ASCE MLAB Awards
Nomination Application

1. Select Award Category

- ☐ Outstanding Government Civil Engineering Project
- ☐ Outstanding Private Sector Civil Engineering Project
- ☐ Outstanding Sustainability Project
- ☐ Outstanding Architectural Engineering Project
- ☐ Outstanding Civil Engineer in Government
- ☐ Outstanding Civil Engineer in the Private Sector
- ☐ Lifetime Achievement in Civil Engineering
- ☐ Outstanding Younger Civil Engineer
- ☐ Outstanding Faculty Advisor
- ☐ Outstanding Practitioner Advisor
- ☐ Outstanding Civil Engineer in Legislative Activities
- ☑ Outstanding Civil Engineer in Community Service
- ☐ Excellence in Journalism

2. Award Information

Name of person or project being nominated:

TERRY DOOLEY

Person and/or Project Contact Information:

Name: TERRY DOOLEY
Organization/Agency: RETIRED / ACE MENTOR PROGRAM
Address: 2901 28TH ST. #100
City, State, Zip Code: SANTA MONICA CA 90405
Phone: (310) 566-9296
Email: tdooley@morleybuilders.com

3. Nominator Contact Information

Name: JAY HIGGINS
Organization/Agency: URS CORPORATION
Phone: (818) 406-4896
Email: jay_higgins@urscorp.com

4. Award Description

A) Summary: In 75 words or less, please describe the nominee and why the nominee should be considered for an award (attach a separate sheet).

B) Detailed Description: In two pages or less, please describe the nominee and why the nominee should be considered for an award (attach separate sheets).

C) Nominee Pictures: Provide either a PowerPoint Presentation (two slides maximum with no animations) or two jpeg files that include name of nominee, picture(s) of nominee, and agency logo if appropriate.

5. Award Supporting Documentation

Submit any supporting documentation that would help the committee appreciate the worthiness of the application such as photographs, newspaper stories, other awards, etc.

6. Award Submittal Instructions

Submit the nomination application and the summary and detailed description in PDF format and the PowerPoint slides and/or jpeg files on a CD to:

Hector J. Bordas
LA County Dept. of Public Works
Watershed management Division, 11th Floor
900 S. Fremont Ave.
Alhambra, CA 91803

Or by email to: hbordas@dpw.lacounty.gov

7. Additional Information

NOMINATIONS ARE DUE BY MAY 31

For additional information please visit the website at www.ascemlab.com or contact Hector Bordas at 626/458-5947 or hbordas@dpw.lacounty.gov.

ASCE Metropolitan Los Angeles Branch 2010 Awards
Nomination of Terry Dooley for
Outstanding Civil Engineer in Community Service

4. Award Description

A) Summary

Terry Dooley, P.E., has dedicated many years to ACE Mentor Program, a student outreach program introducing high school students to career opportunities in architecture, construction, and engineering. In 2002, Terry, the founding Director of the Los Angeles Chapter, retired from a distinguished career as a builder of some of California's notable structures to become a volunteer builder of teenagers' careers. He has directly and indirectly influenced the lives of more than 1,000 students from low-income areas of Los Angeles, Orange, and Riverside counties.

B) Detailed Description

As a young civil engineer, Terry Dooley took up residence in California in 1954 and over the next five decades helped to change the skyline of Los Angeles and San Francisco. He devised the structural steel erection scheme for the Fairmont Hotel Tower in San Francisco. In Los Angeles, he oversaw the seismic repair and restoration of Powell Library and Royce Hall at UCLA. He directed the seismic base isolation of Rockwell Building 80 in Seal Beach, for which he was co-winner of the American Society of Civil Engineers' 1991 Award for Innovation. The capstone of his career is a modern architectural icon, the Cathedral of Our Lady of the Angels in Los Angeles, where he led the planning and construction by Morley Builders.

