Orientation to 802 Homes

utile AARP

VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Our Mission

Vermonters need better housing options and more affordable homes. Meeting that need requires changing the ways homes are built in Vermont, especially the location and types of new homes.

Today, the majority of new home production in Vermont consists primarily of large and expensive single-family homes on large and mid-size lots, and large-scale multi-family apartment buildings. Vermonters looking for housing options in-between these two types, such as a unit within a duplex or four-plex, cooperative housing, age-friendly homes, or townhouses and condominiums have very limited options. Regulatory and financial barriers have made developing diverse types of homes on a small footprint harder and more complicated. This project aims to change that by unraveling the regulatory complexity and reviving common sense solutions that work for Vermont.

Phases of Homes for All

Phase 1

Homes for All Toolkit
A 'Design & Do' Toolkit for Small-scale Home Builders, Investors and Community Leaders.
Status: Complete

Phase 2

Training Curriculum & Cohort
Trainings are live with the Incremental Development Alliance!

Phase 3

802 Homes Catalog
Construction-ready home designs, made available for free to developers accross Vermont.
This is today's focus!

- 10 home designs, optimized for off-site "modular" building and on-site traditional building techniques.
- Streamlined approval and permitting to help us build at the pace and price we need.

Partner Communities



Essex Junction, **Hartford** and the **Town of Manchester** are helping us to:

- Identify eligible infill sites
- Co-develop and test home designs within the community
- Expand access to development opportunities for would-be housing developers
- Create a roadmap for other communities by identifying the steps required to incorporate administrative approvals into bylaws or streamline existing permitting processes.

In Phase 1, we partnered with **Arlington**, **Bellows Falls**, **Middlesex**, **Rutland City** and **Vergennes** to calibrate the home designs and infill guidance provided in the Toolkit.

Process

Development of the 802 Homes Catalog will last approximately one year with the home design and community engagement processes moving in parallel.

About the Design Process

Each phase helps us get progress from the initial big picture concepts to detailed construction-ready designs.

- Initiation
- Community Partner Engagement & Resources
- Concept Design
- Schematic Design (SD)
- Design Development (DD)
- Construction Documents (CD)
- 802 Homes Catalog

<< 2025 2026 >>

Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar

<< 2026 2027 >>

Technical Advisory Group + Policy Leadership Meetings

Development Ready Community Partners *Steering Committee*

Other Statewide Engagement Opportunities

- Inventory Kickoff
- Community Workshops
- Ad-Hoc Virtual Engagement
- Online Survey
- Age-Friendly Housing Workshops
- Catalog Launch Event

How to Participate

Step 1. Get informed and connected.

Visit the website to learn more and subscribe to our email updates:

tinyurl.com/802homes

Contact Jeff Dube at:
jeff.dube@vermont.gov

Step 2. Share your ideas.

Add your input on the boards, fill out a comment card, and talk to members of the project team.

Boards with this symbol are informational.

Boards with this symbol are asking for input.

Project Partners

VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

AARP

Consultant Team

utile

Partner Municipalities

Arlington
Bellows Falls
Essex Junction
Hartford
Manchester
Middlesex
Rutland City
Vergennes

All At Once
LOGIC BUILDING SYSTEMS
Bensonwood
TBD
MTA MASS TIMBER ADVISORS

Unmet Housing Needs

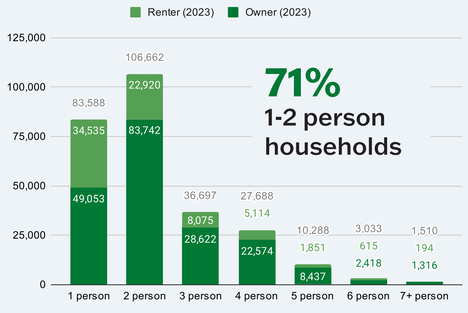
Defining the gaps and our strategy

utile AARP VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

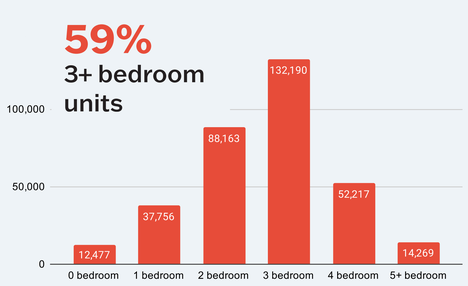
Scan the QR code to visit the project website and learn more!

Vermont's Housing Needs

The age mix and household sizes and types in Vermont have changed a lot in the last 50 years. Much of our existing housing stock consists of large homes that are no longer aligned with our demographics. We need our housing mix to better serve older Vermonters, smaller households, young families and multigenerational households at a cost aligned with median income in existing neighborhoods and village centers that are well served by infrastructure with amenities that are accessible without a car.



71%
1-2 person households



59%
3+ bedroom units

Source: 2023, VHFA.

Our focus is on closing that gap, which means:

- **Unit Sizes:** 1-2 bedroom units with expandability and multi-generational options
- **Unit Types:** prioritize ground-floor units designed with accessibility and aging-in-place in mind

Each home design candidate is calibrated to align to at least one (and where possible multiple) common **infill site types** across many Vermont neighborhoods as well as one or more **home design goal** driven by Vermont's housing needs. These are indicated on the top right of each home design candidate board with the color-coded tagging system shown to the right.

Calibrating Scale

Aligning scale to context and feasibility.

Vermont needs many parallel housing production strategies to close the gap. This is just one.

We are focused on residential at the 1-4 unit scale, up to 2.5 stories.

Why is this a development "sweet spot" for small-scale developers?

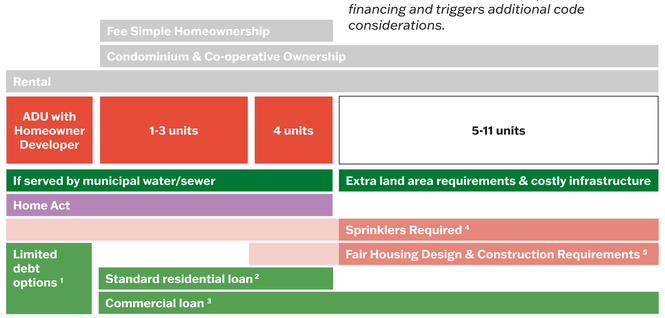
- Aligned to typical detached single family home neighborhood development pattern and constraints of code and financing
- Lower risk on-ramp for first-timers
- Capacity building to grow a cohort of small-scale developers that can eventually grow into development sweet spot #2

Development Sweet Spot #1
1-4 Unit

Most opportunity and flexibility.
Note: the lack of conventional financing products for ADUs remains a constraint.

Development Sweet Spot #2
5-11 Unit

More challenging for a first-timer.
While this scale offers economies of scale and supports live-work and mixed-use, it necessitates more complex financing and triggers additional code considerations.



Legend

- Unit Types
- Policy
- Ancillary Codes
- Financing
- Infrastructure & Site

Notes:

Based on our research to date, this is our current understanding of the specifics of code and financing constraints as they apply to small multifamily residential buildings in Vermont. Please talk to a project team member if you think we have missed anything important here.

