ABSTRACT

The structures and the track system which are part of the Dutch High-Speed Railway connection between Amsterdam and Paris, project HSL-Zuid, have all been analyzed for their dynamic behavior with regard to structural integrity and passenger comfort. This paper describes the general approach of these analyses and goes into more detail with regard to the bridge across the Hollandsch Diep, one of the most eye-catching structures in this project. The optimization of the level of passenger comfort by introduction of a pre-camber in the alignment of the track system as well as the dynamic behavior of the steel transition slab, part of the track system and covering the expansion joints between bridge and abutments, are relevant issues with regard to the interaction between bridge and track.