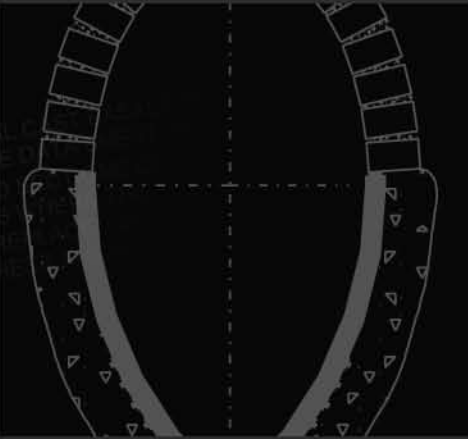




# Sewer Reconstruction

on Pařížská Street in Prague





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1

The abraded earthenware block located at the bottom of the sewer



2

Filling-in the voids behind the lining with the grouting mixture



3

Removing half of the ceramic groove



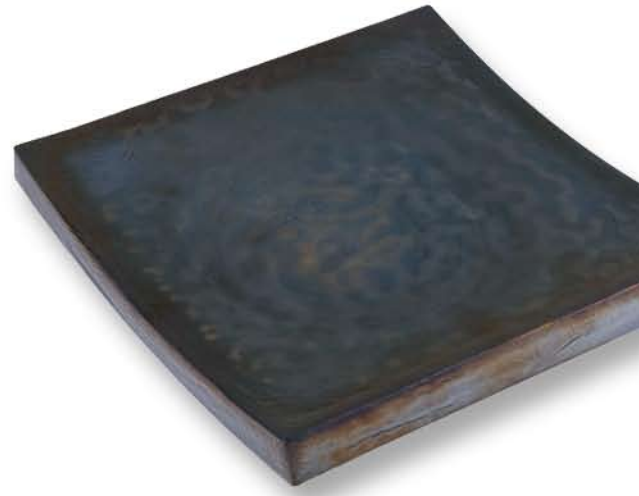
4

Pulling out two rows of bricks



5

Rough filling of the space above the area from which the damaged gutters were removed with concrete



The "A" sewer is located at the very heart of the historical centre of Prague and it flows directly through the Old Town Square where, beneath Pařížská Street, the water is diverted via an inverted siphon beneath the river and onwards to the WWTP. It was first commissioned in the year 1907.

During the 2002 floods the entire area was flooded. In the course of subsequent revisions, faults were detected that had to be rectified immediately. In addition to the voids behind the lining caused by the floods, considerable wear of the gutter and of the brickwork constituting the bottom of the sewer was also found.

Cast basalt was chosen for repairing the bottom of the sewer because of its excellent durability.

## Technical Parameters of the Construction

<b>length</b>	<b>608 m</b>
<b>profile</b>	<b>1 600/2 400</b>
<b>gradient</b>	<b>0,2%</b>
<b>sewage flow rate</b>	<b>250 l/s</b>
<b>storm-water flow rate</b>	<b>5 500 l/s</b>

### Description of the Sewer Repairs

- the static assessment of the historical brickwork of the sewer indicated that, after filling-in the voids behind the lining with grouting, the structure would be sufficiently load-bearing
- to minimise interventions involving the lining, a procedure was chosen whereby the damaged gutters from the bottom of the sewer are simply removed and are replaced using cast basalt guttering
- the sidewalls of the sewer were refurbished by pasting cast basalt segments over the original brickwork
- the completion of the embedded cast basalt structure is carried out by installing a corner block, the shorter side of which is pasted into the milled groove of the existing brickwork
- the cast basalt blocks are laid and bonded using a special EUFIX S compound – i.e. a cement-based mortar that is also utilised for grouting

