

## Inside this issue:

Monthly Meeting Details	2
Building Our Community	3
Other News of Interest	4
Hot Topics	6
Save the Dates	8
Civil Gators Invitation	9
CE Magazine Article	10
FFMA Announcement	12
Cruise Sponsors	13

## President's Message



**ASCE SunCoast  
Branch President  
Amjid Hussain**

### Dear Members and Friends of ASCE

February was a busy month for ASCE SunCoast Branch on February 24<sup>th</sup> ASCE celebrated Engineers Week on LeBarge Sunset Cruise sponsored by Atkins. We provided our guests an opportunity to socialize and enjoy a beautiful evening. Based upon the feedback, the event was a great success. I would like to thank my executive team members for their hard work and all of our sponsors for their support.

In addition to celebrating, Proclamations for Engineer's Week were read at almost all municipalities' commission meetings. At the Sarasota County Commission meeting on February 21<sup>st</sup>, the Commission recognized the services of local engineering community. ASCE participated along with our fellow professional engineering organizations. We would like to recognize Chris Sharek for coordinating this effort. Lastly, in February ASCE participated and supported efforts for the Annual Toothpick Bridge Contest which was held at G.WIZ on February 25<sup>th</sup>.

In order to recognize the outstanding work of our members, we look forward to presenting 2012 Branch Awards in the following categories:

- Engineer of the Year
- Young Engineer of the Year
- Government Engineer of the Year
- Project of the Year

The nomination forms can be downloaded from our website or can be requested from Branch Secretary Kim Clayback, P.E. Please send your nominations to me or any Board member before COB on April 6, 2012. Your nominee should be member of ASCE SunCoast Branch. The Branch award committee will review the nominations and recommend the individuals and project for the awards. Our Branch award winners will compete for State awards at the ASCE Florida Section annual meeting in July.

The month of April will officially start the fundraiser season for the 2012 Scholarship Golf Tournament. The tournament will be on Saturday, May 19<sup>th</sup> at Stoneybrook Golf Course at Heritage Harbor. More details are included in the Newsletter.

Thank you for your continued support.

*Amjid Hussain, P.E., M.ASCE*

## April Luncheon Meeting Details

The April luncheon is a joint meeting with FES and Civil Gators with Dr Kirk Hatfield, Director of the Engineering School for Sustainable Infrastructure and Environment at the University of Florida from 12 noon to 1 pm with registration starting at 11:30 am.

When: **WEDNESDAY**, April 11, 2012

Check in begins at 11:30 AM

Where: Lakewood Ranch Holiday Inn

Speaker: Dr Kirk Hatfield, Professor, UF

Topic: UF Breakthrough Projects

Please RSVP: <http://myakkachapterfes.weebly.com/luncheons.html>

### Upcoming Meeting Information

May 7, 2012

Speaker: TBD

Scheduled EWRI Meeting

Saturday, May 19, 2012

ASCE Golf Tournament  
At Stoneybrook Golf and  
Country Club

## Science and Engineering Fair



The 57th Annual State Science Fair will be in Lakeland from April 3 -5, 2012. The committee is currently seeking volunteers on April 4th to help judge projects for the ASCE category.

Please contact Adnan Javed at [ajaved@scgov.net](mailto:ajaved@scgov.net) for volunteer opportunities at the local and state or visit <http://www.floridascef.net/current-fair/> for additional information.

## West Point Bridge Competition

The West Point Bridge Design Contest is a nationwide Internet based competition intended to promote math, science, and technology education in U S middle schools and high schools. The contest provides students with a realistic introduction to engineering through an engaging, hands-on design experience. Participation is free. All US students age 13 through grade 12 are eligible. Contestants may compete individually or in teams of two. Please contact Paula Wiggins at [pwiggins@scgov.net](mailto:pwiggins@scgov.net) for additional details.

**ASCE will be sponsoring a Laws and Rules Session in July 2012 for a nominal fee. More details coming soon.**



## Building Our Community

### Honore Avenue Design Build Improvements (Bee Ridge to Fruitville)

The 2.5-mile extension of Honore Avenue in Sarasota County is a critical missing link of one of the few north-south thoroughfares that will be the standard for context sensitive design and low impact development strategies in the region. Through the use of imaginative lane and median configuration, and boardwalks, our design will save over 75% of the existing high value trees within the previously dedicated right-of-way. The incorporation of a series of bioretention areas to be enhanced with habitat appropriate plantings in bio-swales, rain gardens, and median areas will be one of the area's most effective water quality treatment systems while creating an aesthetically pleasing transportation corridor.

