



@OpticosDesign  
#missingmiddlehousing

# Missing Middle Housing

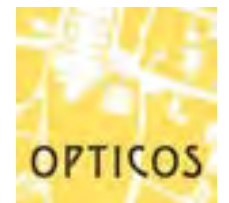
Thinking Big and Building Small

Metropolitan Mayors Caucus  
Housing + Community Development Committee

22 September 2022

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# Finding the Middle





Why is this so important?

SECTION

1

**Housing markets of every size are seeing unprecedented changes**

# Shifting household demographics

**Today, 30% of households are single persons**

**By 2030  
1 in 5 Americans  
will be 65+**

**By 2025  
75-85% of  
households will  
not have children**

# AARP is one of biggest proponents of MMH

One in three Americans  
is age 50 or older

Is your community a great  
place for people of all ages?

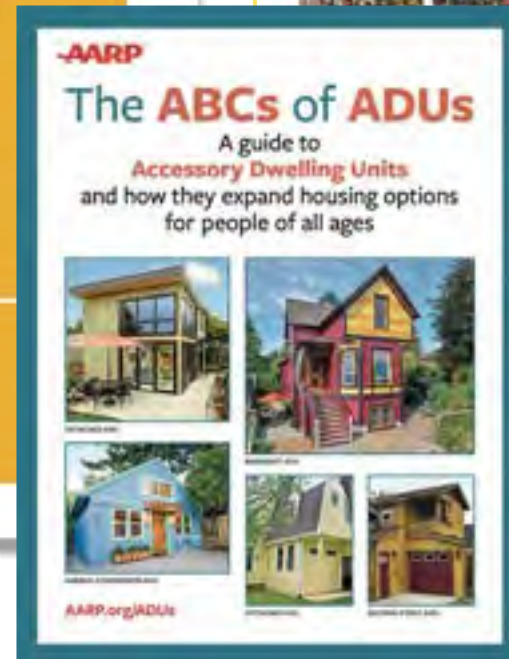
By 2030, one out of every five  
people in the U.S. will be 65+

Will your community be ready?

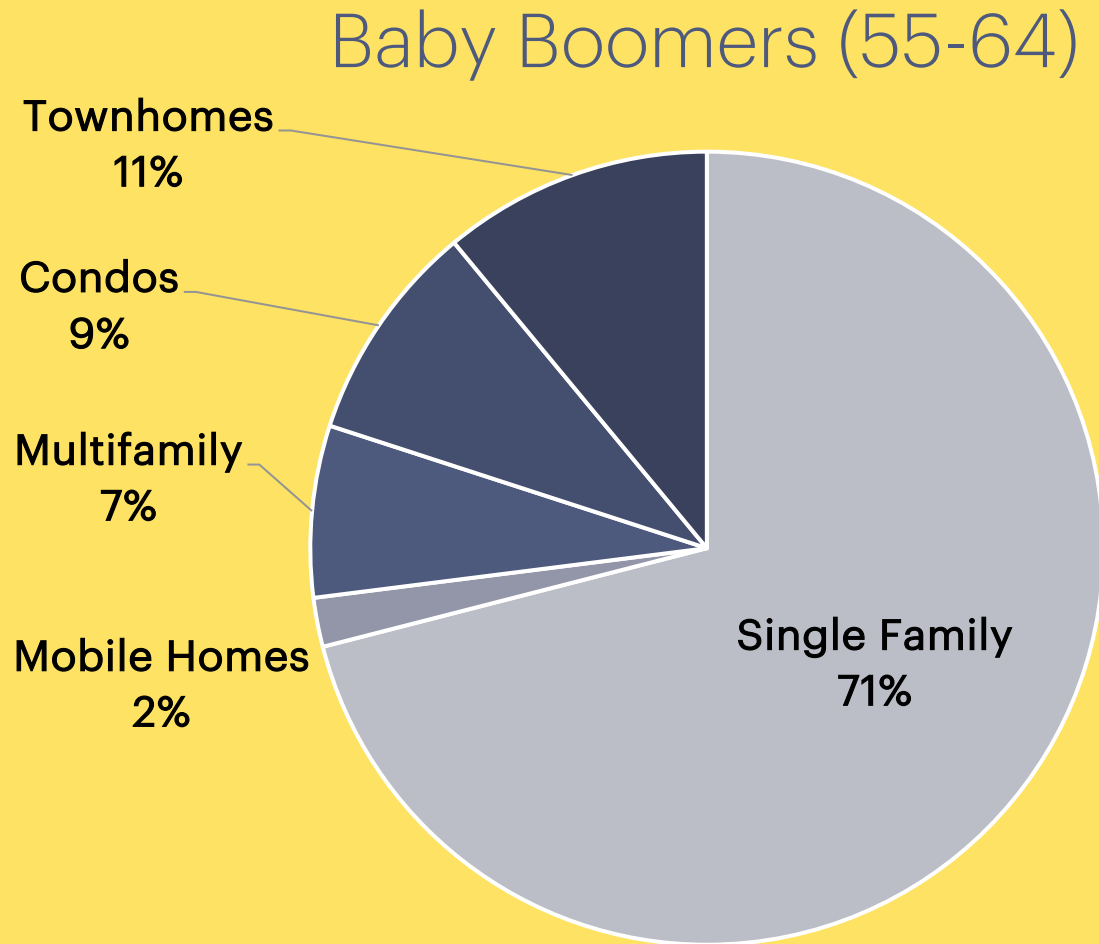
Visit us often at [AARP.org/livable](https://www.aarp.org/livable)  
Information and inspiration for local leaders



