A Simple Path to Sustainability

Green Business Strategies for Small and Medium-Sized Businesses

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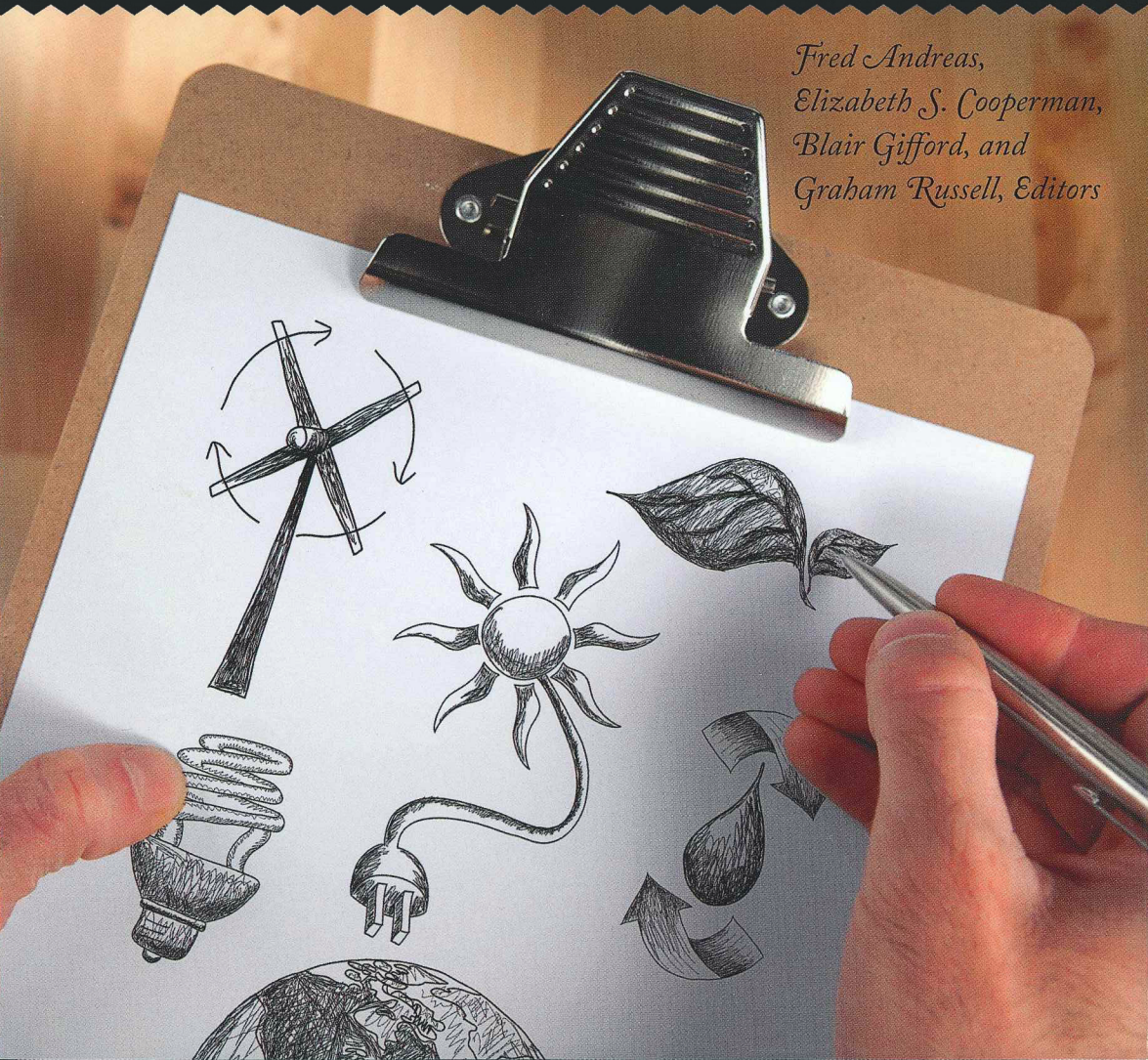

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Barrett Studio Architects, Boulder, Colorado