1. Second position, if no refinance into renovation loan.

2. 30-year fixed-rate mortgage for owner occupant.

3. If operating within LLC structure, a commercial loan is required which requires more substantial upfront equity and shorter term lengths.

4. For multi-unit buildings below 5 units, entries must be separate, otherwise sprinklers are required. In many communities non-owner occupied (rental) also triggers the need for sprinklers, regardless of building size.

5. Applies to buildings with 4 or more units. At five units or more, 1 unit or 5% of units must be accessible if within a single structure.

Overcoming Costs

Strategies to reduce new construction costs.

802 Homes strives to lower risks and delays, moving toward predictable, repeatable delivery that benefits builders, manufacturers, lenders, municipalities, and homebuyers.

802 Homes, off-site construction, and infrastructure financing tools such as the Community and Housing Infrastructure Program (CHIP) reduce costs at different points in the housing delivery system.

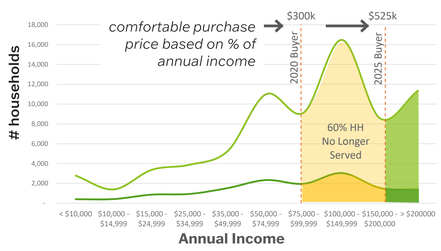
Together, they operate as an integrated delivery system that **helps us close the gap between Vermont's construction costs and the home price people can afford.**

What does this show?

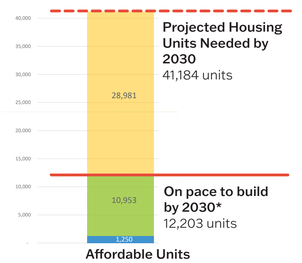
These graphs show the income distribution for Addison and Chittenden Counties as compared with the home price that is affordable for different income brackets, revealing how middle-income households have been excluded from the homebuyer market between 2020 and 2025.

How do we **shift the costs to the left?**

- Chittenden County Income Distribution
- Addison County Income Distribution







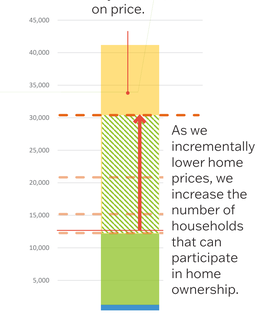
Projected Housing Units Needed by 2030
41,184 units

On pace to build by 2030*
12,203 units

Affordable Units

* As projected by the DHCD Housing Development Dashboard based on average annual home construction 2021-2024.

Middle income households in yellow remain excluded from the buyer market based on price.



As we incrementally lower home prices, we increase the number of households that can participate in home ownership.

Data Source: Income distributions are from 2023, VHFA. The construction costs are from 2020 and 2025, Summit Properties. Repurposed from Summit Properties testimony for the Senate Natural Resources and Energy Committee on January 30th of 2026.

Home Design Candidate Tagging System

Infill Site Type

- **Narrow**
- **Wide**
- **Out Building**

To align to the shape and size of available land in our communities, these home designs are calibrated to be **narrow** (for skinny side lots), **wide and shallow** (for lots with significant topography and environmental features as you get farther from the road), and **out building** sized (to fit beside or behind existing homes).

Home Design Goals

- **Age-in-Place** — Contains at least one unit with single-story living and accessibility features that allows Vermonters to age in place.
- **Workforce Housing** — Designed to support working-age adults with smaller households and constrained budgets. Generally rental-oriented.
- **Starter Home** — Designed to support attainable first-time homeownership in a smaller footprint with features for adaptability over time.
- **Multigenerational** — Designed to support multiple households with close family or community relationships and diverse stages of life.
- **For Sale** / **For Rent** — Unit arrangement or embedded features that are aligned to market preferences for one or both occupancy types.

What resonates for your community?

Place your sticky notes here!

Infill Approach

Site suitability, guiding principles for infill development, and the role of municipal planning and policy

utile AARP

VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Guiding Principles

1. **Aligned to environmental and infrastructure capacity**
   Served by municipal water and sewer with vehicular access from a public right of way and significant developable area without floodplains, steep slopes, or conservation area.

2. **Well connected to existing downtowns and village centers.**
   Located in areas that offer a variety of transportation options, have strong access to critical amenities and services, and support valued existing commercial and civic centers.

3. **Sufficient developable area to support new housing.**
   Parcel is vacant or has enough developable area excluding existing buildings, infrastructure, and environmental constraints to support housing.

4. **Sensitive to existing context and development patterns.**
   Is reponsive to and at home within the scale and pattern of existing development in the immediate neighborhood surrounding the site.

5. **Balances privacy and community by design.**
   Allows for reasonable privacy separation between homes while supporting social configuration that promotes interaction and active shared streets.

Key Municipal Regulations & Review Process Insights

Municipal Investment Prioritization & Alignment

Clear Planning Direction

- Comprehensive Plan completed in the last decade with clear spatial growth framework to direct infill development and density
- Identification of priority infill sites and redevelopment support (technical assistance, clear vision, proactive infrastructure and legal site preparation work, strong community process management)

Infrastructure Network Assessment & Investment

- Good, publicly accessible data on where water and sewer infrastructure exists
- Strong understanding of capacity of existing and planned infrastructure
- Gaps and priorities are clearly identified
- Funding strategies are being pursued for priority projects
- Relevant tools and resources are clearly identified and promoted

Regulatory Alignment to Reduce Barriers to Infill Housing

Engineering & Environmental Standards

Fire & Life Safety Code. State fire and life safety code is often extended by local regulations that can be significant barriers to infill housing including:

- Maximum Distance of Home from Public Street (typically tied to the length of a hose)
- Fire Truck Turning Area Requirement
- Driveway Width & Placement (typically tied to the ability of a fire truck to park and use the truck-mounted ladder)

Complete Streets, Transportation & Parking Standards. This includes required minimum parking ratios, curb cuts, and drive aisle width standards.

Stormwater & Erosion Control. Lot coverage, permeable surface, and construction erosion control provide critical environmental protections but often interact in complex and costly ways for small projects. Establishing a simpler menu-based approach and increased public sector technical capacity can reduce the need for costly professional services.

Natural Resources & Open Space. These are often rolled into lot coverage, but are best regulated more directly via minimum green space, a tree protection ordinance, and minimum usable open space.

Subdivision, Site & Building Design Standards

Many lots that are viable for infill housing are undermined by dimensional standards and processes.

Subdivision & Site Planning

- Establish minor subdivision via administrative approval
- Allow reasonable flexibility in use and building relationships (allow small multi-family and second principal structures)
- Making more “buildable” lots by reducing minimum lot size and frontage, and allowing road access via easement
- Unlock buildable area by reducing setbacks and allowing more lot coverage

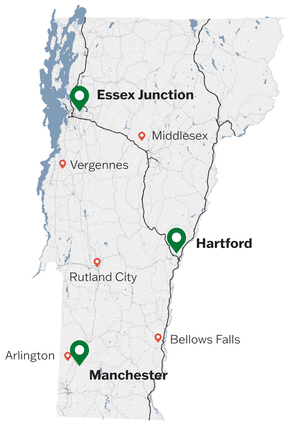
Building Design

Requiring a street-facing entry can make narrow housing typologies less viable because it reduces living area and increases circulation space. Allowing side-entry alternatives that maintain street activation can help significantly.