6  
Pasting the cast basalt blocks using a special Eufix-S mortar



7  
Cutting a groove into the brickwork to hold the interlocking cast basalt block



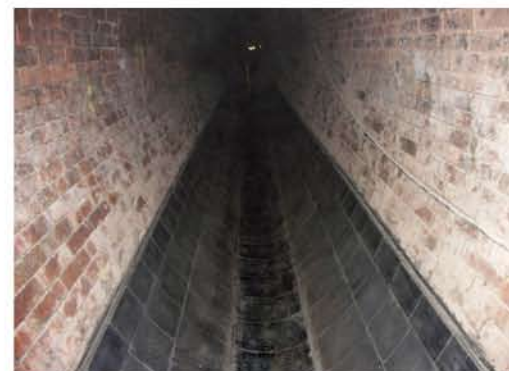
8  
Manually knocking out the cut groove



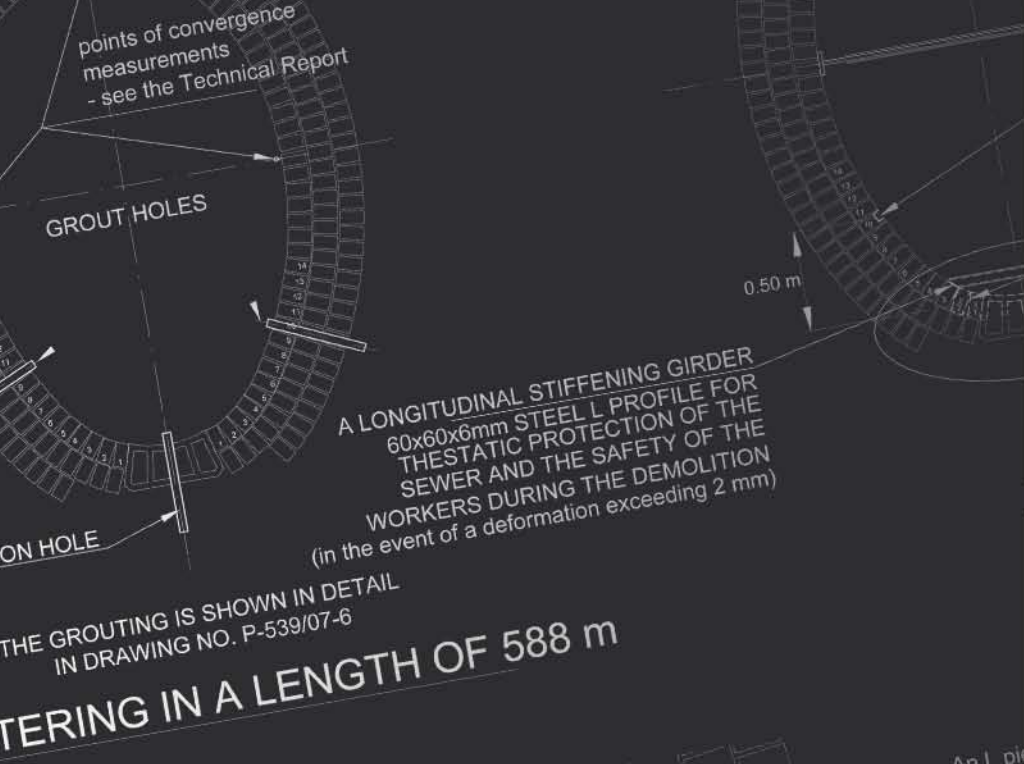
9  
Pasting the interlocking cast basalt block into the prepared groove



fáze 10  
The bottom part, lined with cast basalt, terminated with an interlocking block

