

# **Evaluation of Shear Capacity of RC Pile Head Based on Equivalent Shear Span Method**

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In the verification of reinforced concrete (RC) piles, the design shear capacity  $V_{yd}$  of bar members is used based on the experimental results of simply supported RC beams. On the other hand, since RC piles are subjected to ground reaction forces, unlike simply supported conditions, the shear capacity may be greater than  $V_{yd}$ . In this paper, we used nonlinear finite element analysis to evaluate the shear capacity of RC pile heads taking into account ground reaction forces. We have shown that the equivalent shear span method, which is applied to the analysis of slabs of underground box structures, can also be applied to the analysis of RC pile heads.