

Build It Green Panel

Sustainable strategies for the
built environment in three
Virginia communities



Panelists

- ◉ American Tobacco Warehouse to Innovation Center
 - Tom Rabb, Chairman, Halifax Education Foundation
- ◉ The Newly Constructed Hotel Floyd
 - Kamala Bauers, Owner, Hotel Floyd
- ◉ Lexington's Low Impact Development
 - Bill Blatter, Director of Planning, City of Lexington

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AMERICAN TOBACCO WAREHOUSE TO INNOVATION CENTER

How the Halifax Educational Foundation made Historic Tax Credits and LEED Building Principals collaborate in one project.



FROM CRUMBLING MULTI PURPOSE WAREHOUSE TO HISTORICALLY RENOVATED ENERGY EFFICIENT EDUCATIONAL FACILITY.



2008



2011

AMERICAN TOBACCO WAREHOUSE

- ▶ Part of a series of tobacco company buildings in Downtown South Boston, which have been renovated and now create an arts and educational campus.
- ▶ Built in late 1800 (1880 or later) as part of the American Tobacco Company operation, with the original purpose of a manufacturing site for tobacco bags.
- ▶ Three story traditional brick and heavy beam structure, with 2 additions built before 1920.



1) original 3 story building (foreground); 2) first addition (foreground); 3) view of "shed" style addition on the rear of the original building; 4) close view of "shed" addition

- ▶ When the building was donated to the HEF in December 2007, it had most recently been used as a warehouse, was packed full of an assortment of products and was in a variety of states of decay.
- ▶ The Foundation worked with the Harris family to clean out the building and dispose of the accumulated collection of furniture, cars, industrial supplies and assortment of interesting items.



RENOVATION

- ▶ Because the Tobacco Heritage of the region is important to the Foundation and the Foundation is also interested in “green” building practices, the decision was made to renovate the building with distinct efforts to achieve Leadership in Energy and Environmental Design (LEED) certification and to apply for Historic Tax Credits through the National Park Service and IRS sponsored program. The Historic Tax Credits would be a necessary part of the funding stream for the renovation project.
- ▶ By working with an experienced architect who was already familiar with the Foundation and the Southern Virginia Higher Education Center (SVHEC), the Foundation was able to stream line the design process for the new Innovation Center.
- ▶ Due to the distinct partnership between the Foundation and the Center and the efforts of the staff of each organization, the Innovation Center was easily and adeptly designed to house the new signature program of the SVHEC: The Business of Art & Design (BA&D).
- ▶ With Innovation as the key word, the project quickly evolved into a cutting edge renovation using the best preservation and LEED practices available.

HISTORIC PRESERVATION

- ▶ The key features in the American Tobacco Warehouse which were preserved in the transformation to the Innovation Center are:
- ▶ Windows and skylights



▶ Exterior, interior and fire doors



▶ Manufacturing/ sewing mechanism equipment



- ▶ Original elevators and equipment



- ▶ Main staircase linking the original first and second floors- preserved but reserved as gallery space to display historical items and student work.



HISTORIC TAX CREDITS

- ▶ The Historic Tax Credit program is administered by the National Park Service (NPS) and the Internal Revenue Service (IRS) in partnership with State Historic Preservation offices. Guidelines for rehabilitation and renovation have been laid out by NPS and the Department of the Interior and are available in both hard copy and online.
- ▶ The application process started before renovation and construction with careful documentation of the historic features of the building and the Foundation/ Architect's plans for preservation. Once the part I application was approved, all questions had been answered and Virginia Department of Historic Resources and the National Park Service concerns had been met, the renovation project moved into full swing.
- ▶ The Foundation worked closely with the architect and a Historic Tax Credit advisor to ensure the work being done was appropriate and would meet the standards.
- ▶ Once the Foundation had completed renovation and preservation of the American Tobacco Warehouse, the application process for Historic Tax Credits could be completed.

