Analytical Study on Impact Factor of Reinforced Concrete Rigid-Frame Viaduct

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In this research, by carrying out the numerical analysis, we clarified that impact factors of a center slab and a cantilever slab were 0.20 and 0.48 respectively, the resonance speed must shift at about 45-60km/h when we considered the difference of the Young's modulus, and that the stiffness of the structure was evaluated greatly when we considered the stiffness of nonstructural element like concrete road beds. In addition, we clarified the predominant vibration mode shape and suggested the simple calculation method concerning the impact factors of rigid-frame viaducts.