

**Development of Device to Return to the Original Position the Soundproof Plate Possessing a Function of
Wind Load Reduction and Evaluation its Durability**

Masanori HANSAKA Daigo SATO Shogo MAMADA
Masakazu KIYAMA Nozomu TANIGUCHI

In order to install a sufficiently high soundproof wall without reinforcing the viaduct drastically, we have developed a new type of soundproof system. This system is mainly composed of a soundproof plate supported by a rotary axis and fixed by a strong magnetic attractive force, and the plate can be opened when strong wind blows. In this system, the plate needs also to be returned to the original position soon after the wind becomes weak. Therefore a device to return the soundproof plate has been developed. Moreover the durability of this system which is necessary for this system to be used practically has been evaluated.