



Fall 2007

Department of Civil and Environmental Engineering

# INTERSECTIONS

## Hoque Endows Geotechnical Laboratory



Enamul Hoque became the first donor to name a lab within the new ISTB2 research facility.

On December 1, 2007, the large-scale geotechnical testing lab will be renamed the EM Hoque Geotechnical Laboratory.

Hoque, who earned a master's degree in civil and environmental engineering from ASU in 1985, operates Phoenix-based Hoque & Associates. His \$250,000 gift to the Department of Civil and Environmental Engineering continues his family's tradition of community service. Hoque & Associates is a geotechnical engineering firm that provides innovative and cost effective solutions on projects such as design of the outer-loop bridges in Phoenix for the Arizona Department of Transportation. His professional contributions have earned Hoque "Fellow" status from the American Society of Civil Engineers.



# CEE Receives \$400K Endowment for Groundwater Contamination Studies

In February of this year, the CEE
Department received word that it
was the beneficiary of a \$400,000
endowment for the Phoenix/Scottsdale
Groundwater Contamination Scholarship
for Environmental Science.

The endowment will fund scholarships and fellowships for the study of groundwater contamination and water remediation. The gift was made from unused settlement funds from local groundwater contamination litigation. The donors, who wish to remain anonymous, want to put the unused funds to work to address the types of problems that were the source of the litigation and determined that funding scholarships and fellowships within the Department of Civil and Environmental Engineering at ASU was the best vehicle for accomplishing that objective. Income from the endowment will be awarded annually to one or more students at ASU who have demonstrated financial need and are committed to the study and solution of environmental problems in Arizona, with emphasis on groundwater pollution and water remediation. First priority will be given to Arizona residents.

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### ASU CEE Team Evaluates First US Freeway Photo Enforcement Program



CEE Professor Simon
Washington was hired by
the City of Scottsdale and
the Arizona Department of
Transportation to facilitate
and evaluate (respectively) the
safety and operational impacts
of the first automated speed
enforcement demonstration

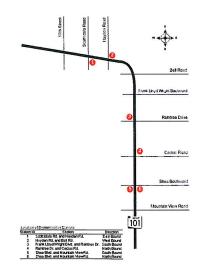
program (SEP) in the United States. The SEP, implemented on a 6.5 mile section of the Loop 101 Freeway in Scottsdale, Arizona (see figure) was operated between January 22nd and October 23rd, 2006. The ASU evaluation team also included CEE Ph.D. student Kangwon Shin and CEE Faculty Associate Ida van Schalkwyk.

The preliminary analysis of the SEP by the ASU team (see http://www.scottsdaleaz.gov/photoradar/ for the full reports and presentations) was completed in the winter of 2007. The following are highlights of the evaluation results:

- 1. The percentage of speeders (vehicles exceeding 75mph) increased 850% after the program was suspended on October 23, 2006.
- 2. The SEP reduced the average speed of vehicles by almost 10 mph.
- 3. The number of rear-end crashes was increased by the SEP, while the numbers of single vehicle, same direction side-swipe, and other crashes were reduced. Most importantly, the total number of injury crashes was reduced; including injuries resulting from rear-end collisions.

4. Estimated benefits of the SEP include \$1.9M in disabling

injury costs (negative benefit), \$1.9M in evident injury crash benefits, \$0.2M in possible injury crash benefits, \$5.8M in fatal crash benefits, and \$4.5M in property damage crash benefits. Total annual estimated benefits for the SEP are \$10.6 M.



Considering the results of the ASU eval-

uation, the Scottsdale City Council voted in January, 2007 to resume the SEP. The Council requested that Gov. Janet Napolitano allow the State of Arizona to assume operations of the Scottsdale program. The Governor endorsed a statewide program and acknowledged the need for significant time to develop such a program, and meanwhile asked the city to resume the Scottsdale SEP June 30, 2007.

The ASU team will complete the analysis and evaluation of the Scottsdale SEP in the fall of 2007. The final evaluation will rely on additional crash data, will include additional analysis of traffic operations, and will include general recommendations for possible future site identification.