HISTORIC RENOVATION GONE GREEN

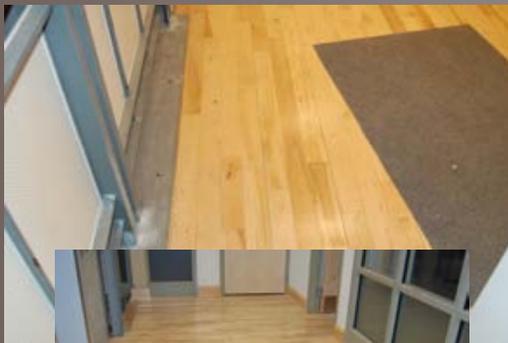
- ▶ In looking towards the future, seeking sustainability and keeping innovation in mind, the Foundation decided to seek certification of this renovation project by the internationally recognized certification system developed by the United States Green Building Council (USGBC): Leadership in Energy and Environmental Design (LEED) program.
- ▶ The intent of LEED is to provide verification and certification that a building (or in some cases community) was designed and built with the highest measures of energy saving, water efficiency, emission reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts. LEED provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions. LEED is flexible enough to apply to all building types and works throughout the building lifecycle— from design and construction to operations and management, tenant fitout and even retrofit.

HISTORIC RENOVATION GONE GREEN

- ▶ LEED Certification for the Innovation Center will give Halifax County the first LEED certified building.
- ▶ The Foundation recognizes the impact green building has on resources, especially natural resources, and understands the long term saving possibilities for building occupation and tenants.
- ▶ While being sensitive to the historic character of the building and the need to maintain that integrity, the architect, contractor and Foundation worked together to merge the innovative LEED practice in with the rehabilitation and renovation efforts.
- ▶ LEED influences can be found throughout the building, from the Low Volatile Organic Compound (VOC) adhesives, paints and treatments used in every space to the methodology used for sourcing materials and meticulous recycling of materials and reduction in waste from the job site.

EXAMPLES OF LEED IN THE IC

- ▶ The most visible example of LEED in the IC is the flooring. The wood used in the flooring is Forest Stewardship Council (FSC) certified, which means that the wood was harvested from forests where the environmental sustainability and sensitivity are priorities.
- ▶ The wood in the conference center seating and the cabinetry (that isn't made from original wood in the building) is also FSC certified.



EXAMPLES OF LEED IN THE IC

- ▶ The lighting in the building is high efficiency and motion controlled, with pre-set controls to turn the lights off after 15 minutes of no activity in the space. Lights can be turned on and off at the switch as well, but are over ridden by the motion controls. Additionally the skylights on the second floor allow for a flood of natural light in the second floor space and reduce the need for a great deal of artificial lighting.
- ▶ While in keeping with the green concepts, all materials and waste on site that could be recycled were. Even to the extent that old concrete, which had to be removed, was sent to Raleigh, NC to a company which takes the old concrete and breaks it down, tumbles it and reuses it in new concrete products. A number of recycling centers are part of the cabinetry in various areas of the IC to encourage and promote recycling in the building, and a recycling center has been set up in the basement for collection, sorting and staging for transportation to the County recycling center.

EXAMPLES OF LEED IN THE IC

- ▶ A gray water system, consisting of three 4000 gallon tanks and related equipment, was installed in the IC to collect roof run off water which will be used through out the building for flushing toilets and other non-potable ways. This will keep the IC from using (and paying for) as much water from the local water service authority and allows the building to be more self sustaining.



EXAMPLES OF LEED IN THE IC

- ▶ As much as possible, materials and products used in the renovation project were sourced from within 500 miles of the jobsite. This reduces the overall environmental impact and carbon footprint of the project, and pushed the “buy local” concept.
- ▶ Air is heated and cooled in the building using high efficiency, LEED approved, air handlers.
- ▶ Bike racks have been installed to encourage students and faculty to ride bikes to work, reducing the number of cars and therefore pollutants on the road.
- ▶ Lockers and a shower have been installed to allow for faculty who ride a bike to work to shower and get ready for class, further encouraging the environmental consciousness.



