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2005 Builder of the Year

Bigelow Homes

Doing good by doing right



Founder Perry Bigelow and
president Jamie Bigelow



>> A **PB** Staff Report

Builder of the Year
Special Report

TOWN FOUNDERS

Chicago's Bigelow Homes sets a benchmark for builders who aspire to (*profitably*) better the lives of the people who buy their homes.



BIGELOW HOMES' management team works by consensus-building rather than top-down decision-making. Running day-to-day operations are from left vice president/construction Tony Spano, founder Perry Bigelow, land development manager Scott Bauer, vice president/controller Jim Smith, vice president/sales and marketing Mike Venetis, president Jamie Bigelow and vice president/purchasing Dave Spano.

It would be rare to find a home builder who has not made a public claim to positively impact society.

Ownership housing plays a big role in knitting together the fabric of community in America. But what would happen if social engineering role, along with nurturing the natural environment, became your central reason for being? Would your company be more, or less, profitable?

The answers are on display in just such a company. Aurora, Ill.-based Bigelow Homes, which prominently shows founder Perry Bigelow's mission on its conference room wall: *"To honor, glorify and experience God in all relationships and to do good work."* Just below is the company purpose, which now inspires a team led by son and president Jamie Bigelow: *"To respect and*

value people, foster interdependent relationships, and respect and care for the natural environment."

As altruistic as these good and green goals are, Bigelow Homes has another attribute: it is also one of this country's most profitable home builders, and it's steady increase in profitability mirrors the maturation of its most ambitious project: HomeTown Aurora. This unique, 173-acre, 1,288-home suburban experiment in building houses in patterns that maximize the social interaction of neighbors, also walks softly on the land. Now in its sixth year of closings, its thriving success proves the validity of the Bigelow vision. Building a carefully crafted *town* that nurtures humans of all ages is not only better for residents than what the Bigelows call "commodity housing," it's also more profitable.

Why Bigelow is Builder of the Year

When the editors of this magazine look at candidates for the most historic and prestigious award in the American housing industry, *PB's* Builder of the Year, we search for a company with ideas our readers can use to grow the profitability of home building businesses across the country. We look for a business model that fits market conditions emerging in today's national economy, but with broad applicability to every region and locale. After all, housing is a local business. To be Builder of the Year, a company must have a certain something builders everywhere can use to improve. We also ask, if this is the right company, why is this the right year?

In the case of Bigelow Homes, we found a company with ideas so profound they work on either side of the gap between affluent, fast-growing suburbs and Chicago's depressed, inner-city neighborhoods. You can learn a lot from Bigelow about how to please customers — even if you never adopt the HomeTown development concept. But make no mistake, HomeTown is a winner. It will play in Peoria, Pensacola or Portland (Maine or Oregon).

This is Bigelow's year because HomeTown now has a track record of success that's undeniable. And because the firm's breakthrough operation just west of Chicago's Loop, replacing city blight with energy-efficient detached homes that inner-city families can afford, is now up and running. Families are moving in, a triumph of political skill as well as production-building expertise.

Perry Bigelow is a deeply religious Christian and his faith shows in both locations. To bring that faith into home building, he has become a philosopher, sociologist and political scientist. But he is still the graduate engineer of his earliest professional training, a compatriot of energy efficiency guru Joe Lstiburek, a devotee of the hard-



nosed Lee Evans/Chuck Shinn school of home builder management, compelling events to conform to plan, and a belief in Martin Freedland's system of finding, training, retaining, and respecting. He's now a visionary, but before that he built operational excellence into his company, which is a marvel of lean production-building processes.

Efficiency Meets Innovation

Bigelow's homes sell fast because they create value that's easy to see. In the inner-city, that perceived value results from even-flow production efficiencies that allow Bigelow to build incredibly fast and market new, detached homes so energy-efficient they carry a guarantee to heat for less than \$275 a year, yet sell for prices starting at \$115,000 (for 1,140 square feet) in blue-collar, primarily African American neighborhoods where few detached homes have been built in 50 years.

In suburban Aurora, Bigelow's value proposition is more complex. Added to the energy-efficiency and even-flow production that dramatically impacts housing affordability are mixed-use community planning and traffic-calming innovations that increase social interaction among residents bridging three (perhaps four) generations. By clustering detached homes in tight, "living lane" and "living court" neighborhoods, HomeTown Aurora makes room for 12 parks, prairies, ponds, a mixed use commercial town center, post office, church and general store. Interestingly, while the goal is to build a community where people talk to each other, one net effect of the compact neighborhoods is lower per-unit infrastructure costs.

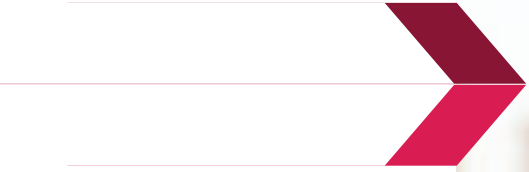
Bigelow develops and builds in two other communities in the suburbs, but not on the scale or with the same control as in HomeTown Aurora, which is the

culmination of a decade of work.

"Most conventional, production-built housing subdivisions start with high sales driven by lot availability and attractive pricing," says firm president Jamie Bigelow, "then sales tail off toward build-out. The sales curve for HomeTown Aurora is just the opposite. We started slowly because, in the early stages, people couldn't see how different this community is. It's not a subdivision. It's a real town, the kind many people yearn for. We've now sold 870 houses here, at prices ranging from \$150,000 to \$300,000. When the neighborhoods started to reach critical mass, visitors could finally see what it's like to live in a connected community. As town attributes become more obvious, perceived value goes up.

