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**The stability of riprap used to protect bridge piers**

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This study presents an analysis of the stability of riprap used to protect bridge piers. A two-dimensional finite element analysis was used to calculate the active earth pressure developed by soil against a vertical wall. The analysis included consideration of soil properties, soil-water characteristics, soil strength, and soil-structure interaction. The results were used to predict the stability of riprap used to protect bridge piers.

Photographs located in the original manuscript document illustrated many situations of interest. Higher resolution photographs and some photographic enlargements are included here to illustrate the range of applications of the study to bridge protection problems. Other photographs are omitted.

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