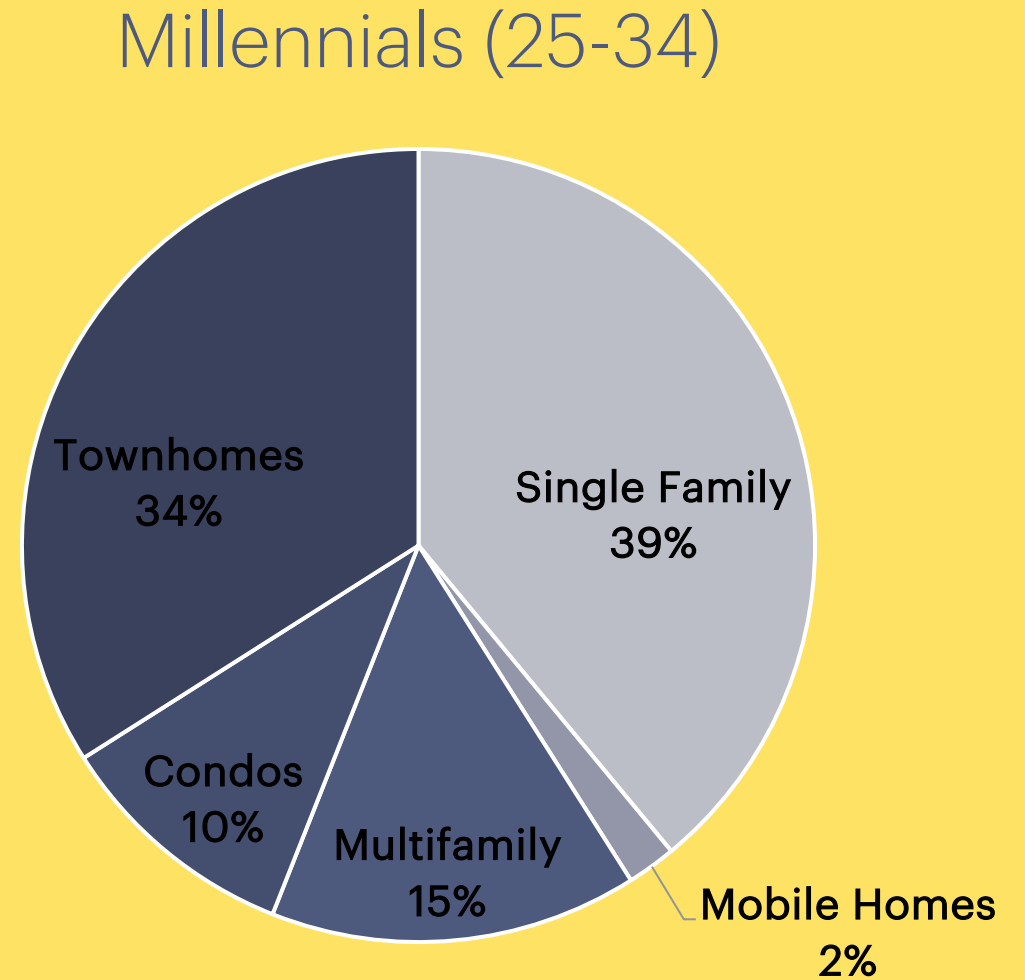
**MAKING ROOM**  
Housing for a Changing America



# Growing demand for walkable living and MMH



**27% Looking for MMH**



**59% Looking for MMH**

Source: realtor.com



"My grandmother started walking five miles a day when she was 60. She's 97 now, and we don't know where the heck she is."  
— Ben DeGeneres, talk show host



