COLUMNS

A Publication of the Dallas Chapter of the American Institute of Architects | Spring Vol. 30 No. 1

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About Columns

Columns is a quarterly publication produced by the Dallas Chapter of the American Institute of Architects. It is distributed to members, other AIA chapters and Centers for Architecture, architects, business leaders, public officials, and friends of the Dallas Center for Architecture. The publication offers educated and thought-provoking opinions to stimulate new ideas and elevate the profession of architecture. It also provides commentary on the art and architecture within the communities in the greater North Texas region.

Columns has received awards for excellence from the International Association of Business Communicators, Marcom, and the Society for Marketing Professional Services.

The Mission

The mission of *Columns* is to provide contemporary, critical thought leadership on topics of significance to the architectural community and to professionals in related industries.

AIA Dallas would like to thank Blackson Brick for being an exclusive underwriter of *Columns* magazine.

Melissa Hennings

The Beck Group

COLUMNS

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Cover: Sabine Science Hall, Richland College, DCCCD, designed by Perkins+Will, photo courtesy of Charles Davis Smith, AIA.

President's Letter | A Frightening Symmetry

Photography by Ishita Sharma, Assoc. AIA.

The architectural media has been filled with references to the recently completed Antilia House in Mumbai. According to reports, this 27-story, 398,000-square-foot tower is a *home* for a family of *five*. My family is three and we live in 2,500 square foot—I will stop feeling bad about our footprint now.

From its description and images, this project appears to win the on-going competition for covering a design with the most "green" gadgets. But its disturbing size, relative to its reported occupancy in one of the world's densest and poorest cities, gives rise to far deeper questions about sustainability and the role of our profession in the global built environment—questions that transcend LEED-point bingo. Such questions, if fully explored, raise profound doubts about anyone's ability to affect change toward creating a sustainable world within our current system.

An old adage goes along these lines: "The work of architects counts for only about 5% of the entire built environment." Another suggests: "5% of the population controls 95% of the world's wealth." As with most anecdotes, the provenance of these statements is questionable; but when we hear them, they strike in us a certain resonance of truth. We should be concerned about this resonance because of the frightening symmetry between the two statements; and it follows that, because of this symmetry, our actions towards positive environmental impact may always fall short.

We can outfit any project with green gadgets and gizmos galore; but in the absence of some broader sense of social responsibility, any movement toward a deeper sustainability falls short.

The Antilia House is, in many ways, a text-book (or horror-movie) example of this frightening symmetry. We can outfit any project with green gadgets and gizmos galore; but in the absence of some broader sense of social responsibility, any movement toward a deeper sustainability falls short. We may always be up against the difficult social calculus of who controls our limited environmental resources and how those resources are utilized for the greater good. Architects stand at the intersection of resources and greater good; but without addressing the broader societal questions that a project like this raises, we fall short of our profession's unique potential to contribute to the vital goals of sustainability and to impact what appears to be a collision course with climate change. Green decoration aside, we have to start the discussion: Will we choose to be part of the deeper discussion or are we happy to be part of the "5%" problem?

If Mr. Antilia (Forbes' fourth richest man) called me to discuss "a modest 10-story Texas Hill County vacation home" project, I wonder what I would say. Perhaps covering it in green walls would make it okay. Is there any justification for saying "no" to projects like this as long as there is another firm that would willingly say "yes"?

What would you do?

David Zatopek, AIA

IS LEED REALLY THE ANSWER?

The Beck Group

Shinkwang Church, The Beck Group

Editor's Note:

Recently, we asked respected architecture leaders to give us their views on sustainability and whether certification is really all that necessary. Their comments are detailed in the following pieces. Do you agree with them? Do you think projects need to be LEED certified—or is the whole process an albatross? Let us know. Send your reactions to Columns@AIAdallas.org

By Betsy del Monte, AIA

THE LEEDING PROCESS

LEED is a term familiar to anyone who deals with the concept of green or sustainable building design. Even if someone has not actually completed a LEED certified project, they are likely aware of the basics of the program—such is the market penetration of the LEED measurement system. Lately though, as LEED is more commonly used, familiarity is breeding intense discussion, if not contempt.

There are now over 100,000 LEED Accredited Professionals worldwide. As of November 7, 2010, the U.S. Green Building Council count showed 6,031 LEED certified projects. There is no doubt that LEED has taken hold, but some questions are bubbling up. They include:

- Is LEED certification necessary to show I have a sustainably designed building?
- Is LEED the best system to use to prove it?
- What are the real costs involved with LEED certification?
- What happens when cities and states begin adopting LEED as code requirements?

To discuss these issues, it's important to focus on what LEED is and is not.

- LEED is a measurement system of sustainable elements designed into a project, and the systems used to construct the project. It isn't a different way of building buildings; it doesn't mandate any specific method of construction.
- LEED does have prerequisites, which a project must meet to be allowed to submit for certification. It has requirements for documentation for every point, which is submitted to a third-party for review, but no inspectors are sent to the site for commercial projects (LEED for Homes is implemented differently).
- LEED relies on computer-generated energy models to document energy performance, based on a percentage of improvement over a benchmark, but it does not measure the building's actual performance against a model's predictions.

Is LEED certification necessary to show you have a sustainably designed building?

It is absolutely possible to have a sustainably designed building without using a measurement system, just as it is possible to have a code-compliant building without having it inspected by building officials; but how would others know? The purpose of these rating systems is to have a means to keep track of every effort being made in the project to meet sustainable goals, as well as allowing building designers and owners to get credit for doing the right thing. It takes time for someone to track all those details, just as it takes time for building officials to inspect. We're all familiar with the adage "if it's not documented, it didn't happen." The same can be applied to green building construction. Now that "green" has become such a buzzword, the likelihood of meaningless or untrue claims is much higher, and some sort of third-party verification is even more desirable.

Is LEED the best system to use to prove it?

LEED is not the only system which can be used to measure building performance. Around the world there are many other rating systems; but in the U.S., the only other system to achieve significant recognition is the Green Building Institute's Green Globes program. A direct comparison between these two systems by researchers from the University of Minnesota[i] led to these conclusions:

- Green Globes has a simpler methodology, a user-friendly interactive guide, and can provide preliminary and final ratings based on design decisions.
- The LEED system is a more complex, more extensive system requiring technical knowledge; it works best with expert-user online filing.

The comparison of LEED to Green Globes brings to mind (for those of us old enough to remember) the Betamax vs. VHS question. Although there was some consensus that Betamax was technically superior, the VHS market penetration was so significant that it won the market share.

As of November 7, 2010, the U.S. Green Building Council count showed 6,031 LEED certified projects.

Similarly, the Green Globes system may have technical ease going for it, but the far greater name recognition of LEED, coupled with some questions about whether ease of certification actually leads to more sustainable buildings, has caused LEED to be the market leader by a substantial margin.

The downside of Green Globes is primarily the level of recognition. LEED has become the standard to the extent that people outside the real estate market speak of "LEEDS" buildings as interchangeable with "green." (Note to readers: there is no S; to sound really knowledgeable just say "LEED.")

LEED has made significant improvements since its introduction (LEED 1.0). The current system, LEED 3.0, is now completely online, with all team members having access to facilitate documentation filing. There is still an element of required expertise, as all submittals need to be reviewed by a LEED expert coordinator to enable approval by the reviewers. For a while, reviewers were not available for consultation, but the need for direct human contact became clear and this policy has changed.

One other difference between the systems is the cost of certification. The fees for LEED are higher than for Green Globes. For example, a 250,000-square-foot office building would generate $35,000 in certification fees for LEED, while

the same building would have fees of $10,500 at GBI. The GBI system has more of a menu approach, offering slightly more flexibility in fees, typically resulting in lower total fees.

Because of its greater market recognition, LEED is a much more requested certification, so service providers have pushed to acquire the skills to provide certification services. This market-wide adoption of skills then makes certification much easier to achieve. Some elements of a green building, which added cost several years ago, have now, because of market adoption, become competitively priced and far more available. There can be no argument that USGBC has, in fact, transformed the market.

The Beck Group

SaRang, The Beck Group

Groups outside the architecture/engineering/construction industry use LEED as a stamp of approval, not because it is the only way a building can be efficient, but because the legwork of verification has been done for them. Some insurance companies will offer discounts if a building is LEED certified, more and more cities are offering expedited permitting and, in some cases, financing can be more available.

Some architects are concerned that the current LEED 3.0 system places unreasonable expectations for compliance upon the design team, with possible liability for non-certification. USGBC is aware of this and recently issued an update on the status of LEED certification agreements. They explain that they have worked to revise the agreements and to provide legal guidance about them. After working with many architects, owners, and lawyers, they will hopefully have released the revisions by the time you receive this issue of *Columns*.

What are the real costs involved with LEED certification?

There are two aspects to the cost of creating a LEED certified building: the soft costs for design services and the costs of features added to the construction budget. The soft costs include fees for submittal and review and the time required for compiling and filing the documentation to prove compliance. Also required are energy modeling and commissioning, either of which might be included in a project delivery anyway, because of the value they add. Depending upon the intended quality of the project, the construction budget can likely be prioritized to deliver a LEED certified or silver project with no increase. Even higher levels of certification are possible if that is a goal the whole project team focuses on.

John Mooz, senior vice president with Hines, explains, "We deliver sustainable buildings because it makes sense. With an educated project team on a high-quality building, efficiency is incorporated in every decision at no extra construction cost. There is no reason not to produce LEED certified projects for today's market."

Building an average structure to comply with either LEED or Green Globes might cost between 1/2% and 2% more than a standard building. Through use of an integrated design process, design and construction teams are required to collaborate and coordinate earlier, resulting in fewer change orders and cost adjustments to final plans. This, in combination with savings from efficiencies and lower maintenance requirements, can more than make up for slightly increased initial costs.

What happens when cities and states use LEED as code requirements?

Many cities and states, as well as the GSA, have adopted LEED requirements for their own buildings. This works well and has delivered some efficiency gains for these groups. It works because these entities are requiring this of themselves. What gets sticky is when LEED certification is required for building permits and certificates of occupancy. As certification is bestowed by the Green Building Certification Institute (GBCI), an independent non-profit organization, there is no legislative requirement on their process. Pinning building permits and certificates of occupancy directly to their decisions can be problematic for owners and design professionals.

A more workable approach is to adopt the required metrics of LEED points, but make the certification optional, much as the City of Dallas has done with its new Green Building Code. The documentation for LEED-established goals must be submitted to the city staff for review. Alternatively, the actual online certification with GBCI can be submitted to facilitate review.

There is a new standard code being developed by the International Code Council, which will include many green measures. This is the IGCC 2010, which is now out for public comment. When this is finalized and released for potential adoption by cities, it could make some aspects of LEED mandatory, leveling the playing field of development and increasing the efficiency of all projects. ■

Betsy del Monte, AIA, is director of sustainability and a principal at The Beck Group.

By Lee Hall, P.E.

WHY LEED?

Today, my electronic inbox included an invitation from the U.S. Green Building Council describing its opening for public comment for the next generation of LEED and its continual improvement process. Another email was a request to participate with the City of Dallas in helping to implement Phase 2 of their Green Building initiative as they strive toward a goal to be carbon-neutral by 2030. The last email was an announcement that the world has surpassed one billion square foot of LEED-certified green building projects. This billion consisted of 36,000 commercial projects and 38,000 single-family homes. Another six billion square foot is currently in the pipeline to become registered. These events, strategies, and figures are amazing to consider when you realize USGBC was formed in 1993–just 17 years ago. Green building, and in particular LEED, has transformed the building industry like nothing seen in my lifetime.

Sure, there are other certification platforms available, and some of them are non-biased, third-party inclusive. However, I don't see the overall processes for improvement, notoriety, familiarity of the professional community, and complementary methods toward the building process in the other platforms. Furthermore, the comprehensive and wide range of products offered in LEED far outweighs its competition. Options include LEED for Commercial, Building Shell, Interiors, Homes, Retail, Healthcare, Schools, Existing Building O&M, and the newest LEED for Neighborhood Development. LEED has set the standard in defining green building. Hands down, our organization would recommend LEED to project and development teams.

Renovate and flip a building and make some cash, but if an eye for long-term hold and efficiency in operation is a factor there is no logic in not building toward a LEED certification. These certifications are valued today, and time will only continue to raise the value of a LEED certification (any commuters want to buy a muscle car?). There are still some LEED criteria that cost a little above the norm, but with support from the right professionals and the use of common sense, LEED has little to no upfront cost. Soon, home buyers will want to know the Home Energy Rating System (HERS) rating index of every house, just like they want to know the mpg of every vehicle. Beyond energy efficiency, it is just a matter of time before water consumption and clean indoor air will be at the top of the smart shopper list. As the economy improves, LEED will be one of the keys for profitability.