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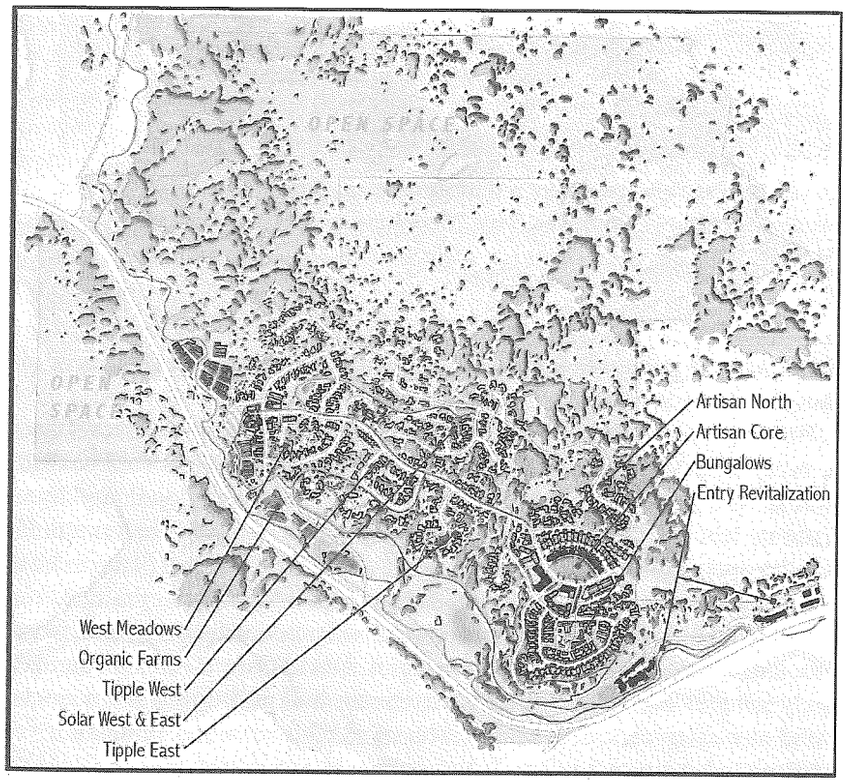
One morning, David Barrett sat in his kitchen next to a window angled open just enough to let in a breeze that pushed the steam over his coffee mug. Reading the newspaper on the kitchen table, he noticed a headline: "Windows That Open Are the Latest Office Amenity." He read the title a few times just to make sure he wasn't missing some important other detail to the story—the hook, something to make him read on. This was a full, *front-page* spread in the *Wall Street Journal* (Templin, 1998). The thought crossed his mind: this is incredibly underwhelming. The 20th century was all but over—a century in which sustainability ebbed and flowed many times—only to end with this underwhelming mantra. At the time, he knew little about the sustainability of large commercial buildings. Nonetheless, the idea of it seemed incredibly odd . . . something as simple as windows that open creates a meaningful future . . . a literal metaphor of open ideas for closed and sealed buildings.

Every business and industry is affected by concerns for sustainability, just as each of us is affected everyday by the choices we make, the products we use, and the way we live our lives. Unlike other industries, architecture is placed at the forefront of the sustainable movement. It bears the image of sustainability, because architecture means to build, sculpt, and manipulate space, which ultimately means using materials and energy to change what came before. Those choices make projects that, in the developed world, use huge amounts of environmentally degrading energy until the day they are demolished. This is not to say that sustainability is more important to architecture than it is to any other industry. Rather, architecture is a particularly physical and tangible manifestation of either consumption or sustainability compared to other industries, whose thinking, processes, and values around sustainability are not visibly experienced and occupied.

Examining sustainability in architecture means rethinking what, where, why, and how we build and, ultimately, live most of our lives. Sustainable solutions in the architectural industry are diverse and vary greatly by design process, building type, materials, and systems. The approach taken by Boulder, Colorado–based Barrett Studio Architects is an excellent example of sustainable solutions as a unique and refreshing approach to sustainability in business. Barrett Studio is not mainstream. The firm's work is eclectic and certainly not considered greenwashing. Clients and employees past and present, as well as other architects and builders in the area automatically associate sustainability with Barrett Studio Architects. Yet, one will not find



Twin Buttes EcoVillage. (Courtesy of Barrett Studio Architects.)

David Barrett always starts a design on site, shown here with Barrett Studio Architects employee Sam Nishek. (Courtesy of Barrett Studio Architects.)

a checklist or prescribed metric of sustainable elements or approaches in the office.

Although sustainability is both budgeted into each project and presented to every client, Barrett Studio's reputation stems from its foundational integrated approach. This approach brings the firm local, regional, and international business. David Barrett, founding principal, admits he sometimes has the opportunity to be selective about clientele, a coveted place to be in the architectural field. Does this translate into sustainability for the elite? Not for David. With over 30 years of architectural practice focusing on energy-efficient and sustainable design strategies, David Barrett remains increasingly interested in expanding his experience and philosophy from single, stand-alone homes, schools, and places of worship to entire communities of interrelated systems working together in support of the health, efficiency, and vitality of the community.

HISTORY

In 1970, Richard Nixon was president, and college students were protesting all over the United States. In Ohio at Kent State University, David Barrett was finishing his undergraduate degree in architecture. In May, the Ohio National Guard shot and killed four young Kent State students. That tragedy and the cultural division in the United States inspired David to question architecture's role in serving humanity. How can we make holistic design available to all? How can we protect the environment? He and other students believed that architecture had a profound responsibility to effect a positive change in the lives of others.