The Honore Avenue road project was identified as an important contributor to improving the water quality in Sarasota County by the federal Environmental Protection Agency (EPA). Nancy Stoner, EPA's acting assistant administrator, toured the completed project in December 2011 to see how Low Impact Design (LID) features were used to reduce the overall impact to the environment. Stoner said the Honore project impressed her. "Finding out how to fit the transportation needs in with the ecosystem, that's something that has applicability everywhere," Stoner said.



The project used bio-retention and stormwater demand management to reduce the floodplain compensation needs and to preserve mature trees along the roadway corridor and on a publicly owned property. The use of LED lighting and the inclusion of six roundabouts at critical intersections provides safer, more efficient operations while providing enhanced aesthetics and slowing traffic on a roadway lined with parks, schools, and residential neighborhoods. Furthermore, when compared to conventional designs, these innovative approaches also reduce floodplain impacts by 23.2 acre-feet, eliminate bald eagle zone encroachments, reduce wetland impacts, and created opportunities for over 64 acres of additional neighborhood park space. All of the components of this design create a transportation facility that optimizes form and function, while serving its purpose as a thread that connects the community instead of dividing it.

Teaming with APAC as the contractor, Stantec provided design build improvements to Honore Avenue between Bee Ridge and Fruitville Roads.



## Other News of Interest

# ASCE Florida Section Project of the Year Award

From Florida Section ASCE [March 2012 Communiqué](#)

Each year, one of the highlights of the Annual Meeting is the Awards presentation at our Friday luncheon. We honor deserving individuals, one of our Branches, and an innovative project. This past year, in St. Augustine, our Project of the Year was awarded to the [Kennedy Space Center Launch Complex 39 Crawlerway Evaluation](#) for the Heavy-Lift Space Launch System. On October 4, representatives of the Florida Section traveled to NASA Headquarters at the Kennedy Space Center in order to personally present the award to NASA executives. The Award was presented jointly by Section President Steve Goldstein and ASCE National President Kathy Caldwell, who is also a former Florida Section President. The Section delegation also included Elia Twigg and Eric Bradford, the current and former Presidents of the Cape Canaveral Branch, which initially nominated the project. The group was also joined by Region 5 Governor Fraser Howe, as well as by several representatives of Jones Edmunds and Associates, the lead engineering firm for the project. The Director of Operations, the Director of the Ground Systems Program and the Associate Director of Engineering for Kennedy Space Center jointly accepted the award, and appeared greatly appreciative of the recognition bestowed upon them by ASCE. After the presentation, the ASCE group was escorted on a tour of the Space Center. First stop was the Vehicle Assembly Building (VAB), one of the world's largest buildings in terms of volume. Everyone was taken up the elevators to get a bird's eye view of the assembly floor. On the floor, there was an opportunity to get a close-up view of the retired Space Shuttle Endeavour, which was being readied for exhibition at the Smithsonian. After the VAB, the group was driven along the crawlerway to the Launch Complex, ascended the launch tower and had the opportunity to walk across the gantry that the astronauts used to enter the Shuttle.



# Excellence through Innovation

Solutions for Florida's Infrastructure



**JONES  
EDMUNDS**

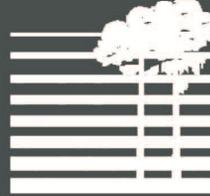


## Improving Quality of Life

[www.jonesedmunds.com](http://www.jonesedmunds.com) • 1.800.237.1053



*innovative solutions for a  
changing environment*



**SCHEDA**  
ecological  
associates

TAMPA  
813.989.9600

WEST PALM BEACH  
561.689.9198

SARASOTA  
941.373.1547

[WWW.SCHEDA.COM](http://WWW.SCHEDA.COM)

## Thank You!

To our newsletter sponsors:

HDR, Inc

Jones Edmunds & Associates

Scheda Environmental

Stanley Consultants, Inc

Advertising helps to support our community outreach efforts  
and Branch activities.