Terry put aside his hard hat when the cathedral was completed in 2002 and donned the garb of a volunteer education leader. The founder of a burgeoning national after school program – the Architecture Construction Engineering (ACE) Mentor Program of America – tapped Terry to lay the foundation for ACE's affiliate in the Los Angeles metropolitan area, the first on the West Coast.

Terry's extensive network throughout the building industry and his experience managing complicated construction projects made him the ideal person to take on the task of starting ACE program in Los Angeles. And so began Terry's second successful career – a full-time volunteer who has created and led a free educational program in Southern California that has inspired hundreds of inner city high school students to go to college in architecture, engineering and construction and has provided them with $500,000 in scholarships through 2010.

ACE was established in 1995 when several far-sighted New York City engineers, architects, and construction professionals concluded that the design and construction industry faced a looming shortage of workers over the next several decades. They realized the best way of attracting new talent into the industry's workforce was to capture the interest of high school students and to stimulate them to pursue careers as engineers, architects, and construction managers. ACE relies on volunteer mentors – all practicing architects, engineers, and construction professionals – to conduct the program. Several mentors from different fields form a team with about 20 high school students. Any interested student may participate in ACE without charge.

Terry Dooley took on the challenge of founding ACE's Los Angeles affiliate with enthusiasm and commitment. In the first year he recruited mentors, and found schools willing to participate in the program. He raised funds for scholarships and for team expenses such as food, transportation and insurance. With the help of volunteer legal counsel, he created a local Board of Directors, incorporated and secured the organization's non-profit status. When the first year concluded in May 2003, he had recruited 18 mentors who worked with 45 students from three high schools. Nine graduating high school seniors were awarded college scholarships, and one went into

carpenter's apprenticeship training. Five of these students have received bachelor's degrees, and one is now is law school. The others are working in design and construction. One 2003 ACE graduate now leads the ACE mentoring team at his former high school.

From the start of the ACE program in Los Angeles, Terry decided to focus the program on schools with a significant proportion of disadvantaged youth. Today 75% of ACE students attend schools where 60% or more of the student body is eligible for the free and reduced lunch program. Many are the first in their family to finish high school and the first to enter college. ACE's challenge of working with an under-privileged population makes its success all the more notable

Since 2002, Terry has sparked ACE's expansion several fold. Now operating in three counties, ACE this year involves 350 students organized into 18 teams and drawing students from 28 schools. There are 90 regular professional mentors, supplemented by hosts at offices, labs and construction jobsites. In June 2010, approximately $90,000 in scholarships will be awarded to an anticipated 75 students. In eight years, the ACE-Los Angeles has emerged as the third most active ACE affiliate.

Thanks to Terry's inspiration and leadership, in the eight years since 2002, ACE-Los Angeles has reached over 1,000 students, many of whom participate in the program for two or more years. Almost 500 professionals have donated countless hours as mentors. Just over $1 million has been raised for scholarships and for operating expenses such as insurance, buses, and receptions honoring students and mentors. A total of 375 scholarships have been awarded to students. They attend many colleges and universities in California as well as such prestigious institutions as the University of Michigan, Brown, Cornell, and MIT. More than one-third of students who complete the ACE program go on to study architecture, construction and engineering in college with ACE scholarship support. Several have entered apprenticeship training in the construction trades. Additional students have entered college but not in design and construction. This is an enviable record of success.

Terry is the last person to seek recognition for his tireless services in creating and leading the ACE affiliate in the Los Angeles metro area. He does not carry a title, such as executive director, that truly reflects his role in the organization. Rather, he identifies himself as a "Member of the Board of Directors." He works quietly behind the scenes. Many students are not aware that he has gone to bat for them to get internships or admission to colleges where he has contacts.

For Terry, ACE is a worthy cause which he promotes without consideration of the time involved. His reward comes from watching talented young individuals grow and succeed. He is helping to build a future, diverse workforce for an industry that nurtured him and his family for 50 years. Over his lifetime, Terry Dooley has progressed from building structures to building lives.