The Need for Zoning Reform

In most cases, the infill parcel case studies developed through this effort would not be possible under the by-right zoning in their communities. However, the infill test-fits have all been developed to match the norms of existing development patterns and showcase, as well as inspire, the kind of development that would be possible with sensible zoning reforms.

Partner Communities



Essex Junction, **Hartford** and the **Town of Manchester** are helping us to:

- Identify eligible infill sites
- Co-develop and test home designs within the community
- Expand access to development opportunities for would-be housing developers
- Create a roadmap for other communities by identifying the steps required to incorporate administrative approvals into bylaws or streamline existing permitting processes.

In Phase 1, we partnered with Arlington, Bellows Falls, Middlesex, Rutland City and Vergennes to calibrate the home designs and infill guidance provided in the Toolkit.

The importance of on-site observation and municipal engagement on regulations.

As part of the Phase 1 process, the planning and design team ran “walkshops” in each of the partner communities to identify existing buildings typologies and explore the conditions, constraints, and opportunities of potential infill sites in the community. At each site there was an opportunity to discuss what typologies would fit best, visualize together, and identify siting considerations should be prioritized.







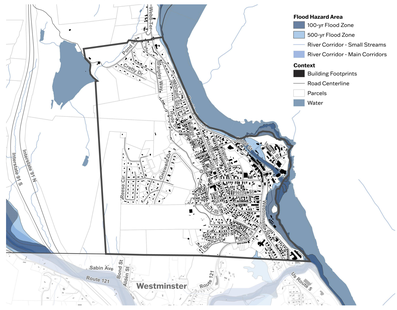
Infill Site Suitibility Mapping & Test-Fitting

The Bellows Falls case study, reproduced below, illustrates the step-by-step method developed to guide infill approach. First, an Infill Focus Area is identified based on environmental and infrastructure constraints, then a design and development approach can be developed in response to a site.

Environmental & Infrastructure Constraints

1. Parcel or significant developable area of parcel is outside FEMA flood zone and River Corridors.
2. Parcel or significant developable area of parcel is outside steep slope and high priority conservation areas.
3. Parcel has access to municipal water and sewer, where available.
4. Developable area of parcel or the whole parcel has or could have direct access to a public right-of-way.

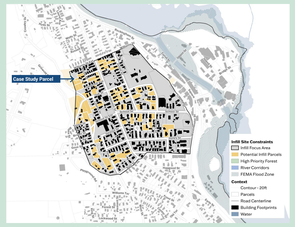
FEMA Flood Hazard Areas



Infill Focus Area

Diversity of parcel conditions and their concentration or proximity to one another

Walkability and proximity to the village center commercial district



Environmental Constraints Analysis



Steep Slope Analysis

Design & Regulatory Constraints

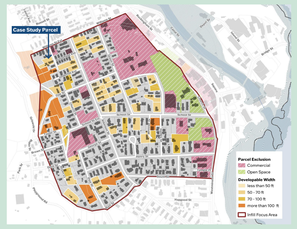
5. Parcel is vacant or has significant developable area excluding existing buildings, infrastructure, and environmental constraints.
6. The size and shape of the developable parcel area can fit one of the missing middle home typologies spatially. In most cases, the developable width of the parcel is the primary constraint.
7. Parcel is (or will be) zoned to allow missing middle housing developments.



The Result!



Case Study Parcel





9 Myrtle Street is walking distance to the village center and is owned by a local developer that is already managing the other building on the site as a rental property. The goal is to develop a second building on the site that fits on the narrow lot but maximizes the number of studio and one-bedroom units in order to meet a local housing need and improve the financial feasibility of the development.

Infrastructure & Regulatory Constraints

Water Access	Municipal
Wastewater Access	Municipal
Max. Units Allowed	2 units
# Parking Spaces Per Unit	1 space/unit
Setbacks (Front / Side / Rear)	25’ / 20’ / 30’
Minimum Lot Size	7,000 sf, 2,500 sf/unit

Why the Narrow Lot Typology?

Designed to fit on narrow lots and underutilized side yards, it was chosen for this site due to:

- Its dimensions fit the developable lot area well.
- The unit types and sizes are a good fit for local housing need.
- Its proportions very closely mirror that of the existing buildings near the chosen site.



The typology can be tailored to its context by adding a full front porch that very closely mimics that of the home immediately to its right. The roof pitch and proportions of the typology are already very similar to its neighbor to the right.

Development Metrics

# Units	4 Units
# Bedrooms per Unit	(2) Studio, (2) 1 Bedroom
Unit Types	(2) Age-friendly, (2) Conventional
Area (GSF) per Unit	506 sf / 688 sf / 713 sf / 893 sf
Building Footprint	20’ x 70’

Infill Case Studies

Scaling up to the neighborhood

utile AARP VERMONT

AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

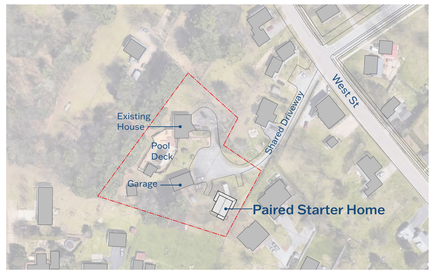
Scan the QR code to visit the project website and learn more!

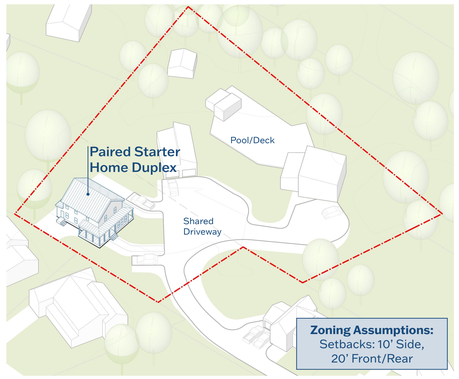
Essex Junction



24 West St

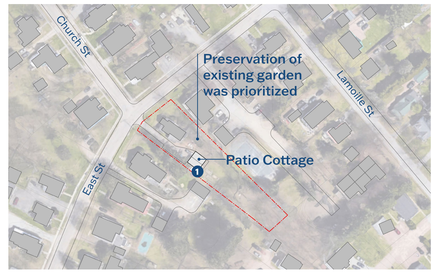
We are showing the addition of the "paired-starter home" typology on this lot. In this case, we are also suggesting a potential subdivision.

