

# LIVING LITTLE



The Metropolitan Area Planning Council (MAPC) is the regional planning agency serving the people who live and work in the 101 cities and towns of Metro Boston. Our mission is to promote smart growth and regional collaboration. We work toward sound municipal management, sustainable land use, protection of natural resources, efficient and affordable transportation, a diverse housing stock, public safety, economic development, an informed public, and equity and opportunity among people of all backgrounds.

Created by the Metropolitan Area Planning Council in 2018 for the SWAP + TRIC subregions.



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# ACKNOWLEDGEMENTS

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# GLOSSARY

<b>ADU</b>	Accessory Dwelling Unit
<b>CHD</b>	Cottage Housing Development
<b>DADU</b>	Detached Accessory Dwelling Unit
<b>DU</b>	Dwelling Unit
<b>IRC</b>	International Residential Code
<b>PB</b>	Planning Board
<b>PDU</b>	Primary Dwelling Unit
<b>PRD</b>	Planned Residential Development
<b>RV</b>	Recreational Vehicle
<b>SF</b>	Square Feet
<b>SPGA</b>	Special Permit Granting Authority

## The Greater Boston region is experiencing a housing crisis stemming from lack of affordable housing and appropriate housing types for current household incomes and formations.

**The supply shortage is not just about a lack of units, but also a lack of specific unit types.** With the exception of a limited number of areas where large-scale, multistory development is permitted, primarily in the inner core, the region is dominated by large-scale single-family homes.

**Single-family home prices in Metro Boston continue to rise, with a median price of \$453,200 in 2018, compared to the national home price of \$216,000.** Median prices in communities closer to economic centers can be even higher: the median price of single-family homes in Cambridge is \$788,300, increasing to \$1,046,000 in Newton. Rental prices are also high, with a median of \$2,359 in the Metro Boston area, despite an increase in new rental housing production (Zillow Research, 2018).<sup>1</sup>

**These high housing costs have real impacts on the region's residents.** Approximately 37% of the 1,256,674 households in the Metropolitan Area Planning Council (MAPC) region are cost burdened, paying more than 30% of their income on housing (ACS 2012-16). About 41%, or 510,914 of all households in the region, are low-income, and their cost burdened is almost double: 66%, or two out of three households (CHAS 2011-15).<sup>2</sup>

**With the aging Baby Boomers, the region has seen an increase in senior householders** (17% or 49,474 from 2000 to 2016). These households also tend to have lower incomes (ACS 2012-16, U.S. Census 2000), in part because many live alone: 42%. Often, seniors are over-housed in units that require significant upkeep and have high property taxes (ACS 2012-16). Among the general population, shrinking household size over the past decades means three out of five households in the MAPC region are composed of one or two people (U.S. Census 2010). Smaller households have difficulty finding homes in the region that suit their needs and incomes, in large part due to zoning that prevents the development of housing types other than large single-family homes.

**To address the crisis and meet demand, a range of unit sizes at a range of building scales is needed throughout the region.** This includes more multifamily and mixed-used development and other alternatives to single-family housing. Accessory dwelling units, cottage developments, tiny houses, and other smaller housing typologies can serve as right-size rental or homeownership opportunities for seniors looking to downsize and younger householders seeking starter homes, among others.

1 Data from Zillow Research covers an area greater than the MAPC region, including the counties of Essex, Middlesex, Norfolk, Plymouth, and Suffolk, as well as parts of New Hampshire.

2 Households that earn less than 80% of the Family Area Median Income as considered low income by the U.S. Department of Housing and Urban Development.

## MAPC's Living Little project investigates small housing typologies for MAPC's South West Advisory Planning Committee (SWAP) and Three Rivers Interlocal Council (TRIC) subregions.

**Like many other municipalities across the region, Commonwealth, and the nation, these communities are experiencing increased housing demand, particularly from seniors and younger householders.** Unlike the large, luxury single-family homes frequently built in these communities, Little Living housing can serve as so-called “missing middle housing” thanks to its “natural” affordability compared to large homes (and depending on market forces).

**MAPC worked with the SWAP and TRIC subregions to study several small housing typologies that may be appropriate in these municipalities given development demand and constraints.** These typologies include tiny houses, cottage developments, and detached accessory dwelling units (DADUs). This document provides information on these Living Little housing typologies to facilitate development of housing choices for smaller households in these subregions. The Little Living project includes a review of pertinent literature and case studies of these housing types at a national and state level, and analysis of regulatory and infrastructural barriers to smaller housing. It also includes the history, typical dimensions, and potential floor plans of these housing types, and is informed by interviews with town planners, developers, and designers.

**Communities need a variety of housing and tenure types to retain and attract a diverse mix of households.** This includes providing a range of rental options, unit sizes that can accommodate both smaller and larger households, and permanently affordable housing for low-to-moderate-income households. In conjunction with multifamily/mixed-use development and deed-restricted affordable housing, Living Little typologies can help disrupt historical patterns of segregation and promote equitable communities.

# PROJECT OVERVIEW

# WHY LIVING LITTLE?

## Alternative housing types promote:

### Aging in place

Senior households tend to consist of one or two people, who are not often served by traditional large, single-family houses found in most suburban communities. Oftentimes, seniors are forced to move out of their community to find a housing unit that better serves their accessibility needs, or continue to live in houses that are too large, too costly, and require too much maintenance. In addition, seniors may be forced to take out a reverse mortgage to pay for home repairs and property taxes, which can reduce the equity of their home.

### Choices for smaller households

As people form families later in life and have fewer children, household size shrinks. For many of these households, a suburban single-family house is too large and the associated maintenance and tax costs too high. Increasing choices for smaller households helps stabilize the housing market, and reduces competition for bigger homes suited for larger households.

### Low-cost housing for younger adults

Younger millennial households were the most affected by the Great Recession of 2008, carry crippling student debt, and are the first generation to earn less than their predecessors. Many delay starting families and homeownership. Providing these younger adults with low-cost housing options helps them remain in and contribute to their local communities.

### Long-term rental income for homeowners

Some small housing typologies, such as accessory dwelling units, can benefit primary homeowners through supplemental rental income, helping them to stay in their homes and communities.

### Naturally occurring affordable housing

Smaller homes tend to come with a smaller price tag than larger single-family houses, especially when they add to a community's housing supply instead of replacing existing stock through teardowns.

### Smart growth community development

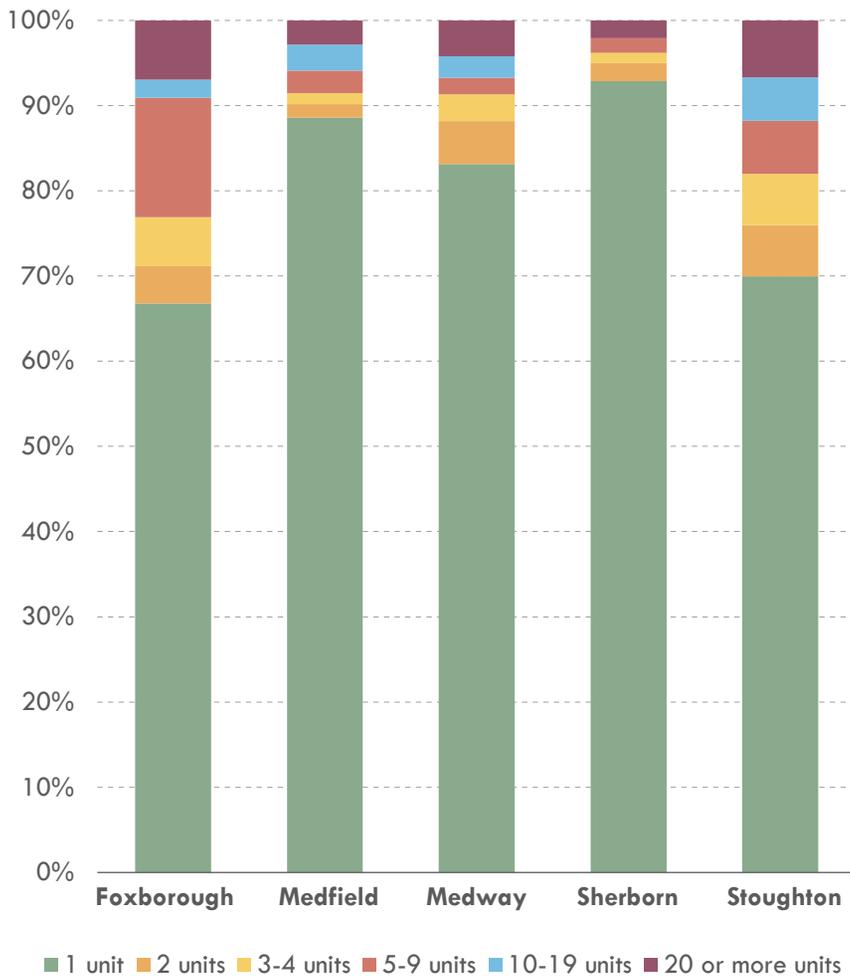
Smaller housing typologies are well suited to infill development in existing neighborhoods, making use of existing infrastructure and avoiding greenfield development.

### The local economy

A mix of housing options in a community brings households with diverse skills and incomes that can fill local employment opportunities and contribute to the local economy. It also generates economic opportunities for smaller, oftentimes local, architects, developers, and contractors.

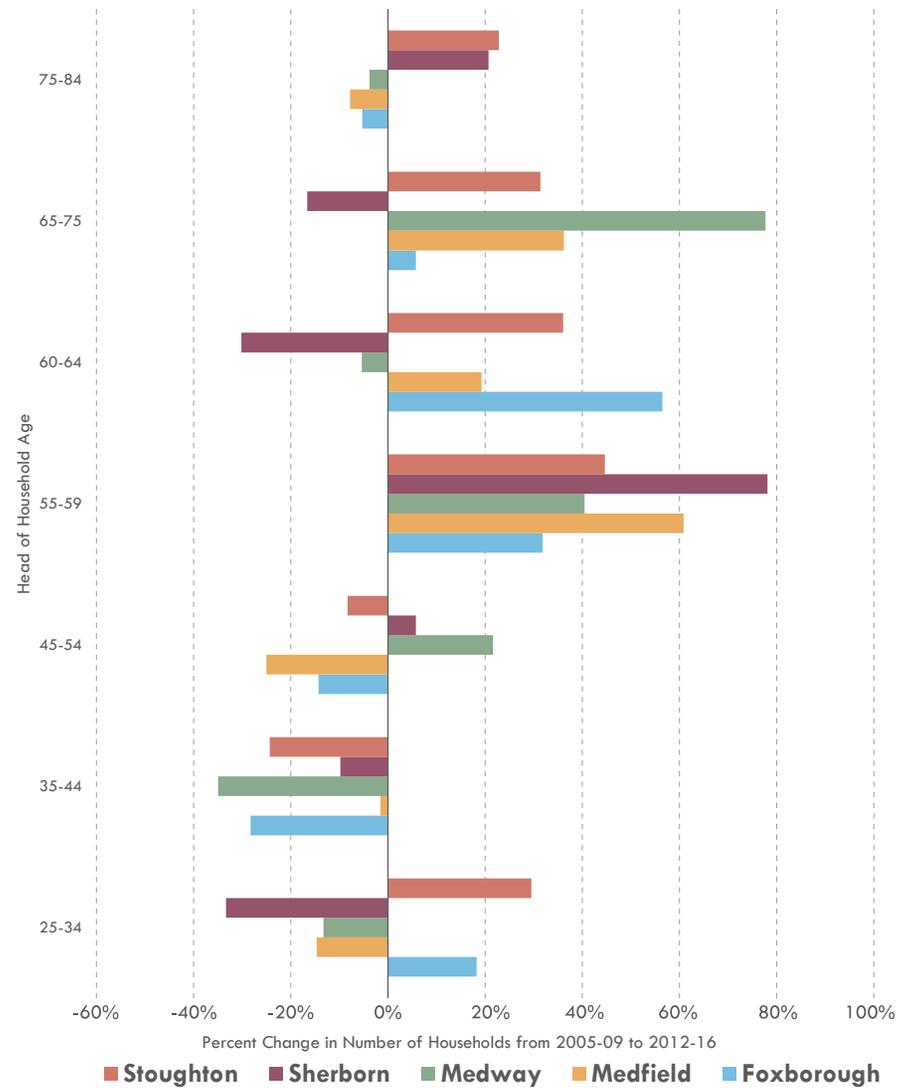
Single-family housing makes up over 60% of the housing stock in the five communities, limiting choices for smaller households.

TOTAL HOUSING UNITS BY UNITS IN A STRUCTURE, 2012-16



Source: American Community Survey, 2012-16

PERCENT CHANGE IN HOUSEHOLDS BY AGE, FROM 2005-09 TO 2012-16



Younger and senior households have decreased, while middle-aged households have increased.



# LIVING LITTLE HOUSING TYPES

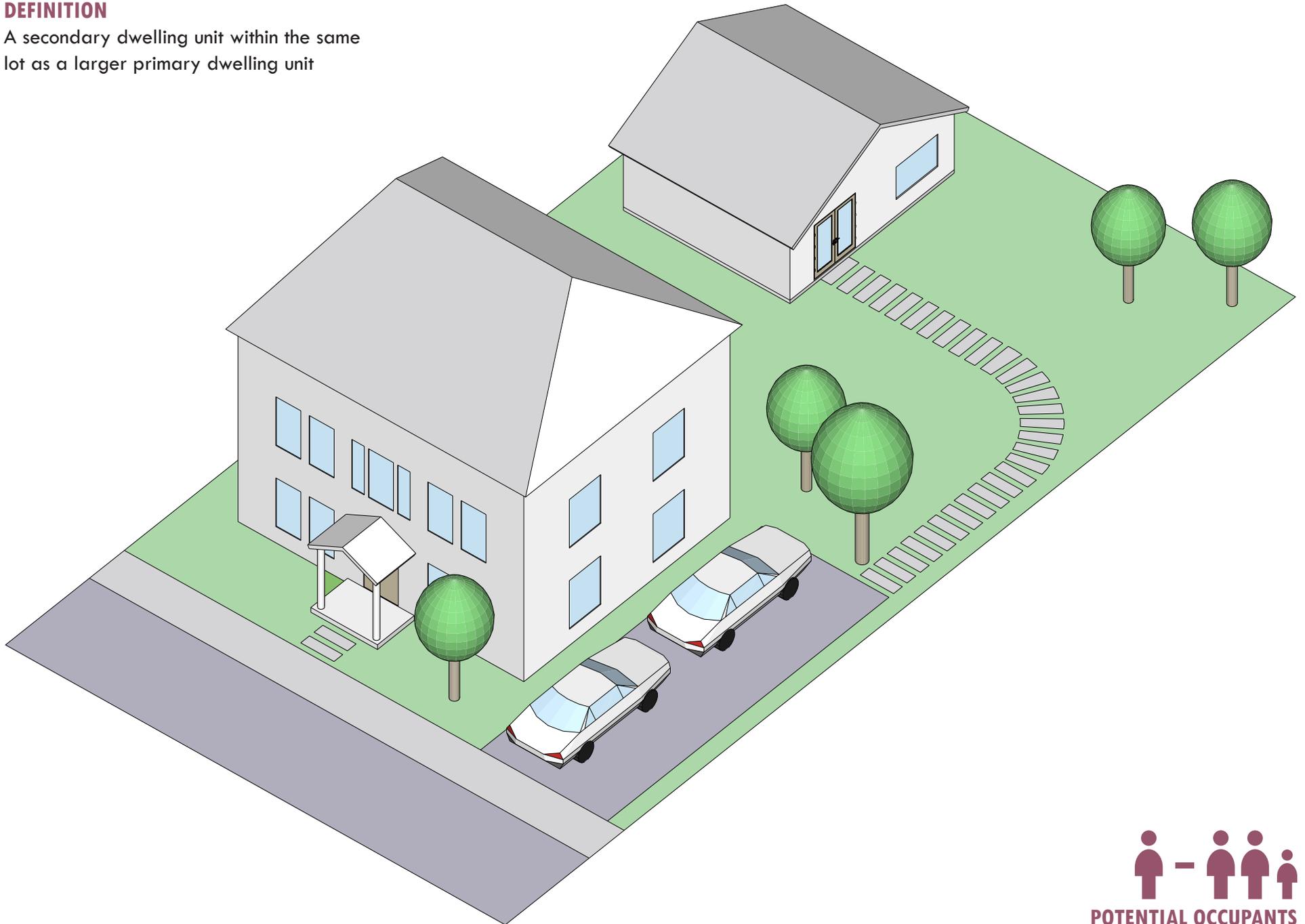
Photo via [Country Living](#)



Photo via [Accessory Dwellings](#)

**DEFINITION**

A secondary dwelling unit within the same lot as a larger primary dwelling unit



**POTENTIAL OCCUPANTS**

One-to three-person households



Photo via [Hammer and Hand](#)



Photo via [TD Custom Construction](#)



Photo via [Building an ADU](#)

## OVERVIEW + HISTORY

Accessory Dwelling Units (ADUs), commonly known as “granny flats,” “carriage houses,” or “in-law apartments,” were prevalent before World War II throughout American towns and cities, serving as an attached or detached secondary dwelling for in-laws, smaller households, and house workers. Following the end of WWII and the move towards single-family, low-density suburbanization and increased zoning restrictions, ADUs lost popularity or were zoned out of existence. Beginning in the 1970s, a handful of municipalities began to write ADUs back into zoning. Currently, ADUs are built and lived-in legally and illegally, especially in urban areas with high housing demand. Certain cities and towns have begun to see ADUs are solution to high housing costs that prevent younger households from purchasing a house and empty nesters from downsizing their living arrangements.

Per building code regulations, for an ADU to serve as a household’s main living area, there must be a bathroom, kitchen, and bedroom that is independent from the primary dwelling unit. ADUs come in four main types: carve-out or conversion of an existing living area within the primary dwelling unit, finishing an existing basement or attic within the primary dwelling unit, adding to an existing structure such as a garage, and building a new free-standing structure on site. This report focuses on the latter. Nationally, Oregon and California are at the forefront of creating flexible zoning and incentives to increase the supply of ADUs.

