

**Seismic Design Procedure of Reinforced-soil Bridge Abutment and an Example of  
its Performance Verification**

Kenji WATANABE    Ryosuke KURIYAMA    Hidetoshi NISHIOKA    Masayuki KODA

In recent years, in order to construct a bridge abutment which can behave satisfactorily even against very high-intensity seismic load, reinforced-soil bridge abutment has been often used for the railway structures. Seismic design procedure of this abutment was first indicated in 2007. Based on the latest basic research progress, the design procedures such as seismic response calculation method and definition of damage level of reinforcement material were revised to be included in the new design standard which was published in 2012. It has become possible to evaluate reasonably the seismic response value (residual displacement) and seismic performance of the reinforced-soil bridge abutment owing to this revision. This paper summarizes the revised points of the seismic design procedure.