"Our sales increased every year for five straight years, and our profitability went right along," he says. "Today, we've leveled production at just over 200 homes a year in the suburbs, because that's our capacity. To build more, we'd have to add another level of management, and we don't want to do that. We're growing our operations in the city. We think we can get to 150 units a year there, with one construction superintendent. We have our first closings in the city this month (Nov., 2004)."

However, profitability has not leveled off. The referral sales rate at HomeTown Aurora now stands at 30 percent and climbing. Buyers are eager to bring brothers, sisters and parents to the model homes, to share the home town experience, Jamie Bigelow says. "This is experiential selling," he explains. "The difference between HomeTown Aurora and a conventional subdivision is like the difference between buying Maxwell House at the supermarket and a trip to Starbucks. Coffee as a commodity compared to a coffeehouse *experience*. The value added is reflected in pricing and on the bottom line.




“We’re selling detached homes at townhouse prices. Much of HomeTown Aurora is very affordable. We can do that because we have really tight operations and our density averages 7.45 units per acre. Yet the experience of living in HomeTown vastly exceeds life in a conventional subdivision. One of the important attributes that makes a town truly pedestrian is walking destinations. As we open the mixed-use elements of our town center, our perceived value will continue to climb. Eventually, we’ll have 150 employees in the town center. Most of them will live in HomeTown and walk to work.”

Profitability Proves It

Bigelow Homes is a relatively small, family-owned production building company (No. 362 in *PB*’s current GIANTS rankings, on volume of \$38.12 million from 212 homes closed in 2003). This year Bigelow expects to close 215 houses for \$40 million. But growth is not the story here. The firm is thriving in Chicagoland’s massive housing market in competition with much larger companies, including many national GIANTS. That tells us the Bigelow business model works as a survival strategy for family firms across this country that are also not growth oriented, perhaps even struggling to compete against the behemoths of the industry.

Jamie Bigelow scoffs at the idea his firm ever needed a life-preserver: “We’ve achieved differentiation,” he says. “That was our strategy. We never felt threatened. This kind of community development will work anywhere because this is the way a big portion of the population wants to live. Right now, in our market, HomeTown Aurora is the only place they can find it. We really have no competitors. I doubt the public builders will ever do what we do.”



“THE MIDWEST IS THE LAST REGION OF THE COUNTRY TO EMBRACE SMART GROWTH, BUT WE BELIEVE OUR OPERATING MODEL IS SUSTAINABLE. THE INDUSTRY IS MOVING IN OUR DIRECTION.”

JAMIE BIGELOW,
PRESIDENT

We’re not sure of that. Even the Giants are up against increasing political opposition to conventional subdivision development. One of the obvious benefits of HomeTown Aurora is that it’s a shining example of ‘smart growth.’ When Bigelow began the long battle to entitle HomeTown Aurora, in the early 1990s, the New Urbanist movement was in its infancy and few planners or politicians in the Midwest had ever heard of Traditional Neighborhood Design. Today, Bigelow finds many more allies because HomeTown, a hybrid TND, has proved to be smart for Aurora, Ill., as well as for Bigelow Homes. Assessed value per developed acre is 2.25 times higher in HomeTown than in conventional subdivisions in the area. And many suburban Chicago planners are now well-schooled advocates of New Urbanism. That puts Bigelow on the solution side of the battle over urban sprawl and builders of all sizes want to align with that side.

Bigelow’s Profit Story

Over the last two years, Bigelow has improved in all financial management categories, but several stand

out. Perhaps the most noteworthy is low lot costs, which are dramatically below the target.

HomeTown includes costly community infrastructure elements such as sidewalks six feet wide (instead of four) and public streets 31 feet wide (to accommodate guest parking) and traffic-calming devices such as safety platforms, traffic circles and chicanes that draw endless sighs of disgruntlement from teenage drivers. “But we have fewer linear feet of public street *per unit*,” Bigelow says. “That’s why our improved lot costs are low, even with all the extras we include. And our perceived value is high because our streets are safe for kids of any age, throughout the whole 173 acres of HomeTown.”

The increasing perceived value translates into a steady increase in profitability, Bigelow says, and the firm’s net profit history shows it.

Lessons To Learn

On the following pages, we’ll detail some of the strengths we believe contribute to Bigelow Homes’ success, ideas you can move into your own company.



“OUR PAPERLESS P.O. SYSTEM GENERATES A PURCHASE ORDER AND AUTO-FAXES TO THE TRADE PARTNER. THERE’S STILL A HARD COPY ON THEIR END, BUT I DON’T EVER WANT IT BACK.”

DAVID SPANO, VP
PURCHASING

1. Lean Operations

Bigelow is a land developer and production builder, but the company maintains an incredibly lean organization of only 50 employees, including laborers and warranty technicians, by strict adherence to carefully engineered systems and work processes. While Bigelow is organized traditionally, along functional lines, it doesn't operate in the dictatorial style of most family-owned businesses.

Instead, managers at all levels contribute to all major decisions, including long-range planning and land purchases, in a collegial, almost familial atmosphere based more on consensus-building than top-down direction. Senior leaders in the functional areas are compensated with modest salaries, but derive the bulk of their income from profit-sharing. Everyone does well by doing good.

The operating principle is that Bigelow hires people at every level with the intention that employment is permanent, not dependent on the vagaries of the market. “We’ve never been excited about being big,” says Perry Bigelow. “There’s nothing in

our principles or vision about growth. Stable employment is our goal. That means we have to get higher productivity per employee, so when the revenue is not there, we can still keep people employed.”

