



www.greenbuildinginstitute.org

Envisioning a world where green building is the norm.

What is “green building”?

Green Building is the practice of increasing the efficiency with which buildings and their sites use and harvest energy, water, and materials. Through this approach of holistic design, construction, operation, and maintenance of homes, office buildings and other built structures, green building works with the existing environment instead of against it.

What is the Green Building Institute?

The Green Building Institute (The Institute) is a 501(c)(3) non-profit organization whose mission is to foster sustainable building practices through education and example.

The Institute offers seminars, workshops and events that teach people from the individual to the building and design professionals how to integrate green building into their homes and buildings as well as into their lives. The Institute aims to show how a green approach is better for your pocketbook, better for your health and better for the environment.

Who is the Green Building Institute?

Founded by a group of dedicated volunteers, The Institute includes designers, installers, and construction experts, dedicated to building a more sustainable future. At its helm is Executive Director, Hannah C. Wood. The Board of Directors is led by Stanley J. Sersen (NCARB, LEED®AP, RS). The Institute is fast growing with wonderful people interested in both learning about and supporting the rapidly growing green building industry.



Where is the Green Building Institute?

The Institute is headquartered at the EnviroCenter in Jessup, Maryland – strategically located off I-95 between Baltimore and Washington, DC and near the BWI airport. The EnviroCenter is a professional green office center with large workshop areas that allow for The Institute’s hands-on demonstration and coursework.

Why was the Green Building Institute created?

- The current demand for green knowledge goes beyond certification needs. Making the transition to a green built environment necessitates education in all aspects of the building process. Everyone involved in creating and constructing the built environment needs to be involved from the general public to the building code professionals, constructors, regulators, designers and everyone in between.

What classes and programs does the Green Building Institute offer?

- Please see our website www.greenbuildinginstitute.org for the most up-to-date- schedule of classes, programs and events.

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Sample Curriculum & Past Workshops

Designing Sustainable Communities

John W. Spears, CEM

President, Sustainable Design Group

- John discusses his work on building sustainable communities in China, Mexico, South Africa and the Caribbean. Learn how economics, the environment & the social aspects all come into the building of a sustainable community. Some of the technologies and techniques John speaks about are using compacted dirt as building blocks (compressed earth construction), community gardens, Earth Home™, waste management, and rainwater irrigation. Understand the basics of the integration of the sustainable aspects of housing, communications, transportation, and business is applied in these communities.

View the steps taking place at the Beijing 2008 Olympics planning site to creating zero energy buildings, reusing water, and serving transportation needs by using electric, natural gas, and hydrogen fuel cell power. See how solar health clinics in rural, northwest China at high altitudes were designed.

Lastly, bask in the most high-end sustainable community in the world being built developed on a 6,000-acre plot on the coast of the Sea of Cortez in Baja, Mexico. *Time: 1 hour*

Building a Pond

Paul E. Bassett

President, Hydro-Logix Solutions, Inc.

- In November 2005, Aquascapes Designs and Paul Bassett of Hydro-Logix Solutions, Inc. did a hands-on workshop on building a pond which could be replenished by stored rainwater. During this day-long workshop, Paul taught 40 participants ranging from local landscape contractors to people interested in getting into the pond building industry. Installing the water features, learning how to incorporate different elements into the pond's construction such as going from a high to low level of terrain, creating waterfalls and a disappearing pond effect were a few of the highlights of the seminar. Paul also discussed the ecological benefits of building a water feature and how it can help reduce run-off. *Time: 8 hours*

Natural House Building & Renewable Energy Introduction

Solar Energy International (SEI) Instructors

- Also in November 2005, Green Building Institute partnered with Solar Energy International to put on a week-long course which provided an overview of natural building, and covered how to use solar, wind and water power to generate electricity for homes. The SEI instructors gave an introduction on the art and science of natural building materials, techniques, and design considerations for earth and straw construction. The students also learned how modern renewable energy systems, like solar electric photovoltaic (PV) systems, can provide utility independence and/or can be used to 'buy and sell' electricity with the local utility company. The instructors explained the solar rebate programs, discussed tax incentives, and addressed how to work with local professionals in evaluating their practical renewable energy and natural home building options. *Time: 5 days, 8 hours/day*

Energy Efficiency for the Home **(Baltimore Green Week Event)**

Stanley J. Sersen, NCARB, LEED®AP, RS
President, Architectural Support Group, Inc.

