

**Evaluation Method for Seismic Active Earth Pressure
Acting on Back of Retaining Wall with Cohesive Backfill**

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In Japan, seismic reinforcement of retaining walls has been actively carried out. In the current Japanese seismic design standard of railway structures, seismic active earth pressure is evaluated without taking account of backfill cohesion effect. However, the approach results in an overestimation of seismic active earth pressure acting on the retaining wall. On the basis of the above, by conducting a series tests using models, the authors aim to clarify the effect of backfill cohesion on appearing characteristics of seismic active earth pressure acting on retaining walls in this study. The authors propose an evaluation method for seismic active earth pressure considering the effect of cohesion mobilized on failure planes and the adhesion force mobilized on the back surfaces of retaining walls.