If stability is the goal, it seems to be working. VP/controller Jim Smith has been on board 15 years. VP/construction Tony Spano has been with Bigelow 12 years. His brother Dave Spano has eight years in the firm and recently moved from the field to VP/purchasing. Jamie Bigelow has been in the company for 11 years, starting in sales, then VP of sales and marketing, and recently elevated to president within the framework of ownership succession that is now largely complete. “In another year, I’ll be working for him,” Perry Bigelow says. “He’ll always have a job and he’ll always be the boss,” Jamie responds.

Blitz Building

The real key to Bigelow's high productivity per employee is the consistency of what it builds and how. In the city, Bigelow is not the developer, but rather a general contractor for

Ezra Community Homes. The non-profit developer is Chicago Metropolitan Development Association, an arm of United Power For Action and Justice, a coalition of primarily African American churches and service industry labor unions. Perry Bigelow is a long-time member of one of the churches. He agreed to take on the challenge of building affordable homes to fit vacant city lots, but only on the condition that he could bring his well-oiled production-building machine to bear on the challenge. The city acquiesced, but it hasn't been easy dealing with arcane codes and enforcement.

The city product line consists of only two floor plans, both two-story, slab-on-grade homes, one of 1,140 square feet, the other 1,380 square feet. Both plans have the same openings for windows and doors, and offer very few options. Construction is panelized and takes place on an accelerated schedule of 31 working days from the start of framing to closing. Each house is framed, windows and doors installed, locked and a security system engaged — all in three days — to create a safe working environment for crews who are in a sometimes dangerous neighborhood.

“We create affordability by getting the lots for free from the city and building very fast,” Perry Bigelow says. “There are no interior color selections except for the flooring. The elevation variations involve only porch and siding materials choices. The kitchen cabinet layout is the same for both plans. When construction is complete, we close the next day. We can’t leave a house sitting empty.”

In HomeTown Aurora, the complexity of four product lines, with three to six plans each and multiple option and upgrade choices, stretches the construction schedule to 54 working days, but selections are all made before construction begins. Bigelow allows no changes at all after a start. “We explain our processes very carefully to buyers,” says Jamie Bigelow. “They understand that minimizing changes is part of our value equation and that they benefit from it. Once you set the expectation, that actually becomes a positive for customer satisfaction.”

The contract to construction start process is machine-like. And unlike conventional subdivisions, HomeTown Aurora’s point of differentiation is in the community experience, not so much in the architecture and features of individual homes. “There’s a lot more variation in HomeTown than in the city,” says VP of construction Tony Spano. “But we still have a lot more consistency than most builders.”

Paperless P.O.s Stoke Efficiency

Bigelow recently achieved major gains in productivity by creating its own mostly paperless purchase order system in-house. “I knew from my own field experience just how much time our supers were spending — 10 to 12 hours a week — just signing and checking P.O.s,” says VP/purchasing Dave Spano, who led the team that pulled together the new system. “When I came into this job, it was something I knew could be done that would be of great benefit. It also saves our trade partners a lot of time.

The old system required printing out three-part forms, two of which went to the trade, who had to separate them by community and job, then send them on to the appropriate foreman. “Then he had to get it to our field super when the job was complete, so he could check,



sign and return it to the foreman,” says Spano, “who had to return it to the trade’s office for attachment of lien waivers. Then it came back to our accounting department for invoicing.”

When Dave Spano came into purchasing, VP/construction Tony Spano had already put in place a computerized construction scheduling system. “I started thinking about tying the P.O.s to pay points in that schedule,” Dave Spano says. “We could tie a P.O. to every line. All we needed was coding to link those two programs together. We wrote it, in-house, and the rest is history.”

The trades were skeptical it would work because of past failures of paperless systems with other builders. “But they know we have a history of making innovations work,” Spano says. “We still generate a P.O. that is auto-faxed to the trade. So there’s still hard copy on their end. But I don’t want it back. We are paperless. What generates the payment is a program we wrote to look at each of the computerized weekly schedules. When anything is marked 100 percent complete, it goes into the accounting system and searches for a P.O. tied to that task. If there is one, it pulls it out and invoices it automatically. If the trade is on 30-day terms, the check is cut 30 days later.”

Bigelow is armed and ready to eventually begin e-mailing P.O.s to trades, but right now, Illinois’ requirement for lien waivers hamstrings that possibility. “When our system prints a check, it automatically sends a lien waiver to the vendor,” Spano says. “We can’t e-mail

lien waivers because they could be manipulated. Since the lien waivers are auto-faxed, we decided to just stick with auto-faxing the P.O.s for the time being. The onus is on the vendors. They have to get the lien waiver back to us to get their check.”

The simplicity of the paperless P.O. system allows VP/controller Jim Smith to handle the entire accounting function with one full-time and one part-time employee.

Gains In Customer Satisfaction

During 2003, Bigelow reengineered its quality assurance program to add a new, internal quality walk, conducted by the assistant super, one week before the warranty manager conducts the orientation walk with the customer (two weeks before closing). Through the course of 2003, that change dramatically impacted outstanding warranty items.

That improvement in warranty operations, carrying into 2004, reached a low point of 35 outstanding warranty items for the entire company in October this year, and is one of three factors Bigelow identifies helping to dramatically improve customer satisfaction scores. That improvement is reflected in third party customer satisfaction survey scores in the first half of 2004.

