American Society of Heating, Refrigeration and Air Conditioning Engineers

Keeping it Cool with ASHRAE

IANUARY 2012



Florida West Coast Chapter ASHRAE 3203 Queen Palm Drive Tampa, Florida 33619

From the Desk of the President

With our soggy rain filled day of golf behind us I would like to thank Ike Crimm and those that volunteered to help make our golf tournament possible. We had over 102 golfers for the day and despite the rain, all had a great time and enjoyed a day away from the office. Without the help and support of our board and other volunteers these events wouldn't be a possibility so again Thanks You to Ike and those that helped make this event a success!

We have some exciting news to share with our members; the Florida West Coast Chapter has a new website (<u>http://</u><u>www.ashrae-fwc.org</u>). The updates were a major undertaking which have been ongoing since early September of last year. With the help of Lair Services, Jason Babinec and Jason Proctor we now have a more functional website with many new features like a calendar of events, RP contribution link, FWC Roster, and many more niceties. So, please take a few moments to check it



out and let us know your thoughts (good or bad) so that we can continue to make improvements.

Also, I would like to remind everyone that those who have not contributed to ASHRAE Resource Promotion to please consider a donation. Despite all the hard work and effort Philippe Jean is putting forth, we are currently behind our goal for the year. In these hard times it is not always easy to donate, so every dollar is truly appreciated.

Our upcoming events:

Volume X, Issue 6

March 20th, FWC Monthly meeting at the Columbia Restaurant in Ybor City with Mr. Pedro Carres from Mitsubishi Electric Cooling and Heating coming to discuss "Updates and Changes of Variable Refrigerant Flow Systems".

April 13th, is the Florida West Coast Annual Shrimp Boil at the Davis Island Garden Club. This is our end of the year celebration and just a good time to unwind and see what you fellow members have been up to since the last Shrimp Boil.

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Research Promotion

The Florida West Coast Chapter has collected over \$ 7,800.00, please be sure to recognize and thank those investors that are listed in this newsletter.

Thank you to all of the participants and sponsors in the golf tournament.

We are entering the last third of the fiscal year of ASHRAE. With all of your support we will reach our goal of \$21,500.

If you have not yet donated to Research Promotion, please make your valued contribution to this worthy cause.

Please make your contributions early this year either by check 'Payable to ASHRAE Research' and turn them in to me or if you prefer you can make online donations at <u>https://www.ashrae.org/aboutus/resource_promotion.asp</u>. If you have questions please let us help, contact Philippe Jean at 813-879-0383.

If you make a donation online, please forward me a copy of the emailed invoice so I can ensure that proper credit is given at <u>pjean@stanweaver.com</u>.

Thank you all for your support.

Philippe Jean, PE, LEED AP, Research Promotion Chair (2011-2012)

2011-2012 ASHRAE FW/C Sponsors and Donators

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Thomas H. Williams	Jennifer Isenbeck, P.E.	Ψ1,000	
Ross Montgomery, P.E.	Gregor Gramlich, P.E.	40	
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Page 3 Free Dinner & Television from Membership Promotion I'm happy to report that our MP promotion has resulted in 6 new members to date, and I look forward to seeing many new folks added to our roster by the May cut-off date for our TV promotion. Our stat's for the 2011/2012 ASHRAE year are as follows: New Members – 19 LG Florida Transfer In – 7 **Nest Coast** Cancelled Members – (31) Chapter Transfer Out – (9) Net for ASHRAE Year 2011/2012 - (14) ASHRAE FWC has a goal of net zero assigned by Society, but we want to excel! Please remind your friends and collegues that have gone MIA to come to our meetings, renew cancelled memberships, and encourage new members to join our chapter; we all benefit from a strong Society. Just as a reminder...The rules of the contest are as follows: Each FWC member that brings in a **new member** (as identified by Society) will receive a ticket for a drawing to be held during our Past President's night on May 15, 2012. There is no limit on the number of entries you may earn, so the more new members you bring to the organization, the better your chances of winning! Please be sure to let me know who you have sponsored so I can match their membership to your referral and award your entry ticket for the drawing; unfortunately, Society does not provide that data. I can be reached by cell at 813-309-2155 or jsouza@filtrine.com Joe Souza Membership Promotion Chair (2011-2012) How to Contribute to ASHRAE Made Easy 2010-2011 ASHRAE RESEARCH **Florida West Coast Chapter Contribution Form:** This industry gives all of us our livelihood. ASHRAE's research and educational programs are what keeps our industry and profession on the leading edge and assures its continued existence. Confident that you will recognize the benefits of this investment, I am asking you to help fund future HVAC&R research and development. Amount enclosed: ____ \$250 ____ \$150 ____ \$100 ____ \$50 ____ Other (specify) _ Name: Address: Member Number (If known): Phone Number: Mail completed form with your check, payable to ASHRAE Research to: Philippe Jean, Stan Weaver and Company 4607 North Cortez Avenue, Tampa, FL 33614