Look at the green products offered today. It is a chore to pick from all the items. Simply look at the plumbing system—consider the piping, the flushing, the gallons per minute delivered, the gallons per flush omitted, the way to heat the water, and the way the hot water is delivered. There was a day when the choice was only between gold and silver finishes. With these increased products comes a great responsibility to the builder/developer to incorporate quality in the entire process. LEED crosses all the trades and really assists the project team in coordinating the decisions. LEED for Homes includes a durability planning process, which sounds like a no-brainer to most people; but go interview ten builders and ask them about their durability planning process and see how many even have one. For us, LEED has raised the quality of the construction product by its inclusion into the design-and-build process.

Apart from the statistics, LEED is the right thing to do. Recently, a school determined that LEED was costing $20,000 extra, so it was scrapped from the project. Think about how far we have come. It seems a cardinal sin that our children's classrooms are not also the classroom where we too learn new things. It is our duty to teach sound building practices to the next generation. It is our duty to incorporate sound design into the process and not cut corners. Sustainability is creating value in the product and making our built environment a place where people want to be, a place that is safe and healthy to be, and where resources are used with thriftiness (yes – I am a Boy Scout). LEED for Neighborhood Development offers credits for habitat improvement, habitat conservation, and food production, thus expanding the ideas for outdoor classrooms and community learning. The U.S. Green Building Council is leading the way through LEED. This resource is right there—take advantage of it. There are trained professional builders, architects, engineers, and developers right here in our community, thanks to the efforts of this undertaking. Our wagon is hitched to LEED. ■

Montgomery Farms

Designed by Brad Goldberg.

Lee Hall, P.E., is president of Sustainable Structures of Texas.

By Katherine Seale

WHAT LEED LACKS

Firehouse 33, Brown Reynolds Watford Architects

In this age of "green," there is increasing pressure on the design and construction industry to re-think how buildings are constructed and operated. Furthermore, with a focus on the social and environmental impact of construction, it is easy to see why more and more clients are requesting green building standards.

In a city like Dallas, most new construction requires the demolition of an existing building. While the appeal to design and build new, high-energy, efficient buildings is undeniable, consider this: building-related waste from demolition and construction represents 60% of non-industrial waste, representing approximately about 136 million tons annually.

According to Richard Moe, former president of the National Trust for Historic Preservation, "demolishing a 50,000-square-foot commercial building creates nearly 4,000 tons of waste. That's enough debris to fill 26 railroad boxcars—that's a train nearly a quarter of a mile long, headed for a landfill that is already almost full."[ii]

Some people make the argument that the energy lost in demolishing an older building and replacing it is quickly recovered through the increased energy efficiency of the new building. But research indicates it takes approximately 65 years for a green, energy-efficient new office building to recover the energy lost in demolishing an existing building.

Leadership in Energy and Environmental Design (LEED) certification is the most accepted way to demonstrate if a project is "green." While many new award-winning buildings are LEED-certified, historic buildings represent only a small fraction. This is because the system used to certify a building green does not consider a building's *embodied energy*, or the energy it takes to create, harvest, transport, and install raw building materials. LEED also does not take into account the cost of demolition, transportation of debris, or land fill waste. For example, re-using a historic building will get a mere three points out of a total of 100. Re-cycling carpet will get one point. Is this really a fair measurement of how green a project is?

Re-using existing historic buildings not only reduces the enormous environmental burden of demolition and building new, it provides our communities with a patina. By re-using historic buildings, we help to ensure that our cities will be enriched for generations to come with minimal long-term effect on the environment. ■

Katherine Seale is the executive director of Preservation Dallas.

[i] *Green Building Rating Systems: A Comparison of the LEED And Green Globes Systems in the U.S.*, by Timothy M. Smith, associate professor, University of Minnesota; Miriam Fischlein, graduate research fellow, University of Minnesota; Sangwon Suh, assistant professor, University of Minnesota; and Pat Huelman, associate professor, University of Minnesota.

[ii] *Sustainable Stewardship: Historic Preservation's Essential Role in Fighting Climate Change.* Richard Moe President, National Trust for Historic Preservation, Delivered at the First Church of Christ, Scientist, Berkeley, CA, 27 March 2008.

Daylight is used to accentuate building features inside Shinkwang Church, Korea.

By Charla Blake, Assoc. AIA

Local Arts Event | Form Functions

Images by Melissa Hennings

At the base of the Continental Street Bridge, in stark contrast to the Calatrava arch, sits a collection of brightly colored buildings. These derelict and occupied structures stretch across the urban landscape like a rainbow of paint-chip samples for a modern-day life-sized ghost-town art installation. In the midst of these structures stands a metal maypole, of sorts, complete with dancing children and birds, circling like buzzards against the open sky. ■

Charla Blake, Assoc. AIA, is the interior design accreditation coordinator at The Art Institute of Dallas.

WHAT'S THIS?

Dear Reader,

THIS is *Columns* magazine.

If this is the first time you've seen an issue of *Columns* magazine then you may have received it as a **free** introduction to *Columns*—the premier arts and architecture publication in North Texas.

Originally *Columns* was the official newsletter for the Dallas Chapter of the American Institute of Architects. It has grown and expanded over time and continues to be an important benefit of membership in AIA Dallas.

If you are not a member of AIA Dallas but would like to continue to receive and enjoy *Columns*, please tear out and send in **the subscription card** at the top of this page to make sure you don't miss the next issue of this award-winning magazine.

I hope you enjoy the publication,

Brian McLaren, AIA, editor of *Columns*

By Laurel Stone, AIA

People, Places & Things

People

Brown Reynolds Watford Architects (BRW) congratulates founding partner, Craig Reynolds, FAIA, on his election to serve as president-elect of the Texas Society of Architects for 2011. The firm announced that Stephen Hilt is now a licensed architect in Texas and also welcomes Alexis Flores and J. Brooke Corey to their Dallas office staff.

Congratulations to **Wilson Associates** on being awarded the Sustainable Design of the Year Award at the 2010 Commercial Interior Design Awards. Trisha Wilson, founder of Wilson Associates and The Wilson Foundation, was also named the winner of the Sustainable Design Initiative Award for the Hope Bracelet, an accessory created to help support the non-profit organization's education and healthcare initiatives for disadvantaged children in South Africa.

Lambert Landscape Company announced the promotion of Lara Moffat to director of marketing and recruitment.

KAI Texas welcomes Rory Villanueva, AIA, as a project architect and Alex Call as an architectural specialist. The firm recently relocated offices to 1412 Magnolia in Forth Worth to accommodate their increasing client base in Tarrant County.

Enrique Avina has joined **Mayse & Associates Inc.**

Alex Call

Rory Villanueva, AIA

Curtis Group Architects promoted Kristin B. Lopez, IIDA, to vice president, director of interiors, and Chris Nail, AIA, and Mark Criswell, AIA, to associates.

Congratulations to B. C. "Bud" Hopkins on being appointed to his second two-year term as a member of the Plano Heritage Commission by the Plano City Council. Bud was president of AIA Dallas in 1989.

Corgan Associates announces the promotion of Stephen Park to associate.

Gerry W. Hicks, AIA, and Ronald F. Meyer, AIA, have joined **WHR Architects** in the firm's Dallas Healthcare Studio.

In Memoriam

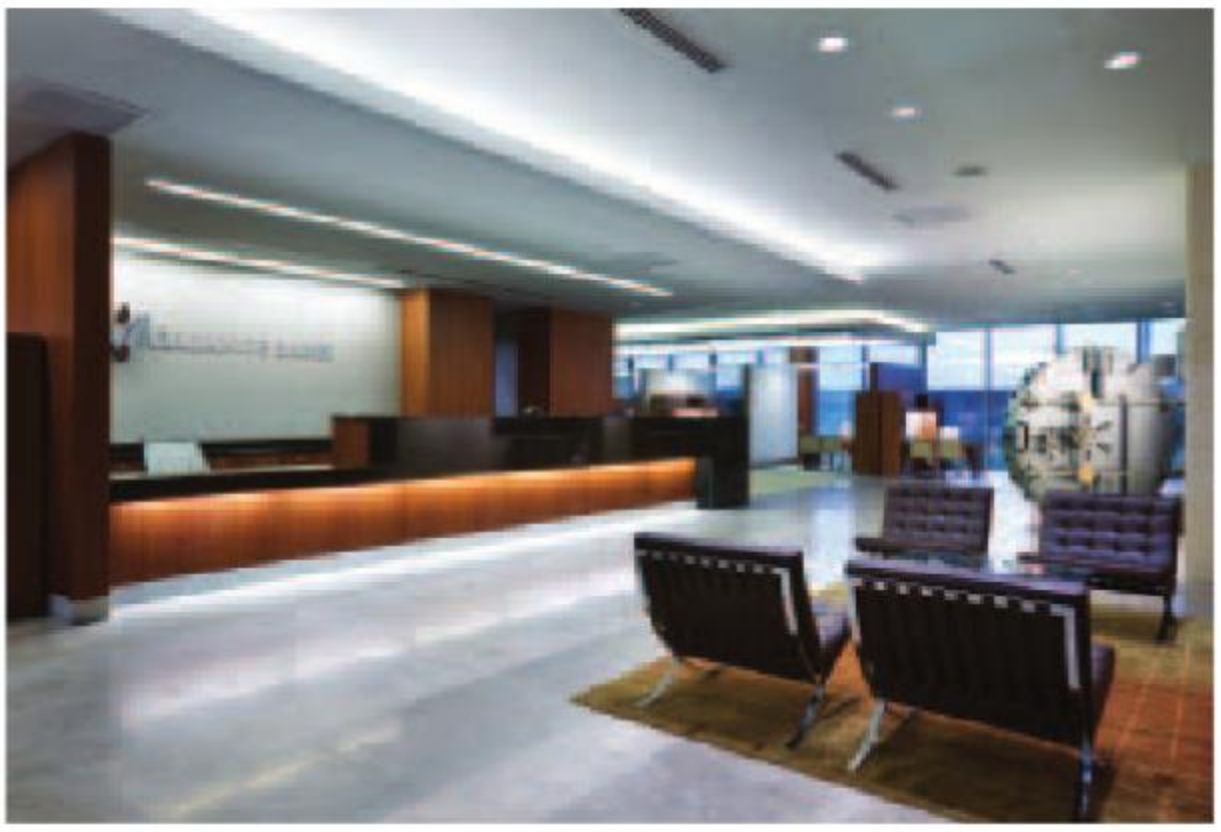
Bob Shaw, AIA, passed away December 2nd after a long battle with pancreatic cancer. Bob was vice president/officer director for **SmithGroup/F&S** and was a principal of F & S for many years prior to the merger. A long- time supporter of AIA Dallas, Bob served as president in 1993, as vice president/secretary in 1989, and served as vice president of TSA in 1998. F& S received the AIA Dallas Firm Award under his leadership in 1993. ■

Places

Congratulations to Brown Reynolds Watford Architects (BRW) on a receiving a 2010 TASA TASB School of Architecture Award in the Design Category for the Dallas County Community College District (DCCCD), El Centro West Campus.

Urban Design Group celebrated their 35th anniversary in 2010. Since its founding in 1975 by John M. Novack, FAIA, the firm has completed more than $6 billion dollars in projects worldwide and received more than 80 design-excellence awards and honors. ■

REES Associates Inc. reports that their affiliate, REES Star Continuing Care Group (RSCCG,) has solidified investment agreements for the development of a $40-million retirement community in Zhangjiagang, China.



Corgan Associates was recently recognized with two 2010 Design Excellence Awards from the International Interior Design Association (IIDA) Texas/Oklahoma Chapter. Valliance Bank in McKinney received an honorable mention in the retail category and the CIGNA Pointe office building in Plano received an honorable mention in the sustainability category.

AGUIRRE RODEN + Parsons affirms completion of the Dallas County Community College District 2004 Bond Program. The joint-venture team had direct responsibility for 17 projects on the North Lake, Mountain View, and El Centro College campuses and managed a total dollar value of $175 million over five years. ■

Hahnfeld Hoffer Stanford completed its work on H.H. Peace Elementary, the first new campus completed under the 2007 bond election for the Fort Worth Independent School District. It is also one of the first schools in Texas to be completed under specifications set forth in the Texas Collaborative for High Performance Schools (CHPS) program.