After graduating from Kent State in 1971 with a professional bachelor's degree in architecture and serving as an intern for several firms in Pittsburgh, David began working on an environmentally friendly student center at Florida A&M University. The design resulted in a partially underground building that utilized passive cooling systems. The project aligned with David's ideals and won an AIA Florida (a chapter of the American Institute of Architects) design award.

David felt that the practice of architecture—mired in tradition—was too slow to respond to social and environmental concerns. He was searching for a place in the world of architecture, a place that reflected his vision of joyful and responsible design. Once he became licensed, he entered the graduate program at University of Colorado, Boulder, where he had opportunities to explore his interests in passive heating, cooling, solar energy, and social responsibility.

This education, coming at a time of an oil embargo and a new public consciousness around energy conservation, spurred David to band together with fellow students to challenge the norms of the dominant industry culture. David's master's thesis was an animated film titled *Regenesis: The Rebirth of the American City.* The basis for David's eventual private practice was beginning to take shape. Moved by the cross-disciplinary approach of Charles and Ray Eames, David began working for Carl Worthington and Associates in Boulder. Similar to the Eames's, Worthington's firm combined a multidisciplinary studio approach that included architecture, landscape architecture, land planning, interiors, and multimedia production.

In 1977, David decided that it was time to pursue his own vision of a practice that merged his environmental and social values with a holistic approach to design. His firm, Sunflower, named for the heliotropic relationship of biology and the sun, was launched with the aid of grants from the Solar Energy Research Institute and the success of winning various competitions.

David built a clientele designing small, passive solar residential projects that came to form from a process David calls "deep listening" and his concurrent development of a design model called "ecomorphic principles." He felt that he needed to prove that an environmental design approach was more than a fad. Were there clients willing to break with convention and embrace these values and sometimes provocative theories? Could architect and client work together as societal change agents?

The breakthrough came when he won a commission from a philanthropic initiative of American Honda Motor Company to develop the Eagle Rock School and Professional Development Center to serve at-risk children. During his presentation, it became evident that David's commitment focused on changing the conventional approach to design. His track record of innovation and exploration and his development and use of ecomorphic principles convinced Honda that it had found its architect. Honda's commitment to changing the way children are educated began by hiring David's design firm, Sunflower, which had a commitment to changing society's relationship with the built environment.

The Eagle Rock project positioned Sunflower as an authority on sustainable design and as a firm with a social conscience. Sunflower eventually became Barrett Studio Architects, and, after 30 years of designing, it has become a leader in sustainable design and an important part of the established mainstream design community.

The ultimate success of Honda's Eagle Rock School and Professional Development Center gave Barrett the traction he needed to find other clients with a passion for change. With projects such as the Abbey of Saint Walburga, the Casa Viento EcoLodge in Venezuela, the Holiday Urban Neighborhood, and the Friendship Center in Dushanbe, Tajikistan—all projects with clients who shared these values and delighted in the environment—David's business grew. In 1997, Barrett Studio was selected as the AIA Colorado Firm of the Year, and, in 2002, David Barrett was honored as the AIA Colorado Architect of the Year. After 35 years, Barrett Studio remains a model of a sustainable architectural practice that will continue to innovate into the new green economy.

BARRETT STUDIO'S MISSION

Barrett Studio Architects is a highly motivated professional design group dedicated to the practice of architecture, community and urban design, and interiors. Its approach to design is holistic, viewing the environment as a totality. This ecologically oriented perspective explores the relationships involved in a project, the interconnections that influence design decisions, and

the opportunities to produce projects of meaning, excellence, and, always, beauty. The firm believes that sustainability must remain integral to all business practices. The triple bottom line is just a start. Employees share and practice core values of sustainability both at work and at home. Managers care about making a difference and taking action.

> More than ever, this process cannot be the isolated realm of the expert. It is their experience that meaningful solutions will stand the test of time creating the result of co-creativity. Through the rigors of an integrated team approach, they find both the joy in making and the satisfaction of being a part of something larger than themselves. With each project, they first create a process that uniquely considers the potentials of the site, the climate, the client, the use, and of course, the budget. The tangible results stem from a product of passion, communication, creativity, integrity, and commitment to see an idea through. "This is what we do. This is who we are." (Barrett Studio Architects Web site)

Staff members outside the Barrett Studio in Boulder, Colorado. (Courtesy of Barrett Studio Architects.)

SUSTAINABLE BUSINESS PRACTICES

David Barrett has seen an increasing number of businesses adopt varying versions of a sustainable business model. He believes that sustainability must become an integrated mind-set in the business and not just a line item on the expense sheet. When times get tough, businesses shouldn't say, "Oh, sorry, times are tough this month so, no more green strategies allowed."