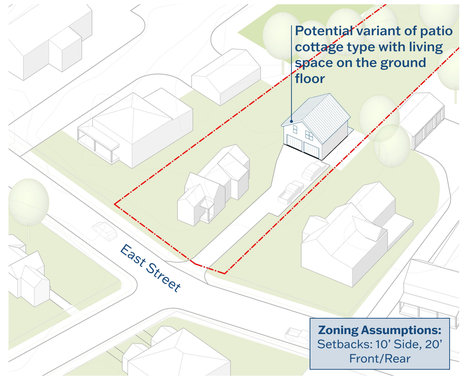




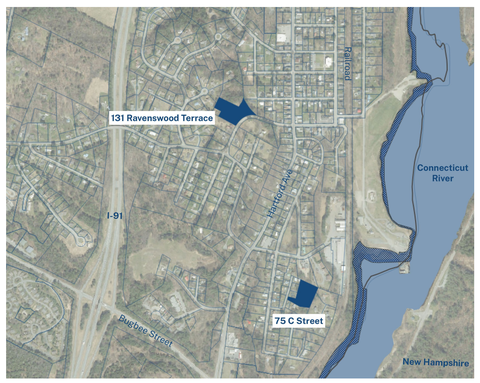
15 East St

We are showing the addition of the "patio-cottage" typology in the rear yard of 15 East Street. In this case the new ADU replaces the existing garage.



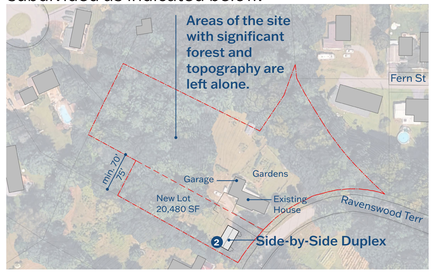


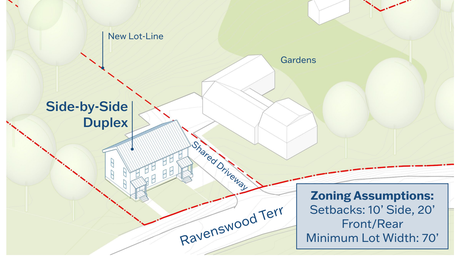
Hartford



131 Ravenswood Terrace

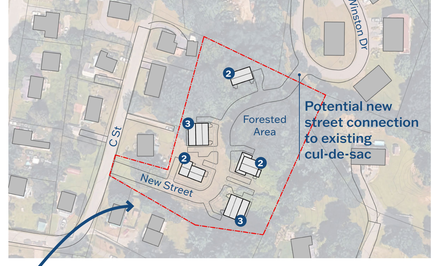
We are showing the addition of the "side-by-side" duplex on this lot. In this case, due to local zoning regulations the existing parcel would need to be subdivided as indicated below.

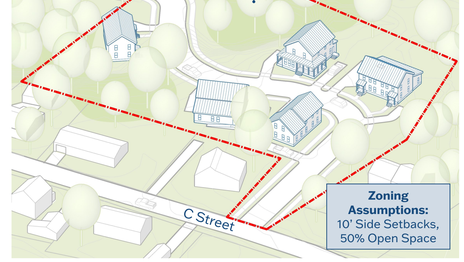




75 C Street

This parcel has the potential to host ten homes, and provide a connection from Winston Dr to C St, while preserving the forested area on site utilizing a planned development area zoning path.



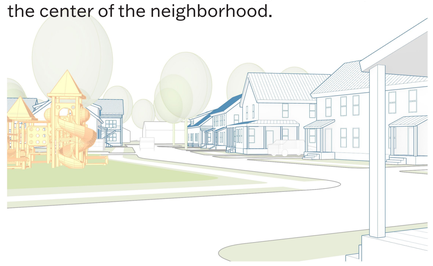


Manchester

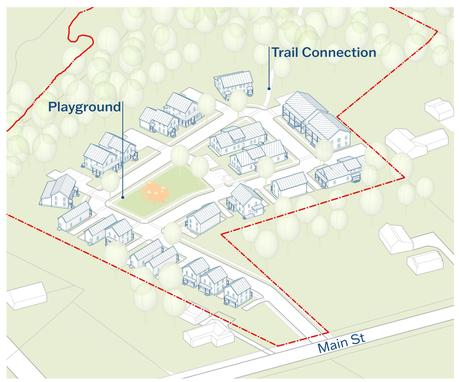


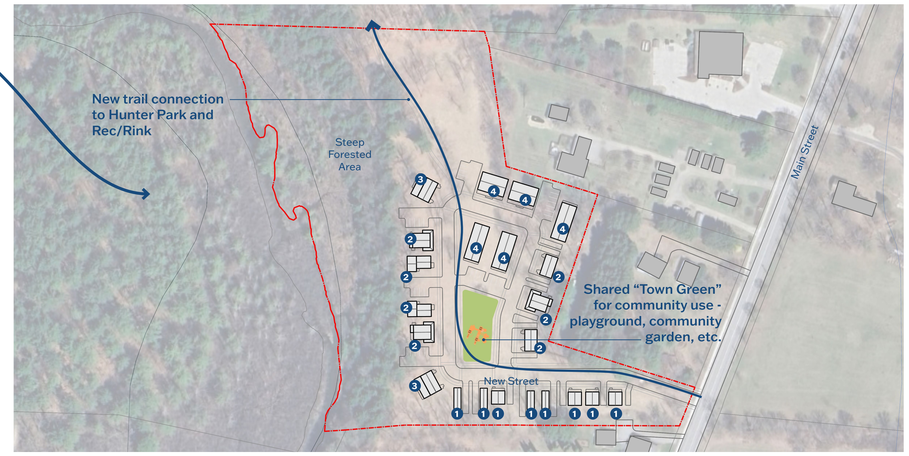
AD Main St

Here, where are showing the potential for 48 units with a mix of typologies to meet the needs of a variety of residents. We are also showing the potential for a new central playground and park at the center of the neighborhood.



Depending on the size of the infill opportunity, the home designs in the 802 Homes Catalog can be assembled to create a new neighborhood.





Zoning Disclaimer: These infill parcel case studies may not be possible under the by-right zoning in their community. However, these infill test-fits have all been developed to match the norms of existing development patterns and showcase, as well as inspire, the kind of development that would be possible with sensible zoning reforms. Furthermore, these are not development proposals, they are for visualization and discussion of how well the home design candidates under consideration fit in a variety of community and neighborhood contexts.

802 Homes Catalog
1-2 unit typologies

utile AARP VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Home Design Goals

Narrow | Wide | Out Building | Age-in-Place | Workforce | Starter Home | Multigenerational | For Sale | For Rent

Home Design Candidate Tagging System Reference "Cheat Sheet"

These drawings are a mid-process snapshot of home designs still in production. Because the plans, elevations, and axonometric views were produced at different levels of refinement, they may not align with one another at this stage. Final project imagery will be fully coordinated and reflect a single, cohesive design.

Railroad Flat

This narrow single unit type is ideal for side and rear yards. It is flexible enough to support a family or provide an adaptable ground floor unit with a caretaker or guest suite above. Compatible with attached garage.

