

## **6. Development of a Method for Seismic Strengthening Existing Braces**

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A seismic retrofit method was developed to stiffen braces with angle sections for greater strength against buckling by attaching angular steel pipes to angle sections without welding or punching. A method for stiffening lattice columns against buckling using angle sections was also devised. Buckling tests were conducted to evaluate the effects of retrofit and the resistance to buckling. As a result, it was verified that angular steel pipes are effective for retrofitting angle sections and that the results of calculation made considering the effects of retrofit were in agreement with test results in the safe side.

**Keywords:** braces, stiffening against buckling, seismic retrofit, angle sections