Barrett Studio maintains the enviable position of clients seeking out its services. Because the firm has the reputation of incorporating sustainable design principles as well as sustainable practices within the office, it attracts clients who have already embraced green ideals. Barrett's legacy of sustainable design established the studio as a responsible and highly reputable firm. This enables the firm to choose projects that reflect its ideals yet remain flexible enough to work with clients' budgets and requirements.

Barrett Studio's standards are continually evolving, informed by David's experience. It may seem counterintuitive, but the business team values the absence of checklists and other static measures. Due to the constant evolution of technologies and the diversity of projects, a standard checklist would quickly become obsolete. Instead, projects utilize montages and EcoVisions that act as touchstones throughout the design process. Clients track the implementation of the sustainable measures and love the results.

GETTING STARTED WITH A SUSTAINABLE BUSINESS STRATEGY

Barrett Studio's commitment to sustainability goes back a number of decades. Ever since the social and environmental changes of the 1960s and 1970s, sustainability remained on David's radar. As far back as the late 1970s, when David was at the University of Colorado, Boulder, his graduate studies introduced him to a group of like-minded students with a focus on solar technologies and sustainability. Even his original business venture, Sunflower, modeled on heliotropic principles, focused toward bio-awareness. From these early beginnings, David created an evolutionary approach to his business practice.

> Every year during the staff retreat, we'd brainstorm about ways to become more sustainable and more effective. At the yearly Staff Retreat we'd re-vision our goals addressing the Studio at large. It was used as a way to check in on our individual lives and outlooks on the world, determining where we're headed so we can move forward with a cohesive vision. We worked from focused intentions, that manifests as a completely organic process. Sustainable planning is one of the keys to sustainable success. (David Barrett, interview by research team, 2009)

Not everything in the sustainable architecture business is easy. Forward thinking often flies in the face of conservative traditions in academia, among the general public, and in the architectural community. Many of David's original ideas born in the solar movement, remained marginalized by the A list of architects represented by the mainstream firms. Recognizing its specialty niche in the market, Barrett Studio seeks clients with similar beliefs or interests and embraces its role as a community and client educator. Its reputation in green principles has remained the hallmark of the studio for 35 years. That unique and consistent conveyance of the company's mission translates into a powerful marketing tool. Because of its position in the field, Barrett Studio attracts private clients interested in learning more about sustainability and the built environment. It applies a careful consideration process to larger public requests for proposals, evaluating them critically and responding only to those that it feels best suited for and those that enable the company to make a difference. This selectivity fosters a perception in the community of a high-quality, ethically based studio. A strong and long-standing reputation in sustainability represents yet another key to success.

MARKETING

Building on the firm's reputation, Barrett Studio's marketing plan focuses first on conveying a clear and consistent message to its market. The organization's long-standing membership in eco-conscious groups and its reputation for sustainability serves to differentiate the firm from its competitors. This difference is showcased in industry and consumer publications, presentations at conferences, public workshops, award nominations, and targeted advertising in eco-design publications.

Staying ahead of the competition remains part of the company's secret to success. Barrett Studio consistently researches new technologies to advance sustainability not only in its projects but also in its own office. The key is staying abreast of the newest technologies and systems and then implementing and integrating them into both the business and the lives of employees. If the studio wants to investigate new products, it researches, tests, evaluates, utilizes, and recycles them, supporting a holistic mind-set. For example, unrecyclable plastic binders from an office cleaning were recycled

through Craigslist; they disappeared from the alley the next day. For Barrett Studio, sustainability is not about preset assumptions or predefined parameters. Sustainability develops from a conscious effort based on underlying principles and an eye toward innovation and flexibility.

Remaining competitive requires staying up to date with the latest developments. Whenever new products or ideas become available, the entire studio learns about them in any number of eco-based journals and publications or lunch presentations by local distributors. Evolving technologies and products researched in these venues and involvement in industry conferences and workshops provide an understanding of the latest developments. Some technical eco-based periodicals that Barrett Studio consults include *Ecospecifier, Environmental Building News, Green Building News, Ecostructure, and Pharos.* Other interesting reading and ideas are often found in more consumer-oriented magazines such as *Metropolis, Abitare,* and *Dwell.*

Likewise, belonging to local green business groups creates opportunities for valuable connections. Groups such as the Boulder Green Building Guild, United States Green Building Council, and Colorado Straw Bale Association help the business stay abreast of news in the local green market. Long-standing memberships and active involvement in such organizations help to reaffirm the firm's credibility. Maintaining a presence in the local green community helps to differentiate the firm in an increasingly crowded field. Attending charitable events, contributing to silent auctions, providing pro bono or discounted services to local nonprofits, and participating in lighthearted community events all illustrate alternative methods for staying active in and supporting the local community. The company also donates 10 percent of its annual profits to local nonprofits with a housing or sustainability focus, supporting sustainable local communities in the area. Community and stewardship then becomes another key to success.