EXAMPLES OF LEED IN THE IC

- ▶ The plastic lockers and all plastic restroom partitions are made from recycled plastics.
- ▶ Restroom fixtures are all high efficiency and low flow.
- ▶ Hand dryers are the highest efficiency available and reduce the need for paper towels and the amount of waste going to a landfill.
- ▶ The windows have an additional covering inside the building to add an extra layer of insulation. This extra insulation will reduce the heating/cooling needs overall and help preserve the windows, reducing the need for cleaning and repainting.
- ▶ All finishes, including the flooring, counter tops and painted walls, are low VOC, reducing the chemical compounds in the air and keeping the environmental air quality in the building high. These finishes require simple water for cleaning, helping to eliminate the need for harsh cleaning chemicals and maintain the environmental air quality of the overall building.

GREEN AND HISTORICAL: THE NEW HOME OF THE BUSINESS OF ART & DESIGN

- ▶ The Business of Art & Design (BA&D) program of the Southern Virginia Higher Education Center has already started calling the Innovation Center home and the first official classes will begin there in the Fall of 2011.
- ▶ With innovation and creativity as key concepts for the BA&D program, this new building is a perfect fit. Students of the BA&D program are challenged to think creatively, hone problem solving skills and find ways to effectively increase the efficiency of the workplace- making a building renovated through innovation, and keeping tradition and history at the forefront, the ideal learning environment.

Panelist

- The Newly Constructed Hotel Floyd
 - Kamala Bauers, Owner, Hotel Floyd

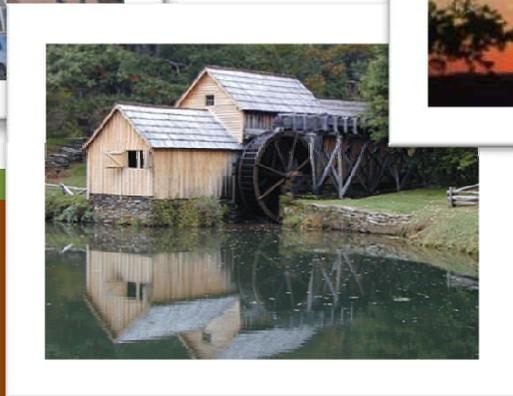
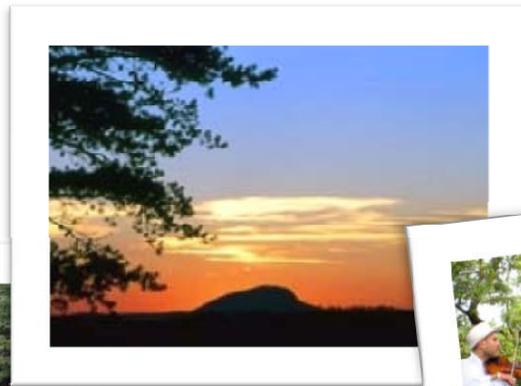
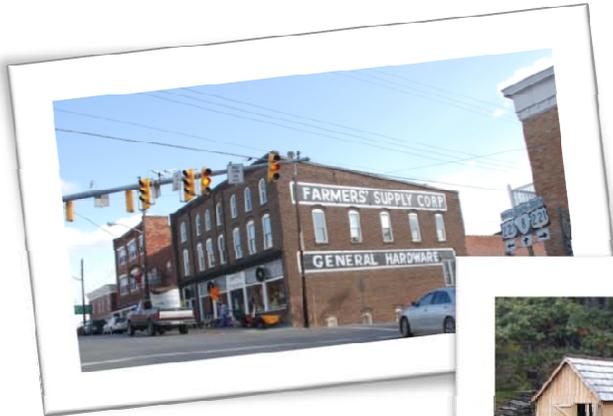


WWW.HOTELFLOYD.COM

Presented By: Kamala Bauers

The project incorporates many innovative features:

A unique and beautiful place in downtown Floyd for lodging and to learn about and enjoy local art, music, furniture, handcrafted works and other cultural aspects of Floyd.





Compliments Floyd County's unique natural and cultural heritage.