ASCE Metropolitan Los Angeles Branch 2010 Awards
Nomination of Terry Dooley for
Outstanding Civil Engineer in Community Service

C) Nominee Pictures

Terry Dooley at the 2005 ACE Awards Banquet

Terry Dooley with two scholarship recipients

ASCE Metropolitan Los Angeles Branch 2010 Awards
Nomination of Terry Dooley for
Outstanding Civil Engineer in Community Service

5. Award Supporting Documentation

See attachments

ACE Mentor Program

SUCCESS STORIES

ACE MENTOR LOS ANGELES METROPOLITAN AREA, INC.

ALUMNI OF THE ACE HIGH SCHOOL MENTOR PROGRAM
These Students and Others Are Nearing College Graduation

KENT KAEWWAEN

Kent was an active member of our ACE team as a student at John Marshall High School in Los Angeles. He attended East Los Angeles College. While studying there worked as an intern for Jacobs Construction Management, helping with development planning work on that campus. He worked also on the upgrading of K-12 schools in that neighborhood. Kent transferred to the University of Southern California, where he is now working toward a bachelor's degree in Structural Engineering.

ALIYA POPATIA

Aliya joined the ACE Mentor Program as a Santa Monica High School student. She went on to the Massachusetts Institute of Technology, where she received her Bachelor of Science degree in Art and Design in Architecture. During vacations, Aliya interned with architects Perkins + Will and with affordable housing developer LINC Housing Corporation of Long Beach. She worked on the Museum of Modern Art summer 2009 exhibit in the New York City.

FABIAN LOPEZ

Fabian was a member of the ACE team at Century High School in Santa Ana. Century is one of the three original schools in the ACE program in southern California, where ACE has been in service to students since 2002. Fabian now is a student at Cal Poly Pomona, majoring in Electrical Engineering and Computer Science. He is a member of Eta Kappa Nu scholastic honorary fraternity, and has worked during vacation with Southern California Edison Company.

SOLYNA LY

Solyna also was on the ACE team at Century High School, Santa Ana. With ACE guidance, she progressed to Cal Poly Pomona, where she is working toward a degree in Landscape Architecture. She is a member of the Khmer Student Association, and has done summer work with landscaping departments of the City of Los Angeles Bureau of Street Services. Like the other students shown on this sheet, Solyna has received ACE Mentor scholarship help along the way.

ACE Mentor Program

SUCCESS STORIES

ACE MENTOR LOS ANGELES METROPOLITAN AREA, INC.

ALUMNI OF THE ACE HIGH SCHOOL MENTOR PROGRAM
These Students and Others Are Succeeding in College and Beyond

RICARDO ZENDEJAS

Graduate of Roosevelt High School, Los Angeles.
Awarded an ACE scholarship May 2004 and renewed it in subsequent years.
Studied two years at Cal Poly Pomona, then transferred to UCLA.
Graduated from UCLA June 2008, B. S. in Civil/Structural Engineering.
Now in Masters Degree program, Design-Construction Integration, Stanford University

GINA ESCALANTE

Graduate of John Marshall High School, Los Angeles.
Awarded an ACE scholarship in May 2003 and renewed it in subsequent years.
Has interned with Gruen Associates and at DMJM Harris.
Graduated June 2008 from the University of California Davis.
B. S. degree in Urban Planning.

THAI NGUYEN

Graduate of John Marshall High School, Los Angeles.
Awarded an ACE scholarship in May 2003 and renewed it in subsequent years.
Interned with ACE Mentor firms during college years.
Graduated August 2008 from Cal Poly San Luis Obispo.
B. S. degree in Construction Management.
Now with PCL Construction Services, Glendale, CA

MANUEL HERRERA

Graduate of Roosevelt High School, Los Angeles.
Awarded an ACE scholarship in May 2004 and renewed it in subsequent years.
Will graduate April 2009 from the University of Michigan.
B. S. degree Architecture.
President of the Michigan Chapter, National Organization of Minority Architecture Students
Has interned as a graphic artist and graphic designer in Chicago and Ann Arbor.
Interned during Summer 2008 with AECOM Design in Los Angeles.