STAKEHOLDER INVOLVEMENT

Barrett Studio keeps its business model simple. The sole proprietorship has no shareholders and no board of directors; however, it is modeled after a cooperative. David engages all employees, requesting their input and supporting their involvement. The company maintains an open-book accounting policy with profit/loss information shared with all employees on a monthly basis. Decisions on spending and benefits often include a larger circle beyond David and business director Maggie Flickinger. Their fair-

share profit distribution program is particularly effective because of this continued sharing of information, creating a loyal, informed, and vested employee base.

A SUSTAINABLE BUSINESS MODEL

> Without consciously espousing it as a business model, we follow the triple bottom line: People, the Planet and Profit.
>
> —Maggie Flickinger, Barrett Studio business director

The P3 movement—people, the planet, and profit—covers all aspects of sustainability. Recycling materials, composting at the office, buying locally, supporting local green businesses such as Eco-Products and Ellie's Eco Home Store, using and specifying local manufacturers, utilizing remanufacturing for office supplies such as ink cartridges, using 100 percent recycled paper, installing drivers to support double-sided printing, and contracting with a local green cleaning company all represent Barrett Studio's P3 business commitments. Other initiatives include collecting and recycling items through the city's Center for Hard to Recycle Materials; replacing incandescent office lighting with efficient xenon, CFL, and LED fixtures; and purchasing wind power to offset energy provided by the local utility, Xcel, which still generates most of its electricity from the burning of coal.

FIRM CULTURE

One of the greatest attributes of sustainability in any business, but especially in a service business, is sustainable policy that supports the firm's own people, its most valuable asset. Barrett Studio supports a sustainable workforce through a variety of policies on flex time, telework, and promoting membership in local organizations. Many architectural firms' cultures support onerous overtime schedules that have become the norm, with a typical work week of 50 to 60 hours. At Barrett Studio, a 40-hour work week remains optimal—in terms of optimal performance and optimal attitude. The firm found that the team is as productive working 40-hour weeks as it is working longer hours. The enjoyment of a balanced lifestyle is integral to team spirit and a sustainable business model.

With a strong core value of sustainability behind the studio's designs, business director Maggie Flickinger focuses on sustainably running the business as well, through carefully addressing of financial, staffing, and human

resources challenges, evolving the studio culture through an economic and human perspective. She coordinates marketing efforts and visual communications that reinforce the studio's values and philosophy. She strives to bring Barrett Studio's business practice into alignment with the firm's design practices. With Maggie focusing on sustainable business development, practice, and policy, David is free to focus on the evolution of the studio's design practice and its position in the community.

Sustainable best practices create a sustainable business culture based on a team approach. Employees earn a minimum of two weeks vacation annually, but, under the Priority Program, they may make an annual election to reduce their compensation—while retaining all other benefits—in order to accrue an additional week of paid time off. When overtime does accrue, compensatory paid time off is offered. Other employee benefits include 100 percent employer-paid health and dental plans, simple plan retirement matching, regional transit passes, socializing at monthly employee dinners held at rotating employee homes, meeting for beers after work, and annual retreats, which last year included a trip to Gold Lake in the mountains above Boulder, featuring both business and pleasure. The firm believes in continuing education for its employees, regularly subsidizing seminars, retreats, and conferences. All of these benefits are available to every employee from day one of employment. These sustainable business practices focus on enhancing the individual and the team in their day-to-day business and personal lives, bolstering their careers and their life balance as part of the P3 commitment.

SUSTAINABILITY CULTURE IN THE COMPANY

The employees fully participate in these sustainable choices both at work and at home. The "people" part of the sustainability program includes everyone in the office. It's not so much an incentive program to convince people to participate as it is that Barrett Studio attracts employees who are already interested in integrating sustainability into their lifestyle. As an example, approximately 70 percent of the employees regularly ride a bike or the bus to work; the studio's employees won the 2007 Business Challenge for Ride Smart Thursdays, a program of the Denver Regional Council of Governments.

The firm creates a sustainable business plan focusing on pay, performance, management and benefits by:

Maintaining a moderate work week and respecting employees by not overworking them