Manhattan Construction Co. was selected to build Houston's new 22,000-seat, Major League Soccer (MLS) stadium for the Houston Dynamo organization. The stadium is anticipated to open for the 2012 MLS season.

Things

At the DMA…

Re-Seeing the Contemporary: Selected from the Collection through March 20
Gustav Stickley and the American Arts and Crafts Movement through May 8
Line and Form: Frank Lloyd Wright and the Wasmuth Portfolio through July 17
Concentrations 54: Fergus Feehily and Matt Connors opening April 3 through August 14
Art of the American Indians: The Thaw Collection opening April 24 through September 4

At the Meadows…

The Lost Manuscripts from the Sistine Chapel: An Epic Journey from Rome to Toledo through April 23
Concrete Improvisations: Collages and Sculpture by Esteban Vicente opening May 15 through July 31

At the Crow Collection…

Soaring Voices: Recent Ceramics by Women from Japan through May 8
Mighty Meiji Metals: Sculpture from 19th Century Japan through June 12
Five Colors: Chinese Cloisonne Vessels on Loan from the Mandel Family Collection through June 12

At the Modern…

Focus: Robert Lazzarini through April 3
Ed Ruscha: Road Tested through April 17
Focus: Teresita Fernández opening April 17 through June 19

At the Kimbell…

Salvator Rosa: Bandits, Wilderness, and Magic through March 27
Picasso and Braque: The Cubist Experiment, 1910-1912 opening May 22 through August 21

At the Amon Carter…

From Survey to Canal: Photographs of the Isthmus of Panama through May 1
Nature Bound: Illustrated Botanical Books through May 29
The Hudson River School: Nature and the American Vision through June 19 ■

Laurel Stone, AIA, is a studio director at 5G Studio Collaborative.

Send your People, Places&Things submissions to her at columns@aiadallas.org. Be sure to put "Columns PPT" in the email subject line.

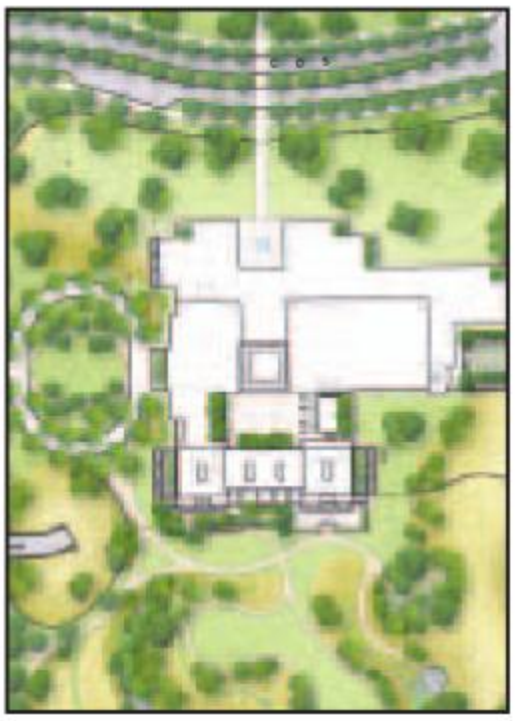
By Nate Eudaly

BUILDING SUSTAINABLY TO PRESERVE HISTORY

PRESIDENTIAL LIBRARIES AND THE GEORGE W. BUSH CENTER

All images courtesy of George W. Bush Presidential Center, Southern Methodist University, Michael Van Valkenburgh Associates Inc., and Robert A.M. Stern Architects LLP

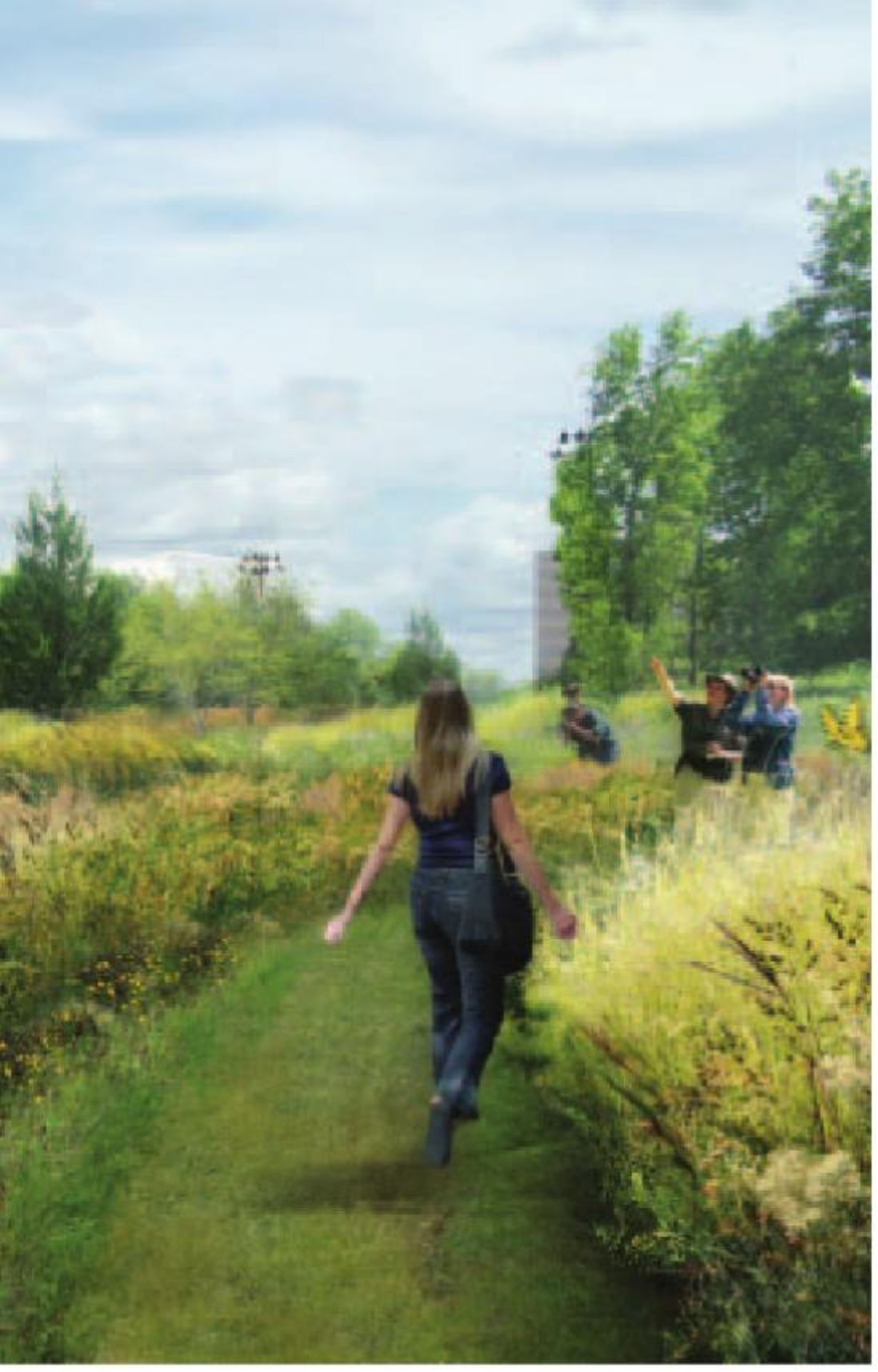
Ground was broken on November 16, 2010 for the United States' thirteenth Presidential Library on the grounds of Southern Methodist University (SMU) in Dallas. The George W. Bush Presidential Library and Center, scheduled to open in the spring of 2013, will be the first Presidential Library designed and built to achieve LEED Platinum certification. This will mark another important milestone in the development of the Presidential Library system with a focused goal of sustainability throughout the design and ongoing operations.



The Center's Design Director, Peter Arendt, projects that the incremental costs for the LEED Platinum certification will be a 6-7% increase in the construction budget. Over time, the reduced operating costs achieved by incorporating these sustainable elements should provide the economic payback for the increase in construction costs. The center will include information related to LEED design and sustainability within its exhibits. By demonstrating and promoting sustainability, the center's visitors will hopefully obtain an increased awareness and resolve to live and act in environmentally responsible ways.

Focus on Sustainability

All presidential libraries are governed and administered by the National Archives and Records Administration (NARA). NARA issues architecture and design guidelines that all libraries must follow. When constructing new libraries, NARA adheres to all environmental regulations, many of which are referenced in the agency's "*Architectural and Design Standards for Presidential Libraries.*" These design standards further specify that all new NARA construction projects must be certified through the Leadership in Energy and Environmental Design (LEED) green building rating system of the U.S. Green Building Council (USGBC), achieving the LEED Silver level at a minimum. This



requirement is supplemented by NARA's design guidelines, which include detailed instructions for how to design efficient building systems and create indoor conditions that meet both environmental and archival criteria.

As a part of its construction plan, presidential foundations, such as the Bush Foundation, must provide design and construction certifications to NARA as specified in the architectural and design standards. Once the Bush Foundation decided to construct the Bush Library on the SMU campus, NARA began dialogue with the foundation regarding site-specific sustainability considerations through reference to LEED for New Construction standards. These considerations include: development density and community connectivity, alternative transportation, on-site habitat and open space, and storm water design—all of which help ensure congruity with local planning objectives. Other considerations include: standards relating to general structural criteria; heating, ventilation, and air-conditioning standards; fire safety; security; floor loadings; finishes; lighting; and glazing criteria.

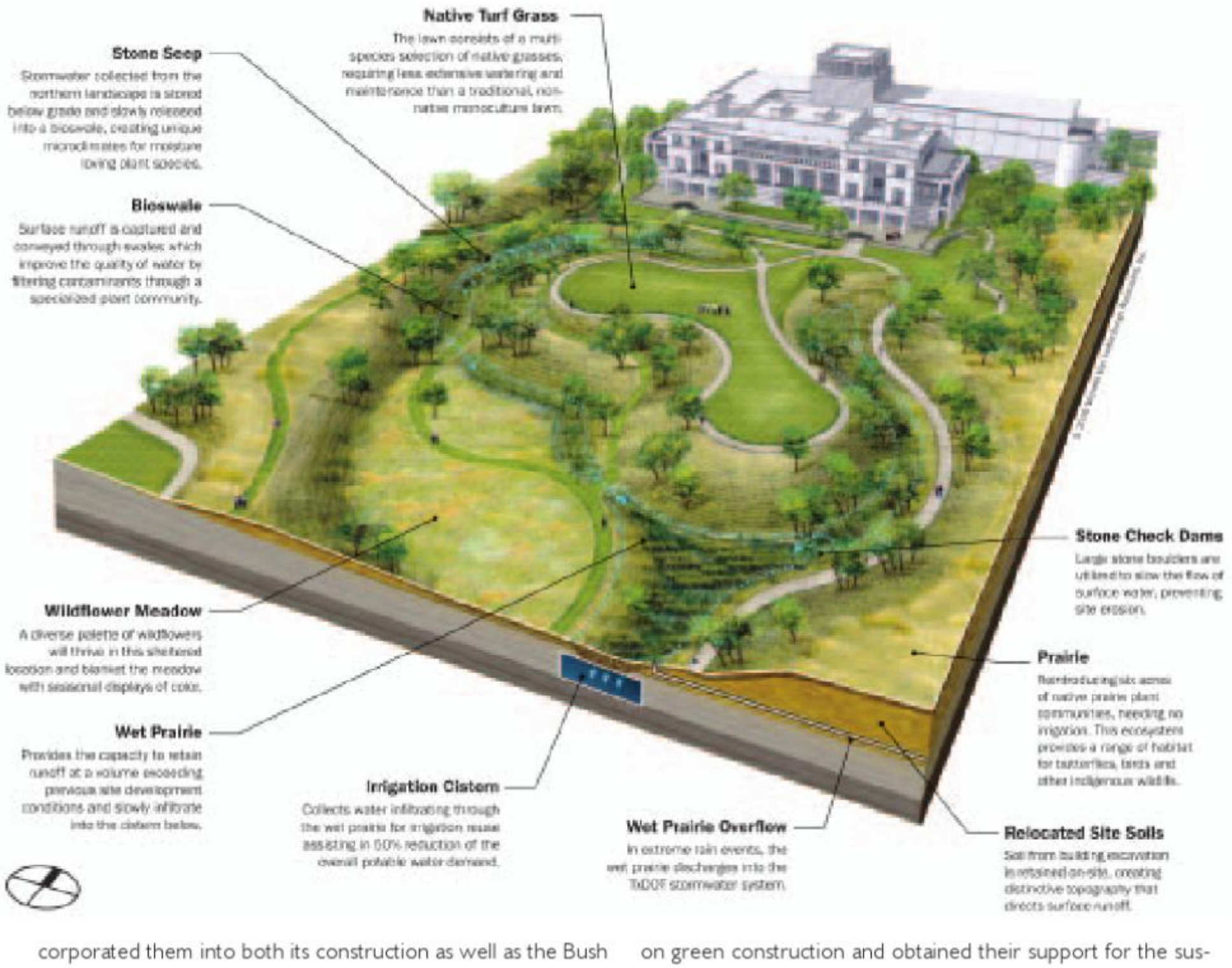
Bush Library Follows Clinton Library to Platinum Rating

To date, NARA has finished construction of one facility to high-performance building standards—the Clinton Library in Little Rock, AR. When it opened in 2004, Clinton's 154,000-square-foot Presidential Library achieved a LEED Silver certification under LEED for New Construction. In 2007, through additional sustainability practices, the library received a LEED Platinum certification under the LEED for Existing Buildings designation. Programs and procedures implemented to achieve Platinum certification included: efficient use of energy, an integrated pest-management program, purchase of environmentally preferred products, waste-stream management, and ongoing enhancements to indoor environmental quality, which included: green cleaning with environmentally friendly products, use of maintenance products with low levels of volatile organic compounds (VOC), and increased use of recycled-content paper products. The Clinton Foundation implemented several initiatives for water savings and energy conservation on the Clinton Library park grounds and also provided funding for the LEED application.