PHOTOS

ACE MENTOR LOS ANGELES METROPOLITAN AREA, INC.

Terry Dooley at Work for ACE Mentor Program of Los Angeles

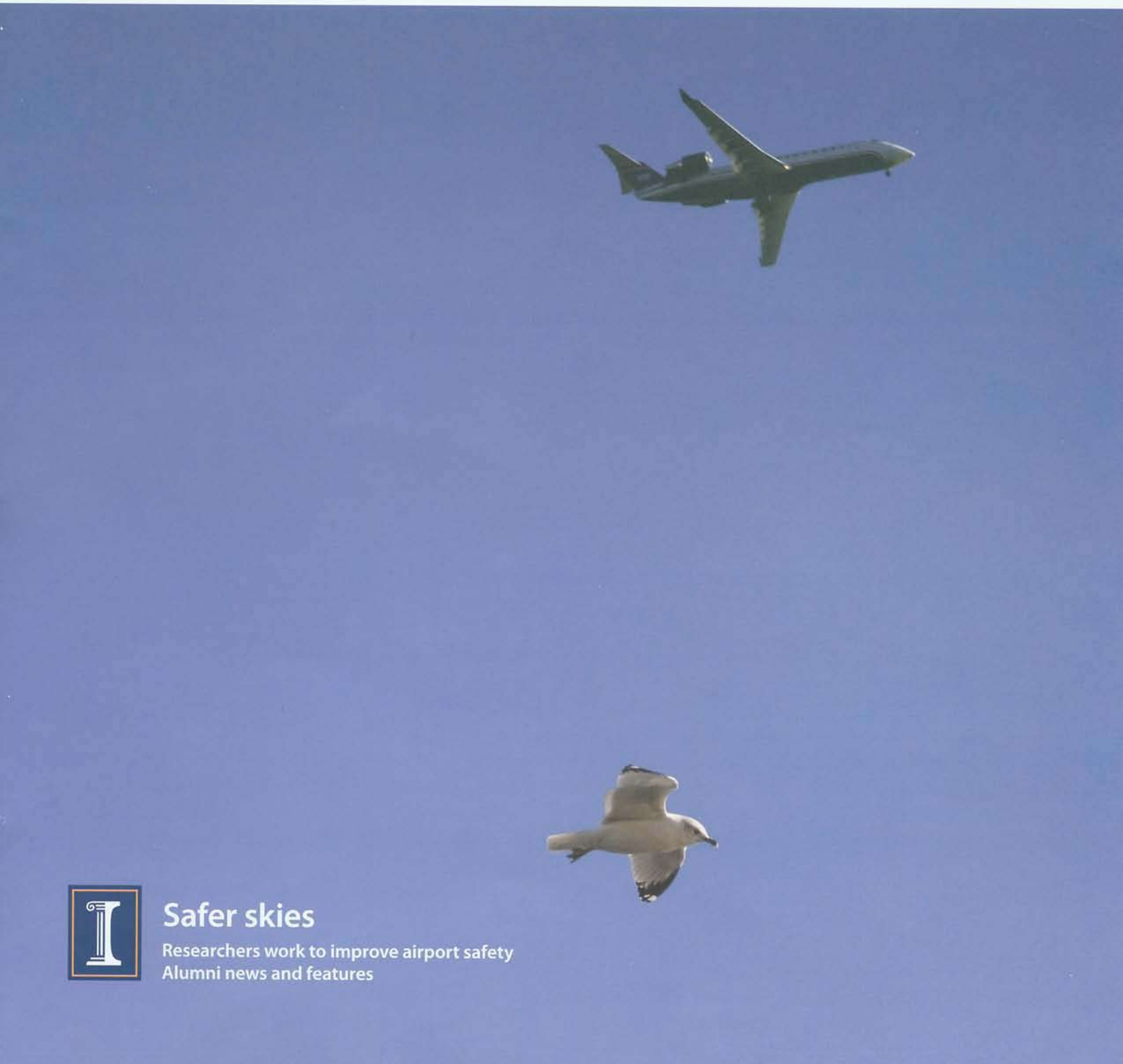
At a fall 2009 fund-raising reception for donors and other professional friends of ACE, Terry Dooley introduces several ACE alumni who, with ACE's scholarship assistance, have recently earned university degrees in architecture, engineering, and construction management and have begun their professional careers. Since he founded the Los Angeles affiliate of the ACE Mentor Program of America in 2002, Terry Dooley has raised more than $1 million to cover student scholarships and program expenses.