The other factors are better setting of customer expectations by the sales team, and the effects of the paperless P.O. system in freeing field supers to spend more time focusing on customer issues.

2. Elements of Community

To catch up with Perry Bigelow on the philosophical, spiritual and social underpinnings of his HomeTown design concepts, you'll have to do a lot of reading. Start with Christopher Alexander's *The Timeless Way of Building* and A Pattern Language. Then there's Robert Bellah's *Habits of the Heart*, Wendell Berry's *Unsettling of America*, *Home Economics* and *Sex, Economy, Freedom and Community*, Kathryn McCamant and Charles Durrett's *Cohousing* and B. Joseph Pine II and James H. Gilmore's *The Experience Economy* and Randy Frazee's *The Connecting Church*.

America's New Urbanists are well-represented in Bigelow's library, which includes Peter Calthorpe's *The Next American Metropolis* and the Duany, Plater-Zyberk, Speck collaboration *Suburban Nation*, as well as Peter Katz's original definition of *New Urbanism*.

Don't forget *Housing as if People Mattered* (Cooper Marcus/Sarkissian), Tony Hiss's *The Experience of Place*, James Kuntzler's *The Geography of Nowhere*, David Sucher's *City Comforts—How to Build an Urban Village*, and Allan B. Jacobs' *Great Streets*. And Sarah Susanka's *The Not So Big House* and William Whyte's *Social Life Small Urban Space* are also represented.

In the midst of all this study, Perry Bigelow reached a conclusion: "I decided the lives of pedestrians, especially children, are more important than the desire of anyone to drive fast, including fire trucks," he says. "And the social life of every child is more important." Bigelow identified dangerous streets as a suburban evil that inhibits children from the freedom to wander as they used to 50 years ago, leading to parent-managed lives and stunted social development. "We keep our kids in fenced back yards, like cages," he says. "Parents are not going to let them play out front when cars are driving 50 miles an hour on suburban streets. And that happens everywhere."

The elaborate traffic-calming technology in HomeTown's streets comes from Bigelow's worldwide search for ways to force cars to drive slow

enough that drivers and even the youngest kids can react to each other and avoid harm. It's Bigelow's most obvious, and profound, innovation to pedestrian-friendly TND planning. And HomeTown buyers embrace the concepts, although teenage drivers we witnessed seem less than thrilled.

Bigelow had to fight for traffic-calming, especially against fire officials concerned that the devices would damage their trucks and reduce response time to fires.

"We argued, and won, on the basis that our system of interconnected, electric smoke detectors—as many as five to a house, all with battery backup—means the fire department is never fighting more than a property damage fire in HomeTown," Bigelow reports. "We argued the life threat is greater from speeding cars, and the impact they have on the lives of children a greater cost.

"Today, we have aldermen from other jurisdictions visiting HomeTown because their citizens are clamoring for traffic-calming after seeing what we have," Bigelow says proudly.

3. Energy Efficiency & Green Building

Perry Bigelow started his company in the early 1970s and built his reputation for quality by pioneering energy efficient homes during the backlash to the first energy crisis in 1974. He became

an innovator in environment-friendly construction in the same time-frame. "I started building spec houses, one at a time, like most builders," he says.

"Eventually, we became a design/build firm, developing property as well as building. We found a niche building on sites that were difficult for others because of topography and woods."

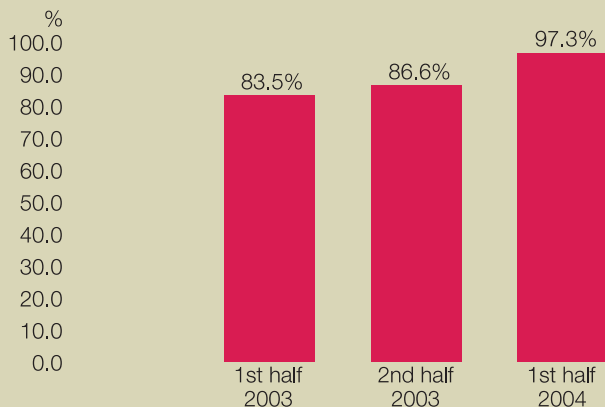
Bigelow even invented a 'plant spatula'—a device that attaches to a front loader, allowing him to move seven square feet of vegetation at a time in transplanting operations. "Any tree smaller than three inches (diameter) we save," he says.

Bigelow developed a line of houses he called "Solar-Therm" that were U-shaped, with a two-story solar-therm room at the center. "It had a huge glass wall with an 'insulated curtain wall.' Almost all of the rooms looked out toward it. The curtain wall went up for solar gain during the day and came down at night. It had an R-value almost equivalent to a 2x4 wall at night. Those houses heated for \$30 to \$40 a year.

Finding ways to build energy-efficient houses that are affordable became Bigelow's quest. The breakthrough came when Perry Bigelow heard a young Canadian building scientist named Joe Lstiburek battle audience abuse at a meeting of the



Willingness To Refer



Source: Bigelow Homes

SELLING VALUE

One simple rule governs marketing at Bigelow Homes: say nothing in any communication that any other builder in the market could say. As is usually the case with what looks simple on the surface, the secret of Bigelow Home's marketing efforts goes far beyond the sell line in any advertisement. What Bigelow does so well is articulate to buyers the values that the built-in features of the community deliver: a nurturing environment where children can safely learn and grow, and a real neighborhood with friendly streets and small-town atmosphere designed to connect neighbors one to another.