Encouraging the use of alternate and public transportation

Creating financial incentives establishing a sustainable investment in the firm

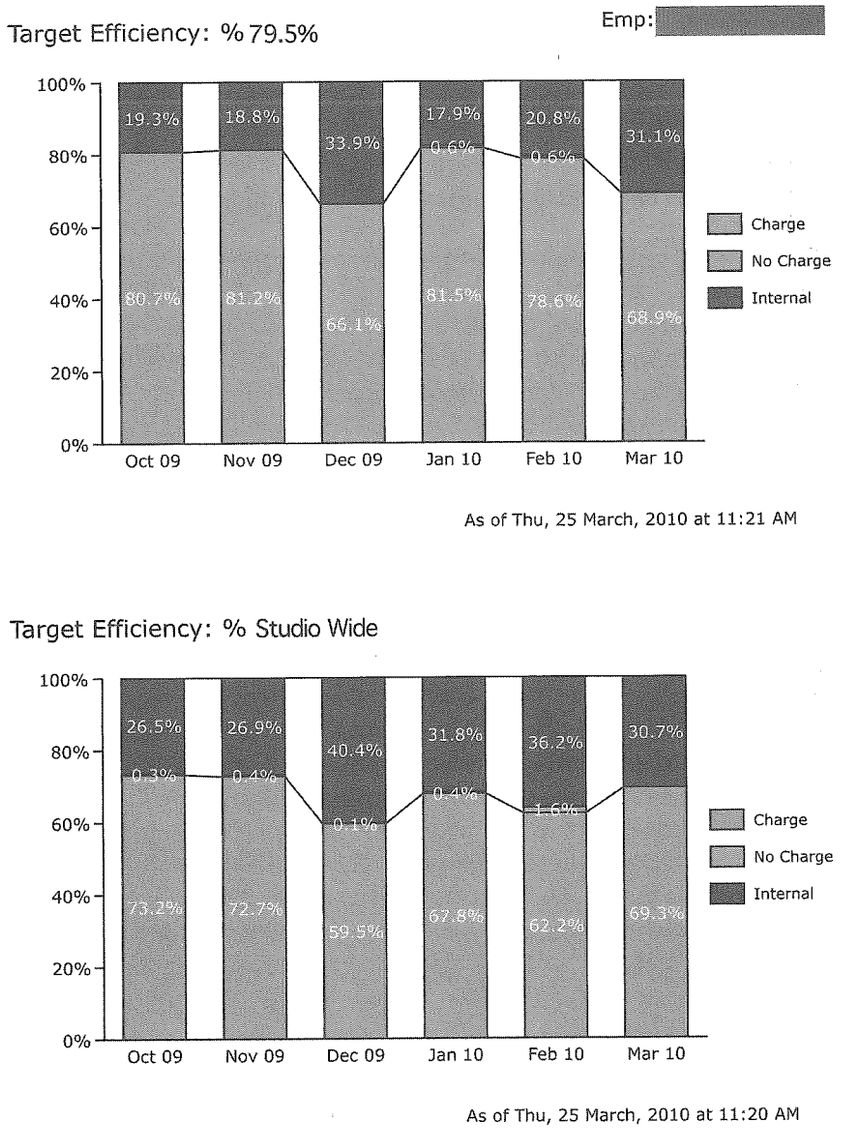
These unique precedents in the architecture industry support the firm's employees and maintain the organization's P3 commitment.

FIRM EFFICIENCY

The efficiency of Barrett Studio Architects and its individual employees is tracked on a monthly basis for comparing projected and goal efficiencies. The billable hours for work on paying projects determine the relative efficiency of each employee's efforts. Billable hours include time spent working directly on a contracted project. The target employee efficiencies vary depending on the employee's role. An associate with greater business experience and prospect development maintains a lower billable hour's goal than a lower-level job captain or intern primarily focused on drafting. The lower target frees the leaders of the firm to work on nonbillable, essential work such as marketing and client contact. With employee billable goals ranging from 12.5 percent to 90 percent, the collective studio goal averages approximately 67 percent. Internal hours include marketing, request for proposal response, office and administrative functions, education, technology, organization, and other functions. All employees become aware of their individual goals with the aid of a software program that allows them to track their billable percentage in real time. The entire staff remains involved in the fiscal structure of the firm as well as the financial impact of working below or above their goals. This awareness and feedback translates into a motivated workforce invested in generating billable work and sustaining profitability.

TECHNOLOGY

Increasingly, businesses utilize technology to control travel and other expenses for projects located in distant locations. For Barrett Studio, this includes utilizing digital technology such as video conferencing, Web posting, and digital remote transmission for construction administration photos, documentation, specifications, and changes. Videoconferencing and telecommuting saves both human and synthetically generated energy and may be one of the most sustainable strategies, saving substantial time and money, creating an additive approach to the sustainability of a project.



Target Efficiency Graphs. (Courtesy of Barrett Studio Architects.)

Such business decisions, affecting simple yet expensive business operations, address the lowest-hanging fruit, producing effective and affordable results. The Twin Buttes EcoVillage in Durango required weekly meetings, resulting in weekly WebEx and Skype meetings with consultants and client

alike, saving substantial time, money, energy and carbon in comparison to travel-mediated business. Sustainability mission accomplished!