The George W. Bush Presidential Library and Center will be under the administration of the National Archives and Records Administration (NARA) and will hold both the paper documents from the Bush administration as well as millions of digital records that will exceed that of all previous presidential libraries combined.

The Green Confluence

The mandates and mission of NARA in promoting sustainable design and mandating that all presidential libraries achieve at least a LEED Silver rating converged with the personal interest and knowledge of LEED principles for Laura Bush. As the only child of builder Harold Welch in Midland, she developed an early interest in construction. In an interview with her chief-of-staff, I was told that "Laura Bush has always had a strong interest in architecture and design. When she was beginning to develop the concepts for the [Bush] Ranch, several green building alternatives were brought to her attention and she has in-



corporated them into both its construction as well as the Bush Center's. In studying different sustainable building methods, she read a lot and also visited different exhibits at the National Building Museum in D.C., when she was First Lady, which helped to inform her green building decisions."

The Bush Ranch House contains many sustainable elements stemming from this interest, including: geothermal heating, a reservoir and natural irrigation system, and use of local materials. The designer, UT Austin Architecture Professor David Heymann, engaged both George and Laura Bush in active dialogue on green construction and obtained their support for the sustainable plan.

A central closet in the house holds geothermal heat pumps drawing ground water through pipes drilled 300 foot into the ground. The water heats the house in winter and cools it in summer. The system uses no fossil fuels, such as oil or natural gas, and it consumes 25% of the electricity required for a conventional heating/cooling system.

Rainwater from the roof is collected and funneled into a 25,000-gallon underground cistern. Wastewater from showers,

A BRIEF HISTORY OF PRESIDENTIAL LIBRARIES

The Office of Presidential Libraries administers a nationwide network of presidential libraries. Seventy years ago, Franklin D. Roosevelt proposed creating the first presidential library to house the presidential papers and gifts accumulated during his administration. He wanted this library to be a part of the National Archives, an institution he had nurtured from its establishment in 1934. He created a private foundation to raise funds for the construction of the library building, which was then donated to the National Archives for operation as a federal facility. In June 1941, Roosevelt dedicated his Presidential Library at Hyde Park to the benefit of "future generations" who would use the records of his presidency. His words of dedication continue to guide the libraries today: "To bring together the records of the past and to house them in buildings where they will be preserved for the use of men and women in the future, a Nation must believe in three things. It must believe in the past. It must believe in the future. It must, above all, believe in the capacity of its own people so to learn from the past that they can gain judgment in creating their own future". By the early 1950s, with President Truman planning a library and President Eisenhower intending to do so, Congress codified the model in the Presidential Libraries Act of 1955.

sinks, and toilets goes into underground purifying tanks and then into the cistern. The collected water then irrigates the land surrounding the house. Other sustainable features include a deep roof overhang that shades the south-facing facade as well functioning as a covered porch that runs the entire perimeter of the house. The residence is clad in surplus limestone from local quarries.

Sustainable Design for the Bush Center

The initial design plan for the Bush Center and Library was publicly unveiled on November 18, 2009. Designed by Architect Robert A.M. Stern and Landscape Architect Michael Van Valkenburgh, the structure is being built by Manhattan Construction Company. When announced, the design for the 225,000-square-foot center was the subject of mixed reviews. Christopher Hawthorne of the *Los Angeles Times* described the building as "a handsome, contextual piece of architecture wrapped in Texas limestone ....meant to complement SMU's predominantly Georgian-style landmarks." The late David Dillon noted in the *Dallas Morning News* that the tricky site, at the eastern edge of the SMU campus, adjacent on one side to an expressway, had a landscape meant to suggest the wide-open Texas prairie, which he called "Crawford comes to Big D."

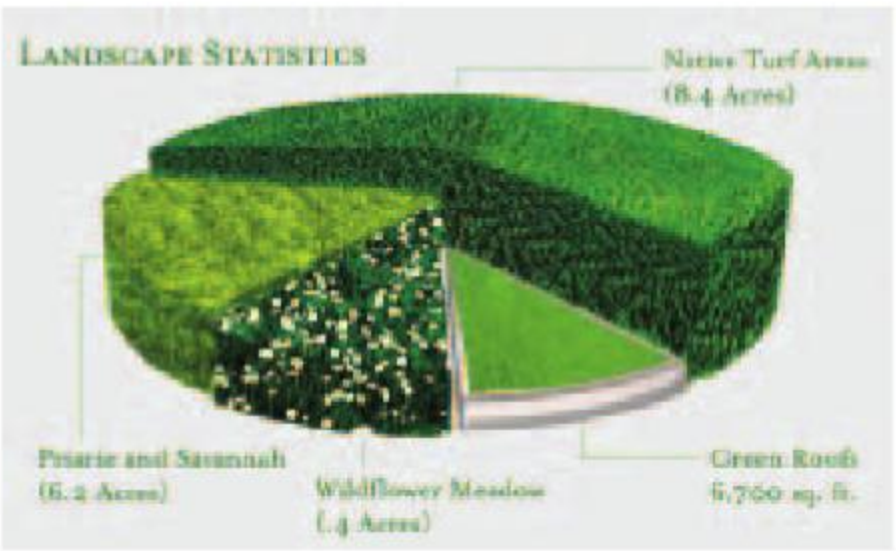
Laura Bush, as chair of the design committee noted that the design was to be "human in scale." Driven by both NARA's minimum criteria (LEED Silver) and Laura Bush's interest and knowledge of sustainable construction, the design committee purposed to seek LEED Platinum certification. Sustainable elements incorporated into the design, include regionally sourced materials such as Texas Cordova Cream and Permian Sea Coral limestone (which were substituted for granite to ensure LEED standards), and stained pecan interior paneling and mesquite wood elements.

As a part of its LEED focus, the Burlington-blend brick walls are being sourced from Western Mississippi, within the 500-mile prescribed radius for local materials. At least 20% of the building's construction materials will come from recycled content. Solar hot-water panels will supply 100% of the building's domestic hot water and photovoltaic panels will meet 9.5% of the building's energy demand. Deep building overhangs and sunshades will minimize solar heating loads and insulated glazing units will reduce heating and cooling. High-efficiency HVAC systems are planned and low-VOC-emitting products and finishes will enhance indoor air quality. Harvesting and storing rain water is projected to meet 50% of the irrigation demand. Green roofs, gardens, and high reflectivity in roofing materials will reduce heat island effect.

A Regenerative Landscape

The landscape plan for the Bush Center will increase biodiversity, and restore native habitat while limiting the need for extensive irrigation and maintenance. The land will only require use of the city's water system under extreme conditions, due to the retention of stormwater runoff. With the capacity to capture and retain large amounts of runoff generated from storm events, the wet prairie will limit the need to discharge excess storm water into the city's overburdened drainage systems. This multi-faceted stormwater strategy will enable the center to cleanse contaminants from stormwater, harvest stormwater for irrigation reuse, and sustainably support native plant communities.

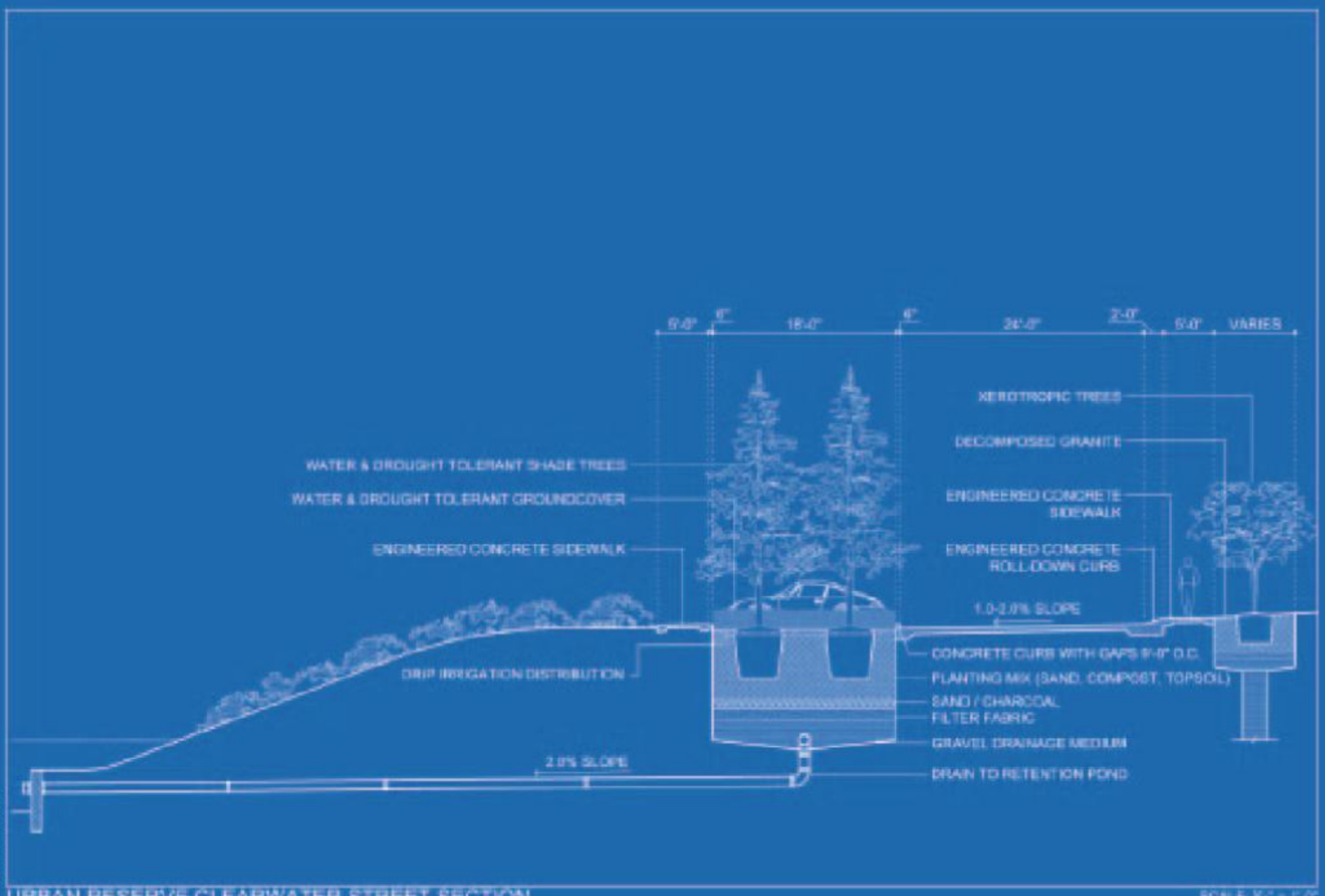
The landscape plan also calls for a grove of indigenous canopy trees. During construction, 30 large trees will be relocated away from the construction site, but over 900 new trees will be planted. For these trees, emphasis will be placed on native species known for hardiness and low maintenance. Situated on sloping upland areas south of the building, large open swaths of tall grasses will re-introduce a plant community that was ubiquitous in the Texas's Blackland Prairie's pre-settlement habitat. Following an initial installation and establishment period, this plant community will require no irrigation. Maintenance will be limited to an annual mowing, grazing, or controlled burning to catalyze the new growth that will sustain the prairie grasses.