For example when it comes to energy efficiency Bigelow translate this feature — something any builder can claim to deliver — into buyer value in its advertising by offering its “three-year, \$400 heating guarantee.” Bigelow makes the abstract subject of safety very real by marketing “Kid-Safe Neighborhoods” and delivering on the promise with HomeTown's curving, winding street design and traffic calming devices that force cars to go slow. Likewise, in every ad and marketing brochure, all photos show actual residents and real events in HomeTown. “Forget the canned shots that show an idyllic world,” says vice president/sales and marketing Michael Venetis. “The real thing at HomeTown is better.”

The list of differences - and thus the value-based ad messages — goes on and on, but unique ad messages aren't the only departures shoppers experience at the Aurora, Ill. community. Instead of pulling prospects directly into the sales office, Bigelow has visitors start in the welcome center, which also houses the HomeTown Café. Here, a greeter (full-time on weekends and a café staffer during the week) welcomes prospects to the community and begins selling the HomeTown difference. “No other builder has a general store in its sales office,” says Venetis, “so people immediately see that we're different from the commodity housing subdivisions.” It's not at all uncommon for

shoppers first sales experience to come from a HomeTown resident visiting the café rather than any sales professional. “Our current homeowners really sell the community. They're as effective a sales agent as we could get.”

Just like residents, the sales staff doesn't just demonstrate model homes; instead they demonstrate the whole community. “We talk about kid safe, tell what it means, show how we deliver. We explain how the living lanes and living courts create environments where neighbors can easily get to know one another and build relationships.”

As in most areas, Bigelow's buyers typically shop four or five different builders before visiting HomeTown. “Immediately — and I mean in the first three minutes — we stand out as different,” says Venetis. “If buyers like it, we know it fast, and if they don't, they move on pretty quickly. We're not wasting time trying to sell people who are not receptive to what we offer.” On average, a HomeTown buyers visit the community 2.8 times before signing a contract, a very quick conversion rate given the extensive housing options for buyers to consider.

HomeTown's sales staff works buyer registration cards, more than in most builder sales offices, says Venetis because of the extensive housing offering in the community. “Cards help us qualify the prospect and maximize our ad expenditures. We learn what medium generates which buyer for what product line. We target advertising very carefully.” Sales steer buyers just as carefully. With the information on the registration cards, agents advise buyers to “look closely at the first two models because they're right in the price range,” he adds. “This upfront consulting saves time for us and our buyers and improves customer satisfaction by streamlining the purchase experience.”



Energy-Efficient-Building Association, in 1983, to present his then-radical concept for using airtight drywall to seal houses from air penetration.

"We were achieving really tight houses," Bigelow says, "but they were almost impossible to build and expensive. Joe Lstiburek's approach was like a thunderbolt. I wasn't smart enough to come up with it, but I was smart enough to see that by using the drywall as an air barrier, you could control quality much easier—just seal the connections to the drywall at all the openings. This allowed us to take energy efficiency into production-built, affordable homes."

Now based in Massachusetts, Lstiburek is one of the world's foremost building scientists, certainly the top practitioner in the American housing industry, a consultant to many of the public builders producing thousands of homes a year. He credits Perry Bigelow with launching his career. "I wasn't getting much traction on my airtight drywall approach in 1983," he recalls. "I was telling people that wrapping houses with polyethylene vapor barriers was really stupid, but nobody wanted to listen to me, except Perry Bigelow. He started building dozens of airtight drywall houses. He just went off and did it.

"I was getting crapped on by all the environmental people," Lstiburek says. "If it were not for Perry, I'd be an asterisk in the history of building science, a footnote. Perry Bigelow is my hero. He was the first to guarantee energy bills. Now it's hard to find anyone who will admit to ever putting polyethylene vapor barriers on the inside of basement walls. I'm still trying to get poly out of the codes in some Chicagoland jurisdictions.

Bigelow Homes is still working with Lstiburek and still in the vanguard of energy breakthroughs. "Joe now believes it's better to let buildings breathe both ways," Perry Bigelow says. "In our city houses, we're not depending on the drywall as an air barrier anymore. We now depend on the house wrap we apply to the outside of the building. It's not a vapor barrier, but it is the air barrier and drainage plane.

"In the old days, we didn't separate the two, but now we know that the vapor barrier can be one material and the air barrier another," says Bigelow. "In the suburbs, we still use airtight drywall, but in the city, the construction technology we use allows us to make the change Lstiburek now advocates, putting the air barrier on the outside."

Bigelow Homes remains dedicated to delivering energy efficient homes that stretch shoppers purchasing power and improve homeowner comfort. Every house in HomeTown has a heating and cooling system that is zoned by floor. In the summer residents are educated to close the first-floor duct to push cool air up and in winter heat is distributed through the first-floor registers since warm air naturally rises.

"We have yet to have one heat distribution complaint in HomeTown," says Perry. "The engineering works."

Some specifics of Bigelow's energy efficient building practices are:

- Every room has a cold air return that runs all the way back to the furnace through the floor joist system.

- Constant, continuous whole house ventilation from a continuously operating mechanical ventilation system.

- Raise energy heel trusses that allow more insulation in the attic above the joint of the exterior wall and ceiling where there is very little air movement.

- Insulated basements (an option on certain product lines) structurally engineered, foam-insulated precast concrete.

- Ductwork installed within the home's thermal envelope.

- R-38 attic insulation; R-13 or R-20 exterior wall insulation.

- Edge slab insulation (a copyrighted detail!) that provides a thermal break and three to five times more insulation.

- Engineered advanced framing system that combines optimum structural strength with optimum insulation.

