**PROJECT SPOTLIGHT**

Innova Eco Building Systems

**Innova Eco Building System** in Miami received the 2016 SIPA Building Excellence Award for Affordable Housing at the 14th Annual Structural Insulated Panel Association (SIPA) Building Excellence Awards on April 5 in San Juan, Puerto Rico. The winning project was the **St. Croix Sugar Mills Villas** for the Housing Authority, 34 homes and club house. The project was scored on four criteria including how the use of structural insulated panels (SIPs) resulted in quantifiable energy efficiency; design and structural engineering innovation; creative use of SIP construction; and overall environmental sustainability.

Due to the hot humid, hurricane prone climate of St. Croix, the developer was looking for a low-maintenance, durable and mold resistant alternative to typical construction. Additionally, since the cost of electricity on the island was high, he was also interested in a construction method that would reduce energy demand. The perfect solution to his problem was Innova Magnesium Oxide SIPs (MGO).

Congratulations to FGBG Member **Jerry Gillman**, CEO of Innova Eco Building Systems. [More]

**Fannie Mae Offers HomeStyle Energy Loans**

To support borrowers in their efforts to increase the energy efficiency and reduce utility costs for their...
homes, Fannie Mae is announcing the HomeStyle Energy mortgage loan for existing properties (no new construction). Borrowers will be able to finance energy-efficient upgrades when purchasing or refinancing a home, eliminating the need for a subordinate lien, home equity line of credit, Property Assessed Clean Energy (PACE) loan, or unsecured loan.

HomeStyle Energy Mortgages are available for all Fannie Mae-approved lenders and no special approval is required. It finances up to 15 percent of "as completed" appraised value. Up to $3,500 is available for basic weatherization and water efficiency, such as programmable thermostats or low-flow water devices. An energy report is not required for weatherization funding, however for full mortgages one of the following is required: HERS, DOE Home Energy Score Report, or a comparable rating report.

It is available for standard purchase and limited cash-out refinance transactions, and also for larger renovation projects that include energy efficiency under the existing HomeStyle Renovation product. It can be used in combination with other funding programs. [More]  [Funding Guidelines]

Legislative Session 2016
Land Planning Changes Passed

**Growth Management**
**HB 1361ER**: makes a number of changes related to existing DRIs, decreases the minimum required acreage for sector plans from 15,000 acres to 5000 acres, increases the size of enclaves that can be annexed on an expedited basis from 10 acres to 110 acres.

**SB 1508ER**: makes numerous changes to the regulations dealing with use of land and airspace around airports and requires local governments to amend existing airport zoning regulations or adopt new ones by July 1, 2017.

**Community Development**
**HB 971ER**: Increases the size of Community Development Districts (CDDs) that can be created by county or municipal ordinance from less than 1,000 acres to less than 2,500 acres.

**Transportation**
**HB 7061ER**: a comprehensive transportation bill that, among other things, allows local governments to authorize commercial megacycles on streets; changes
the definition of "small county" to less than 170,000 for the purposes of the Small County Outreach program.

**Agriculture Lands / Conservation Easements**

**HB 794ER**: specifies that an allowable surface use of land subject to a conservation easement may include agricultural activities, including, but not limited to, silviculture, forest management, and livestock grazing, if such activities are a current or historic use of the land placed under the easement and the activities are conducted in accordance with the applicable best management practices adopted by DACS.

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**NREL Estimates Solar Could Produce 47 Percent of Florida’s Energy Needs**

A U.S. National Renewable Energy Laboratory report claims that covering every suitable rooftop in the U.S. with solar panels could generate 39% of the country’s total electricity supply, according to Fast Company staff writer Ben Schiller. Previously, the lab thought the limit was 664 gigawatts (GW) of installed capacity, but now the estimate has jumped to 1,118 GW.

In some specific states the rooftop solar potential is much higher because the rooftops and landscape are more suitable, like in California, where rooftops could generate a whopping 74% of the electricity sold by utilities in 2013. Florida and New England could get 47% and 45% of their needs met, respectively. Even Washington could have 27% of its needs met with rooftop solar, and it has the worst solar resource in the country. [More]

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**San Francisco Law Requires Solar Panels on New Buildings**

San Francisco has passed a law requiring all new buildings below 10 stories to have solar panels installed on their rooftops. It becomes the first major US city to mandate solar panel installations on new constructions and forms part of a wider vision to generate 100 percent of its electricity via renewable energy.

The Better Roofs Ordinance was passed unanimously by the city’s Board of Supervisors, and will apply to new constructions both commercial and residential.
Joe Lstiburek's Latest Advice
On Where to Place Ductwork

We continue to insist on putting ductwork in attics. It is a dumb idea from an energy perspective - a couple of HERS penalty points at a minimum - and we continue to see condensation on the ductwork in the summers. We have tried almost everything to get the ductwork "inside." We have tried dropped ceiling. We have moved the "inside" to the roof deck. We have tried "burying" the ducts. Almost nothing has worked. Well, not really. Dropped ceilings have worked. Moving the inside up to the roof deck - aka "conditioned attics" has worked. And "burying" the ducts has worked. The "weasel words" to note is the definition of "worked." What do we mean by "worked." If you mean "the physics" and "performance" you would be correct. If you mean "cost" and "convenience" and "ease" you might not be correct.