All of the courtyard plantings, as well as the plants for the Presidential Suite's green roofs, will be selected for their suitability to the particular microclimates that they inhabit. (Due to NARA's archival requirements, the green roof will not extend over the actual library space). Roof water and cooling-tower blowdown water will be captured and piped to the cisterns without the need for filtration. Bioswales will also convey surface runoff at the visitor parking areas and the landscape south of the institute building through a selection of indigenous plantings. The lawn will consist of a multispecies selection of native grasses to provide a similar appearance and function as the more typical Bermuda or St. Augustine but will require less watering and mowing, and will eliminate the need for weed killer. Throughout the development of the landscape plan the design team worked closely with the Lady Bird Johnson Wildflower Center and other regionally based horticultural organizations. ■

Nate Eudaly is executive director of the Dallas Architecture Forum.

Detail Matters | Urban Reserve



Kevin Sloan Studio

URBAN RESERVE CLEARWATER STREET SECTION

SCALE: 3/4" = 1'-0"

"Designed by Kevin Sloan Studio, this is a section of the biofiltration street at the Urban RESERVE in Dallas. As a prototype applicable to any region, it replaces turf and lawns with a lush naturalizing landscape sustained by filtered and re-circulated stormwater." –Kevin Sloan

Charles Davis Smith, AIA

Compiled by Laurel Stone, AIA, with assistance from Doug Sealock, Hon. AIA Dallas.

Creative On the Side | Things People Create on Their Own Time

***Paris Metro, 1953,* 35mm black & white/ gelatin silver print**
Frank Welch, FAIA
Frank Welch & Associates Inc.

***Capital Reef National Park*, ink on cotton paper in sketchbook**
Raymond Harris, AIA
Raymond Harris & Associates Architects

***Coffee Table*, pine frame with birch veneer**
Mark Bushey
Merriman Associates/Architects Inc.

By David Hopman, ASLA

EXTENSIVE GREEN ROOFS VIABLE IN NORTH TEXAS

Three years ago, there were not any extensive green roof installations in North Texas. The common wisdom was that they were unworkable or cost prohibitive in the area due to our climate conditions. To test the potential in North Texas, UT-Arlington installed the first test of an extensive green roof in April of 2008 and the results are encouraging. We can now state, with a reasonable degree of certainty, that an extensive green roof is a viable option and that we know how to design and specify one.

Extensive vs. Intensive Roofs

Green roofs on buildings have been documented for thousands of years, all the way back to the hanging gardens of Babylon. Additionally, thousands of acres of green roofs are successfully in place in North Texas. These include such diverse projects as Fountain Place by Dan Kiley and The Harwood International Center Rooftop Gardens by SWA Inc. These roofs are "intensive" green roofs—usually defined as roofs with 8 inches or more of growing media. They are expensive ($50 to $200 per square foot or more), allow a great deal of flexibility in design and materials, and require the same maintenance as other ornamental landscapes. Extensive roofs, by contrast, have 2 to 6 inches of growing media, can cost as little as $10 per square foot, are designed for minimal maintenance, and push the envelope of the balance between environmental and ecological benefits on the one hand and physical and monetary resources on the other. A third alternative, halfway between the intensive and the extensive, is the "semi-intensive" roof with 6 to 8 inches of growing media. A recent local example is the roof on The Sabine Hall at Richland College. The LEED Platinum build-

ing by Perkins and Will, and its green roof by Linda Tycher and Associates were completed in 2009.

Why Install an Extensive Green Roof?

A green roof is one of the most visible elements that a "green" building can exhibit and, as such, has captured the public imagination. When our 1000-square-foot test roof was installed at UT-Arlington, the media coverage was extensive in both print and television. This high level of interest sometimes places enthusiasm ahead of a coherent design process. A key question to gauge the success of the roof design and, ultimately, the roof itself is, "What is the intended benefit of the roof?"

The book *Green Roofs in Sustainable Landscape Design* by Steven Cantor discusses a variety of possible reasons for installing an extensive green roof. A brief synopsis of the reasons includes:

Aesthetics

- Thicker roof=more design flexibility
- Adds quality of life to people with roof views
- Engages people with the environment—especially if interpreted

Mitigation of the Urban Heat Island Effect

- Evapotranspiration of water by plants cools the ambient air. The Ladybird Johnson Wildflower Center Green Roof research shows that air 18 inches above a clean light-colored roof is 10 degrees above the ambient temperature and 18 inches above a green roof is 10 degrees below the ambient air temperature.

Life Extension

- Extending the life of the roof by 2-3 times (some extensive green roofs are over 70 years old in Europe)

Insulating for Both Acoustics and Heat

- Can reduce cooling costs 10-30% (European Modeling)
- Cools mostly by biomass so full vegetation cover is important
- Reduces up to 50 decibels of noise

Cleaning Stormwater/Filtering

- 50-80% of rain is held on the roof.
- First flush water temperature is reduced.
- Water concentration time is slowed down.

Reduction in Carbon Dioxide

- By both carbon sequestration in biomass and energy savings

Increased Efficiency of Photovoltaics

- Cooler ambient air over roof=greater efficiency

Habitat Restoration

- Birds, insects

Environmental Monitoring

- Helps create a network of monitoring stations that would otherwise not be there

Public Education

- Leads to general environmental awareness

LEED and Sustainable Sites Initiative Certification Points

All of the possible reasons for designing an extensive roof listed above should have an impact on design decisions. Aesthetics are always important criteria. However, extensive green roofs should be designed with sustainable materials, particularly plants, in the same way that LEED buildings use materials that are not found in older buildings.

Roofing Systems

Based on the test results from The Ladybird Johnson Wildflower Center, two vendors were chosen for roofing systems and growing media for the UT-Arlington test roof. Both companies agreed to donate all the materials required for 500 square foot of their respective systems. The green roof project at UT-Arlington would not have been possible without this generous support. One system was a monolithic system by American Hydrotech, called the *Garden Roof Assembly*. In this system, all the growing media is placed in one self-contained 500-square-foot planting bed. The other 500-square-foot system is a modular system with 2-foot by 4-foot trays designed by Westin Solutions, called the *GreenGrid*.

All images courtesy of David Hopman, ASLA

Comparing the Modular and Monolithic Extensive Green Roof Systems

Both systems have performed well in the UT-Arlington trials. During the first growing season, the modular side plants were growing somewhat faster due to the fertilizer in the proprietary soil mix. By the second season, this was no longer the case. It should be noted, that no fertilizer has been applied to either side after a liquid root stimulator was applied twice in the first few weeks after plant installations.

The modular side is consistently drier than the monolithic side despite receiving more irrigation water. This has helped some plants and hurt others. For example, the *Salvia greggii*, native of much drier parts of Texas than Arlington, are actually growing better in the drier modular side. *Stemodia tomentosa*, native east of DFW, looks better in the monolithic side with its superior moisture holding capacity. A plant palette should be chosen for future roofs that takes into account both the roofing system and the growing media.

PLANT SPECIES

Over 40 species of plants have been tried on the UT-Arlington test roof. A small group of star performers has emerged.

Bouteloua curtipendula	Side Oats Grama
Bouteloua Gracilis	Blue Grama
Calylophus hartwegii	Box Bud Primrose, Sundrops
Chrysactinia mexicana	Damianita
Croton monanthogynus	Dove Weed, Prairie Tea
Hesperaloe parvifolia	Red Yucca
Melampodium leucanthum	Blackfoot Daisy
Perovskia atriplicifolia	Russian Sage
Phyla nodiflora	Texas Frogfruit
Stemodia lanata (tomentosa	Wooly Stemodia
Tetraneuris scaposa var. scaposa, (Hymenoxys scaposa)	Four Nerve Daisy
Wedelia texana	Zexmenia
Zoysia japonica "Palisades"	Palisades Zoysiagrass

Blackfoot Daisy

The expanded shale base for the growing media on the Hydrotech side is gaining popularity over the fired clay base on the Westin Side and Westin is currently recommending a mix of expanded shale, sand, and compost as was used on the Hydrotech side. This mixture is much more cost-effective and is produced locally. The advantages and disadvantages of the two systems are summarized as follows:

Irrigation

Unlike other areas of the U.S., irrigation is essential for extensive green roofs in North Texas. Many plants can survive without it, but they will go dormant in dry summer months, the time of year when their environmental services are needed the most. Both sides of the UT-Arlington roof have irrigation systems that have performed very well. The Hydrotech side uses a standard Netafim drip system that produces very even moisture due to the regular 12-inch grid spacing. The Westin side uses a Dramm system with ring emitters that permit some flexibility with specific grids getting more or less water or even no irrigation. The roof uses ½-gallon per week, per square foot in the hottest and driest summer weather. For the other approximately eight months of the year, it is primarily sustained by rainfall.

Approaches to Determining a Plant Palette for an Extensive Green Roof

Many approaches to creating an extensive green roof are possible based on the growing media, amount of irrigation, and plant palette desired. Four of these approaches were considered for the UT-Arlington green roof.

Prairie Barrens Approach

The Botanical Research Institute of Texas (BRIT) has taken a visionary approach to their research on extensive green roofs based on biomimicry. Biomimicry (from bios, meaning life, and mimesis, meaning to imitate) is the examination of nature, its models, systems, processes, and elements to emulate or take inspiration from in order to solve human problems of sustainably (http://www.biomimicryinstitute.org). Environmental science graduate students Jon Kinder and Dave Williams from Texas Christian University and BRIT resident research associate, Robert J. O'Kennon, are studying how the Fort Worth Prairie Barrens ecosystem might be reproduced on an extensive green roof. This native plant community naturally grows in very thin soils over a solid limestone base—conditions that are the closest in nature to a recently installed 90,000-square-foot extensive green roof on the new BRIT building in the Fort Worth Botanic Garden.

The biomimicry approach by BRIT shows great promise. However, it was not deemed appropriate for the UT-Arlington roof due to its lack of reproducibility. The plants used are not currently in the nursery trade, the soil with its clay content has not been tested over large roof areas with filter fabrics, and the long-term viability of the concept has not been proven. BRIT has the resources and expertise to overcome these issues, over a long time frame, in a way that is not possible for most people interested in installing an extensive green roof.

Sedum Roof Approach

The majority of vendors who have been active in extensive green roof installations recommend a sedum roof consisting of exotic sedum species that have performed well in other areas. Five sedum species were tested at UT-Arlington. Results indicate that, in hot rainy weather, some species can rot. A 1,500-square-foot, pre-grown pure sedum roof was installed in 2009 at North Lake College in Irving and has had a complete failure of the plant material. It will be replaced in the spring of 2011 with a smaller test roof. A specialized regional palette of plants, with a heavy bias towards natives and near-natives, was deemed more desirable than a reliance on a few exotic species for the UTA green roof. We did not want to create a first precedent for extensive green roofs in the area that encourages exotic species.

Prairie Restoration Approach

The final approach that was considered was to plant a native grassland on the roof. The Ladybird Johnson Wildflower Center has shown that many native grasses do well in rooftop conditions. However, there was a concern that the large mass of dormant grass in the winter could be a fire hazard. There is also a desire to determine a few evergreen species for clients that may want a green, rather than a brown, roof in the winter.

UT-Arlington Approach

The decision was made that, as the first extensive green roof test in the area, the roof needed to test all the components to make subsequent roofs on campus and in the area successful. The roof had to be reproducible at a reasonable cost and feature a wide enough variety of plant material that subsequent roofs with a variety of goals can be accommodated. As a landscape architect, I also wanted a broad palette of textures, sizes, colors, bloom periods etc. that permit formal principles of planting design to be utilized.

At this juncture, there is an unfortunate tendency to think of green roofs purely for the aesthetic and environmental benefits without considering the ecological benefits that come from native plants. One reason for this is the promotion by vendors of a uniform palette of green roof plants throughout the United States. Another reason is designers fall back on a familiar palette of plants suitable for development that may not be the best choice for a green roof. Our research at UT-Arlington provides a wealth of information on native and near-native plants that should inform future design decisions in North Texas.

Every garden is an experiment subject to the vagaries of nature. Extensive green roofs are no exception. Nevertheless, it is no longer necessary to think of these systems as an unproven technology in North Texas. The experience gained by the UT-Arlington test roof shows that these roofs are viable, attractive, and reproducible. An extensive report is available at http://www.uta.edu/sustainability/initiatives/Green%20Roof%20Report.pdf. You may contact me directly at dhopman@uta.edu with questions or comments. ■

David Hopman, ASLA, is an associate professor in The University of Texas at Arlington School of Architecture, program in landscape architecture and a landscape architect.

