



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE
Oregon State University Student Chapter



**Mr. Leslie
Robertson**

**Friedman Family Visiting
Professional**

April 14, 2004

We are very pleased to have had the opportunity to have Mr. Robertson visit Oregon State University. Mr. Robertson's visit was the highlight of this year's EERI-OSU calendar. Mr. Robertson spent a busy Wednesday with student members of EERI-OSU and the OSU Civil Engineering faculty. Many opportunities were provided for both engineering students and faculty to interact on a very personal level with such an accomplished and down-to-earth engineer.

The day began with a tour of OSU's newly expanded National Tsunami Research Center and the strong floor structural testing facility. Dr. Higgins, a former student of Mr. Robertson, explained the ODOT testing being undertaken to examine the performance of Oregon's 500+ shear-cracked bridges.

Mr. Robertson then presented to Dr. Vinson's senior capstone design class a lecture entitled "The Seismic Design of a 500-meter Building in Shanghai." Topics included structural systems, redundancy, seismic and wind loading, and special considerations for working with a large team in a foreign culture.

The second lecture presented by Mr. Robertson was entitled "Structural Systems in Structural Steel" and was delivered to the junior-level steel design course instructed by Dr. Miller. Structural systems from a variety of interesting projects were discussed, as was the role of the Architect-Engineer relationship in the satisfactory completion of any project.

The third and final lecture of the day was "The World Trade Center – Design, Construction, and Performance of a (then) Advanced Building System". The lecture was held in the evening at LaSells Stewart Center and was open to the general public. Attendance was estimated at 400-500, and included architecture students from the University of Oregon and professionals and students from Portland. Discussion of the structural design of the Twin Towers, which included wind modeling, redundant inner and outer macrostructure tubes, and an innovative floor support system, constituted the bulk of the presentation. The logistics of delivering millions of tons of pre-fabricated structural elements from across the country to downtown Manhattan, and other construction considerations, were also presented. Finally, the destruction of the Twin Towers was an inevitable topic. The floor was opened for audience questions, and Mr. Robertson was very generous with his time.