Technological Advances in Staten Island School

STATEN ISLAND, N.Y. -- A school being built in Rossville that will generate its own energy won't just be the first of its kind in Staten Island — it'll be something new for the entire East Coast, and one of the first of its kind in the nation. "It will be the first net-zero energy public school in the northeast United States, and one of the very few in the country," said Bruce Barrett, vice president for architecture and engineering at the School Construction Authority.

The school is slated to cost between \$55 million and \$58 million, and will open in September 2015. One reason it will take so long is the cutting-edge technology involved is not just new to the SCA — it's new to the contractors, too. "We're taking tremendous pains to make sure that the whole building is constructed as precisely according to details as possible"

PS 62 won't look like your average school. The "extremely high-tech" building will be partially covered in photovoltaic that will generate energy from the sun. "What net-zero energy means is that the building will generate on site as much energy — at least as much energy — as the building will use on an annual basis," Ms. Barrett said.

The building will only generate energy when the sun is out — but students won't be skipping school for "cloud days." The building will also be hooked into the local energy grid, and will use that power when it isn't generating its own. But the school can also feed energy into the grid, Ms. Barrett said, powering neighboring homes. So when it's sunny, the school will power itself and other buildings. When it's cloudy, or at night, the school will use the regular power grid.

"We will actually be producing, over the course of a year, more energy than we have used," Ms. Barrett said.

One way of accomplishing that is by reducing the amount of energy PS 62 will use, Ms. Barrett said. The building will have extra insulation and high-performance windows, to prevent heat or air conditioning from escaping. "It turns out that lighting is an enormous user of electricity in buildings," Ms. Barrett said.

Every classroom in PS 62 will face either the north or south, so they can be lit by daylight without glare, Ms. Barrett said. Sensors will automatically turn the lights off when sunshine is streaming into classrooms, Ms. Barrett said. There will also be vacancy sensors. "When you enter a room, you would have to manually turn on the lights. They don't automatically come on. You will have to say to yourself, 'I need light," she said. "But when you leave the room, they will automatically shut off."

After taking steps to reduce the energy use of the building, Ms. Barrett said, designers then consider how many photovoltaic panels it will take to run it. "We may need up to 2,000 photovoltaic panels," Ms. Barrett said. "That fact actually drove the design of the outside of the building." The panels will face south, angled about 20 to 30 degrees to get the maximum amount of sun. "The photovoltaic panels will appear to be almost a wrapper, a skin on the south-facing side of the building and up on the roof," Ms. Barrett said. It gives the building a high-tech look, she said, but the SCA also wanted to take into account that the building is in a quiet, residential neighborhood. "At the same time, it's a two-story building, so it doesn't overwhelm the neighborhood," Ms. Barrett said.

Technological Advances in Staten Island School (Continued)

The school is situated on a large piece of property that is now wooded, and designers wanted to pay homage to the landscape. Some of the trees there are black locust, a wood hard enough to be crafted into furniture, and several items including the main reception desk will be made of wood harvested from the site. The site will also include a public art project, with metal sculptures of trees whose leaves will be photovoltaic panels. The installation will generate power, and will function as a charging device for electronic gadgets. There will be two outdoor courtyards, including one off the second floor that will contain planting beds for a school garden. Inside, there will be a small greenhouse, so students can bring the plants they started outside inside for the winter. A walking track will circle the entire site, with markers telling children how long they have walked. Six spots along the track will feature information about how the building works, with a bench and a sign. "We will also have a wind turbine on site," Ms. Barrett said. "This particular location is not great for wind, but we wanted to have that as another demonstration of energy production." Kids will also be able to generate their own energy — on 10 stationary bicycles that will generate power. "That's also a demonstration," Ms. Barrett said. "They expend energy to create energy."

