

Quantitative Estimation of the Influence of Surrounding Buildings on Wayside Railway-noise Level

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At densely populated areas along railway-tracks, surrounding buildings affect the railway-noise propagation. Although the railway-noise level often decreases by the shielding effect of the buildings, it can increase by the sound reflection on the buildings depending on the condition of their locations. Therefore, in this study, the model experiment where parameters of building conditions are changed is conducted to evaluate the effects of reflection or shielding by the buildings. Consequently, quantitative estimation of the influence of surrounding buildings on wayside railway-noise level is revealed and a model to evaluate the effects of reflection or shielding by the buildings is proposed.