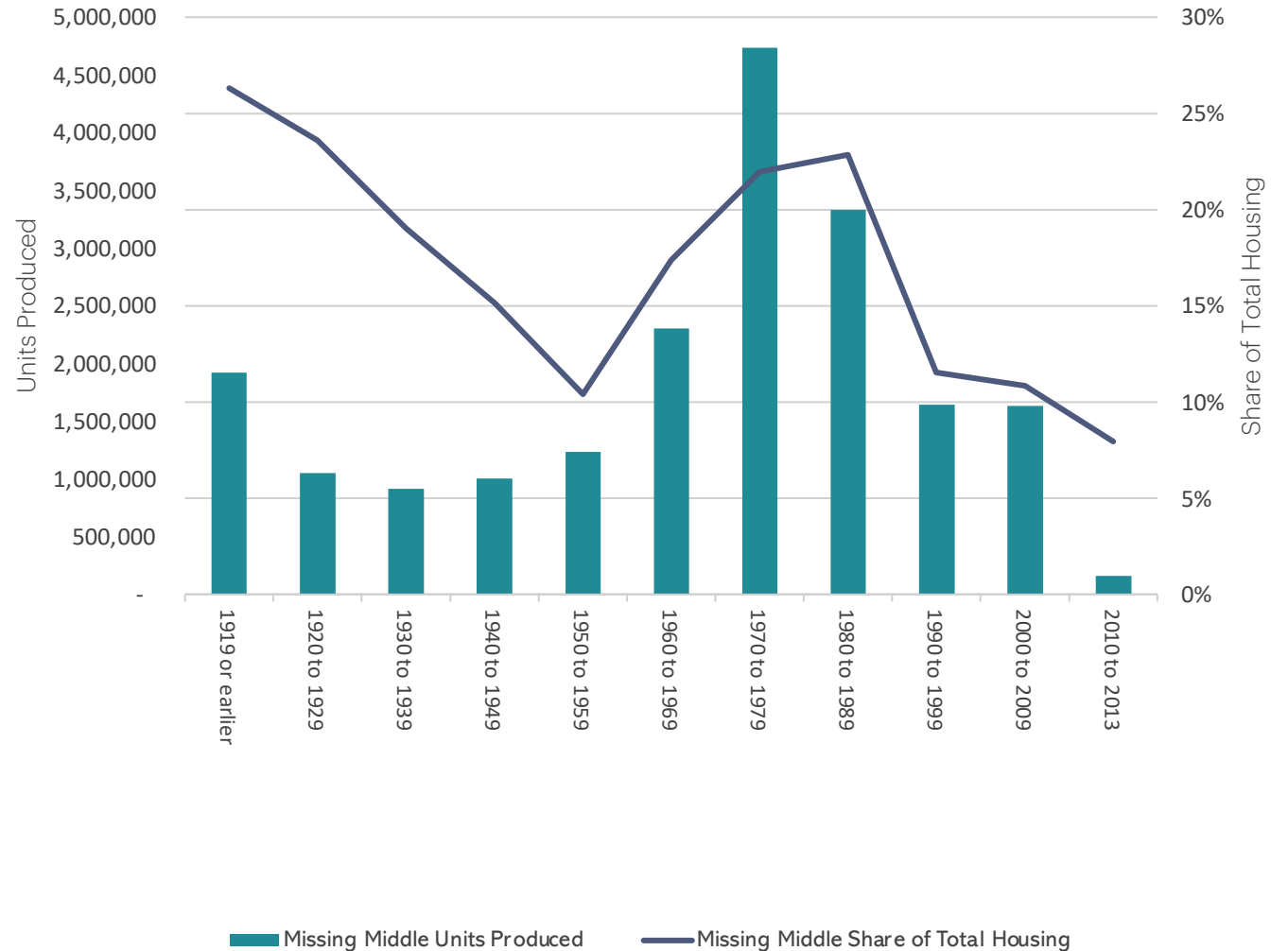
walkability is trending to...  
A clear majority of people in walkable neighborhoods with a walkable street network between home, work, and school...  
A survey by the American Planning Association found that 76 percent of millennials and 46 percent of baby boomers want to live in more walkable neighborhoods with a mix of uses.  
Half of the respondents to an Urban Land Institute survey said that walkability is either the top priority or a high priority when deciding where they want to live. A little more than half — 52 percent — said they want to live where they don't need to use a car at all.  
A report from NAIOP, a commercial real estate development association, showed office tenants prefer locations in walkable urban environments — either in cities or vibrant suburban centers — by a five-to-one margin over typical suburban office parks. The report also found that rents are higher and vacancy rates lower in vibrant suburban centers than typical suburban office parks.  
New census "Fast Traffic Ahead 2016," a report published earlier this year by the George Washington University School of Business and Smart Growth America.