MONOLITHIC VS. GRID

Advantages of a Monolithic System

- No barriers to root growth allow for free spread of plant roots, stolons, etc.
- Built-in insulation for turnkey systems may allow for less or no insulations under the roof of the building thereby allowing the building to be slightly shorter, thus saving some money.
- Growing media is produced locally with local materials and is performing well.
- Moisture capture system is very efficient and permits very low water usage.
- Netafim drip is a very robust and proven irrigation system.
- The company has a long track record with complete roofing systems throughout the United States.

Disadvantages of a Monolithic System

- Roof is more labor intensive to install.
- Roof is expensive to replace or to remove for repairs.
- Plants cannot be pre-grown and may take two or more growing seasons to achieve maximum coverage.

Advantages of a Grid System

- System is very quick and easy to install.
- Grids can be moved or removed relatively easily; therefore, design is both flexible and adaptive.
- Plants can be pre-grown for instant green.
- May cost less than other systems.
- The company has a long track record with extensive roof systems throughout the United States.

Disadvantages of Grid System

- Plant roots get trapped in each 8-square-foot container.
- Water retention is not as robust, thereby necessitating more water usage.
- The aesthetics of the seams in the grids may be an issue, although most grid manufacturers are developing methods to hide the seams.

GALLERY

Passmore Residence
Dallas, TX
GGOArchitects
www.ggoarchitects.com
Gary Gene Olp, AIA

"From our first discussion, contemporary design and LEED Platinum design served as the baseline for our client's new home. The built work exceeded their vision."

GARY GENE OLP, AIA, PRINCIPAL

GALLERY

Texas Health Presbyterian Hospital
Flower Mound
Flower Mound, TX
HKS Inc.
www.hksinc.com
Blake Marvin, HKS Inc.

"This hospital celebrates the cycle of life—connecting with the environment, both inside and out, to create a place where people can be inspired, heal, and grow."

NORIO TSUCHIYA, AIA, DESIGNER

By Paula Clements, Hon. TSA

Centered on the Center | A National Celebration

"Architecture is my delight, and putting up and pulling down one of my favorite amusements," Thomas Jefferson, 3rd President, United States of America.

The month of April brings a national focus on architecture. In celebration of Thomas Jefferson's birthday, the American Institute of Architects claims the week of April 13th as its official national Architecture Week. AIA chapters will be celebrating the value of good architecture and planning events across the country in honor of our first significant American architect.

AIA Dallas and the Dallas Center for Architecture (DCFA) are no exception. Both organizations will host a series of events to support the focus. The chapter's annual Retrospect exhibit will be held at NorthPark Center. Local firms will display their work beginning April 7th.

Save the date—Saturday, April 8th—for A Day in the Park, sponsored by AIA Dallas, ASLA Texas, and the City of Dallas. Enjoy the city's first urban park celebration with live music, activities for the kids, and sporting activities at Main Street Garden Park.

From March 25 through April 30, the DCFA will also host Art for Architecture, an exhibit of winning entries from area middle and high school art students who participated in the 3rd annual competition. The event is free to the public and offers a great reason to visit the DCFA facilities.

DCFA also conducts an Arts District Walking Tour on the first and third Saturday in April. Or take a Walking Tour of Main Street Gardens on the second or fourth Saturday. Tickets can be purchased at www.DallasCFA.com.

More information on these events

Craig Blackmon, FAIA, Blackink Photography

and additional events can be found at www.aiadallas.org. We hope to see you enjoying the architecture of the city in April. ■

Paula Clements is executive director of the Dallas Center for Architecture.

Upcoming DCFA Events

The Dallas Center for Architecture continues with a 2011 schedule full of events—produced not only by DCFA, but also our partners and allied organizations. Enjoy tours and films, lectures and symposia, and even a party or two. Visit DallasCFA.com for all the latest details.

ARCHITECTURE FILM SERIES
We continue our film screenings and discussions on the second Wednesday of each month. For film titles and event details, visit DallasCFA.com.

ARCHITECTURE WALKING TOURS
In partnership with the Dallas Arts District, we offer 90-minute walking tours of the district on the first and third Saturdays of the month at 10 a.m. We now also lead Main Street Walking Tours on the second and fourth Saturdays. For more details and to register, visit DallasCFA.com.

Are you on our e-mail list? E-mail us at info@DallasCFA.com and get the latest updates. You can also follow us on Facebook and Twitter!

DALLAS ARCHITECTURE FORUM SPRING LECTURES
David Salmela
March 10, 2011
7:00 p.m.
Magnolia Theatre
In this time of globalized design tending to the generic everywhere, architects like David Salmela must be especially valued. His Finnish ancestry and Minnesota northlands context have nourished a carefully rich architecture of lovingly worked materials and forms. Salmela's small firm has won 14 Minnesota and 16 national design awards.

James Corner
April 14, 2011
7:00 p.m.
Magnolia Theatre
The pressing needs of our time call on landscape architecture to take leading roles in sustainability and recasting our cities. Both a theorist and a practitioner, James Corner is at the forefront of the profession. He is landscape architect for two important recent projects: The High Line in Manhattan and Fresh Kills Park on Staten Island. He chairs the Landscape Architecture Department at Penn.

DALLAS ARCHITECTURE FORUM SPRING PANELS
The Trinity River Project: An Update
Moderated by Brad Goldberg
March 22, 2011, 6:30 p.m.

Dallas Center for Architecture
"Location, Location, Location"
Moderated by Doug Newby
April 5, 2011, 6:30 p.m.
Dallas Center for Architecture ■

Compiled by Greg Brown, program director for the Dallas Center for Architecture.

Profile | Zaida Basora, AIA

As assistant director of Public Works for the City of Dallas, Zaida Basora, AIA, has established a strong architectural identity while mitigating cultural boundaries and raising four daughters. Channeling her passions into successful battles for relevant social causes, her leadership has deepened Dallas's commitment to sustainability with the adoption of the Green Building Code in 2008 and the LEED green building program. The recipient of various professional awards for excellence, Zaida helped found and now chairs the USGBC North Texas chapter, also serving on the USGBC Codes committee and the Codes and Standards committee of AIA Dallas.

Ishita Sharma, Assoc. AIA

Below is an interview with Zaida in her office at Dallas City Hall, an iconic work by I.M Pei:

Who/what influenced you to pursue public Architecture?

I stumbled upon public architecture. I have always had a passion for the built environment and the opportunity to work for the City of Dallas came as I was re-entering the workforce after five years at home with my four young daughters. Once there, I realized that my work as a public architect met my mission to give back to the community through my work. I believe that the higher an individual rises professionally, the greater the give-back should be. It is my purpose to use my abilities to improve the community in which I live.

What brought you to Dallas and what keeps you here?

I left Puerto Rico to obtain a master's degree in architecture from the University of Texas at Arlington. Dallas was the city to be in during the late 70s and early 80s. What keeps me here is the ability to share my passion with a purpose. Dallas is a great community with the will to lead by example and to do what is required to improve the quality of life for its citizens and to stay economically vibrant and competitive globally.

Do you think a commitment to sustainability requires transcending codified regulations?

I believe there is a higher level of responsibility placed upon those individuals that can effect change rapidly, even if through codified regulations, to act as catalysts so that sustainability becomes an imperative that all must commit to. Once that happens, it becomes a matter of personal responsibility.

As an architect, what is your experience of Dallas City Hall as a workspace?

I'm a big fan of I.M. Pei and his geometric, sculpture-type architecture. The quality of the spaces and the construction of this building are impressive. The exposed concrete is beautiful. The elegant simplicity of the finishes is a fine complement to the design. Through the years, we have had our challenges growing within the confines of the architecture, but all-in-all it is a great icon and a fabulous, inspiring place to work.

What would you put on the soundtrack to your life?

I would put I Hope you Dance by Leann Womack, Running on Empty by Jackson Browne and My Way by Frank Sinatra.

What has your professional experience taught you?

That building relationships is essential to achieving goals. We all have something to offer and it takes all of us to make a difference.

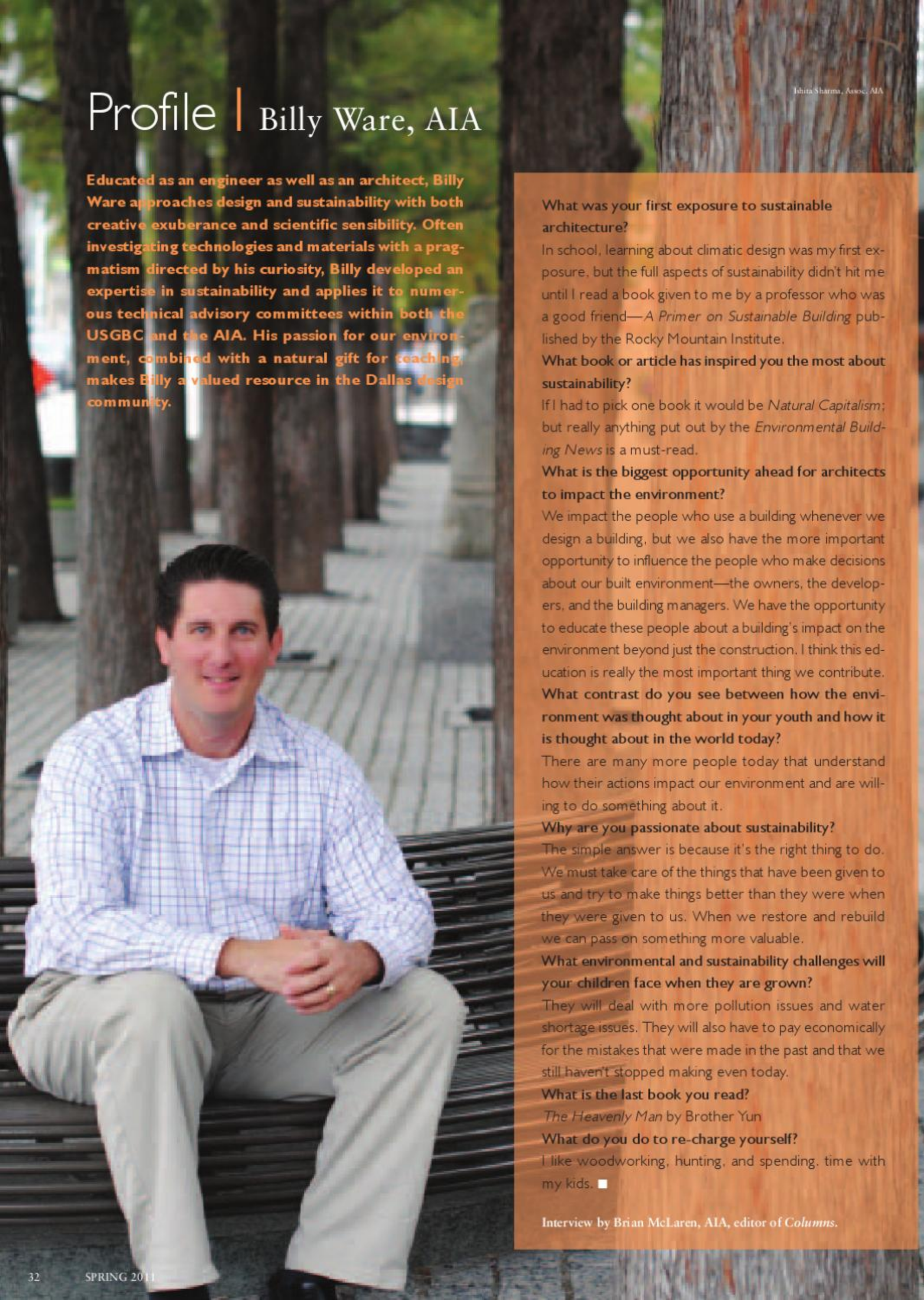
How do you think the Dallas community can support the city's greening efforts?

Greater support will be achieved as the city continues to implement programs that affect people's daily lives. People react when it affects them; so it is a matter of helping people realize the value of living sustainably. ■

Interview conducted by Ishita Sharma, Assoc. AIA, an intern architect at Corgan Associates Inc.

Profile | Billy Ware, AIA

Educated as an engineer as well as an architect, Billy Ware approaches design and sustainability with both creative exuberance and scientific sensibility. Often investigating technologies and materials with a pragmatism directed by his curiosity, Billy developed an expertise in sustainability and applies it to numerous technical advisory committees within both the USGBC and the AIA. His passion for our environment, combined with a natural gift for teaching, makes Billy a valued resource in the Dallas design community.



Ishita Sharma, Assoc. AIA

What was your first exposure to sustainable architecture?

