Development on Seismic Retrofit by Outframe (Key Grid System) Part 5 Test of Prestressing Force of PC Bars

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The Key Grid System joins a plate with a pin to the existing building by post-tensioning with PC bars. In this case, PC bars penetrate the existing beam. However, damage to the existing beam might reduce the prestressing force of PC bars.

The effect of damage of the existing beam on the prestressing force of PC bars was investigated. Variation in the prestressing force of PC bars was confirmed. Moreover, the test result was evaluated by the proposed equation.