



*UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN*  
*Department of Civil and Environmental Engineering*

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To Whom It May Concern:

I am pleased to provide this letter of reference for Shore Western of Monrovia, California. My first contact with Shore Western was in 1996, while I was on the faculty at the University of Notre Dame. They supplied me a high-speed, high-force, high-frequency actuator to facilitate testing of the world's largest magneto-rheological fluid damper. This actuator met all requirements of this unique application. Since that time, I've worked continuously with Shore Western to address a variety of challenging servo-hydraulic testing applications, two of which I mention here.

Shortly after I moved to the University of Illinois in 2002, we were awarded a grant from the National Science Foundation to establish an innovative laboratory for advanced hybrid simulation. The key concept behind this new laboratory was the use of modular Load and Boundary Condition Boxes (LBCBs) that would facilitate hybrid simulation experiments that could not be conducted previously. Numerous challenges had to be overcome to realize the LBCBs, ranging from theory to hardware to software. Shore Western was a fully-engaged partner in all activities, including their development of a 1/5th-scale, fully-functional model of our facility that is now used extensively to prequalify experiments for the large-scale facility. Through the strong support of Shore Western, we were able to establish a world-class facility at the University of Illinois. We continue to collaborate with Shore Western on the maintenance and operation of our facility. More information can be found at: <http://nees.illinois.edu/>.

Shore Western also produced a 6DOF seismic simulator specifically designed to meet the need of the Smart Structures Technology Laboratory at the University of Illinois. The hardware and control system for this 2m x 2m system has performed extremely well, meeting all of the needs of my students.

In all of my experiences with Shore Western, I have found them to be highly competent and knowledgeable. They have tirelessly worked to understand our needs and meet them. I recommend Shore Western to potential clients without reservation, and would be happy to discuss my experiences with potential clients.

Sincerely yours,

B.F. Spencer, Jr.  
Newmark Endowed Chair  
in Civil Engineering  
Director, Newmark Structural  
in Engineering Laboratory