WA STARTER HOME PLAN

Scaling High-Performance Starter Homes: Systems, Barriers, and Opportunities

A Two-Part Learning Lab

Tedd Benson - Founder & CEO, Bensonwood
Kris Hermanns – Project Lead, SHP
Mark LaLiberte - President, LaLiberte Consulting
Marty Kooistra - Strategy & Implementation Advisor, SHP
Ryan Smith - Founding Partner, MOD X

Housing Washington Conference
20 October 2026



Courtesy KCHA
(Photo: William Wright)

Today's Focus

- SHP Overview and Orientation
- Featured Presentation: Tedd Benson
- Featured Presentation: Mark Laliberte
- Facilitated Panel and Discussion
- SHP Deep Dives and Updates
- Your Crucial Involvement
- Closing

WA Starter Home Plan:

Overview & Orientation

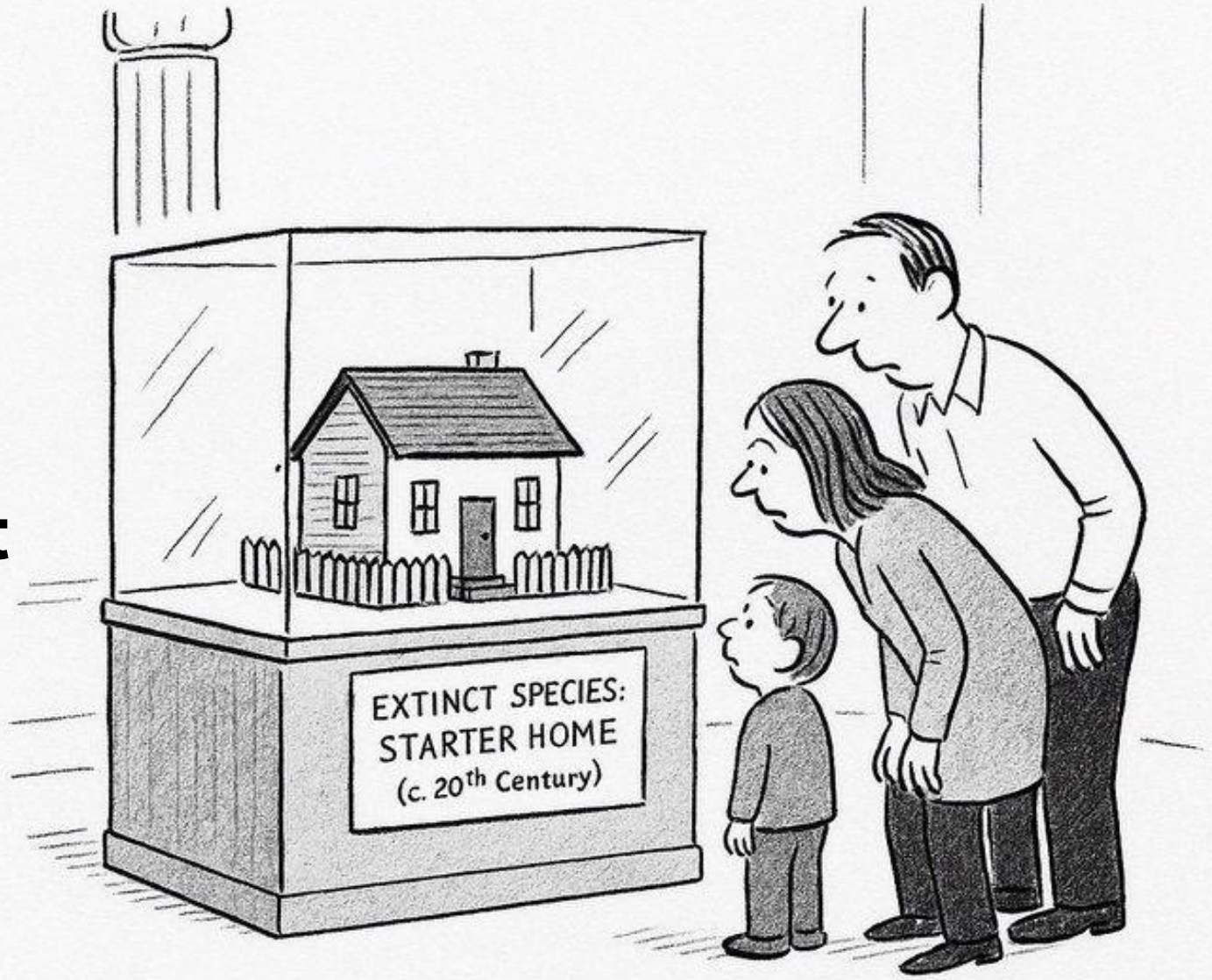


WA Starter Home Plan:

The Context



Aren’t starter homes just relics of WA’s past?



“They say it disappeared around 1998.”

The Contours of WA's Homeownership Crisis

- While Washington state's median household income grew by approximately 98% from 2004 to 2024, **its housing prices grew by more than 172% over the same period.**

- Nationally, **construction costs have more than doubled since 2004**, while construction productivity has remained largely stagnant compared to other industries.

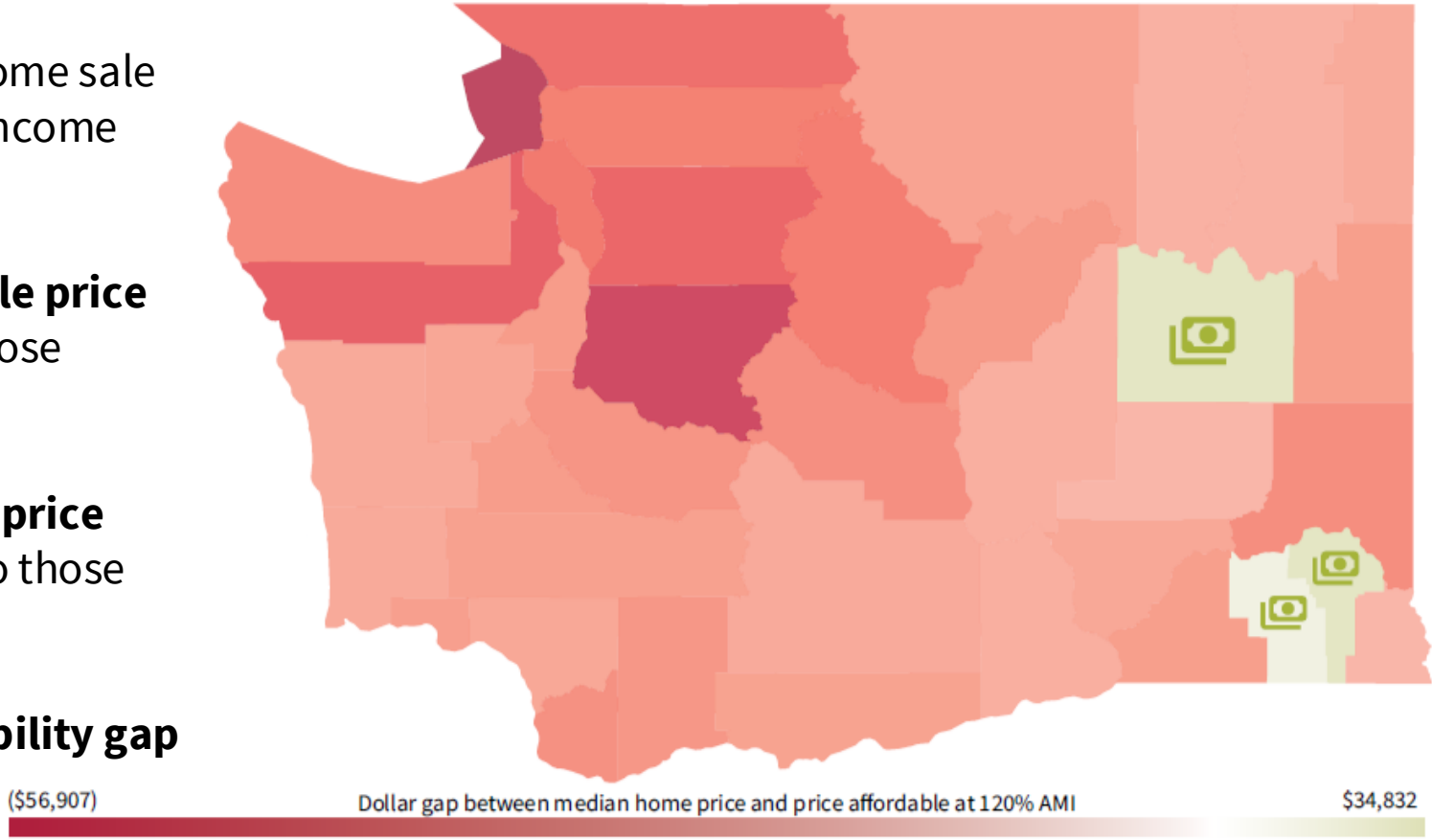
- In mid-2024, **median home prices in only 3 of Washington state's 39 counties** were at or below the price affordable to a household earning 120% of area median income (AMI).

Median Home Prices vs. Affordability in WA, 2024

County-by-county gaps between median home sale price and the price affordable to moderate-income households (earning 120% AMI)

- **Green** = Counties where median **home sale price was less than the price affordable** to those households
- **Red** = Counties where median **home sale price was greater than the price affordable** to those households

The darker the red, the bigger the affordability gap



Sources:

- *Comprehensive and Scalable Starter Home Production Plan (Civic Commons, 2024)*
- *WA State Office of Financial Management https://ofm.wa.gov/wp-content/uploads/sites/default/files/public/dataresearch/ economy/median_household_income_estimates.pdf*

GetHousingBuilt.org

National Production Trends

- In the early 1980s, **~ 40%** of new homes in the U.S. were **< 1,400 sf.**
- Today, **< 10%** of new homes in the U.S. are in that range.

- **We didn't just slow production. We stopped building the product.**

Changing Consumer Sentiment

- ☐ Encouraging data from the longitudinal *America at Home* study (started in 2020)
- ☐ Respondents are nationally representative U.S. adults, aged 25-74, with annual incomes of $50,000+
- ☑ Data show a **significantly** greater willingness to accept trade-offs in order to buy a home

Q: *"To improve your ability to buy a home, what would you be willing to accept?"*

	2025	2022
Smaller Home:	40%	21%
Modular or Manufactured Home:	32%	22%

Source: americaathome.com/how-we-live

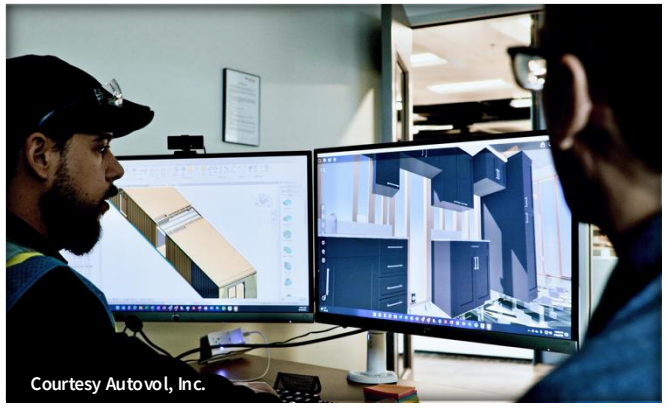
GetHousingBuilt.org

What is the WA Starter Home Plan?


Courtesy Autovol, Inc.




Courtesy KCHA (Photo : William Wright)


Courtesy Autovol, Inc.

The WA Starter Home Plan (aka 'SHP')…



… was mandated by the **WA State Legislature** and is facilitated by a multisector, interdisciplinary network in partnership with the **WA State Housing Finance Commission**.



… is a comprehensive, multi-year **strategy and action plan** for scaling production of affordable for-sale starter homes throughout Washington state.



… is exclusively focused on **homeownership**.



… is a **data-driven, ecosystem** approach to removing ALL barriers currently hindering supply.

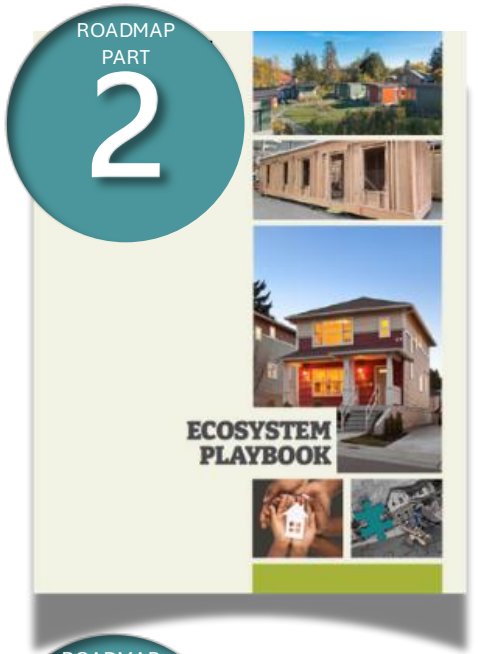
The WA Starter Home Plan (aka 'SHP')…

… targets production of houses affordable to buyers with <u>low and moderate incomes</u> (50% - 120% AMI).

… leverages the capacity and innovation inherent in <u>offsite and prefabricated methodologies</u>.

… is a <u>roadmap</u> in 3 parts.







the Comprehensive and Scalable Starter Home Production Plan

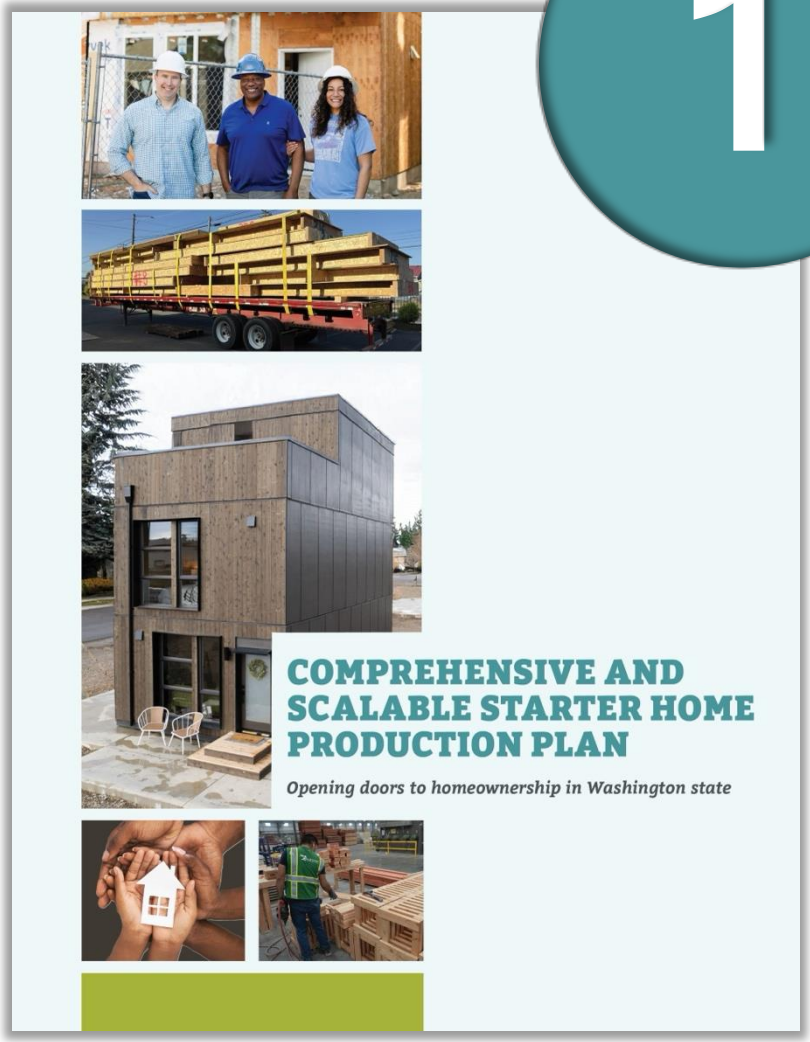
ROADMAP PART 1

SHP's "whole-problem" framework

Rigorous Analysis and Synthesis of **DATA**

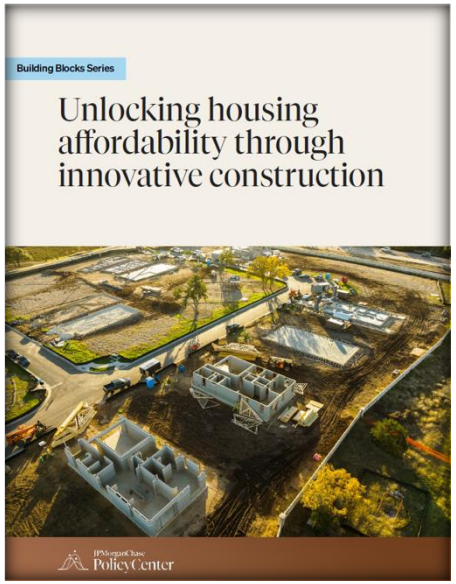
Generation of **11 HYPOTHESES** to Guide the Work

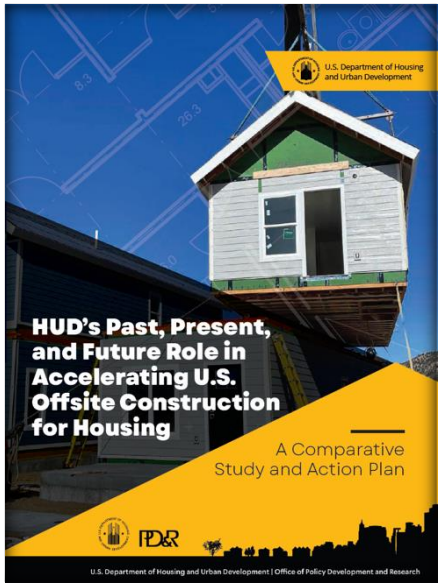
- 4 overarching **RECOMMENDATIONS**
- 7 implementation **PLAYS**
- 4 **FOCUS AREAS**

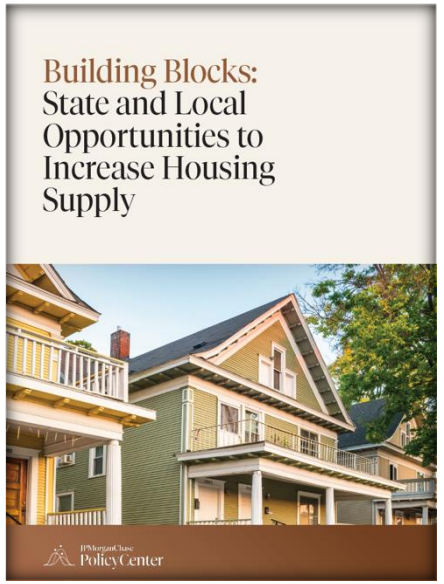


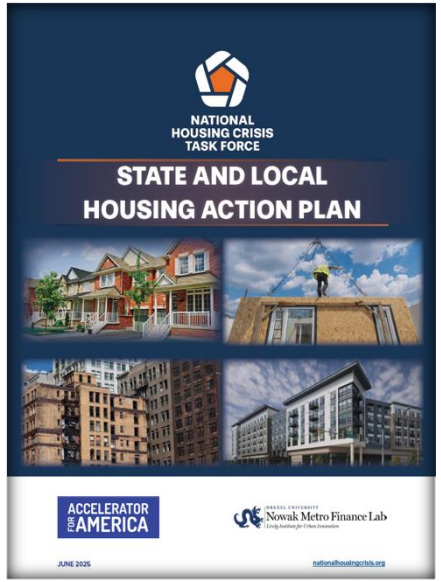
SHP's Hypotheses & Methods: Different…
…and Validated by Credible Reports and Studies







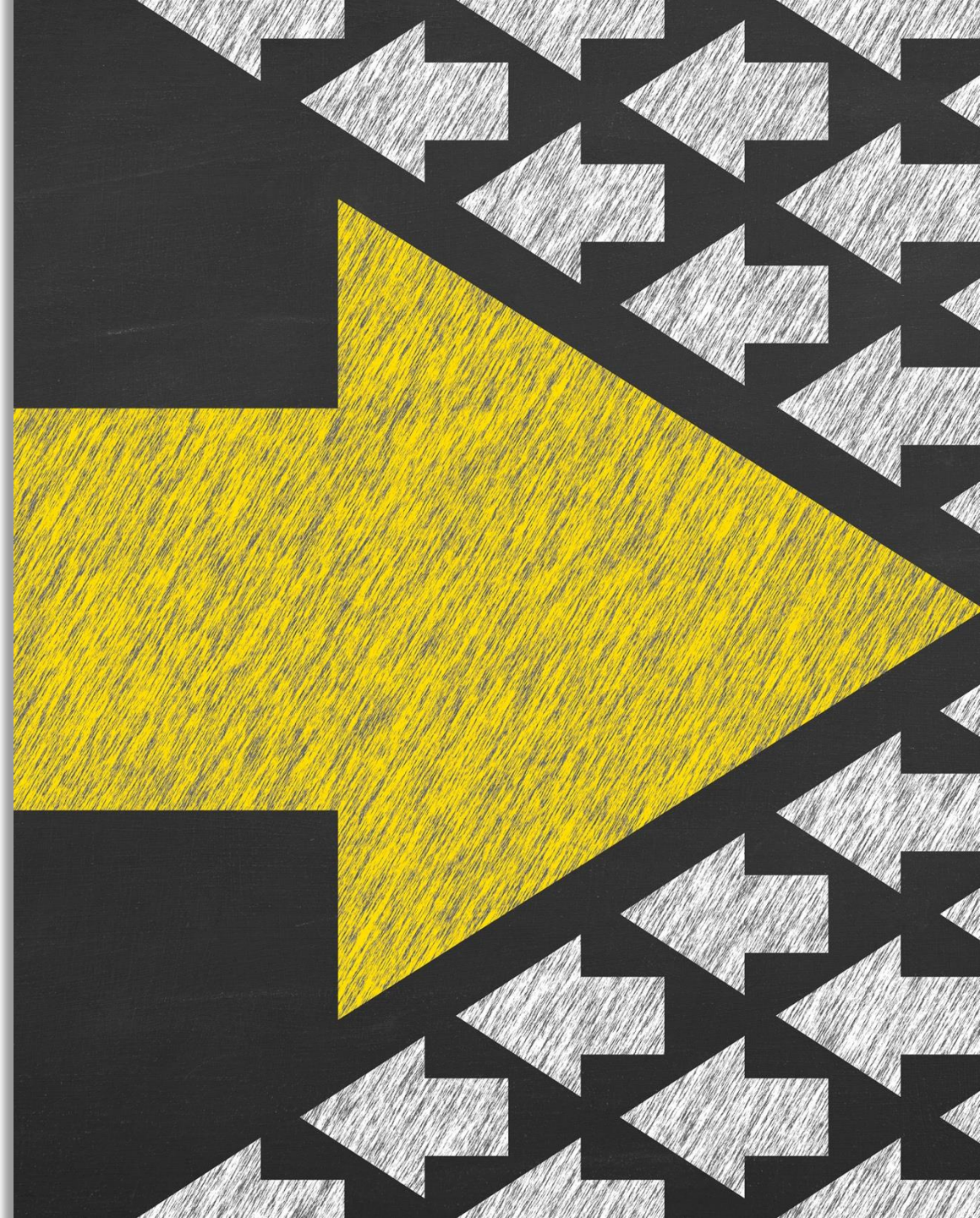




AND MANY MORE

WA Starter Home Plan:

Why Starter Homes First?



