

## **Fyfe Company Technical Report Abstract FW-10**

### **Masonry Bearing and Shear Walls Retrofitted With Overlay Composite Material**

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Unreinforced masonry bearing and shear walls have been found to be vulnerable to earthquakes. One technique to reduce the seismic vulnerability of these structures is to retrofit the masonry walls using the Fyfe Company's Tyfo Fibrwrap System. To ensure that this technique will perform its intended purpose, the USA CERL (Construction Engineering Research Laboratories) and TVA conducted seismic analysis and shake-table seismic testing using USA CERL's Triaxial Earthquake and Shock Simulator. The tests have shown that applying the overlay material to one side of the unreinforced masonry wall will enhance its seismic resistance. It is worth noting that the walls exhibited significant out-of-plane shear strength.