## FOUND IN

### Massachusetts

Barnstable, MA  
Cambridge, MA  
Lexington, MA  
Newton, MA  
Orleans, MA  
Wellfleet, MA

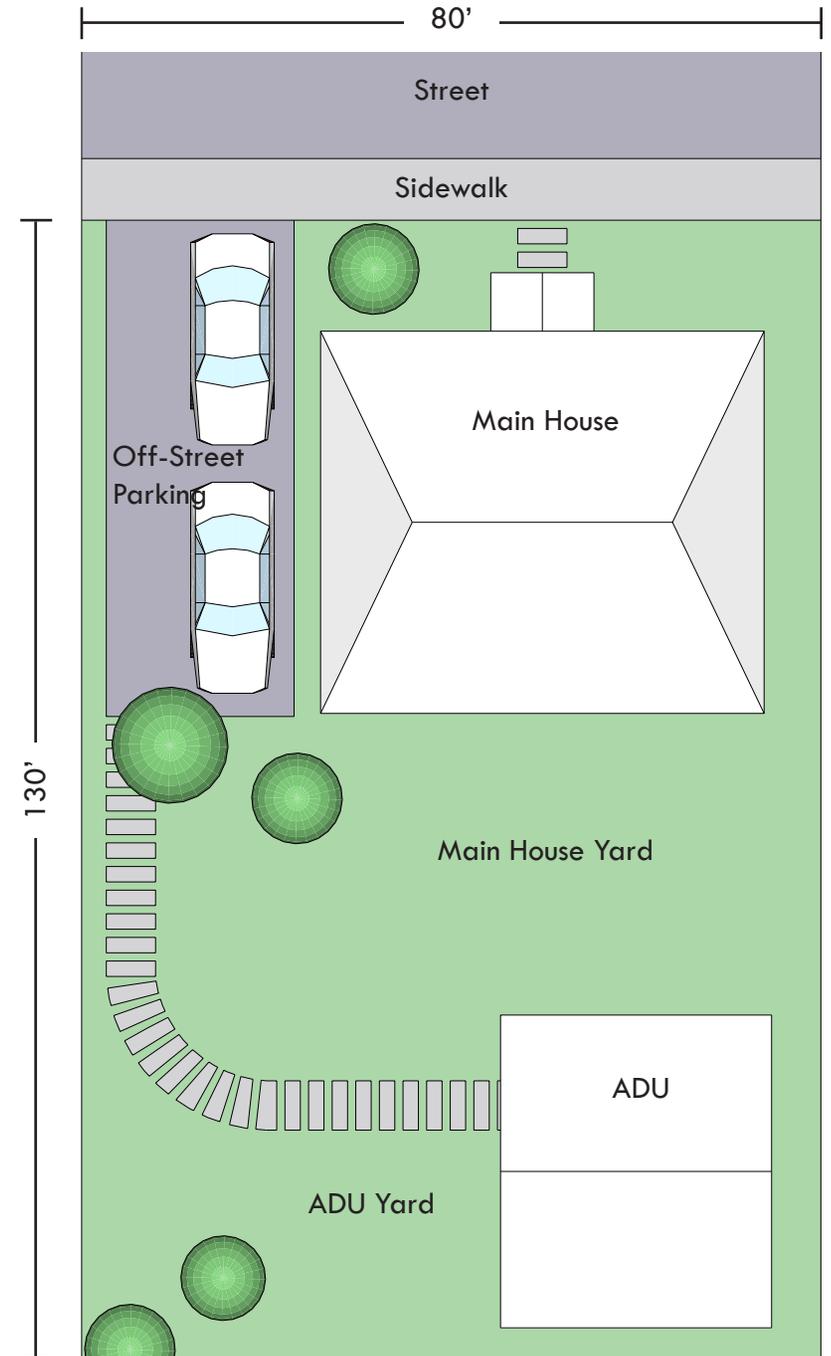
### Nationwide

Austin, TX  
Boulder, CO  
Los Angeles, CA  
Minneapolis, MN  
Portland, OR  
Santa Cruz, CA

## GENERAL LAYOUT

<b>Total SF</b>	250 - 1,200 sf or 30% - 40% of primary DU
<b>Lot Size</b>	10,000 sf (approx. 1/4 acre), but depends on town's ADU zoning
<b>Setbacks</b>	6' - 10' from primary DU Respects other zoning setbacks
<b>Unit Size</b>	<p>Kitchen W: 8' L: 12'</p> <p>Bathroom W: 5' L: 8'</p> <p>Living Room W: 12' L: 18'</p> <p>Bedroom (can be lofted) W: 12' L: 18'</p>

## SIT PLAN LAYOUT

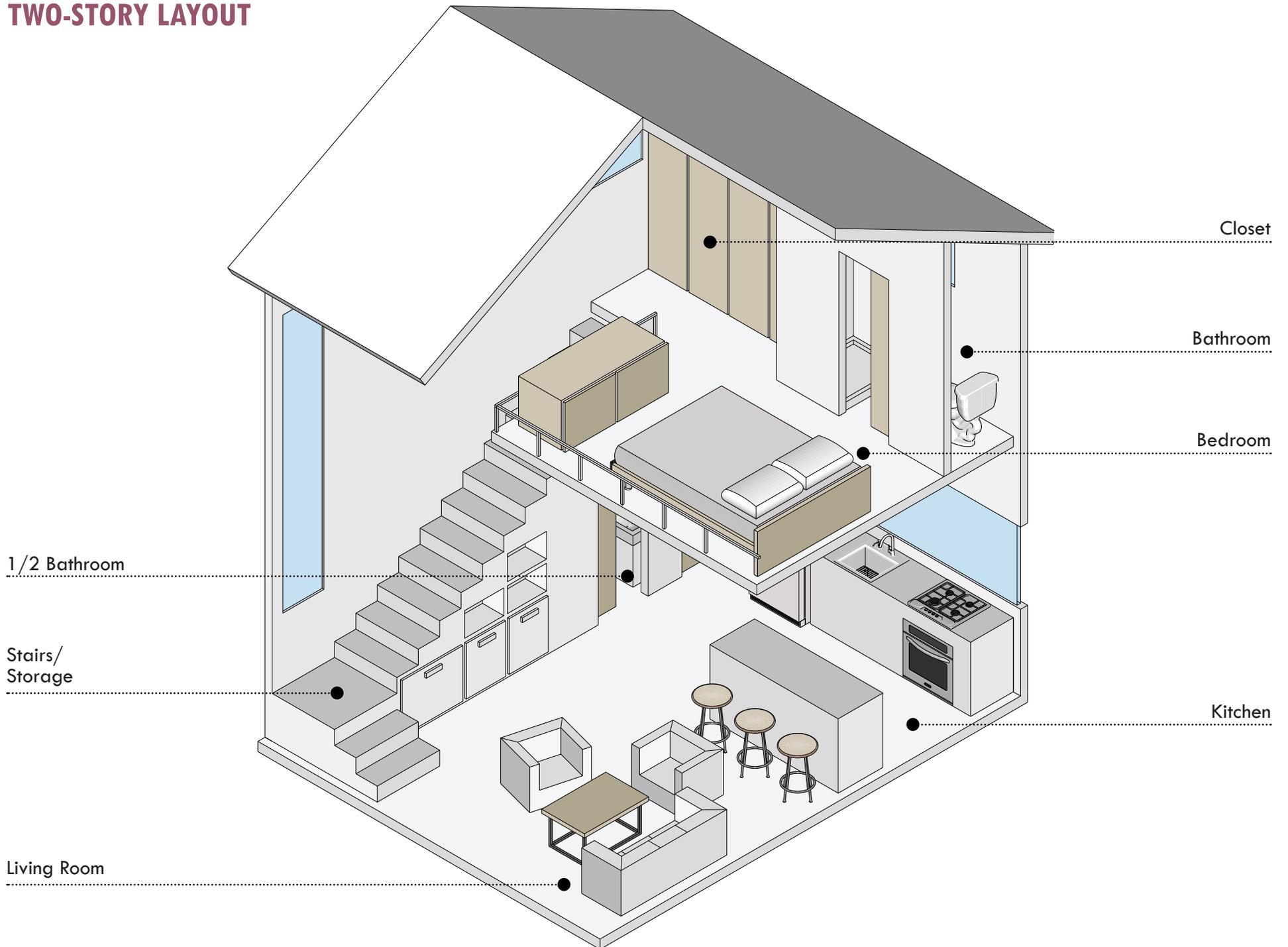


# TWO-STORY LAYOUT

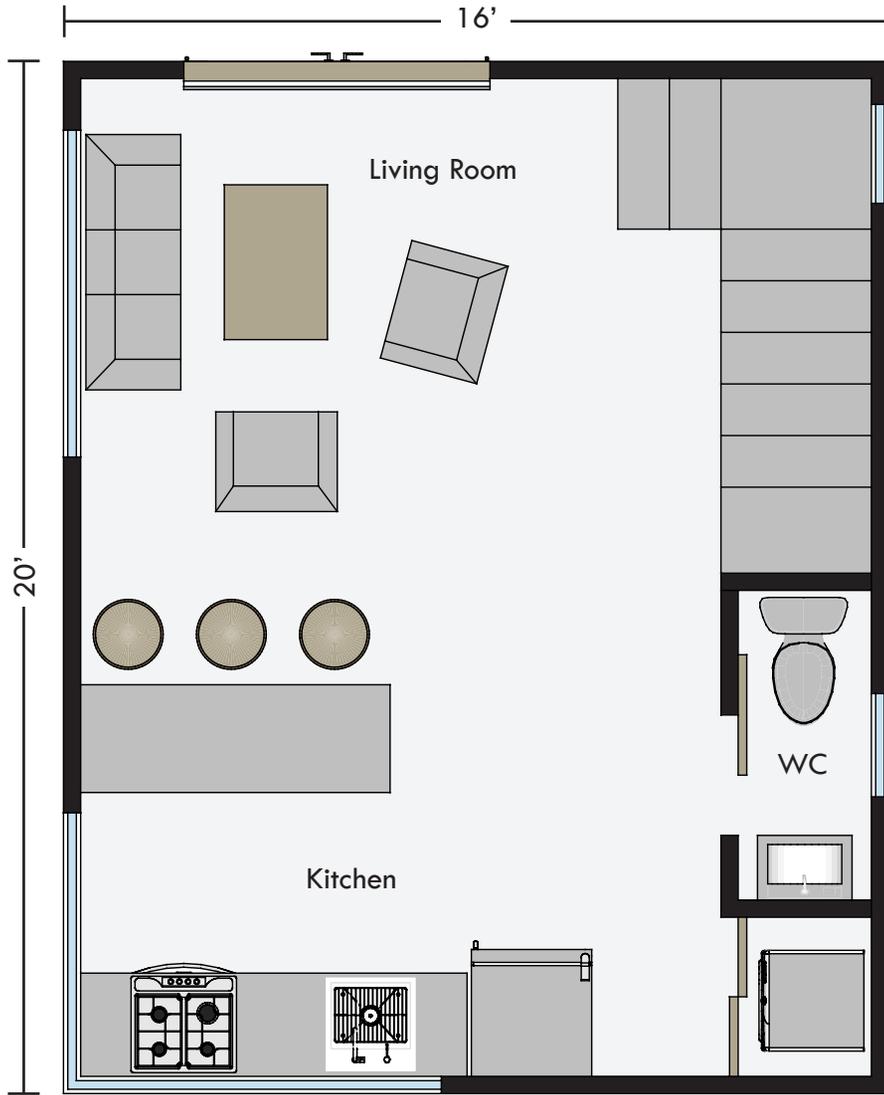


Photo via [Propel Studio](#)

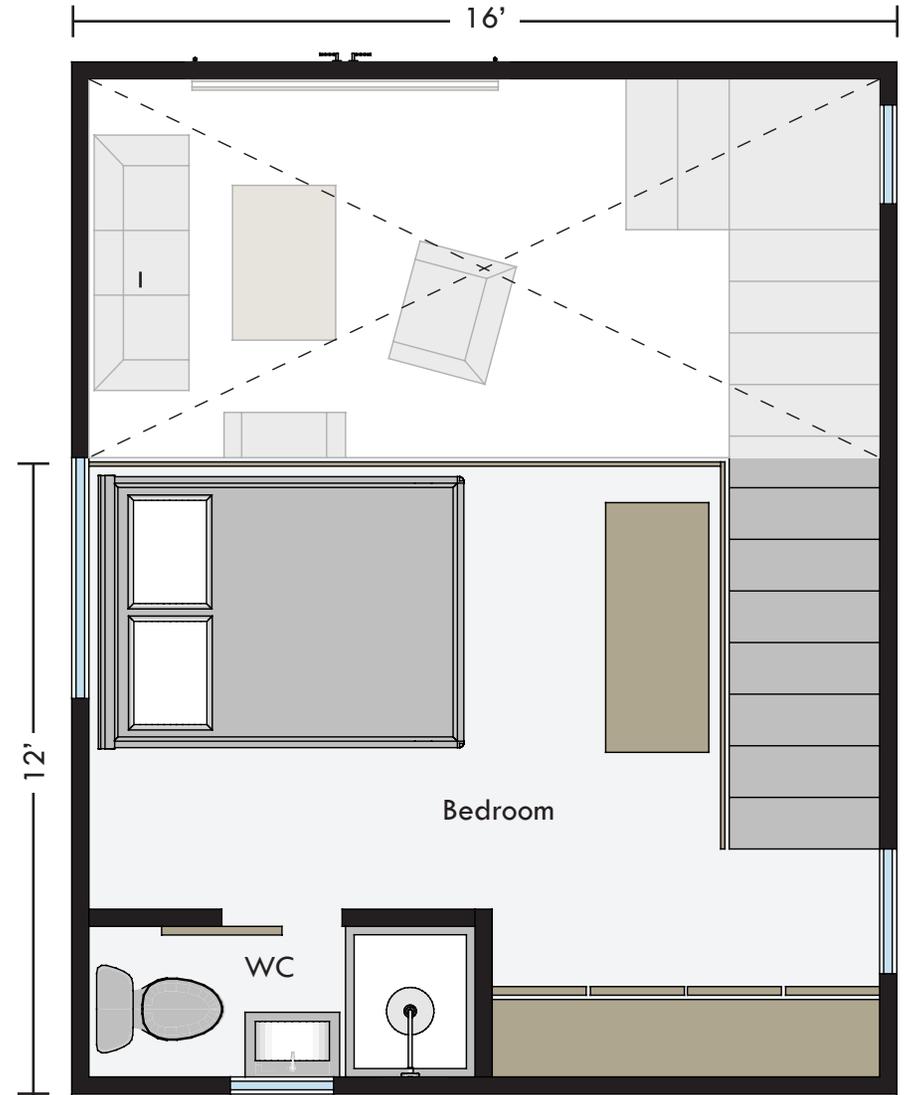
# TWO-STORY LAYOUT



# TWO-STORY LAYOUT



FIRST FLOOR



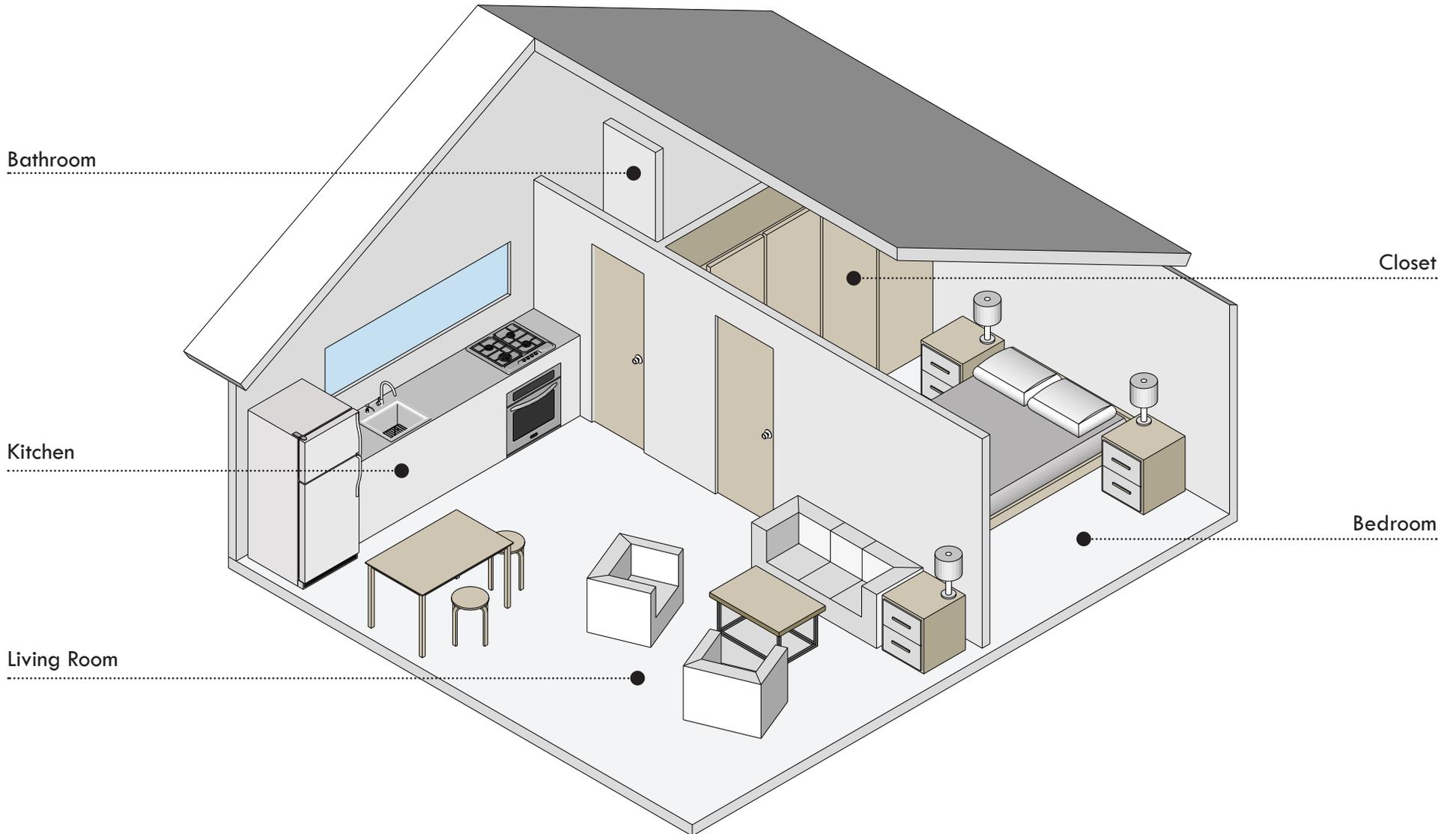
SECOND FLOOR

# ONE-STORY LAYOUT



Photo via [Hammer and Hand](#)

# ONE-STORY LAYOUT



# ONE-STORY LAYOUT





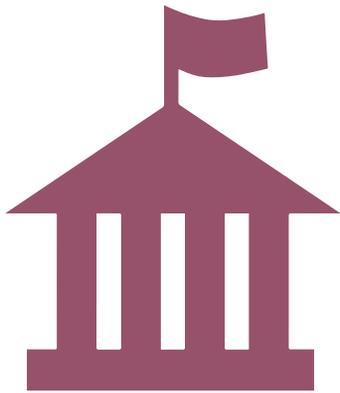
# BARRIERS

Photo via [Jack Barnes Architect](#)

# BARRIERS

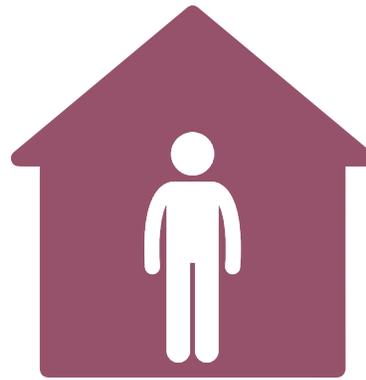
There are several barriers to building the supply of detached accessory dwelling units, including regulatory, infrastructural, fiscal, financial, and educational. The main regulatory barriers are zoning bylaws that completely ban or are highly restrictive of ADUs, as well as code compliance. Fiscal barriers include permitting fees and the capacity of the town's water and sewer system. Homeowners interested in building an ADU can find it difficult to finance the permitting and construction, limiting the number of households able to take advantage of ADU bylaws. Finally, neighbors and community members may be fearful of ADU impacts on schools, traffic, and neighborhood character. Many communities have overcome these barriers to adopt ADU-friendly policies.

## BARRIERS BY STAKEHOLDER



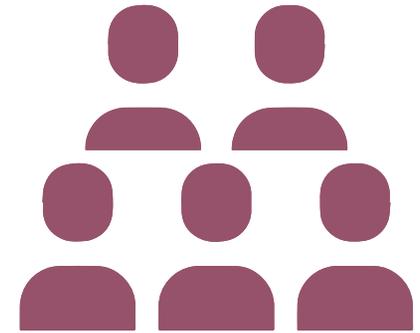
### TOWN OFFICIALS

- Zoning Bylaws
- Permitting Fees
- Water + Sewer Constraints
- Building Code
- Health Code
- Fire Safety



### HOMEOWNERS

- Zoning Bylaws
- Permitting Fees
- High Construction Costs
- Inadequate Building Experience
- Lack of Lending Programs
- Tax Increases



### COMMUNITY CONCERNS

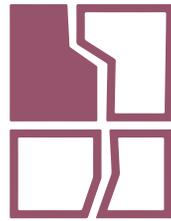
- Neighborhood Character
- School Capacity
- Traffic

# BARRIERS FOR TOWN OFFICIALS

## ZONING + INFRASTRUCTURE

**Approving an ADU bylaw, pricing permitting fees, managing water and sewer connections, and ensuring units abide by building codes are some of the greatest challenges facing town officials interested in ADUs.**

**Fees for construction permits, as well as sewer and water connections, should be responsive to the smaller size of ADUs compared to typical single-family houses.**



### ZONING

The first hurdle communities have to overcome to become ADU-friendly is adding an ADU bylaw to the zoning, or amending existing ADU bylaws that may be too restrictive. In the Commonwealth, this process is more challenging due to Town Meeting form of governance employed in many smaller communities, which requires a 2/3rds majority for approval of any zoning change. Town officials will find that building pro-ADU coalitions and educating concerned community members is essential for approving progressive ADU bylaws.



### WATER + SEWER

By design, ADUs are not a great burden on a town's existing water and sewer capacity due to their small size and their occupancy limits. In most cases, the primary dwelling unit and the ADU may use a common water supply following a review from the proper inspection authority. Similarly, ADUs can use a common sewer line without additional fees as long as they abide by the maximum allowed connections. In California, detached ADUs require separate utility connections for water, gas, and sewer, as it can be more difficult for them to tap into the existing primary dwelling unit's connections.



### CODES

Like any other dwelling structure, ADUs need to meet all the codes required by law. Building codes include the International Building Code as well as any state and local building requirements. Health and fire codes also need to be met, although specific requirements may be waived depending on the number of ADU occupants. Usually, two means of egress are required, as well as a sprinkler system and smoke and carbon monoxide alarms.