Starter Homes Offer the Most Leverage and Impact

1. **They're uniquely able to build ecosystem production muscle.**
Starter homes combine strong demand, broad public support, lower development risk, and the production volumes needed to drive innovation, financing, workforce development, and long-term scale.

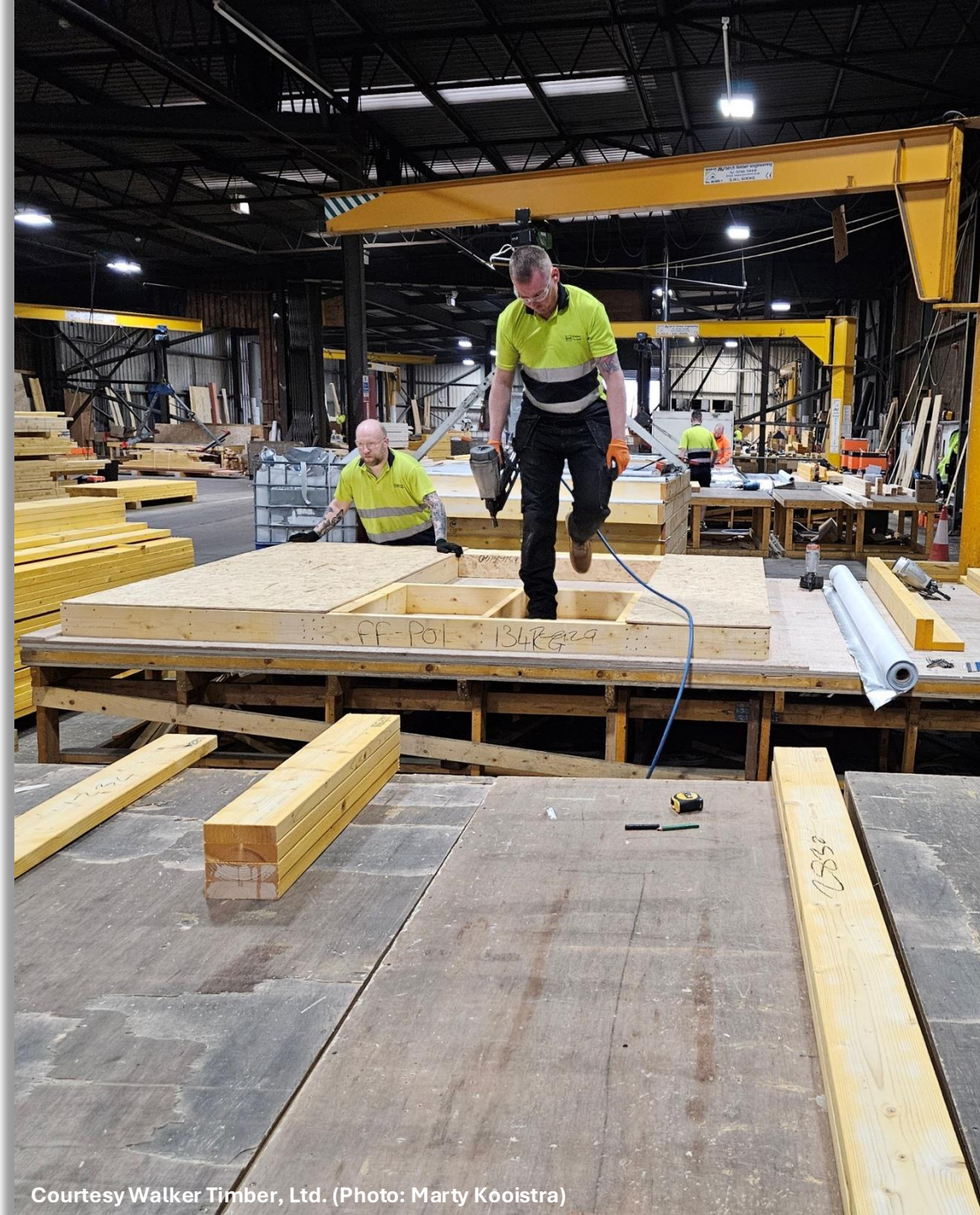
2. **They act as a shared, common-sense entry point across the production ecosystem.**
Communities, developers, manufacturers, lenders, workforce partners, and public agencies can build the capacity, confidence, and coordination needed to achieve and sustain scaled delivery.

3. **They offer an ideal proving ground for transformative production models.**
Smaller footprints and lower capital requirements make starter homes well-suited for testing assumptions and refining new methods before expanding into larger and more complex housing opportunities.

Feature Presentation:

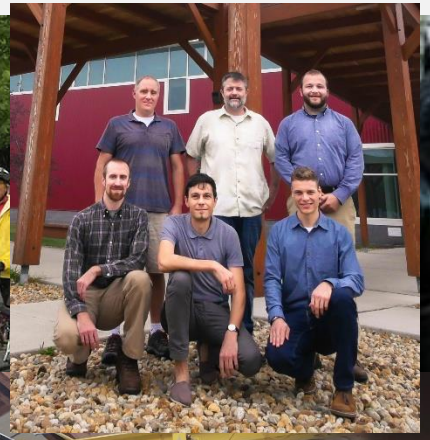
Tedd Benson

Founder & CEO, Bensonwood



Courtesy Walker Timber, Ltd. (Photo: Marty Kooistra)

BENSONWOOD















BENSONWOOD








BENSONWOOD









BENSONWOOD





Our Founding Why



Homes deeply matter in peoples' lives

- Safety and security in an uncertain world
- A basis for culture, education and health
- Where identity takes shape
- A refuge for physical and mental well-being

Our industry has dishonored its noble purpose.

We have commoditized the sacred.

We *can* do better, therefore we must.

"The strength of a nation is derived from the integrity of its homes."

Confucius

Healthy, safe, secure homes should be a right, not a privilege.

“The most powerful thing any individual or organization can do is to build a visible model of the world they want.“

E.F. Schumacher

Small is Beautiful: *Economics as if People Mattered*

Company Mission:

To Develop a ***Better Way to Build***

..And to be a viable model for a better homebuilding Industry!

Path toward… A *Better Way to Build*

1970's

Cabinetmaking
- ***Workshop setup***
- ***Production system***
- ***Stationary Equipment***
- ***Standard connections***
- **Repetition**
- ***Precision***

Timber Framing Off-Site Fabrication
- ***Craft Skills***
- ***Building Scale &***
- ***Complexity***
- ***Production Methods***
- ***Special tools &***
- ***Stationary setups***
- ***Standard Joinery***
- ***On-site efficiency prep***

On-site Installation
- *Raising Plans*
- *Cranes*
- *Trucking Logistics*

Building Systems Innovation
- *Energy Reduction Focus*
- *Stress-Skin Panels*

1980's

Off-Site Accuracy
On-site efficiency

Specialized Tooling
Mortising Machine

Software Development
Hawkindale

Building Systems Innovations

Craft of Business
Culture Alignment

Habraken & Brand
- *Rational Design-Build Theories*

1990's

Open Building
Disentanglement
Functional Durability

Dimensional Coordination
Standards & Libraries

Open-Built
Adapting Open Building

OBGrid
Interoperable Basis

CNC Equipment
Hundegger K1

CAD/CAM Software
Digital Library

Millwork Components
Stairs, Doors, Built-ins, Trim packages, etc.

Virtual Fabrication
Timber frame

2000's

Virtual Fabrication
Whole House

Open-Built Advancement
- *PATH Adopts Open-Built*

Open Prototype Initiative:
- *OP1, OP2, Loblolly*
- *This Old House*

Panel Product Development:
- *Modified Urethane SIP to*
- *High Performance Organic*

CNC Advancement
Hundegger SC-1

Lean
- *Operations*
- *Manufacturing*
- *Attitude*

2010's

Unity Homes
- ***Catalog Plans w/ variable configurations***

Open-Built Control
- *High Performance Commitment*

Panel Production
Efficient Assembly line
Automated Parts

Standard Panel System
- *One System, One Standard*
- *Homes w/o fossil Fuels*

2020's

Keene Factory
Weinmann Panel Line
Hundegger SC3
Isocell

Blackjack Upgrades
Hundegger Robot Drive
Routech

Scaling Logistics

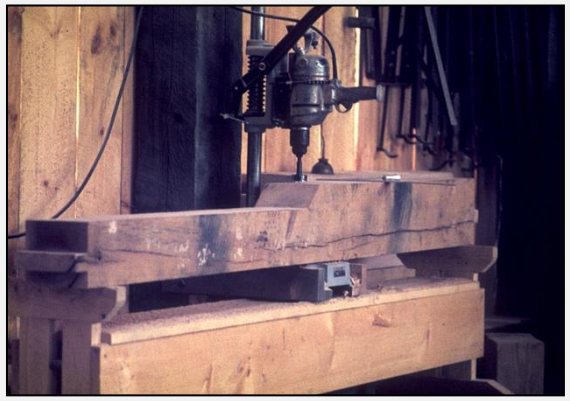
Catalog Home Products
Unity-Bensonwood Partners

Apprentice Program

2030's Aspirations
- *Industry Grid Standards Adoption*
- *Distributed Component Fabrication*
- *Innovation Explosion*

Off-site Fabrication from day 1

- Shop for fabrication;
  - site for assembly
- Precise fits once
- Appropriate tolerances
- Joint & connection discipline
- Organizing, bundling, shipping



1975



1986

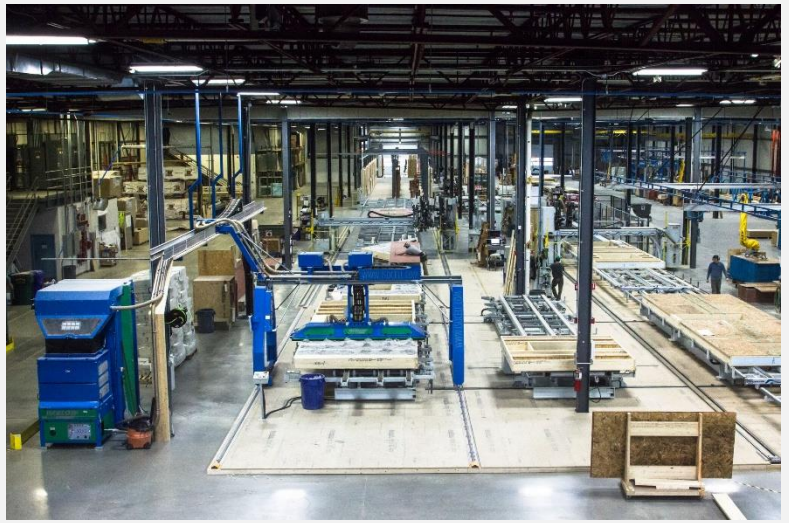


1989





2006



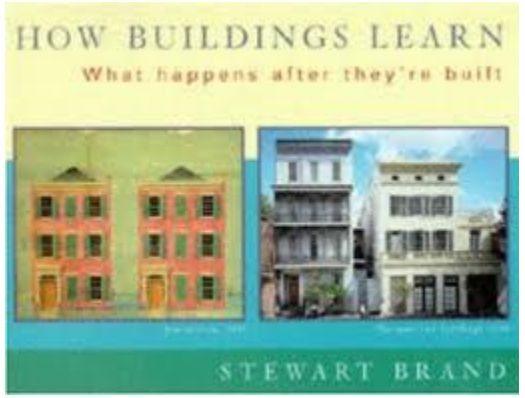
2017

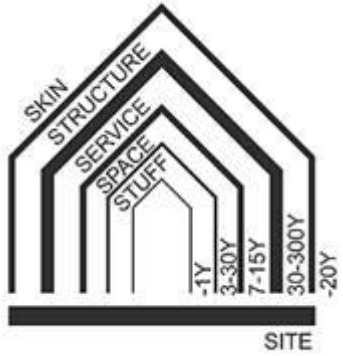
Rational Building Principles

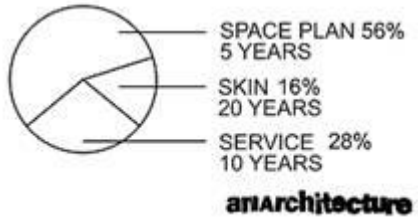
Open Building

Stewart Brand

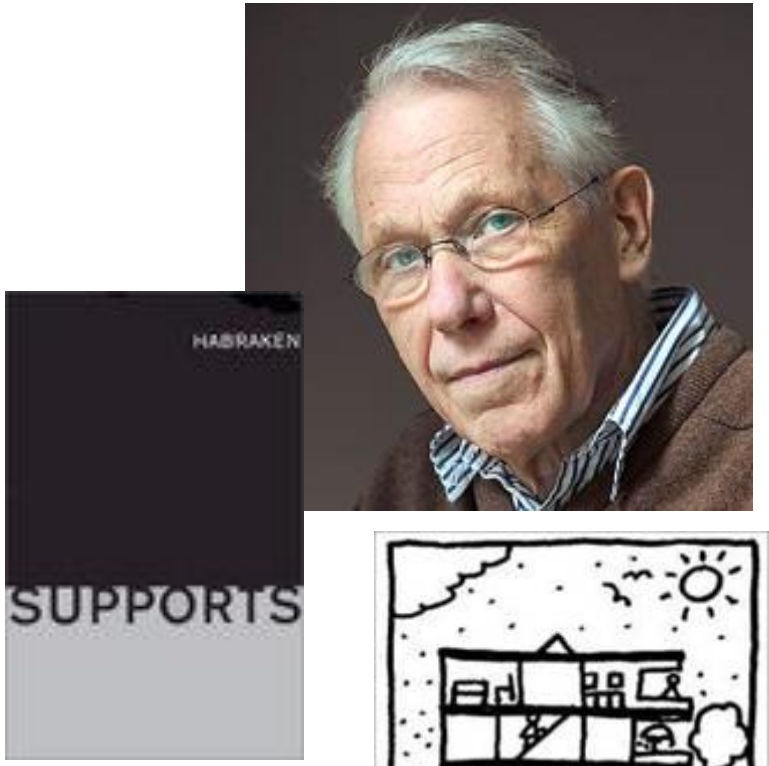






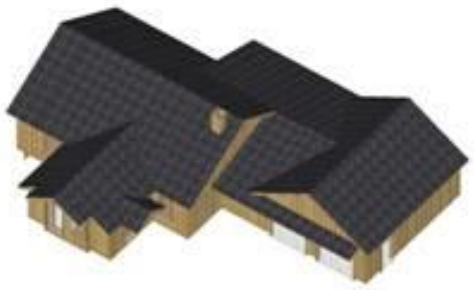


John Habraken

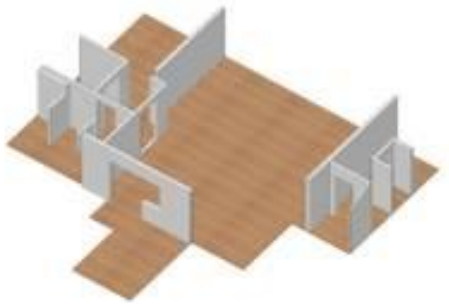


Disentangle Systems

Skin
50-100 years



Space plan
10-50 years



Structure
200-400 years



Services
1-20 years



Site
Forever



Stuff
Months-10 years

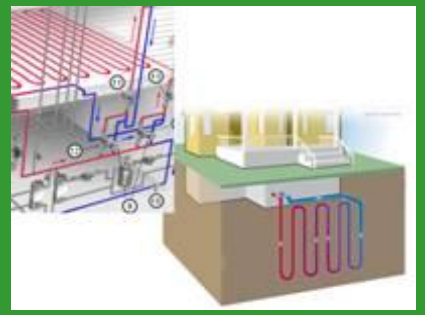


SHELL

INFILL

Open Building Disentanglement

Shell
200+ years


Structure, Infrastructure, Energy Systems, Skin

Infill
5-50 years





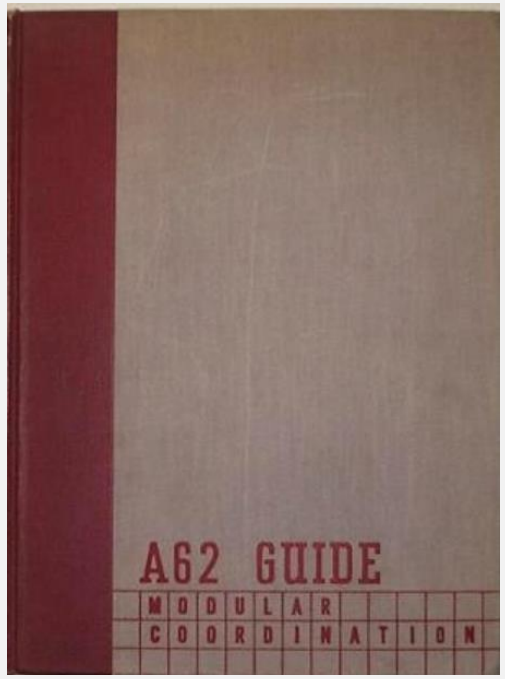
Services, Partitions, Fixtures, Finishes

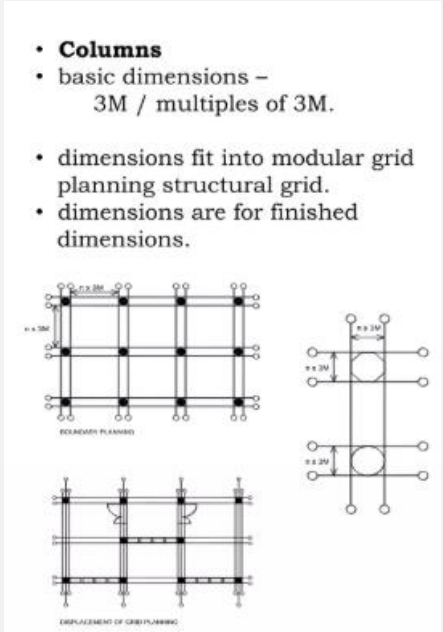
Environmental, Public Needs → **Personal Needs & Desires**

Dimensional (modular) Coordination

ASA A62: Modular Coordination
1946

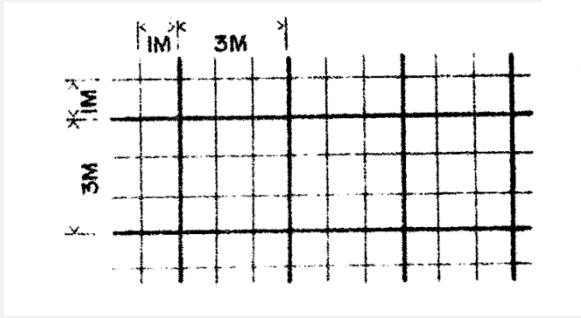
- Standardized **basic module = 100 mm (≈ 4 in)**.
- **Preferred multiples:** 3M, 6M, 12M (where M = 100 mm).
- **Grid framework:** Primary grids aligned walls, columns, and openings.