In school, learning about climatic design was my first exposure, but the full aspects of sustainability didn't hit me until I read a book given to me by a professor who was a good friend—*A Primer on Sustainable Building* published by the Rocky Mountain Institute.

What book or article has inspired you the most about sustainability?

If I had to pick one book it would be *Natural Capitalism*; but really anything put out by the *Environmental Building News* is a must-read.

What is the biggest opportunity ahead for architects to impact the environment?

We impact the people who use a building whenever we design a building, but we also have the more important opportunity to influence the people who make decisions about our built environment—the owners, the developers, and the building managers. We have the opportunity to educate these people about a building's impact on the environment beyond just the construction. I think this education is really the most important thing we contribute.

What contrast do you see between how the environment was thought about in your youth and how it is thought about in the world today?

There are many more people today that understand how their actions impact our environment and are willing to do something about it.

Why are you passionate about sustainability?

The simple answer is because it's the right thing to do. We must take care of the things that have been given to us and try to make things better than they were when they were given to us. When we restore and rebuild we can pass on something more valuable.

What environmental and sustainability challenges will your children face when they are grown?

They will deal with more pollution issues and water shortage issues. They will also have to pay economically for the mistakes that were made in the past and that we still haven't stopped making even today.

What is the last book you read?

The Heavenly Man by Brother Yun

What do you do to re-charge yourself?

I like woodworking, hunting, and spending time with my kids. ■

Interview by Brian McLaren, AIA, editor of *Columns*.

By Chris Grossnicklaus, Assoc. AIA

Web wise | Online spaces that intrigue, engage, and educate.

Jetson Green
http://jetsongreen.com/

This robust daily site focuses on sustainability and green products in residential architecture. Users can find numerous project examples along with features on the latest in technology.

Green
http://green.blogs.nytimes.com/

This blog, from The New York Times, highlights current issues related to energy and the environment. The different topics covered by the blog include business & technology, politics & policy, and science.

The Story of Stuff
http://www.storyofstuff.com/

The Story of Stuff is a popular 20-minute animated film that takes a critical look at the state of consumerism in the United States by examining the lifecycle of material goods

Architerials
http://www.architerials.com/

Architerials is new site dedicated to the latest technologies and experimental building materials. Started by a local architect, Alli Dryer, this smart site's content is very entertaining and informative.

Tiny House Blog
http://tinyhouseblog.com/

The tiny house blog is for those interested in the small house movement. The posts range from examples of tiny homes (500-800 square feet) to energy sources and waste disposal.

Chris Grossnicklaus, Assoc. AIA, is with RTKL Associates Inc.
To offer your ideas for websites that others might like to visit, send him suggestions at cgrossnicklaus@rtkl.com.

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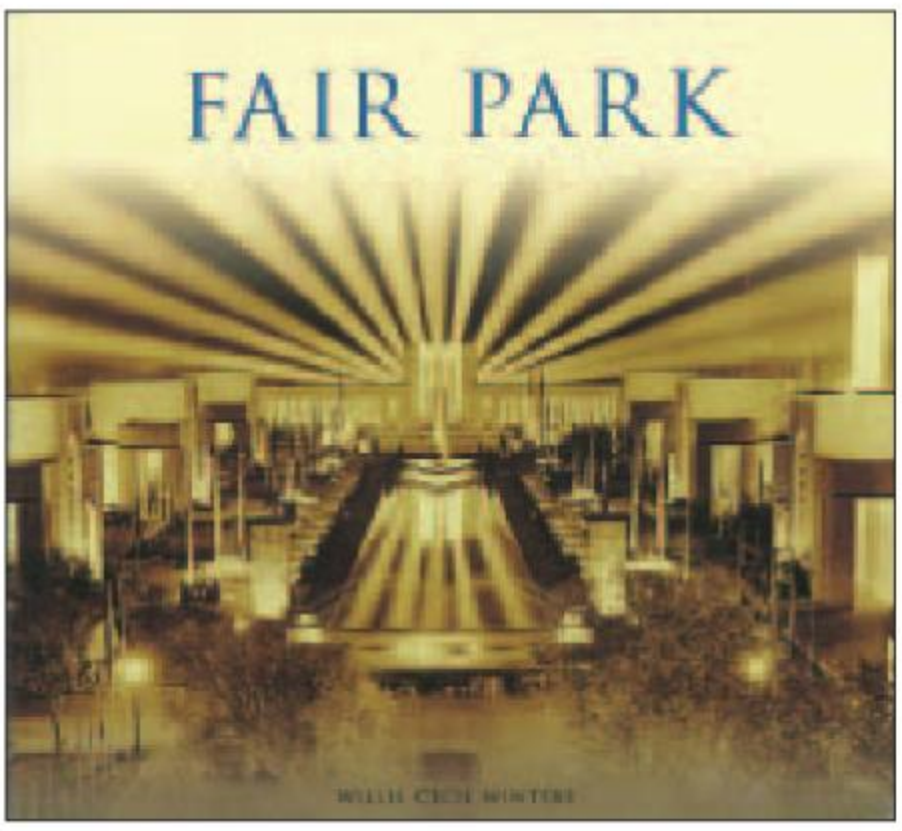
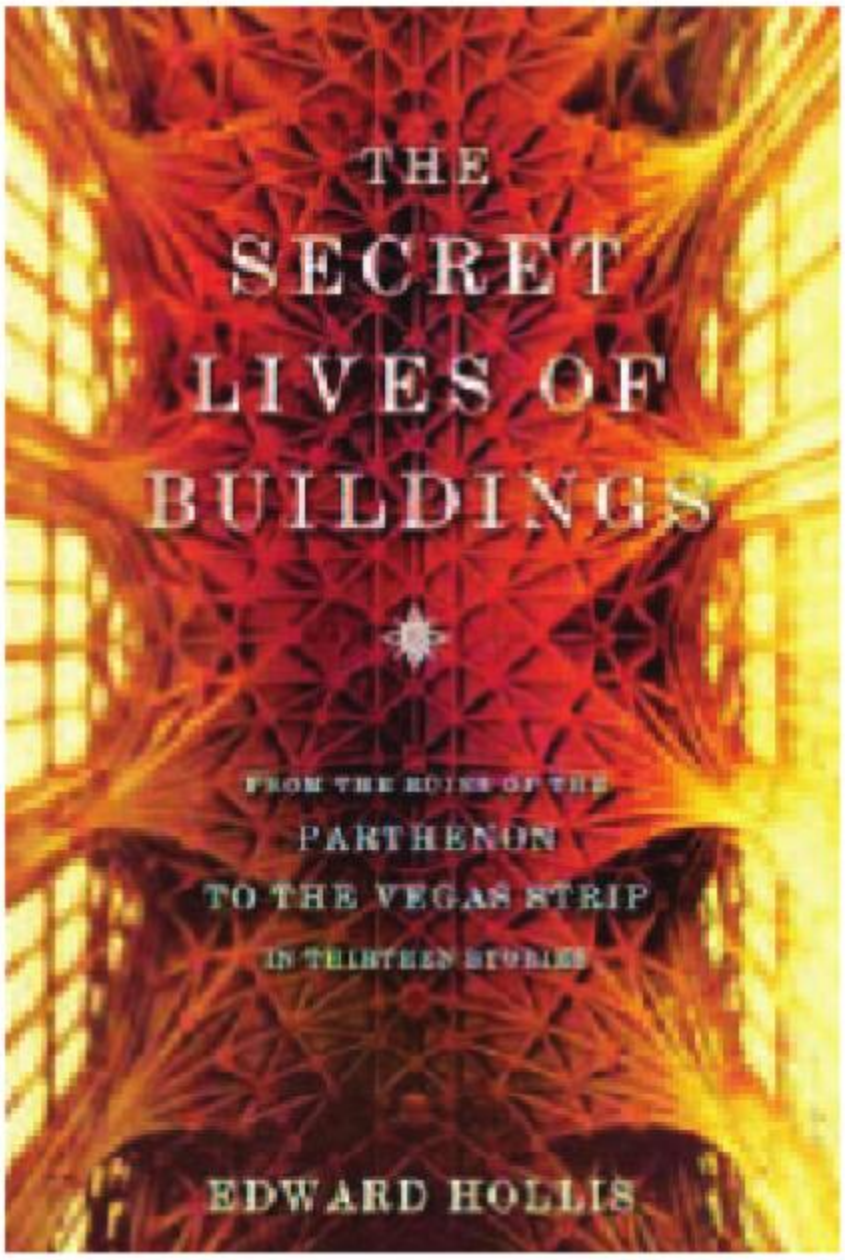
Critique | Professionals Share Perceptions of Publications

In his recent compilation, *Fair Park*, architect and author Willis Winters masterfully re-constructs a pictorial history of Dallas's most renowned park, from its inception as the Dallas State Fair site to its present status as the location for the State Fair of Texas. Through the use of period photographs, Winters exhibits architectural sophistication in the forensic tracing of an institution, which has withstood the test of time and transcended history, in a city quite often known for erasing its past. Winters carefully weaves history with, perhaps, a hyper-focus on the Texas Centennial Exposition and World's Fair; however, this period was in the park's survival. The role of architect George Dahl and Mayor R.L. Thornton are explained in depth. Without these leaders, the park may not have survived to play the pivotal role it enjoys today.

Winters's exquisite documentation of building history and style instill excitement. From an architectural perspective, Winters constructs a timeline commencing with the original Victorian structures, the Classical era, the (pre-Depression) Spanish Colonial Revival, and concluding with the magnificent Moderne, attributed to Dahl. The result is a delightful documentary, which takes us effortlessly down the esplanade of one of our most treasured icons. ■

Reviewed by Ralph Randall, a "frustrated architectural historian" with Dave Perry Miller & Associates in Highland Park.





In *The Secret Lives of Buildings*, Architect and Designer Edward Hollis takes us on a multi-faceted journey examining thirteen buildings from the Parthenon in Greece to the Venetian in Las Vegas. Each exploration stands alone as a fascinating look at the effect architecture has on religion, culture, politics, and history…and vice-versa. Most importantly, he shows us the myriad ways that buildings—even those built as monuments for posterity—evolve over time.

Hollis provides examples of this evolution, both seen and unseen, from a variety of eras and geographical regions. He shows how the Parthenon, the perfect Athenian temple, became a Christian church, an Ottoman mosque, and eventually the rubble of looted ruins we know today. He uses the Berlin Wall as a reminder of how architecture can serve as a cultural barrier and political tool. With hunchbacks and revolutionaries as key players, he tells the tale of Notre Dame—the epitome of the Gothic cathedral, at least as it was reconstructed in the 19th century. Readers will understand how and why these buildings were constructed and the many evolutions they faced in the decades and centuries that followed. This isn't light airport reading, but not a tough slog either. ■

Reviewed by Greg Brown, program director for the Dallas Center for Architecture.

Got Ideas?

Columns is the primary arts and architecture magazine in North Texas. As such, we offer many opportunities for our readers to express their creativity and share themselves with their peers in new and interesting ways. Here are features that run in every issue where we would like to have your involvement.

PEOPLE, PLACES & THINGS
We'd like to hear about happenings in the design disciplines… send us news of your company/organization, your achievements, your accomplishments, your personal awards (community, professional, etc), accolades, promotions…or if you've completed an art or architecture project of which you are really proud, we'd like to know about it! Never fear…Le Corbusier was one of the most shameless self-promoters in the history of architects, so follow his example and share. If you're too humble, have a friend send it for you. Send entries to Laurel Stone, AIA, at **columns@aiadallas.org.** Be sure to put "Columns PPT" in the email subject line.

