

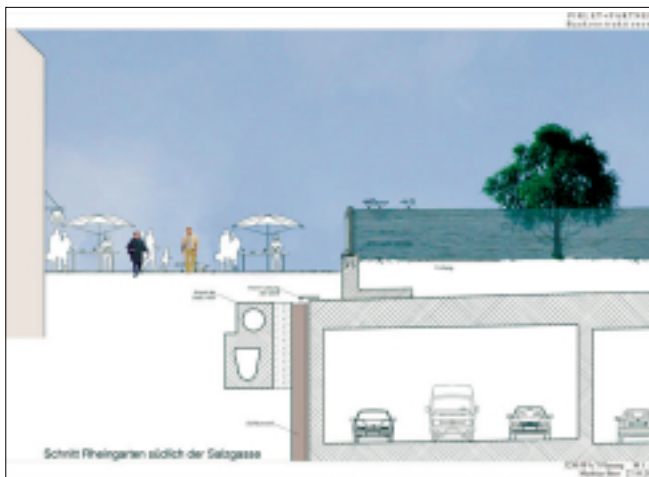
# Flood Defence Scheme

## City of Cologne – all Districts, Germany



*View of the Rhine promenade of the City of Cologne*

The world famous Cologne Cathedral is sited on the "Dom Platteau", but the medieval part of Cologne, the old town, lies at a much lower level and has been flooded numerous times by the flood waters of the River Rhine. Cologne's entire inner-city area is protected along the flood defence line at the Rhine by the IBS system. The system's anchorages are all sunk into the ground to ensure that the panoramic view of the city is not spoilt in any way.



*Cross-section: The IBS flood defence system mounted on top of the road tunnel*

### **Client:**

Stadtentwässerungsbetriebe Cologne AöR

### **Overall length / area:**

9.300 m / 13.000 m<sup>2</sup>

### **Height:**

0.30 to 4.50 m (free cantilever up to 2.10 m)

### **Design loading:**

Full hydrostatic pressure + 20 kN/m<sup>2</sup> surcharge or alternatively 30 kN point load

+ loss of tension bolts

### **Characteristic features:**

- Symmetrical posts with pre-installed ground plates
- Replaceable compressable seals
- Interlocking dam beam profiles
- Height adjustable with rising floodwaters
- Limited number of system components
- Simple compression of dam beams
- Erection on landward side