**56% of millennials and 46% of boomers want to live in more walkable neighborhoods**  
~American Planning Association

# Why do we call it missing?

**Less than 10% of all housing units produced between 1990 and 2013 were Missing Middle scale**

**-American Housing Survey**





The affordable housing crisis is rapidly growing

**In 2019, 30% of American households were housing cost burdened.**

~State of the Nation's Housing 2020,  
Harvard University

**Impossible to deliver detached SF homes at attainable prices**

- Land
- Labor
- Lumber



Image source: Plan Hillsborough

# What's Getting Built

**Subsidized**



**Increase Supply**

# What Many People Want



Image and design: Union Studio



Historically MM = The “workingman’s palace”



**Units in 2 to 4 unit properties represent 26% of Chicago’s housing stock**

~Institute for Housing Studies at DePaul

# Majority of most towns zoned for single family housing only

Denver



Population: 682,545

Asheville



Population: 89,121

Cincinnati



Population: 298,800

Los Angeles



Population: 4 million

Multifamily Zone(s)\_Area

Single-Family Zone(s)\_Area

Single-family is the only allowed use in fully 41.1 percent of Chicago's zoned land area. Multi-family housing is permitted in about 20.8 % of the city's zoned land area.



# What is Missing Middle Housing?

SECTION

# 2

**Refresher to ensure we are all  
on the same page**

# Defining Missing Middle Housing



**House-scale** buildings  
with **multiple units**  
in **walkable** neighborhoods



First of all

Middle = Form, scale, types



# 3 Units, but looks like a house

One of primary objectives of MMH is to deliver good, predictable form

**“house scale”**

**Not just about getting  
more units on a lot.  
Form is very  
important part of  
Missing Middle intent**





Secondarily

Middle = Affordability to middle  
income households  
(Affordable by Design)