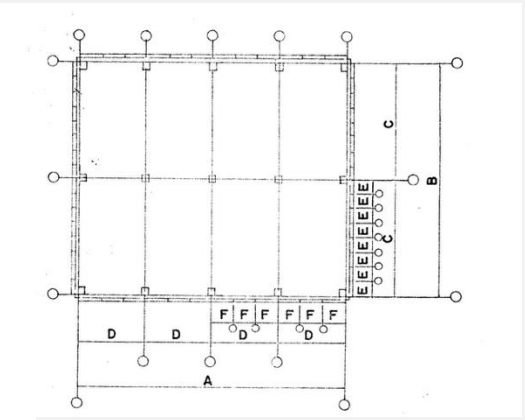




Postwar Systems — Global Modular Grids (1950s–1970s)

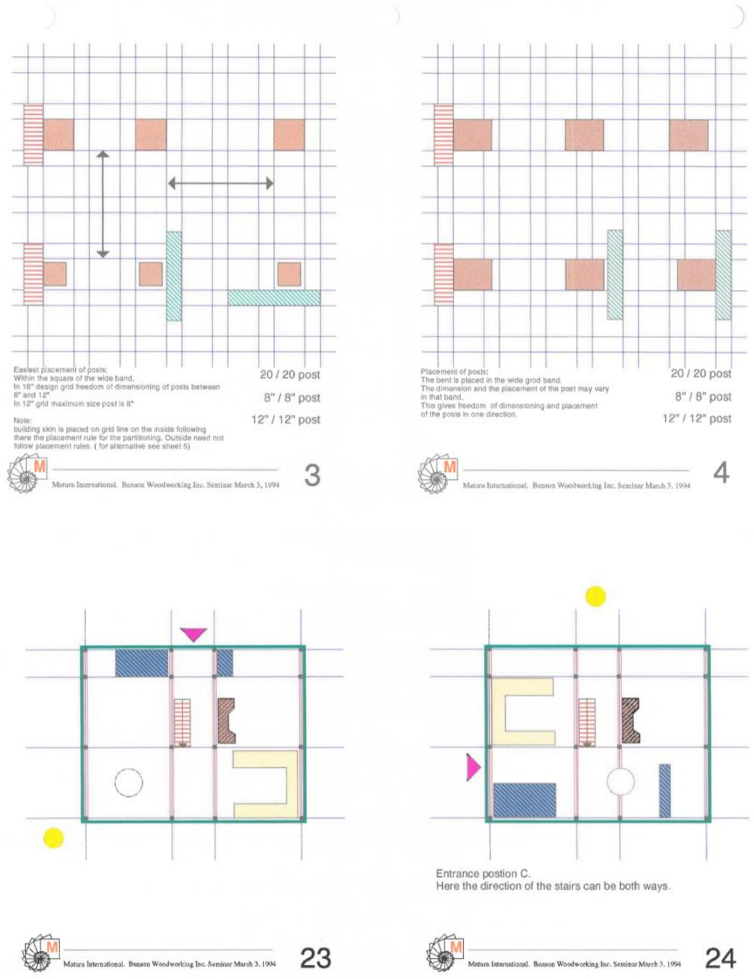
- **Standard grids:** 100 mm (metric) or 4 in (imperial) modular increments, adaptable to 300 mm/600 mm sub-grids.
- **Technical framework:** Modular coordination applied in **housing systems**, **panelized façades**, and **industrialized buildings**.
- ***(John Habraken** participated in this effort)*



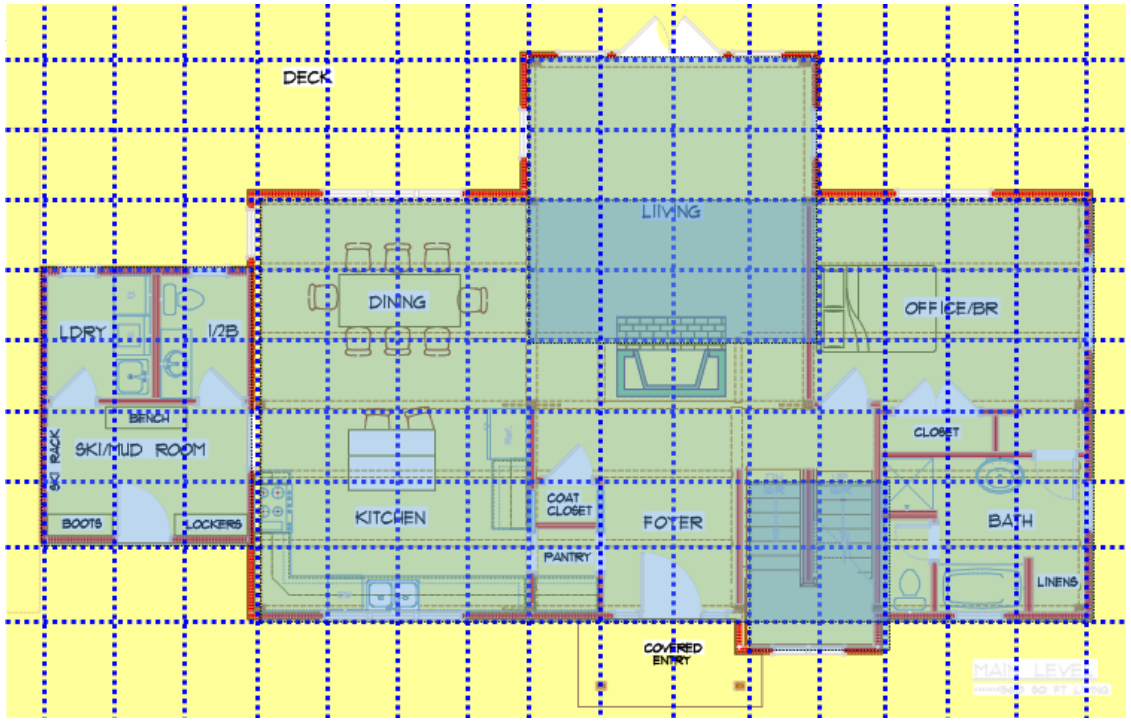


Dimensional Coordination

John Habraken Seminar
1994



Bensonwood Modular Grid Adaption
1994-95



OBGrid Standards

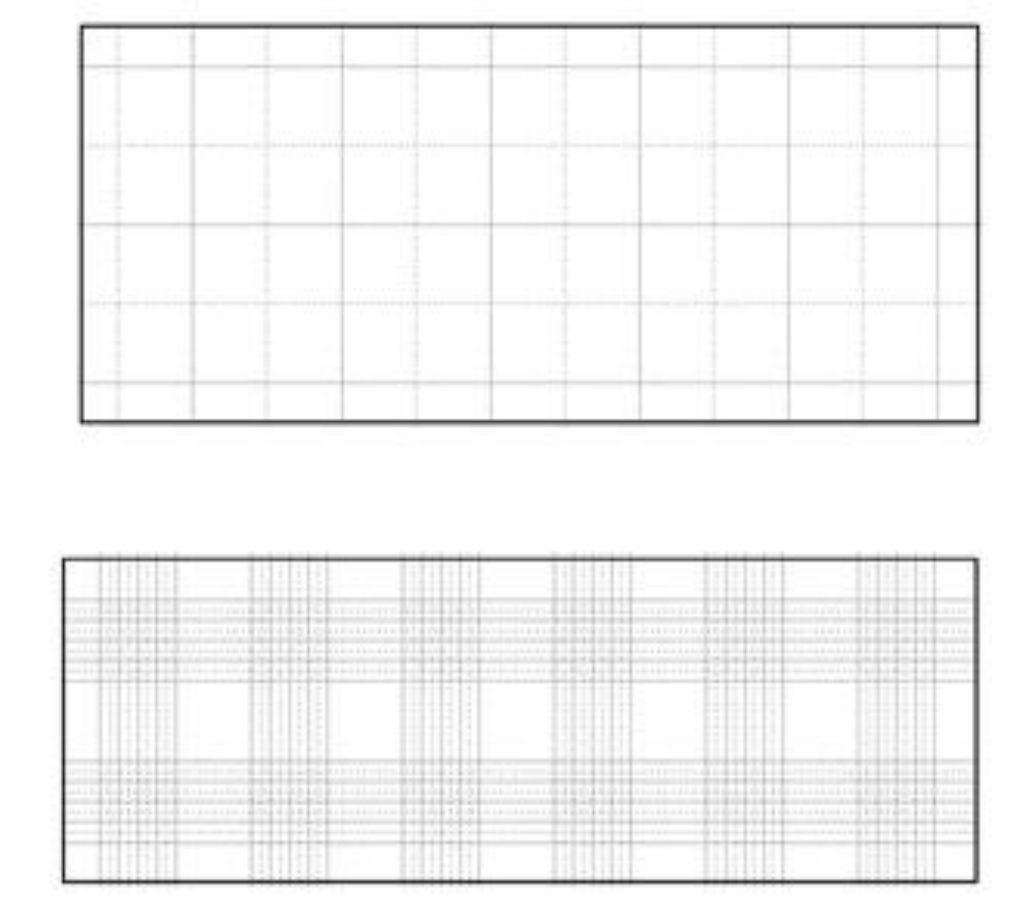
Dimensions & Positions

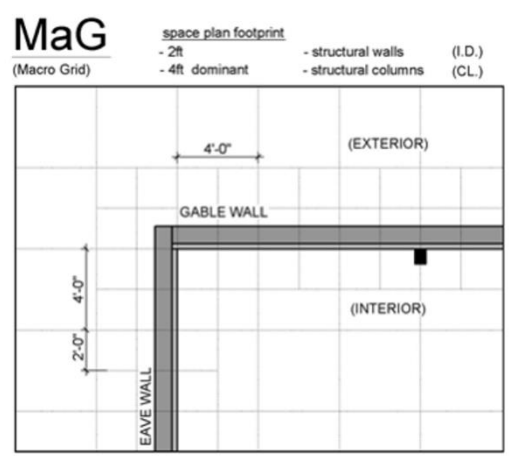
Macrogrid (MaG)

- 2’ Standard
- 4’ Dominant
- Regression: 1’

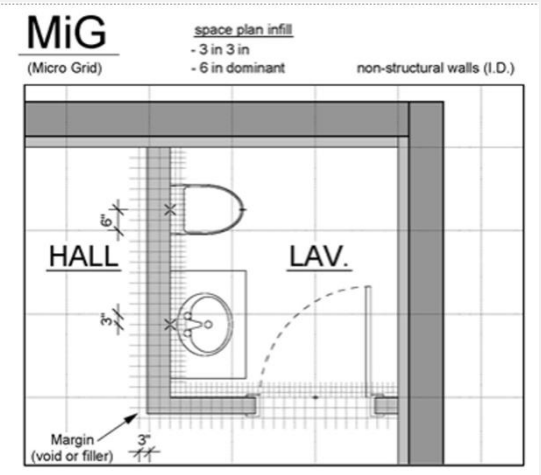
Microgrid (MiG)

- 3” Standard
- 6” Dominant
- Regression: 1 ½”





Footprint & Structure



Rooms & Infill
Fixtures, Devices
Mechanical Systems

The **Better Way to Build…**is here!
Lessons from the cabinet industry

How **Dimensional coordination** transformed a fragmented craft trade into an integrated manufacturing ecosystem

Before the1980s, kitchen cabinets were largely:

- Built on site or in small shops
- Sized to fit each room individually
- Highly variable in height, depth, and joinery
- Poorly coordinated with appliances, plumbing, or countertops



In the early 1980's two dimensional systems converged…

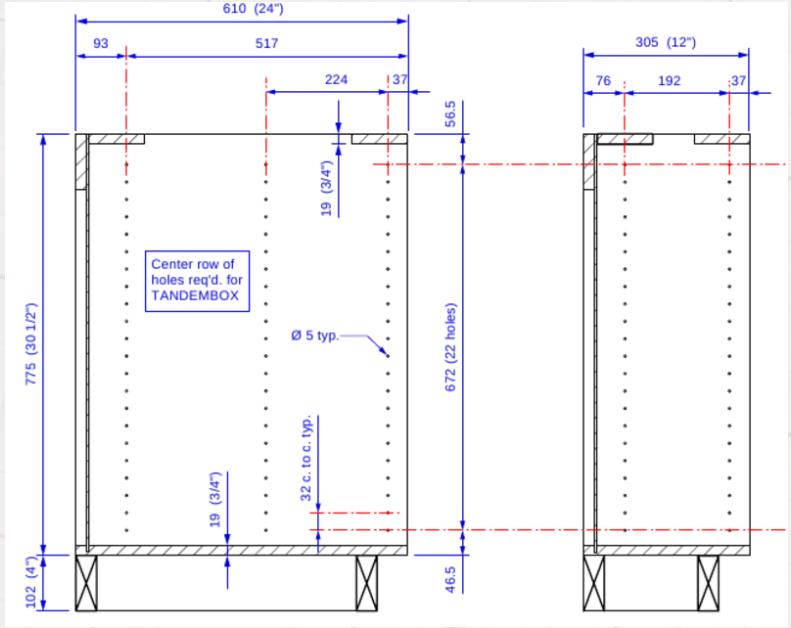
- Cost is down
- Quality is much higher at all price points
- Brands at all price points are strong
- Interoperability of sub-components
  - Created an integrated ecosystem; no company is soloed
  - Yet all compete on a common platform
- The top five companies +$Billion
- Local "craft players" remain strong

THE CATALYST: SYSTEM 32

Vertical and internal system: the 32 mm European system (metric)

5 mm holes to mount:

- Hinges for doors
- Adjustable Shelves
- Drawer slides
  - Under mount or side mount



Plus U.S. STANDARD

Horizontal dimensions:
3-inch module (Imperial)

Base and wall cabinet widths:

9", 12", 15", 18", 21", 24", 27", 30", 33", 36", 42", 48"

Base cabinet depth: 24"

Wall Cabinet depths: 12", 15", 18"

Typical Appliance widths:



A THE CABINETRY INDUSTRY: A PRACTICAL STANDARD

A small number of shared dimensional standards unified a fragmented industry, opening the field for integrated, even-flow manufacturing *independent of specific projects*.



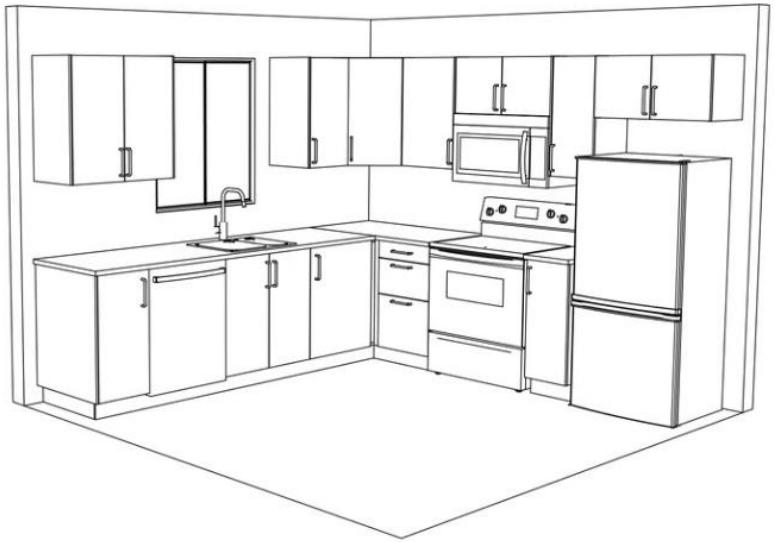




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THE CABINETRY INDUSTRY

Market stratification without fragmentation



10×10 kitchen, cabinets only:

Cost	$1.7K-$4K	$3K-$5K	$12k-$25K	$25K – $60K
Attribute	**IKEA**	**Fabuwood**	**KraftMaid**	**Plain & Fancy**
Uses standard cabinet modules	✅	✅	✅	✅
Meets structural load norms	✅	✅	✅	✅
Soft-close available	✅	✅	✅	✅
Primary difference	Materials	Materials	Finish + options	Craft + fit
Functional adequacy	High	High	High	High

©2026 Bensonwood

Market stratification without fragmentation

The same dimensional platform supports:

- *Builder-grade cabinets*
- *Mid-market semi-custom*
- *High-end custom interiors*

Quality variation happens with:

- *Materials*
- *Finishes*
- *Hardware*
- *Joinery*
- *Not in fundamental geometry*

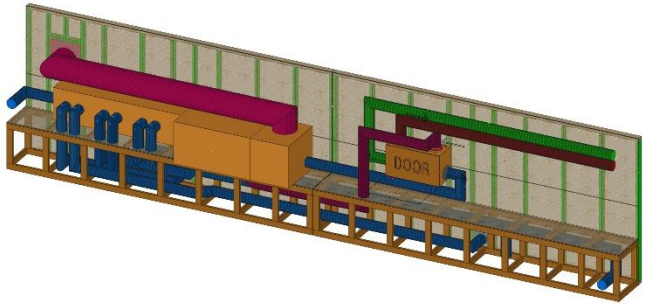


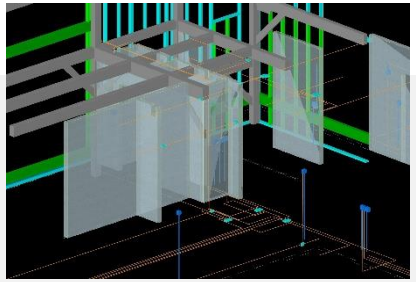
Quality *improved* while cost *dropped!*

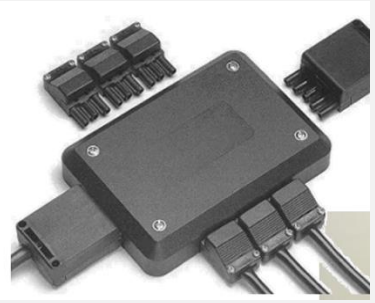
Lessons Learned
Applied to Homebuilding?

- ***<u>Without standards</u>***
  - *Off-site builders must vertically integrate*
  - *Innovation becomes proprietary and siloed*
  - *Industry fragmentation increases*

- ***<u>With standards</u>***
  - *Value creation moves off-site across the industry*
  - *Specialization is rewarded*
  - *Innovation explodes*
  - *Cost and risk decreases, quality increases*