Infill Site Type: **N** W **O**

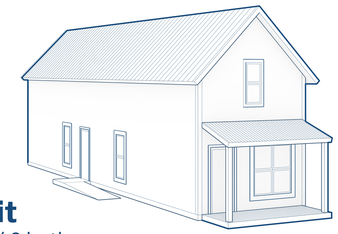
Home Design Goals: **A** **W** **S** M **S** **R**





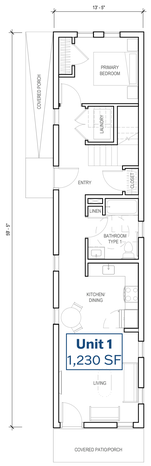
Relevant Built Precedents

Left: Montpelier, VT
Right: Windsor, VT

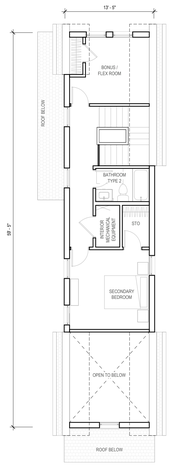


1 unit
2 bed / 2 bath

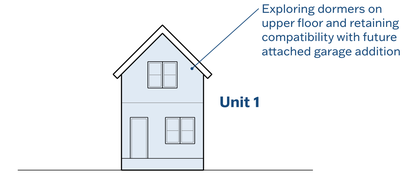
Floor 1



Floor 2



Elevation Diagram



Foursquare

This type has an efficient square footprint for a family-sized home, and is small enough to fit in rear and side yards as a second principal structure.

Infill Site Type: N **W** **O**

Home Design Goals: A **W** **S** M **S** **R**



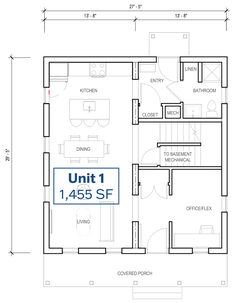


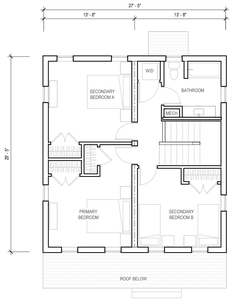
Relevant Built Precedents

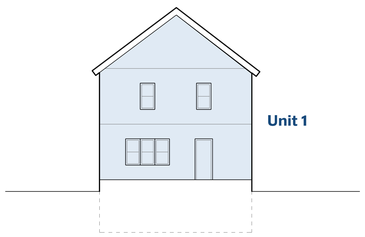
Left: Manchester, VT
Right: Hartford, VT



1 unit
2 bed / 2 bath







Paired Starter Home

This duplex type matches the scale of typical 2.5 story single-family homes with a relatively narrow footprint. It provides two, two-bedroom townhouse-style units, each with private entries and porches.

Infill Site Type: N **W** O

Home Design Goals: A **W** **S** M **S** **R**



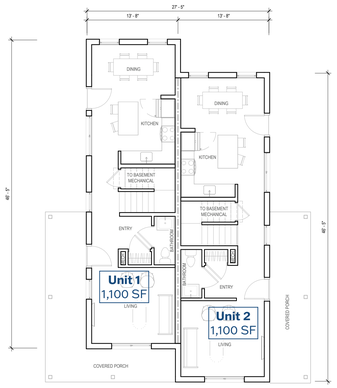


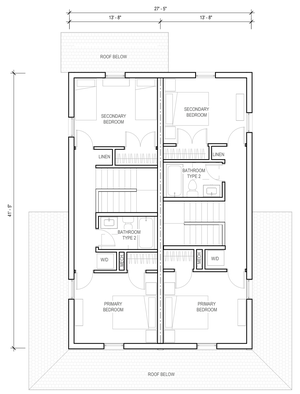
Relevant Built Precedents

Left: Roslindale (Boston), MA
Right: Rutland, VT



2 units
2 bed / 1.5 bath
2 bed / 1.5 bath







802 Homes Catalog
2-3 unit typologies

utile AARP VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Infill Site Type

- Narrow
- Wide
- Out Building

Home Design Goals

- Age-in-Place
- Workforce
- Starter Home
- Multigenerational
- For Sale
- For Rent

Home Design Candidate Tagging System Reference "Cheat Sheet"

Side-by-Side

This duplex type is both efficient and versatile. With the addition of a "backpack" the two townhouse units can be expanded to include additional bedrooms or a third standalone adaptable unit, or both!

Infill Site Type: N **W** O

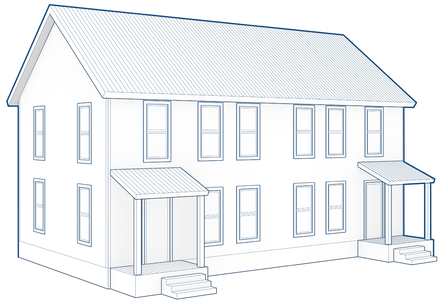
Home Design Goals: **A** **W** **S** **M** **S** **R**





Relevant Built Precedents

Left: Montpelier, VT
Right: Essex Junction, VT

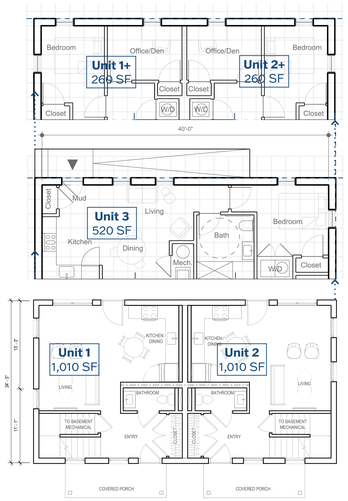


2-3 units

2 bed / 1.5 bath - *3 bed with Future Addition 2*
2 bed / 1.5 bath - *3 bed with Future Addition 2*
1 bed / 1 bath - *with Future Addition 1*

These drawings are a mid-process snapshot of home designs still in production. Because the plans, elevations, and axonometric views were produced at different levels of refinement, they may not align with one another at this stage. Final project imagery will be fully coordinated and reflect a single, cohesive design.

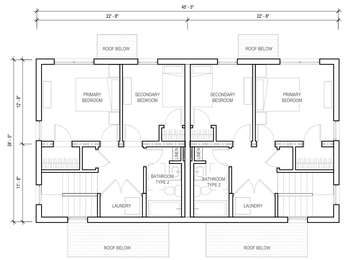
Floor 1

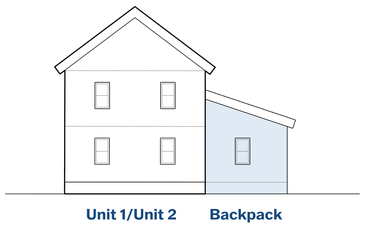


Floor 2

Backpack Addition - Alternative 2
Additional bedroom and den for both units

Backpack Addition - Alternative 1
Additional age-in-place, one bedroom unit





Elevation Diagram

Back-to-Back

This L-Shaped type provides two differently sized units - a small, adaptable 1-bedroom unit in the rear and a larger 3-bedroom unit in the front with both entries oriented to the street.

