The Department of Civil and Environmental Engineering offers ABET accredited Bachelor of Science degrees in Civil Engineering and Environmental Engineering, and MS and PhD Graduate Degrees in Civil and Environmental Engineering. The Department of Civil and Environmental Engineering is the home of the Center for Civil Engineering Earthquake Research (CCEER) that comprises two research laboratories: Large-Scale Structures Laboratory (LSSL) and Large-Scale Geotechnical Laboratory (LSGL). Almost 20 academic, research, and administrative faculty, research scientists, and technicians are affiliated with CCEER, and about 30 doctoral and masters students are engaged in research projects under the Center’s umbrella. In its 25-year history, the Center has become well known for its work in advancing seismic safety, particularly in the area of highway bridges. The Center also addresses issues in non-structural components, building systems, soil structure interaction, and equipment qualification.

The primary feature of the LSSL is a 7500 sq. ft high-bay laboratory. This laboratory includes multiple high-capacity high-stroke actuators (55-kips to 94-kips), high speed data acquisition and instrumentation as well as four 50-ton high performance shake tables with the capability of simulating large earthquakes. Each shake table may be located anywhere on the laboratory floor, which is unique to the University of Nevada, Reno site. Three of the tables are bidirectional, and one has six degrees-of-freedom. The laboratory is one of 14 equipment sites in the NSF-funded George E. Brown Jr. Network for Earthquake Engineering Simulation (NEES), established in 2004. The laboratory’s actuators are capable of applying dynamic and quasi-static loads to full-scale components or large-scale systems. The LSSL is currently being expanded primarily through the award of a competitive grant (125 proposals-5 funded) from the National Institute of Standards and Technology (NIST). The new building will consist of a high-bay with strong floor (9600 sq. ft), a strong wall, office space, and an auditorium. The addition of the new building will provide the LSSL with 17,100 sq. ft of structural floor.

The LSGL has operated within the LSSL, but now has 400 sq. ft. of dedicated laboratory space for performing geotechnical related experiments. The facility includes two soil containers: large soil tank and shear (laminar) box. The LSGL is equipped with a structural frame, data acquisition, and a hydraulic pump which provides the flexibility of setting up experiments with different configurations.