### FEES

Building and connection fees for ADUs should benefit the small size and low impact of the typology. In many cases, permit fees are attached to the estimated costs of construction or to the ADU's square footage. Utility connection fees are usually charged only if the ADU can be shown to have a significant impact on the existing utility connections. In Portland, OR, water service charges are only necessary when the size of the existing water or sewer line needs to be changed. In Berkeley, CA, ADUs are not considered new residential units for the purposes of calculating water and sewer fees.

## PROJECT PARTNER TOWNS: ZONING

Current zoning in the 5 project partner towns varies in how it regulates ADUs. The chart below provides an analysis of the restrictions homeowners face when seeking a permit for an ADU. Stoughton has the most restrictive zoning bylaw which disallows ADUs entirely. The bylaws in Foxborough, Medfield, Medway, and Sherborn require a special permit for building an ADU, and only allow one ADU per lot. Only Medfield allows building an ADU for non-family members, but restricts ADUs to houses built prior to 1938, limiting the number of homeowners that can add an ADU.

	FOXBOROUGH	MEDFIELD	MEDWAY	SHERBORN	STOUGHTON
Zoning	Accessory Apartments	Accessory Dwelling Unit	Accessory Family Dwelling unit	Accessory Apartments	NA
Year Updated	2014	2014	2016	2018	NA
Forbids ADUs					X
Special Permit	X <sup>1</sup>	X	X	X	
1 ADU per Lot	X	X	X	X	
Off-Street Parking Required	X <sup>2</sup>	X <sup>4</sup>	X		
Restricted to Family Members	X	X	X <sup>7</sup>		
Owner Occupancy Required	X	X	X	X	
Matching Exterior to Primary DU	X	X	X		
Must Be Attached	X	X			
Size Restrictions	X <sup>3</sup>	X <sup>5</sup>	X <sup>8</sup>	X <sup>10</sup>	
Yard Dimension Requirements	X				
Year Built Restrictions		X <sup>6</sup>		X <sup>11</sup>	
Max. Bedroom Restrictions			X <sup>9</sup>	X <sup>12</sup>	
	<sup>1</sup> Allowed by right in R-15 and GB, allowed by special permit in R-40 and NB  <sup>2</sup> Adequate parking for 2 vehicles  <sup>3</sup> 850 sf	<sup>4</sup> 1 per bedroom  <sup>5</sup> Max. 10% of existing floor area  <sup>6</sup> Must have been built prior to 1938	<sup>7</sup> Or caregiver  <sup>8</sup> 800sf  <sup>9</sup> 1 max.	<sup>10</sup> 1,200sf or 30% of primary DU ground floor area  <sup>11</sup> Must have been built prior to 2018  <sup>12</sup> Up to 3 people	

**ZONING CAN LIMIT HOMEOWNERS' ABILITY TO ADD AN ADU THROUGH REQUIREMENTS FOR PERMITTING, OFF-STREET PARKING, SETBACKS, OCCUPANCY BY FAMILY MEMBERS, HOMEOWNER OCCUPANCY, AND THE SIZE OF LOTS AND AGE OF HOUSES THAT CAN HAVE AN ADU.**

**PROGRESSIVE DADU BYLAWS  
TEND TO LIMIT RESTRICTIONS ON  
FAMILY RELATIONS, RENTAL  
OPPORTUNITIES, PARKING  
REQUIREMENTS,  
AND  
HOMEOWNER OCCUPANCY.**

## PROGRESSIVE DADU ZONING BYLAWS + ORDINANCES

	NEWTON, MA	NORTHAMPTON, MA	LEXINGTON, MA	READING, MA	AUSTIN, TX	PORTLAND, OR	CALIFORNIA
Zoning	Accessory Apartments	Accessory Apartments	Accessory Apartments	Accessory Apartments	Accessory Dwelling Units	Accessory Dwelling Units	AB 2299 + SB1069
Year Updated	2017	1999	2016	2017	2015	2016	2016
By Right or Special Permit	Special Permit	Special Permit	Special Permit	Special Permit	By Right	By Right	By Right
ADU Size (sf)	250-1,200 or 40% of primary DU (whichever is lower)	900	1,000	1,000 or 33% of primary DU (whichever is lower)	1,100 or FAR of 0.15 (whichever is lower)	800 or 75% of primary DU (whichever is lower)	1,200 or 30% of primary DU (whichever is lower)
Setbacks (ft)	6 from primary DU, meet zoning requirements	Same as primary unit		Same as primary unit	10 from primary structure	40 from front lot line	
Height (ft)	22 w/ pitched roof, or 18				30	20	
Floors	1.5				2		
Parking	No additional parking	1 additional parking space	No additional parking	1 additional parking space	1 additional parking space	No additional parking	
Design	Exterior must be in keeping with primary unit + neighborhood		SPGA will determine exterior appearance compatibility with primary DU + neighborhood			Exterior must be the same or visually match primary unit	
Building Code		Must conform to all applicable health, building, + other codes				Regulated by state building code	
Utilities				Must be connected to public water and sanitary sewer systems		Separate water service, connect to existing sanitary system	
Homeowner Occupancy	Homeowner must occupy one unit		Homeowner must occupy one unit, can be absent for up to 2 years	Homeowner must occupy one unit			
ADU Occupancy	Total allowed for a household	Max. 3 in ADU	Max. 2 bedrooms	Max. 3 in ADU Max. 2 bedrooms		Total allowed for a household	
Rental	Min. 30 days				Short-term rental for 30 days per year	Allowed for short-term rental	
Re-Sale	Notify Commissioner of Inspectional Services	Notarized letter to Building Commissioner					
Additional Regulations	Principal unit must have been built 4 years prior	Cannot be enlarged				Septic tank must be decommissioned if it's 10 ft from ADU	Allowed for existing + new buildings

## BARRIERS FOR HOMEOWNERS

Restrictive zoning, high permitting fees, lack of financing, and potential tax increases are some of the greatest hurdles that homeowners have to overcome when adding an ADU. In addition to zoning restrictions and permitting fees, financing an ADU can be difficult for homeowners, as most banks and lending agencies do not provide loans for ADUs, requiring homeowners paying high out-of-pocket costs. Homeowners may have to spend anywhere from \$90,000 for an internal ADU to \$200,000 for a detached unit.<sup>1</sup> In addition, the costs of contracting out architecture and labor can be high. Furthermore, homeowners may see their taxes rise if their entire property is reassessed.

Some municipalities offer forgivable loans or grants to homeowners seeking to build ADUs. The ADU Loan Program of Santa Cruz, CA, provides loans of up to \$100,000 at an interest rate of 4.5% to homeowners building an ADU through the Santa Cruz Credit Union. To qualify for the loan, the homeowner agrees to rent out the unit to households with an income of less than 80% of the AMI for at least 15 years. In Portland, OR, several banks and credit unions offer home equity loans for ADU construction. The Portland Housing Bureau is piloting an \$80,000 loan with no interest for homeowners willing to convert their basements to a dwelling unit in exchange for prohibiting their use as short term rentals.

To address concerns and questions related to designing and building an ADU, the City of Portland, OR, has online resources for homeowners, including sample site and building plans, as well as contact information for City agencies that can help with the process. Californian cities such as Santa Cruz, San Francisco, and Los Angeles, have also added toolkits for interested homeowners that explain ADU permitting, financing, design, and development processes. Small design and construction firms specializing in ADUs are another resource. To limit additional taxes for homeowners with an ADU, tax laws can categorize ADUs as property improvements rather than as an additional housing unit. In Oregon, the Department of Revenue issued a State-wide ruling that assesses ADUs for their value added (improvement), and not as a rezoned property (ADU overlay).

### FINANCING AN ADU



#### MORTGAGE

Possible only when an ADU is being constructed at the same time that the primary house is being built or purchased.



#### HOME EQUITY

'Second mortgage' available after homeowner has built enough equity into primary house.



#### PERSONAL FUNDS

Personal line of credit (high interest, reserved for good credit scores + income) or cash on hand from savings or income.



#### GOVERNMENT ASSISTANCE

ADU financing for deed-restricted affordable units.

<sup>1</sup> Costs based on interviews with municipal officials and self-reported costs from "Building an ADU," <http://www.buildinganadu.com/cost-of-building-an-adu/>

## COMMUNITY CONCERNS

Neighboring homeowners and other community members may be fearful of how ADU-friendly policies can affect the value of their homes, the character of their neighborhood, public infrastructure capacity, traffic, and school capacity. It is important for town officials and ADU proponents to conduct outreach and educate community members in order to address real concerns and correct misconceptions. There is no conclusive evidence that ADUs negatively affect property values, on the contrary, ADUs can increase surrounding property values.<sup>1</sup> Zoning bylaws can also be crafted to ensure the design of ADUs is in keeping with the surrounding neighborhood, the ADU size and setbacks are appropriate, and the ADU occupancy regulated through the number of allowed bedrooms or occupancy size limits.

The small size and limited occupancy of ADUs makes their impact on public infrastructure minimal, especially when compared to large single-family homes or multifamily dwellings.<sup>2</sup> This also holds true for increased traffic from ADUs. To mitigate traffic and infrastructure concerns, towns and community groups could negotiate a Community Benefits Agreement (CBA) with homeowners building ADU units to alleviate any infrastructure constraints. However, given the minimal impact of this housing typology and the high building cost they pose for homeowners, such a strategy may not be necessary. In Berkeley, CA, city officials base ADU permitting on the neighborhood's accessibility to public transit and the capacity of public infrastructure in order to mitigate negative impacts. Finally, ADUs impact on schools is minimal, as ADUs are overwhelmingly occupied by households without school-age children.<sup>3</sup>

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1 Chapple, Karen. Studying the Benefits of Accessory Dwelling Units. UC Berkeley. <https://frameworks.ced.berkeley.edu/2011/accessory-dwelling-units/>  
City of Reno. Accessory Dwelling Units, Neighborhood Advisory Board Presentation. <https://www.reno.gov/home/showdocument?id=73423>  
Hulse, Travis M. Use of Accessory Dwelling Units as a Housing Strategy: A Case Study of Lawrence, Kansas. University of Nebraska - Lincoln. [https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1038&context=arch\\_crp\\_theses](https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1038&context=arch_crp_theses)

ULL. Accessory Dwelling Units: Friendly Density or Neighborhood Foe? <https://triangle.uli.org/news/adus/>

2 The impact on public infrastructure of 100 ADUs with two-person occupancy is less than or equal to the impact of 10 single-family homes with 5 household members per unit or a 12 unit multifamily building with 4 household members in each unit.

3 Garcia, David. ADU Update: Early Lessons and Impacts of California's State and Local Policy Changes. UC Berkeley. [http://turnercenter.berkeley.edu/uploads/ADU\\_Update\\_Brief\\_December\\_2017\\_.pdf](http://turnercenter.berkeley.edu/uploads/ADU_Update_Brief_December_2017_.pdf)



# CASE STUDIES

Photo via [Accessory Dwellings](#)

**SUCCESSFUL DADU BYLAWS REQUIRE  
ONGOING COMMUNICATION  
AND COMPROMISE  
WITH CONCERNED COMMUNITY  
MEMBERS, AS WELL AS  
SUPPORT FOR INTERESTED  
HOMEOWNERS.**

# ACCESSORY APARTMENT NEWTON, MA

## BASIC FACTS

POPULATION	88,994 (2017 ACS)
HOUSEHOLDS	30,898 (2012-16 ACS)
ZONING:	ADUs allowed for all single- and two-family detached houses by special permit
SIZE:	250 - 1,200 sf or 40% of primary DU
BUILDING HEIGHT:	22' (pitched roof) or 18'
FLOORS:	1.5
SETBACKS:	6' from primary DU
PARKING:	No additional parking required
DESIGN:	Must be in keeping with primary dwelling unit + neighborhood
OCCUPANCY:	Homeowner occupy in one unit
RENT:	Min. 30 days

## OVERVIEW

In 2017, the City of Newton passed one of the most progressive accessory dwelling unit (ADU) bylaws in the Commonwealth. It allows attached ADUs by right and detached ADUs by special permit in all single and two-family lots. Newton had first allowed ADUs in 1991, but virtually none were built due to the restrictiveness of the ordinance. The previous ordinance tied ADUs to lot sizes that were larger than what was common in the city, and as a result only homeowners with large lots were allowed to build ADUs. As a result, eligible homeowners tended to be wealthier individuals who were not inclined to build ADUs. City officials were also aware that anywhere from 600 to 1,000 illegal ADUs were scattered around the community, posing serious health and fire risks.

## SUCCESS FACTORS

According to interviewed City staff, one of the main factors of success was the interest of City Council members, who were willing to work together in order to pass a new ordinance. The City also engaged with supporters to build a coalition that would reach out to the City Council and the media. The coalition included the Council on Aging, which was interested in the ordinance's connection to aging in place; environmental groups supportive of ADUs as a smart growth strategy; and housing advocates interested in increasing the city's housing supply. Additionally, the City carried out public meetings to identify other supporters that were willing to speak in support during public hearings.

The City also had to compromise with opposing factions in order to get the ordinance approved. Compromises included requiring a special permit for detached accessory dwelling units, allowing the maximum ADU size to be 1,000 square feet instead of 900 square feet to satisfy seniors who wanted a larger unit to move into, and limiting the total number of people in the primary and accessory units to that allowed in the primary dwelling unit (one family and 3 unrelated individuals) to avoid overcrowding.

## REGULATIONS

Despite the improved ADU ordinance, the City of Newton believes the number of ADUs will not dramatically increase for a number of reasons. First, the cost of building an ADU is high, ranging from an estimated \$90,000 for an internal unit to \$200,000 for an external unit, according to Newton's building commissioner. The high investment, coupled with the lack of available financing, will disincentivize many homeowners from building a unit. Additionally, the ordinance restricts ADUs from being used as a short-term rental unit for less than 30 days, limiting homeowners who may be interested in generating rental income from the ADU. Maneuvering the special permitting process for a detached ADU may also deter households from going through the lengthy, costly process. Finally, many homeowners will find the construction process overwhelming, especially those with little to no background in design and development. This is confirmed by building data: In the year following the passing of the ordinance, only 6 applications for ADUs were filed.

# ACCESSORY APARTMENT LEXINGTON, MA

## BASIC FACTS

POPULATION	32,936 (2012-16 ACS)
HOUSEHOLDS	11,602 (2012-16 ACS)
ZONING:	ADUs allowed for all single-family houses by special permit
SIZE:	Max. 1,000 sf
BUILDING HEIGHT:	25'-30' depending on district
BEDROOMS:	2
SETBACKS:	6' from primary DU
PARKING:	No additional parking required
DESIGN:	SPGA determines if exterior appearance is compatible with primary DU and neighboring dwellings
OCCUPANT:	Homeowner must occupy one unit, can be absent and rent both units for up to 2 years

## OVERVIEW

The Town of Lexington passed its current accessory apartment bylaw in Spring of 2016 through Town Meeting. Prior to the most recent iteration, Lexington had a 15-year-old accessory apartment bylaw with lot and occupancy requirements that made it unusable by most homeowners. Following a year of community engagement and bylaw design, the Planning Board successfully proposed a new ADU bylaw that was approved at Town Meeting.

## SUCCESS FACTORS

A year prior to introducing the bylaw, the Planning Board held an informal, open-ended community forum on residential policy. Community members freely commented on the challenges, opportunities, and successes of the existing residential zoning, as well as on what other towns were doing. The main themes that surfaced from the forum were the homogenous housing supply, lack of options for empty nesters, and absence of housing for younger households. Later that year, the Planning Board held a second forum where they showcased possible changes to the zoning that would address the main concerns of community members. Some of the proposed changes included two-family houses, ADUs, modified height of structures, and neighborhood conservation districts.

The Planning Board presented the proposed residential zoning changes as a package in the 2016 Spring Town Meeting. Although some of the amendments, including two-family housing, were voted down, the accessory apartments bylaw passed.

## REGULATIONS

Although Lexington's accessory apartment bylaw is one of the most permissive in the Commonwealth, the Town has not seen an overwhelming number of applications since its approval. Since 2016, a total of 11 units have been permitted. Anecdotal evidence suggests that these units are being built for family members, especially younger residents moving back to Lexington after completing their post-secondary studies.

# ACCESSORY DWELLING UNIT PORTLAND, OR

## BASIC FACTS

POPULATION	647,805 (2017 ACS)
HOUSEHOLDS	256,432 (2012-16 ACS)
ZONING:	ADUs allowed in all Residential, Commercial, and Central Employment Zones
SIZE:	75% of living area or 800 sf
BUILDING HEIGHT:	20'
SETBACKS:	40'
PARKING:	No additional parking required
DESIGN:	Must match primary dwelling unit
BUILDING CODE:	Abide by state building code
UTILITIES:	Can connect to existing systems or have a separate connection for an additional fee

## OVERVIEW

The City of Portland is often hailed as a national leader for accessory dwelling units, and has over 20 years of iterative ADU regulations. The primary objective of ADUs in Portland is to make more efficient use of the existing housing stock and provide a greater mix of housing options, while maintaining overall neighborhood character. In Portland, ADUs can take the form of an existing space conversion (garage, accessory structure, space within a house), an attached addition to an existing building, or a new detached building. Partly due to their progressive regulations, the City has permitted over 2,000 ADUs since 2010.

## SUCCESS FACTORS

Portland's first ADU reforms for minimum square footage and owner occupancy requirements were enacted in 1997, but it took further reforms for homeowners to take advantage of the regulations. In 2004, the City allowed ADUs to be built citywide, including in converted garages, and eliminated on-site parking requirements. Then, the City waived system development charges (SDC) for ADUs, which are usually charged for any new construction. After removal of the SDC fees, the number of ADU permits doubled from 2010 to 2014. In 2014, ADUs were officially allowed to function as short-term rentals (STRs). The City Commissioner is now pushing to limit the number of STRs by requiring homeowners building an ADU for STR purpose to pay the SDC fee. Lastly, in 2015 the City once again relaxed the design and setback standards to further incentivize homeowners to add ADUs.