# The Barbell of Affordable Housing



SUBSIDIZE



INCREASE SUPPLY AT MARKET RATES



**“Attainable”**

**Affordable by design**

Lower land costs

Lower construction costs

Smaller units

Local, incremental development

# Missing Middle Housing: Detroit, MI



Townhouse



Duplex: Side-by-Side



Multiplex: Small



Duplex: Stacked

# Missing Middle Housing: Pennsylvania



**Duplex: Side by Side**



**Duplex: Stacked**

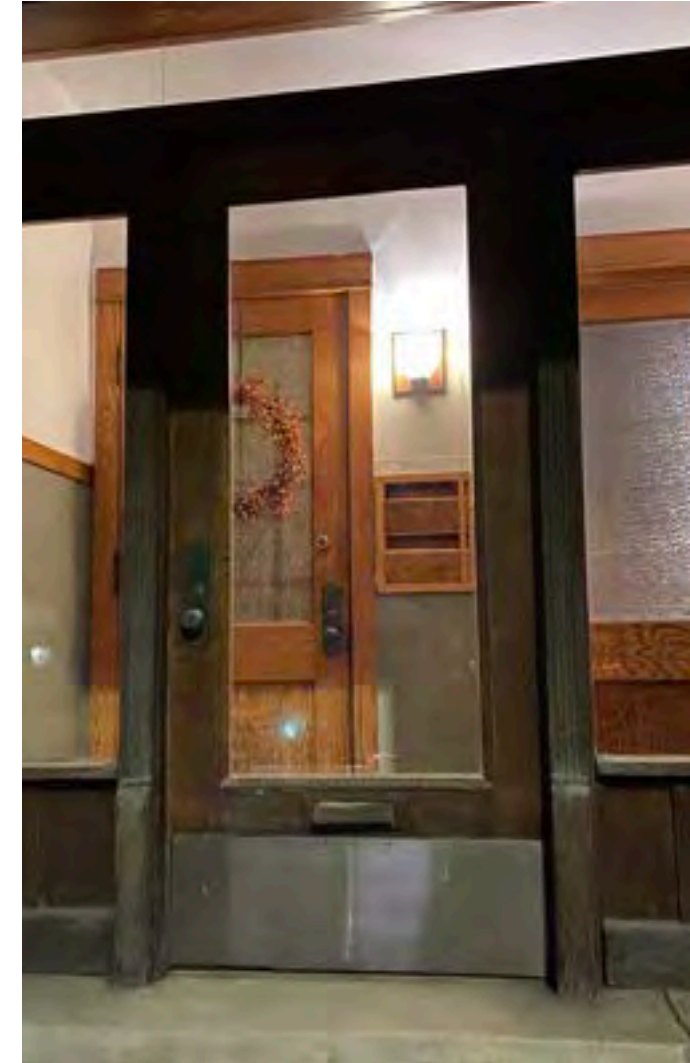


**Fourplex**

# Missing Middle Housing: Atlanta, GA



Have to look closely to notice multiple units





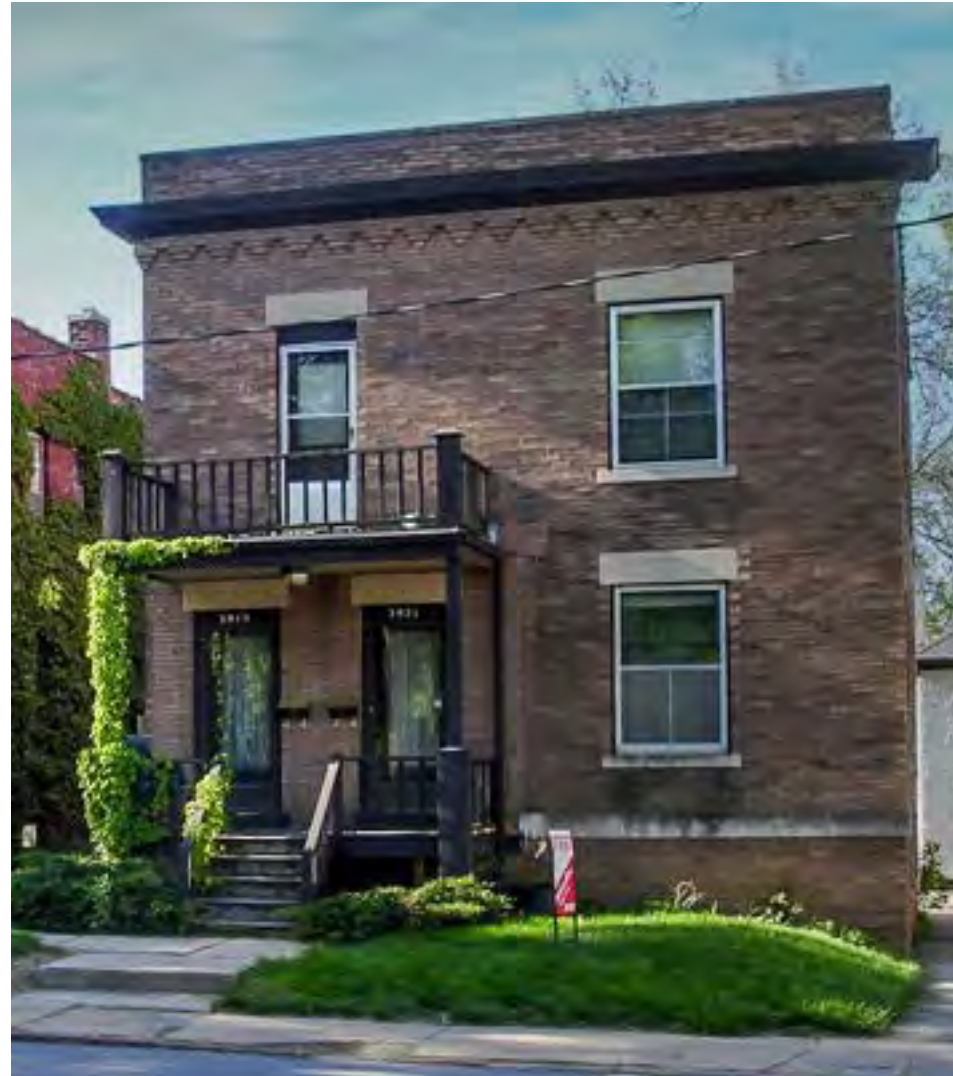
# Missing Middle Housing Types

SECTION

3



# Duplex: Stacked



# Duplex: Side-by-side



# Cottage Court



# Fourplex



# Townhouse



# Triplex (3-Flat)



# Multiplex



# Courtyard Apartments





# Accessory Dwelling Unit (ADU)



Image and design: KUA/ATL ADU Co.



Image and design: Brauer/KUA



# Housing types have an intended form

Not just about number of units



**Duplex: Stacked**

8-17 du/ac Front-Loaded  
8-19 du/ac Rear-Loaded



**Duplex: Side-by-Side**

8-16 du/ac Front-Loaded  
8-22 du/ac Rear-Loaded



**Cottage Court**

N/A du/ac Front-Loaded  
19-35 du/ac Rear-Loaded



**Multiplex Small**

23-58 du/ac Front-Loaded  
26-70 du/ac Rear-Loaded



**Multiplex Large**

44-55 du/ac Front-Loaded  
52-70 du/ac Rear-Loaded



**Courtyard Building**

54-60 du/ac Front-Loaded  
58-70 du/ac Rear-Loaded



**Townhouse**

N/A du/ac Front-Loaded  
20-28 du/ac Rear-Loaded



**Live/Work**

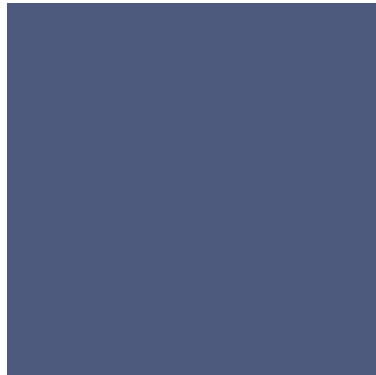
N/A du/ac Front-Loaded  
20-28 du/ac Rear-Loaded



