

The U.S. Department of Housing and Urban Development

presents the

PATH CONCEPT HOME

Innovation Improves Housing



GROUNDBREAKING CEREMONY

Wednesday, October 18, 2006 at 10 a.m.

2509 Parker Street, Omaha, Nebraska

Regional HUD Director Macie Houston, Welcome and Introductions

Mayor Mike Fahey, Revitalizing Omaha

Fernando Pages, Brighton Construction, Building the Concept Home

HUD Assistant Secretary Darlene F. Williams, The PATH Vision

Macie Houston, Closing Remarks

Photo Opportunities

Media Questions and Answers

THE FUTURE OF AMERICA'S HOUSING TODAY

The **PATH Concept Home**, a 2,000 square foot vernacular farm house located in a dynamic urban neighborhood, combines innovative products and systems with traditional design elements to create a comfortable, inviting and affordable home. The Concept Home demonstrates a vision for the future of housing that is flexible, efficient and sustainable.

Flexible – easy to update and expand for different life stages, new owners, or the latest technological innovations.

Efficient – easy to build and easy to live in.

Sustainable – featuring green, energy efficient products, systems and materials that contribute to the healthiness, comfort and durability of the home for years and years to come.

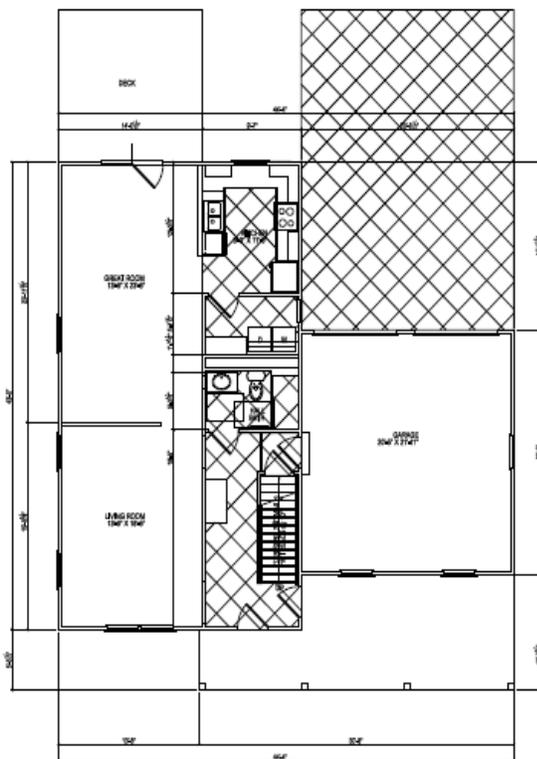
Torti Gallas Partners, an award-winning architecture firm, translated this vision into an applicable design, which meets **Energy Star**, **Environments for Living**, **Green Building**, and **FHA Accessibility** criteria.

Innovative builder, Fernando Pages of **Brighton Construction**, is constructing the home with a focus on the application of new technologies and processes to enhance durability and production efficiency.

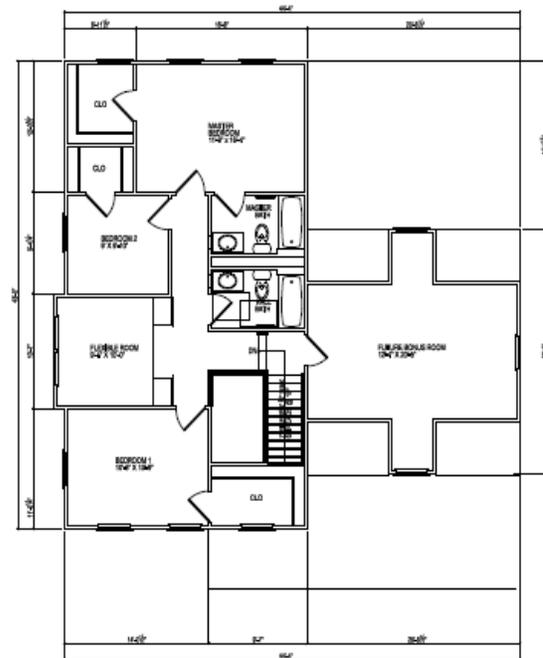
The **PATH Concept Home** is being built on a corner lot convenient to downtown Omaha. The site, donated by the city, is nestled among new affordable homes and quaint historic bungalows. Near Creighton University, the neighborhood is part of a broad commercial and residential redevelopment effort.