One Saturday every fall, ACE organizes a competition where all the student teams from Los Angeles, Orange, and Riverside counties can learn, compete, and have fun. The competition in October 2009 was held at the Southern California Institute of Architecture. Student teams were challenged to design a structure made from pasta. Each structure was subjected to a seismic test on a shake table. Here students, teachers, and mentors, together with Terry Dooley (seated in the middle), react to the collapse of one of the pasta models.

During his leadership of the ACE Mentor Program of Los Angeles, Terry Dooley has leveraged the support of many groups and companies. These relationships have strengthened the program through donations and in-kind services. Here he is pictured with Michael Cochran (r.), president of the Structural Engineers Association of Southern California. This group has supported ACE for eight consecutive years, supplying mentors and scholarship funds.

CEE

Department of Civil and Environmental Engineering
University of Illinois at Urbana-Champaign
Winter 2009



Safer skies

Researchers work to improve airport safety
Alumni news and features

Thousands of inner-city students are being introduced to the fields of architecture, construction and engineering through the ACE Mentor Program

By Terry Dooley (BS 54)

Ricardo Zendejas is well on his way to a successful career in civil engineering. In June he graduated from the University of California, Los Angeles, (UCLA) with a bachelor's degree in Civil/Structural Engineering, and he is now working toward a master's degree in Design/Construction Integration at Stanford University. Along the way, Ricardo has benefited from the encouragement, mentorship and opportunity provided by volunteers from the ACE Mentor Program.

Ricardo's road into engineering originated on one of the crowded high school campuses of the Los Angeles Unified School District and passed through two years at California State Polytechnic University, Pomona, before he reached UCLA. Through the years, volunteers from the architecture, construction and engineering professions advised him, encouraged him, and helped him land an internship at Pankow Builders in Pasadena. Like thousands of inner-city high school students across the country—many of them from groups under-represented in engineering and families in which they are the first to graduate from high school—Ricardo is an ACE Mentor Program success story.

I introduced the ACE (Architecture, Construction, Engineering) Mentor Program to the Los Angeles metropolitan area in 2002, just as I was retiring from a 48-year construction career on the West Coast. Since then I have been helping to build the ACE program as a volunteer. ACE introduces inner-city high school students to professionals from these fields and shows students how to follow in their footsteps. I was the initial Chairman for ACE in Los Angeles and now serve as Secretary of its Board of Directors.

The program has two principal aims: help to produce the next generation of design and construction professionals, and open doors for urban youth to opportunities they might not otherwise know about or know how to access. In Los Angeles, 80 percent of the ACE student population is from what typically are considered minority groups. About half are women.

Founded in 1994 in New York City, the ACE Mentor Program now has spread nationally to 110 cities with about 10,000 active high school students. The program operates by linking teams of a half-dozen professionals in the ACE disciplines with about two dozen upper-level high school students. In the Los Angeles model, because of the geographic spread of the region, most teams are built around high schools or small clusters of schools. Teams meet every two weeks from October through May, after school hours. The meetings are sometimes at the school but more often at professional offices, construction sites and universities. In other cities, including New York and Chicago, teams are built around specific professional offices, with students traveling from multiple schools. In some cities the program meets every week, but for a shorter time, usually November through April. There are the same 15 or 16 meetings per academic year.

Participants in the ACE Mentor Program concentrate on a bridge-building project.