# What are the Important Characteristics

SECTION

# 4



# Characteristics of Missing Middle Housing

## 1. Located in a Walkable Context



# Characteristics of Missing Middle Housing

1. Located in a Walkable Context
- 2. Compatible with Single Family Homes**



# Characteristics of Missing Middle Housing

1. Located in a Walkable Context
2. Compatible with Single Family Homes
- 3. Provide Small, Well-Designed Units**



# Characteristics of Missing Middle Housing

1. Located in a Walkable Context
2. Compatible with Single Family Homes
3. Provide Small, Well-Designed Units
- 4. Provide Fewer Off-Street Parking Spaces**



# Characteristics of Missing Middle Housing

1. Located in a Walkable Context
2. Compatible with Single Family Homes
3. Provide Small, Well-Designed Units
4. Provide Fewer Off-Street Parking Spaces
5. **Supports a Strong Sense of Community**





# Characteristics of Missing Middle Housing

1. Located in a Walkable Context
2. Compatible with Single Family Homes
3. Provide Small, Well-Designed Units
4. Provide Fewer Off-Street Parking Spaces
5. Supports a Strong Sense of Community
6. **Simple Construction/Affordability by Design**





# Understanding Barriers to Missing Middle Housing

SECTION  
**5**

# List of barriers

1. Planning + Zoning barriers
2. Not easily classifiable by industry standards
3. Financing + perceived cost inefficiencies
4. Added cost + complexity of building codes
5. Community or neighborhood opposition

## R-M2 Zone - Allowed

### Max. Potential Development per Existing Standards

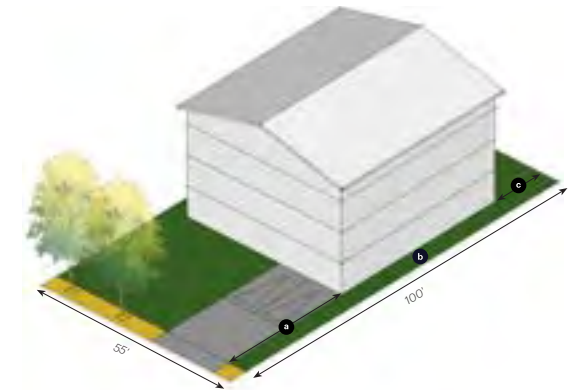
**Right:** The diagram illustrates what type of development and form are possible after applying all standards.

**\*Note:** After applying the minimum side setbacks for multifamily buildings, the resulting building is 25' wide, significantly limiting the development of the site to essentially a townhouse.

#### Key

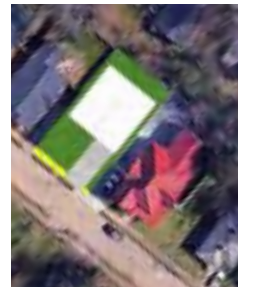
##### Setbacks

- a Front = 36'
- b Side = 5' (min. 15' for multifamily)
- c Rear = 15'



**Note:** Although the building complies with the zone standards, the resulting building is out of scale with the neighboring buildings and does not contribute to a streetscape of building facades.

R-M2 Zone, 55' x 100' Lot Size Allowable Development per Existing Standards	
<b>Building Form</b>	
Resultant Footprint	2,200 sf
Resultant Height/ Stories	35/ 3
Resultant Lot Coverage	40%
<b>Parking</b>	
Min. Spaces Required	2
<b>Density</b>	
Number of Units	1*
Resultant Density	8 du/ acre





# How are communities implementing MMH?

SECTION

# 6

**Policy, planning, zoning, effective communication, getting it built**

# South Bend, IN: Allowing MM to encourage infill



# Incremental Code Reform

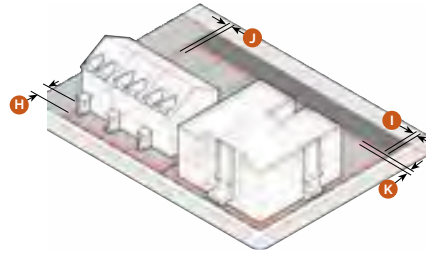
“The new code encourages the re-use of historic and other existing spaces and the **creation of new multi-family housing**, a key to ensuring that all our residents—regardless of race or income—can remain in our city.”

**James Mueller**  
Mayor, City of South Bend

## STANDARD DISTRICTS U3 Urban Neighborhood 3

21-03.05

### Building Components



Encroachments allowed

(e) Building Components	Front	Corner	Side	Rear
Allowed Encroachments (max.)	H	I	J	K
Architectural Features	3'	3'	3'	3'
Building Frontage Type	10'	10'	<input type="checkbox"/>	<input type="checkbox"/>
Balcony	5'	5'	<input type="checkbox"/>	<input type="checkbox"/>
Bay Window (< 10' wide)	3'	3'	3'	3'
Chimney	4'	4'	4'	4'
Patio & Decks	8'	8'	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Porte-Cochere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All building components must be located at least 18 inches from any lot line.

