

Reconstructed & Extended with **HOBAS®**

According to EU wastewater regulations and based on development plans for the city Ústí nad Labem, Czech Republic, it was found necessary to reconstruct but also extend the wastewater network. The project was subdivided into several construction units and was realized in 2004 to 2006 as one of the ISPA projects in the Czech Republic.

Sewer Z2

The sewer Z2 starts at the crossroads Na Predmostí, where it links to the Z1 sewer, a DN 600 HOBAS CC-GRP SewerLine® that had been established in 1998. Z2 was planned to take the same route as the old sewer it would replace. 710 m HOBAS CC-GRP SewerLine® DN 1000 were installed to handle the sanitary waste of a city district with approximately 28000 inhabitants. A linear underground structure was designed for the line that runs through the historical city centre paralleling the river Labe on its left side in about 200 to 300 m distance.

Masarykova Street I, sewer capacity extension

Another part of the project was dedicated to the extension of the existing sewer capacity in Masarykova Street and the removal of the storm water overflow chamber OK2. The existing sewer outlet was newly connected, so that sewage is now pumped into the gravity sewer leading to the Ústí nad Labem wastewater treatment plant. The original non circular line running below the overflow chamber was replaced with a larger HOBAS CC-GRP DN 1600 SewerLine®, further slightly smaller non circulars above the OK2 were substituted with CC-GRP DN 1400 Pipes. The length of the extended section adds up to 413 m.

Masarykova Street II, sewer capacity extension

Further extensions were conducted after the assessment of the existing sewer. Non circular lines DN 400/600 and DN 500/750 had served for over 100 years and had come to the end of their lifecycle, and two overflow chambers OK7 and OK8 in Masarykova Street located closely to each other did not fulfill their purpose. A total length of 797 m had to be reconstructed. Various diameters of HOBAS CC-GRP SewerLine® ranging from DN 600 to DN 1000 were utilized to replace the antiquated egg-shaped line and to extend its capacity.

Separation of Strábrnický Brook

The design deals with the redirection of the Strábrnický Brook which used to feed the old sewer and storm water system of the municipal area Severní terasa directly to the river Labe. The brook now runs through the HOBAS DN 1100 storm water overflow sewer under the newly constructed overflow chamber.

Žukovova Street, sewer reconstruction

The ultimate part of the project handled the reconstruction of the sewer in Žukovova Street on the right side of the river Labe. The reconstruction was conducted due to the exceptionally bad condition of the lower part of the pipeline under a railway crossing. A new 316 m HOBAS CC-GRP DN 1000 SewerLine® was installed on the former route.

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Year of Construction
2006

Length of Pipe
2.6 km

Pressure Class
PN 1

Stiffness Class
SN 10000

Diameter
DN 300 - DN 1600

Installation Method
open cut

Application
SewerLine®

Client
SVS a.s. Teplice

Constructor
**SSŽ a.s., establishment
Ústí nad Labem**

Advantages
**fast installation of large diameters,
corrosion resistance**