



research bridges railways tunnelling monitoring technology management international

## Leo-Wohleb Bridge

The Leo-Wohleb Bridge - built in the early 1970ies - is situated in Freiburg and leads across the River Dreisam. The bridge's geometry follows a strongly curved ground view and has a total length of 116.60 m divided into two 26.80 m long side spans and a 63.00 m long main span. The bridge deck has a total width of 14.75 m. The prestressed structure consists of a concrete box-girder whose height varies from 2.80 m over the piers to 1.85 m in the middle of the main span. The Leo-Wohleb Bridge is supported by neoprene bearings at the northern abutment and by movable roller bearings at the southern abutment. A fixed bearing is situated on the northern pier.

In the course of the prevailing investigation a dynamic monitoring campaign was undertaken in order to determine the global condition of maintenance (the structure's integrity) as well as the load bearing capacity by means of BRIMOS®. Along with the conventional bridge assessment this investigation supports the determination and localization of potential problem zones based on the measured structure's vibration behaviour.

The present investigation is to be understood as an initial measurement. Possible upcoming measurements are to be referred to this initial one - possible changes of the structure's operational integrity can be quantified with this approach.

- Client: Stadt Freiburg im Breisgau  
Garten- und Tiefbauamt  
Abt. Bauen und Planen  
SG. Ingenieurbauwerke
- Location: Freiburg - Breisgau,  
Germany
- Checking Period: 2008



### BRIMOS® Services conducted:

- |                              |  |   |   |  |
|------------------------------|--|---|---|--|
| <b>Lifecycle Management:</b> | <input checked="" type="checkbox"/> Condition Assessment | <input type="checkbox"/> Condition Monitoring | <input type="checkbox"/> Rehabilitation Planning  | <input type="checkbox"/> Quality Control |
|                              | <input type="checkbox"/> Lifetime Assessment             | <input type="checkbox"/> Traffic Analysis     | <input type="checkbox"/> Environmental Influences | <input type="checkbox"/> Risk Assessment |
| <b>Special Measurements:</b> | <input type="checkbox"/> Attendant Monitoring            | <input type="checkbox"/> Noise and Vibrancy   | <input type="checkbox"/> Deflection Measurements  | <input type="checkbox"/> Seismics        |