## REGULATIONS

Despite Portland's relatively relaxed ADU requirements, the City still has control over a variety of aspects. A detached ADU cannot cover more than 15% of the total lot size and must be set back 40 feet from the front lot line. This ensures that ADUs remain a secondary structure to the main house, both in size and placing. ADUs taller than 15 feet must have exterior finishes, roof, and windows that visually match those of the primary house. Moreover, the total number of residents that can live in both the primary and secondary units is limited to the total allowed for a household.<sup>1</sup>

## OCCUPANCY

Despite fears of ADUs being used as STRs, anecdotal evidence and data show that most are used for housing family or long-term renters. According to a 2014 survey, 70% of ADUs in Portland are owner-occupied, and only 4% are used as STRs.<sup>2</sup> In 2016, following increased deregulation of ADUs, there were approximately 1,359 ADUs in the city, of which about 200, or 15%, were used as STRs.<sup>3</sup>

1 Defined as one or more persons related by blood, marriage, domestic partnership, legal adoption or guardianship, plus no more 5 additional persons

2 Office of Policy Development and Research. *Accessory Dwelling Units*. U.S. Department of Housing and Urban Development. <https://www.huduser.gov/portal/casestudies/study-09082016.html>

3 *Will short term rentals actually reduce long term housing in granny flats?* Accessory Dwellings. <https://accessorydwellings.org/2016/04/04/adustr/>

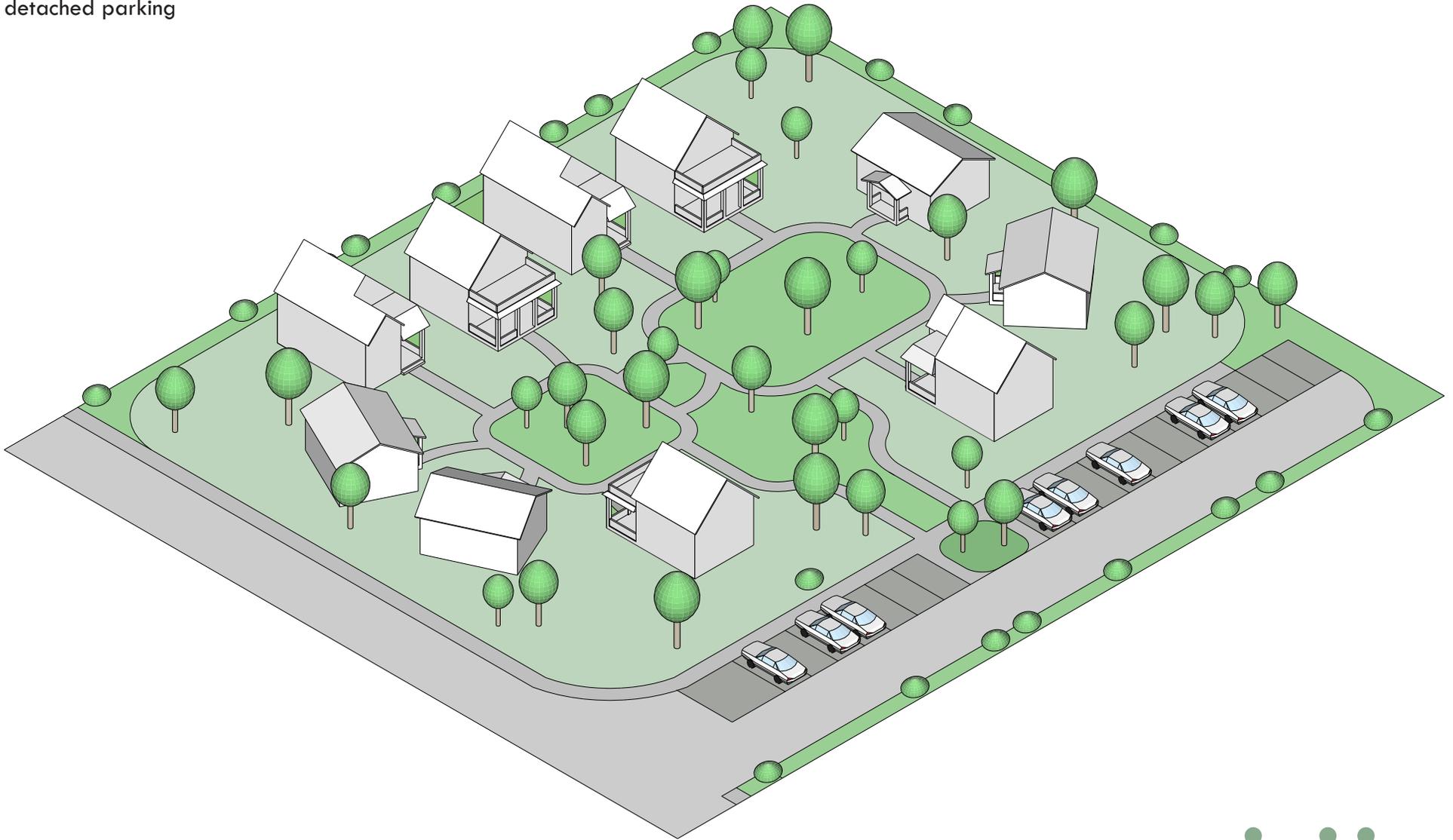


# COTTAGE DEVELOPMENTS

Photo via [Concord Riverwalk](#)

## DEFINITION

A pedestrian-friendly collection of one-to-two-bedroom houses ranging from one-to-two floors with shared green spaces and detached parking



POTENTIAL OCCUPANTS

One-to-four-person households



Photo via [Ross Chapin](#)



Photo via [Ross Chapin](#)



Photo via [Ross Chapin](#)

## OVERVIEW + HISTORY

Cottage developments, also called pocket neighborhoods, are commonly identified by their walkable paths, shared green spaces, smaller clustered units, and detached parking spaces. Cottage developments can consist of single- and two-family houses, townhouses, or more urban apartment buildings. Cottages first appeared on the Cape Cod peninsula as a more permanent form of the self-built summer campgrounds used before WW II. In the late 1930s, these campgrounds came to be seen as “blight” by local authorities, and zoning laws were created to stop them. Today, many cottages are illegal under existing zoning laws, but they are tolerated and some, such as the 318 Victorian cottages in Oak Bluffs, were designated as a National Historic Landmarks by the U.S. Department of Interior.

Recently, a number of towns around the Commonwealth have updated their zoning to allow for cottage development. In Dennis, MA, the recent Seasonal Resort Community Zoning bylaw allows for small cottage clusters, while Concord, MA, has permitted new cottage developments through its Planned Residential Development (PRD) Zoning. Nationwide, the City of Langley, WA, was one of the first to adopt modern zoning for cottages in 1995. The City’s Cottage Housing Development (CHD) code allows 4-to-12 small, detached cottages under 975 square feet to be built in single-family districts. Like other small housing options, CHD was a response to the nationwide demographic trend of decreasing household size, the need for increased affordable housing, and planning for developments that enhance walkability and sense of community.

## FOUND IN

### Massachusetts

Concord  
Dennis  
Wayland  
Weymouth

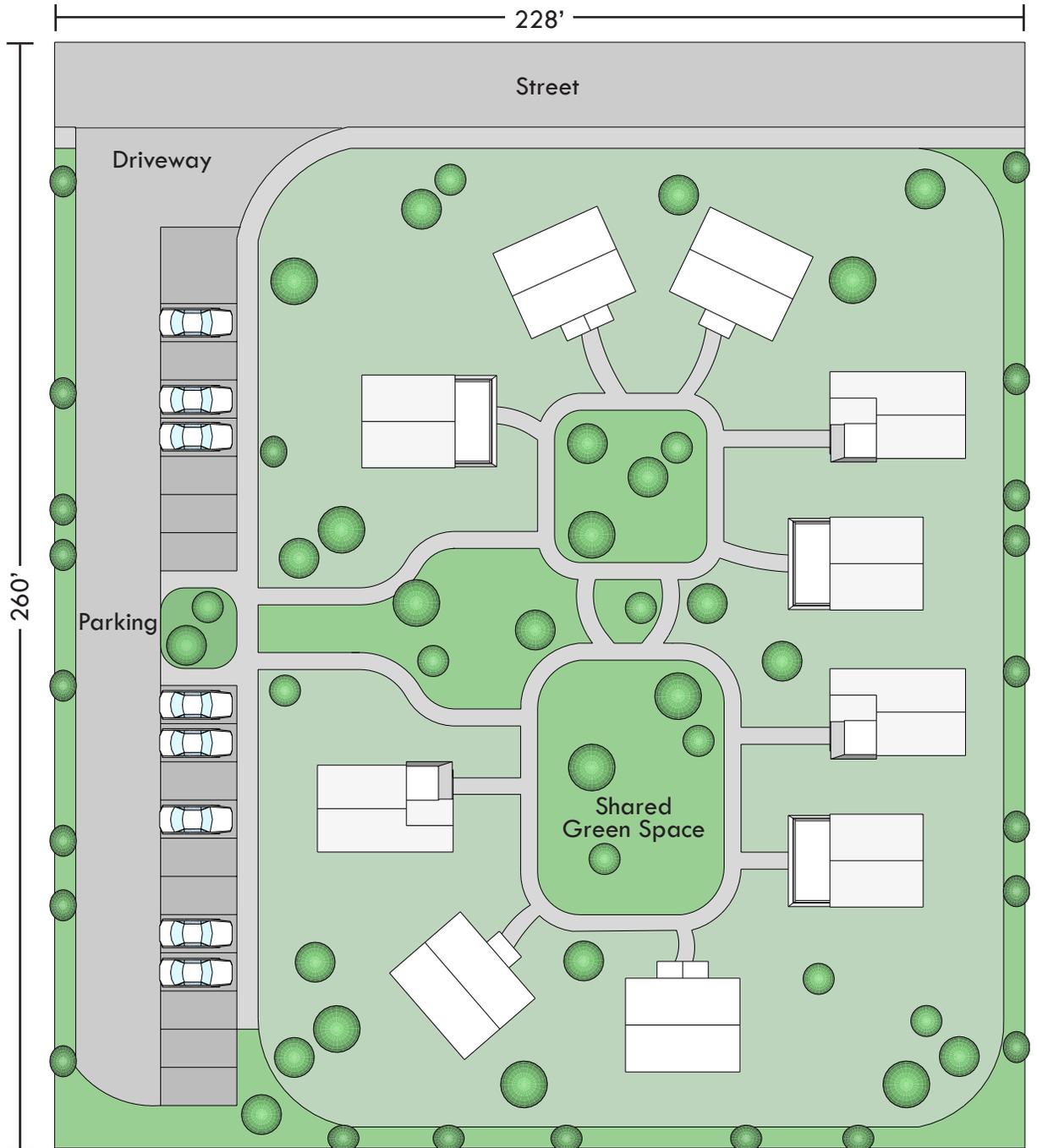
### Nationwide

Carmel, IN  
Fairview, OR  
Indianapolis, IN  
Kirkland, WA  
Langley, WA  
Phoenix, AR  
Seattle, WA  
Wheatridge, CO

## GENERAL LAYOUT

<b>Total SF</b>	900 - 1,500 sf
<b>Lot Size</b>	Depends on town's cottage zoning, density can be greater than 15 units per acre  Generally developed under Planned Residential Development zoning
<b>Setbacks</b>	10' between cottages
<b>Unit Size</b>	<p>Kitchen W: 8' L: 12'</p> <p>Bathroom W: 5' L: 8'</p> <p>Living Room W: 10' L: 16'</p> <p>Bedroom (1 - 2) W: 12' L: 10'</p>

## SITE PLAN LAYOUT

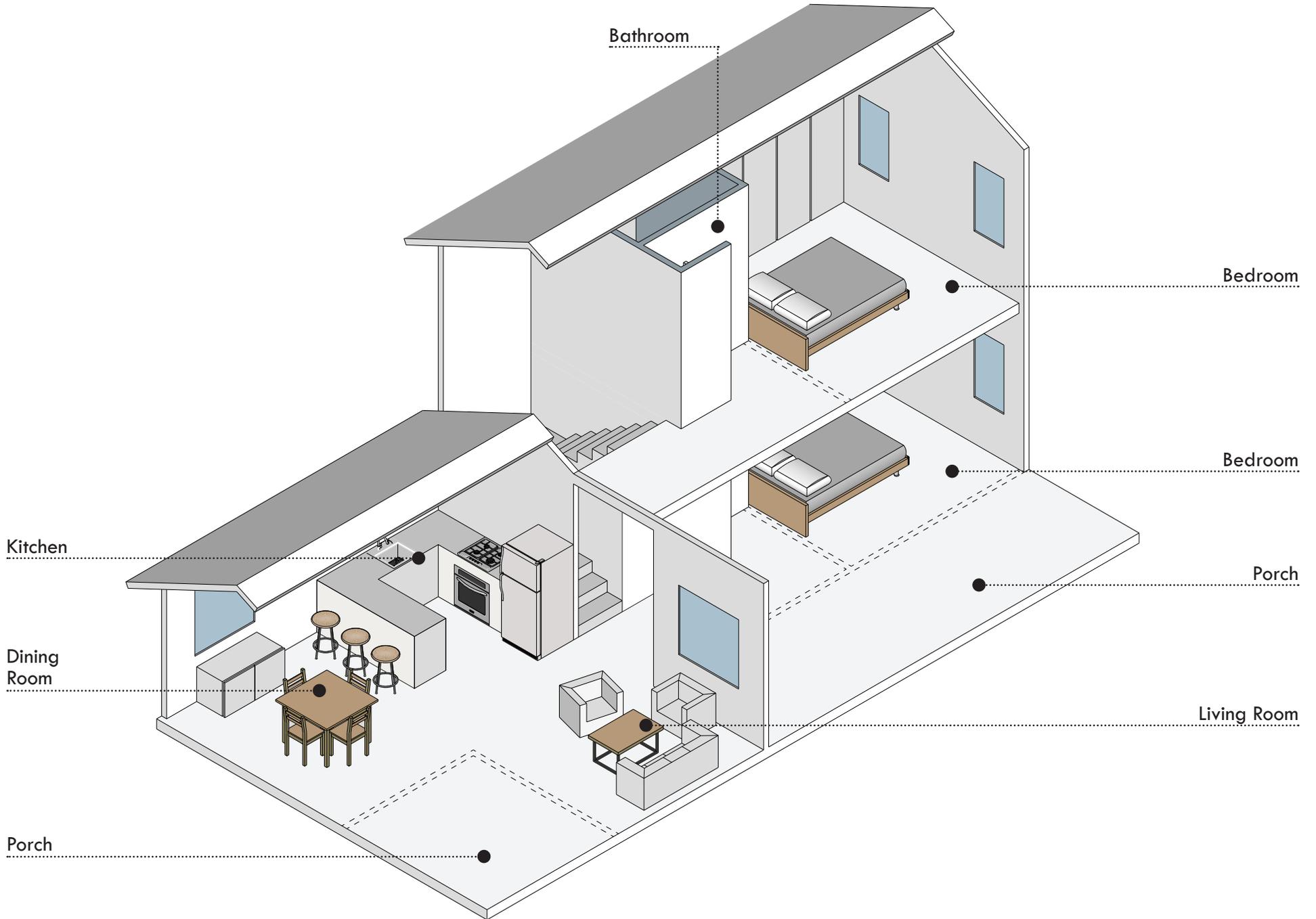


# TWO-STORY LAYOUT

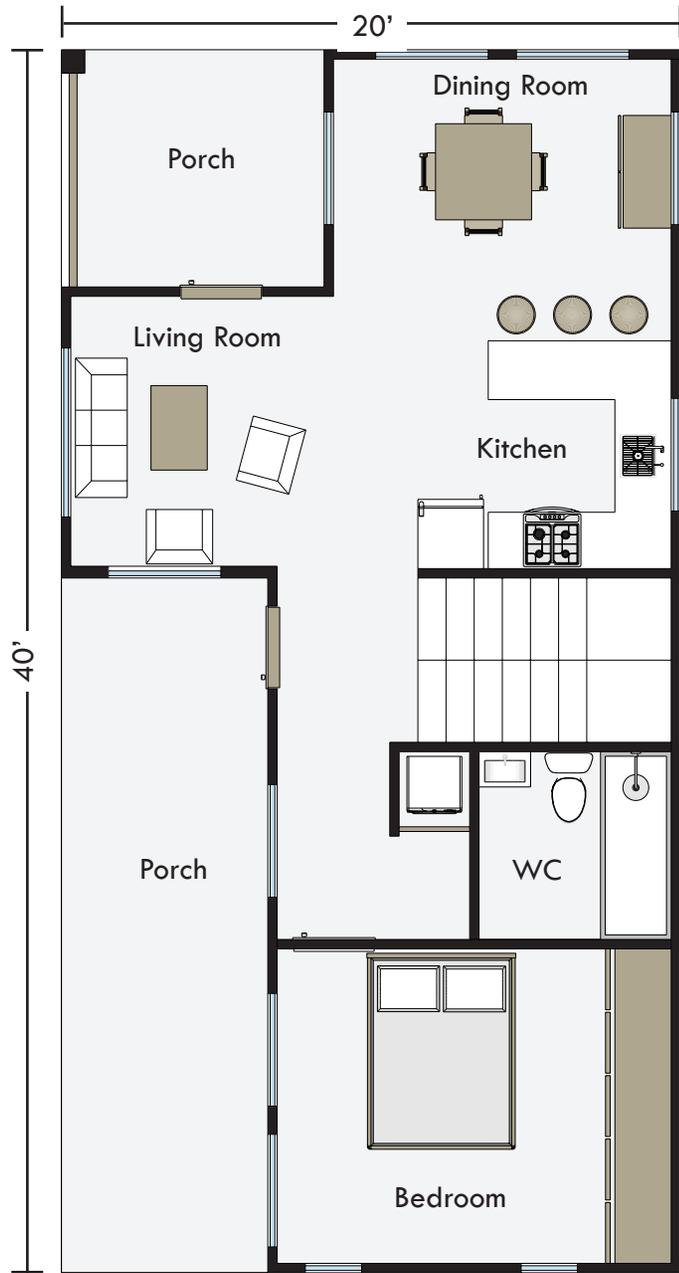


Photo via [Concord Riverwalk](#)

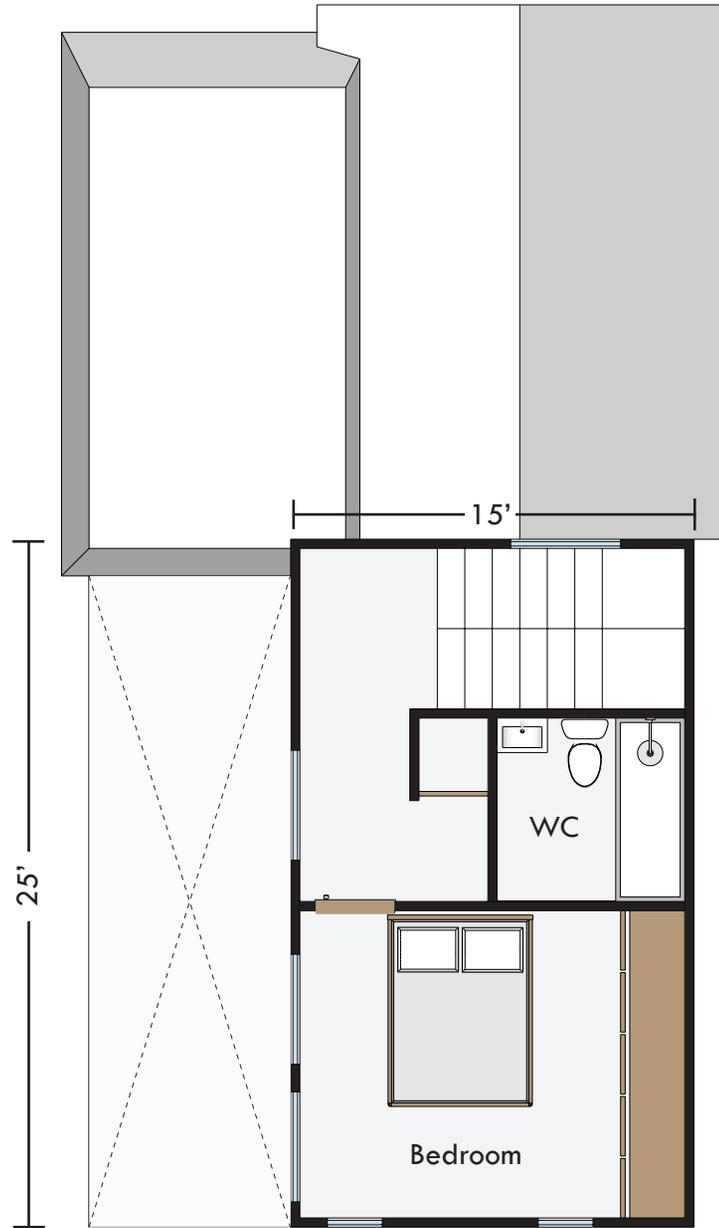
# TWO-STORY LAYOUT



# TWO-STORY LAYOUT



FIRST FLOOR



SECOND FLOOR



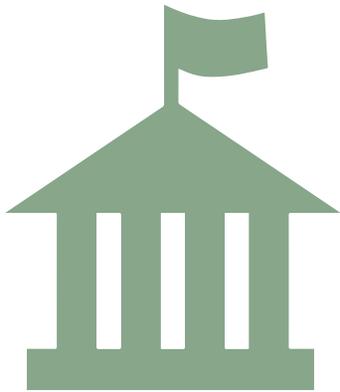
# BARRIERS

Photo via [Ross Chapin](#)

# BARRIERS

Cottage Housing Developments (CHDs) are a smart growth strategy that has proven to be desirable to homebuyers, especially those that have recently formed households and those seeking to downsize, and financially feasible for developers. In spite of their success in the Commonwealth and the nation, CHDs continue to face regulatory, infrastructural, and educational barriers that restrict their development. The main regulatory barriers are zoning bylaws that restrict high-density clustered development. Similar to ADU barriers, neighbors and community members may be fearful of CHD's impacts on schools, traffic, and neighborhood character. Various communities around the Commonwealth and the nation have been able to overcome these barriers to successfully create compact, well-designed cottage housing developments.

## BARRIERS BY STAKEHOLDER



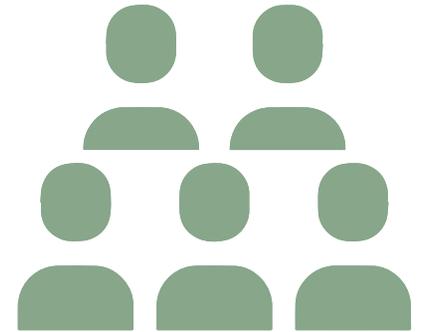
### TOWN OFFICIALS

- Zoning Bylaws
- Water + Sewer Constraints
- Parking + Trash Disposal
- Fire Safety



### DEVELOPERS

- Zoning Bylaws
- Market Dynamics
- Financing



### COMMUNITY CONCERNS

- Neighborhood Character
- School Capacity
- Traffic

# BARRIERS FOR TOWN OFFICIALS

## ZONING + INFRASTRUCTURE

**The greatest difficulties faced by town officials interested in CHDs are zoning restrictions and infrastructure constraints, especially in suburban communities with limited water and sewer systems.**

**Parking, trash disposal, and fire safety in CHDs may be accommodated differently than in typical single-family housing developments.**



### ZONING

In many suburban towns, clustered development is prohibited by zoning or requires a special permit. The higher density of cottage developments can be seen as excessive by towns accustomed to single-family dwelling units or larger lots. In Massachusetts, Planned Residential Districts (PRDs) provisions within a zoning bylaw can present an opportunity to create cottage developments. Outside the Commonwealth, some communities have gone further and created cottage development bylaws that are specifically designed to create these types of communities.



