

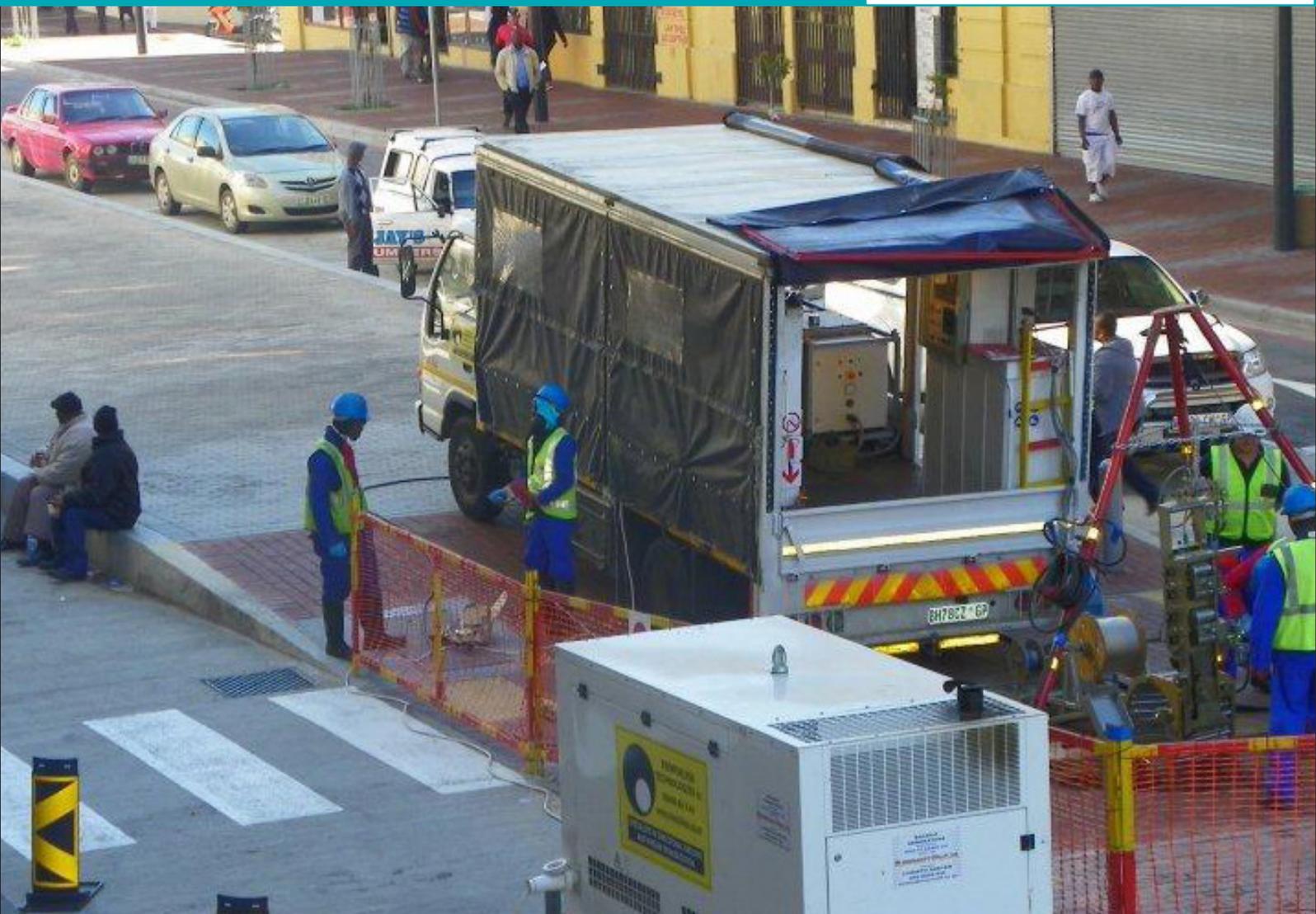
SPR[®]EX CASE STUDY

TRENCHLESS SEWER REHABILITATION CHOSEN
FOR GOVAN MBEKI AVENUE UPGRADE



EXPANDA[®]

SPR[®]EX technology, incorporating
EXPANDA[®] spirally wound system
by RIB LOC[®]



Client:
Mandela Bay Development Agency

Location:
Port Elizabeth, South Africa

Application:
Sewer

Partner:
Trenchless Technologies cc

Year:
2009

Product:
**SPR®EX / Expanda® and
SPR®PE / Ribline®**

Length:
1130 m (3707 ft)

Diameter:
DN 450 - 840 mm (18 - 33 inch)



Project Description

The contract involved the rehabilitation of two parallel sewers located beneath heavily trafficked Govan Mbeki Avenue in the heart of Port Elizabeth's CBD.

The Opportunity

Due to time constraints, rehabilitation of sewers needed to be performed concurrently with an urban environmental upgrading project involving decorative paving and resurfacing works. Non-disruptive trenchless techniques were identified as the only viable rehabilitation solution for these challenging site conditions.

Acidic effluent had severely corroded the concrete sewer lines. The most severe deterioration was detected at the sides of the larger line, where high flow velocities created 60 mm (2.5 inch) wide sills on either side above the low flow level. It was estimated that sections of sewer would collapse within 10 years.

The Solution

SPR®EX / Expanda® and SPR®PE / Ribline® technologies both provided complete no-dig pipe rehabilitation solutions, with liners able to be installed through existing access chambers.

Compact installation equipment made rapid daily mobilization and demobilization times possible, which was essential given both lines are located beneath heavily trafficked areas.

SEKISUI Rib Loc Australia's unique RIB LOC® spirally wound structural liners met hydraulic capacity requirements and maintained their circular shape and quality during installation despite the sharp edges of the sills.

The Outcome

This was the first project in Africa to use spiral wound technology. Despite the difficult challenges encountered, a genuine no-dig solution was able to successfully rehabilitate the two sewer pipelines without any disruptions to traffic or the public.

In recognition of the success of this project, Trenchless Technologies cc was awarded the International Society for Trenchless Technology (ISTT) 2012 Annual Project Award.



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