McNeal Hall Seismic/Deferred Maintenance Upgrade

Overview
McNeal Pavilion was completed in 1956 and named for the late Roy McNeal, the University’s first athletic coach. The original building included a large gymnasium, multi-use rooms, locker rooms, classrooms, offices, and support spaces. McNeal is a concrete masonry and steel structure with wood-frame partitions, floors, and roof.

Seismic Deficiencies
In July 2013, a bulging wall was noticed at the southwest elevation of McNeal Hall. SOU contracted with ZCS Engineering (Grants Pass, OR) to determine the cause and recommend solutions. The investigation found significant corrosion in the steel columns and reinforcement that are embedded in the concrete masonry walls. The ZCS study concluded that the steel corrosion was due to extremely high levels of chloride within the original grout mix along with moisture penetration into the concrete masonry walls over the years. The problems were likely compounded by low quality materials and lack of quality control during construction. Due to the severity of this deterioration and possible wall failures, SOU contracted with Degenkolb Engineering (Portland, OR) for a second opinion which confirmed the ZCS assessment.

A facility condition analysis conducted by the ISES Corporation in July 2008 noted the deficient seismic conditions not only at the exterior walls but also at the wood-framed floors at the ground floor and roof levels.

The engineering reports indicate that, because of widespread structural steel corrosion due to carbonation from inferior concrete installed during initial construction, wall failures will occur unless a solution is implemented. The ZCS report states, “Permanent solutions would include complete demolition and replacement of the 1956 structures or at least the removal and replacement of the masonry walls.” Cost is estimated at $6 million.

Deferred Maintenance
The ISES Corporation conducted a detailed assessment of McNeal in July 2008. The report recommended major repairs and maintenance to the entire building shell, noting original clerestory windows had reached the end of their life span, the entire roof needed to be replaced (sections completed in 2011), and the interior of the pool (deck, walls, windows) all needed to be replaced and upgraded along with most of the mechanical equipment. The locker rooms, fixtures, surfaces, and equipment are “in poor condition, and a comprehensive locker room renovation . . . is recommended.” However the issues of greatest concern are the fire and HVAC deficiencies. Specifically noted were life safety issues such as unrated door assemblies and stairwell and corridor separations along with a “minimal supplied fire alarms and partial sprinkler system.” The HVAC deficiencies noted are the recommendation of complete replacement of the 1956 and 1966 systems (80% of the building) and upgrade and balancing of the 1991 (20% of the building) systems.

The report also noted that all plumbing fixtures (in both the 1956 and 1964 construction) are past their useful life. Conditions of fixtures range from “needing immediate replacement” to “short term failure,” depending on the location within the building. The report also noted that plumbing fixtures, valves, equipment, etc., in all parts of the facility should be replaced due to deterioration, energy inefficiency, and excessive water
consumption. The building does not conform to ADA requirements and has no elevator for the three levels. People move between floor levels on interior/exterior ramps. **Cost is estimated at $15.875 million.**

**Urgency**
In June 2013, OUS Vice Chancellor for Finance and Administration Jay Kenton testified to the Ways and Means Subcommittee on Capital Construction regarding the urgency and necessity of this project from a life-safety standpoint. In testimony he stated that this project would be brought forward in the February 2014 session. SOU agrees with that assessment and would be concerned for the safety of students, faculty, staff, and others if this project was postponed again. **Total cost is $21.875 million.**