Jeff Gilbert
Principal, Chesapeake Wind & Solar

Paul E. Bassett
President, Hydro-Logix Solutions, Inc

- Stan Sersen served as "Master of Ceremonies" for a discussion on using energy efficient products in the home with Jeff Gilbert and Paul Bassett at the Home Depot in Baltimore City near Dundalk.

Stan, Paul, and Jeff, as well as representatives from Home Depot, gave a presentation about how to make homes better insulated, more heat and cold resistant and how to save money on utility bills.

LEED® for Homes **(Baltimore Green Week Event)**

Jay Hall, Ph.D.
Acting Program Manager, US Green Building Council's Leadership in Energy and Environmental Design (LEED)® for Homes



At Baltimore's blue house, the Green Building Institute hosted featured speaker, Jay Hall, PhD. Jay's presentation provided highlights of the pilot phase of the LEED For Homes program.

The purpose of the pilot is to test the LEED for Homes Rating System and its delivery procedures in 11 selected markets, geographically distributed across the US. Currently, the 100 registered pilot builders plan to build almost 500 housing units. The pilot is scheduled to conclude in December 2006. Then, in early 2007, the fully chartered LEED for Homes program is expected to launch nationally. *Time: 1.5 –2 hours*

Rainwater Harvesting for the Home Garden

(Seminar featured at Maryland Master Gardener Annual Training Day at the University of Maryland - College Park)

Paul E. Bassett
President, Hydro-Logix Solutions, Inc.

- This seminar focuses on how and why to collect, store and transport rainwater from the roof to the garden. Paul will discuss and demonstrate gutter filtration, downspout collection, rain barrels, rain tanks, small water pumps, irrigation timers and weather sensors and drip and micro-irrigation systems. *Time: 1.5 hours*

Plants & Green Buildings

(Seminar featured at Maryland Master Gardener Annual Training Day at the University of Maryland - College Park)

Paul E. Bassett
President, Hydro-Logix Solutions, Inc.

Michael Furbish
Owner & Founder, Furbish Company

- This seminar is an overview of the latest Green Building technologies focusing on those which use plants as sustainable building systems components; living roofs to managing storm water; living walls to serve as air filters; living “machines” to treat wastewater and more. *Time: 1.5 hours*

Competitive Advantage for Future Home Building

Stanley J. Sersen, NCARB, LEED® AP, RS
Founder & Architect, The EnviroCenter

- A report commissioned by the National Association of Home Builders (NAHB) shows that a majority of builders in the U. S. are expected to be involved in green building over the next couple of years. Learn the Do's and Don'ts of Green building and how you can gain a competitive advantage by offering a product that will be in demand even in a soft market. *Time: 1.5 hours – 2 hours*

The Home Owner's Guide to Green Building

Stanley J. Sersen, NCARB, LEED®AP, RS
Founder & Architect, The EnviroCenter

- As a homeowner or renter, discover how you can use green building techniques to decrease your energy use and costs and create a healthier environment in which to live. Get important tips on upgrading your home for energy efficiency and mold prevention. Learn how to use natural, passive methods of heating and cooling your home to soften the blow of increased electricity costs. *Time: 1 hour*

Understanding Green Building Certifications

Stanley J. Sersen, NCARB, LEED®AP, RS
Founder & Architect, The EnviroCenter

- Understanding the categories behind getting a green building “certified” will help you learn about the interrelations of the various dimensions that make up a green building. In this seminar the US Green Building Council’s Leadership in Energy & Environmental Design (LEED®), the Green Building Initiative’s Green Globe Rating system and other rating systems for homes will be discussed. Find out what it takes to get your next building project officially recognized as being Green. *Time: 1.5 hours – 2 hours*

The Home Buyer's Guide to House Selection

Stanley J. Sersen, NCARB, LEED®AP, RS
Founder & Architect, The EnviroCenter

- Are you or will you be in the market for a new or previously owned home?
→ With an understanding of natural forces and some basic building science, you will gain a better understanding about the major investment you plan to make. Armed with the knowledge you will gain from this course you will be able to select (or design) a home that use the laws of nature and not fight them so the end result is a comfortable, environmentally friendly, and healthier home. *Time: 1 -1.5 hours*

Energy for Life

Jay H. Green

Registered Dietitian & Scientific Information Specialist

USDA Agricultural Research Service - National Visitor Center

Question: What does the food you eat, the car you drive, the home you live in, and the Earth we all live on have in common?