Infill Site Type: **N** W O

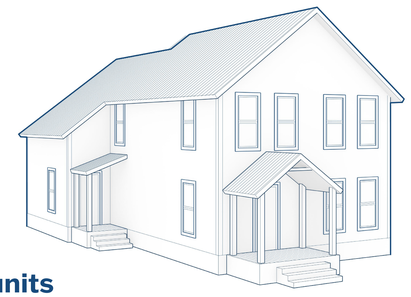
Home Design Goals: **A** **W** **S** **M** **S** **R**





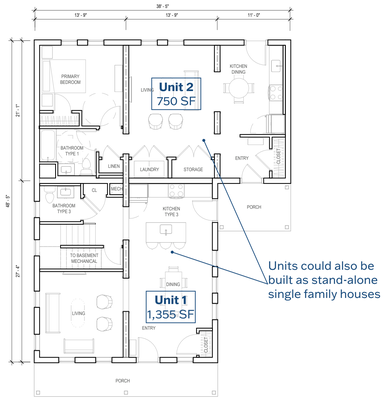
Relevant Built Precedents

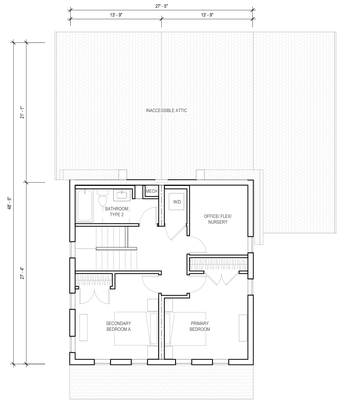
Left: Essex Junction, VT
Right: Essex Junction, VT

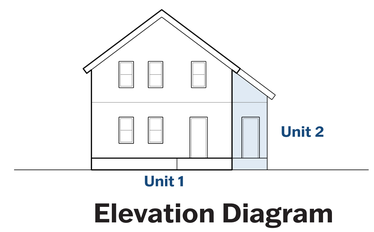


2 units

3 bed / 1.5 bath
1 bed / 1 bath







Elevation Diagram

Triple Decker

This type matches the scale of a typical 2.5 story single family home but includes three stacked flats ideal for different stages of life and household sizes.

Infill Site Type: **N** **W** O

Home Design Goals: **A** **W** **S** **M** **S** **R**





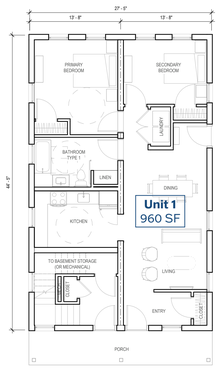
Relevant Built Precedents

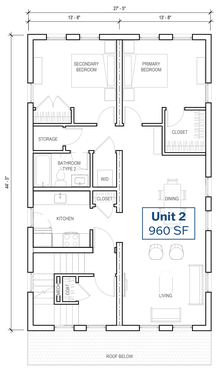
Left: Hartford, VT
Right: Barre, VT



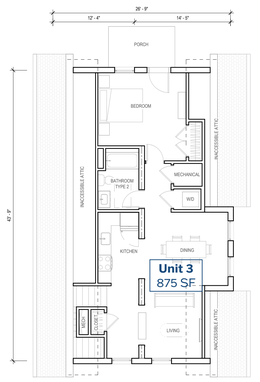
3 units

2 bed / 1 bath
2 bed / 1 bath
1 bed / 1 bath





Floor 3



802 Homes Catalog
4+ unit typologies

utile AARP VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Infill Site Type

Narrow | Wide | Out Building

Home Design Goals

Age-in-Place | Workforce | Starter Home | Multigenerational | For Sale | For Rent

Home Design Candidate Tagging System Reference "Cheat Sheet"

Village Four

This four unit type appears as a single family home from the street, but stretches back to provide additional units. Inside, there are two 1-bedroom flats and two 2-bedroom townhouses.

Infill Site Type: **N** W O

Home Design Goals: **A** **W** **S** **M** S **R**





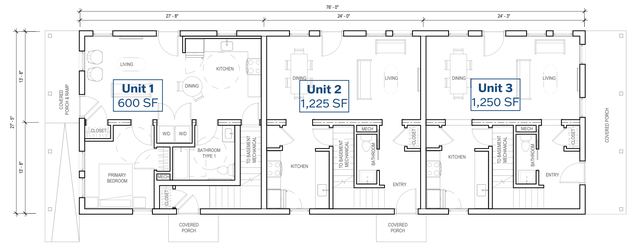
Relevant Built Precedents

Left: Randolph, VT
Right: South Royalton, VT

These drawings are a mid-process snapshot of home designs still in production. The modular construction version of the Village Four will include two full stories to simplify means of production in lieu of the 1.5 story version represented in this image.

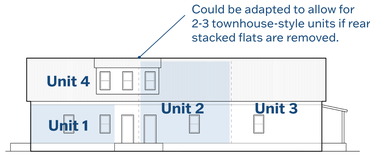


4 units
2 bed / 1.5 bath
2 bed / 1.5 bath
1 bed / 1 bath
1 bed / 1 bath

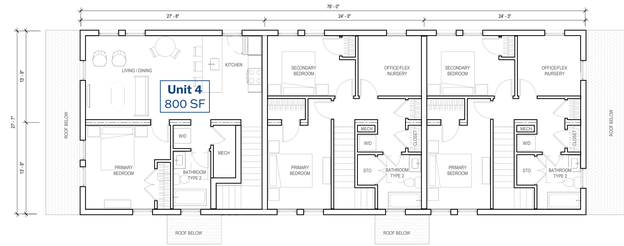


Floor 1

These drawings are a mid-process snapshot of home designs still in production. Because the plans, elevations, and axonometric views were produced at different levels of refinement, they may not align with one another at this stage. Final project imagery will be fully coordinated and reflect a single, cohesive design.



Elevation Diagram



Floor 2



Elevation Diagram

Narrow Lot

Sized to fit in narrow side yards and village center lots, this type uses small, efficient units to maximize the number of units within a relatively small overall footprint.

Infill Site Type: **N** W O

Home Design Goals: **A** **W** S **M** S R



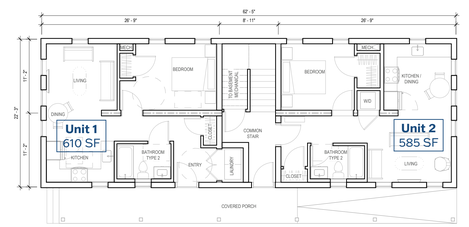


Relevant Built Precedents

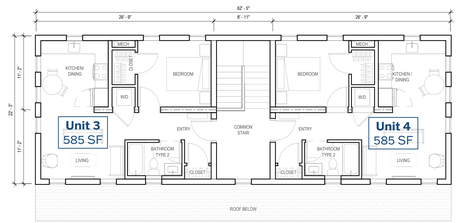
Left: Montpelier, VT
Right: Bellows Falls, VT



4 units
1 bed / 1 bath
1 bed / 1 bath
1 bed / 1 bath
1 bed / 1 bath



Floor 1



Floor 2

Stackable

This flexible type presents as a large single-family home but contains two stacked flat units on each floor, organized around a common stair. Where regulations allow, it can be extended to 3 stories tall.

