

## **HOBAS®** Twin-Line Soothes Bratislava's Growing Pains

In 2004 the city Bratislava, Slovakia, started to redevelop the area near the railway station in the district Nove Mesto. Two administrative buildings were established and the planning of two further significant constructions have been made in the last years. These developments as well as the growing urban population required a revaluation of the existing sewer capacity.



The Water Company of Bratislava, who was in charge of finding the optimal solution to the results of revaluation, decided to reconstruct and to extend the existing waste water system. They proposed to have the old DN 2600/1650 concrete pipeline cleaned and recommended its rehabilitation with HOBAS® CC-GRP SewerLine® Systems DN 1400. HOBAS products were chosen due to their hydraulic performance, the proven leak tightness of the system and the relatively low weight of even large profiles.

In order to extend the network's capacity, the Water Company of Bratislava decided to build a second line running



along the same route and functioning as twin system.

Calculations by the project team showed that HOBAS®

CC-GRP Pipes DN 2000 would ideally fulfill future demands.

Due to the limited space on site the installation was realized trenchless and in tunnels of 1.3 km length. Steel frames were used in these tunnels and as a first step steel host pipes DN 2300 were installed into which HOBAS® CC-GRP Pipes DN 2000 were consequently inserted. The tunnels were prepared with non-mechanized and semi-mechanized drill heads as well as by classic mining. The length of the drilling sections were between 100 and 145 m. As next step, the gap between the host pipe and CC-GRP Pipe was grouted with suitable materials.

The project was completed with 36 HOBAS<sup>®</sup> CC-GRP Shafts to provide a sewer system that is leak-tight at every point.

Thanks to the ease of installation and uncomplicated handling of HOBAS products, the experienced construction company Skanska BS, a.s. Prievidza was able to complete the project within 11 months. 2.5 km of HOBAS CC-GRP SewerLine® Systems including shafts and fittings worth 1.4 million Euros were successfully installed to the complete satisfaction of all partie

Overview	
Year of Construction	2006 - 2007
Duration	11 months
Length of Pipe	2.553 m
Diameter	DN 1400, DN 2000
Stiffness Class	SN 2500
Installation Method	Relining
Application	SewerLine <sup>®</sup> , ShaftLine <sup>®</sup>
Client	BVS, a.s. Bratislava
Contractor	Skanska BS, a.s. Prievidza
Advantages	hydraulic characteristics, provable tightness of the whole system, low weight of even large profiles