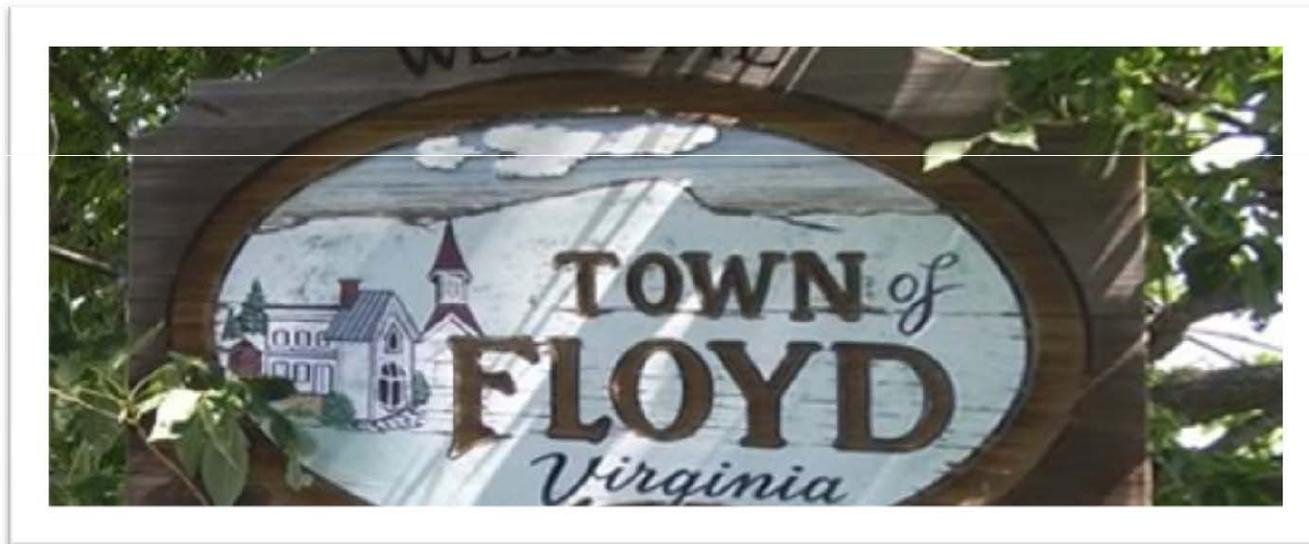
A model for “green building” and “sustainable design”.



Provides **real jobs** for people with disabilities and others in the community.



Affordable pricing to meet the overall needs of businesses and the citizens of the region.



An important addition to downtown
Floyd in its design and connections to
adjoining properties and streets.



Basic Features of the Design:

14 separate hotel units in **Phase I**:
Five 2-bedrooms, 2-bathroom Suites
and Nine single rooms.



Decorated and appointed according to locally important themes. Furniture and artwork purchased from local artists and craftspeople.



Unique exterior environments including gardens, music stage, walkways, connections to the Old Jacksonville Cemetery, Locust Street and Main Street.



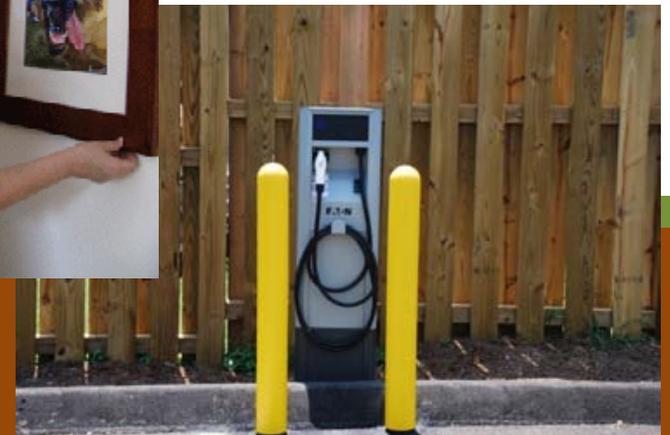
Special Features Incorporating Technology and Sustainable Design