Infill Site Type: N **W** O

Home Design Goals: **A** **W** S **M** S R



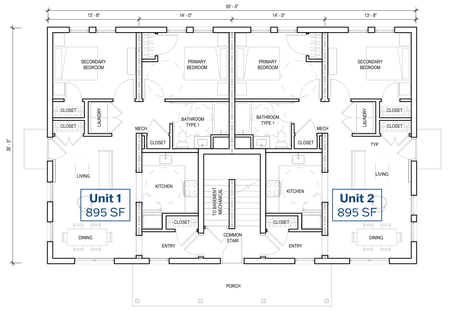


Relevant Built Precedents

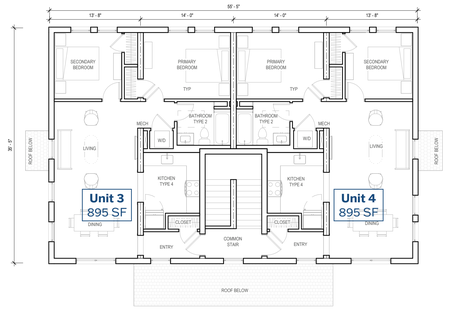
Left: Barre, VT
Right: Winooski, VT



4-6 units
2 bed / 1 bath
2 bed / 1 bath
2 bed / 1 bath
2 bed / 1 bath



Floor 1



Floor 2

802 Homes Catalog
4+ unit typologies

utile AARP VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Infill Site Type

- Narrow
- Wide
- Out Building

Home Design Goals

- Age-in-Place
- Workforce
- Starter Home
- Multigenerational
- For Sale
- For Rent

Home Design Candidate Tagging System Reference “Cheat Sheet”

Townhouse

This townhouse provides a flexible family-size unit that can be infinitely aggregated side by side. Where desired and compatible with a chosen site, an attached garage can be added in the rear.

Infill Site Type

N W O

Home Design Goals

A W S M S R





Relevant Built Precedents

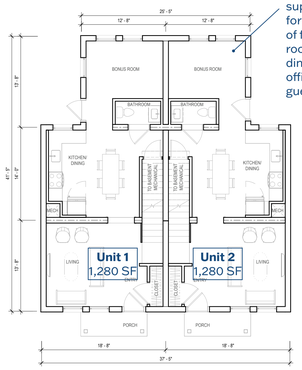
Left: Winooski, VT
Right: Brandon, VT

These drawings are a mid-process snapshot of home designs still in production. The final townhouse designs will include an end-unit variation that includes windows on the end wall.



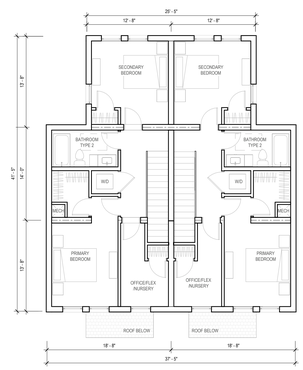
2+ units
2 bed / 1.5 bath

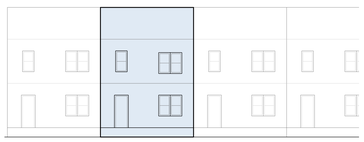
Floor 1



Rear “bonus” room supports flexibility for different stages of family life, e.g. play room, separate formal dining, full mudroom, office/homework, guest room.

Floor 2





Unit 1

Elevation Diagram

These drawings are a mid-process snapshot of home designs still in production. Because the plans, elevations, and axonometric views were produced at different levels of refinement, they may not align with one another at this stage. Final project imagery will be fully coordinated and reflect a single, cohesive design.

Tell us what you think.

What home types or variations are missing that would be a better fit for your community?
Add sticky notes with your suggestions and ideas.

Place your sticky notes here!

What state are you representing today?
Place a dot in all that apply.

- Vermont — Place your dot here!
- New Hampshire — Place your dot here!
- Maine — Place your dot here!
- Massachusetts — Place your dot here!
- New York — Place your dot here!
- Rhode Island — Place your dot here!
- Connecticut — Place your dot here!
- Other — Place your dot here!

does this home design fit in your community?
place your dot along the spectrum.

No way! — Definitely!

- Railroad Flat
- Foursquare
- Paired Starter
- Side-by-Side
- Back-to-Back
- Triple-Decker
- Village Four
- Narrow Lot
- Stackable
- Townhouse

Why Off-site Construction?
Opportunities and Constraints

utile AARP®

VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Off-site home manufacturing is gaining more and more traction for a good reason.

That is why all the 802 Homes Catalog designs will be designed to enable off-site building as well as traditional on-site building. Each design will have one drawing set that is optimized for volumetric modular, and another for panel, pod and on-site building methods.

Speed to market is increased by "stacking" building processes (i.e. completing site work while the building is built in a factory), and avoiding weather delays and complex on-site contractor coordination.

Risk is reduced by creating predictable costs and timelines, allowing developers to lock in pricing in advance.

Cost savings can be achieved through standardized production and bulk purchasing to lower per-unit costs.

Labor efficiencies create well-paying, year-round manufacturing jobs that are less physically demanding and use fewer specialized trades. This broadens the labor pool to those historically marginalized from the trades.

Consistent quality & less waste is generated in a controlled environment, with repeatable processes, precision manufacturing, and automated production.

Scalability can be achieved if a steady pipeline of orders or inventory can be created through bulk purchases of repeatable designs. This reliable workload can allow manufacturers to sustainably increase production levels.

Spectrum of "Modular" Construction

Most Flexible, Least Efficient → **Least Flexible, Most Efficient**



Image via IKEA

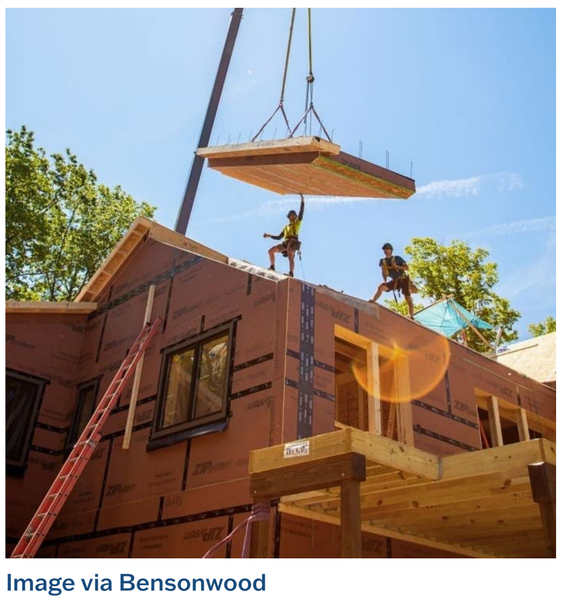


Image via Bensonwood

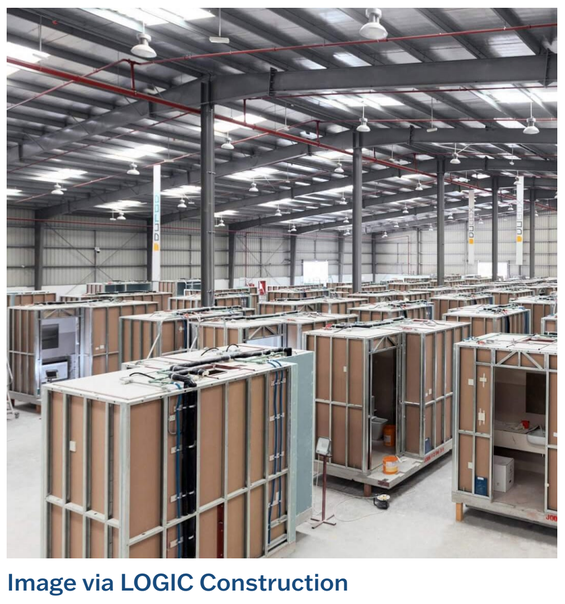


Image via LOGIC Construction



Image via Huntington Homes

Parts

Prefabricated elements already frequently used in traditional, stick-built construction (e.g. windows, vanities, IKEA)