Let your ASCE Suncoast Branch Newsletter work for you!

If you or your company is interested in advertising in the  
newsletter, please contact Kim Clayback at  
[kclayback@jonesedmunds.com](mailto:kclayback@jonesedmunds.com) or 941.358.1440.

**HDR**

[www.hdrinc.com](http://www.hdrinc.com)



### Commitment

Infrastructure solutions for  
Florida communities

#### Offices in Florida and Nationwide

Tampa 813.282.2300

Orlando 407.420.4200

Pensacola 850.432.6800

Jacksonville 904.598.8900

Miami 305.728.7400

Sarasota 941.342.2700

West Palm Beach 561.209.6600

Fort Lauderdale 954.535.1876

Gainesville 352.642.1100



## Hot Topics for Engineers

### CREATIVITY PLUS PERSISTENCE EQUALS BREAKTHROUGHS

By Stuart Walesh, PhD, PE

[Stuwalesh@comcast.net](mailto:Stuwalesh@comcast.net) or [www.helpingyouengineeryourfuture.com/index.htm](http://www.helpingyouengineeryourfuture.com/index.htm)

Hula Hoops, Velcro, GPS units, microchips, Post-It Notes, and iPods -- why didn't I think of that? Perhaps the answer to the question is, "I did, but didn't follow through." Another response might be that we had a similar wonderful idea which we began to implement but stopped when we encountered obstacles.

#### Benefits of Creativity

Original ideas are rare and, when they occur, the necessary follow through is even more rare. The creativity plus persistence combination needed to bring a new idea to fruition as a product or service is highly unusual. But, of course, creativity plus persistence does happen. When it does, marvelous things flow to the creator or creators and the users of the product or service. Benefits of creativity include improved personal productivity, global impact, reduced cost of public works, increased profitability, improved health and welfare, new tools/applications, reduced public impact during construction, minimization of claim costs, and conquered commoditization.

#### Examples of Creativity Plus Persistence

Consider three examples that illustrate the power of creativity plus persistence. The first is the success story of Chester Carlson. In the 1940's, he developed a quick electrostatic photography process. Carlson envisioned his process as replacing the then cumbersome copying method, that is, the film-developer-darkroom process. He presented his ideas to 43 companies and, unbelievably, all rejected it. His persistence paid off, however, because his process was finally accepted and became what is now called xerography which is the basis for the omnipresent copy machines.

Theodor Geisel, more popularly known as Dr. Seuss, is considered a premiere author of children's books. He was a pioneer in linking attractive drawings to text, an approach that appeared in his first book. That book was rejected by 29 publishers before, as result of the author's persistence, being accepted.

A third power of creativity plus persistence example is the story of engineer and poet, Joseph Strauss, who initially dreamed of bridging San Francisco's Golden Gate. For two decades, and in the face of widespread skepticism, Strauss lived his dream by leading the planning, design, and construction of the now famous bridge. The intensity of his persistence is suggested by these lines from one of his poems: "Launched midst a thousand hopes and fears, damned by a thousand hostile sneers. Yet ne'er its course was stayed. But ask of those who met the foe, who stood alone when faith was low; ask them the price they paid." Strauss saw the 1937 opening of the bridge and then died approximately one year later. Strauss' persistence is recognized with a statue at the south end of the bridge dedicated to The Man Who Built the Bridge.

#### Suggestions for Cultivating Creativity

When inspiration strikes or is the result of conscious effort, whether within us or those around us, let's first be

## Hot Topics (continued)

thankful for the gift of creativity. Then be supportive by thinking, brainstorming, discussing, researching, and yes, dreaming. If the idea is still viable, develop and begin to implement an action plan.

And recognize that persistence is likely to determine whether or not the idea comes to fruition. Calvin Coolidge, the 30<sup>th</sup> U.S. President, said this about the power of persistence: “Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education alone will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent.”