COMPETITION

More and more businesses understand that an integrated mind-set and business philosophy create success, and competition gets tougher every day in the green architecture business. Virtually every architectural firm classifies itself as green and sustainable. It's splashed over every Web site and advertisement; it seems everyone has become green. Maintaining Barrett Studio as the green and sustainable firm of choice in the minds of its clients remains a key focus for the studio. The fact that the architectural industry is moving in a new direction helps create a new mainstream, one based in sustainable principles. The trend today, however, is that firms with no green experience or passion are jumping on the bandwagon and calling themselves green. Ultimately, these firms simply attempt to establish a green division or appoint a sustainability director in an attempt to expand their markets and their workloads. Often, the only green produced is money. Barrett Studio's history of working consistently in the green field with an integrated commitment supports its long-standing reputation. It intends to continue its recognized expertise based on its 30-year legacy, carrying that reputation forward and branding its sustainable expertise more effectively than others in the market. Expertise and reputation has become another key to success.

TRACKING BUILDING PERFORMANCE

A key challenge for the business community in general and in the architectural industry specifically is insufficient feedback in obtaining quantified results from sustainable activities. Architecture is increasingly complex, and sustainable design is an even more complicated undertaking. A sustainable approach to projects must focus on tracking activity and quantifying success. Measuring and comparing energy performance and correlating those metrics to any single business decision remains a difficult task. Even determining the carbon footprint of buildings and businesses remains extremely difficult without extensive analysis. Programs produce wildly varying results and conclusions based on differing assumptions, leading sometimes to "analysis paralysis."

Substantial time and effort go into simple day-to-day activities, so the simplest solutions may provide opportunities for the greatest sustainability.

Encouraging employees to either ride the bus or bike to work can dramatically affect any office's energy use and carbon footprint, representing a very simple solution. Sustainable opportunities include educating the public and clients on the basics of sustainable best practices. These opportunities translate into increased performance with quantified sustainability, energy consumption, and savings. A motivated and vested workforce focused on a team effort will create sustainable solutions beyond any single sustainable strategy directed by top management. Simple solutions translate into sustainable business success. Knowing to turn off the lights; to walk, bike, or ride to work; to recycle; and to create more efficient office strategies because everyone cares—taken together, such best practices may yield surprisingly high performance results when a team is focused on success. The simplest solutions may be the most effective.

CREATING CORE SUSTAINABILITY VALUES

Maggie and David's advice for new or existing small companies interested in making the transition toward sustainability is to create a set of sustainable core values integral to the business practice and the ideals shared by all employees. They suggest creating a core belief system held by each individual within the company. This sustainable principle could be applied to any business in any industry, focusing on the people aspect of the P3 equation. While larger companies may educate their workers to change to a more sustainable attitude, a smaller company is more effective starting from a shared sustainability ideal. It makes no sense for someone who doesn't recycle at home to run a company whose focus is sustainability. In contrast, when individual commitment matches the business commitment, credibility and authenticity remain reinforced in the minds of both clients and colleagues.

TWIN BUTTES CASE STUDY

In the rugged landscape just west of Durango, Colorado, a new paradigm for living is taking shape. Architect David Barrett and associate Amy Kirtland have thoughtfully conceived of a "living community" designed as an interconnected system of built environments, cultivated food-producing plots, and significant tracts of open space. Acting as master planner, Barrett Studio, along with Durango residents who actively participated, designed elements of the community inspired by the integrated systems of a living

organism. Buildings are carefully placed within the landscape for low energy consumption and for the cooperative social and civic involvement of its residents. The community of Twin Buttes is designed to exist in concert with nature while honoring the historic and cultural character of the region.

Located two miles west of downtown Durango, the Twin Buttes EcoVillage will set a new standard for how communities are created, allowing residents to live, work, and play with minimal ecological impact. David Barrett developed an entirely new vision—an *EcoVision*—for the Twin Buttes development when he was brought on to the project in 2007. The first step was to decrease the presumed developed area of the 600-acre property and increase the preserved natural open space to 80 percent. David designed an "elegant density" in which a variety of sizes and types of residential and mixed-use buildings exist, forming layers of complexity and creating a sense of community and diversity. This also allows services and amenities to be offered within a primarily residential community. The financial accessibility and socioeconomic diversity of the community are supported by ensuring that affordable units remain available for lower-income residents. Sixteen percent of the residential units will be "affordable/attainable," seamlessly embedded throughout each cluster community.

Clustering the development also supports the walkability of the neighborhoods, easing reliance on automobiles. An eight-mile system of interconnected trails, bike lanes, and sidewalks is designed to allow residents easy access to any point within the development as well as a direct connection to downtown Durango, with no more than 15 minutes from any point in the project by bicycle. As a result of a comprehensive transportation demand management plan, the necessity of single-occupancy vehicle trips to and from Twin Buttes is expected to realize a 30 percent reduction in comparison to typical Durango use.

With over five acres of permaculturally planned farmland and community gardens, including cattle, fishing, and apiaries, the residents of Twin Buttes will have opportunities for an intimate connection to the earth and to the local production of homegrown food.