- The general goal is to be a showcase and model in the use of technology and sustainable design elements.
- Utilize local products and services to support the local economy and to provide value to and benefit from local cultural assets.
- Utilize recycled products (such as timbers and finish materials), and recyclable products (those that can themselves be recycled at a future time). For example, couch fabrics are made from recycled materials and are quickly biodegradable when returned to a landfill.
- Incorporate geothermal heating and cooling system using 10 deep (350') wells in the ground.
- Hot water is provided by high efficiency MZ boilers to provide fast heating but low energy use.
- Minimize noise through use of low-noise equipment, ample sound insulation throughout and site placement to achieve acoustic goals.
- Minimize light pollution through use of exterior lighting that focuses light onto pathways and landscaping features without spreading unnecessary light into the night sky and surrounding community.
- Utilize high-efficiency lighting fixtures and other electrical devices. All lighting in the building is either fluorescent tube or solid state (Light Emitting Diode) fixtures.
- Include energy conservation features - high insulation values and high thermal-value windows.
- Shower heads and toilets are the latest in low water use appliances. Shower heads provide excellent water dispersion but only use 1.25 gallons per minute. Toilets use 1.2 gallons per flush.
- Model of "resource management" for all the materials that flow into and leave this facility (use of recycled paper products, incorporation of recycling and other forms of waste management in the daily operations of the building, etc.).
- Recycling bins are provided for guests use.



Pet Friendly Units

- Built to net zero with passive and active solar features.
- 85% less energy than a standard building – remainder 15% is made up with active solar.
- Hot water is provided by the sun with evacuated solar tubes.



Pet Friendly Units

- Rain water collection cistern.
- Electric car “quick charge (4-6 hours) charging system
- Building is net – metered, 11 solar panels on the roof, sell excess electric production back to AEP.



On November 16th 2008, a small group of Floyd County residents gave a public presentation in the Floyd Country Store entitled "The Future of Floyd." This gathering was arranged by The Floyd Fund, a local affiliate of the Community Foundation of the New River Valley. Some 60 residents attended and presented diverse viewpoints. After the presentation a number of people stayed behind to talk further. This group became the core of the SustainFloyd initiative.



Floyd Community Market
205 South Locust St. Floyd, VA

Artisan Market

Grand Opening May 6th

Every Friday, May-October, 5PM-9PM



TEXTILES • JEWELRY • POTTERY



FLOYD FARMER'S MARKET
305 SOUTH LOCUST ST. FLOYD

FROM **MAY** THROUGH **OCTOBER**, 2011
EVERY SATURDAY 9AM-1PM
Local Produce • Meat • Poultry
Cheese • Flowers • Herbs
• Baked Goods •

GRAND OPENING MAY 28TH

Bring a Color!
A project of **SustainFloyd**

Thank You to Our Sponsors:
FARM CAREER
Country Mortgage **StellarOne**
BANK

The poster for the Floyd Farmer's Market features a green and white color scheme. At the top is a logo for 'FLOYD FARMER'S MARKET' with a small house icon. Below this, the market's address is listed. The main text announces the market's schedule from May through October 2011, every Saturday from 9 AM to 1 PM. A list of products including local produce, meat, poultry, cheese, flowers, herbs, and baked goods is provided. A green banner highlights the 'GRAND OPENING MAY 28TH'. At the bottom, there is a photo of a basket of fresh produce and logos for sponsors: Farm Career Country Mortgage and StellarOne Bank.

Panelist

- ◉ Lexington's Low Impact Development
 - Bill Blatter, Director of Planning, City of Lexington

















