### WATER + SEWER

While the relatively high density of cottage developments makes this type of housing an example of smart growth design, it can also pose a burden on public water and sewer system. This is especially true in smaller towns and suburban communities that may rely on septic systems and limited public infrastructure. However, cottage houses generally have fewer bedrooms and therefore accommodate fewer people than typical single-family houses. In the town of Concord, MA, the developers of the Concord Riverwalk cottage development overcame infrastructure constraints by placing cottages with three bedrooms near the road and connecting them to the public sewer system, while a shared septic system was used for the units with one-to-two bedrooms.



### PARKING + SAFETY

The lower number of parking spaces required per dwelling unit in a CHD and their location away from the units is different from single-family housing units. Walking paths in CHDs may also not be large enough for emergency vehicles and garbage disposal vehicles. In this case, creative site plan design can ensure proper access to and from the units in the event of an emergency and for garbage disposal.

## PROJECT PARTNER TOWNS: ZONING

The 5 project partner towns have a variety of residential districts in their bylaws where cottage cluster or pocket neighborhood development could occur. Stoughton's Flexible Development zoning allows a variety of housing typologies to be built, and the maximum density allowance is not overly restrictive for CHDs. The remaining four towns have more restrictions on the types of development allowed, but the zoning could be modified to make it easier to build cottage clusters.

	FOXBOROUGH		MEDFIELD	MEDWAY	SHERBORN	STOUGHTON	
Zoning	Open Space Residential Development	Planned Development Housing	Innovative Residential Development	Multi-Family Dwelling Development	Open Space Residential Development	Planned Unit Development	Flexible Development
Year Updated	2015		2013		2017		
Area	20,000-30,000 sf	200 acres		30,000 for 3 DUs + 8,000 per additional DUs	10 or more acres		10 or more acres
Frontage (ft)	50	100		96	50		
Front (ft)	35			30			
Side (ft)	15			20			
Rear (ft)	30			50			
Stories	2.5			2.5			
Height (ft)	35			35			
DUs Permitted		1 for every 40,000sf		30,000 for 3 DUs + 8,000 per additional DUs			1 DU + the number allowed under underlying zoning
Typologies	Single family			Single, two- and multifamily			Up to 3 attached units
Bedrooms		No more than 10% with 3+ bedrooms					
Parking (per DU)	2			2			2
Open Space (% of total)	45%	25%			50-60%		20%
Water Supply							
Sewage Disposal							
Design			Relief provided for shared driveways + extended dead-end roads				
			*Underlying zoning dictates requirements				

# PROGRESSIVE COTTAGE HOUSING ZONING BYLAWS

	CONCORD, MA	DENNIS, MA	KIRKLAND, WA	LANGLEY, WA
Zoning	Planned Residential Development	Seasonal Resort Community	Cottage Homes	Cottage Housing
Year Updated		2010	2017	2014
By Right or Special Permit	Special Permit	By Right	By Right	Design Review
Lot Area	Min. 4 times the min. of underlying district	5 acres	None	11,616sf (0.3 acres)
Lot Coverage			50%	40%
Maximum Building Area		900 sf	1,500 sf	1st Fl: 650sf for 50% min. DUs 800sf for 50% max. DUs  Total: 1.5 area of 1st fl or 975sf, whichever is less
Setbacks (ft)		10	Front: 20 Other: 10	Front: 10 Rear: 10 Side: 5
Height (ft)		25 (1.5 stories) Sloped roof	18 for 1 story 25-27 otherwise	18 25 with pitch roof
Density	2 times the max. of underlying district		2 times the allowed in the underlying zoning Min. 4 max. 24 units	1 DU per 2,904sf 15 units per acre Min. 4 max. 12 units
Common Space			400 sf per DU Private space encouraged	400 sf per DU 50% of DUs abut All DUs 60ft walking distance from common space Cottages abutting on at least 2 sides
Parking		1 per DU	DUs 700 sf: 1 space per unit DUs 700 - 1,000 sf: 1.5 spaces per unit Units over 1,000 sf: 2 spaces per unit Must be provided on the subject property	1 1/4 per DU on-site Screened from direct street view Parking between structures is allowed when located toward the rear of the principal structure and served by an alley or private driveway Parking cannot be located in the front yard Can be located between a structure and the rear lot line or a side lot line
Design	DUs should be clustered Mix of: - number of bedrooms - price or rental rates - single-, two-, and multifamily	Landscaping + buffering along lot lines Open deck, max 12 ft deep	Covered porch min. area of 64 sf per unit, min. Min. 7 ft on all sides	Subject to design review
Incentives	Increased density if 10% of units are affordable			
Ownership Type			Subdivision Condominium Rental/Ownership	

## BARRIERS FOR DEVELOPERS

One of the greatest barriers faced by developers of Cottage Housing Development (CHD) is maneuvering through local zoning and permitting requirements that may slow down or completely halt the project's development. Oftentimes, developers have to get buy-in from town officials and the greater community to successfully build a CHD, especially when zoning needs to be revised and neighbors are concerned about project impact.

For example, the developer of the Concord Riverwalk project met with the Planning Board and town officials to introduce the idea of CHDs prior to submitting any plans for permitting. The developer also brought a leading CHD architect to answer any design questions from the Planning Board. In addition, the developer conducted extensive outreach to the community and met with the abutting property owners to ensure the project would be a good fit. In the Town of Dennis, MA, the developers of the Heritage Sands CHD worked closely with town officials over several years to create the Seasonal Resort Community Zoning District that allows cottages to be built in town. The developers and their architecture team also held town forums to ensure neighbors and the greater community were heard and that any concerns could be addressed prior to the project's development.

NEW ZONING MAY NOT BE  
NECESSARY FOR COTTAGE HOUSING,  
BUT ONGOING CONVERSATION  
WITH TOWN OFFICIALS AND  
COMMUNITY MEMBERS ARE.



# CASE STUDIES

Photo via *Architect Magazine*

# CONCORD RIVERWALK CONCORD, MA

## BASIC FACTS

POPULATION	19,432 (2012-16 ACS)
HOUSEHOLDS	6,758 (2012-16 ACS)
YEAR BUILT	2011
HOUSING UNITS:	13
UNIT MIX:	5 three-bedroom, 8 two-bedroom units
UNIT SIZE:	1,340 - 1,760 sf
LOT SIZE:	3.7 acres
OPEN SPACE:	50%
PARKING:	12 garage units, detached and clustered 16 designated surface spaces
ZONING:	Planned Residential Development
OWNERSHIP:	Homeowners Association
SALES PRICE:	\$600,000 - \$780,000/unit, 2016

## PRE-DEVELOPMENT

The Concord Riverwalk development process is a prime example of cottage housing development (CHD). The project was led by Dan Gainsboro, the founding principal and owner of real estate company NOW Communities. Gainsboro's interest in community development and his service on the Town of Concord's Planning Board were two of the factors that led him to develop this project. Prior to starting any work on the project, Gainsboro organized an informal advisory board for feedback regarding land planning and approval processes. Gainsboro's board included Ross Chapin, the principal architect of Ross Chapin Architects, a design studio that specializes in pocket neighborhoods based out of Washington state, and a leader in CHD.

## COMMUNITY OUTREACH

Once Gainsboro identified a parcel for development, he and Chapin connected with Concord's town officials to present the idea of CHD and address any design questions. According to the Town, Gainsboro carried out extensive outreach to the community, including meeting with abutters to ensure that the project's design addressed their concerns. Gainsboro brought Chapin to public forum meetings to answer design questions and provide more technical information about the process. After sustained community outreach, residents voiced their support for the project.

## INFRASTRUCTURE

One of town officials' greatest concerns with this project was how it would address basic infrastructure provision, parking, and fire safety. Town officials state that the Town's limited sewer capacity was sufficient for all of the housing units to the public system. To overcome this, the units with fewer bedrooms were accommodated in the rear part of the lot and connected to a septic system, while those with a greater number of bedrooms were located near the street and connected to the public sewer system. To ensure fire safety, Gainsboro held early discussions with the local fire department and ultimately designed an access drive large enough for emergency vehicles, which also functions as a public access grass path to the Assabet River behind the project. The limited amount of parking in the project can't always accommodate visitors, but it's unusual for there to be no open spaces.

## FINANCING + AFFORDABILITY

One of the main difficulties Gainsboro enumerated was getting the support of investors who were not familiar with the concept and saw it as a risk, despite the popularity of these projects with homebuyers. In regards to affordability, the condo ownership structure and the houses' small design has resulted in relatively stable prices when compared to traditional single-family houses.

# CONCORD RIVERWALK SITE PLAN



Site Plan



Image via [Stanski and McNary](#)

# HERITAGE SANDS

## DENNIS, MA

### BASIC FACTS

POPULATION	14,067 (2012-16 ACS)
HOUSEHOLDS	6,933 (2012-16 ACS)
YEAR BUILT	2015
HOUSING UNITS:	63
UNIT MIX:	One to three bedroom cottages
UNIT SIZE:	900 - 1,350 sf
LOT SIZE:	8 acres
PARKING:	1 space per cottage
ZONING:	Seasonal Resort Community
OWNERSHIP:	Homeowners Association
SALES PRICE:	\$550,000 - \$1,250,000/unit, 2018

### PRE-DEVELOPMENT

The site of Heritage Sands sits was previously as the Grindell's RV Park, a successor of tourist campgrounds existed around town since the 1930s. Camps are allowed to continue operating, despite new trailer parks being prohibited in 1965. However, existing camps were labeled "non-conforming," and could not receive municipal sewer or septic support, leading to failing cesspool infrastructure in addition to overcrowded conditions. From 2009 to 2010, the Dennis Economic Development Committee and municipal officials held community discussions on a new Seasonal Resort Community Zoning District for campgrounds around Dennis. In 2010, the new zoning was approved, allowing the development of Heritage Sands, the first oceanfront cottage community in more than 50 years.

### COMMUNITY OUTREACH

In 2010, following severe sewage challenges in the RV Park and a newly approved zoning bylaw, Grindell's owner and principal of MS Ocean View, LLC, Mark DeWitt, teamed with real estate developer and president of CapeBuilt Development, LLC, Rob Brennan, to redevelop the property. The team collaborated with the Town's Select Board, Town Manager, other municipal boards and committees, the local business community, and year-round and seasonal residents during the project's development.

### DESIGN + INFRASTRUCTURE

As with other pocket neighborhoods, Heritage Sands had to overcome difficulties of compact design, parking, fire safety, and sewage. The site plan was designed to visually and physically allow access to the water by creating numerous common spaces, which also served to increase a sense of community within the project. Other community amenities, such as the clubhouse and pool, were placed in the area furthest from the water to make up for the distance to the ocean.

Fire lanes were created by designing a 24-foot two-way entrance and a 16-foot one-way loop around the development. These brought the project in compliance with the fire code while preserving walkability and green spaces. The site had no access to municipal sewer so the green spaces were utilized for high-pressure leeching and a common tank and sewer facility were built behind the pool and community building.

### AFFORDABILITY

In 2014, the cottages went on the market for approximately \$350,000 (\$366,252) adjusted for inflation). In 2018, units for sale on Zillow ranged from \$550,000 for a 1-bedroom to \$1,250,000 for a 3-bedroom.

# HERITAGE SANDS SITE PLAN



Image via MAPD Conference 2016

# COTTAGE HOUSING ZONING HAMILTON, MA

## BASIC FACTS

POPULATION	8,136 (2012-16 ACS)
HOUSEHOLDS	2,754 (2012-16 ACS)
LOT AREA:	1-to-5 acres
DENSITY:	Max. 4.5 units per acre
GROSS FLOOR AREA:	800 - 1,500 sf
BEDROOMS:	Max. 2
BUILDING HEIGHT:	25 ft
SETBACKS:	10 ft
DWELLING UNITS:	4-to-18
OPEN SPACE:	500 sf per DU, min. of 3,000 sf
PARKING:	2 spaces per cottage

## OVERVIEW

At 2017 Town Meeting, the residents of Hamilton rejected a proposed Cottage Housing Zoning Bylaw that would have allowed cottage housing development in town under specific conditions. The bylaw was a culmination of five years of discourse, including discussions with residents and town surveys to gauge support. In addition, the town's 2004 Master Plan recommended the development of smaller, more affordable housing types that could balance the primarily large, single-family homes in the community. Despite this and a 2016 community survey that showed 66% of 704 respondents in support of cottage zoning, the measure was downvoted by 284 to 8 at Town Meeting.

## WHAT WENT WRONG?

According to Town officials, there was ongoing support for the bylaw prior to Town Meeting, including from the Board of Selectmen, the Planning Board, and real estate developers in town. Residents that supported the bylaw were invited to Town Meeting, but the setting might have scared supporters despite the extensive community discussion and outreach. The community pushback against density was due partly to fear of newcomers and a potential increase in the school-age population. Residents also voiced concerns about excessively dense clusters cropping up in town, as well as changes in the town's character.

## AFTERMATH

This experience made town officials skittish about introducing new residential zoning that encourages density. It also led the Planning Board to seek funding to update the town's master plan to focus on residential growth that the community would accept. Town officials believe that the community's ultimate response to the proposed bylaw resulted in housing developers taking their business to different communities where cottage development is more feasible.



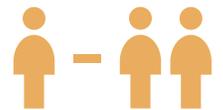
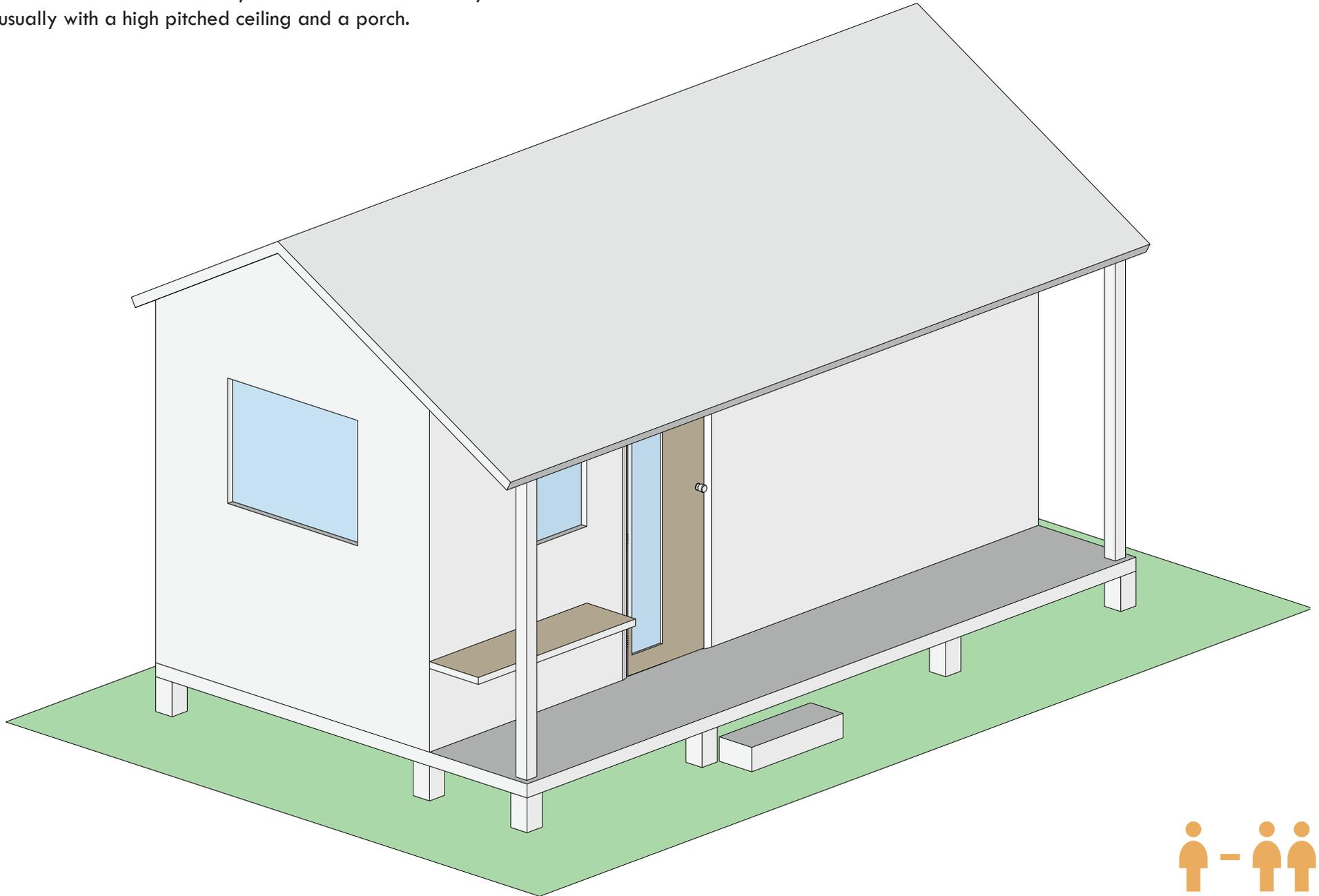


# TINY HOUSES

Photo via [AirBnB](#)

## DEFINITION

A house smaller than 500 sf, on wheels or a foundation, usually with a high pitched ceiling and a porch.



**POTENTIAL OCCUPANTS**

One-to-two-person households



Photo via [HomeAway](#)



Photo via [Rowdy Kittens](#)



Photo via [Grand View River House](#)

## OVERVIEW + HISTORY

While Henry David Thoreau's 150 square foot cabin at Walden Pond in Concord is arguably one of the most famous tiny houses, the Tiny House Movement as such took off in 2008 after the subprime mortgage crisis and Great Recession. The movement was a response to the millions of foreclosures during that time, as well as the perception that the McMansion model of living was unsustainable: despite households continuing to shrink in size, the average home size in 2009 was 2,700 square feet, up from 1,400 square feet in 1970. While the Recession has passed, the Tiny House Movement remains.

When tiny houses were first built, most owners living in them were doing so illegally as their dimensions were oftentimes less than minimum building requirements. However, regulations for tiny houses have evolved, largely due to ongoing lobbying from tiny house builders and owners. The majority of tiny houses are built on wheels, as it makes them easier to move and legal under RV laws and standards. Unlike mobile homes and RVs, tiny houses tend to be designed to architecturally resemble traditional homes, are built using renewable materials such as wood for finishes and siding, can be constructed by their owners, and their footprint is tailored for smaller one-to-two person households. In 2016, Fresno was the first city to approve new rules to allow tiny houses on wheels to be parked on an existing residential property as an ADU. Since then, communities around the country have changed their zoning to welcome tiny homes.