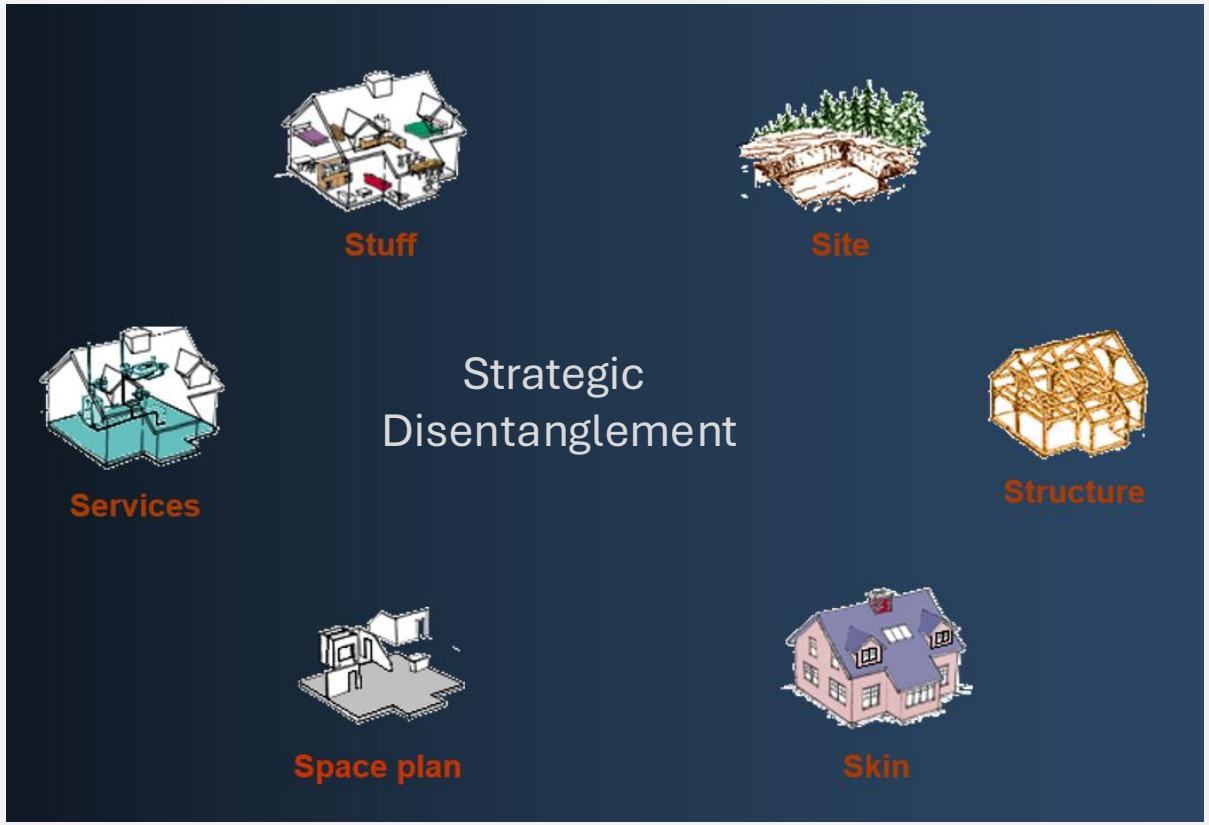




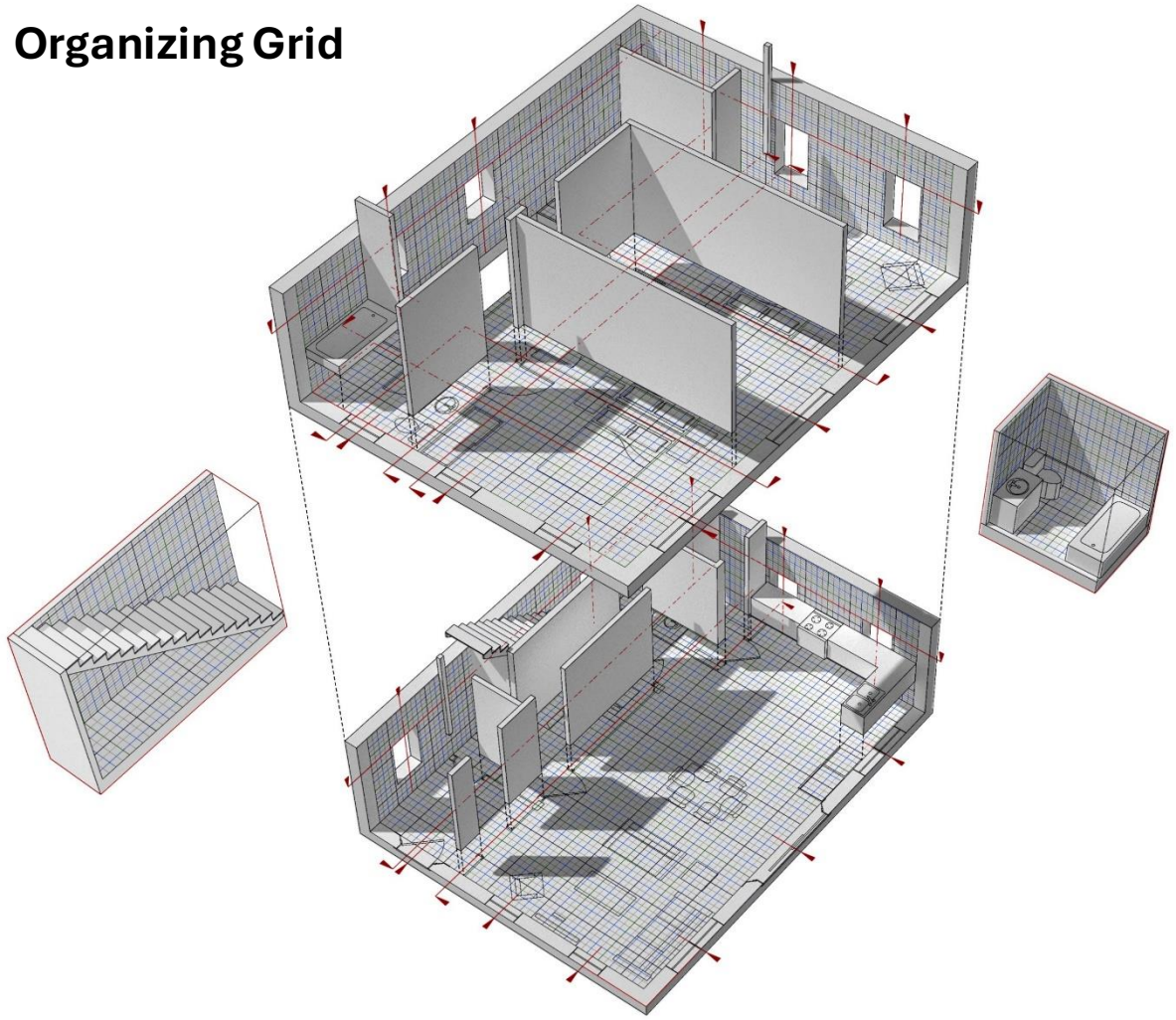


OpenBuilt

Rational Building Basis



Organizing Grid



PATH CONCEPT HOME adopts Open-Built

The Partnership for Advancing Technology in Housing (PATH) is a HUD-supported program that seeks to improve the quality and value of America's housing by accelerating the use of innovative technologies.



PATH invites you to imagine the home of the future.

We don't know what it looks like. But you do.

That's because the home of the future is built to look and function exactly the way you want it to. It has the quality and curb appeal of a custom-built home at an affordable price.

Its design reflects one guiding principle: A home should adapt to the way you live...and live...and live. After all, your needs will change over the course of your life; your home should, too.

The PATH Concept Home is a vibrant reflection of the people who live in it, whoever they may be.

It recognizes our common need for a healthy and flexible living environment. It promises stronger communities, sustainable development, and a better quality of life for all homeowners.

The vision:
By 2010, we'll build high quality, individualized homes that buyers can afford —and we'll do it in 20 days.

What will it take?
A new approach to the way homes are built.

PATH concept home

The Partnership for Advancing Technology in Housing (PATH) is a HUD-supported program that seeks to improve the quality and value of America's housing by accelerating the use of innovative technologies. This PATH Concept Home is a direct result of PATH's *Technology Roadmap: Whole House and Building Process Redesign, and Technology Scanning Report*. The ideas expressed in the Home reflect the creative contributions of many industry partners. Many ideas are inspired by and adapted from Bensonwood Homes' Open-Built® design and construction system based on Open Building principles. For more information, contact Bensonwood Homes in Walpole, NH.

The Concept Home, the first of its kind from PATH, is offered as a point of departure for serious inquiry into the future of homebuilding. The architectural model was produced with assistance and support from DuPont and Portland Cement Association.

Can you pick it out?

You can't miss. They're all homes of the future. Welcome to the new age of American housing.

Imagine: One-size-fits-all "tract housing" passes into 20th century history with other remnants, like the black rotary telephone and 10:00-2:00 banking. The new communities that begin to appear are attractive and distinctive. Homes express the individuality of their owners, no matter the size of their mortgages.

Gone is the era of the static house. We've evolved enough to accept that change is constant. Now we need to build homes that can adapt to these changes.

The home of the future can be built with panelized systems such as structural insulated panels (SIPs) or insulated concrete forms (ICFs), wood, steel, straw bale or other materials not yet developed. Only the principles of construction remain constant.

Join us for a tour of two homes of the future on Oak Street.

"Many ideas are inspired by and adapted from Bensonwood Homes' Open-Built® design and construction system based on Open Building principles"

FLEXIBLE FLOORPLAN

PATH concept home



Who's moving – you or the wall?

Families change. Full nests, empty nests. A constant evolution of priorities and needs. Wouldn't it be nice if our homes could evolve, too?



Imagine a home that can easily and affordably adapt to your changing lifestyle. Has your cozy kitchen come to feel cramped? Move a wall. You won't have to call three utility companies to make it happen. Thanks to the flexibility built into the interior wall system, rooms can shrink or grow to match your needs. When you're ready, a "starter home" can expand to become your dream home—or accommodate reduced mobility and other special needs.

Tomorrow's home works with you, not against you—from early adulthood through the golden years.

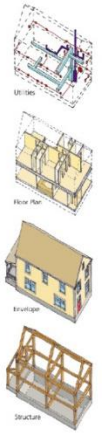
www.pathnet.org

SEPARATED SYSTEMS

PATH concept home



Don't get left behind.



We live in the ever-changing place where past meets future. Our homes reflect our desire for stability, even as technological innovations change our lives at an increasingly rapid pace. We grow comfortable with one technology just as its replacement comes on the scene. From dial-up modems to cable to wireless, we try to keep up.

In our homes as in our lives, we need a framework for both stability and change. We can find that framework in a concept called **"open building."** The fundamental idea: the main home systems—the **structure**, the **utilities**, and the **floor plan**—should be viewed as separate systems. While the structure is built for long-term durability, utilities and interior walls are configured to allow for the inevitable changes ahead.

In the home of the future, stability and change—the twin forces in our lives—become guiding principles in home construction.

www.pathnet.org

In our homes as in our lives, we need a framework for both stability and change. We can find that framework in a concept called **"open building."** The fundamental idea: the main home systems—the **structure**, the **utilities**, and the **floor plan**—should be viewed as separate systems. While the structure is built for long-term durability, utilities and interior walls are configured to allow for the inevitable changes ahead.

ORGANIZING UTILITIES

PATH concept home



Are you sure you know what's behind that wall?



Trying to get to your pipes for a major plumbing job, or need an electrical overhaul? Good luck. If you're like most of us, you almost never know what you might discover when you break through a wall. In today's homes, piping, ducts and wiring are often buried behind walls, making repairs and upgrades costly and difficult.

But in the home of the future, utilities won't get to you. You'll get to them. They're organized and accessible like never before. When new technologies appear, you won't feel like the train left the station without you. Repair, remodel and upgrade without worry.

What will life deal you next? You never know. Which is why you should know exactly what's behind the wall.

www.pathnet.org

INTEGRATED SUBSYSTEMS

PATH concept home



And the next wave? The multitasking house.

We are increasingly a nation of multitaskers: why do only one thing when you can do two or three at once?

When this "concept home" simply becomes home to many Americans, another generation of builders and manufacturers will chase their own goal: a home whose components can multitask, just like us.



Imagine elements of your home that have become more than they appear to be: wallcovering doubles as a conduit for electricity, and roof shingles collect solar energy while they protect your house.

When home components begin to do two or three things at once, there will be fewer of them. Installation will become much easier and faster--and owning a home will become a dream within reach for more Americans than ever before.

www.pathnet.org

PATH is ready for the home of the future. Are you?



The PATH Concept Home is a collection of many of the best ideas of leaders in the homebuilding industry. It presents a vision of what can be.

Although this nation produces many high quality homes, we tolerate tremendous inefficiencies in the way we build homes. These inefficiencies keep home prices high and burden us with an equally high environmental cost. But with vision and technology, we can launch a revolution of the homebuilding industry that will change that.

We can build homes that make better use of labor, material, time and money. We can build healthy, efficient, flexible homes that serve our needs now and into the future—and we can do it faster and at lower cost.

This new approach would bring predictability to the homebuilding process: predictable time to completion, predictable quality and predictable affordability. And it's so simple you might wonder why we aren't already doing it.

To make it a reality, it will take a movement: willing industry partners committed to collaborative problem-solving and investment in the future. A public that sees the enormous promise of better homes and better communities—and begins to demand them.

The time is now. | PATH concept home

www.pathnet.org

We can build homes that make better use of labor, material, time and money. We can build healthy, efficient, flexible homes that serve our needs now and into the future—and we can do it faster and at lower cost.

STANDARD MEASURES

PATH concept home



Downsize your dumpster.

A little change goes a long way.

By **standardizing measurements** for building components, the homebuilding industry of the future is far more resource efficient.

Instead of producing components that require additional cutting and generate waste, the industry has agreed on an open set of standards that allow components built by a variety of manufacturers to be assembled like "building blocks" on the job site. Structural and mechanical interfaces have been designed to simplify assembly. Building is easier, faster, more efficient. Everything fits.

What does it mean for the rest of us? More moderate home prices. And a lot less waste heading for landfills. That's good for the environment and the bottom line.

www.pathnet.org

By **standardizing measurements** for building components, the homebuilding industry of the future is far more resource efficient.

Instead of producing components that require additional cutting and generate waste, the industry has agreed on an open set of standards that allow components built by a variety of manufacturers to be assembled like "building blocks" on the job site. Structural and mechanical interfaces have been designed to simplify assembly. Building is easier, faster, more efficient. Everything fits.

2007, PATH Concept Home, Omaha



Half-Hearted

The Clinton administration program loses support in the Bush era.

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

PATH concept home

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.

2005: OPI, 1

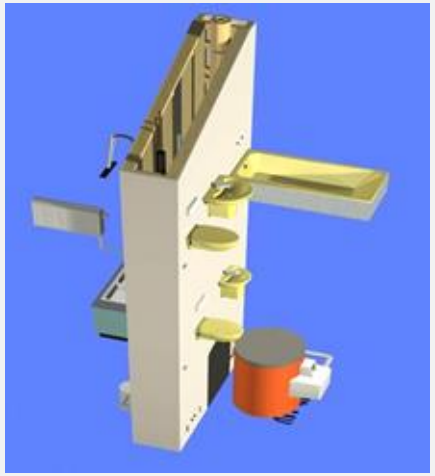
Closed Panel, Mechanical Cartridges, 3D Components















2006: Loblolly House:

Structure Kit, 2D, 3D, Integrated Components

Kieran Timberlake Architects







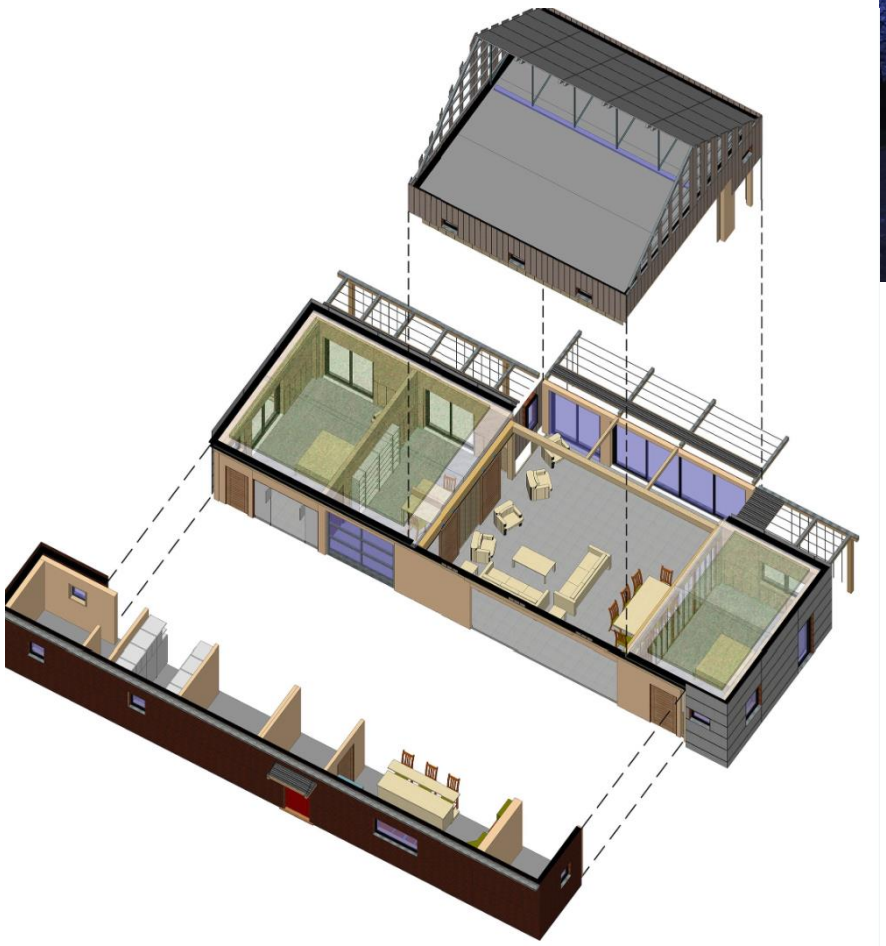






2007: OPI, 2

Unity House: Structure Kit, 2D, 3D, Millwork Kit









2008: Weston House (TOH):

Timberframe, 2D, 3D, Millwork Kit











2012: System Designed HOMES

Unity Homes Collection









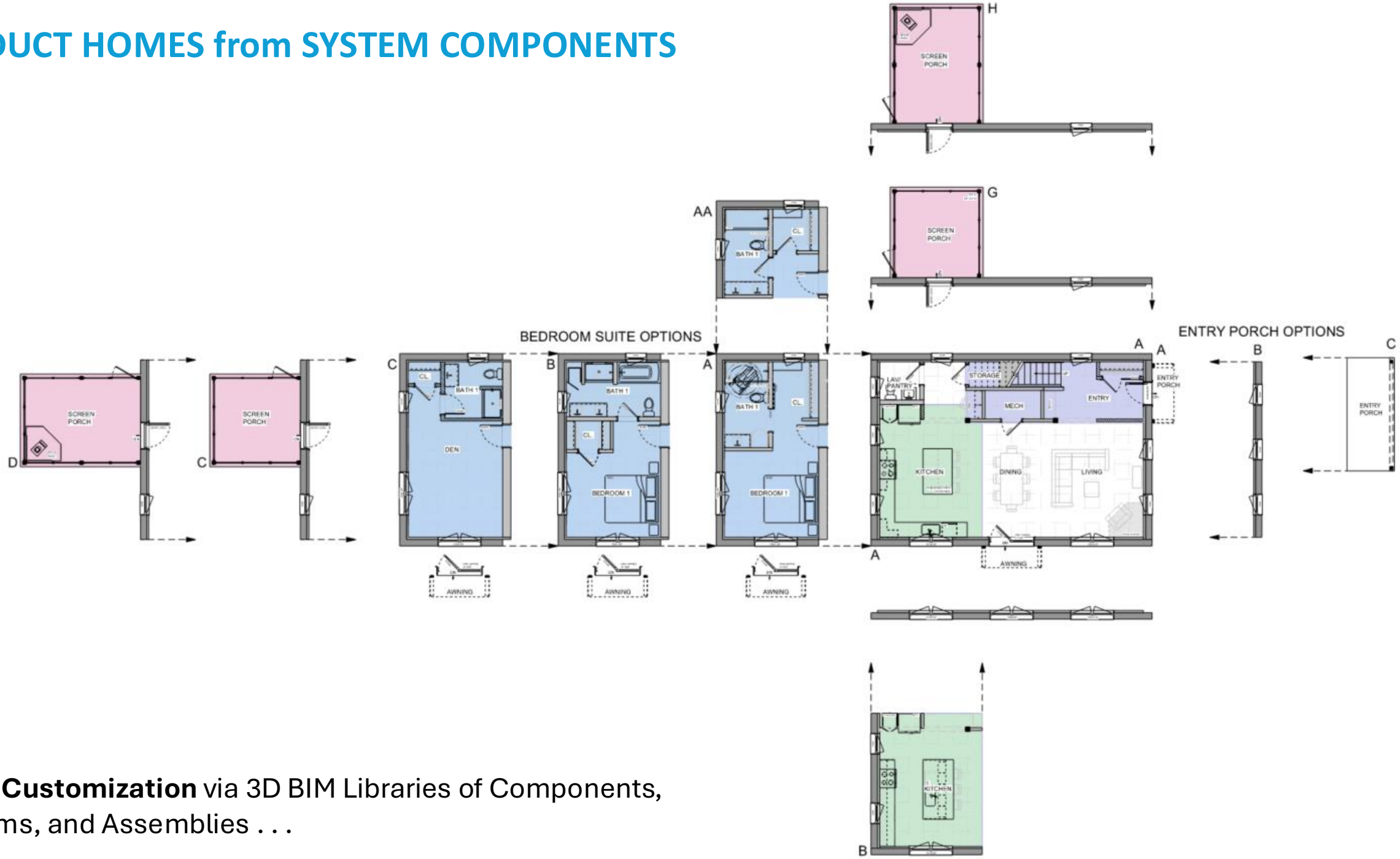






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PRODUCT HOMES from SYSTEM COMPONENTS



Mass Customization via 3D BIM Libraries of Components, Systems, and Assemblies . . .

System Designed Custom Homes

Each basic platform offers *thousands* of configurations to customize.











©2026 Bensonwood

2015: Greenbuild

Closed Panels, 3D Pods, Prefinished Millwork: 3 days









2018-2026: Multifamily





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802 Homes

Homes for All: 802 Homes Catalog

Ready-to-Build Home Plans – Opening the Door to More Housing in Vermont

Notice of Exception: In accordance with federal law, some materials on this page are maintained for historical or reference purposes and are exempt from the regulation under ADA Title II standards. To request an accessible version of any document, please contact accd.cpr@vermont.gov.

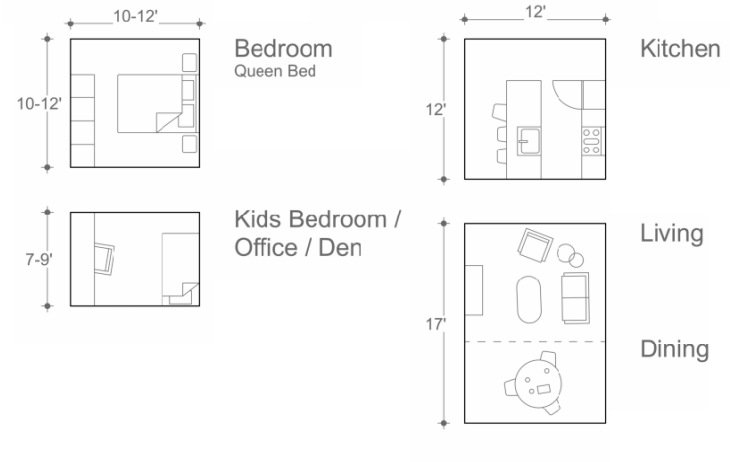
Many cities have demonstrated the value of construction-ready, pre-approved plan sets in streamlining development review processes. These tools, like those of South Bend, IN, and Kalamazoo, MI, have increased efficiency, provided greater predictability, and reduced time and cost for new housing construction. In Vermont, where the housing shortage is acute, the trades workforce is limited, and the construction season is short, such benefits are even more critical.

