SANEXEN was awarded the contract to renew a pipe located under the Escalier Casse-Cou in Old Québec. This staircase dates back to the early days of the construction of Québec City by Champlain, who established a permanent fortified residence at the top of Cap Diamant in 1620 and laid out the Côte de la Montagne at the exact location where the Escalier Casse-Cou now stands, arguably the oldest staircase in Québec City. The old staircase was entirely renovated in 1960. The completely deteriorated pipe, 37 m long and with a 12 m slope, was practically inaccessible.



WATER MAIN

Material: Cast iron

Diameter: 300 mm

Length: 37 m

Project Date: Summer 2021

Characteristics: Water main with a 12 m drop, in a tourist area highly prized for its historical character; work carried out without hindering the commercial and tourist activities of the sector.

SOLUTION DEVELOPED

The solution developed by SANEXEN consists in the trenchless lining of the deteriorated pipe with our ALTRA10 product, avoiding the replacement of the pipe, which would have required dismantling the staircase and digging the site to completely remove the pipe, an option that merchants, Québec City officials and tourists would not contemplate! This pipe is now completely renewed and back in service for another 50+ years.



CERTIFICATIONS



Certified to
NSF/ANSI 61



BNQ 3660-950
N° 563



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