## GENERAL LAYOUT

<b>Total SF</b>	100-500 sf
<b>Lot Size</b>	<p><b>If permitted as an RV</b> 900-1,500 sf, depending on RV park and local zoning</p> <p><b>Setbacks</b> 10' min from other RV units 20' min from any building</p> <p><b>If permitted as an ADU</b> Lot size depends on town's ADU zoning</p> <p><b>Setbacks</b> Same setbacks as those granted for primary DU 6' from primary DU</p>
<b>Unit Size</b>	<p><b>On Wheels</b> Must be able to 'fit' inside a trailer for RV permitting</p> <p><b>Size</b> H: 6'8"-13'6" max W: 8'6" max L: 10'-40' max (most models tend to be 32' or less, as longer is more difficult to haul)</p> <p><b>Off Wheels</b> Can be permitted as an ADU</p> <p><b>Size</b> H: 6'8"-13'5" W: 8'6"-10' L: 10'-40' (usually around 20')</p>

## FOUND IN

**Massachusetts**  
Nantucket, MA

**Nationwide**  
Austin, TX  
Detroit, MI  
Fresno, CA  
Los Angeles, CA  
Portland, OR  
Rockledge, FL  
Spur, TX  
Seattle, WA  
Walsenburg, CO

## INTERNATIONAL RESIDENTIAL CODE TINY HOUSE STANDARDS

<b>Unit Size</b>	Less than 400 sf, excluding lofts
<b>Ceiling Height</b>	6' 8"
<b>Loft Area</b>	Min. 35 sf
<b>Loft Dimensions</b>	Min. 5'
<b>Loft Height</b>	Min. 3'
<b>Stairs</b>	Min. 17" wide Risers: min. 7", max. 12" Tread depth: 20" minus 4/3 riser height
<b>Emergency Escape</b>	Egress roof access windows in lofts used as sleeping rooms must meet the requirements of Section R310 where installed with the bottom of their opening no more than 44" above the loft floor

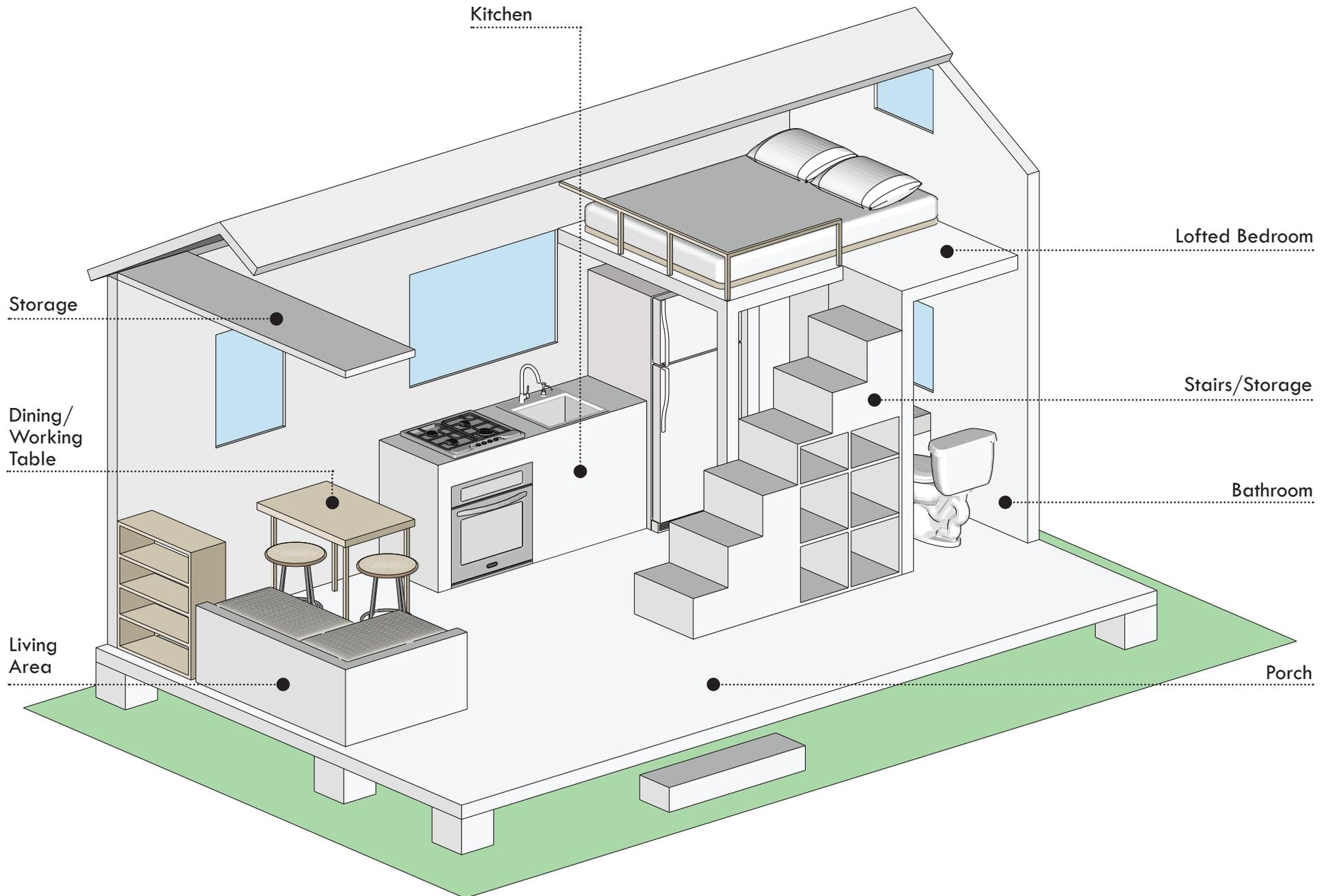
See full IRC Tiny House Appendix Q at: <https://codes.iccsafe.org/public/document/IRC2018/appendix-q-tiny-houses>

# TWO-STORY LAYOUT

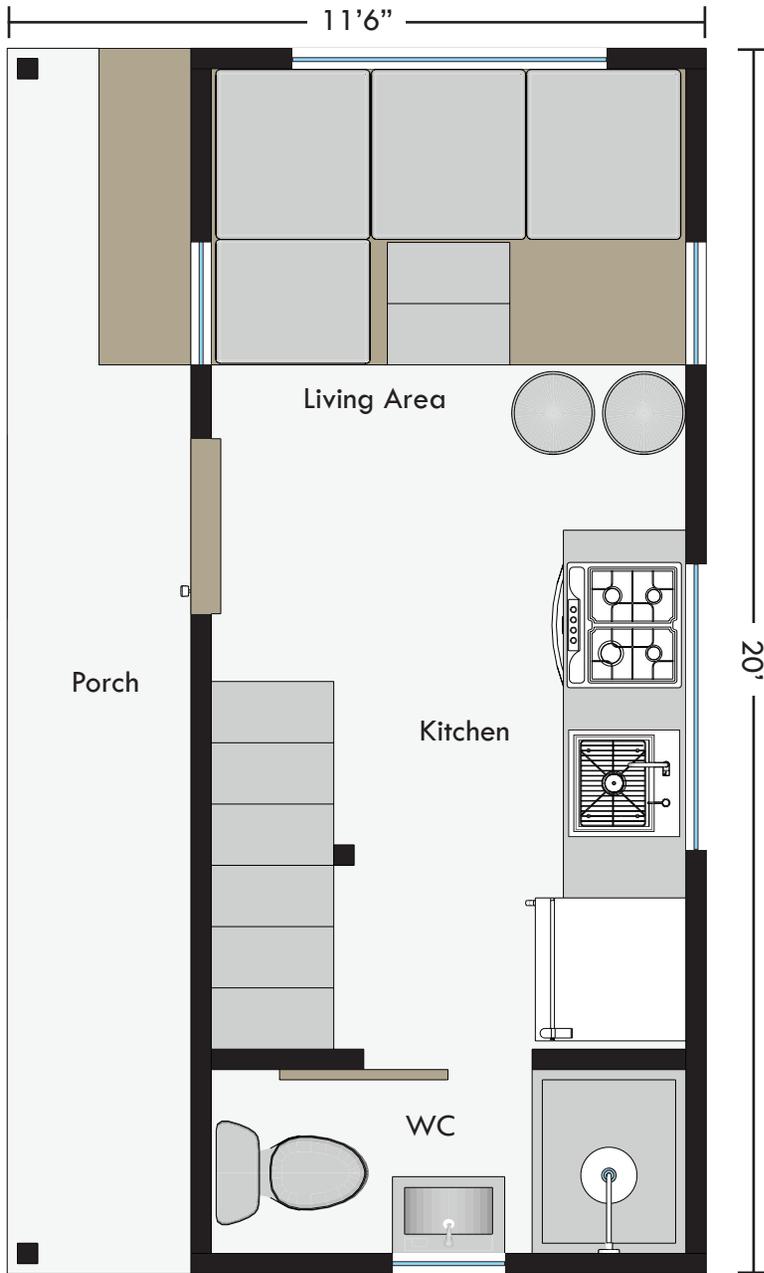


Photo via [Modern Tiny Living](#)

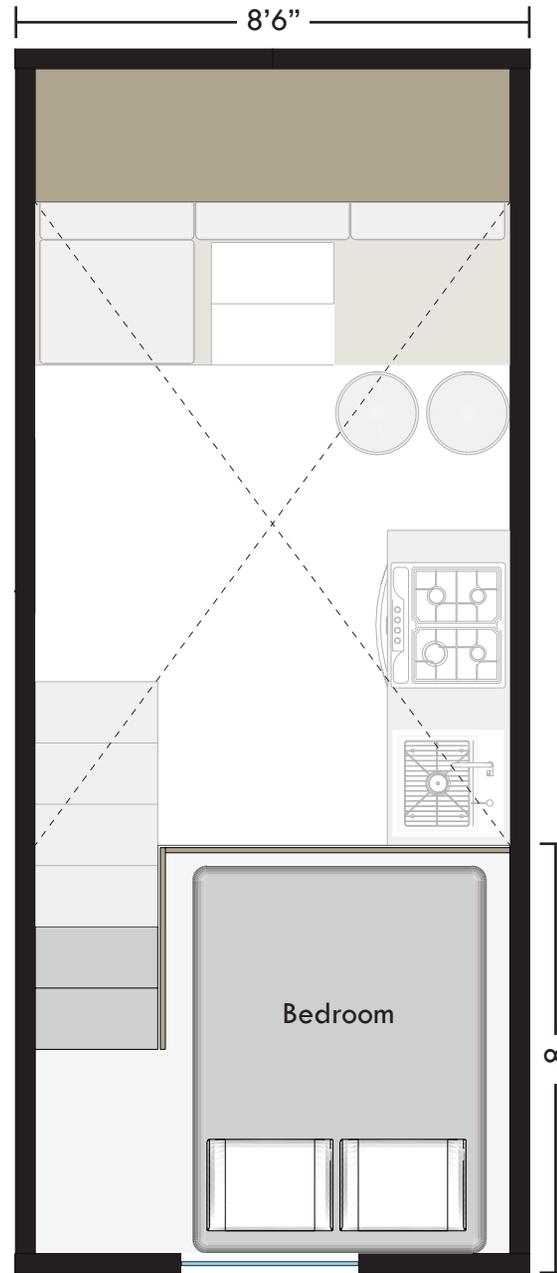
# TWO-STORY LAYOUT



# TWO-STORY LAYOUT



FIRST FLOOR



SECOND FLOOR

# BARRIERS



Photo via [Tiny Heirloom](#)

## BARRIERS

Despite how popular tiny houses have become through television shows and social media, tiny house enthusiasts and owners usually face numerous barriers when looking for places that allow them to park and reside in their tiny houses due to zoning and building codes. Usually, tiny houses on wheels are permitted as a recreational vehicle (RV) or a mobile home, and are only allowed to be located in trailer parks or other areas zoned for these uses. However, many municipalities do not have tiny house zoning at all. Moreover, towns that allow RVs or mobile homes tend to limit the time per year these can spend in their assigned location, and outlaw inhabiting them if they're parked in a different place in town even if they're on a private property. On the other hand, tiny houses off wheels are usually permitted as a detached accessory dwelling unit if they abide by all bylaw requirements and are attached to a foundation. In this case, tiny house owners are restricted to towns that permit DADUs with reduced regulations.

### BARRIERS BY STAKEHOLDER



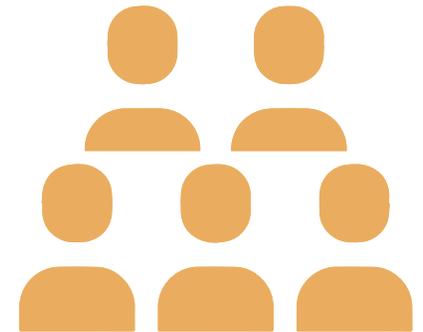
#### TOWN OFFICIALS

- Zoning Bylaws
- Infrastructure Constraints
- Code Standards



#### TINY HOUSE OWNERS

- Zoning Bylaws
- Code Standards



#### COMMUNITY CONCERNS

- Neighborhood Character
- Property Values

# BARRIERS FOR TOWN OFFICIALS

## ZONING + INFRASTRUCTURE

**Unlike other Living Little housing typologies, tiny houses are a relatively new phenomenon and their regulation continues to be in flux.**

**Based on the experiences of other towns in the region and the country, zoning restrictions, infrastructure concerns, and code standards are the greatest barriers faced by town officials interested in making their communities tiny house-friendly.**



### ZONING

The two main paths to permitting tiny houses are as RVs/mobile homes or accessory dwelling units. Only two out of the five towns in this study allow mobile homes of any kind, and although four of the five towns allow ADUs, their bylaws would prohibit tiny houses. Tiny house-friendly communities such as Nantucket, MA, and Fresno, CA, have developed tiny house bylaws to make room for this housing typology. Under these bylaws, tiny houses on wheels are often required to be attached to a foundation as part of the permitting process.



### INFRASTRUCTURE

Another potential barrier is how tiny house owners will connect their house to basic infrastructure utilities such as water, sewer, and electricity, in a safe manner that meets town's regulations. In Fresno, CA, the Tiny House Bylaw states that mechanical equipment must be incorporated into the structure or on the ground, and that utilities must connect to the primary dwelling unit. In Nantucket, MA, the Tiny Houses Bylaw requires that tiny houses be attached to a foundation. In Spur, TX, the Tiny House Ordinance states that houses must be connected to the Town's utilities in order to be permitted. Tiny houses on wheels are usually permitted as RVs, and are required to comply with their same standards.



### CODE STANDARDS

Ensuring tiny houses are up to residential building codes is a third potential barrier. Concerns about building standards, health, and fire safety can deter town officials from allowing tiny houses. To address these concerns, the International Residential Code (IRC) has added Appendix Q: Tiny Houses to their 2018 code edition, which includes ceiling heights, loft areas, stairs, and emergency escape. Currently, the Commonwealth uses the 2015 IRC as its State Building Code, but municipalities interested in tiny houses can incorporate the appendix into their local building codes.

## PROJECT PARTNER TOWNS: ZONING

Three of the five project partner towns prohibit mobile homes in their communities, while the two that allow them do so through a special permitting process. As was previously discussed in the DADU chapter, all of the participating communities have restrictive DADU bylaws, which would need to be changed if tiny houses were to be allowed under this zoning.

	FOXBOROUGH	MEDFIELD	MEDWAY	SHERBORN	STOUGHTON
Mobile Homes are Prohibited			X <sup>5</sup>	X	
Special Permit	X <sup>1</sup>	X <sup>2</sup>			
Temporary Living		X <sup>3</sup>			X <sup>6</sup>
Temporary Design		X <sup>4</sup>			
	<sup>1</sup> By Board of Appeals permit	<sup>2</sup> Special Permit <sup>3</sup> No more than 6 months, can't remove wheels <sup>4</sup> Can't have skirts, porches, or anything else that detracts mobility	<sup>5</sup> Except pursuant to MGL 40A Section 3		<sup>6</sup> A temporary 30 day permit for a mobile home or trailer on a property may be allowed in case of an emergency, renewable upon inspection

	FOXBOROUGH	MEDFIELD	MEDWAY	SHERBORN	STOUGHTON
ADUs Prohibited					X
Special Permit	X <sup>1</sup>	X	X	X	
Restricted to Family Members	X		X <sup>2</sup>	X	
Owner Occupancy Required	X	X	X		
Matching Exterior to Primary DU	X	X	X		
Must Be Attached	X	X			
	<sup>1</sup> Allowed by right in R-15 and GB, allowed by special permit in R-40 and NB		<sup>2</sup> Or caregiver		

**TOWNS THAT LIMIT OR PROHIBIT MOBILE HOMES AND DETACHED ACCESSORY DWELLING UNITS FIND IT DIFFICULT TO FACILITATE PRODUCTION OF TINY HOUSES ON WHEELS WITHOUT SIGNIFICANT CHANGES TO THEIR ZONING.**

# PROGRESSIVE TINY HOUSE ZONING BYLAWS

	NANTUCKET, MA	FRESNO, CA	SPUR, TX	OREGON
Zoning	Tiny House Unit	Tiny House	Tiny House Friendly Town	HB 2737
Year Updated	2016	2016	2014	2017
By Right or Special Permit	By Right in Residential Districts	By Right as a Backyard Cottage	Variance required in some districts	
Lot Area (sf)		5,000		
Building Area (sf)	Less than 500	Less than 440		Less than 600
Setbacks		Conform to zoning district regulations 6' from primary residence		
Height		Conform to zoning district regulations		
Parking		No additional parking required		
Design Regulations		Design review No windows facing neighboring lots	Required to be skirted	
Houses per Lot	1 tiny house per lot			
Foundation Regulations	Must be attached to a foundation if constructed on a moveable trailer		Must be on a foundation with at least 6" of cement footing  Tiny houses on wheels must remove wheels/axles to tie down to foundation	
Utilities		Mechanical equipment shall be incorporated into the structure or on the ground  Separate utility meters and/or addresses are not permitted	Must be connected to city utilities	Allows exemption of required electrical service, but requires a distribution panel rated at 40 amps or more  Allows exemption from connection to external water supply, requires those connected to have a drain of 3" or more for wastewater
Building Code			Must comply with all applicable portions of structural standards code  Must pass the inspection of building official Must have a driveway + assigned address	Allows narrower ladders and lofts Eliminates minimum room sizes and ceiling heights
Fire Code			Must be located on common access route/ internal street	
Ownership Requirements	Can be owned by a non-profit, religious or educational entity, or as a primary residence	Primary or secondary unit shall be owner occupied, rental of both units is prohibited		
Additional Regulations	For primary residence, owner must hold title or land lease to property, or be a direct family member of land owner  Tiny house can be a primary dwelling unit, or in lieu of another permitted secondary unit	Secondary unit cannot be sold separately		

## BARRIERS FOR TINY HOUSE OWNERS

The greatest barrier for tiny house owners is finding a community with tiny house-friendly zoning. Tiny house owners residing in communities that restrict or ban accessory dwelling units and mobile houses or RV camps do so illegally, and may be at risk of losing their tiny home if neighbors complain. To avoid illegal status, some tiny house owners in the Commonwealth have been able to live on land owned by religious entities, while other tiny house owners have settled on agricultural land where their house can classify as a farm labor camp. Communities with existing accessory dwelling unit bylaws have been able to add simple safety requirements to allow tiny houses in residential districts. Requirements include ensuring the tiny house is tied down to a foundation and a health and building inspection is conducted. Building codes are a second barrier for tiny house owners. Although the 2018 International Building Code includes a tiny house section, self-built tiny houses may not always meet building standards. Owners of self-built tiny houses may also have to upgrade their units to comply with health and fire codes.

## BARRIERS FOR COMMUNITY

Community members can have similar concerns about tiny houses as ADUs. Neighbors may be uneasy about how tiny houses look and the impact they may have on the neighborhood's character. Design guidelines and zoning requirements can address these concerns and ensure tiny houses visually blend into their surroundings. Community members may also fear that allowing tiny houses in their zoning will lead to an influx of tiny houses in their community. Yet despite their popularity in the media, only a small subset of households is willing to live in a tiny house, limiting their impact and prevalence. Zoning that limits the use of tiny houses as short-term rentals also curbs demand.

# CASE STUDIES



Photo via [Tiny Heirloom](#)

# TINY HOUSE UNITS NANTUCKET, MA

## BASIC FACTS

POPULATION	11,229 (ACS 2017)
HOUSEHOLDS	3,836 (ACS 2012-16)
ZONING:	By right in all residential districts
BUILDING AREA:	Less than 500 sf
UNITS PER LOT:	1
STRUCTURE:	Must be attached to a foundation
OWNERSHIP:	Non-profit, religious or educational entity, or as a primary residence
OTHER:	Owner must hold title or land lease, or be a direct family member of landowner  Tiny house can be a primary DU or in lieu of a permitted secondary DU

## OVERVIEW

Despite the national attention that tiny houses have received, Nantucket is the only community in Massachusetts that has added tiny house regulations to its zoning bylaw. Local resident Isaiah Stover proposed an amendment to the existing zoning bylaws to allow dwellings under 500 square feet in several districts. Stover's interest in tiny houses was a reaction to his and other year-round residents' struggle to find places to rent in Town. Due to Nantucket's popularity among seasonal tourists, the price of rental units increases exponentially during the summer months, while the median home sales price of \$1.4 million is well beyond the reach of year-round households in town who earn a median income of \$89,000.

## SUCCESS FACTORS

One of the main factors that contributed to the success of Nantucket's tiny house ordinance was the town's pervasive housing affordability crisis. Land availability on the island is scarce and housing prices are high, impacting low- and middle-income residents who are oftentimes faced with leaving the island or living in inadequate housing. In addition, the number of affordable housing units available is low, with deed-restricted units accounting for only 2.5% of the community's housing stock. A second factor was Stover's patience. Although he initially drafted the bylaw in 2015, Stover decided to wait a year before submitting it to Town Meeting. During this time he met with and addressed the concerns of critics and opponents through modification of the bylaw. Finally, as an island community, Nantucket has a history of small seaside cottages that are similar in size and shape to tiny houses, making this proposal less unfamiliar to some residents.