Other sustainable aspects include solar thermal hot water heaters on the roof, open stairs allowing daylight to flow more freely, and the generation of heat from the ground under the building using a geothermal well field. And if anyone doubts how much energy the school is creating, they can check out the daily progress on "dashboards" placed in classrooms throughout the school. There will be a larger display in the lobby giving a big-ger idea of the school's progress to a net-zero year. "It will be a graphic reporting, so if you can imagine the little battery icon on your cell phone or Blackberry, how it draws down," Ms. Barrett said. "That reporting will happen in every classroom."

In addition to being a state-of-the-art school, Ms. Barrett said it will serve as a pilot for others — while not every school can be covered in solar panels, plenty can use bits and pieces of the school's energy efficiency plans. "This has really been, and was intended to be, a catalyst for improving across the board," Ms. Barrett said. "I'm sure the unique net-zero energy building, the outcomes and the lessons that we've learned from this, there are a lot of them that we will be able to apply."

In lower-tech features, the property will include parking for at least 25 cars. There will also be a drive-through road for dropping off and picking up students. Fences and exterior cameras will help protect the solar panels from vandalism, Ms. Barrett said.



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High Performance Federal Buildings Discussion

The High-Performance Building Congressional Caucus Coalition (HPBCCC), which ASHRAE chairs, held a briefing on Capitol Hill last week entitled "Reducing Taxpayer Dollar Waste by Improving Federal Building Design, Construction, Operation & Maintenance: The High-Performance Federal Buildings Act (H.R.3371)". As its title suggests, this briefing focused on the how the federal government is seeking to reduce its energy consumption and reduce the burden on taxpayers by improving the federal building stock.

Representative Russ Carnahan (Co-Chair of the High-Performance Buildings Caucus) spoke at this briefing, as did the following:

- Kevin Kampschroer; Federal Director; Office of Federal High-Performance Green Buildings, U.S. General Services Administration
- Tim Unruh, PhD, P.E., LEED® AP, CEM, CSDP; Program Manager; Federal Energy Management Program; U.S. Department of Energy
- Christopher P. Hodges, P.E., CFM, LEED® AP; IFMA Fellow; International Facility Management Association

The PowerPoint presentations for this briefing will soon be available at www.hpbccc.org/events.php

Life-Cycle Cost Analysis for House Requirements

The Civilian Property Realignment Act (CPRA) (H.R.1734) passed the House by a bipartisan vote of 259 to 164. The CPRA would help the federal government reduce unutilized space. Included in the bill is a requirement to use life-cycle cost analysis in the design or lease of federal buildings receiving at least 50 percent federal funding, and which construction cost is over \$1 million, or the space to be leased is over 25,000 square feet. This provision was offered (and accepted) as an amendment to the CPRA by Rep. Russ Carnahan.

According to a press release on the passage of the bill, the bill could result in the generation of "\$15 billion in revenue from property sales, in addition to the billions more generated from future cost avoidance from simply owning less property. Within the first 180 days after the commission is set up, H.R. 1734 will generate \$500 million in taxpayer savings." For additional information visit http://bit.ly/AejstQ

Congressional Support for Engineers Week

As noted above, National Engineers Week begins the week after next. In recognition of the importance role that engineering careers play in the U.S. economy, U.S. Representatives Daniel Lipinski and Donald Manzullo will introduce a bipartisan resolution in the House of Representatives supporting the goals and ideas of National Engineers Week.

Additional information on EWeek can be found at www.eweek.org, and www.ashrae.org.