With over 30 years of architectural practice focusing on energy-efficient and sustainable design strategies, David Barrett has become increasingly interested in how to expand his experience and philosophy from single, stand-alone homes, schools, and places of worship to entire communities of interrelated systems working together in support of the health, efficiency, and vitality of the community.

The *EcoVision,* an original document written by David, outlined the big ideas for the development of Twin Buttes. These ideas identified patterns

useful in the planning of any sustainable community and include the following:

Harvesting the sun. Early site analysis revealed excellent solar exposure that could be available to all lots through studied protective measures such as thoughtful site planning and solar fences, enabling daylighting design features and solar energy.

Resource awareness. The developer committed to reduce energy use by 50 percent compared to required energy standards and created a locally tuned green building checklist.

Elegant density: The design featured diversity in lot size, building type, and amenities, a qualitative textural mix that most people greatly appreciate.

Connectivity. The development team consulted with engineers and multimodal experts to produce easy access and diversity of transportation means.

Affordable living. Barrett Studio developed diverse, affordable housing offerings embedded in market rate areas—one size doesn't fit all!

Sense of place. The firm conducted historical research to honor the mining, homesteading, and ranching past of the area and held town hall–style meetings to involve the community in a dreams and fears process around development issues.

Twin Buttes EcoVillage's 600 units of housing prepares the over 1,000 residents for a radical sustainable lifestyle change. This lifestyle change includes concepts of community with gardening, walking and biking to work, reducing energy use, and increasing awareness of resource conservation—all techniques currently used by Barrett Studio to dramatically increase the sustainability of its architectural practice and its employees' personal lifestyles.

HOLISTIC SUCCESS

Utilizing the "walk the talk" motto, the holistic success of Barrett Studio illustrates the application of sustainability to the philosophy of redefining community. Communities where sustainability best practices can be successfully deployed include an eco-village or an office. While Barrett

Studio's work focuses on sustainable architecture and solutions defining a new paradigm for the 21st century, its business practices likewise focus on sustainable solutions. The ideals of P3—people, the planet, and profit—apply equally to the projects, the firm, employees, clients, and business profits, and the associated principles create an authentically sustainable business model. For Barrett Studio Architects, profitability never focuses exclusively on money, but rather on a broader 21st-century concept of sustainable rewards. Those rewards include a fundamental focus on lifestyle, ethics, and stewardship of the local area, the region, and the planet, as well as the studio's clientele and employees. These successes translate directly into an abundance mentality and a truly sustainable profit.

LESSONS LEARNED

(1) Barrett Studios "conceived of a 'living community' designed as an interconnected system of built environments, cultivated food-producing plots, and significant tracts of open space." Buildings are carefully placed within the landscape for low energy consumption and for the cooperative social and civic involvement of its residents. The community of Twin Buttes is designed to exist in concert with nature, while honoring the historic and cultural character of the region.

(2) David designed an "elegant density" in which a variety of sizes and types of residential and mixed-use buildings exist, forming layers of complexity and creating a sense of community and diversity. This also allows services and amenities to be offered within a primarily residential community.

(3) Sticking to your vision is key—in this case, a vision of a practice that merged his environmental and social values with a holistic approach to design is important and will over time be recognized. The organization's long-standing membership in eco-conscious groups and its reputation for sustainability serves to differentiate it from its competitors.

(4) "For Barrett Studio Architects, profitability never focuses exclusively on money, but rather on a broader 21st-century concept of sustainable rewards. Those rewards include a fundamental focus

on lifestyle, ethics, and stewardship of the local area, the region, and the planet, as well as the studio's clientele and employees. These successes translate directly into an abundance mentality and a truly sustainable profit."

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FIVE

Forest City: The Evolution of Sustainability in Forest City's Development of Stapleton

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HISTORY OF FOREST CITY ENTERPRISES

According to the Ratner House, original founders of Forest City in the 1930s, the company traces its roots in the United States to the first decade of the 20th century, when members of the their family immigrated to the United States from Bialystok, in what was then Russia (now Poland). Frieda Ratner was the first to come to America in 1904, followed by other family members in successive years. Through the years, the Ratners invested in and ran many different businesses. Two of these individual businesses, Forest City Material and Buckeye, combined in 1929 under the Forest City name. Their success led to the construction of garages and eventually single-family homes in the Cleveland area. Becoming their own supplier for residential development gave the Ratners a financial advantage. During the Great Depression, the Ratners, known for their generous and liberal credit policies, allowed struggling families to build their own affordable housing. As a result, Forest City became a major lumber supplier and real estate developer in the Ohio market (Funding Universe). Their development work continued successfully into the last half of the 20th century with a number of nationally recognized mixed-use developments.

In Colorado in 1995, the new Denver International Airport was relocated northeast of Denver, leaving the old Stapleton International Airport as an abandoned Brownfield on the eastern edge of the city surrounded by