## REGULATIONS

Numerous constraints and regulations limit tiny houses from overcrowding the island. The first constraint is scale. The compact design of tiny houses acts as a deterrent for most households who are not comfortable living in such a small space. A related constraint is that most tiny houses can only accommodate households of two people, further limiting the number of interested residents. While zoning allows tiny houses by right in all residential districts, it mandates that owners must hold the title or land lease to the property, or be a direct family member of the landowner, which limits who can take advantage of the bylaw. Furthermore, tiny houses in Nantucket have to conform to local, state, and national building and health codes.

# BACKYARD COTTAGES HADLEY, MA

## BASIC FACTS

POPULATION	5,338 (ACS 2012-16)
HOUSEHOLDS	2,291 (ACS 2012-16)
ZONING:	Special permit for single-family houses
BUILDING AREA:	Less than 410 sf
UNITS PER LOT:	1
STRUCTURE:	Must be attached to a foundation
OCCUPANCY:	1-2 people
HOMEOWNER:	Must occupy one of the dwelling units
CODE:	Board of Health must approve compliance  Must be connected to existing septic or sewer system

## OVERVIEW

In 2015, Mount Holyoke student Sarah Hastings built a 190 square-foot tiny house on wheels for her senior thesis. After graduating, Hastings moved her tiny house to Hadley after finding a homeowner willing to let her park on their farm and a supportive building inspector. Although the tiny house was hidden from view, Hastings began to gain media attention and soon after, neighbors and community members started to raise concerns about the tiny house. Following a year of hearings with the Town's Planning Board, Zoning Board of Appeals, and building and health inspectors, Hastings lost the zoning battle in Town Meeting and was forced to move her tiny house out of town.

## WHAT WENT WRONG?

While Hastings initially received support from Hadley's building inspector and found a resident willing to let her park her tiny house, the Town's zoning bylaw did not allow for tiny houses, rendering hers illegal. Following complaints from residents and consultation with the Planning Board, Hastings submitted an amendment to the Town's Accessory Apartments bylaw, which only allows for internal ADUs in single-family houses by special permit. The draft extended the bylaw's allowance to detached ADUs of 410 square feet or smaller. The Planning Board allowed Hastings and her tiny house to remain in town and voted to remain impartial before Town Meeting.

According to Town officials, the community was divided on Hastings proposal. Supporters were interested in how detached ADUs could be used by seniors in the community as an effective strategy to age in place, and the Planning Board had already discussed amending the zoning bylaw to allow for detached ADUs. Opponents argued that passing the bylaw amendment would be rewarding Hastings for breaking the law, would flood the town with students from surrounding universities, and could allow anyone with a mobile home or camper to move in. The dynamics of Town Meeting did not favor Hastings: the bylaw amendment was the last item of the night and the moderator did not allow Hastings to make an introductory presentation, but did allow opponents to speak against it. Ultimately, the amendment was rejected by 2/3rds of voters.

## AFTERMATH

Following the community's opposition to tiny houses and the detached ADU amendment's rejection, the Planning Board decided not to raise the subject again in the near future.

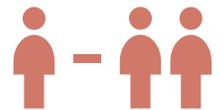
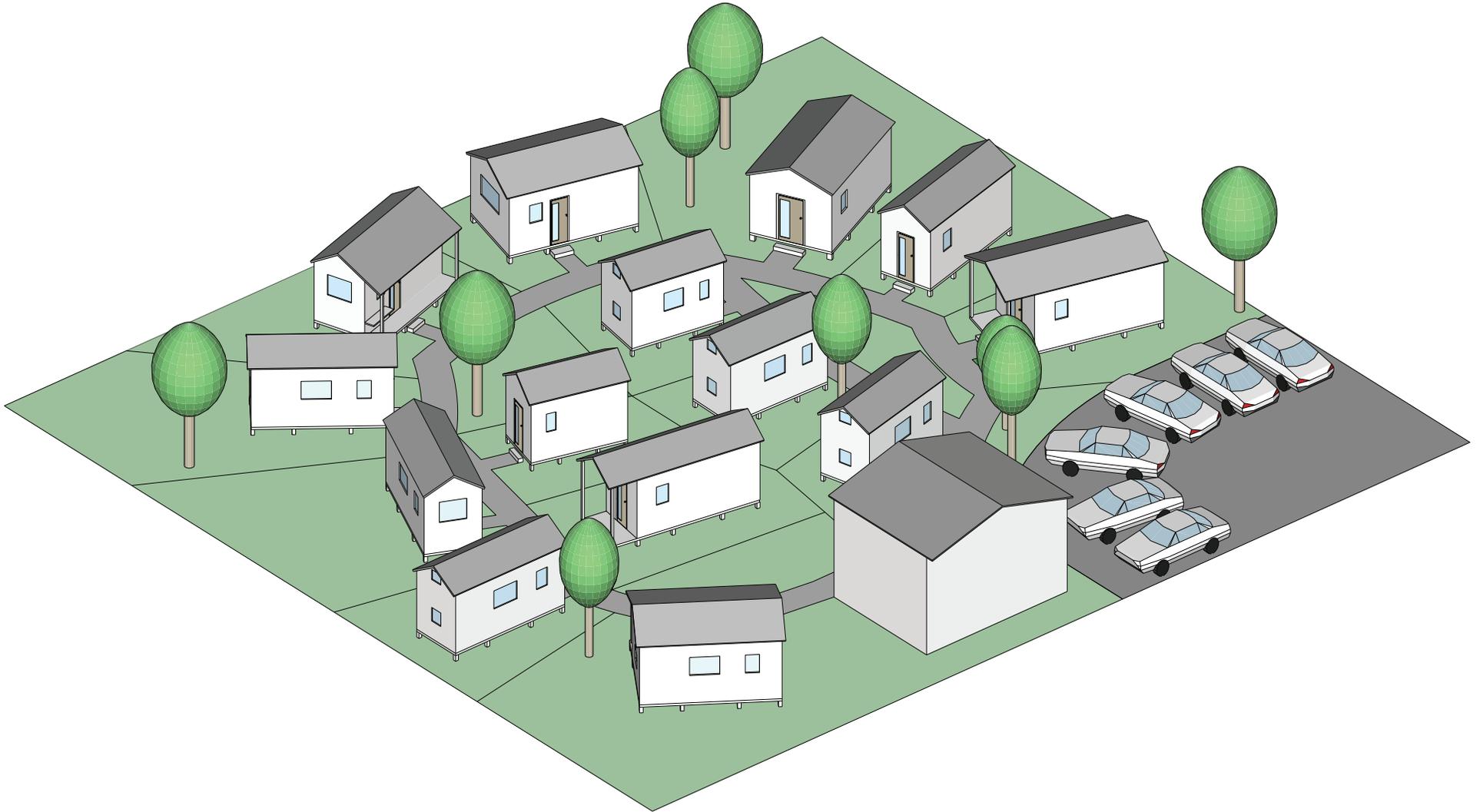


# TINY HOUSE VILLAGE

Photo via [Travel and Leisure](#)

## DEFINITION

A collection of five or more tiny houses, usually clustered around a larger community building.



**POTENTIAL OCCUPANTS**

One-to-two-person households



Photo via [SF Curbed](#)



Photo via [City Lab](#)



Photo via [WeeCasa](#)

## OVERVIEW + HISTORY

The first well-documented case of a tiny house village is Dignity Village in Portland, Oregon. This community started as a tent city in the early 2000s, initiated by homeless activists wanting to draw attention to homelessness in Portland. In 2004, after years of organizing and interfacing with city officials, the campground was deemed an official Tiny House Village and zoned as a “transitional campground” for previously homeless individuals. Following the success of Dignity Village, other tiny communities sprouted up around the country to house previously homeless individuals, including Quixote Village in Olympia, WA, My Tiny House Project LA in LA, California, CASS Community Tiny Homes in Detroit, MI, Community First! Village in Austin, TX, and A Tiny Home for Good in Syracuse, NY.

Tiny house villages for moderate- and middle-income households have also begun to rise in popularity since 2010. Master plans for these communities make space for anywhere from 10 to 200 tiny houses, which range in price from \$50,000 to \$150,000. This tiny house market tends to provide larger houses than the above examples, ranging from 400 to 1,000 square feet. Tiny house urban villages, suburbs, and hotels have now been built or are on the drawing board in Oregon, Colorado, Wisconsin, South Carolina, and California, among other states. The recent hike in prices for these tiny houses can reduce affordability, especially when a mortgage is needed. For affordable housing purposes, tiny house developments should learn from the successful zoning and ownership models of low-income tiny house villages.

Tiny house hotels have also gained popularity in recent years, as they offer the opportunity to experience tiny living without the long-term commitment. These have become especially attractive near natural parks and other remote locations. Examples of these communities include Mt. Hood Tiny House Village hotel in Oregon, Austin’s Tiny House Hotel in Texas, WeeCasa in Colorado, and Getaway cabins in New Hampshire.

## FOUND IN

### Nationwide

Austin, TX      Rockledge, FL  
Detroit, MI      Syracuse, NY  
Los Angeles, CA      Wildwood, FL  
Olympia, WA  
Portland, OR

## GENERAL LAYOUT

**Total SF** | 100-to-1,000 sf  
**Number of Units** | 10-to-200  
**Lot Size** | Depends on town's bylaws and the zoning given for tiny house villages

**Popular Amenities** | Common house with larger kitchen, bathrooms, and living room  
Outdoor gardens, can be for urban farming  
Prominent pedestrian walkways  
Parking on the side

**Unit Size** | **On Wheels**  
Must be able to "fit" inside a trailer for RV permitting  
**Size**  
H: 6'8"-13'6" max.  
W: 8'6" max.  
L: 10'-40' max (most models tend to be 32' or less, as longer is more difficult to haul)

## SITE PLAN LAYOUT





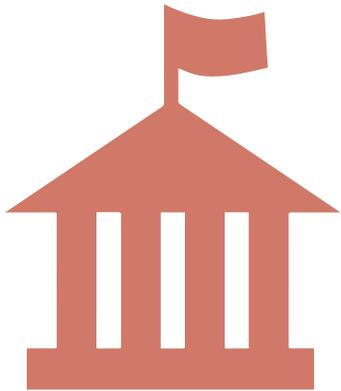
# BARRIERS

Photo via [WeeCasa](#)

# BARRIERS

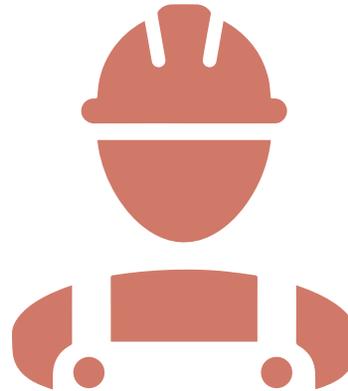
As tiny house villages have a lot in common with cottage housing developments and tiny houses, the barriers they face are similar. Tiny house developers and owners face restrictive zoning bylaws that may limit or fully prohibit tiny house villages, and strict code standards that were created for more traditional housing types. Additionally, tiny house developers must ensure that market demand is strong enough prior to project development. Lastly, community concerns about how tiny house villages could affect neighborhood character and their own property values, as well as traffic and school capacity in the community also pose potential barriers.

## BARRIERS BY STAKEHOLDER



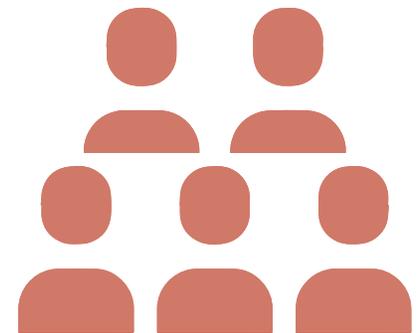
### TOWN OFFICIALS

- Zoning Bylaws
- Infrastructure Constraints
- Code Standards



### DEVELOPERS + TINY HOUSE OWNERS

- Zoning Bylaws
- Code Standards
- Market Demand



### COMMUNITY CONCERNS

- Neighborhood Character
- Property Values
- School Capacity
- Traffic

## PROJECT PARTNER TOWNS: ZONING

Tiny house villages are typically permitted under a community's mobile home or planned residential development zoning. In the case of the five project partner towns, current mobile home provisions and planned residential development requirements would have to be modified to allow for tiny house villages.

	FOXBOROUGH	MEDFIELD	MEDWAY	SHERBORN	STOUGHTON
Mobile Homes are Prohibited			X <sup>5</sup>	X	
Special Permit	X <sup>1</sup>	X <sup>2</sup>			
Temporary Living		X <sup>3</sup>			X <sup>6</sup>
Temporary Design		X <sup>4</sup>			
	<sup>1</sup> By Board of Appeals permit	<sup>2</sup> Special Permit <sup>3</sup> No more than 6 months, can't remove wheels <sup>4</sup> Can't have skirts, porches, or anything else that detracts from mobility	<sup>5</sup> Except pursuant to MGL 40A Section 3		<sup>6</sup> A temporary 30 day permit for a mobile home or trailer on a property may be allowed in case of an emergency, renewable upon inspection

	FOXBOROUGH			MEDFIELD	MEDWAY	SHERBORN	STOUGHTON
Zoning	Open Space Residential Development	Planned Housing Development	Innovative Residential Development*	Open Space Residential Development	Multi-Family Dwelling Development	Planned Unit Development	Flexible Development
Area	20,000-30,000 sf	200 acres		Min. 10x the min. lot size permitted in zoning district	30,000 for 3 DUs + 8,000 per additional DUs		10 or more acres
Frontage (ft)	50	100		80	96		
DU's Permitted		1 for every 40,000 sf					1 DU + the number allowed under underlying zoning
Typologies	Single family			Single family	Single, two- and multifamily		Up to 3 attached units
Parking (per DU)	2			2			2
Open Space (% of total)	45%	25%		25%			20%
Design			Relief provided for shared driveways + extended dead-end roads				
			*Underlying zoning dictates requirements				

# PROGRESSIVE TINY HOUSE VILLAGE ZONING BYLAWS

	ROCKLEDGE, FL	WILDWOOD, FL
<b>Zoning</b>	Tiny Houses in Pocket Neighborhoods	Tiny House Developments
<b>Year Updated</b>	2015	2018
<b>By Right or Special Permit</b>		Requires a planned development overlay
<b>Lot Area</b>	1,200 sf per dwelling unit, max. of 3,000 sf	Follows zoning districts
<b>Lot Coverage</b>	Max. 40% for structures, 30% for porches + drives	
<b>Setbacks (ft)</b>	Front: 20 (porch + parking) Rear: 5 Side: 10	
<b>Housing Units</b>	Min. 4 and max. 12	Min. 4 and max. 12
<b>Building Area (sf)</b>	170 for one occupant No less than 100 for each additional occupant	170-1,100 Zoning districts' min. areas do not apply
<b>Dimensions (ft)</b>	Min. width 8.5, max. 20	Min. width 8.5, max. 20
<b>Height (ft)</b>	Min. ceiling height of 7	
<b>Design Regulations</b>	Bedroom min. of 70 sf for one occupant Additional 50 sf for each additional occupant  All homes must have front and rear porches, min. of 80 sf and min. 8 ft deep	Must adhere to Residential Design District Standards
<b>Building Code</b>		Must comply with all applicable building codes
<b>Common Spaces</b>	Centralized common area with usable public space, 400 sf per unit  50% of units must have main entry to common space  Tiny houses must surround common open space on min. of 2 sides	
<b>Ownership</b>	Must be part of condo or homeowners association	
<b>Additional Regulations</b>	25% of tiny houses may be on wheels	Tiny houses on wheels are not permitted

## **BARRIERS FOR DEVELOPERS + TINY HOUSE OWNERS**

Developers of tiny house villages face similar barriers as those of cottage housing developments and tiny houses. Aside from a few communities across the country, tiny house clusters are prohibited by zoning. In most cases, interested developers have to receive a special zoning variance for developing tiny house villages or file to amend existing zoning bylaws, which may prove to be extraordinarily difficult in communities governed by Town Meeting around the Commonwealth. Additionally, the market for tiny house villages is quite small, oftentimes limited to young householders, adventurous seniors, and organizations offering transitional housing to previously homeless or at-risk of homelessness households. Furthermore, traditional developers are not always used for tiny house clusters. Nonprofits, religious organizations, or a group of tiny house owners have also created tiny house villages.



# CASE STUDIES

Photo via [Tuxbury Tiny House](#)

# QUIXOTE VILLAGE OLYMPIA, WA

## BASIC FACTS

POPULATION	51,609 (ACS 2017)
HOUSEHOLDS	21,276 (ACS 2012-16)
ZONING:	Special zoning amendment
DWELLING UNITS:	30
UNIT SIZE:	144 sf
LOT SIZE:	2 acres
COST:	\$3.05 million for village development

## OVERVIEW

Quixote Village began as a homeless tent camp in 2007 in downtown Olympia. With support from local churches, nonprofit organizations, and multiple tiers of government, it became one of the most successful examples of tiny house villages in the country. Since Quixote Village opened in 2013, it has provided transitional housing for over 60 previously homeless households. Quixote Village is managed by Panza, a non-profit organization composed of the original local churches that supported the tent camp, as well as resident advocates. Although small, each of the tiny houses has a half-bath and offers enough room for a standard sized bed, chair, table, and some storage. Furthermore, a community building houses a large shared kitchen, laundry facilities, showers, office space, and communal areas.

## SUCCESS FACTORS

One of the main factors of success for Quixote Village was the support it received from public, private, and non-profit entities. In 2011, the Washington State Housing Trust Fund approved \$1.5 million for a tiny house village for homeless adults. In addition to these funds, Thurston County and the City of Olympia received \$700,000 from the Community Development Block Grant (CDBG) Program, sponsored by the U.S. Department of Housing and Urban Development.

The county government donated the land for the project and the City amended the local zoning to allow the project to be permitted. A developer for the project was chosen through a competitive bidding process. The cost of the entire community was about \$100,000 per unit, approximately 40% of the average cost of state-funded transitional housing apartments.

## REGULATIONS

Panza offers permanent supportive housing with trained staff and peer mentorship rather than evict residents with addictions who have relapsed. The Resident Council's Village Life Committee interviews interested candidates, background and drug screenings are required, and all village residents are responsible for maintaining public spaces. Residents are required to contribute 30% of their monthly income or \$50 minimum in rent, but households are not evicted if they are unable to pay rent due to unemployment or disabilities.



Photo via Rudy Bruner Award



# COMMON CONCERNS

Photo via [Ross Chapin](#)

# SCHOOL ENROLLMENT

**While a prevalent community concern regarding new housing production is its impact on schools, data shows no correlation between housing production and increased school enrollment.**

**Recent studies across the nation have found that concerns about new housing development increasing school enrollment are overstated.<sup>1</sup>**

In 2017, MAPC conducted an analysis of housing permits and enrollment trends across 234 public school districts in the region from 2010 to 2016. The study found that there is no meaningful correlation between housing production and increased school enrollments.

**In cities and towns with the most rapid housing production, enrollment barely changed; and districts with the largest student increases saw very little housing production. Data shows that broad demographic trends, parental preferences, and current housing stock all play a much larger role in school enrollment growth and decline.**

The Commonwealth's public school enrollment (including charter schools) peaked in 2002 and has been declining ever since. Public school enrollment is now 3% lower than it was in 2002, while private schools have seen a 20% decline in enrollment during the same time period. Across the region, 159 of 234 local school districts saw an average decline of 8% from 2010 to 2016.