Panelized

2D elements, like floors, walls or roofs, that are shipped flat and assembled on site, panels can be pre-insulated, or pre-finished

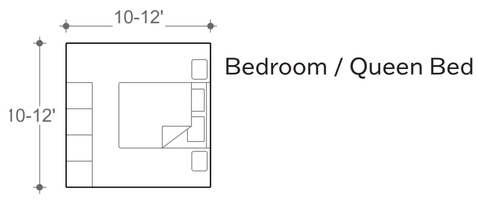
Pods

Mid-size 3D elements, such as bathrooms, kitchens, or laundry rooms which are shipped as a box with four walls and a ceiling

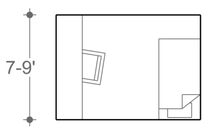
Volumetric

Large-scale 3D building blocks that can be up to 14' wide. This type of construction requires specific site preparation and access to the site by a crane

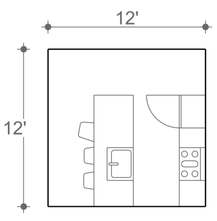
Typical Room Sizes



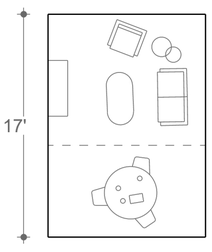
Bedroom / Queen Bed



Bedroom / Den / Twin Bed

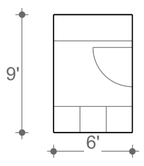


Kitchen with Island

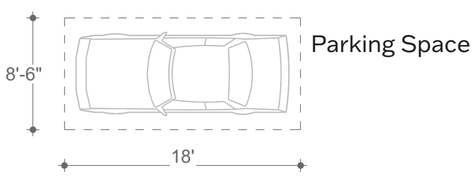


Living

Dining

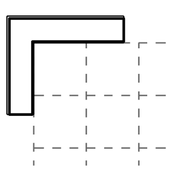


Mudroom



Parking Space

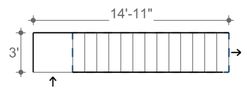
Aligning to 2' Grids



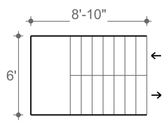
Grids aligned to interior faces of exterior walls

Ideal Stair Configurations

Prioritizing Rectangular Floor Opening

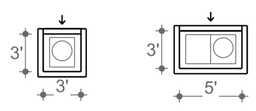


Slight U-Stair



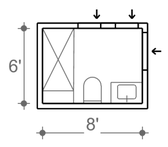
Switchback Stair

Washer/Dryer Configurations

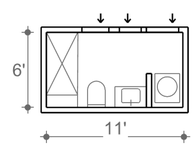


Stacked Side-by-Side

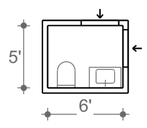
Bathroom Configurations



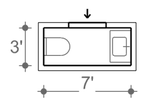
Full Bathroom



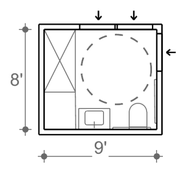
Full Bathroom with Laundry



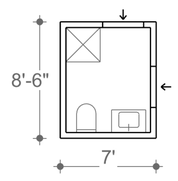
Half Bathroom 1



Half Bathroom 2



Full Accessible Bathroom

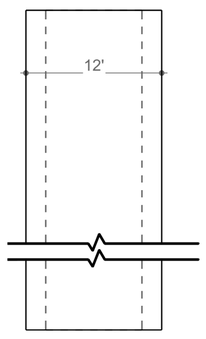


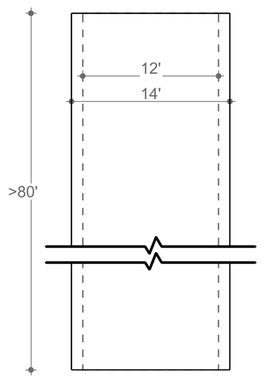
Three-Quarter Bathroom

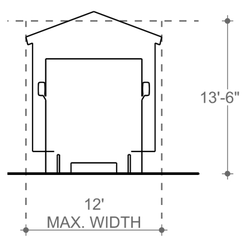
Truck Transportation Guidelines

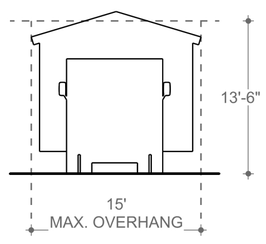
Oversized Load
Restricted Routes
8.5' - 12'

Escort Load
Restricted Routes
Escort Car
12' - 14'









These transportation dimensions are approximate. Actual dimensional limitations are determined by each state's transportation requirements along a delivery route, as well as route-specific limitations such as bridge heights, tight turns, steep slopes, and similar constraints.

How can we scale?
Incentives & Organizing

utile AARP VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Interactive Strategy Session: building scale in your community
... by aligning resources to meet needs

- What community tools facilitate housing development in your community? Is there capacity and appetite to do more (i.e., community-land trust, municipal land purchases, PPPs)?

- What partnerships (manufacturers, lenders, public sector) would be required to aggregate demand?

What strategies can help us move from one-off projects to repeatable production? Housing affordability doesn't come from legalization; it comes from scale. Explore how a pre-approved housing catalog could generate the repetition and demand aggregation needed to lower housing costs across Northern New England.

Tools to facilitate housing development in your community

Place your sticky notes here!

Partnerships to aggregate demand

Place your sticky notes here!

How can we scale?
Regulations & Policies

utile AARP VERMONT
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
DEPT. OF HOUSING & COMMUNITY DEVELOPMENT

Scan the QR code to visit the project website and learn more!

Interactive Strategy Session: building scale in your community
... by aligning regulations to meet needs

- What state or local policy changes would make repetition easier and faster (i.e., building and zoning code preemption, historic preservation, and site plan reviews)?
- What is limiting your ability to do more administrative reviews and streamlined permitting?

What strategies can help us move from one-off projects to repeatable production? Housing affordability doesn't come from legalization; it comes from scale. Explore how a pre-approved housing catalog could generate the repetition and demand aggregation needed to lower housing costs across Northern New England.

Common **regulatory barriers**
(e.g. zoning and development approval processes, building code and funding processes)

Place your sticky notes here!

Common **barriers to streamlined review and permitting**
(e.g. expanding administrative review)

Place your sticky notes here!