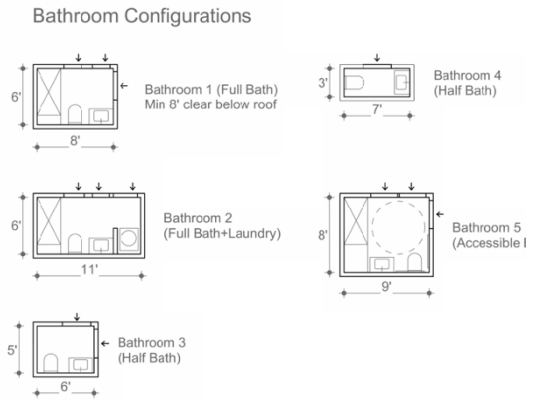


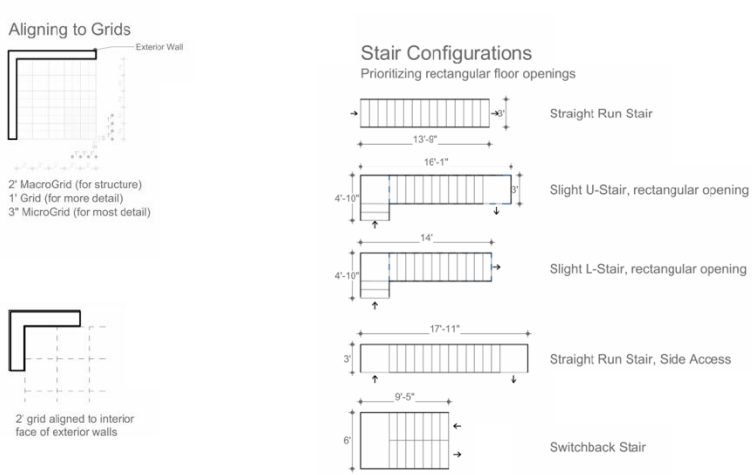
The 802 Homes catalog will put 10 community-tested, locally pre-permitted home designs in the hands of small-scale developers to accelerate the timeline from site selection to move-in day. The project will deliver construction-ready, pre-approved housing plan sets that communities can adopt to streamline development review, cut costs, and accelerate infill housing production. These construction-ready designs will be context-sensitive, compliant with state codes and standards, and adaptable to small and irregular lots. The Missing Middle Housing (MMH) types are aligned with Vermont's current housing needs, including homes that support aging-in-place, smaller households, and workforce housing.

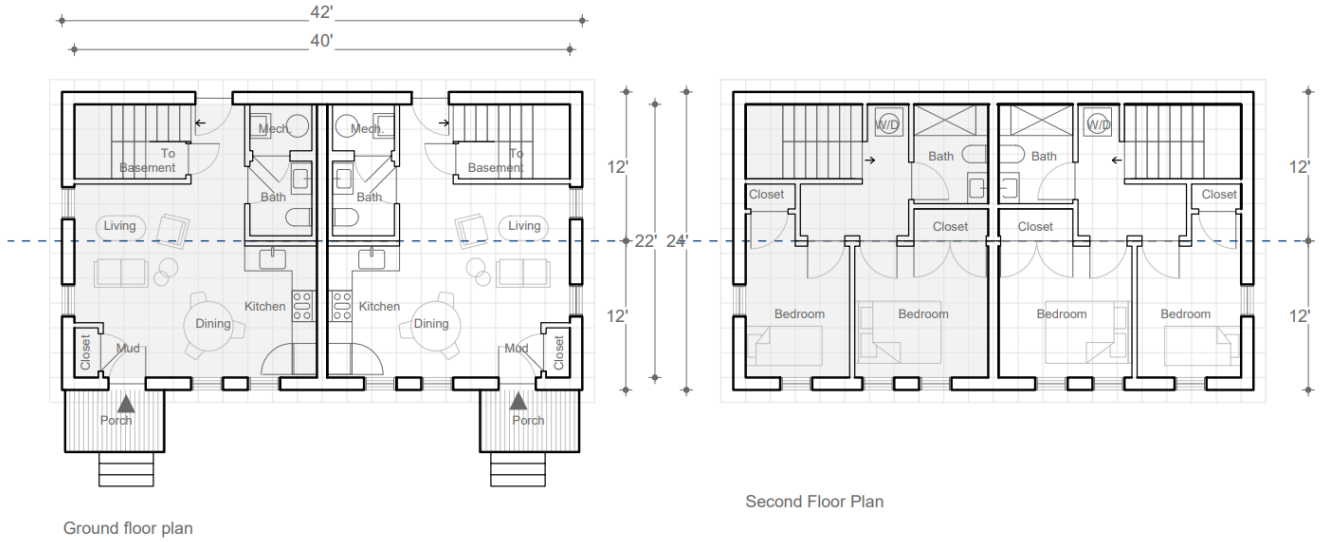
This effort is part of the Homes for All initiative's multi-pronged approach to bring homes online by supporting infill-permissive zoning and streamlining development review processes in "development-ready" communities, supporting a network of small scale developers, and accelerating the design and construction of Vermont-character homes in communities. Paired with infrastructure financing tools such as the Community Housing and Infrastructure Program (CHIP) and Vermont Infrastructure Sustainability Fund (VISF), both launching in early 2026, the ready-to-use home designs of the 802 Homes catalog, and broader Homes for All initiative will enable infill housing development at scale statewide.

Effort led by Utile (utiledesign.com)









Ground floor plan

Second Floor Plan

Feature Presentation:

Mark LaLiberte

President, LaLiberte Consulting



Courtesy Walker Timber, Ltd. (Photo: Marty Kooistra)

MAKING HIGH PERFORMANCE REPEATABLE

A practical pathway to better starter homes at scale

SIMPLE

DURABLE

HEALTHY

EFFICIENT

REPEATABLE

The problem is not a lack of technology

Most failures happen at the interfaces.

Transitions • penetrations • sequencing • trade handoffs

Two paths toward the same outcome

TEDD

Control the environment where we build.

Manufacturing • precision • standardization • controlled conditions

MARK

Control the process wherever we build.

Simplification • coordination • selective prefab • verification

Compartmentalize the house into performance systems

WATER	AIR	THERMAL	MECHANICAL	IAQ
Drainage + flashing	One continuous layer	Simple insulation	Right-sized + inside	Ventilate + filter

Each system needs an owner, a sequence and a measurable outcome.

Design out the problems before they reach the jobsite

COMMON FIELD REALITY

- Roof transitions
- Unresolved window details
- Ducts vs. structure
- Control-layer penetrations
- Trade damage + rework



STARTER-HOME PLATFORM

- **Fewer assemblies**
- **Fewer transitions**
- **Defined routes**
- **Repeatable details**
- **Clear sequencing**

Make the critical interfaces boring

Fewer unique details.
More repeatable details.

The best starter-home detail may be the one crews have already built correctly 100 times.

Industrialize selectively

Don’t ask:

“How do we manufacture the entire house?”

Ask:

“Which parts benefit most from being manufactured?”

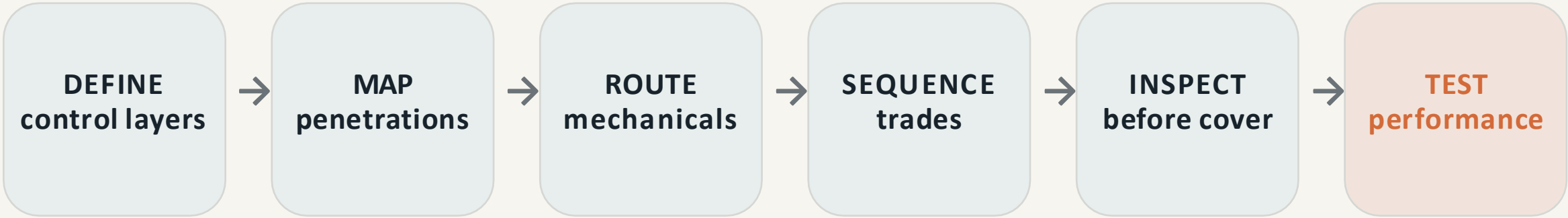
- Panels
- Floors
- Roofs
- Utility walls
- Window assemblies
- 3D modules

The objective is predictable outcomes

Use off-site methods where they reduce variability.

The percentage of prefabrication is not the performance metric.

Trade coordination becomes the production system



Make doing the right thing easier than improvising.

Verify — don’t assume

01

PHOTOS

critical assemblies

02

EARLY TESTING

blower door

03

CHECKPOINTS

before concealment

04

FEEDBACK

fix the next house

Testing converts intention into evidence.

A starter home should not mean a disposable home

SIMPLE DURABLE HEALTHY EFFICIENT RESILIENT

Durability and performance are affordability strategies.

The household least able to absorb a failure may be the first-time homeowner.

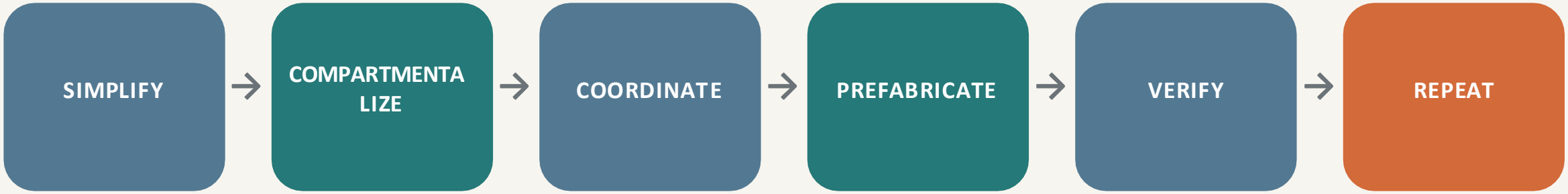
PATH TO SCALE

A continuum — not an either/or choice



Different projects can enter at different points. The performance principles stay the same.

Make high performance repeatable



A simpler home that performs better — every time.

Where the two approaches meet

TEDD

Move construction toward manufacturing.

MARK

Move manufacturing discipline into construction.

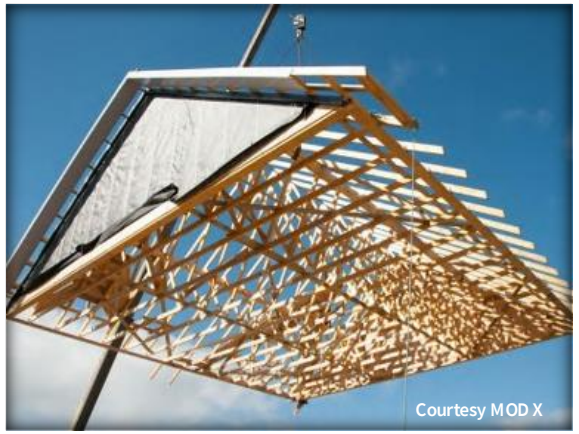
SHP

Use both to deliver better starter homes at scale.

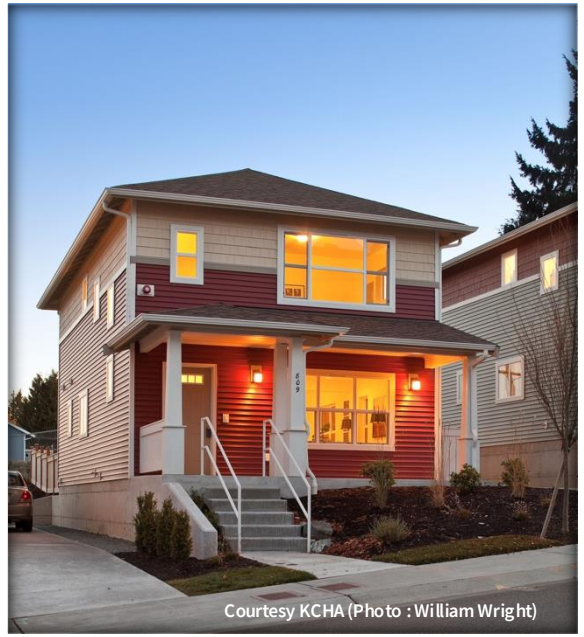
Simple • durable • healthy • efficient • resilient • repeatable

Panel and Discussion:

Tedd, Mark, Ryan Smith



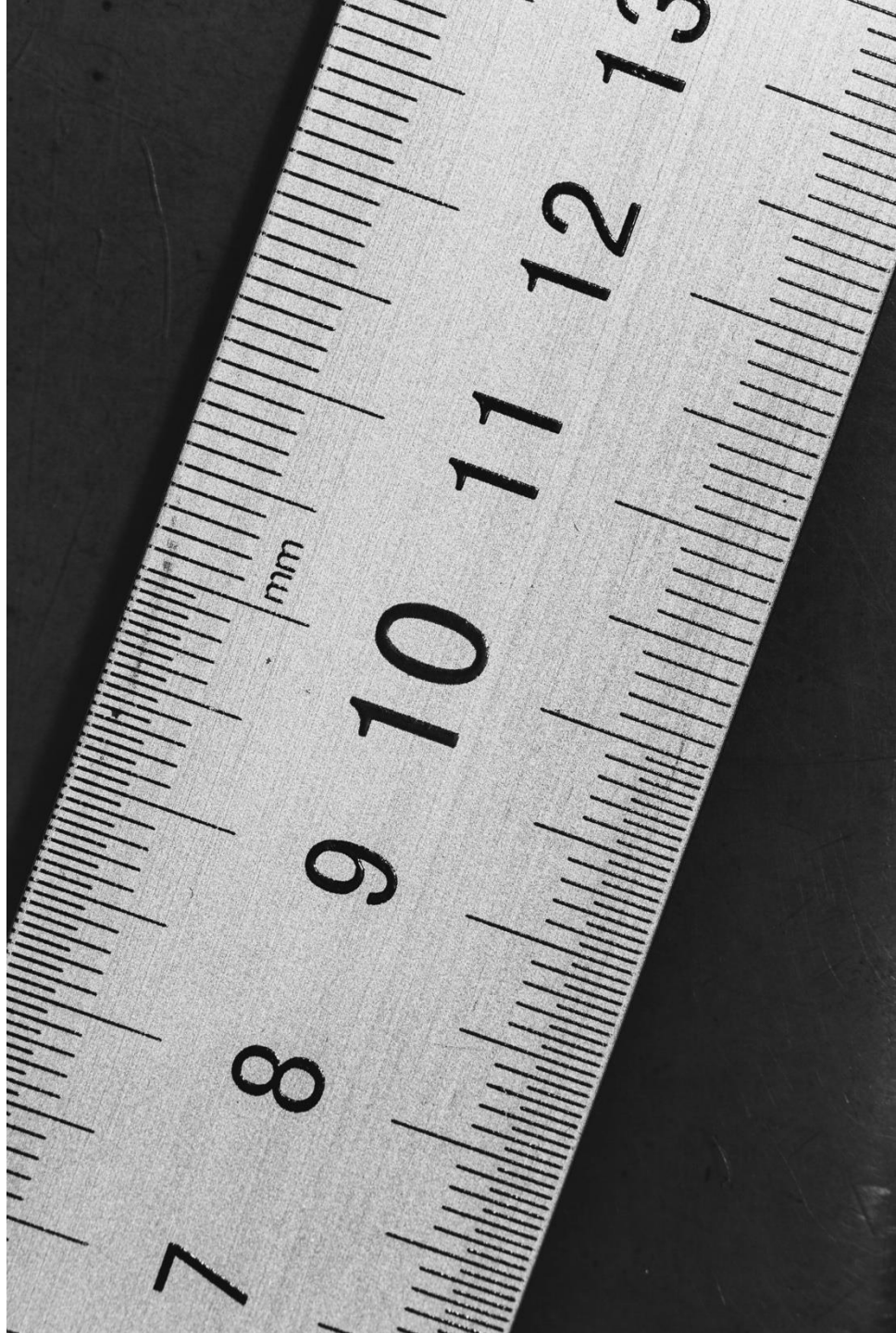






WA Starter Home Plan:

Deep Dives and Updates



Progress Report

SHP is building the partnerships, knowledge systems, financing tools, workforce capacity, and innovation infrastructure necessary for WA to deliver homeownership at scale.

- ☑ Capital has been secured.
- ☑ Financing initiatives advanced from concept to committed investment.
- ☑ Housing products are moving toward permit-ready deployment.
- ☑ Demonstration projects are preparing for launch.
- ☑ Statewide infrastructure critical to long-term production is forming.

Specific indicators of SHP's progress in Land & Development, Policy & Regulation, Financing, Workforce, and Ecosystem are listed in SHP's October Progress Report


WA STARTER HOME PLAN

PROGRESS REPORT

October 2026

WHOLE-PROBLEM SOLUTION, COORDINATED EXECUTION STRUCTURE

Washington state's shortage of affordable for-sale homes is rooted in interrelated factors associated with four critical levers of change: land and development, policy and regulation, financing, and workforce. A lasting statewide solution requires a system-wide approach addressing all of those factors— and all of their relationships.

The Washington Starter Home Plan (SHP) offers a whole-problem solution with a coordinated execution structure. By applying systems thinking, systems innovation, and systems-based development, a network of multisector, interdisciplinary collaborators are focused on transforming pathways to affordable homeownership, advancing livelihood-wage skilled jobs, and making Washington state's entire housing ecosystem more productive. Currently, SHP is completing its critical transition from planning to implementation. Progress highlights are summarized below.

LAND AND DEVELOPMENT

- **Secured a $1.75 million state allocation to fund the SHP Demonstration Program** and designed a pilot-site RFP for testing systems-based development, standardized designs, and multiple housing-delivery approaches in real-world conditions. A Demonstration Program Task Force is being formed, with pilot-site selection beginning in early 2027. The program targets 30-40 homes, at least two developers, and at least two housing-delivery methods.
- **Completed a statewide Townhouse Design Competition**, generating seven winning designs from six Washington state firms and Washington State University. Thirty submissions were received across three categories (2-bedroom, 3-bedroom, and 4-bedroom) designed to serve diverse communities throughout the state. Permit-ready and statewide approval pathways are now being pursued.
- **Graduated the first 35 housing stakeholders from the four-part MOD X Accelerator™ offsite training program**, building statewide capacity in systems-based development and housing-production innovation.
- **Established leadership for SHP Land Workgroup** and initiated planning for Washington state's first regional land-clearinghouse models.
- **Developing a starter home pro forma tool**, with three local companies collaborating to support systems-based developers in evaluating project feasibility and scalability whether building onsite or offsite.
- In partnership with the University
offsite manufacturing landscape

POLICY AND REGULATION

- **Provided legislators with direct**
working session with the Washin
- **2026 Legislative Progress**
  - HB 1974 – Coordinated La
  - HB 2151 – Factory-Built H
- **2027 Legislative Priorities**
  - SB 6015 – Permit-Ready
  - HB 2381 – Performance-B
- **Produced *Local Regulatory Re***
strategies for smaller jurisdictions

FINANCING

- **Completed research** on national financing models and identified promising practices from California, Colorado, Oregon, and other leading markets.
- **Advanced financing implementation from stakeholder engagement to committed investment capita**
Convened lenders, CDFIs, housing-finance organizations, and national experts to evaluate barriers, promi
practices, and financing opportunities.
- Developed two financing vehicles and secured approval from the Washington State Housing Finance Commission Board of Commissioners for two **$10 million Program-Related Investments (PRIs):**
  - **Starter Home Catalyst Fund** supporting nonprofit developers, Habitat affiliates, community land tru and mission-driven housing providers utilizing systems-based development and offsite construction approaches.
  - **Offsite Construction Financing Fund** supporting private developers producing low- and moderate income for-sale housing using scalable production methods.

WORKFORCE

- Secured a **dedicated project manager and co-chairs** to guide subnetwork implementation.
- Completed **Workforce Subnetwork Charter**, including purpose, scope, governance, and equity framewor
- Established **CRM systems and partner-tracking** infrastructure.
- **Developed the initial workforce workplan** based on SHP's *Ecosystem Playbook* and launched workforc ecosystem mapping and network-development activities.
- **Identified priority workforce initiatives** focused on aligning education, training, credentialing, and employment pathways with future housing-production needs.

GOVERNANCE, OPERATIONS, AND ECOSYSTEM DEVELOPMENT

- Developed the roadmap for the **Washington Housing Innovation Hub (HIH)**, a statewide platform for sys innovation, knowledge sharing, monitoring and evaluation, industry support, demonstration learning, and research and development inspired by leading innovation models such as Scotland's BE-ST center.
- Commissioned the **Community Attributes (CAI) Economic Impact Study**, with Phase I now complete.
- Secured **more than $1.35 million in private and philanthropic implementation funding**, with additional investments under consideration. Funding partners include JPMorgan Chase, BECU, U.S. Bank Foundatic Columbia Bank, and individual donors.
- **Strengthened SHP's statewide and national visibility** through conference presentations, stakeholder engagement, and strategic communications.
- Launched **starterhomeplan.org**, featuring stakeholder engagement pathways, meeting requests, newslet subscriptions, and implementation-focused communications.
- **Sharpened messaging** making the case for SHP's comprehensive strategy and initial starter-home focus.