Answer: They all need and use energy!

- Could being overweight be related to global warming?
- Do humans have their own form of photosynthesis?
- And if so, could you get directly energized by the sun?
- Can the oil that your French fries are fried in also fuel your car?
- How is your blood related to plants and ocean water?
- What foods and/or supplements give you energy?
- How can you save home energy costs with inexpensive, minor changes?
- What is the latest buzz on renewable energy systems?

Jay answers these and other questions surrounding the entire field of energy in this enlightening and energetic presentation. *Time: 3 hours*

Introduction to Solar Energy (PV) systems & Introduction to Solar Water Heating systems

Jeff Gilbert

Principal Partner, Chesapeake Wind & Solar LLC



- In the Introduction to Solar Energy (PV) systems seminar, Jeff will give an overview of solar electric systems (photovoltaics or PV). He will show how these PV systems work and how homeowners can take advantage of state and federal incentives to help pay for their systems.

- In the Introduction to Solar Water Heating systems seminar, Jeff will give an overview of solar water heating, which will include a tour of the EnviroCenter solar radiant floor heating system.

The seminars will cover these questions and more:

- What are the real pros and cons of this seemingly endless resource?
- What are the latest developments in the industry?
- What if I have some shading on my roof?
- Can I put solar on my roof if it doesn't face south?
- How long do solar energy systems last?
- How much maintenance do these systems require?
- What state incentives are available?
- How does the new federal tax credit work?
- Can I really get over 11% Return-On-Investment from a solar water heating system?
- Why is solar supposed to be so great for heating pools?
- What's the inside scoop on the future of natural gas, oil, propane, and electricity?

Time: 3 –4 hours

Chasing the Sun

Neville Williams

President, Standard Solar Inc.

Take a solar tour around the world with Neville Williams, founder of the Solar Electric Light Fund (SELF), a non-profit organization founded in 1990, which has done projects and enterprises in China, India, Sri Lanka, Nepal, Vietnam, Indonesia, Brazil, Tanzania, Uganda, South Africa, the Solomon Islands, Navajo Nation, Nigeria, and Bhutan.

- Solar power is providing solutions for development and to provide clean energy in countries where oil is expensive and concern about global warming and climate change is high. Why isn't solar power going mainstream in the U.S.? It can, and it will, and more is happening with solar and renewables here than most people realize. But, we have a long way to go to catch up with Germany, Japan, and thousands of villages in the developing world where people take solar power for granted, since that's all they have, and it works for them beautifully. *Time: 1 –1.5 hours*

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Earth Day Event

Paul H. Wietsma, AIA
President, PH Wietsma Associates

In celebration of Earth Day, Board member Paul Wietsma represented the Green Building Institute at the Amicus Green Building Center Open House in Kensington, Maryland. State Delegate Peter Franchot and Scott Sklar of the Stella Group both gave presentations. Paul spoke with a diverse group of people from local homeowners to landscape architects about the Green Building Institute and building with more attention on energy efficiency and sustainability.

INSTRUCTORS

PAUL E. BASSETT
Hydro-Logix Solutions, Inc. (Jessup, MD)
President and Founder

Hydro-Logix Solutions, Inc. founder, Paul Bassett, has been involved with the irrigation industry for over 17 years. His many years of field experience have provided him with a solid understanding and proficiency of irrigation design and construction. This in-depth knowledge of irrigation construction has proven an invaluable asset in his designs. Paul holds multiple certifications from the Irrigation Association and is currently recognized as a Certified Irrigation Designer (CID) with Commercial & Residential specialties, and Certified Irrigation Contractor (CIC), Certified Landscape Irrigation Auditor (CLIA). His passion for helping improve professional irrigation sparked his involvement in irrigation instructing. He is now a certified instructor, providing training throughout the United States. In addition, he is recognized by the United States Green Building Council as a LEED™ Accredited Professional and has been involved with numerous LEED™ certified and registered projects in the Mid-Atlantic region. Hydro-Logix Solutions, Inc. current industry associations include:

- Irrigation Association
- Mid-Atlantic Irrigation Assoc.
- US Green Building Council
- Urban Land Institute

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MICHAEL FURBISH
Furbish Company (Baltimore, MD)
Owner and Founder

The Furbish Company, a real estate development firm launched in 2003 and committed to projects of sustainable design, does targeted projects ranging from commercial to institutional to residential provided the design/construction focus is “sustainable”.