CREATIVE ON THE SIDE
We'd also like to provide YOU, the readers, with additional opportunities for personal, creative expression. If you write poems, paint pictures, take photographs, draw cartoons, write non-fiction, or are inspired by any other means of artistic, written or graphic expression, we'd like to see it … and possibly include it … in an upcoming issue. Contact Doug Sealock, Hon. AIA Dallas, **columns@aiadallas.org.**

SENSE OF PLACE
This feature showcases one piece of art per issue. It should be expressive of architectural sensibility from an artist's perspective. It might be a photo of an intricate grid of icicles, a simple piece of glass, or a new perspective of an old building. Watch each issue for the unique items we feature and then send your best example to Kerrie Sparks, **ksparks@aiadallas.org.**

THE GALLERY
A favorite feature of each *Columns* is the multi-page gallery of fine architecture. To have your project considered for inclusion, send a photo and a one-sentence statement from one of your principals describing the attributes of the structure. Entries should again go to Kerrie Sparks, **ksparks@aiadallas.org.**

'HAVE AN ATTITUDE?
Do you have high praise for *Columns*? Would you like to see any changes to it? Do you wish we'd offer an article on a specific topic? Do you have a nomination for a person to feature in the Profiles segment? Send your ideas and attitudes to our editor, Brian McLaren, AIA, at **brian@brianmclarenaia.com.**

Lost Dallas | Sanger Library

Texas/Dallas History & Archives Division, Dallas Public Library

Sanger Library - 2715 South Harwood Street

Built by retail and philanthropic giants Philip and Alex Sanger of the famed Sanger-Harris department store, the Sanger Library branch was constructed in 1932 for the burgeoning Edgemont Addition close to Forest Avenue (now Martin Luther King, Jr. Boulevard). The library was designed in the restrained Revivalist style popular during the 1930s. Using the Georgian Revival as his main source of influence, the prominent local architect, Henry Coke Knight (1896-1966), gave the building a French flair, notably the distinctive slate mansard roof.

One year prior to this building, Knight designed one of the best examples of a Georgian Revival building in the state of Texas at the Texas Federation of Women's Clubs' headquarters in Austin. Originally designed to front Harwood Street, the library entrance was placed on the corner of Harwood and Park Row as a concession to the neighborhood.

The library opened on February 1, 1932 with 3,000 volumes. The interior provided handsome reading rooms for both adults and children. The Sanger Branch was closed December 1967 when a new storefront branch opened on what is now Martin Luther King, Jr. Boulevard.

After being sold to a private investor, the structure was demolished in 1976. The site is still a vacant lot today with remnants of the handsome red brick still defining the corner.

Compiled by staff at Preservation Dallas with assistance from Mark Doty, senior planner, with the City of Dallas's Historic Preservation Department.

Wings to LEED Higher

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By Brian McLaren, AIA

Edit | Reuse, Renew, Respect

The universe may be vast and expansive but our little green globe in that infinite universe is very finite—and so are our resources. As stewards of our planet, as well as inhabitants, we have a very vested interest in assuring the best future possible for our planet. Native Americans and other ancient cultures have embraced a valuable belief that we are only a small part of the world and an equal weight must be given to the host of plants, trees, birds, and animals living around us. That awareness, that we are an integrated part of the environment, was lost as we industrialized in the last several hundred years.

As our ability to manipulate the physical world around us evolved, we began to see our physical resources as items to extract, use, and throw away without regard to the other occupants of our planet that rely on them. Land, water, and even the earth itself became objects that we felt we owned.

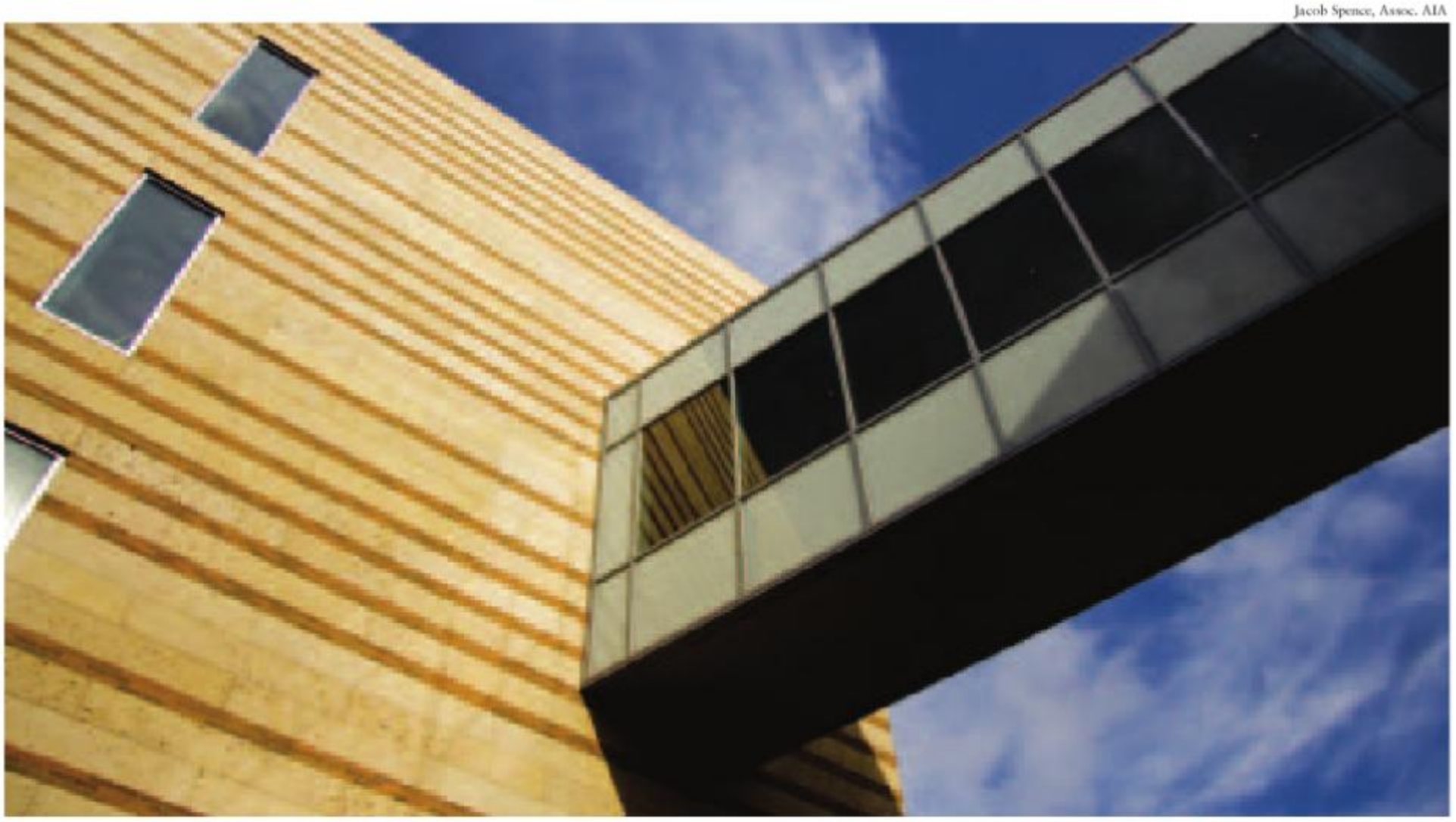
Now as our exuberance begins to wane, we have come back to the idea of Mother Earth as an interconnected system that is not to be pillaged. We recognize that our perspective as stewards has to extend beyond the present and we must look to the future and to the world we will leave to our children and our children's children too. ■

Brian McLaren, AIA, is editor of *Columns*.

By Mary Foley Butler, Assoc. AIA

Transitions | To LEED, or Not

Jacob Spence, Assoc. AIA



Engineering Research Building, University of Texas at Arlington - Pursuing LEED Silver certification; Opening 2011.

These days, when one thinks of sustainable design, it is common for just one word to come to mind: LEED.

LEED, standing for Leadership in Energy and Environmental Design, has quickly become a household name, so to speak, for many architects; but what is LEED and just how will it affect the future of our profession?

LEED, in its simplest terms, is a certification system, initiated by the U.S. Green Building Council (USGBC) to regulate and to guide the implementation of sustainable initiatives into building design and construction. LEED is not only a standard by which buildings are measured, through the certification process, but by which design professionals are also measured through the accreditation process. In days past, almost any interested party willing to pay the cost of the accreditation exam could, with study, become a LEED accredited professional or LEED AP. Now, thanks to recent changes by the USGBC, additional regulation is in place so that those seeking LEED accreditation are limited to those who take an active role in the building-design process. But how important is LEED accreditation and, with the popularity of sustainability these days, will LEED continue to be the standard for sustainable design?

One clear success for the USGBC, when it comes to LEED, is brand recognition. A good number of clients and design professionals alike associate LEED with sustainability and sustainability with LEED. Brian Saldana, architect with Omniplan states, "I'm sure that sustainability is an undeniable reality in the practice of architecture, now and moving forward. One's only option is how much they choose to embrace or to resist it in their own work."

How do we, as architects and design professionals, embrace and implement sustainable practices and materials into our projects? How do we educate ourselves and our clients of their value and cost? Is LEED the answer to these questions? Perhaps this is ultimately a question that we will each have to ask ourselves. To Tatinia Phinisee, AIA, of Huitt-Zollars, one thing is certain: "When individuals put forth the effort required to becoming LEED accredited, it demonstrates [to their clients] that they are committed to the principles of sustainable design and integrated communities."

Mary Foley Butler, Assoc. AIA, is a project manager and intern architect with Raymond Harris and Associates.

The writer would like to extend special thanks to the following individuals for contributing their ideas and opinions, helping to make this article possible:

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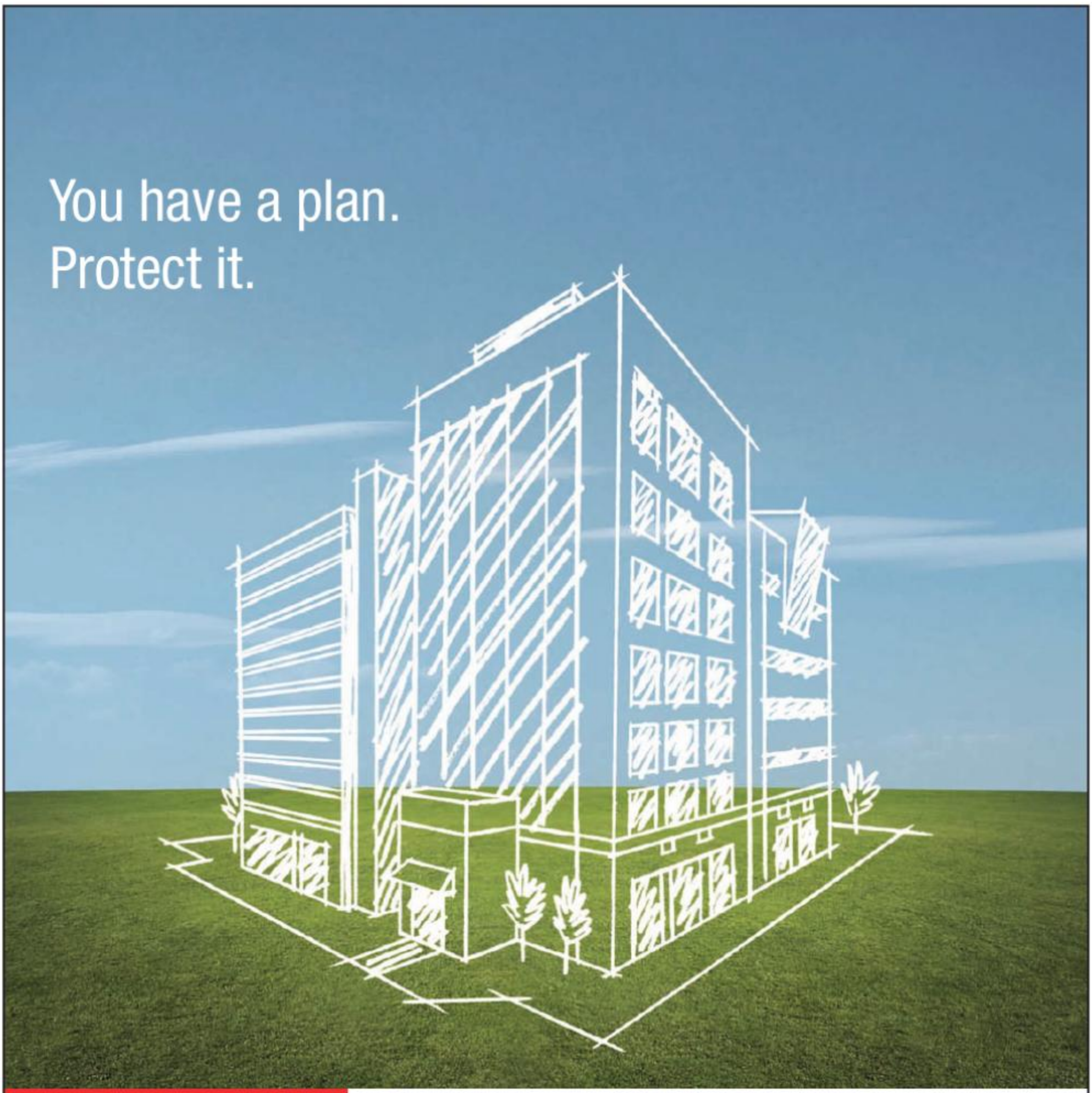

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