Economic Impact Analysis

Community Attributes Inc. (CAI) just completed Phase 1 of a two-phase economic impact analysis for SHP.

The findings will:

- ☑ support SHP stakeholders in understanding opportunities associated with expanded starter home production
- ☑ and establish a foundation for more detailed economic impact modeling in Phase 2.



Data highlights of CAI's full Phase 1 analysis are listed in SHP's one-page summary document.

WA Starter Home Plan:

Program Updates



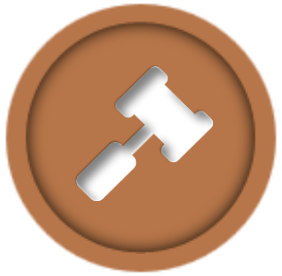
Courtesy Autovol, Inc.

SHP's 4 Focus Areas



Land and Development

Unlocking sites and streamlining pathways for production



Policy and Regulation

Removing barriers and aligning codes for offsite and Missing Middle housing



Financing

Tailored financial tools for offsite construction and **first-time buyers**



Workforce

Building the skilled labor pipeline for systems-based production

THESE ARE KEY LEVERS OF CHANGE

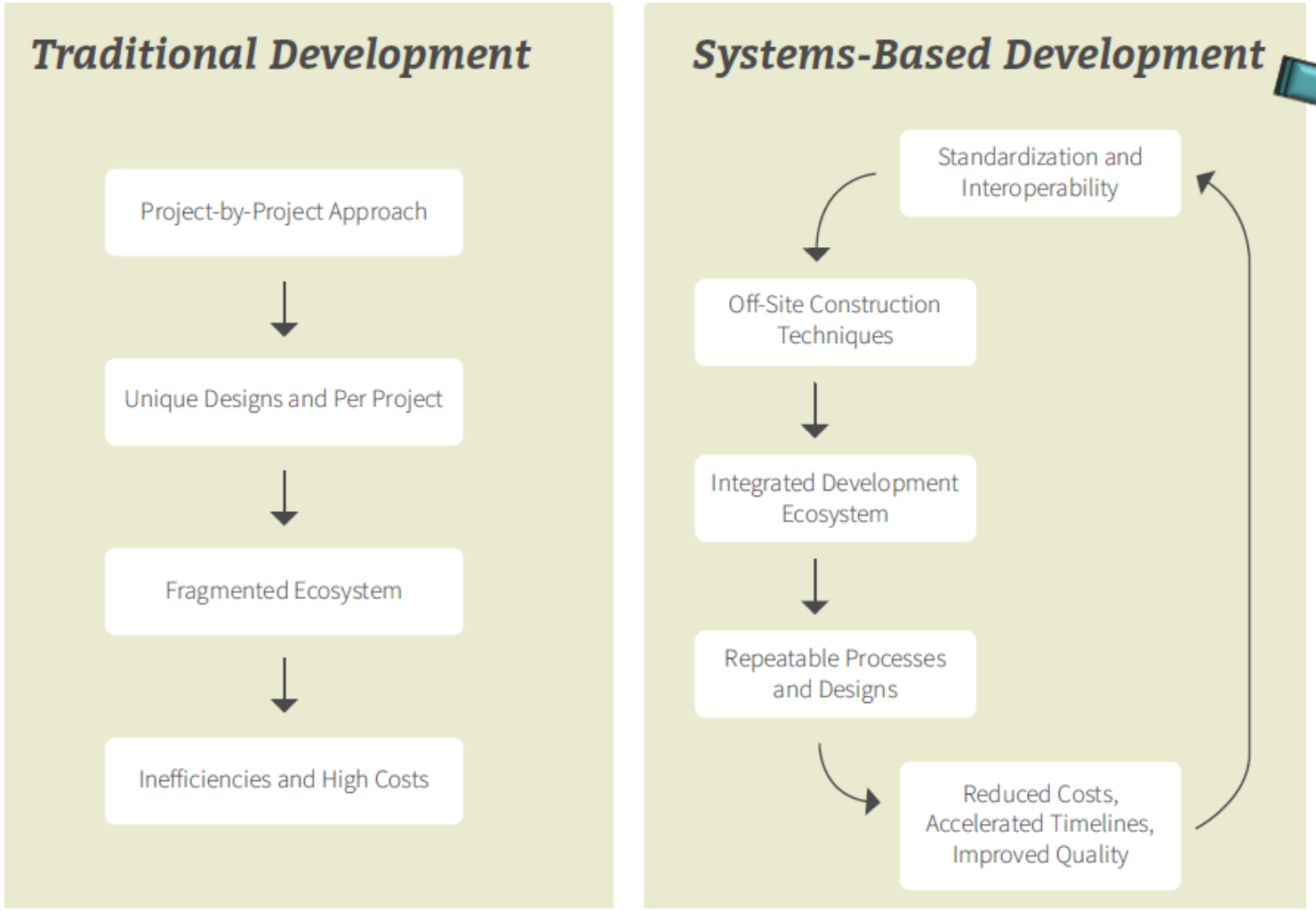


Focus Area 1: Land and Development

Focus Area 1: Land and Development Update

- **Partnering with the UW Housing Futures Center:**
  - ☑ Small-lot developer poll
  - ☑ Offsite factory survey
  - ☑ Data dashboard
  - ☑ Housing Innovation Hub
- **Building comprehensive learning platform** for developers, suppliers, manufacturers, and consumers
- **Generated $900K in private sector investments** from JPMorgan Chase, US Bank, Columbia Bank
- **Launched Townhouse Design Competition**
- **Developing fully functioning Proforma Tool**
- **Secured capital budget appropriation to conduct a multi-site demonstration program** that monitors and evaluates each step of a newly designed housing ecosystem and documents the value proposition of the proposed approach

Why Focus on Systems-Based Development



A **repeatable and scalable** approach to homebuilding.

Aligns design, permitting, construction, and financing **around standardization and process optimization.**

Systems-based developers **operate programmatically**, not project-by-project.

Leverages **offsite** design, **integrated** partnerships, and **shared** workflows.

PRODUCTION TODAY

Time to Market
Reduction often possible with good execution.

Construction Cost Savings
Speculated.

Use of Offsite
Afterthought on already designed projects.

Land Strategy
Adapt to existing land pipeline.

PRODUCTION TOMORROW

Time to Market
Consistent and significant savings.

Construction Cost Savings
Clear. Due to standardization; volume purchasing/ demand aggregation; design & permitting savings.

Use of Offsite
Incorporated with early integrative design.

Land Strategy
Land acquired with offsite in mind.

Offsite Construction Compresses Time and Creates Public Value

- Delivers housing 30-50% faster: Helps communities address housing shortages sooner.
- Reduces financing and carrying costs: Lowers overall project expenses.
- Accelerates occupancy: Allows buyers to benefit from new home months earlier.
- Reduces project risk: Minimizes exposure to weather delays, labor shortages, and material cost escalation.
- Improves cost certainty and predictability: Helps public and private investments go further.

STANDARDIZATION ENABLES SCALE



Standardization is essential for scaling production, allowing factories to optimize processes while adapting locally.

PREDICTABLE DEMAND PIPELINES



Reliable demand forecasting is crucial for justifying investments in capacity and workforce development.

INNOVATION IS CRITICAL



Commitment to aligned research and development across sectors to implement factory-based scaling strategies.

WORKFORCE INTEGRATION & TRAINING



Training is aligned with real production processes, improving workforce integration and effectiveness.

RISK-SHARING PARTNERSHIPS



Public and private actors share risks through contracts, investments, and policy support to sustain growth.

Creating Land Clearinghouses Across WA State

- Building off 2026 work to enact land banking legislation, SHP strives to create regional land clearinghouses statewide (*Ecosystem Playbook* Play #5).
- The original BHI focus area is where SHP will likely build out the first clearinghouse.
- If SHP gets it right in King, Pierce, and Thurston, it has a working model — and partners like Habitat for Humanity affiliates and Community Land Trusts — to partner in creating the next ones in service of the statewide (regional) vision.

PROVE

Demonstrate success

Soft launch in King, Pierce, Thurston. Real parcels through real matches. The model has to work somewhere before it can work anywhere.

EXTEND

Launch regional clearinghouses

Use what we learn — playbook, tools, staffing model — to help partners launch clearinghouses in other Washington regions.

CONNECT

In service to the statewide plan

Land clearinghouses are Play #5 of SHP's Ecosystem Playbook.

Unlocking Public Land for Affordable Housing

Why Public Land Matters

- **State-managed lands represent** significant under-utilized public assets capable of delivering 100+ housing units per site.

- **Land-lease models** (ground leases) separate land cost from home cost, creating permanently affordable ownership opportunities.

- **Public ownership** enables intentional planning and infrastructure coordination (sewer, transit, environmental protection).

Unlocking Public Land for Affordable Housing

Frederickson South (Pierce County)

- 4.22 acres of public land → 28 homes priced at $220K–$320K (half of ~$580K market rate)
- **DNR transfer:** Land transferred from WA State DNR to Pierce County Community Development Corporation in 2024
- **Land-lease model:** Buyers own homes, county retains land ownership, ensuring affordability for next generation
- **Partner**: Tacoma Habitat for Humanity; funding: $1M from regional affordability coalition
- **Addresses Pierce County's identified need** for 77,000 affordable units by 2044

Meridian Grove (City of Lacey)

- 28-acre DNR parcel → potential for 150+ mixed-income homes in established growth area
- **Land-lease model**, serving low-income families, seniors, veterans
- **Challenge/Opportunity:** Sewer infrastructure gap ($1.5M) is barrier **AND** lever for intentional planning
- **Secured $508K in state capital funding** (2026); CDS request submitted (1 of 6 selected statewide)
- **Environmental co-benefit:** Sewer connection protects McAllister Springs aquifer (critical water source)

SHP's 2026 Townhouse Design Competition

30
entries

19
individuals, teams

7
winning plans

6
firms

3
categories: 2-, 3- and 4-bedroom

Blind-Juried On:

- Livability
- Efficiency and cost consciousness
- Design variation
- Modular-friendly design
- Design innovation

The Jury

Yes Duffy, YES Community Architects

Kyle Holman, DCI Engineers

Leah Martin, Allied8

Nick Welch, City of Seattle Office of Planning and Community Development

Mike Steffen, Walsh Construction

Design once, approve once, build many times.

WA STARTER HOME PLAN

SHP's Townhouse Design Competition: Overview

Seven winners and three honorable mentions across three categories

2-Bedroom

- **Office of Ordinary Architecture —** Design Plan CCP2+01 (Proposed Structure Height: 25'-3 ½")
- **Seahaus —** Design Plan TBS-222 (Proposed Structure Height: 22'-10")
- **WOOD Studio —** Design Plan MOD21.5
- ***Honorable mention:*** **Wing Point Associates LLC —** Design Plan WPA002$ (Proposed Structure Height: 26'-4")

3-Bedroom

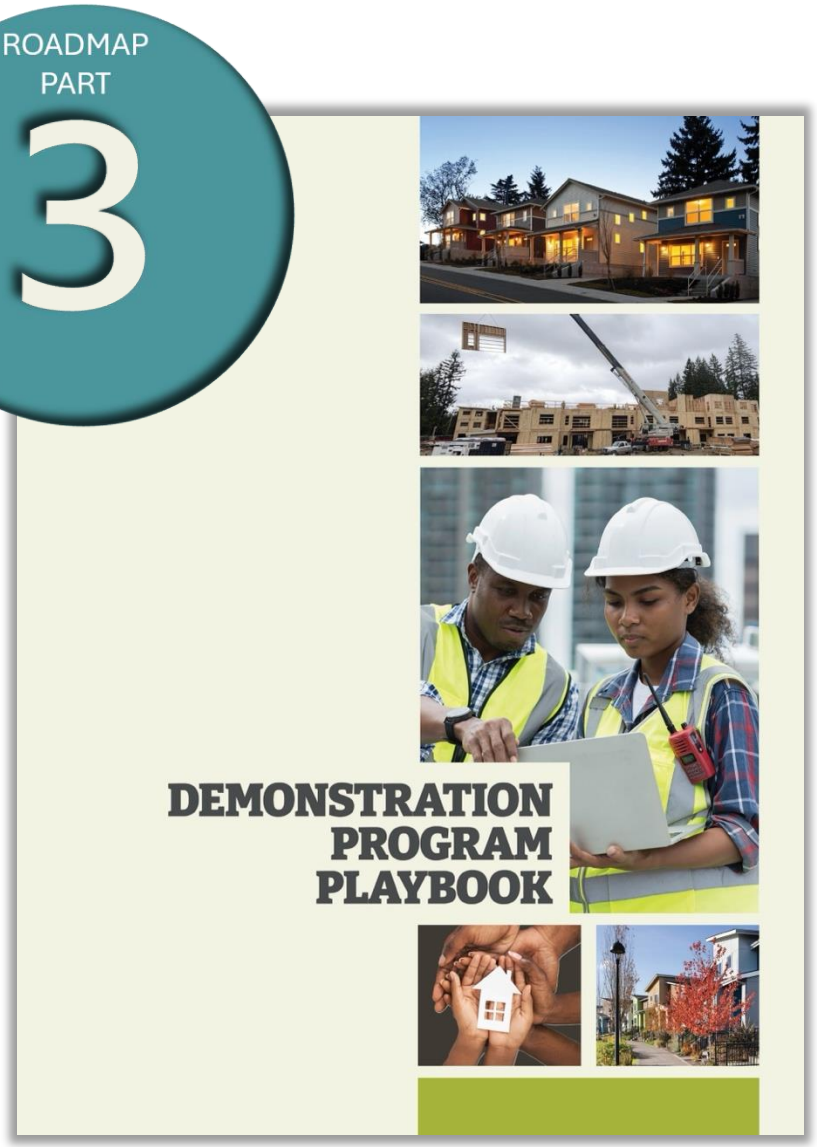
- **Neiman Taber Architects —** Design Plan A-3BR15 (Proposed Structure Height: 26'-4 ½")
- **RGA Atelier —** Design Plan STR357+
- ***Honorable mention:*** **Moondog Studio Architecture —** Design Plan BRP#886

4-Bedroom

- **Neiman Taber Architects —** Design Plan B-4BR20 (Proposed Structure Height: 26'-4 ½")
- **Washington State University —** Design Plan JRT001! (Proposed Structure Height: 32'-0")
- ***Honorable mention:*** **Schemata Workshop —** Design Plan BSE-432

SHP's Demonstration Program: From Plan to Build

- Field protocols for testing **systems-based development** and **offsite construction methods**
- Carried out using **real-world builds**, not simulations
- Located in **at least 2 distinct and diverse WA communities**
- Unedited data immediately available in public performance dashboard for **transparency and accountability**



SHP Demonstration Program: From Plan to Sites



Task Force seated and RFP released: Q4 2026 **Site selection**: Q1 2027

WHO

Funded by Commerce · SNAP (Spokane Neighborhood Action Partners) as fiscal intermediary · SHP administers.

SCALE

At least 2 sites in 2 distinct jurisdictions · 30–40 for-sale homes · 50–120% AMI.

METHOD

Each site tests a different offsite method: volumetric, panelized, or hybrid alongside stick built homes.

DESIGNS

Built from standardized, site-agnostic plans including Townhouse Design winning plans.

PERMITTING

Goals – L&I master permit pilot — one state design review, valid across sites.

EVIDENCE

Open-book cost, time, and data · UW Housing Futures Center to monitor and evaluate.

What the Demonstration Will Measure— And When

WHAT WE WILL MEASURE

Cost	Total cost per method ·financing cost vs. conventional ·carrying cost during permitting
Time	Factory time ·on-site time ·L&I and local permit review time ·time-to-financing decision
Quality & Scale	% completed offsite · material waste · labor hours by trade · buyer perception

First comparative site data
After first homes deliver — **Q4 2027**

WHAT THE MARKET ALREADY SHOWS

- At scale, offsite delivers ~5–20% lower overall cost
- First-time projects carry a 5–15% learning-curve premium — from design adaptation, factory coordination, and financing, not the method itself — that declines with repetition
- Schedule reductions of 25–50% are the offsetting benefit
- The real question: the volume at which the premium disappears

Economic Impact Study CAI · Phase 1

$690M
state sales tax from residential construction, 2025

$200M
direct state sales/B&O revenue from 10,000 starter homes by 2030

$63M
plus state REET from those homes

THE SHP PROFORMA TOOL

A shared yardstick for whether a starter home pencils — before it's built

WHAT WE'RE BUILDING

- A standardized, Excel-based proforma for for-sale homes affordable at 50–120% of AMI.
- Models stick-built, panelized, modular, and hybrid offsite construction side by side.
- Ships with worked examples, user documentation, and training.
- Built for the people who have to say yes: developers, lenders, and public partners.

WHY IT MATTERS

- Starter homes stall in the gap between "good idea" and "the numbers work".
- Today every developer, lender, and jurisdiction runs its own math.
- One tool means one language: shared assumptions, shared definitions, one answer to "does this pencil?"
- Offsite construction can't be judged fairly until a model treats it as a possible first option.

WHERE WE ARE

- Three firms under contract (Sept 2026): Black Phoenix Wealth builds the tool, Heartland defines and documents, Craft Contracting validates offsite.
- Working prototype in hand; team meeting every other week.
- Offsite validation findings due Nov 20; project runs through Dec 31.
- Beta testing and training to follow in early 2027.

Want to be a beta tester? Talk to Kris or Marty.



Focus Area 2: Financing the Pipeline

The Financing Problem is National

It's not just a Washington state problem. No existing product reaches offsite— for factories or for the builders and developers who buy from them.

Conventional construction lending was built for stick-built sequencing. Progress draws against work in place on the lender's real property.

Offsite inverts that. Up to 35% of unit cost (2D panelized) is committed before anything appears on site, paid to a factory, not visible on the lender's collateral.

The toolkit today doesn't reach. Banks do construction loans in the conventional zone. Nothing covers the deposit-and-prefabrication gap.

Public capital has gone to factories. Nationally, public dollars have flowed more heavily to manufacturers than to the builders and developers buying from them.

Oregon learning- In September 2026 Oregon's housing agency reported that factory capacity supported by its initial state funding is underutilized, with little integration between affordable developers and factory producers.

Capital for builder and developer uptake is the missing piece—
the piece that gives factories the stable order flow they need to scale.

Focus Area 2: Financing Update

PROGRESS

- ☑ Researched potential promising practices across the country (CA, CO, OR)
- ☑ Clearly articulated the barriers and the most likely options for WA state
- ☑ Identified two potential financing programs that include engagement with private lenders and CDFIs
- ☑ Conducted discovery sessions with potential demonstration program early adopters

PRIORITIES

- ❑ Launch two new innovative financing programs that support the use of offsite methods (see next slide)
- ❑ Identify options for providing backstops or guarantees to lenders of initial Deposit Draw pilot program

Two WSHFC Programs, One Gap

$20M of Commission program-related investment capital, approved by the WSHFC Board in August 2026.

Affordable Homeownership Revolving Construction Catalyst Fund — $10M

- Revolving predevelopment and construction loans to nonprofit homeownership developers: community land trusts, Habitat for Humanity affiliates, and similar.
- Administered by a Washington-based CDFI lender (administrator RFP released October 2026).
- Homes affordable primarily at 50 to 80% AMI, never above 120%; shared equity, 50-year affordability.
- Projects must use 2D panelized or 3D modular construction, aggregating demand for Washington state factories.

Offsite Innovation Fund (Reserve) — $10M

- Capitalizes a revolving loan fund administered by a banking partner, designed to bring conventional lenders into the offsite market.
- Structure shaped directly with lenders: gap loans, credit enhancements, or guarantees.
- Serves small, mission-aligned private developers building 80 to 120% AMI starter homes on infill lots.
- Goal: normalize offsite construction methods within the lending market, not become a permanent source of capital.

Focus Area 3: Workforce and Economic Development

SHP is an Engine for Economic Development

Incentivizes Business Growth

Scaling starter home production through offsite methods creates an entirely new ecosystem of economic opportunity.

Attracts New Capital

Private capital moves faster than public funding— SHP designs systems that leverage this.

Workforce Recruitment & Retention

90-minute commutes drive talent away.
Starter homes keep workers local.
Implementation creates livelihood-wage skilled jobs and robust career pathways.

Supports Revenue Growth

Healthy communities drive economic opportunity. Housing is foundational. SHP is designed as infrastructure, not a program.

GetHousingBuilt.org

Focus Area 3: Workforce and Economic Development Update

PROGRESS

- ☑ Project Manager identified (Jodi Lario)
- ☑ Subnetwork co-chairs identified
- ☑ Priority workplan mapped from SHP's *Ecosystem Playbook*
- ☑ Draft charter completed (purpose, scope, governance, equity framework)
- ☑ CRM and tracking systems in set-up
- ☑ Meeting cadence established
- ☑ Workforce priorities identified

PRIORITIES

- ☐ Orient and launch Core Team made up of each Subnetwork leader
- ☐ Subnetwork launch summit
- ☐ Map ecosystem and assets
- ☐ Identify funding resources
- ☐ Identify workforce shortages and skill gaps
- ☐ Align training & professional development with employer and industry needs
- ☐ Evaluate outcomes and scale successful elements

CAI Economic Impact Study: Phase 1 Analysis Just In!