In addition, Bigelow employs energy technicians that inspect every home for compliance to company standards and performance criteria. This one-two combination allows Bigelow to deliver what no other builder in the area can: a three-year \$400 heating guarantee. In the city housing product, because of a slightly smaller square footage, Bigelow's three-year heating guarantee is \$275.

Bottom Line

Bigelow Homes is a wonderful model for small and midsized production builders with land development operations to benchmark against, almost anywhere in the country. Even without an interest in HomeTown Aurora, there's a lot to learn here about operational excellence and financial management. But HomeTown is certainly the crown jewel.

We could write a book about it: sublime in its simplicity, yet intricate in layered complexity. Our best advice has to be, if you're really interested, get on a plane and visit. You really can't appreciate it until you walk it.

4. Even-Flow Production

One of the most profound changes Bigelow made in recent years to improve operational efficiency was the move in late 1999 to a modified even-flow production system.

“Ten years ago, builders in this market would tie themselves in knots every December because weather issues would compound frantic efforts to get extra closings onto the books at year-end, says Bigelow VP Tony Spano. “The builders would all put themselves through hoops trying to get those last closings, then spend the next two months recovering from it. We don’t do that anymore.”

Many smaller production builders think even-flow is a high-velocity con-

cept suitable only for builders starting and closing high multiples of houses every day. Bigelow puts the lie to that urban myth. “That’s nonsense,” snorts management consultant Chuck Shinn. “All you really need to make even-flow work is a consistent construction schedule. A lot of builders who say they tried even-flow and it didn’t work never got past evening the starts. They still had completions all over the place because they left scheduling to the supers. ‘Flow’ means you have to do the same things at the same points in the process on every house. You can have even-flow at six houses a year if you start one and complete one every two months.”

Bigelow’s even-flow system, facilitated by computerized construction scheduling, creates a number of effi-

ciencies not possible if closings come in bunches. “For one thing, it allows us to have one closing officer,” says VP of construction Tony Spano. “She can’t handle eight in one day, but she can handle one every other day. Remember, our goal is steady employment.

“It also allows us to quote accurate move-in dates to buyers, and that improves our customer satisfaction,” says Spano. “And probably most important of all, it gives us regular cash flow, which is a big load off Jamie and Perry, that they don’t have to worry about juggling cash flow.”



LEARN MORE ABOUT IT

Log on to read more about Bigelow Homes. Original articles posted include a deeper look at implementing even-flow production and a unique team selling concept. www.HousingZone.com/1204





How to create community

Bigelow Homes created its own community within the town of Aurora, Ill. People, and the relationships formed, make up HomeTown, a community designed to encourage people to live out their humanity.

Imagine a community where home buyers can watch their children ride their bikes along the sidewalk from their front porch without the worries of traffic being a danger.

Imagine a neighborhood where residents walk to the community post office each morning to drop off outgoing mail, and stop in at the attached café for a coffee to start the day.

This is HomeTown. A community developed to feed the soul; where friends and families gather together, as well as being an environmentally friendly neighborhood that lives lightly on the land.

“Our definition of neighborhood is the experience of living in a connected community, having as much privacy as desired, but also the ability for the first time since World War II to live in a community designed to encourage people to live out their humanity,” states Bigelow Homes owner, Perry Bigelow.

Experiencing The Product

“Most builders put models as far away from the construction site as possible,” says Bigelow. “They want people to experience the dream, not the reality.”

HomeTown did just the opposite. Bigelow placed models within the construction site. And because of this drastic change in the layout of its models, Perry admits the first year of sales was difficult. “We were building all these houses in the first half of the first neighborhood. People had to drive through all the construction to get to the model complex,” says Perry.

During the first year, people literally drove up, pulled into the driveway, backed up, and drove out, claims Perry. “Those people wanted a conventional house surrounded by their moat, and they didn’t want to know their neighbors.”

““OLD MEN AND OLD WOMEN SHALL AGAIN SIT IN THE STREETS OF JERUSALEM, EACH WITH STAFF IN HAND BECAUSE OF THEIR GREAT AGE. AND THE STREETS OF THE CITY SHALL BE FULL OF BOYS AND GIRLS PLAYING IN ITS STREETS.”

ZECHARIAH 8: 4-5, PERRY BIGELOW ON HIS INSPIRATION FOR BUILDING HOMETOWN



THESE 7-FT DEEP FRONT PORCHES (top) provide a comfortable sitting area for the family.



TRAFFIC-CALMING DEVICES (left) wind through the community. One of two gathering places (right) for community events.



Today potential buyers at HomeTown drive right into the heart of the community — over the traffic-calming device, through the park and on to the community store/café. They walk past the post office for the first 300 homes, cross the street, and through the pavilion (a structure used for the four annual community-wide festivals) to the model complex. If the potential buyer has children with, they have the option to drop them off at the tot lot located outside the sales office.

“People arrive at the front door and already think this place is different,” says Perry.

What makes HomeTown different? Deliberate planning.

Traffic-calming devices

Safety platforms scatter about HomeTown. Based on a Dutch manual describing traffic-calming devices to use within communities, Bigelow designed con-

crete risers throughout. While in Holland visiting communities with examples of these traffic-calming devices, Perry picked up a copy of the Dutch manual. Written in Dutch, Perry had the manual translated when he returned to the states.

These safety platforms have a design speed of 12 mph. “Drivers can go over it with 15-16 in. wheels comfortably at about 15 mph,” says Perry. “At, 20 mph, it’s very uncomfortable and most drivers only do that once.”