In addition, Furbish Company provides subcontract services for specialty green building components. In particular, the firm installs living roofs, energy-efficient HVAC systems, and sustainable wastewater treatment systems. Recent living roof installations include: Swarthmore College dormitory in Swarthmore, Pa., Woodglen Park office building in Rockville, Md., Eastern Village Co-housing in Silver Spring, Md, and Wetland Studies and Solutions in Gainesville, VA. Furbish Company is currently installing a solar/geothermal radiant HVAC system for residential and small commercial applications in Loudoun County, Va., Baltimore County, MD, and Washington, DC. The firm recently installed the first living wall biofilter in the U.S. located in Hamden, MD. Furbish Company is currently engineering the construction of a living machine to filter wastewater at a local boat repair facility, and for a series of non-proprietary advanced treatment septic systems for single-family homes. The subcontracting business is positioned to offer general contractors a reliable and affordable source for innovative building system installations.

In the late ‘80’s and early ‘90’s Michael Furbish was a partner with Trammell Crow Company developing office and industrial projects in the metropolitan Baltimore area. After leaving Trammell Crow, Mr. Furbish pursued a variety of ventures in the profit and non-profit arenas. In the late ‘90’s, Mr. Furbish designed and built a straw-bale house incorporating passive solar design, composting toilets, living roof, and recycled materials. The consistent interest from public officials, institutions, and individuals since completion of his house convinced Mr. Furbish that a significant market demand remains untapped for sustainable building approaches. This inspired the formation of Furbish Company.

Mr. Furbish earned his Bachelors in Science from Georgia Tech and his MBA from Harvard. He is USGBC LEED accredited and serves on the Executive Committee of the Baltimore District Council of Urban Land Institute.

JEFFREY E. GILBERT
Chesapeake Wind & Solar LLC (CWS) (Jessup, MD)
Principal Partner

Jeff is a consulting Mechanical Engineer with 12 years of experience in renewable energy systems design, analysis, and installation. Jeff got his start installing and maintaining solar hot water, solar pool heating, and geothermal heat pump systems, and then became a Wind Energy Analyst for a contractor of the U.S. Dept. of Energy. There, he wrote a Small Wind Turbine Technology Characterization for the National Renewable Energy Laboratory. In a later contracting position, he supported DOE's Inventions and Innovations, NICE3, and Steam Best Practices programs.

Jeff's interest in renewable energy and energy efficiency goes back to his college days where he was the team captain for the Super Mileage Vehicle Design Team. The team designed and built a vehicle that achieved 480 mpg (gasoline) in a national design competition.

Jeff has a natural propensity for invention and design. He has built many unique solar cookers, one of which won him first place in Home Power magazine's 1994 international design contest. He is also the inventor of two economic high performance heat exchangers for solar pool heating applications. In addition to design work, Jeff enjoys teaching workshops on renewable energy to grade school students as well as to homeowners and professionals.

He is a member of the local chapter of the Solar Energy Industries Association (SEIA), key organizer of the 1997-1999 mid-Atlantic Summer Sun Energy Fair, and member of the National Organizing Committee for the ASES 2001 Solar Forum.

STANLEY J. SERSEN, Green Architect, NCARB, LEED® AP, RS
President, Architectural Support Group, Inc. (Jessup, MD)
Founder, The EnviroCenter®
Board President, Green Building Institute

Stan, a life long resident of Baltimore with roots in Fells Point, Canton and Essex, has maintained that strong local community based businesses are the backbone of a sustainable society. Stan created the *EnviroCenter* in order to "surround ourselves with people committed to providing our children

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and grandchildren with the legacy of a sustainable future of clean air, clean water and clean energy.” Architectural Support Group, Inc. specializes in building commissioning services, especially as related to LEED[®], QA/QC monitoring, ensuring that new buildings are built and perform as designed, as well as assisting owners of existing buildings in ameliorating problems and conducting reserve studies. Stan is also a co-founder of the recently formed Mid Atlantic Bio Diesel Company (MABCO).