- Documents the important role of the construction industry within Washington state's economy.
- Summarizes evidence on the economic, fiscal, and community benefits of residential construction.
- Emphasizes the benefits of reducing development and construction timelines through process improvements, standardization, and offsite construction techniques— **central features of SHP's model**.
- Establishes the foundation for deeper economic impact modeling in Phase 2.

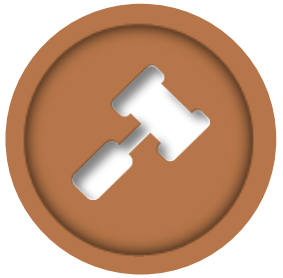
Just a Few of the Highlights:

- **If SHP reaches its goal of 10,000 starter homes by 2030, it would generate ~$205 - $220M in direct state retail sales and B&O tax revenue and $57 - $62M in state REET taxes, as well as local retail sales tax revenues, local B&O tax, and local REET revenues in cities that levy those taxes.**
- **Volumetric modular production can shorten project timelines by 20% to 50% and reduce costs by up to 20%, shifting on-site labor to factory production rather than eliminating it.**
- **Each new starter home built in WA generates ~ $12,800 - $31,300 in direct state retail sales and $900 to $2,300 B&O tax revenue, depending on home size and location.**
- **New construction added 1.3% to statewide assessed value in 2024, permanently expanding the local property tax base.**
- **Every 100 single-family homes generate $28.7 million in local income and $3.6 million in government revenue in the first year, plus $4.1 million and $1.0 million annually thereafter.**

The full Phase 1 and Phase 2 impact report will be available on the SHP website in early 2027.

Economic Impact Study: Phase 2 (Pending Funding)

- **Make the case for investment:** Demonstrate starter homes as a high-return investment in Washington state's economy, workforce, and communities.
- **Provide defensible, data-driven evidence:** Establish potential impact by translating vision into numbers stakeholders care about and can act on.
- **Identify tangible outcomes:** Creation of new family-wage skilled construction jobs supported by robust training; small business growth; expanded homeownership; new state and local tax revenues.
- Offer flexible, compelling resources to inform decision-making, build partner alignment, and **advance starter home production as a strategic priority for Washington state.**



Focus Area 4: Policy and Regulation

Focus Area 4: Policy and Regulation Update

PROGRESS – 2026 Legislative Session

- ☑ **HB 1974:** Coordinated Land Bank
- ☑ **HB 2151:** Factory-Built Housing Standards
- ☑ **HB 2304:** Condo Liability Reform
- ☑ **SB 6026**: Commercial to Residential Zoning
- ☑ **SB 6001:** Scissor Stair Regulation

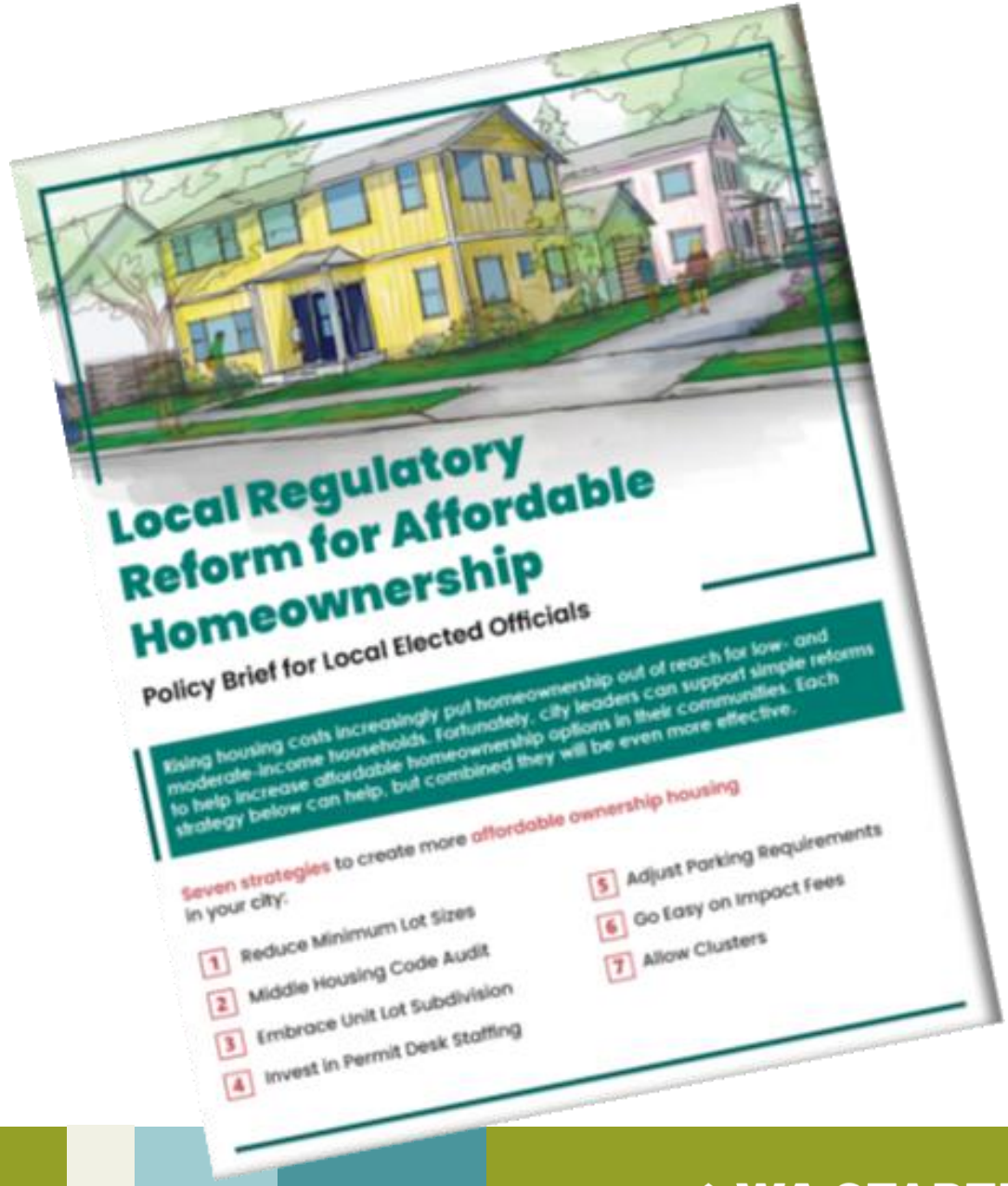
PRIORITIES – 2027 Legislative Session

- ❑ **Support reintroduction of SB 6015:** Permit-Ready Residential Building Plans
- ☐ **Implementation of HB 2151** (Offsite Construction Authority & Inspection Reform)
- ☐ Continuing to research the most contemporary relevant housing strategies
- ☐ Partnering with national support entities to explore strategies to pilot the most promising practices in WA
- ☐ Drafting a comprehensive policy primer

Supporting Local AHJs*

- Policy examples
- Promising practices to increase starter homes or reduce permit approval timelines
- Brokering connections

**Authority Having Jurisdiction*



WA Starter Home Plan:

A Housing Innovation Hub is Critical to Success



Unsplash (Photo: Alessandro Bianchi)

Key Roles of a Housing Innovation Hub

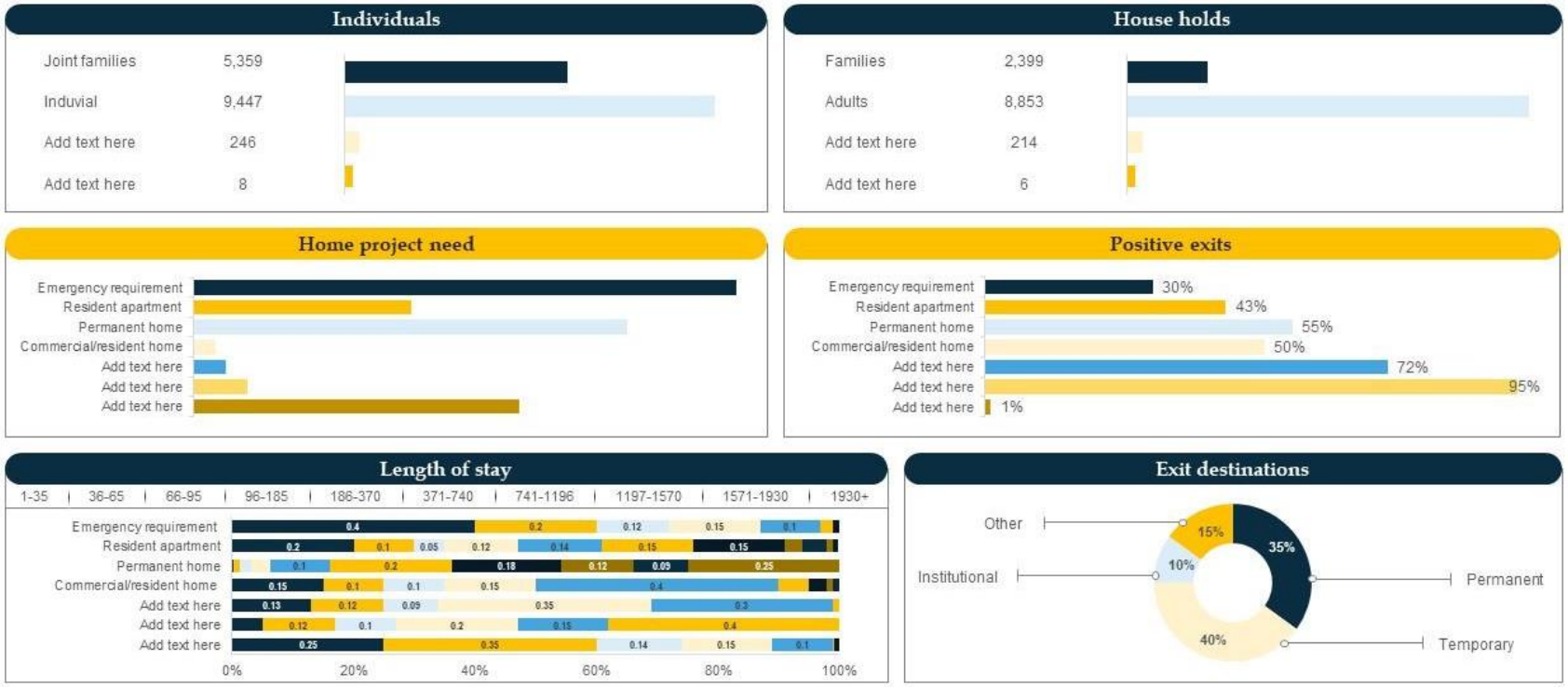
Likely to be located in the Housing Futures Center at the University of Washington

- **Active Data Center:** Continuously gather relevant and credible data; analyze; report and 'translate' in ways that effectively inform and guide internal and external stakeholders.
- **Industry Organizer:** Host Offsite Industry Association and Systems-Based Developer Collective.
- **Education Platform:** Manage learning objectives, design/delivery protocols, curricula, program assessments.
- **Language Steward:** Document and embed shared terminology and definitions.
- **Knowledge Management:** Acquire, update, and organize a living library of external and internal resources.
- **Demonstration Program Data Curation:** Collect, analyze, and guide application of project data; report lessons learned.

The HUB coordinates, stewards, and incubates. SHP's subnetworks and partners implement and deliver.

The Hub is Essential to "Real-Time" Data on SHP

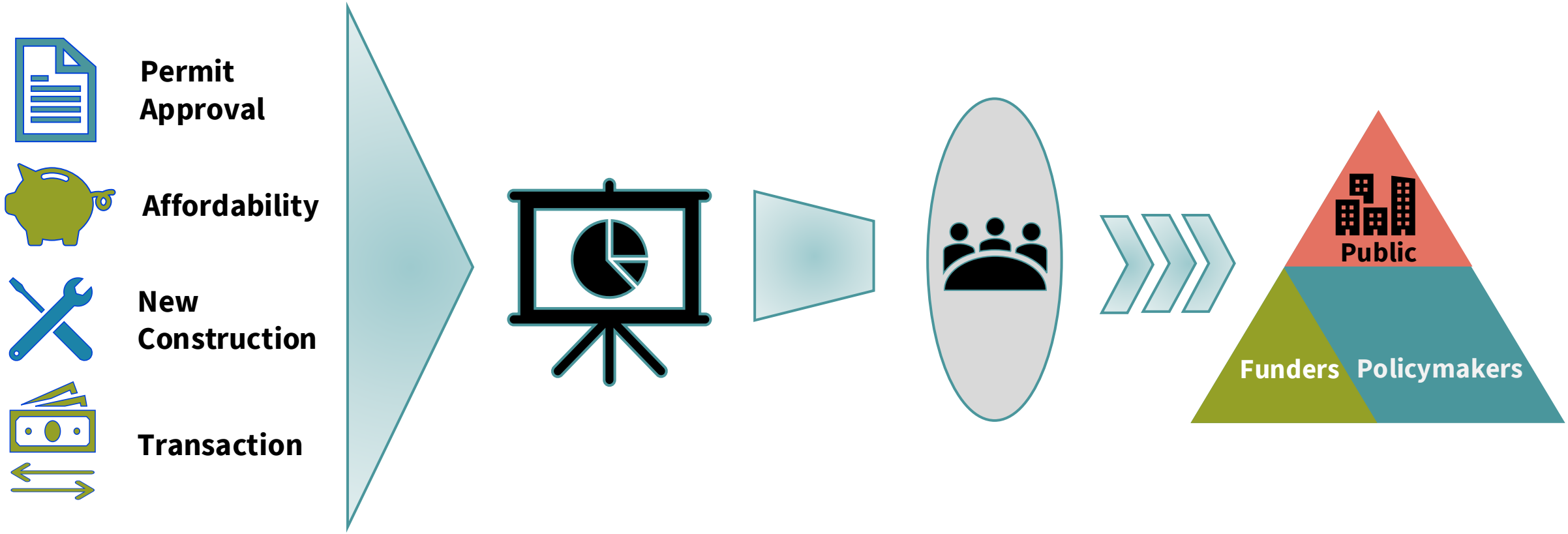
The Hub will host a public data dashboard online that updates automatically as data come in.



(Generic illustrative example. Does not include SHP categories or data)

The Hub: Proving Progress, Targeting Refinements

The performance dashboard will be the primary tool used by SHP's Project Management Collaborative (PMC) to **monitor and document progress** toward the goal of scaled statewide starter home production; to **target refinements**; and to **demonstrate impact** to funders, policymakers, and the public.



Hub Dashboard Data: Several Varied Sources

- **Major Cities With Open Data Portal.**

  Auburn, Bellevue, Bellingham, Bothell, Camas, Pasco, Renton, Seattle, Spokane, Vancouver

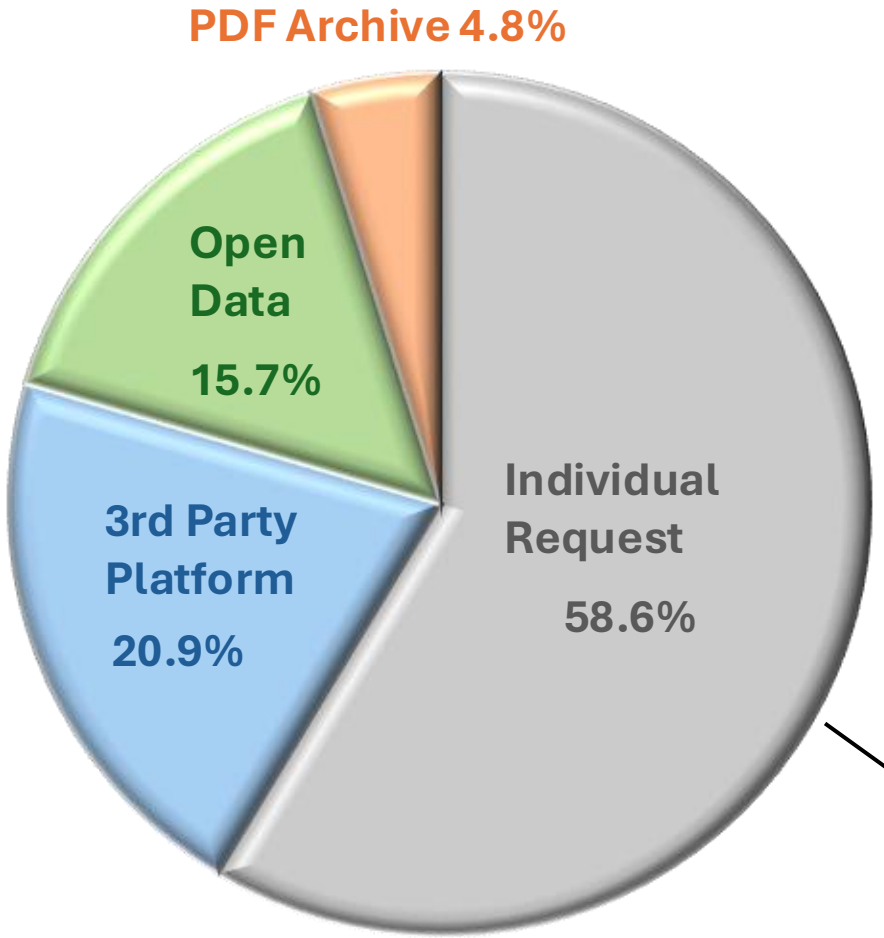
- **Major Third-Party Platforms.**

GRANICUS

SmartGov

MBP

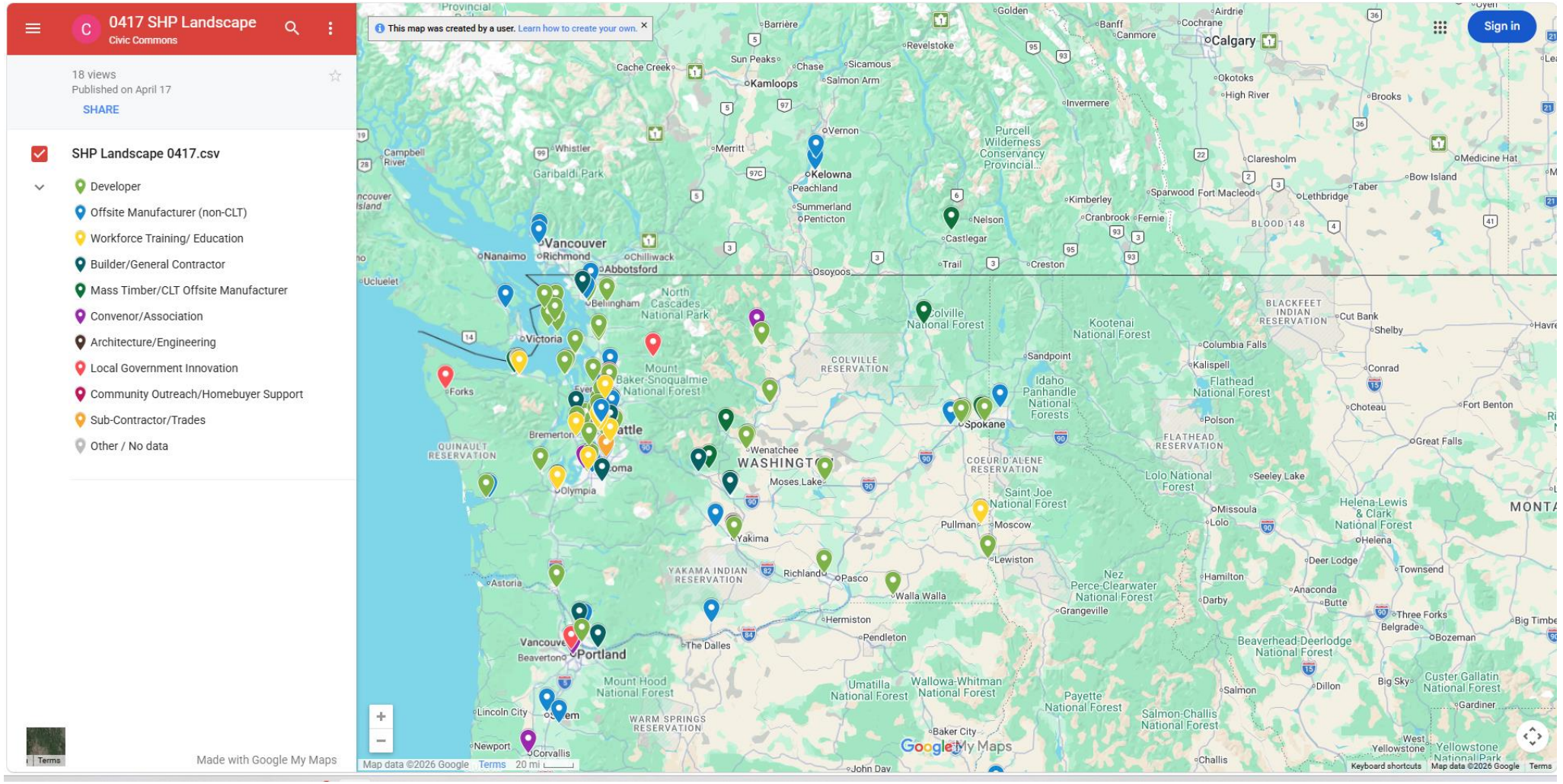
MyBuildingPermit



Building Permit Data Accessibility by WA Cities

While sales data are readily accessible through county assessors, access building permit data vary significantly across cities.