Past Presidents

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1957-58 Karl K. Hickman 1958-59 Sam F. Graziano 1959-60 Julian Johnson 1960-61 Ken Whittington 1961-62 Mark E. Mooney 1962-63 James A. Hargan 1963-64 Daniel R. Manrique 1964-65 E. J. Bauerlien 1965-66 Henry Graham 1966-67 Richard Kohle 1967-68 Lamar King/Leland Menard 1968-69 Ed Fuller 1969-70 William A. Smith 1970-71 Fareed T. Ossi 1971-72 Lee Bendall 1972-73 John Degian 1973-74 Mark Chambers 1974-75 Charles "Stan" Weaver 1975-76 Charles D. Jacobs 1976-77 Peter Scott 1977-78 Ray Rinke 1978-79 Lloyd H. Biossoneault 1979-80 James H. Carroll, Jr. 1980-81 S. Michael Tappouni 1981-82 Alberto J. Sanchez 1982-83 James L. Repp 1983-84 Rodney C. Thomas

1984-85 Charles E. Langbein 1985-86 Thomas H. Williams 1986-87 Caire A. Boe 1987-88 Frank Grandinetti 1988-89 Carl B. Lawson 1989-90 Robert M. Little 1990-91 Edward C. Spivey 1991-92 Robert P. Sutton 1992-93 Roger B. Redman 1993-94 Stephen Chittenden 1994-95 William M. Slade 1995-96 Juan A. Soler 1996-97 Timothy J. Citek 1997-98 Mark Smith 1998-99 Joseph Griner, III 1999-00 Colleen Smith 2000-01 John W. Wells, III 2001-02 Gary Stenlund 2002-03 Bill Wright 2003-04 Don Crosby 2004-05 Ted S. Hansen, Sr. 2005-2006 P.J. Crespo 2006-2007 Dan Herrera 2007-2008 Jennifer Isenbeck 2008-2009 Debie Horsey 2009-2010 Drew Elsberry 2010-2011 Jeff Ross



Board Members, Committee Chairs and Contact Info:

Professional Engineer Position (Mechanical)

University of South Florida Facilities Planning and Construction 4202 East Fowler Avenue Tampa, FL 33620 Hiring Salary/Salary Range: Negotiable <u>Duties:</u>

The position provides mechanical engineering services for specific departments within the University and is responsible for planning and designing systems, preparing engineering plans and specifications, estimates, project management (major, minor projects) studies, review of projects, developing building standards (major, minor projects), strategies for building inspection. Responsible for campus energy/ sustainability master plan. Provide code reviews for major and minor projects. This position oversees construction and recommends final acceptance of project, coordinates engineering matters within the registered discipline, and oversees engineers, city and county officials, and other state agencies regarding the design and construction of systems. This position may supervise other employees. Supports the Building Code Administration Program by ensuring applicable outside Agency Permits, as required, are identified, acquired and cleared for use for all affected projects. Provides inspection for code compliance as licensed.

Minimum Qualifications

The position requires master's degree in Engineering or an appropriate area of specialization; or a bachelor's degree in Engineering or an appropriate area of specialization and two years of appropriate experience. Directly related career experience may be substituted for the degree requirements on a year for year basis. Experience in project management for major projects, master planning, LEED certified projects.

Preferred Qualifications

5-8 years of appropriate experience. Central Plant and Infrastructure Planning, Development and Operations.

Special Skills/Licenses/

Training/Certifications Necessary:

Registration as a professional engineer in accordance with Chapter 471, Florida Statutes is required.

Board Wembers, C	iders, Committee Chairs and Contact into:					
Shawn Jeffrey President 813-731-1062	Jason Proctor Pres. Elect/Programs 813-250-0488	Philippe Jean V.P./Research Promotion 813-541-3516	Joe Souza Membership 813-309-2155	Joe Cox Treasurer 813-763-9654	Mike Costello Secretary/Student 813-300-4662	
YEA Chair/Governor 813-879-2749	Dan Herrera Historian 813-839-0506	Ike Crimm Governor/ Golf Event 813-758-2749	Debie Horsey Refrigeration 813-748-9406	Malia Powers Government Affairs 813-220-0588	Michael Cowles Newsletter/Governor 813-241-6488	
Jeff RossNominating/Governo813-250-0488	r <u>Joe Souza</u> 813-309-2155	Jacob Moberg Reception 813-448-0225	LAIR Services Cyber Chair 813-404-2955	Eric Viera Chapter Roster 813-448-0225	Could Be You? Publicity ???	