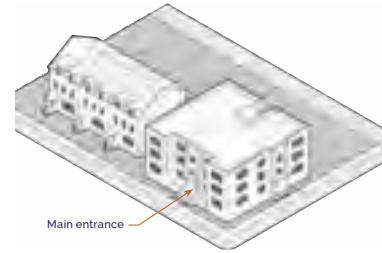
### Allowed Building Frontage Types

Porch	21-06.03 (c)
Stoop	21-06.03 (d)
Gallery	21-06.03 (e)
Dooryard	21-06.03 (f)
Forecourt	21-06.03 (g)

See Section 21.06-01 (h) for building component definitions and additional requirements.

Key  Allowed  Not Allowed

### Building Standards



Main entrance

(f) Building Standards	
<b>Building Design</b>	
Primary facades shall be oriented to the front lot line.	
Main entrance must be located on the front facade.	
<b>Facade Transparency (minimum)</b>	
Ground Floor - Primary Street	15%
Ground Floor - Secondary Street/Civic Space	15%
Upper Floor - Primary Street	15%
<b>Building Materials</b>	
Restrictions on building materials within the U3 zoning district only apply to all non-residential buildings and multi-unit residential buildings greater than 4 units.	
Exterior insulation and finish system (E.I.F.S) is permitted only for trim and on upper floor facades.	
Standard, fluted, or split face concrete masonry units (CMUs) above the basement level are prohibited.	
Unfinished metal, plywood, unfinished pre-cast or poured-in-place concrete, and 'Jumbo' or other commercial-grade/scale products are prohibited.	
See Section 21-06 for full building regulations.	



# Place-based approach creates more predictable outcomes for City & Developers



# Prairie Queen neighborhood: Omaha, NE Metro

132 units built and occupied. Proven viability





# A Different Approach to Class A Multifamily

Delivering a Neighborhood. More Small Buildings



## About the Project

Size of Site	50 acres
Units	742 units
Unit size range	740 – 2,400 sf
Building sizes	8 units max/building
Density	14.5 dwelling units/acre
Parking	1 parking space per unit + one on-street space per unit
Status	60 units completed, 87 rented, 132 completed by June 2021.

# Mix of price points within each block

Economically diverse. Not separating lower and higher value units.