**The districts that have experienced an increase in enrollment tend to be located in urban communities, while most suburbs have seen a decline in enrollment.**

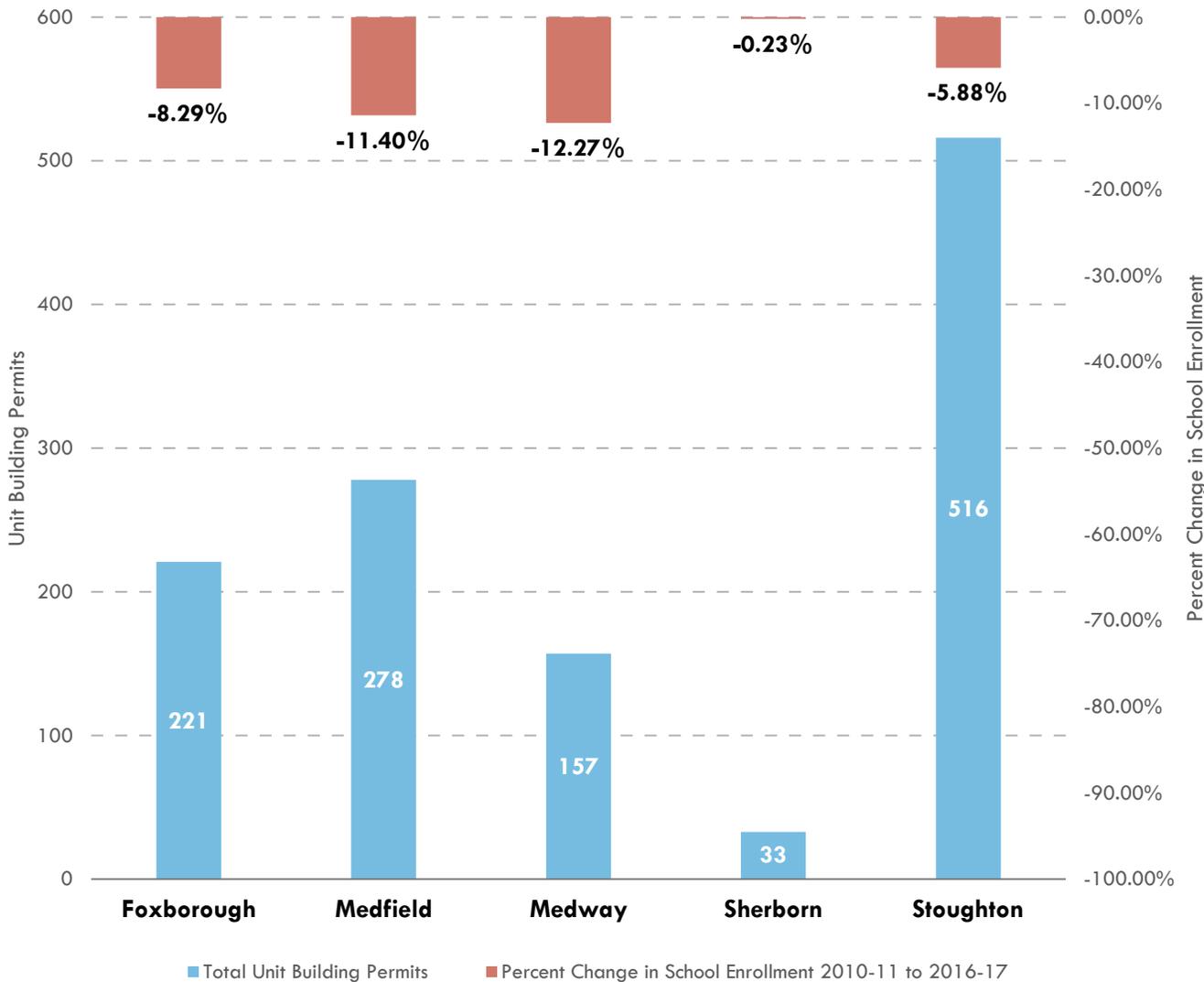
Districts experiencing rapid enrollment fall into two buckets: those with top schools, proximity to employment in Boston, compact neighborhoods, and expensive housing stock (Arlington, Belmont, Brookline, Cambridge, Lexington, Lincoln, and Natick); and those with low-performing school districts in diverse, low-income, urbanized areas that are still affordable for low- and middle-income households with school-age children (Revere, Everett, Chelsea, Lynn, and Waltham).

**The majority of suburban communities in the MAPC region are seeing sustained declines in enrollment. In communities where substantial housing construction has occurred, the corresponding growth in households and children has not been enough to offset the natural demographic decline in school-age residents associated with the aging of the children of Baby Boomers.**

<sup>1</sup> *Housing the Commonwealth's School-Age Children: The Implications of Multi-Family Housing Development for Municipal and School Expenditures*, 2003, Community Opportunities Group, Inc. & Connery Associates; Citizens Planning and Housing Association. [https://www.chapa.org/sites/default/files/f\\_1239203891HousingSchoolAgeChildren.pdf](https://www.chapa.org/sites/default/files/f_1239203891HousingSchoolAgeChildren.pdf)

*The Costs And Hidden Benefits Of New Housing Development In Massachusetts*. Michael Goodman, Elise Korejwa, and Jason Wright; PPC Working Paper No. 02 March, 2016. [http://publicpolicycenter.org/wp/wp-content/uploads/2016/03/GoodmanKorejwaWright\\_TheCostsBenefitsOfNewHousingDevelopment.pdf](http://publicpolicycenter.org/wp/wp-content/uploads/2016/03/GoodmanKorejwaWright_TheCostsBenefitsOfNewHousingDevelopment.pdf)

# School enrollment data from 2010 to 2017 of the five partner towns indicates decreasing school enrollment despite residential unit construction.



Source: Metropolitan Area Planning Council

# NEIGHBORHOOD CHARACTER

## **There is no evidence that smaller housing typologies contribute to increased traffic and parking issues.**

One of the main reasons these typologies have limited impact is that they typically only make up a sliver of most suburban communities' housing supply, especially when compared to single-family houses. By design, suburban single-family houses encourage households to own more than one vehicle due to their scale and provision of off-street parking. The majority of households in the 5 project partner towns live in single-family houses, and the majority of households in all towns except for Stoughton have two or more vehicles.<sup>1</sup> Meanwhile, Living Little typologies generally consist of one-to two-bedrooms and encourage infill development near transit, limiting the number of people and vehicles.

## **Data on how Living Little typologies affect property prices is still limited, but studies show that smart growth policies may increase housing prices.<sup>2</sup>**

Communities that have implemented smart growth policies that favor compactness, well-planned density, transit, and walkability have become highly desirable and have seen increases in property values. At the same time, extensive empirical research shows that incorporating smart growth principles can significantly decrease capital outlays for infrastructure by municipalities, counties, and states.

## **The language of Living Little zoning bylaws can ensure new housing production is respectful of existing architectural design.**

How zoning is written can decisively influence what new housing looks like. Most Living Little zoning regulates how these typologies should visually interact with their surroundings. Town officials can add language that ensures new Living Little housing complements the neighborhood, and can require Living Little developers to undergo a design review process prior to permit approval through the special permitting process. Town officials can also provide design guidelines or create form-based codes to foster high-quality, predictable development.

## **Living Little housing can fill a gap in the housing stock, but there is no evidence to indicate it leads to overcrowded communities.**

Factors such as land availability, zoning, market preferences, and development costs limit the impact that smaller housing typologies can have on a community. The nature of Living Little typologies and their incremental, small-scale development largely prevents them from spurring dramatic neighborhood change.

<sup>1</sup> American Community Survey, 2012-2016

<sup>2</sup> *Economic and Fiscal Impacts of Smart Growth Policies literature review*. Sonoran Institute and Lincoln Institute of Land Policy, July 2008. <https://sonoraninstitute.org/files/pdf/economic-and-fiscal-impacts-of-smart-growth-policies-07012008.pdf>

**Community members should not be concerned that Living Little typologies will cause increased traffic and parking problems, change the neighborhood's character, or lead to lower property values.**

# COMMUNITY OPPOSITION

**Provide brochures, toolkits, and guides for community members.**

There is a wealth of existing resources that town officials and Living Little advocates can use to gain the support of neighbors and community members. A list of these can be found in the appendix of this report.

**Use social media and storytelling.**

Show community members the benefits of Living Little through stories, visuals, and diverse media. This will not only make information more accessible to the general public, but will also make it easier to distribute and share.

**Organize community and public tours of Living Little housing in surrounding municipalities.**

If you can see it, you can believe it. Organizing and promoting tours of Living Little housing can serve as an educational experience for neighbors, homeowners, developers, and town officials interested in these typologies. The appendix of this report contains a list of Living Little housing in the Commonwealth.

**Identify organizations, groups, and community members that will support Living Little zoning and work with them to build a coalition.**

Municipalities that have successfully created Living Little zoning relied on a variety of actors for support. Local councils on aging, environmental groups, affordable housing advocates, and smart growth partners should all be engaged.

**Dispel myths and clarify concerns.**

Housing production can bring with it concerns and mistruths about increased school enrollment, traffic, and changes in neighborhood character. It is important to address these concerns with data and evidence-based explanations.

**Demonstrating to community members the benefits of Living Little typologies is an integral part of building support for their development, especially in communities with a Town Meeting form of governance.**

BUILD SMALL,  
LIVE LARGE



# PORTLAND'S ACCESSORY DWELLING UNIT TOUR

SEPT 9<sup>TH</sup> - 10<sup>TH</sup>, 2017

EARLY BIRD TICKETS  
UNTIL AUG 19<sup>TH</sup>

\$25	\$25	\$50	\$75
FRIDAY WORKSHOP	1 DAY TOUR	2 DAY TOUR	ALL INCLUSIVE WEEKEND PASS

REGULAR ADMISSION

\$30	\$30	\$60	\$90
FRIDAY WORKSHOP	1 DAY TOUR	2 DAY TOUR	ALL INCLUSIVE WEEKEND PASS

REGISTER AT:  
[ACCESSORYDWELLINGS.ORG](http://ACCESSORYDWELLINGS.ORG)

BROUGHT TO YOU BY:



IN PARTNERSHIP WITH:

FRIDAY,  
SEPT 8<sup>TH</sup>

6PM-9PM

ADU WORKSHOP  
GETTING STARTED  
WITH PERMITTING,  
FINANCING, & DESIGN  
PRESENTED BY KOL PETERSON

SATURDAY,  
SEPT 9<sup>TH</sup>

10AM-4PM

SELF-GUIDED  
ADU TOUR  
NORTHEAST PDX

4PM-8PM

FREE PARTY  
AT CARAVAN  
THE TINY HOUSE HOTEL  
• MUSIC • BEER • S'MORES •  
OPEN TINY HOUSES ON WHEELS  
\$10 ADMISSION FOR PUBLIC

SUNDAY,  
SEPT 10<sup>TH</sup>

10AM-4PM

SELF-GUIDED  
ADU TOUR  
SOUTHEAST PDX



ADU tour in Portland, OR.

Photo via [Accessory Dwellings](#)



ADU tour attendees in Portland, OR.

Photo via [Accessory Dwellings](#)

Flyer advertising a tour of ADUs around Portland, OR, as part of an awareness and education campaign.

Photo via [Accessory Dwellings](#)



# APPENDIX

Photo via [Building an ADU](#)

# LIVING LITTLE TOOLKITS

TITLE	AUTHOR	LINK
<b>A Government's Guide to Tiny House Regulation</b>	Viewpoint	<a href="http://www.viewpointcloud.com/blog/local-government-resources/governments-guide-tiny-house-regulation/">http://www.viewpointcloud.com/blog/local-government-resources/governments-guide-tiny-house-regulation/</a>
<b>Accessory Dwellings</b>	Accessory Dwellings	<a href="https://accessorydwellings.org/">https://accessorydwellings.org/</a>
<b>Accessory Dwelling Unit Manual</b>	City of Santa Cruz	<a href="http://www.cityofsantacruz.com/home/showdocument?id=8875">http://www.cityofsantacruz.com/home/showdocument?id=8875</a>
<b>Accessory Dwelling Unit Memorandum</b>	California Department of Housing and Community Development	<a href="http://www.hcd.ca.gov/policy-research/docs/17Jan30-ADU-TA-Memo.pdf">http://www.hcd.ca.gov/policy-research/docs/17Jan30-ADU-TA-Memo.pdf</a>
<b>Character-Compatible, Space-Efficient Housing Options For Single-Dwelling Neighborhoods</b>	State of Oregon	<a href="http://www.oregon.gov/LCD/TGM/docs/SpaceEfficientHousingReport.pdf">http://www.oregon.gov/LCD/TGM/docs/SpaceEfficientHousingReport.pdf</a>
<b>Filling in the Gaps: How Cities in San Mateo County can Promote Infill Housing</b>	San Mateo County	<a href="https://housing.smcgov.org/sites/housing.smcgov.org/files/documents/files/FILLING_GAPS-Infill%20Report%20Spring08_low%20res.pdf">https://housing.smcgov.org/sites/housing.smcgov.org/files/documents/files/FILLING_GAPS-Infill%20Report%20Spring08_low%20res.pdf</a>
<b>Gentle Infill</b>	Land Lines, Kathleen McCormick	<a href="https://www.lincolnst.edu/publications/articles/gentle-infill">https://www.lincolnst.edu/publications/articles/gentle-infill</a>
<b>Home Remedies, Accessory Apartments on Long Island: Lessons Learned</b>	Long Island Index, Elizabeth Moore	<a href="http://www.longislandindex.org/wp-content/uploads/2017/06/ADUreport_072417print-version.pdf">http://www.longislandindex.org/wp-content/uploads/2017/06/ADUreport_072417print-version.pdf</a>
<b>Housing Development Toolkit</b>	Department of Housing and Urban Development	<a href="https://www.whitehouse.gov/sites/whitehouse.gov/files/images/Housing_Development_Toolkit%20f.2.pdf">https://www.whitehouse.gov/sites/whitehouse.gov/files/images/Housing_Development_Toolkit%20f.2.pdf</a>
<b>Laneway Housing: How-To Guide</b>	San Mateo County	<a href="http://vancouver.ca/files/cov/laneway-housing-howto-guide.pdf">http://vancouver.ca/files/cov/laneway-housing-howto-guide.pdf</a>
<b>Legalizing Inexpensive Housing</b>	Sightline Institute	<a href="http://www.sightline.org/series/legalizing-inexpensive-housing/">http://www.sightline.org/series/legalizing-inexpensive-housing/</a>
<b>Second Unit Resources Center</b>	Sightline Institute	<a href="http://secondunitcentersmc.org/">http://secondunitcentersmc.org/</a>
<b>SF-ADU</b>	City of San Francisco	<a href="http://openscopestudio.com/wp/wp-content/uploads/2015/07/1405-2015-07-01-ADU-Handbook-DRAFT.pdf">http://openscopestudio.com/wp/wp-content/uploads/2015/07/1405-2015-07-01-ADU-Handbook-DRAFT.pdf</a>
<b>Smart Growth Toolkit</b>	State of Massachusetts	<a href="https://www.mass.gov/smart-growth-smart-energy-toolkit-modules">https://www.mass.gov/smart-growth-smart-energy-toolkit-modules</a>
<b>The Infill Design Toolkit: Medium-Density Residential Development</b>	City of Portland	<a href="https://www.portlandoregon.gov/bps/article/223700">https://www.portlandoregon.gov/bps/article/223700</a>

# LIVING LITTLE IN THE COMMONWEALTH

LIVING LITTLE TYPOLOGY	CITY/TOWN	PROJECTS
Accessory Dwelling Units	Barnstable Lexington Newton Northampton Pelham Reading Wellfleet	Scattered sites
Cottage Housing Developments	Concord Dennis Weymouth	Concord Riverwalk Heritage Sands Cottages at Hollybrook
Tiny Houses	Nantucket	Scattered sites
Tiny House Clusters	None	

# PHOTOGRAPH + IMAGE SOURCES

## Cover Page

*Concord Riverwalk* [digital image]. <http://unionstudioarch.com/projects/concord-riverwalk/>

## Page 8

*Tumbleweed Tiny House Company* [digital image]. <https://www.countryliving.com/life/travel/g3595/tour-tiny-house-village/>

## Page 9

*7050 N Mississippi #1* [digital image]. <https://accessorydwellings.org/saturday-adu-project-profiles-2017/#jp-carousel-10512>

## Page 11

(left) *Cully ADU* [digital image]. <https://hammerandhand.com/portfolio/cully-adu/>

(upper right) *Accessory Dwelling Unit Garage* [digital image]. <https://td-customconstruction.com/specialties/services/>

(lower right) *Gundle 02* [digital image]. <http://www.buildinganadu.com/garage-conversions-photos/>

## Page 13

*The Carve-Out | Northwest Modern ADU* [digital image]. <https://www.propelstudio.com/project/northwest-modern-adu>

## Page 16

*Sellwood Home Addition* [digital image]. <https://hammerandhand.com/portfolio/sellwood-home-addition/>

## Page 19

*Ladd's Backyard Cottage* [digital image]. <http://www.jackbarnesarchitect.com/ladds/>

## Page 27

*Corner lot, 379 sq ft ADU* [digital image]. <https://accessorydwellings.org/sunday-adu-project-profiles-2017/#jp-carousel-10075>

## Page 32

*Concord Riverwalk 11* [digital image]. <http://www.concordriverwalk.com/photo-gallery>

## Page 34

(left) *Danielson Grove 01* [digital image]. <http://rosschapin.com/projects/pocket-neighborhoods/danielson-grove/>

(upper right) *Danielson Grove 03* [digital image]. [http://rosschapin.com/wp/wp-content/gallery/project\\_pn\\_danielson/project\\_pn\\_danielson03.jpg](http://rosschapin.com/wp/wp-content/gallery/project_pn_danielson/project_pn_danielson03.jpg)

(lower right) *Greenwood Avenue Cottages* [digital image]. <http://rosschapin.com/projects/pocket-neighborhoods/greenwood-avenue-cottages/>

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*Concord Riverwalk 19* [digital image]. <http://www.concordriverwalk.com/photo-gallery>

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*Danielson Grove 09* [digital image]. <http://rosschapin.com/projects/pocket-neighborhoods/danielson-grove/>

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*Concord Riverwalk 6056* [digital image]. <http://www.architectmagazine.com/project-gallery/concord-riverwalk-6056>

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*Site Plan* [digital image]. <https://www.stamskiandmcnary.com/project/cluster-development/>

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*Site Plan* [digital image]. Making it Happen: Dennis Seasonal Resort Zoning. MAPD Conference 2016.

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*Tumbleweed Tiny House* [digital image]. <https://www.airbnb.com/rooms/717914?irgwc=1&irclid=3rSQ0OwkkQcPSCJ2E10pVxvJUk-jRgR1dMQ602M0&ircid=4560&c=Skimbit%20Ltd.&sharedid=content&af=126295512>

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(left) *HomeAway Tiny Home* [digital image]. [https://www.homeaway.com/vacation-rental/p1012102vb?CID=a\\_cj\\_7597981&utm\\_source=aff\\_cj&utm\\_medium=partner&utm\\_campaign=Skimlinks\\_7597981&utm\\_content=10859031\\_66960X1516509Xb25ddd83f8c21d49923f6a10ff-5fe4c7](https://www.homeaway.com/vacation-rental/p1012102vb?CID=a_cj_7597981&utm_source=aff_cj&utm_medium=partner&utm_campaign=Skimlinks_7597981&utm_content=10859031_66960X1516509Xb25ddd83f8c21d49923f6a10ff-5fe4c7)

(upper right) *Tiny House* [digital image]. <https://www.rowdykittens.com/tiny/>

(lower right) *Tiny House* [digital image]. <http://www.grandviewriverhouse.com/1511767857/pyt/68a8a4ae271612a0/>

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*Kokosing* [digital image]. <http://www.moderntinyliving.com/kokosing.html>

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*Modern Mountain Tiny Home* [digital image]. <https://www.tinyheirloom.com/galleries/modern-mountain-tiny-home>

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*Tiny Home on the Coast* [digital image]. <https://www.tinyheirloom.com/galleries/tiny-home-on-the-coast>

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*Mt. Hood Tiny House Village* [digital image]. <http://www.travelandleisure.com/hotels-resorts/vacation-rentals/tiny-house-resort>

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(left) *Four Lights Houses Village* [digital image]. <https://sf.curbed.com/2015/2/27/9986526/tiny-house-villages-look-for-tiny-plots-of-land-near-san-francisco>

(upper right) *Quixote Village* [digital image]. <http://www.citylabpgh.org/8927/>

(lower right) *Lyons WeeCasa* [digital image]. <https://weecasa.com/location/lyons#tab-lyons-gallery>

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*WeeCasa* [digital image]. <https://weecasa.com/>

**Page 77**

*Tuxbury Tiny House Village* [digital image]. <https://www.tuxburytinyhouse.com/home#services>

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Ransom, Tim. *Quixote Village* [digital image]. <http://www.rudybruner-award.org/winners/quixote-village/>

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*Danielson Grove 06* [digital image]. <http://rosschapin.com/projects/pocket-neighborhoods/danielson-grove/>

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(left) *ADU Tour* [digital image]. <https://accessorydwellings.org/2017/04/24/announcing-the-2017-adu-tour/>

(upper right) *ADU Tour Wrap Up 01* [digital image]. <https://accessorydwelling.org/2017/09/12/2017-adu-tour-wrap-up/#jp-carousel-10988>

(lower right) *ADU Tour Wrap Up 02* [digital image]. <https://accessorydwelling.org/2017/09/12/2017-adu-tour-wrap-up/#jp-carousel-10989>

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*Outdoor Space + Setbacks* [digital image]. <http://www.buildinganadu.com/outdoor-space-setbacks-photos/>

# LIVING LITTLE

The Metropolitan Area Planning Council (MAPC) is the regional planning agency serving the people who live and work in the 101 cities and towns of Metro Boston. Our mission is to promote smart growth and regional collaboration. We work toward sound municipal management, sustainable land use, protection of natural resources, efficient and affordable transportation, a diverse housing stock, public safety, economic development, an informed public, and equity and opportunity among people of all backgrounds.

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