

## **Influence of Structural Details of Beam-to-column Joint in RC Viaducts on Capacity**

Yuki NAKATA      Ken WATANABE      Toshiya TADOKORO

RC beam-to-column joint in a railway viaduct is designed to satisfy structural details. However, when overcrowded reinforcement arrangement measures are taken at joint or high strength rebar is applied to members, a relationship between details of reinforcement arrangement and capacity of joint is required. In this study, we carried out cyclic loading tests and 3D FEM analyses to clarify its relationship. The results show that as the inside radius of bend of longitudinal reinforcement decreases, the capacity of joint decreases because of the reduction of compressive strut width, and that the ties in the joint have little effect on the capacity, even though it increases the deformation performance.