In autumn the model is "show-and-tell," with professionals demonstrating what they do and telling what education and experience it took to get there. The students visit professional offices and construction sites. Some of the mentors are minority group members with links to the inner-city. In spring the team works on a design/budget problem assigned by local ACE leadership. In 2008, the Los Angeles teams determined a specific new building need or renovation need on their own school campuses. They then designed, modeled and budgeted, with mentors' help, structures that fit to scale within the footprints of their school sites. The work of all the teams was

ACE Mentor Program:
www.ACEmentor.org
ACE Los Angeles:
www.ACEmentor.org/579

The 2008 ACE awards banquet, held at the Los Angeles Convention Center.

displayed at the Annual Awards Banquet this summer at the Los Angeles Convention Center, for a crowd of approximately 700 people, about evenly divided between paying professional donors and students, parents and teachers.

The national founder of the ACE Mentor program is Charles B. Thornton, also a founding partner of Thornton Tomasetti Inc., an international consulting firm of civil and structural engineers. In 2001, I recruited Thornton to be the keynote speaker at the annual meeting of the Earthquake Engineering Research Institute in Long Beach, Calif. Before breakfast was finished on the day of his speech, he had in turn recruited me to start the ACE Program in southern California. Those familiar with the apostolic zeal of Charlie Thornton for the ACE Program will understand.

When we started the program in southern California in fall 2002, we were in three high schools with 45 ACE students. Nine were seniors. In May 2003 each senior was awarded the right to a small scholarship if he or she documented entrance into a college level program in one of the ACE disciplines. In the second year, the program's reach was extended to a total of six high schools. May of 2004 saw 23 students awarded the right to college scholarships of $1,000 per year for a maximum of four years, always predicated on demonstrated progress. Today there are 18 mentoring teams involving about 350 high school students from 24 high schools in three counties. Approximately 115 professionals from a wide array of design, construction and education disciplines now volunteer as mentors in the Los Angeles area. About 70 firms are involved. Prominent among them are DMJM, Turner Construction, Parsons Corporation, Gruen Architects, Jacobs Carter Burgess, Perkins + Will, John A. Martin Associates, Thornton Tomasetti and Clark

Continued on the next page

About the writer

Terry Dooley

I grew up in South Bend, Ind., and earned a B.A. in English and Philosophy from St. John's University, Minn. Then my new wife, Kathleen, and I moved to Champaign-Urbana, where after a year as an architecture student, I earned my bachelor's degree in civil engineering.

After graduation, we moved west. I was employed for the next 26 years at locations up and down the coast by the construction divisions of Bethlehem Steel Corporation. My work was principally in the fields of field-erected structural steel and field-installed reinforcing bars. During these years I helped build the first "ductile moment resisting space frames" of reinforced concrete in Los Angeles, breaking the old 160-foot height limit. This advance was based on a seminal book, "Design of Multistory Reinforced Concrete Buildings for Earthquake Motions" by John Blume, Illinois' own Nathan Newmark, and Leo Corning. During my time with Bethlehem, I earned a master's degree from UCLA, in its Engineering Executive Program.

Moving to general contractor Morley Builders of Santa Monica, Calif., in 1981, I spent the next 21 years helping to develop the company. For the last six years before retirement, I was a principal in the pre-construction planning and then the building of a five-structure complex: The Cathedral of Our Lady of the Angels in downtown Los Angeles. The cathedral is believed to be the largest building in California built of exposed colored architectural concrete. Extensive research went into mix designs, placing and curing techniques, and sealing compounds, all intended to lengthen service life and to maintain consistent color. The building and its associated campanile are seismically base-isolated. The project won a 2003 national Merit Award from the American Society of Civil Engineers as an Outstanding Civil Engineering Achievement.