Existing: College Park, MD - Hollywood Commercial District



Proposed: College Park, MD - Hollywood Commercial District



Existing: College Park, MD - Downtown



Proposed: College Park, MD - Downtown







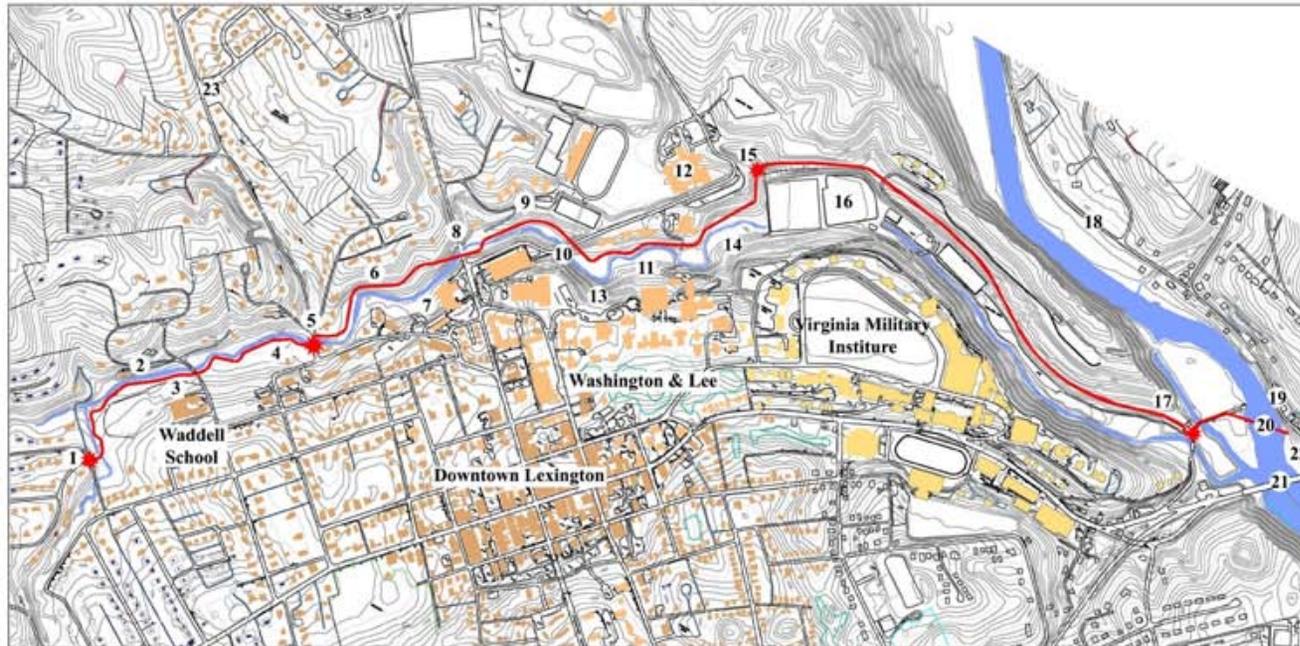


COOL SPRING ORGANIC MARKET

Natural, Organic and Gourmet Food







TRAIL FEATURES
Trail length: 2.1 miles

1. Ross Road Trailhead
 2. Duck Pond
 3. Waddell Roots and Shoots Garden
 4. City Playground
 5. Lime Kiln Road Bridge
 6. Historic Mill Race
 7. Washington & Lee Fine Arts Center
 8. Route 60 Bridge
 9. Washington & Lee Sororities
 10. Washington & Lee Footbridge and Historic Stone Rail Bridge
 11. Washington & Lee Dell
 12. Washington & Lee Law School
 13. Stream Stabilization Project
 14. Washington & Lee Biofiltration Project
 15. Washington & Lee / Virginia Military Institute line
 16. Virginia Military Institute Patchin Field
 17. Historic Mill Race
 18. Furr's Mill Road
 19. Historic Covered Bridge Abutment
 20. Pedestrian Bridge
 21. Route 11 Bridge
 22. Chessie Trail to Buena Vista
 23. Fairwinds Stormwater Retrofit
- Public Access Points

Scale
0 100 feet

Woods Creek Watershed

Legend

-  Brushy Hill Property # 1
-  Sunnyside Agricultural District # 2
-  Boxerwood # 3
-  Lexington Country Club # 4
-  Kendal Stream Restoration # 5
-  South Main Biofiltration Beds # 6
-  Smith Agricultural District # 7
-  Woods Creek Watershed
-  Lexington City Limits
-  Woods Creek Trail
-  Streets
-  Rivers and Streams
-  Fairwinds Stormwater Retrofit # 8

