

**Method of Estimating the Maximum Response Displacement of the Shed  
in Consideration of the Coupled Vibration Behavior Between the Shed and the Viaduct**

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Regarding the earthquake response of the shed over the viaduct, it is ideal that it is calculated by using the integral model of the shed and the viaduct. The calculation by the integral model requires a large amount of work because the structural design of the shed and the viaduct. In this report, factors affecting the earthquake response of the shed are grasped. A method of estimating the maximum response displacement of the shed in consideration of the coupled vibration behavior between the shed and the viaduct is proposed based on the information obtained from each of the structural designs of the shed and the viaduct. We verified the applicability of this method in the case of the earthquake in the defined seismic design standards for railway structures.