

# CAMPUSBRÜCKE OPLADEN

OPLADEN, GERMANY

## HIGHLY COMMENDED

SHORT SPAN

The Campüsbrücke, which opened in June 2013, is the first of two competition-winning bridges crossing a 100m wide high-speed railway corridor and links the town centre with a 40ha redevelopment of an historic train maintenance depot.

The bridge is a chain of five single-span weathering steel beams resting on concrete piers located in narrow margins between eight electrified rail tracks. With relatively short spans of 12m to 24m, each segment was able to be easily transported and installed, minimising traffic disruption and requiring comparatively modest structural depths.

The webs of each span's trough cross-section vary in height between 750mm at the bearings and 1200mm midspan, representing the prevailing bending moment diagram and providing a safe and impenetrable barrier above the overhead cables. Narrowly-spaced structural stiffeners on the outside of each beam are extended vertically beyond the top flange to a fixed height of 1800mm above deck level replacing regular parapet posts.

Each stiffener is cut in an individual geometry - constant on pedestrian side and variable on the outside - visually adding up to a sinusoidal curve reversing the geometry of the top flange. The louvre-like arrangement of the extended stiffeners, their width and their narrow 600mm spacing create a unique visual effect, overlapping in perspective to a solid enclosure and revealing the lightness of the bridge in elevation.

Flat wooden extensions of the lamellae within the pedestrian envelope,

framed with narrow stainless steel edges, clearly distinguish public space from structure. Tubular stainless steel handrails provide space for the inset of energy-efficient LED lighting. The high quality of the finishes make clear that the bridge has been designed with a strong focus on its users, communicating its role as a gateway in a pleasantly-welcoming gesture ■

### JURY'S COMMENTS

*"Idiosyncratic yet logical. Lovely sinusoidal geometry giving complex shading from all angles. Good use of both timber and weathering steel to mix the human-centered with minimal maintenance."*



Photo: Wilfried Dechau

**Commissioning authority:** Neue Bahn Stadt Opladen  
**Principal designer:** Knippers Helbig  
**Architect:** Knight Architects  
**Contractor:** Bauunternehmen Hofschröder  
**Steel fabrication:** Müller Offenburg