



Project:

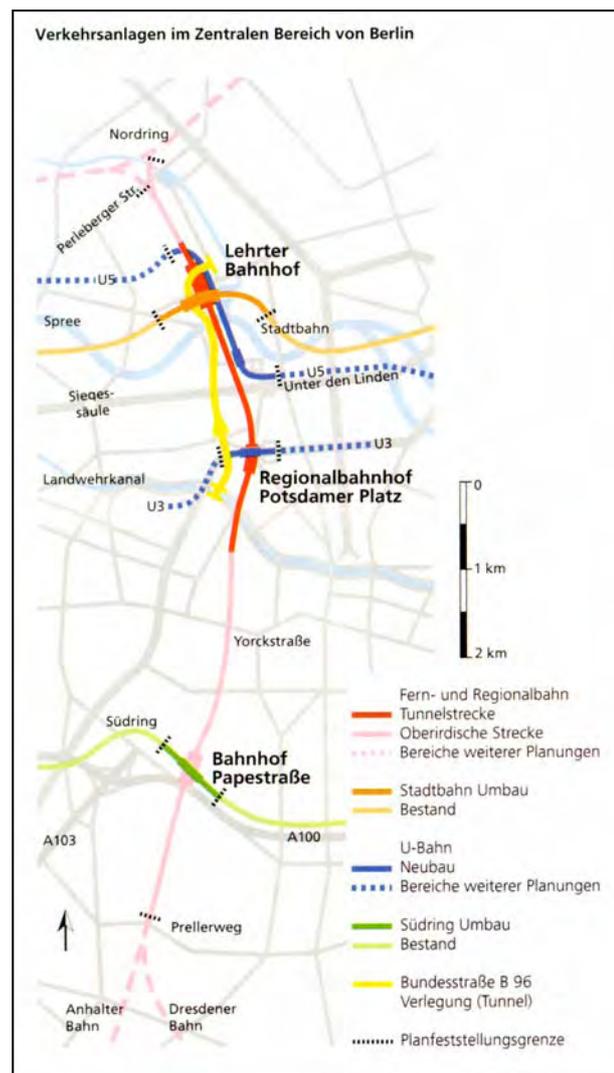
Slab Track / Mass-Spring-Systems

Railways
in the
Centre of Berlin

Tunnel
Section North

with the new
'Central Station'
Underground
North-South

2002 - 2004





View from the cut and cover section into the Bored Tunnel Section. Turnouts and tracks on Mass-Spring-System.



Track and Turnouts in cut and cover section as floating slab track construction.

The Office J. Radermacher GmbH was charged by the track work contractor to perform the preliminary-, intermediate-, final design and as built design for this track work project in the City of Berlin. The new 4 Railway Lines 4 km underground with 8 underground station tracks in the future Main Station of Berlin crossing Berlin in North-South direction in bored tunnel Sections and cut and cover sections.

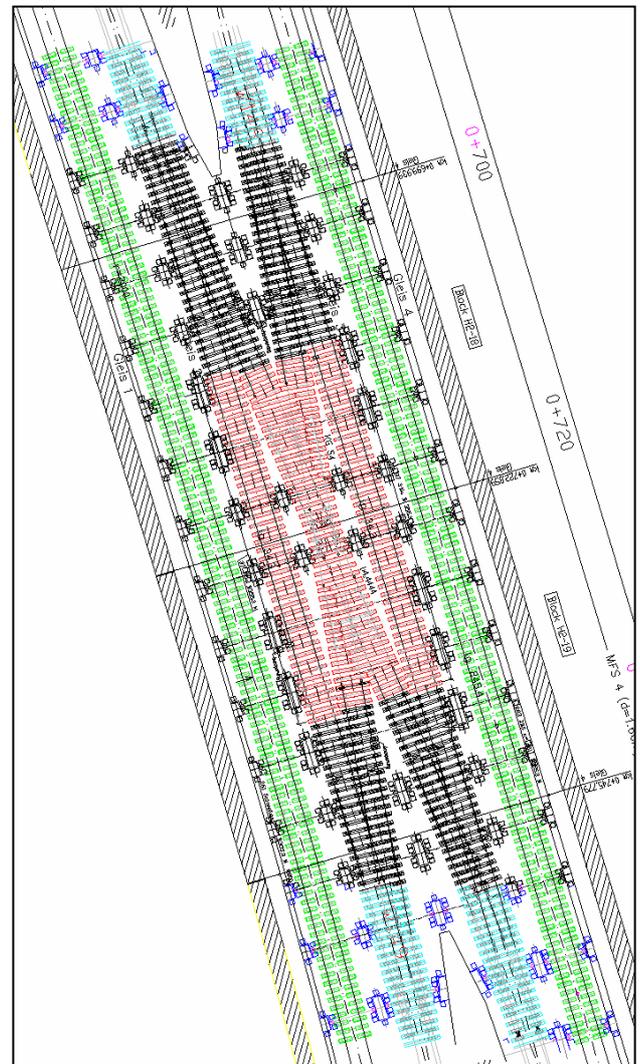


Layout of the new Central Station of Berlin. The coloured North-South 8 station tracks underground and the 4 East-West station tracks and 2 S-Bahn tracks on viaduct.

Special emphasis was requested for environmental influence reduction generated by the railway system in the underground. Therefore different mass-spring-systems with the result of reduction to 23 Hz to 8 Hz pending on the construction on top or beneath the tunnels.

The requested results could be achieved by special measurements and different track construction types for the slab track and the noise and vibration reducing systems e. g. individual bearings or full size elastomeric material underneath the track slab.

Finally 6 different main types of noise and vibration reduction measurements were performed. On the photos shown on the page before you can see the covers for the access shafts to the individual bearings next to the tracks and turnouts. In total 56 turnouts are constructed as floating slab track system.



Layout of cross over section with arrangement of bearings for the turnout slab