Stan received his *Bachelor of Architecture from the University of Maryland* in 1978, specializing in environmental design, solar engineering, and structural engineering. He is a licensed Architect in Maryland, Pennsylvania and Virginia and is a National Council of Architectural Review Board (NCARB) certificate holder. He earned the *Reserve Specialist (RS)* designation from Community Associations Institute in 1998 and the *Leadership in Energy and Environmental Design Accredited Professional (LEED[®] AP)* Certification from the US Green Building Council in 2002 and is a member of the US Green Building Council.

SCOTT SKLAR

President, The Stella Group (Headquarters – Washington, D.C.)

Director, Stella Capital LLC

Scott runs The Stella Group, Ltd., a strategic marketing and policy firm advancing the utilization of clean, distributed energy applications. Prior to opening his business, Scott served as the President of the Solar Energy Industries Association (SEIA) and the National BioEnergy Industries Association. He was also the Political Director of the Solar Lobby formed by the national environmental groups and worked at the National Center for Appropriate Technology. Before that, Scott served as an energy and military aide to Senator Jacob K. Javits (NY) on Capitol Hill for nine years. He was also the co-founder of the Congressional Solar Coalition - the group that drove the early 1970's legislation for renewables.

Scott currently serves on numerous boards of sustainable organizations and businesses throughout the country.

JOHN W. SPEARS, CEM
President, Sustainable Design Group (Gaithersburg, MD)
President, International Center for Sustainable Development

John Spears is a leader in developing energy efficient and environmentally responsible buildings and communities, with over 25 years experience in the field.

John has developed energy and environmental policy for federal, state, and local governments and pioneered the development of many energy conservation, solar and indoor air quality technologies.

His passive solar homes have been published in Better Homes and Gardens Building Ideas, Home Magazine, Popular Science, Solar Age, and New Shelter magazines.

John has authored numerous technical papers on energy conservation, passive solar, and indoor air quality through The American Solar Energy Society (ASES), American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE), Energy and Environmental Building Association (EEBA), and the National Association of Home Builders (NAHB) - Research Center.

He participated in the first trade mission on affordable housing to South Africa with the US Department of Commerce, USAID, and OPIC and has trained architects, engineers, planners, and policy makers from around the world on sustainable community design.

John is a Certified Energy Manager (CEM) and was named the Region 2 Environmental Professional of the Year 1995 by the Association of Energy Engineers. He served on the board of directors of the Energy & Environmental Building Association (EEBA) for several years.

PAUL H. WIETSMA, AIA
PH Wietsma Associates, Inc. (Jessup, MD)
President & Founder

Paul has handled the architectural design and structural consulting needs of clients throughout the Washington, DC metropolitan area for more than twenty years. An experienced and respected architect, he is the founder and

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president of PH Wietsma Associates, a well-known home and building inspection service company.

Whether designing commercial and residential properties, or educating a new homebuyer about a property, structural integrity is at the core of everything Paul does. A graduate of New York's City College, Paul is a licensed and registered architect and a member of the American Institute of Architects (AIA).

NEVILLE WILLIAMS

President, Standard Solar Inc. (Gaithersburg, MD)

Founder, Solar Electric Light Fund (SELF)

Author, "Chasing the Sun: Solar Adventures Around the World"

Neville is Chairman and CEO of the Solar Electric Light Company (SELCO). He founded SELCO in February 1997, after spending seven years as the founder and head of the Solar Electric Light Fund (SELF), a non-profit organization devoted to financing and facilitating solar rural electrification in developing countries. A former journalist, Mr. Williams first became involved with solar energy during the Carter Administration as a consultant to the U.S. Department of Energy where he was active in promoting solar technologies, including Photovoltaics.

Drawing on 25 years of executive management, communications and marketing experience, he launched SELF (for energy SELF-reliance) in 1990 to assist national governments and community organizations to implement pilot "solar seed" projects in India, Sri Lanka, China, Nepal, Vietnam, Brazil, Tanzania, Uganda, South Africa, Indonesia and the Solomon Islands. This led to the formation of SELCO.

Mr. Williams is the chairman of SELCO-India, SELCO-Vietnam, and SELCO-Sri Lanka; he manages SELCO and its subsidiaries with a small staff based at the Company's headquarters in Chevy Chase, Maryland.

An Ohio native (born 1943), Mr. Williams is an alumnus of the Universities of Colorado and Neuchatel (Switzerland). He has lived in Washington DC since 1987 with his wife, Patricia Forkan, Executive VP of the Humane Society of the United States.