We and our organizations can rely on accidental creativity. However, we are much more likely to reap the many and diverse benefits of creativity if we take a systematic approach that uses the powerful creativity knowledge and tools available to us. Great things will happen, first to our personnel; then to our clients, customers, and stakeholders; and finally to our organization. “We know where most of the creativity, the innovation, the stuff that drives productivity lies,” according to former GE Chairman, Jack Welch, “in the minds of those closest to the work.” Creativity lies within essentially all of us – we need catalysts to release it. You and your organization can be that catalyst.

Please visit

<http://www.ascesuncoast.weebly.com>

### 2012 ASCE SunCoast Executive Board

President: Amjid Hussain, P.E.

[ahussain@scgov.net](mailto:ahussain@scgov.net)  
941-861-0750



Vice-President: Gary Downing, Jr., P.E.

[gary.downing@hdrinc.com](mailto:gary.downing@hdrinc.com)  
941-342-2700



Secretary: Kim Clayback, P.E.

[kclayback@jonesedmunds.com](mailto:kclayback@jonesedmunds.com)  
941-358-1440



Treasurer: Kwamena Sankah, P.E.

[isankah@scgov.net](mailto:isankah@scgov.net)  
941-861-0511



Past President: Sonya Fronckowiak, P.E.

[sonya.fronckowiak@stantec.com](mailto:sonya.fronckowiak@stantec.com)  
941-907-6900



Vice-President—District II: Adnan Javed, P.E.

[ajaved@scgov.net](mailto:ajaved@scgov.net)



# Stanley Consultants INC.

# 2012 ASCE Golf Tournament



## SAVE THE DATE:

**When: Saturday May 19th  
Shotgun Start at 8 am**

**Where: Stoneybrook Golf Course at  
Heritage Harbor**

**Bradenton**

## News from ASCE Florida Section

### Upcoming ASCE Seminars

March 29-30 Instrumentation & Monitoring Boot-camp: Planning, Execution & Measurement Uncertainty for Structural & Geotechnical Construction Projects – Atlanta

April 18-19 Panama Canal 2012 International Engineering and Infrastructure Congress – Panama City

May 2-4 HEC-RAC Computer Workshop – New Orleans

May 10-11 Aluminum Structural Design with the 2010 Aluminum Design Manual – Tampa

May 17-18 Leadership Development for the Engineer - Orlando

### SAVE THE DATE

Engineering Your Imagination:

The 2012 Annual Meeting

July 19-21, 2012

Doubletree by Hilton at the Entrance

to Universal Orlando

20 Technical Sessions AND Laws &  
Rules

2012 Awards Presentation

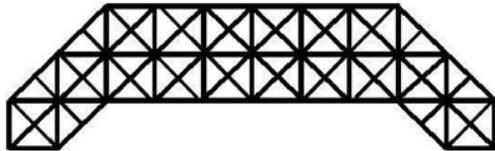
# 2012 Award Nominations

**We are accepting Branch Award nominations for 2012 in the following categories**

**Engineer of the Year  
Young Engineer of the Year  
Government Engineer of the Year  
Project of the Year**

**The nomination forms are on the website:**

**[www.ascesuncoast.weebly.com](http://www.ascesuncoast.weebly.com). Your nominee should be member in good standing of ASCE SunCoast Branch. The Branch awards committee will review the nominations and recommend the individuals and project for the awards. Our Branch award winners will compete for State awards at ASCE Florida Section annual meeting in July.**



## Toothpick Bridge Winners:

Were celebrated in an awards ceremony on Tuesday March 20th in recognition of National Engineers Week. The event was sponsored by ASCE, APWA, SME, FES, WTS, and G.WIZ along with corporate sponsors Atkins, Ayres Associates, Engineers O'Flaherty, Stantec and Jones Edmunds.

A total of \$955 was awarded to the individuals or teams that placed 1st through 6th in each of the three categories: high school, middle school and elementary school.

Special Congratulations to **Tim Foushee** for his win the professional category ~ four years in a row!!!!

# CIVIL GATORS

SW Florida Chapter

## What is Civil Gators?

### Mission:

- To foster and enhance the relationship between the UF CCE department, its alumni and friends and to support CCE's mission of teaching, research and service.

