

SASTT awards AECOM for trenchless innovation at Sanddrift

AECOM has been awarded the 2018/19 Joop Van Wamelen Award for Technical Excellence by the Southern African Society for Trenchless Technology (SASTT) for its innovative approach to the rehabilitation and upgrade of the Sanddrift Bulk Sewer in Cape Town. AECOM submitted the entry as part of the project team consisting of the City of Cape Town, CSV Construction as the contractor, and Tuboseal as the specialist trenchless sub-contractor.



In 2012, AECOM conducted a condition assessment of 13km of asbestos fibre cement and reinforced concrete bulk sewers in the Blaauwberg and Milnerton Area, with nominal diameters from 300-900mm. The assessment revealed that various sections of the bulk sewers, installed originally in the 1960s and 1970s, required rehabilitation action.

However, a history of localised collapses and cavities meant that the 2km-long Sanddrift Bulk Sewer (SBS) was given priority. What made the project particularly challenging was that the SBS not only passed under residential roads, but the Sable Square Shopping Centre as well.

Hence, given the installation conditions and limitations, as well as the hydraulic and physical condition of the sewer, a close-fit inverted or pull-in cured-in-place-pipe (CIPP) rehabilitation of the first 700m and last 230m sections of the existing SBS was deemed to be the only viable trenchless rehabilitation alternative.



Technical challenges

“The main technical challenges faced by the installation team were the installation and rehabilitation of the bulk sewer beneath the surface of highly-active residential roads, as well as conducting the installation under, and from within, the underground parking garage of the Sable Square Shopping Centre,” AECOM associate engineer Konrad Röhrs comments.



“A safe installation was implemented through excellent coordination and communication, with minimal impact and disruption to the public. The end result was a set of seven cost-effective, well-cured and rehabilitated close-fit lined sewer sections, with a total length of over 700m. The project was also achieved well within the programme schedule of the overall contract,” Röhrs highlights.

Commenting on the award, Röhrs points out that while AECOM was confident in the technical excellence of its entry, it was still a pleasant surprise to be declared the winner. “The entries are usually all excellent, with strong competition, so we were happy to win.”

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