

UNDERFLOOR SERVICE DISTRIBUTION

by Tate Access Floors

Oregon State University
Kelley Engineering Center
Portland, OR

HIGHER EDUCATION PROJECT

150,000 gross sq ft
93,000 access floor sq ft
4 Stories

PRODUCTS USED:

ConCore CC1250
Underfloor Air System
Underfloor Cabling System



Subject

OREGON STATE UNIVERSITY KELLEY ENGINEERING CENTER

At the time OSU undertook the four-story, 153,000-square-foot Kelley Engineering Center, it had a goal to become one of the top 25 engineering schools in the nation, providing research laboratories, classrooms and office space to more than 150 faculty members and 300 graduate students in the OSU School of Electrical Engineering and Computer Science. With an objective of creating a sustainable structure that integrates inspiring architecture with advanced HVAC systems, the USGBC's LEED rating system offered an appropriate framework for meeting these requirements, taking the Kelley Engineering Center down the path of becoming the first academic engineering building in the country to receive a Leadership in Energy and Environmental Design gold rating.

A soaring central atrium, daylight illuminated Graduate Research Assistants' offices, and perimeter office spaces located in close proximity with open sky-bridges and stairwells providing access to the common areas, office spaces, laboratory and computer labs, the Kelley Engineering Center demonstrates cutting-edge applications. The building's mechanical and electrical systems employ many emerging technologies that respond to user comfort, energy efficiency and integrated design, one of which is Tate's underfloor service distribution. Raised access floors allow for easy maintenance and upgrades of underfloor cables—a must for the rapidly changing environment of computer engineering. The underfloor air system uses variable volume diffusers to control the air, and the atrium serves as an air plenum with its own set of motorized intakes and vents. With the exception of a chiller for the computer spaces, the building does not need artificial heating or cooling 90 percent of the time. Occupants in each of the (approximately) 140 offices have thermal control over their space as well as operable windows. As a result of an integrated approach to HVAC and architectural design, this project has contributed greatly to the physical campus environment, serving as a learning resource for students, and helping this institution create a facility that demonstrates its values of sustainable building.

Tate[®]



First LEED® Gold Certified
Academic Engineering Building in
the United States

TATE AUTHORIZED DEALER

Fred Shearer & Sons
Beaverton, OR

ARCHITECTURAL FIRM

Yost Grube Hall Architects
Portland, OR

GENERAL CONTRACTOR

Skanska USA Building, Inc.
Beaverton, OR

ENGINEERING FIRM

Glumac International
Portland, OR