### Goals/Objectives:

- Share the Gator Spirit
- Fellowship and Social Interaction of Alumni and Friends
- Communication of Information
- Educational Benefits
- Fundraising to benefit UF and our Community

## Who can join?

UF Engineering Students  
UF Engineering Alumni  
UF Engineering Friends & Family  
Engineering Professionals

## How to join?

- See contact info below, or visit the website!
- Only \$25 to join!!

## Want to know more??

CONTACT A REPRESENTATIVE TODAY:

941-907-6900 x 298

[info@CivilGators.com](mailto:info@CivilGators.com)

[Melanie.smith@stantec.com](mailto:Melanie.smith@stantec.com)

[Mike.bell@stantec.com](mailto:Mike.bell@stantec.com)

[www.civilgators.com](http://www.civilgators.com)





## CE Magazine

### Florida Commuter Rail Breaks Ground

By Russell Boniface [www.asce.org/CEMagazine](http://www.asce.org/CEMagazine)

February 21, 2012—The \$1.2-billion SunRail commuter train project broke ground last month in Altamonte Springs, Florida, the site of one of 17 future SunRail train stations. The new commuter train line will travel along 61 mi of existing at-grade freight tracks that extend north to south through central Florida and the Orlando metropolitan area. SunRail is being built in two phases—the first opening in 2014, the second in 2016.

The tracks presently accommodate both CSX freight trains and Amtrak trains, extending parallel in a north-south section of Interstate 4—the main highway through central Florida. The system will extend through the counties of Volusia, Seminole, Osceola, and Orange, which is home to the City of Orlando.

Last November the Florida Department of Transportation (FDOT) purchased the right-of-way for the 61 mi stretch of tracks from CSX Transportation at a cost of \$432 million. FDOT plans to double-track areas that are currently single tracked—comprising roughly half the corridor—to enable two trains to operate simultaneously in both directions.

The capital cost of the new commuter rail system is estimated at \$615 million. Fifty percent of the funding will come from “New Starts” grants from the Federal Transit Administration (FTA), while the State of Florida and a group of local governments will fund 25 percent each. In addition to upgrades to the existing tracks, the funding covers the additional tracks required, new rail cars, the construction of new train stations, a new signal system, and a new operations and control center.

Marianne Gurnee, the SunRail public liaison for FDOT, says that the Texas Transportation Institute, a major transportation research agency based at Texas A&M University, consistently ranks the Orlando area as one of the most congested in the country for its size. “The SunRail corridor will provide a transportation alternative for one of the largest urban areas in the country that doesn’t have a rail system,” says Gurnee. FDOT expects SunRail to carry as many passengers as one lane of I-4 traffic during peak travel times.



Phase one of the project will involve a 31 mi stretch from DeBary in Volusia County to a point just south of Orlando, and includes the construction of 12 new stations. Phase two will be built in two sections: a northern alignment, from DeBary to DeLand; and a southern alignment from south Orange County through Osceola County and Kissimmee to Poinciana. Five new stations will be built during phase two.

The \$1.2-billion SunRail commuter train project, intended to siphon traffic from overcrowded highways, will include the design and construction of 17 stations along a 61 mi route. Courtesy of the Florida Department of Transportation

Presently contractors are clearing and grubbing station sites in anticipation of base platform construction. The new sta-

## CE Magazine (continued)

tions will include platforms with canopies, ticket kiosks, benches, and lighting. FDOT is pursuing additional right-of-way for the construction of parking lots at suburban stops.

The new signal system will allow FDOT to operate SunRail trains at 30-minute intervals during peak periods. FDOT has already conducted an environmental analysis that would allow local officials to increase the frequency of trains to every 15 minutes, as well as expand service to weekends, but that's not expected to be required for at least 20 years. "Ultimately, the signal system we are putting in will allow us to increase the frequency of services as demand grows," says Gurnee.

FDOT conducted sound and vibration assessments for SunRail, and these were approved by the FTA. Noise and vibration levels from SunRail trains will be maintained at normal levels and will not affect residences or business located more than 300 ft from the tracks, according to the study.

Plans call for SunRail to include three coach cars and one locomotive cab per train. The coaches and cab cars are double-decker vehicles that are currently being manufactured by Montréal, Québec-based Bombardier, Inc., under a contract with FDOT. The cars will seat approximately 150 passengers each. While the tracks can accommodate passenger trains of speeds up to 80 mph, SunRail will travel at 45 mph.