Hub Landscape Analysis Data



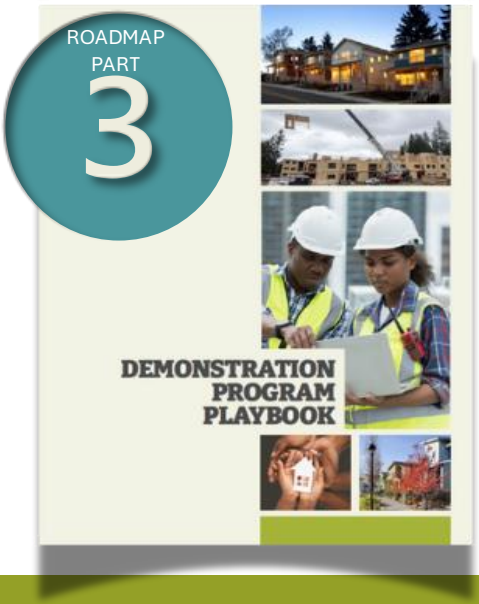
In the Hub, Education = Critical Infrastructure

*The goal is **system readiness**, not just **training**.*

- **Starter homes will not scale without aligned understanding across sectors.**
- **Fragmented education increases risk, delay, and mistrust across sectors and public.**
- **Education provides shared infrastructure that:**
  - establishes a common language,
  - reduces uncertainty,
  - responds to technical and adaptive challenges,
  - enables coordinated action.







A Shared Vocabulary is Essential

- Misaligned language and inconsistent definitions drive **confusion and resistance**.
- ***Language comes before scale.***

Before policy, finance, workforce, or training & development can succeed:

- A shared, plain-language vocabulary must exist.
- A shared vocabulary must be consistently used across:
  - government,
  - industry,
  - finance and real estate, and
  - public communication.



Performance-Based Code

Whereas a prescriptive code focuses on solutions, a performance-based code focuses on outcomes by creating a framework that both clearly defines the intent of the code and provides a process to understand quantitatively what the code is trying to achieve. This framework facilitates new techniques and reduces implementation time for new construction methods. (Definition adapted from https://codes.iccsafe.org/content/ICCPC2021V1.0/effective-use-of-the-international-code-council-performance-code-for-buildings-and-facilities)

Plays, Actions, and Tasks

Play: A strategic intervention designed to unlock a specific barrier to starter home production. Plays include summaries, actions, responsible parties, risks, and measurable outcomes.

Action: A specific initiative or policy step within a Play. Actions define what must be done and by whom to move the Play forward.

Task: Concrete activities that implement each Action. Tasks are often time-bound and assigned to individuals or organizations.

PMC (Project Management Collaborative)

A proposed multi-sector task force charged with coordinating implementation of the Plan's recommendations. The PMC would be a temporary entity operating across four core areas—land and development, policy and regulation, financing, and workforce—and would be responsible for overseeing Actions and pilot projects as described in the Playbooks. Note: the acronym "PMC" is used in other ways within the off-site industry; in the Plan and Playbooks, "PMC" is used solely as defined here.

Pre-Approved Design

A standard building design that has been cleared in advance by state and/or local jurisdictions, allowing for streamlined permitting and reuse across multiple projects and sites.

Pre-Purchase Agreement

A contract in which a buyer (often a public agency or nonprofit) agrees in advance to purchase a home or set of homes once built. This can reduce risk and improve capital flow for developers and off-site manufacturers.

Standardization

The process of developing shared norms, tools, and methods (e.g., design templates, permitting checklists, contracts) to reduce friction, improve quality, and enable scale.

In the Hub, Education = Practical and Impactful

The MOD X Offsite Accelerator™ is an outstanding example.

MOD X OFFSITE ACCELERATOR™

Industrialized Construction Educational Program

Developed and delivered by MOD X in partnership with the WA Starter Home Plan [SHP].

- Program spans four 1-hour online sessions; registrants should commit to all four.
- Especially valuable to builders, developers, manufacturers, investors, and lenders. Also useful to elected officials and their staff.
- Limit of 40 registrants.
- Program fee (includes all four sessions): $250
- **Registration closes on August 31, 2026.**

DETAILS + REGISTRATION

SESSION 01
OFFSITE HOUSING DEFINED
09.08.26 | 10AM PT

Introduction to offsite construction-- including definitions, contextual drivers, and technology classifications of component, panelized, and volumetric systems-- with relevant examples. Covers barriers and opportunities for offsite housing delivery.

SESSION 02
MANUFACTURING MINDSET
09.10.26 | 10AM PT

Reviews the process of design documentation, design for manufacture and assembly (DfMA), modularization and product platforms, and examples of U.S. and international companies utilizing a platform approach to offsite housing.

SESSION 03
BUSINESS AND DELIVERY OF OFFSITE
09.15.26 | 10AM PT

Shares contemporary practices of offsite through vertical and horizontal integration. Explores a U.S. model for a collaborative team approach to offsite housing delivery utilized by practitioners today.

SESSION 04
IMPLEMENTATION WORKSHOP
09.17.26 | 10AM PT

Follow-on Q&A session moderated by MOD X. Participants will present current projects and prepare related practice-based questions for discussion with the MOD X leadership team and other participants of the Offsite Accelerator.

Program Sponsors

COLUMBIA BANK
JPMorganChase
HOUSING FUTURES CENTER, UNIVERSITY of WASHINGTON
CRAFT CONTRACTING & CONSULTING

WA Starter Home Plan:

What SHP Needs from YOU

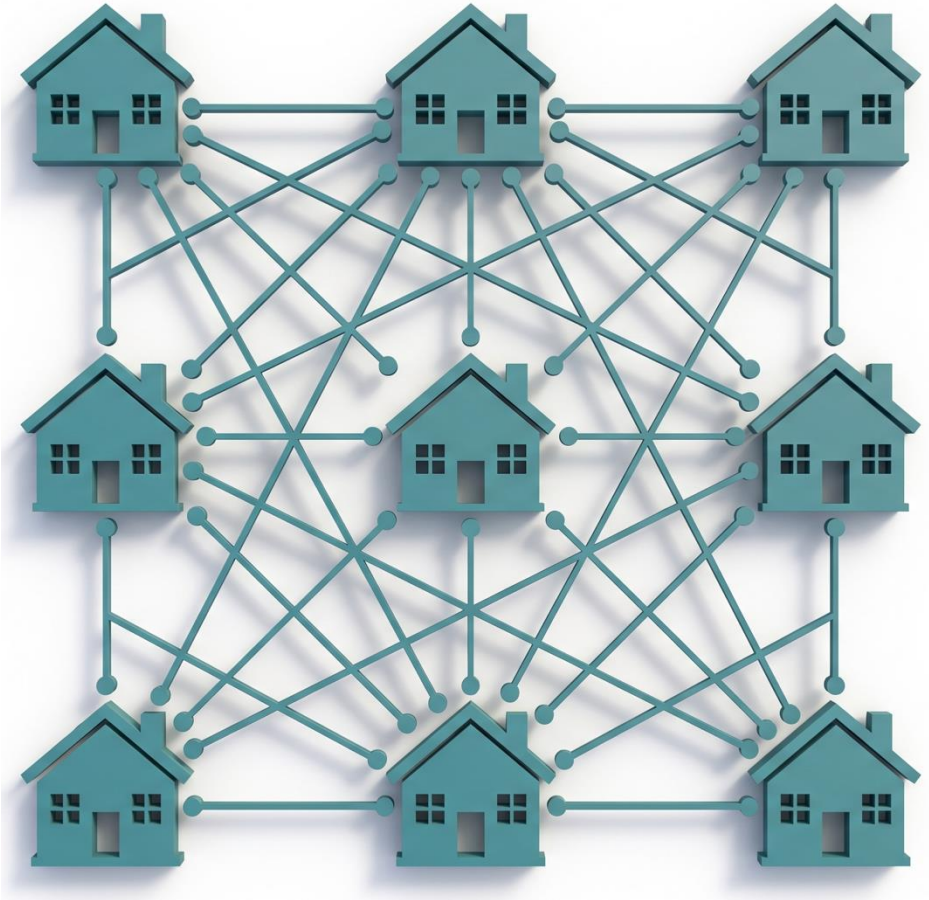


Courtesy 1DROP, Developers, and Collaborators

WA State Can Become the National Leader in Attainable Homeownership: *This is the Opportunity.*

To get there, we must:

- Build **more** starter homes.
- Build them **faster**.
- Build them more **predictably**.
- Build them at **lower cost**.
- **Build a starter home ecosystem capable of sustaining scaled production for decades.**



“

It’s time to be **IMPATIENT.**

We know where we need to go.



And now we have a roadmap.

”

- Washington State Lieutenant Governor Denny Heck

Questions?
Ideas?

VISIT

www.GetHousingBuilt.org

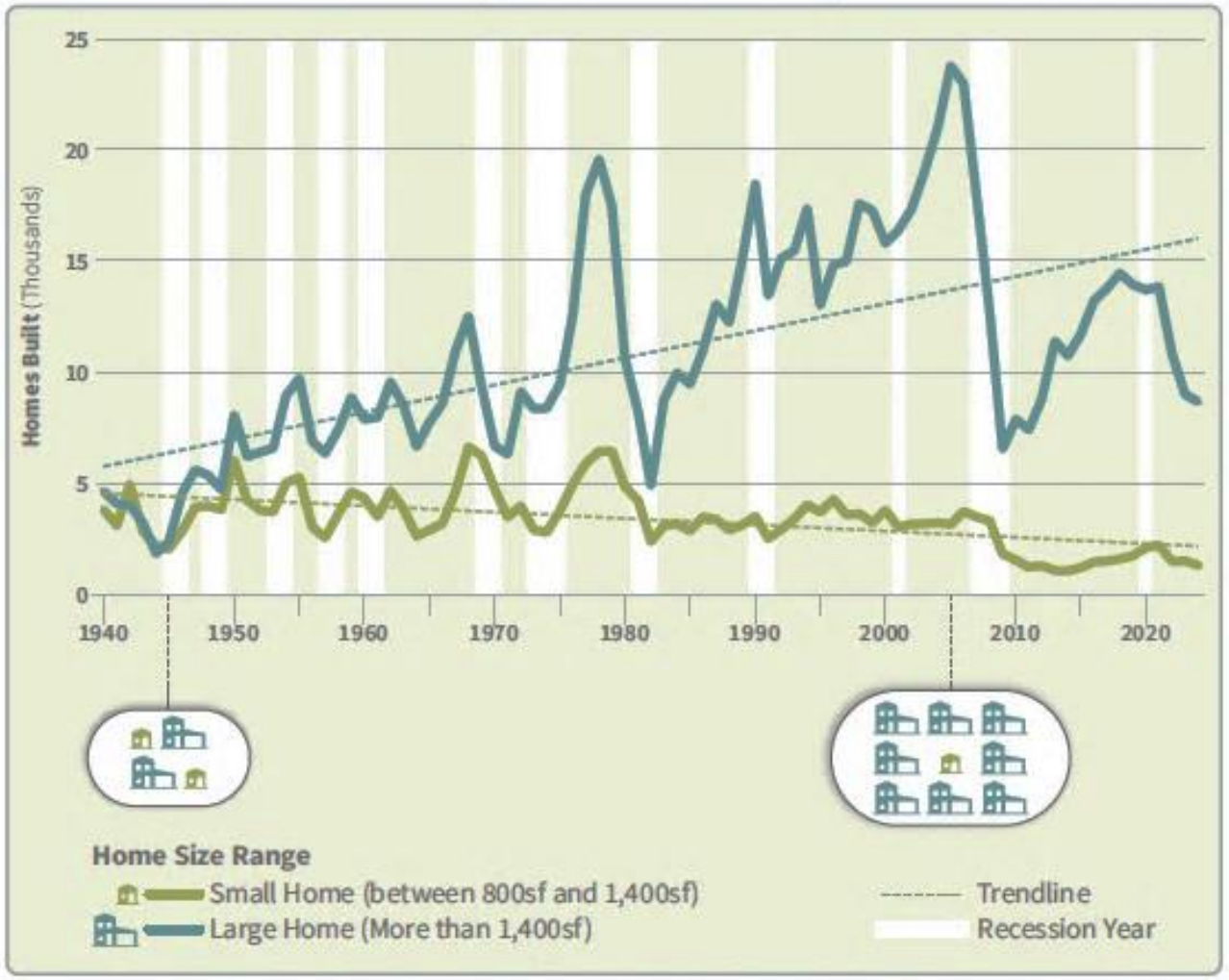
REACH OUT

Kris Hermanns, Interim Project Lead
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Additional Slides

House Production in 7 WA Counties, 1940-2023



- **Square footage of homes** built in King, Pierce, Snohomish, Thurston, Clark, Whatcom, and Spokane Counties since 1940
- **Over 70% of WA's population** is in these counties
- Homes **> 1,400 sf: Clear increase** in production
- Homes **800sf - 1,400 sf: Clear decrease** in production

Scotland's Industrialized Housing Ecosystem

Industrialized Housing Production

Factories predominately produce 2d panelized components (walls, floor cassettes) (mix of open and closed wall panels with closed slowly gaining uptake) using "timber" (lumber) in organized environments.

Collaborative Ecosystem

Coordination among government, manufacturers/builders, and universities, strengthens the ecosystem.

Production Efficiency and Quality

Disciplined production flows with quality control and digital tracking reduce rework and improve reliability.

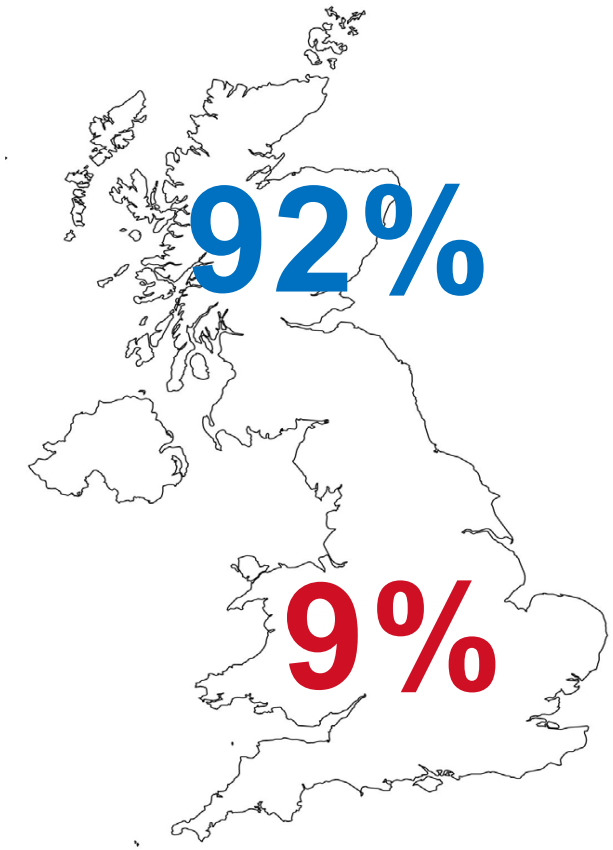
Design Integration and Standardization

Early design standardization aligns architectural plans with manufacturing constraints for efficient building.



Timber (lumber) Frame Construction

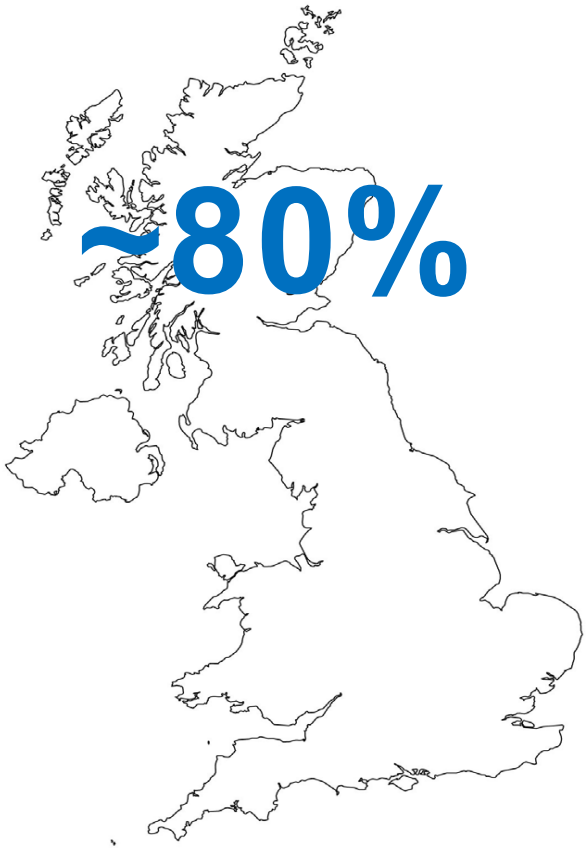
Scotland vs. England



Offsite MMC Housing

Scotland

Timber = Offsite in Scotland



Sources: Deakin (2020) and Structural Timber Association (2022) as cited by MOD X (2025)

Scotland: Lessons for SHP







System-Level Coordination

Coordinated governance aligns policy, funding, and production to avoid reliance on market self-organization.

Workforce Training Integration

Partnering with training providers ensures that skills development effectively matches factory and site needs.

Production Pipeline Clarity

Providing manufacturers with multi-year demand visibility supports stable and scalable production pipelines.

Public-Sector Leadership Role

Public co-investment helps de-risk innovation and sets clear expectations for capacity building.

Boston: Lessons for SHP







Coordination Between Stakeholders

Early and ongoing coordination between developers and manufacturers reduces change orders and balances financial risks.

Municipal Support for Innovation

Municipalities enable modular innovation by providing clear expectations and modular-friendly permitting guidance.

Value of Demonstration Projects

Demonstration projects serve as learning tools that build stakeholder confidence and refine modular systems.

Community Benefits and Equity

Early integration of workforce and equity outcomes strengthens public support and long-term impact.

MOD X Exchanges: Validation of Offsite's Promise

MOD X Exchanges in Scotland & Boston

Explored industrialized construction ecosystems, seeking practical insights for SHP.

Scotland's Industrial Strategy

Scotland emphasizes coordinated government strategy for demand signaling, standards, and workforce development with BE-ST Innovation Centre.

Boston's Evolving Capacity and Competence

Emerging platforms including 2d panels/cassettes and "micro modular factories as Boston seeks to do dense urban offsite with aligned permitting and developer-manufacturer collaboration.



7 Essential Ways the Senate Housing Committee Can Accelerate Starter Home Production Statewide

1. **Land & Development:** Champion policies and programs that increase the supply of buildable land.
2. **Financing:** Unlock private-sector investment by reducing barriers, fostering innovative financing tools, and creating greater certainty for capital providers.
3. **Policy & Regulation:** Continue advancing permitting, approval, and standardization reforms that reduce time, cost, and uncertainty.
4. **Workforce & Economic Development:** Invest in workforce strategies that align skilled labor with modern housing production methods and future demand.
5. **Innovation & Learning Infrastructure:** Support the Housing Innovation Hub as Washington's platform for data, education, industry collaboration, and continuous improvement.
6. **Production Capacity & Industrial Development:** Support production infrastructure (e.g., Craft's manufacturing capabilities and its East Tacoma Housing Production Integrated Campus) as statewide assets.
7. **Leadership & Advocacy:** Elevate the Starter Home Plan as a statewide priority by serving as ambassadors, conveners, and champions for a stronger housing production system.

SHP Stands Ready to Partner with the Legislature to Make That Vision a Reality

- The goal is ***not*** more housing programs.
- The goal ***is*** a strong housing ecosystem that consistently delivers attainable homeownership opportunities for Washington state families.
- We're asking you to help build that system.
- We're asking you to help deliver those houses.

WA STARTER HOME PLAN

SHP's Townhouse Design Competition: Results

Office of Ordinary Architecture — Design Plan CCP2+01 (Proposed Structure Height: 25'-3 ½")



GetHousingBuilt.org

SHP's Townhouse Design Competition: Results

Seahaus — Design Plan TBS-222 (Proposed Structure Height: 22'-10")



GetHousingBuilt.org

SHP's Townhouse Design Competition: Results

WOOD Studio — Design Plan MOD21.5



SHP's Townhouse Design Competition: Results

Honorable mention: **Wing Point Associates LLC —** Design Plan WPA002$ (Proposed StructureHeight: 26'-4")



SHP's Townhouse Design Competition: Results

Neiman Taber Architects — Design Plan A-3BR15 (Proposed Structure Height: 26'-4 ½")



usingBuilt.org

SHP's Townhouse Design Competition: Results

RGA Atelier — Design Plan STR357+



SHP's Townhouse Design Competition: Results

Honorable mention: **Moondog Studio Architecture —** Design Plan BRP#886



SHP's Townhouse Design Competition: Results

Neiman Taber Architects — Design Plan B-4BR20 (Proposed Structure Height: 26'-4 ½")



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SHP's Townhouse Design Competition: Results

Washington State University — Design Plan JRT001! (Proposed Structure Height: 32'-0")



SHP's Townhouse Design Competition: Results

Honorable mention: **Schemata Workshop —** Design Plan BSE-432



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