Other traffic-calming solutions fill the neighborhood as well. Though price certainly impacted the decision-making in planning HomeTown’s traffic-calming strategies, it wasn’t the main reason. Creating a more neighborhood-friendly overall plan for residents and visitors took precedence over the costly safety platforms priced at \$15,000 to \$20,000 each.

According to Perry, a traffic-calming device is needed every 200 feet. The parks within Hometown average 150-ft long. “When going past the park, make a sharp turn, then make another sharp turn, go by the neighborhood park, then make two more sharp turns to continue down the street,” says Perry. “Those double-sharp turns, called chicanes, become our preferred way of calming traffic.”

With chicanes at each end of the neighborhood park, it serves the social function of identifying to a person where the center of this neighborhood is. At the same time, they help with traffic-calming every 200 feet. Not to mention, it’s easier for fire trucks to move through the chicanes versus driving over the safety platforms.

Parks & Sidewalks

In HomeTown, an “eyes on the street” strategy dictates park placement. “As

many houses face the park as possible,” says Perry. “The parks are located to create more connectiveness between people, not where it’s right from a land engineering standpoint.”

Parks cost more when placed on valuable rather than leftover land, but that’s part of the HomeTown purpose. “It’s part of our central philosophy of developing a real neighborhood,” says Perry. In all, on 173 acres in the community, there are 12 parks, complete with tot lots, gazebos and gathering places. It only takes three-minutes or less for residents to walk to their nearest neighborhood park.

What better way to walk to a neighborhood park than on the oversized 6-ft wide sidewalks winding their way throughout the community. Rather than the typical 4-ft wide sidewalks, Perry thought over-sized sidewalks, while 50 percent more costly, deliver the community-friendly environment that HomeTown creates for its residents.

Bigelow fought the town of Aurora to make its sidewalks 6-ft wide because of the difficulty two people have comfortably walking side-by-side on the standard 4-ft wide sidewalks. “With a 6-ft wide sidewalk, three people can walk side-by-side and it’s comfortable,” states Perry.

Significant Street Names

To add to the significance of HomeTown, Bigelow purposely named two of its streets:

■ Serendipity Drive — named for finding good things when not looking for them. Perry says HomeTown stands for delivering a good community for people that may not know they are looking for it.

■ Symphony Drive — named after a group of musicians, which play

together in harmony in a common culture with a common purpose and produce a beautiful sound. Perry says, in a neighborhood like HomeTown residents’ play together in harmony with common culture and purpose.

Living Court Vs. Living Lane

The two basic building blocks in HomeTown — living courts and living lanes — combine to create mini-neighborhood patterns or pocket neighborhoods.

A living lane has houses with garages on the side of the house. “The garages are set back from the house, so people don’t feel the impact of those garages as much as on a suburban street,” states Perry.

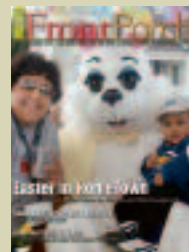
Living lanes cost a bit more to build than living courts because of the pavement of the streets. These streets resemble a conventional suburban street pattern. Evergreen trees serve as the gateway for entering the living lanes.

Each mini-neighborhood controls what happens inside each living court, but Bigelow tries to control what happens on the streets. In certain areas the elevation comes with the house and can’t be changed by buyers. “For us the public street is the most important public amenity we have and we want to make sure that architecturally it’s the most inviting place that we can make it,” claims Perry.

Living courts have the same basic set of patterns of a living lane, but the houses form around a courtyard design. A main sidewalk down the center of the living court connects to each home’s private sidewalk and front

Hometown News

The Front Porch newsletter is distributed to all HomeTown residents. It’s an inside look into the news and special events of HomeTown Aurora.



Reporters of *The Front Porch* cover all events within the community with pictures to illustrate the events. There’s a page dedicated to community life groups and activities that residents can participate in, if desired.

A favorite resident recipe always appears in the current issue along with a message from the neighborhood dog, Bailey Campbell. Upcoming events, a list of newcomers, and newborn babies at HomeTown are listed too.

porch. All the front porches, and the main entrances to the houses face out into the living court. This gives a sense of a private courtyard within the neighborhood.

Pattern Language

When it comes to the pattern designs found throughout HomeTown, Perry closely followed Christopher Alexander’s *A Pattern Language: Towns, Buildings, Construction*. This book focuses on ways to create an uplifting environment to the human spirit.

Bigelow uses “something roughly in the middle,” — Alexander’s pattern for people gathering together at something, whether it be a patio, table or bench, in the middle of the neighborhood. Within each mini neighborhood, concrete patios cross the middle of the living lane streets, similar to the safety platforms. Only people living on that street may use the patio for personal purposes. Benches and a table placed off the side of the lane on the patio generally find people gathered around it. This same set up is found within the living courts as well. The patio, benches and table all appear within the center of the living court attached by the main sidewalk running through the court.

Another pattern found in HomeTown — front porches. Instead of being the standard 2- to 3-ft wide nostalgic porch,



LIVING COURTS help create smaller neighborhoods within HomeTown. Residents’ homes front the shared common walkway and gathering place.



(TOP LEFT & RIGHT) A look into "The Lofts" currently being constructed in HomeTown. (Bottom left) Parks intertwine within living courts and living lanes.



the standard depth at HomeTown is 7-ft deep. Perry says Alexander's pattern suggests a porch should not be less than 6-ft deep. At 7-ft, the porch becomes a room. Another pattern involves raising the porch so when somebody walks by, one feels more secure or less threatened by the person walking by because the person sitting down cannot look the person walking by in the eyes.

