

## **BAM in Berlin replaces its sewage pipes in surrounding area with the FRIAFIT® sewage system**

Site: Federal Institute for Material Research and Testing (BAM),  
Unter den Eichen, Berlin

Client, Invitation to  
Tender and Job  
Management:

Federal Building Office (Bundesbauamt), Berlin

Pipe Installation:

Tief- und Wasserbau GmbH, Blumberg/Land Brandenburg

Background:

The Federal Institute for Material Research and Testing (BAM) is a federal office in Berlin. The office, and its predecessors, has been located at the “Unter den Eichen” site for over 100 years. Between the buildings there are grassy areas with extensive forestation.

Sewage pipes in this area, amounting to about 5 kilometers in length – mainly made of pottery – have aged considerably. Ingrowing roots and damage to the pottery pipes caused by routing have led to the fact that all pipes in the wooded areas must be replaced by HDPE pipes and construction parts from the FRIAFIT® range.



## The BAM terrain

The Federal Institute for Material Research and Testing is located in a large urban area on the border between Zehlendorf and Steglitz, “Unter den Eichen”, on the B1. It comprises a large number of buildings which are connected to the main sewer by combined building sewers gravity pipes. The open areas between the buildings are covered with trees and bushes.



Picture 1: Digging pipe trench past trees

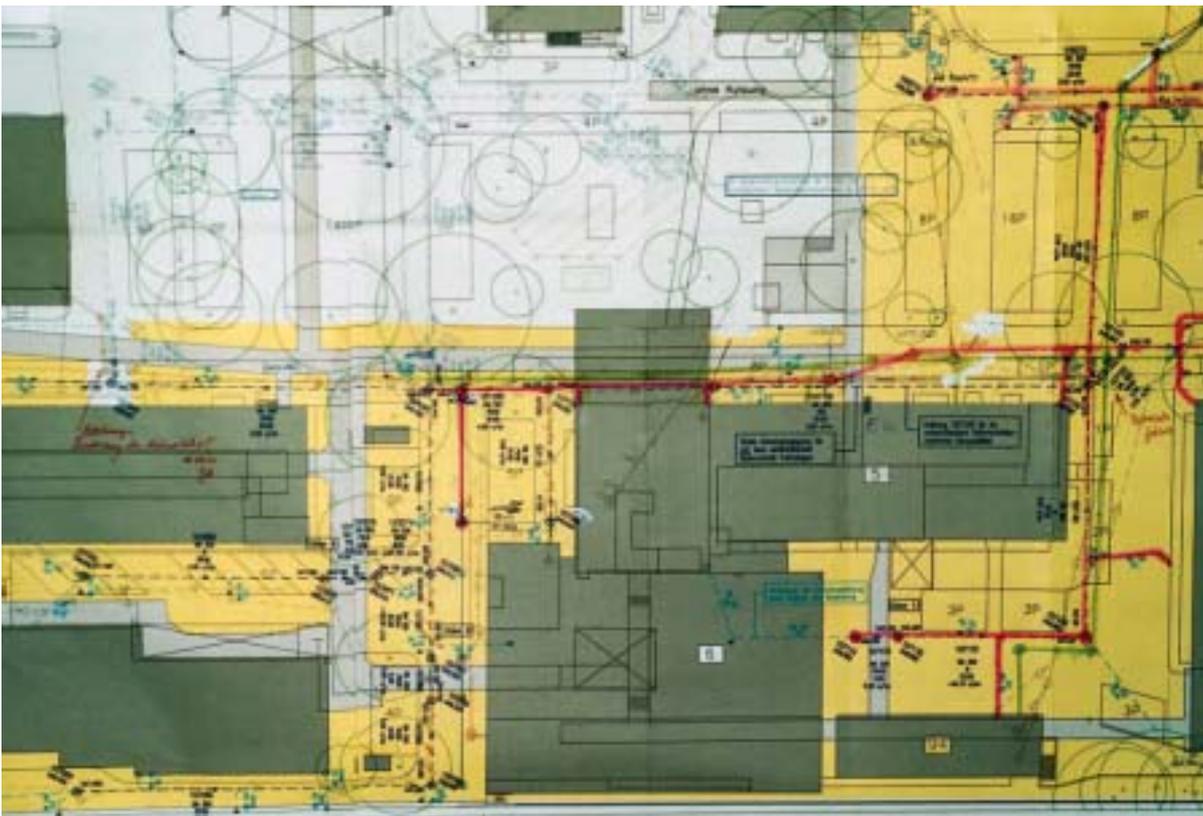
## Task in Hand

The existing pottery gravity pipes on the BAM property are between 35 - 110 years old. Ingrowing roots and routing of the pottery pipes over many years has led to blockages every few metres or so. The clearing out of these pipes afforded only short term success because the mechanical stress to the pipe caused by routing frequently led to cracks which caused further blockages. Drainage problems in the laboratories became the order of the day.



Picture 2: HDPE pipes and inspection chambers just before installation

Picture 3: Section from the area plan:  
Trees (see circles) dominate the open terrain



## The Federal Building Office settles for FRIAFIT®

When confronted on site with the problems posed by pottery pipes with push-fit couplers, the Federal Building Office quickly realised the great advantages offered by FRIAFIT® sewage fittings in connection with HDPE pipes: in addition to the lightness of the pipe material, FRIAFIT® sewage fittings interconnect HDPE pipes leak-proof and longitudinally strong using FRIAFIT® fusion technology. Cracks at or near the arch springing line due to ingrowing roots, or at the couplers due to static stress or flushing out of pipes can no longer occur.

## Extent of Building Works

The three construction stages so far comprise the installation of HDPE pipes measuring d 110, d 160, d 225, d 355 and d 450 in SDR 17.6. Further installations in additional construction stages are expected to take another 3-4 years. For the connection of these pipes and the reaches on the concrete inspection chambers, to date 754 sewage couplers, 246 sewage slide-on couplers and 189 sewage inspection chamber adapters from the FRIAFIT® range were delivered and already almost completely installed.

## Pipe installation company speaks highly of the FRIAFIT® range

In view of how difficult it is and always has been to dig out pipe trenches in a forested area and to sink especially in sandy terrain, the installation of the FRIAFIT® sewage system was a particularly pleasant experience: light material, long dimensions of the HDPE pipes, technically comprehensive, clear and easy handling of the FRIAFIT® couplers, slide-on couplers and inspection chamber adapter.



Picture 4: Inspection chambers furnished with FRIAFIT® inspection chamber adapter



Picture 5: Fusing a FRIAFIT® coupler d 450

## Without advice and service nothing is doing!

An additional success factor is on-site advice and service. The service packet on offer determines the degree of comfort and quality of a construction procedure. Therefore, the FRIAFIT® range includes the following

- Training
- Advice
- Showing
- Demonstration on site
- Service on site
- Testlaying

All these are part of the planning process right down to project completion, and assist planner and construction company effectively and consistently. They also make up the reasons for FRIAFIT® products being in great demand in sewage system construction.



Picture 6: Demonstration on site: scraping of a HDPE pipe d 450 using FRIATEC scraper tool FWSG 630



Picture 7: Advice by FRIATEC specialist on technology and sales.