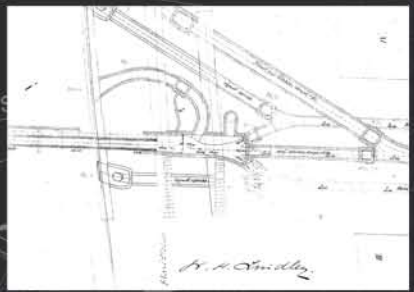
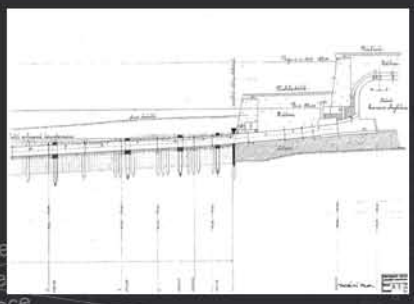
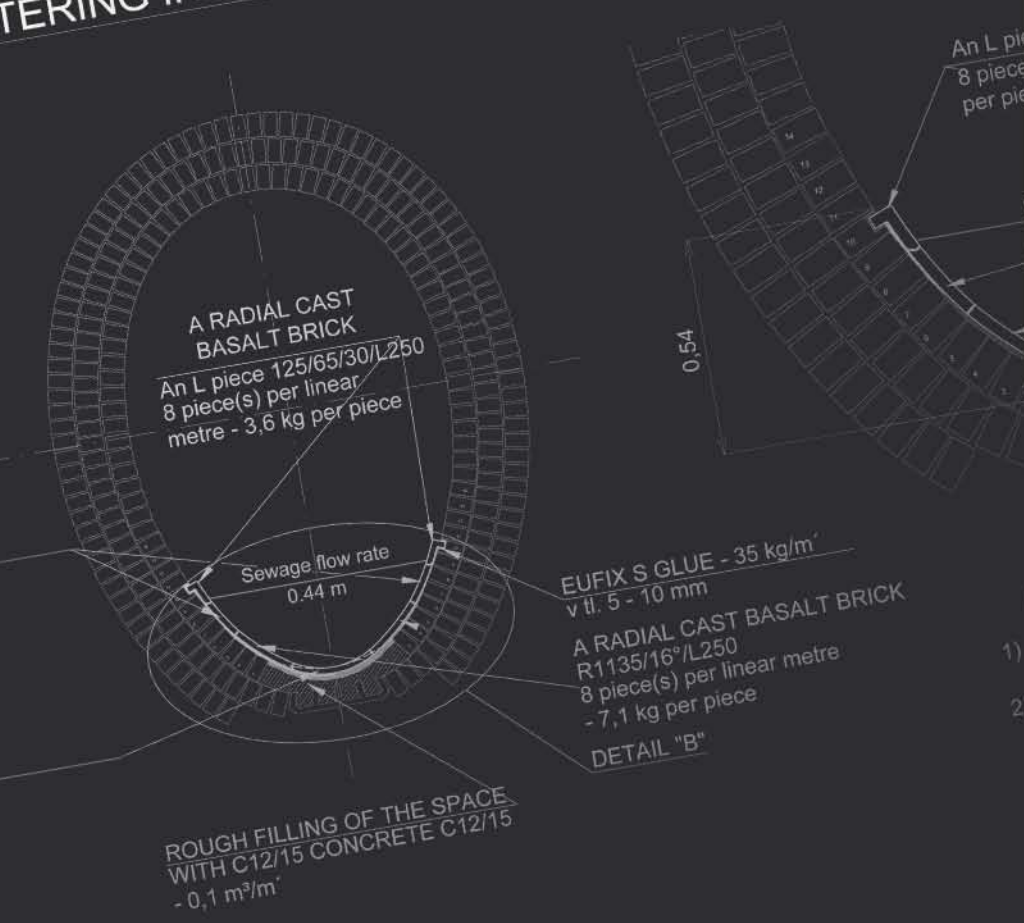






THE GROUTING IS SHOWN IN DETAIL IN DRAWING NO. P-539/07-6

**TERING IN A LENGTH OF 588 m**



**A copy of the drawing with the indications of the wall thicknesses, signed by W. H. Lindley.**

**NOTE:** WILLIAM H. LINDLEY LEFT HIS PROFESSIONAL FOOTPRINT ACROSS EUROPE: FROM ST. PETERSBURG TO BUCHAREST, FROM LONDON TO BAKU. IT IS GREAT THAT, EVEN IN PRAGUE, HE CONTRIBUTED IN A SIGNIFICANT MANNER TO THE SUCCESSFUL RESOLUTION OF UNSATISFACTORY SANITARY CONDITIONS.



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