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American Society of Heating, Refrigeration and Air Conditioning Engineers

ASHRAE

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# FLORIDA WEST COAST CHAPTER

MARCH 20, 2012

PEDRO CARRES

COLUMBIA RESTAURANT, YBOR CITY

The Florida West Coast Chapter of ASHRAE is proud to have Mr. Pedro Carres from Mitsubishi Electric Cooling and Heating coming to speak to our chapter on March 20, 2012 at the Columbia Restaurant in Ybor City about:

" Updates and Changes of Variable Refrigerant Flow Systems "



Pedro Carres is the HVAC Commercial Regional Manager at Mitsubishi Electric for the state of Florida.

He has been in the ductless HVAC industry since 1993. Previously he worked for Toshiba Corporation, and for Fujitsu General, were his jobs have included technical, service, and sales positions for HVAC products in domestic and international markets.

He has been involved in the early stages of the developing of AHRI Standard 1230 for VRF.

In his current role, he is responsible for the sales and engineering design-support of the of Variable Refrigerant Flow (VRF) products from Mitsubishi Electric.

Pedro holds an Electrical Engineering degree from Florida International University, Miami, FL.

Please RSVP on the FWC website at: <u>http://www.ashrae-fwc.org/chapter\_meetings.htm</u> Cost: \$35 thru Paypal or \$40 day of Event (It is still \$40 day of even if you RSVP but do not pay thru Paypal)

Email me with any questions or to RSVP @ <u>iproctor@sladerossinc.com</u> or call (813)250-0488. Jason Proctor, FWC Programs Chair



**Keeping it Cool with ASHRAE** 

## April 19, 2012 1:00 PM-4:00 PM EDT

# **Dedicated Outdoor Air Systems:**

A Path to Balancing Energy and IEQ

Hear leading experts discuss the role of Dedicated Outdoor Air Systems in the overall HVAC system and describe various DOAS equipment configurations, characteristics, and applications. This webcast will identify common design and operational pitfalls, and cover challenges unique to DOAS.



# Presenters



Ron Jarnagin, 2011-12 ASHRAE President Staff Scientist | Pacific Northwest National Laboratory | Richland, WA



Tim McGinn, P.E., IEED AP Principal | DIALOG | Calgary, AB, Canada

View the webcast at a site

 You may register to view the Webcast on your PC You may host a webcast viewing site for your colleagues

Three (3) Professional Development Hours (PHDs) or three

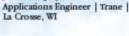
(3) AIA Learning Units may be awarded to viewers who complete the "Participant Reaction Form" by May 3, 2012.

How to Participate

PDH Credits



State University | University Park, PA



John Murphy, LEED AP

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Brought to you by the ASHRAE Chapter Technology Transfer Committee

For more information about the program, presenters, continuing education credits, sponsorships, and DOAS resources please visit us at www.ashrae.org/doaswebcast





# Annual 2012 Shrimp Boil

Friday, April 13, 2012 6:00 p.m. – 10:00 p.m. Davis Islands Garden Club 81 Columbia Drive, Tampa 813.251.3123 www.digclub.org



Come mingle with your ASHRAE friends and enjoy live music, cold beverages, and plenty of shrimp at the Garden Club's outdoor patio!

Event Prices:

\$30.00...,...Individual Advanced Payment via PayPal or Check (includes all you can eat shrimp & chicken and unlimited beer & wine)

\$35.00.....Individual Payment Day of Event (includes all you can eat shrimp & chicken and unlimited beer & wine)

\$150.00....Corporate Sponsorship of Event (includes company name/logo on table display AND (2) Shrimp Boil individual entries)



\*Advanced Payment saves you \$5.00

| Attendee Name:   |    | Additional Attendees: |
|------------------|----|-----------------------|
| Company Name:    |    | Attendee Name:        |
| Mailing Address: |    | Attendee Name:        |
| City/State/Zip:  | 1  | Attendee Name:        |
| Phone:           | 2  | Attendee Name:        |
| Email Address:   | ,. | Attendee Name:        |
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| No. | of | Attendees: | _ |
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TOTAL \$ Pay online via PayPal @ http://www.ashrae-fwc.org OR

Fill out this form and make checks payable to ASHRAE-FWC and mail to:

ASHRAE-FWC Shrimp Boil c/o Mike Costello 8365 Gunn Highway Tampa, Florida 33624 813-300-4662

For more information, email questions to mcostello@cea-engineers.com