Among other principal activities were early applications of seismic base isolation to the upgrading of existing buildings, and extensive work in the seismic repair and retrofit of structures, especially after the Northridge quake of 1994. I have continued an advisory role in those fields via committees of the Earthquake Engineering Research Institute, the American Concrete Institute and the Applied Technology Council. I am an Honorary Member of the Structural Engineers Association of Southern California, and a Fellow of ASCE and of the American Concrete Institute (ACI). I was co-recipient (with Dennis Drag) of a 1991 "Award For Innovation" from ASCE for work in seismic base isolation, and recipient of the Roger Corbetta Award from ACI in 1997 "for contributions to the advancement of construction techniques in seismic repair and retrofit of concrete buildings."

I have served on departmental advisory boards at California Polytechnic State University, San Luis Obispo, and California State Polytechnic University, Pomona. I am past president of the Architectural Guild, a support group for the School of Architecture, University of Southern California, and now serve as an occasional tutor and counselor for students at the School of Engineering and Applied Sciences, UCLA.

My wife, Kathleen, and I live in Sherman Oaks, Calif., and have six children and 12 grandchildren. —T.D

ACE Mentor Program

Continued from the previous page

Construction.

At the 2008 Annual Awards Banquet, rights to $1,000 college scholarships were granted to 74 graduating high school seniors. Over six years, the Los Angeles program has offered 254 scholarships of $1,000 each to graduating high school seniors entering 30 different colleges and universities. Re-application for scholarship continuation in the college sophomore year and above is contingent on presentation of a college transcript and a class enrollment schedule for the next academic term in one of the ACE disciplines. The awarding of scholarships also is dependent on the availability of funds; a necessary corollary is a vigorous fundraising program.

The first two "classes" of ACE students are the only ones that would be expected to produce college graduates by 2008. These two classes produced 32 scholarship-eligible students. At this writing, eight of these have received bachelor's degrees from four-year universities. Three more are expected to graduate soon. This makes the successful college graduation rate about one-third of graduating high school seniors in the program: 11 of 32. Universities that have graduated students from ACE Los Angeles include the University of California, Davis; UCLA; California Polytechnic State University, San Luis Obispo; and Santa Clara University. ACE Los Angeles students are in good standing at the Massachusetts Institute of Technology and the University of Michigan.

A growing statistical record shows that more than 90 percent of those high school seniors offered scholarships claim the money in the first year. This drops to 50 percent in the second college year, and then holds steady at about 35 percent over the final two years. Those who drop out along the way get at least a taste of higher education and might return later. ACE Los Angeles leadership is trying to improve retention by increasing the number of internships and by linking mentors and students personally in a continuing relationship. Beginning in fall 2008, a "Sponsored Scholarship Program" began linking scholarship donors to specific students. Thirty college upperclassmen and women are receiving $2,000 each through this program for the 2008-2009 academic year.

Many ACE students come from households in which the parents may not have finished high school. The student is often the first in his or her household to seek higher education, and some are forced out of college to contribute to the support of their families. After our Awards Banquet last June, a tearful mother and father each gave me a hug and told me in halting English that the program had redirected and inspired their son.

Throughout my own life, my path has been shaped by the inspiration and mentorship of talented engineers. My grandfather, Charles Dutton Terry, earned his bachelor's degree in mechanical engineering from the University of Illinois in 1897. His class was among the first to study in brand-new Engineering Hall. During the summer of 1952, I found myself working on the second floor of this same building as a draftsman with the Bridge Division of the Illinois Highway Department. I was at the time an undergraduate in the architecture program, and I was fortunate to be in daily working contact with an elite group of engineers, including John Haltiwanger (MS 48, PhD 57); Gene Daily (MS 51); Narbey Khachaturian (BS 47, MS 48, PhD 52), now CEE Professor Emeritus; graduate student Sabih Sami; and Tom Leahey (BS 52, MS 54). Before the summer was over, they had presented me with transfer forms and facilitated the switch from architecture to engineering that has illuminated my professional life ever since.

Today I volunteer nearly full-time for the ACE Mentor Program, working from an "emeritus" office donated to the program by Morley Builders. It's a wonderful job, paid for by the smiling faces and bright futures of Ricardo Zendejas and others like him. After he gets his master's at Stanford, perhaps we can show Ricardo the way to Urbana.