APPLIED PRINCIPLES

Six Principles create the foundation for incorporating innovative systems into the PATH Concept Home design. Each Principle listed includes examples of its application to this demonstration.



FIRST FLOOR PLAN
1016 SQ FT



SECOND FLOOR PLAN
989 SQ FT



Principle #1: Flexible Floor Plans. The Concept Home has two distinct parallel zones. One zone – the “served” space - features open areas with partitions (**Georgia-Pacific, The New York Wall Company**) that can literally be moved to change the configuration of the space. On the opposite side, the “service” zone holds the mechanical systems in an efficient, consolidated manner, which improves their efficiency and expedites installation. The “flex room” on the second floor will be outfitted with flexible cabinetry (**Merillat®**), wireless electric switching (**Lightning Switch™**), and removable molding (**Wire Tracks®**) to let families use the room for any of their various needs.



Principle #2: Organized and Accessible Systems. The mechanicals include a “home run” manifold plumbing system (**Vanguard Piping Systems**) fed by a space-saving tankless water heater (**Seisco**) and a value-engineered duct layout (**Newport Partners**). Both systems are located within centralized cores, which save materials, speed installation, and deliver hot water faster – it even saves water! The mechanicals are designed for versatility: air admittance vents (**Studor®**) limit the need for vent pipes going through the roof and easy-to-use quick connect fittings (**BrassCraft®**) and fixtures (**Delta®**) make for easy maintenance and updates.



Principle #3: Improved Production Processes. Factory engineered and assembled wall and floor panels (**Millard Lumber**) are craned into place to create the Concept Home structure. The foundation is also panelized with an innovative ICF system (**Polysteel®**). This assembly method improves quality while reducing production time – plus there’s less construction waste. The design also lends itself to modular construction.



Principle #4: Alternative Basic Materials. New advanced materials such as soy-based blown insulation (**BioBased**) provide a high insulation value and stop leaky air drafts. The building envelope also features advanced systems to enhance the moisture resistance and thermal performance of the foundation (**Cosella-Dorken**), the walls (**Tyvek® DrainWrap™**), and the roof (**Tyvek® AtticWrap™**) – which also features a beautiful metal roof with a proprietary zinc/tin alloy to enhance durability (**Follansbee®, Metal Roofing Alliance**). Interior and exterior trim (**WindsorOne**) from sustainable yield forests guarantees a look homeowners love. The home also features a high-tech shelter from the storm to keep protect families (**DuPont™ StormRoom™ with KEVLAR®**).



Principle #5: Standardization of Measurements and Component Interfaces. Standardizing systems and interfaces makes for efficient building and actually enhances design options, as shown by the panelized envelope systems (**Millard, Weyerhaeuser**) and the modular basement egress system (**Wellcraft™**). The centralized plumbing core, which standardizes and consolidates the plumbing layout, simultaneously gives space for other amenities like the flex room, yet still lends itself to the use of customized innovations like low flush toilets (**Toto™**).



Principle #6: Integrated Functions. Innovations like insulated vinyl siding (**Alside®**) combine two functions into one system, providing better performance for the building envelope. Efficient appliances (**GE Appliances**) and stain-resistant surfaces that won’t support mold (**DuPont™ Corian®**) accompany “smart” ventilation systems with advanced controls (**Panasonic, Honeywell**) to ensure a well ventilated, comfortable home.

THE TEAM

Builder: Brighton Construction, Lincoln, NE

Architect: Torti Gallas and Partners, Silver Spring, MD

Project Manager: Newport Partners, LLC, Davidsonville, MD

Marketing: Building Media, Inc., Chicago, IL and Newport Ventures, Inc., Schenectady, NY

HUD Manager: Mike Blanford, PD&R

Advisory Committee:

Tedd Benson, Bensonwood Homes, Walpole, NH

Mike Chapman, Chapman Homes, Santa Fe, NM

Betty Christy, Christy Consulting, Woodbridge, VA

Roger Glunt, Jayar, Turtle Creek, PA

Linda Kast, Better Homes & Gardens Special Interest Publications, Des Moines, IA

Ted Koebel, Virginia Tech, Blacksburg, VA

Don Moody, NUCONSTEEL, Denton, TX

Barry Reid, Georgia Pacific, Atlanta, GA

Fernando Pages Ruiz, Brighton Construction, Lincoln, NE

Richard Schunk, Wyndham Homes, Brewster, NY

Georgia Toney, AIBD, NCBDC, BuilderPlanWorks, LLC, Summerville, SC



The Partnership for Advancing Technology in Housing (PATH), an initiative between the U.S. government and America’s homebuilding industry, is building a technological vision for our nation’s homes. The PATH Concept Home is both a realistic response to changes in American households, and a visionary statement of how technology can help the housing industry advance.

BACKGROUND

From automobiles to toys, conceptual designs have long influenced the marketplace and changed the way we live, work and play. Prototype houses are also a part of our history. The innovations are based on visions of the future as well as the availability of new technologies and materials. With the Concept Home, PATH is using technological advances to respond to changing household demographics and the realities of housing economics to revolutionize American homes.

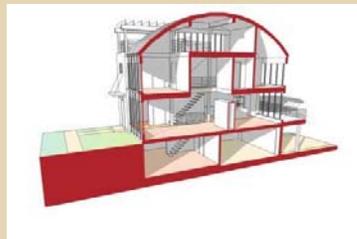
Phase 1: Conceiving the Concept Home. In 2004, industry leaders formed the PATH Concept Home Advisory Committee to oversee and guide the program. Industry research including PATH's *Technology Roadmap: Whole House and Building Process Redesign*, and *Technology Scanning Reports* as well as consumer focus groups and housing demographics resulted in a model to display the Concept Home vision. The model was unveiled at a reception in Union Station near Capitol Hill and traveled to shows and expositions throughout the year. The ideas expressed in the initial Concept Home vision were a blending of creative contributions from many industry partners and were inspired in part by Bensonwood Homes' Open-Built® design and construction system.



Steven Winter Associates
Detached Design

Phase 2: Concept Home Designs.

During Phase 2, the Advisory Committee met at Bensonwood Homes. The six Concept Home principles were refined and technology research reports were developed to explore the history, advances and state-of-the-art in each technology area. Two architecture firms, Steven



Torti Gallas Partners
Attached Design

Winters Associates and Torti Gallas Partners were given the Concept Home principles as well as a set of occupancy scenarios describing who might live in these homes. They each developed very different solutions for innovative technologies. Torti Gallas designed a modern attached design suitable for urban infill, while Steven Winters' single family detached New Urbanist design with Arts and Crafts styling could fit in many suburban communities. The designs were celebrated at an industry showcase with other PATH Technologies on Capitol Hill in Washington, DC in March 2006.

Phase 3: Concept Home Demonstration and Performance Evaluation. Since the unveiling of the original designs, the Concept Home team has been working with the builder and the architects to locate the building site, develop revised plans and specifications, recruit partners, and design innovative products and systems for the home. On **October 18, 2006**, the project kicks off and will culminate with a ribbon-cutting for **America's First PATH Concept Home** in **Spring 2007!**



The PATH Concept Home is made possible with funding from the U.S. Department of Housing and Urban Development. HUD's Office of Policy Development and Research (PD&R) coordinates all PATH activities.

SPECIAL THANKS

Special thanks to the **City of Omaha**, **Masco Corporation** and its subsidiaries **BrassCraft**, **Merillat**, **Delta**, **Masco Contractor Services'** **Environments for Living** program, **DuPont™ Building Innovations™**, **Millard Lumber**, **Follansbee**, the **Metal Roofing Alliance**, **Seisco**, **Panasonic**, **Chief Architect** and to the many **PATH Product Partners** for their contributions.

Additional thanks to the following people and organizations for making the Groundbreaking a success: **Fernando Pages**, **Brighton Construction**; **James Thele**, **Omaha Planning Department**; **Dale Gray**, **Kansas City HUD Office**; **Reginald Robinson** and **Stan Quy**, **Omaha HUD Office**, **Mike Blanford** and **Dave Engel**, **HUD**.



Media contact: **Beth Weaver** (bethweaver@newportpartnersllc.com)
Contact: **James Lyons** (jameslyons@newportpartnersllc.com)
Phone: 301-889-0017
Visit: www.pathnet.org/concepthome