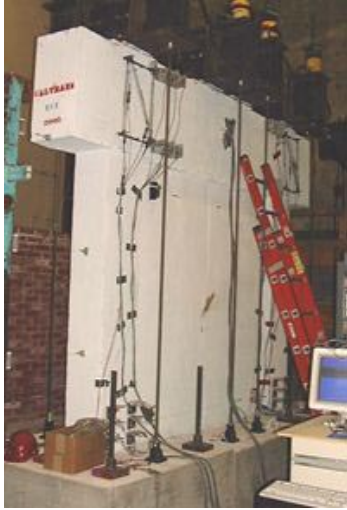

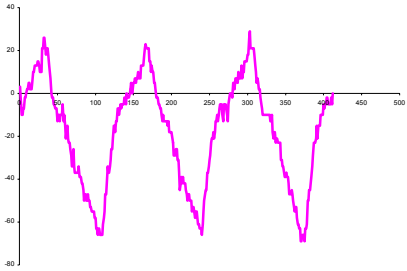


Concrete Shearwall Destructive Testing

Project	OFS Instrumentation of concrete shearwall during simulated traffic loading to destruction
Client	Californian Transport Authority
Date	2001
Location	University of California Irvine, USA
Sensors	SmartPatch
Attachment	Surface bonding
Interrogator	OFSSSI
Images	<div style="display: flex; justify-content: space-around;">   </div> <p>Left. Caltrans test wall - SmartPatch just visible in the centre of the section at an angle of 45 degrees. Above. Failure at end of testing.</p>
Results	<p>A large scale test of a concrete shear wall section was carried out in the UCI Department of Civil and Structural Engineering. SmartPatch sensors were applied to provide some additional information on the performance of the shear section of the wall. Locations were identified by Caltrans and UCI engineers, with one patch on each side of the wall at +45° and -45°. These patches were positioned in the centre of the shear section of the concrete panel.</p> <p>Surface preparation involved grinding of the bonding area to ensure a flat surface and remove paint, abrasion of the surface area to provide a secure bond and final cleaning using cleaning fluid. After surface preparation, temporary attachment was carried out using vinyl acetate “hot melt”. The test procedure involved lateral excitation of the top of the structure, using a large capacity hydraulic actuator. A low frequency cyclic load was applied, with the amplitude increasing throughout the test until failure of the structure.</p> <div style="text-align: right;">  </div> <p>Example of data acquired by Smart Fibre OFSSSI. Full data withheld.</p>
Further information	Withheld