How about "burying" the ducts? I am really coming around to this approach. We took a run at this also quite some time ago. At the time no one quite knew what R-value the ducts needed to be when you buried them. I cleverly avoided the issue back then. When we did it for real I would take a guess and then double the guess. Hey, when your butt is on the line you don't take chances. Well, now we know - thanks to some real nice work by the same folks who I thought were crazy the first time I heard about the approach.

If you insulate your ducts to R-13 in hot-humid and mixed-humid climates (Climate Zones 1A, 2A, 3A and 4A) you can bury them in insulation and not worry about condensation or sweating ducts. [More]

Graphene-Based Sensor
Targets Sick Building Syndrome

Whether it's off-gassing from paint on the walls, carpet on the floor or the furniture in the room, there are numerous sources of indoor air pollution that can lead to so-called "sick building syndrome." There are already devices that can detect such pollutants, although their sensitivity is generally limited to concentrations of parts-per-million. Now, however, scientists have created a sensor that can detect...
Developed by researchers from the University of Southampton and the Japan Advanced Institute of Science and Technology (JAIST), the device is centered around a suspended strip of graphene with a weak electrical field being run through it. For those who don’t know, graphene is a one-atom-thick sheet of carbon atoms, linked together in a honeycomb pattern.

Because the sensor is very compact, it could lead to much lighter and cheaper pollution-detecting devices. Additionally, it’s very energy-efficient, requiring less than three volts to operate. [More]

Scientists Develop "Transparent Wood"

Whether it’s being used to make highrises, bicycles or foam insulation, wood is known for being a strong, plentiful, inexpensive and renewable alternative to conventional building materials. Soon, it may even find its way into windows and solar cells - as a cheaper substitute for traditional silica-based glass.

The process starts by chemically removing lignin from natural wood fibers. In order to achieve transparency, the resulting material was mixed with prepolymerized methyl methacrylate (PMMA). This altered the refractive index of the resulting mixture, turning it transparent. Depending on the intended application, the finished product can also be made more translucent by fine-tuning the wood-to-PMMA ratio. The new process should be particularly well-suited to large-scale applications and mass production.

"It's attractive that the material comes from renewable sources," says Prof. Lars Berglund, leader of the project. "It also offers excellent mechanical properties, including strength, toughness, low density and low thermal conductivity." [More]

APA Hosts Engineered Wood Product Training

APA will host a weekly "Back to Basics" engineered wood product training webinar series beginning on April 8. All webinars start at 8 am and are free but...
registration is required. Modules will run between 30 and 90 minutes each. [More]

April 8  (Watch the Video)
Introduction to Engineered Wood Products

April 15  (Watch the Video)
Product Design Considerations, Selection and Specifications for I-Joists and Rim Board

April 22  (Watch the Video)
I-Joist Floor Framing and Rim Board Construction

April 29
I-Joist Roof Framing and Construction Details

May 6
Best Practices for I-Joist Handling and Storage

May 13
Glulam Beam and Header Applications

APA has also released an updated version of its Engineered Wood Construction Guide. [Download free version]

Florida Water Star Training Scheduled

May 18-19 in Gainesville
For Landscape & Irrigation Professionals
Become a Florida Water Star℠ Accredited Professional and add to your professional skills while increasing your earnings potential. The training is free and the separate exam cost is only $25. The training offers the following CEU credits: [Download the Flyer]

- Board of Landscape Architecture - 7.25 credits CE/course #0009685
- Certified Irrigation Specialty Contractor (CILB) - 7 credits/course # 0610852
- FNGLA-certified professionals - 4 CEU hours
- Irrigation Association - 4 CEU hours
- Volusia County Irrigation License - 4.5 CEU hours

May 24-25 in Winter Haven - Certifier Training
Learn how to perform inspections and certify projects for the Florida Water Star program. If you are already a green building certifier or energy rater this will be a complement to your professional services and open
more opportunities. Even those looking for a new career can participate...there are no prerequisites to attending the training. [Download the Brochure] or visit http://floridawaterstar.com/

**Sustainable Florida's Best Practice Awards**

**Open Nominations; Entry Deadline - June 10**

Sustainable Florida has opened nominations for its annual Best Practices Awards competition. This year two new divisions have been added: Health Care and Colleges & Universities. The list of categories is:

- Green Building
- Large Business
- Small Business
- Government
- Non-Profit
- Partnership
- Leadership
- Colleges & Universities
- Health Care

Winners will be announced at the annual Working on the Green Sustainability Summit scheduled for September 14-16, 2016, at the Hyatt Pier 66 in Ft. Lauderdale.

[More] [Nomination Form]

**Florida Realtors ENVY Nominations Open**

Know a planned community that preserves Florida's natural beauty? Florida Realtors® annual Environmental Award program, popularly known as the "ENVY" award, honors a development that best preserves Florida's natural quality of life. The award may be given in two categories: one for residential development and one for commercial development.

Several past ENVY winners are land development projects certified by the Florida Green Building Coalition, including Oakland Park and Harmony in Central Florida, Verandah near Fort Myers, and Lakewood Ranch near Bradenton and Sarasota.

There is no cost to enter the ENVY awards. The entry deadline is Friday, July 8, 2016. For information on submission guidelines, visit Florida Realtors website
**Job Openings**

- Economic Development/CRA Manager
  City of Mount Dora
- Senior Planner
  City of Lakeland
- Planning, Zoning & Economic Director
  City of Plantation
- Planner I/Planner II
  City of Fernandina Beach
- Senior Planner/GIS Specialist
  City of Riviera Beach