Newest Product in HomeTown

There's more to come in Hometown. Bigelow is in the process of completing the Town Center. Above the Town Center will be the newest housing product for Bigelow — The Lofts.

"HomeTown's Town Center is designed as a greenfield town center," says Perry. The overall density is less compact than downtown Aurora, but more compact than the typical suburban shopping area. A park for meeting and gathering occupies the heart of the

Town Center complex with another pavilion for community activities. As HomeTown grows Festival Park becomes the large gathering spot for whole community activities: Christmas tree lighting, community picnics, etc. The trellis at the center of the park already has hosted several weddings.

"We assigned the land value to the housing, which gives us a low basis and allows us to build commercial spaces economically enough so we can lease it at rates that will support the activity the community has," states Perry.

In creating Town Center, Bigelow hopes to attract tenants that will build a better and stronger community. Possible tenants include: candy shop, ice cream shop, café/restaurant, salon/tanning spa, barber, florist, bookstore, and health/wellness center, to name a few. Hopefully, residents will also be able to purchase insurance, apply for a mortgage, receive financial advice, and do their banking all within the community.

Retail shop square-footage ranges from 880 to 6,160.

Since family, and people in general, are the main focus of HomeTown, a day care center will be in the Town Center. In the Town Center, plans for a community church are taking shape as well.

The other reason for the size of Town Center was the development of the loft product. "An urban loft typically looks out a window that's right on the public sidewalk, and looks across the street at another building. That wouldn't sell in the suburbs," says Perry. With HomeTown's loft set-up, the view out the window is of the pavilion and park surrounding it, which has become a main gathering place for community events at HomeTown.

And, unlike urban lofts, these lofts offer windows on two sides of the building, and have attached two-car garages. Other features include solar tubes that draw natural light into the building, 10' ceilings, polished concrete floors, curved walls, and exposed duct work. **PB**

Business Planning 2005

Read the Special Report this month on page 54 and the likely result will be a rewrite to the 2005 business plan already on file in your office. Like every company selected as *Professional Builder's* Builder of the Year, Bigelow Homes in Aurora, Ill., shows home builders a better way to prosper in this ever-changing industry.

Consider this quote from company president Jamie Bigelow as you review your 2005 business strategy:

"We've achieved differentiation. That was our strategy. We really have no competitors. I doubt the public builders will ever do what we do."

According to many in the industry, Bigelow Homes should be on the endangered builder list rather than highlighted as Builder of the Year. The firm ranks number 362 on PB's 2004 GIANTS list with volume of \$38.12 million from 212 homes closed in 2003. They should hold their ranking in 2005, with expected revenues this year of \$40 million on 215 homes closed.

Industry PR suggests that a single-market, family-run home builder the size of Bigelow should:

- have trouble competing with the

ties that eventually entitle the land and approve plans for development. In fact, Bigelow can supply towns with charts and data that show its development model delivers an assessed value per acre 2.25 times higher than that of conventional subdivisions in the area. These stats make Bigelow a preferred buyer for land and a go-to builder for local governments and planning commissions.

- Even-flow production, a paperless purchase order system that actually works and personal relationships with both company founder Perry Bigelow and current president Jamie Bigelow make Bigelow Homes a first choice company for many trades. On average, Bigelow's trades average better than 10 years with the company. Employee longevity is no different because of Bigelow's operating philosophy: staff lean and offer lifelong employment opportunities without the threat of layoffs in lean years. Many current Bigelow employees sought out employment at the company after tenures at national and other local home builders.

- Bigelow's production home building machine runs so smoothly that Perry Bigelow was able to convince the compa-



Bigelow best describes the difference between selling a Bigelow home at HomeTown and selling a conventional home: "We're selling an experience. The difference between HomeTown Aurora and a conventional subdivision is like the difference between buying Maxwell House at the supermarket and a trip to Starbucks. Coffee as a commodity compared to the coffeehouse *experience*. The value added is reflected in pricing and on the bottom line."

What in your 2005 business plan gets your operation to differentiation and the rewards it brings? Do the diligence that the team at Bigelow Homes did. Figure out what your company stands for and how that vision translates into a unique offering the marketplace. Invest the resources to create a compelling value proposition for your staff, your trade partners, your customers. Put the people in place to execute and practice patience as they stumble and learn along the way.

Differentiation drives profitability. This more than anything is the story of Bigelow Homes, the reason *Professional Builder* picked this company over all others as our 2005 Builder of the Year. Learn from this example how to be the company that only your team can be. **PB**

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“We've achieved differentiation. That was our strategy. We have no competitors. I doubt the public builders will ever do what we do.”

Bigelow Homes president Jamie Bigelow

nationals for land;

- be unable to get the best trades to work its projects or attract top talent to the organization;

- pay higher rates for the trades they do have on the job;

- pay capital costs so unfavorable as to drive product pricing above that of bigger competitors.

The list could go on, but the day-to-day at Bigelow tells a very different story. For each of the negatives Bigelow management creates a positive:

- A community like HomeTown appeals to both land sellers and the municipali-

ty's trade partners to build houses in the city on a compressed schedule at the same rate they charge Bigelow for suburban work.

- 2003 net profit of more than three times the industry average separates Bigelow from the rest of the builder universe in a more meaningful way to banks than any other financial measure.

Real differentiation — the kind Bigelow planned for and achieved — isn't internal. The value of the plan comes in how it plays in the marketplace. Here too, the company sets a benchmark for builders. Again, Jamie