

2007 FICE Engineering Excellence Award Competition Winners

The FICE Public Relations Committee is pleased to announce the winning projects in the 2007 Engineering Excellence Award Competition. The judging was held on November 15, 2006 in Orlando. The esteemed jury (representing government, education, transportation, media, the Florida Department of Transportation, and Florida Chapter of the American Institute of Architects [AIA]) awarded seven Grand and three Honor Awards. The FICE Public Relations Committee would like to thank the panel of judges for their time and commitment to the competition. The 2007 Engineering Excellence Award Judges are: C. David Cooper, PE, QEP, Professor, University of Central Florida, Department of Civil and Environmental Engineering; Richard M. Howard, PE, City Engineer, city of Orlando; Ann Sonntag, Publisher, *Orlando Business Journal*; Vivian O. Salaga, AIA, President, AIA Florida Chapter; Richard Wainio, Port Director and CEO, Tampa Port Authority; and Christopher L. Warren, PE, Deputy Executive Director and COO, Florida Turnpike Enterprises. A special thank you to Susan Pendergrass, Ardaman & Associates, FICE Public Relations Committee Chair; Julie Buchanan, LBFH, Inc, a Boyle Engineering Company, PR Committee Chair-elect; and the entire Public Relations Committee for their professional administration of the program.



Pictured from left to right: FICE Public Relations Committee Chair Susan Pendergrass, Ardaman & Associates; Christopher L. Warren, PE, Deputy Executive Director/COO, Florida Turnpike Enterprises; Richard Wainio, Port Director/CEO, Tampa Port Authority; Vivian O. Salaga, AIA, President-AIA Florida Chapter; C. David Cooper, PE, QEP, UCF, Department of Civil and Environmental Engineering Professor; Ann Sonntag, Publisher, *Orlando Business Journal*; FICE PR Chair-elect Julie Buchanan, LBFH—a Boyle Engineering Co; and Richard M. Howard, PE, City Engineer, City of Orlando.

The Grand Award winners are eligible to participate in the national Engineering Excellence Award competition sponsored by the American Council of Engineering Companies (ACEC). The jury additionally selected the first annual FICE Grand Conceptor Award. This award will be presented to one of the seven Grand Award winners. The FICE Grand Conceptor Award winner will be unveiled at the FICE Banquet on Friday, August 3, 2007 at the Marco Island Marriott. The FICE Banquet is held in conjunction with the 91st FES/FICE Annual Summer Conference and Exposition.



Kimley-Horn and Associates, Inc, West Palm Beach I-295 Operational and Safety Improvements, Jacksonville

Explosive business growth in Jacksonville, Florida, in the mid-1990s resulted in a simultaneous surge in residential construction in nearby bedroom communities. By 1998, traffic volumes on some roadways in the region had greatly exceeded their 1970s and 1980s design capacities. At one off-ramp in Jacksonville, rush-hour traffic exiting I-295 southbound and attempting an unsignalized right turn onto Blanding Boulevard frequently queued back two miles onto the interstate. Multiple weaving and merging conflicts and high-speed rear-end crashes ensued.



Kimley-Horn and Associates, Inc was retained by the Florida Department of Transportation, District II to find both traffic engineering and roadway design solutions for the backup problem. After extensive study and computer modeling, the team determined that three additional right-turn lanes or simultaneous quadruple right-turns onto Blanding Boulevard would keep the I-295 southbound off-ramp traffic flowing smoothly. However, there were no known implementations of quadruple right-turns anywhere in the US. Kimley-Horn's pioneering effort involved interim signalization to cut exit queue lengths in half while the extra lanes were designed. AutoTurn modeling software was used to show that four semi-trailers could simultaneously maneuver through the new intersection. Critical stormwater drainage issues were permitted and designed quickly due to the massive amount of impervious area being added. Supplemental overhead signage was installed to channel off-ramp traffic into their ultimate lanes, thereby

reducing weaving farther down the road. Kimley-Horn's innovative engineering skills and partnership with the Florida Department of Transportation helped bring about a new type of safety and traffic operations solution that was exceptionally well-received by the traveling public and is now available for use at other traffic-congested highway interchanges.