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An ACE in the hole for high schoolers

Mentoring program gives students a first-hand look at the architecture, construction and engineering professions.

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Recognizing the need to educate high school students about career opportunities in architecture, construction and engineering, Jon Magnusson of Magnusson Klemencic Associates joined fellow industry leaders in 2001 to start an ACE Mentoring Program chapter in Seattle.

Hayes

Founded on the East Coast in 1994, ACE is an after-school mentoring program that offers students the opportunity to work with professional staff members from leading architecture, construction and engineering firms.

The mentor companies join into teams and "adopt" a group of 20 to 25 high school students for the duration of a school year. For the first part of the program, each mentor discusses their roles, responsibilities and how their discipline interrelates with others on a construction project. During the second half of the program, each team is assigned a theoretical project to plan and design.

Teams are organized like real-life design/construction teams. For example, a team might include an owner, architectural firm, construction company and an engineering firm.

Photo courtesy of Sellen Construction

Students in the ACE program tour Vulcan's 428 Westlake site, where Sellen Construction is building a new home for clothier Tommy Bahama.

The program starts at the beginning of the school year and meets every two weeks at 4-6 p.m. until the end of the school year. The meetings are usually held at offices of the mentor firms, with the meeting place rotating so students are exposed to a variety of workplaces. At the end of the program, the teams make oral presentations of their projects to peers, mentors, family and friends.

There are many reasons why a student should enroll in the free ACE program. Career guidance, exposure to a variety of office environments, enhanced skills, possible summer/part-time jobs, and the opportunity to earn a scholarship are some of the benefits.

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Since the Seattle chapter began, $11,000 in scholarships have been awarded. With 92 percent of ACE graduates going on to college (over 80 percent study ACE-related majors), this is a great chance for the students to focus on their future career and to earn tuition money. For the mentoring firms, this program offers possible interns, future employees, and more importantly, an opportunity to encourage interest in the architecture, construction and engineering fields.

2002-03 projects

Students participated from several local schools including, Ballard, Ingraham and Franklin high schools. The enthusiasm and hard work of the 2002-03 teams were apparent in their year-end presentations. The Tuesday team proposed a 13-story mixed-use building in downtown Seattle containing office space, retail and an ice rink. In answer to Seattle's transit problems, the team replaced a Western Avenue parking lot with a new monorail station.

The Wednesday team designed a 44-story high-rise for the new Washington Mutual Bank headquarters. The proposed structure contained the Seattle Art Museum, as well as parking, office space and housing. A dramatic skate park and helipad observation deck were key features to their design.

2003-04 projects

There are currently three groups for the 2003-04 academic school year focusing on current “hot buttons” in the design and construction industry.

The Tuesday team is designing a new Seattle Aquarium to be located just offshore from the planned Olympic Sculpture Park, which will be accessed from the park via a footbridge. The aquarium will include a restaurant and sea-life exhibits of the Northwest and tropical regions. Also, the students have been very creative in discussing the kinds of events and activities to include in the aquarium. The team just completed the programming phase and is now in concept design.

The Wednesday team is considering the Central Waterfront redevelopment that Seattle city officials are also studying. Since the Wednesday group involves a larger number of students, they have been divided into three smaller subsets, with each examining a different aspect of the redevelopment. One group is looking at what to do with the viaduct, another is designing a hotel on the waterfront and the last is developing a plan for the whole area (urban planning).

The last team, which meets on Thursday, is undertaking the redesign of the World Trade Center in New York City. Their focus is on a commercial office tower with a building footprint of 25,000 to 40,000 square feet to anchor the Manhattan skyline. The tower base will house cultural, entertainment and retail functions, as well as provide direct access to transit, which are similar program requirements of the actual design competition.

With the support of leading architecture, construction and engineering firms, this program has quickly grown from 10 students to over 60 in just three years. ACE wants to reach students who otherwise may not be aware of the challenges and rewards of a career in the design and construction industry.

Brad Hayes is a vice president and project manager at Sellen Construction. He's been involved with ACE for two years and has recruited many Sellen mentors for the program.

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