FDOT will also construct at-grade crossing improvements to enhance the safety of those locations at which streets cross the rail line; there are 96 such crossings in phase 1. Additional at-grade crossing improvements will be made in conjunction with the double-tracking efforts along the corridor.



The new stations will feature varying canopy designs depending on location. Platforms will include benches, ticket kiosks, and lighting. Courtesy of the Florida Department of Transportation

Gurnee says that SunRail is "designed to serve as the rail spine from which future connections can be built." FDOT has agreements with bus transit providers that will allow them to connect to each of SunRail's stations. FDOT is also studying potential future connections to the east, to the Lake Nona Medical City complex and the Orlando International Airport, and to the west, to the International Drive tourism corridor, at which point it could connect to a proposed intermodal center and 22 mi, north-south light-rail system. SunRail connections to the Orange County Convention Center and to a central bus station in Lake County are also being studied.

# FFMA Annual Conference 2012

MANAGING THE FLOW AND BEING IN THE KNOW FOR THE  
2012 ANNUAL MEMBERS MEETING



St. Augustine, Florida

March 28-30, 2012



## WHO SHOULD ATTEND

- Community leaders who are concerned about their community's floodplain mapping, the National Flood Insurance Program, flooding, or stormwater issues
- Building inspectors, zoning administrators, engineers, drain commissioners
- Consulting engineers, resources management consultants, and others
- Certified Floodplain Managers, Professional Emergency Managers, building inspectors and community officials in need of continuing education credits
- \* CFM's are eligible to receive up to 12 CEC's for attending the Annual Meeting and Training Sessions
- \* PE's are eligible to receive 6 CEC's or more (classes pending)

## HOTEL ACCOMMODATIONS

This year hotel accommodations will be held at the Renaissance World Golf Resort, at



500 Legacy Trail, in St. Augustine, Florida. Group rates will start at \$119 per night. To reserve your room online today [CLICK HERE](#) or to reserve by phone dial toll-free 1-800-266-9432 or dial locally 1-506-474-2009.

## HIGHLIGHTS

- ⇒ Sponsorship/exhibitor opportunities still available
- ⇒ Florida Building Code Updates
- ⇒ Guest Speakers from FDEM, FEMA Region IV
- ⇒ Networking Opportunities
- ⇒ Engaging Technical Breakout Sessions

## LOCAL ATTRACTIONS



- ◆ St. Augustine Trolley and Tour
- ◆ Golf Discounts at the Resort
- ◆ Historic St. Augustine Shops and Sightseeing
- ◆ World Golf Hall of Fame
- ◆ Fountain of Youth-Archaeological Park

## Contact Information

Crissy Mehle, PE, CFM

*Annual Meeting Chair*

[cmehle@jonesedmunds.com](mailto:cmehle@jonesedmunds.com)

324 S Hyde Park Avenue, Suite 250

Tampa, FL 33606

Phone: 813.258.0703 x1786

To register online for the FFMA Conference, [CLICK HERE](#)  
To view the FFMA 2012 Annual Conference flyer, [CLICK HERE](#)

# Thanks to Our Cruise Sponsors



# ATKINS

Engineering  
Construction  
Environmental  
Architecture

## Innovative solutions that protect Florida's waters

Clean water. A basic necessity that we can't live without but often take for granted. From our earliest days, Atkins has partnered with clients to develop and maintain safe and adequate water supplies. Planning today for your peace of mind tomorrow.

- Alternative disinfection processes
- Aquifer storage and recovery
- Asset management
- Cathodic protection/  
corrosion control
- CMOM compliance assistance
- Collection and distribution
- Facilities planning
- Groundwater hydrology
- Hydraulic modeling
- Instrumentation and controls
- Large diameter pipeline design
- Membrane technology
- Operations and  
maintenance services
- Rate and impact analysis
- Regulatory compliance
- Risk management evaluations

**Plan Design Enable**

[www.atkinsglobal.com/northamerica](http://www.atkinsglobal.com/northamerica)

**800.477.7275**

**Thanks to our Cruise Sponsors**



**Truitt Consulting, Inc.  
Planning and Engineering**



*Enhancing Coastal Life.*