\$3,000/month



\$1,000/month

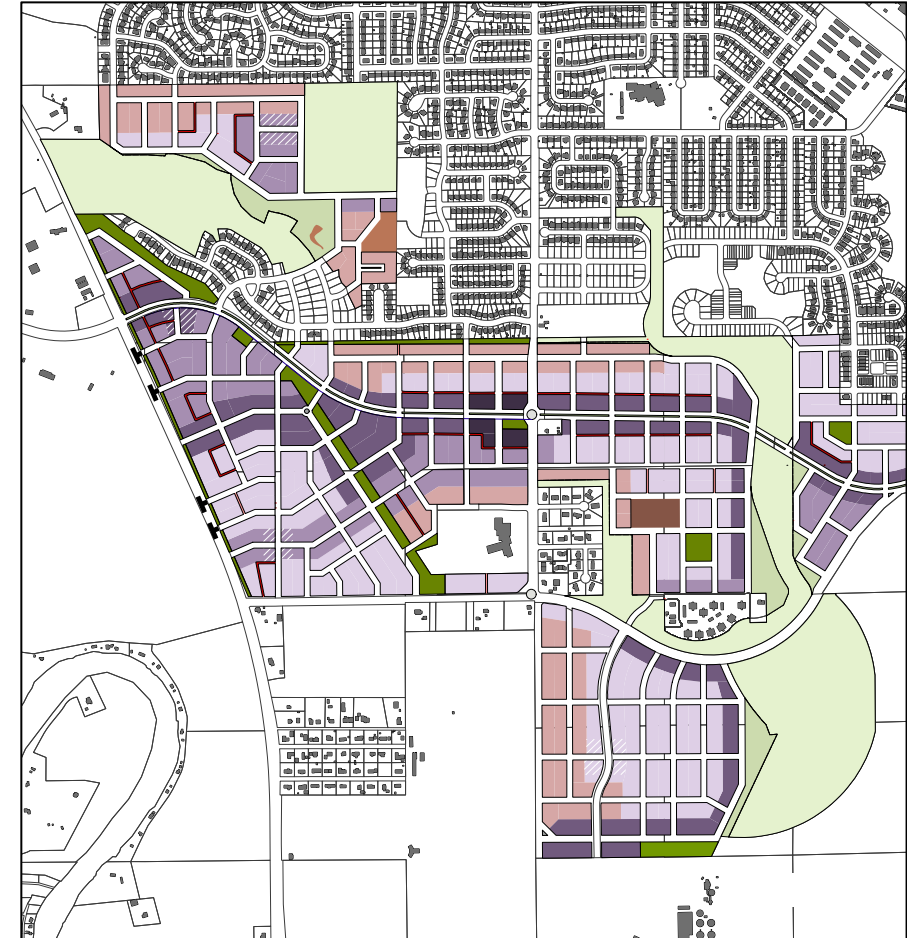
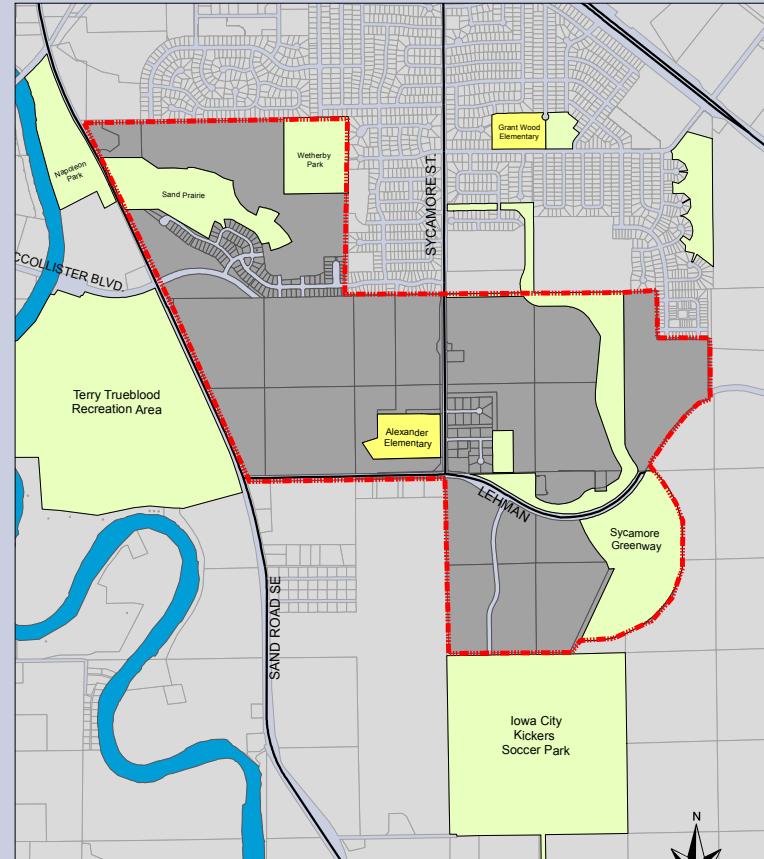
# Iowa City, IA: Growth strategy to enable MM

Missing Middle for two neighborhoods

Map of Northside Neighborhood Focus Area Extents



Map of South District Focus Area Extents



# Iowa City, IA: Growth strategy to enable MM

## Missing Middle for two neighborhoods

### Building Preference Survey

The buildings shown here can be found in walkable neighborhoods in Iowa City or in the same region as Iowa City. Are they appropriate for Iowa City's Northside neighborhood? When making your choice, be sure to consider:



#### Building Scale

Is the size of the building appropriate relative to existing buildings in the neighborhood?



#### Building Form

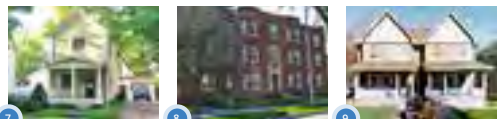
Is the roof flat or pitched? Is the front facade wide or narrow? How does the building relate to the street?



1    2    3



4    5    6



7    8    9



10    11    12



13    14    15



16    17    18



19    20    21

Explain any of your above choices:

Explain any of your above choices:

Explain any of your above choices:

Explain any of your above choices:

### BUILDING TYPES KEY

#### Single-Family Home

1 6 7 10 11

#### Duplex

3 5 9 12 14  
17 18 21

#### Triplex/Fourplex

4 15 16

#### Multiplex

2 8 19

#### Townhouse

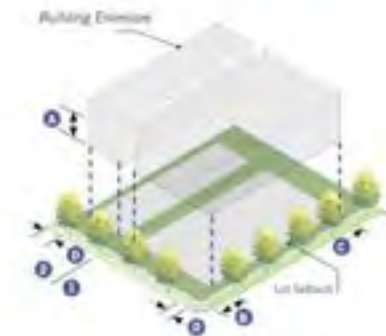
20

#### Courtyard Building

13

See pages 84-87 of the Appendix for detailed notes and results of the survey.

### WHAT DOES THIS ZONE ALLOW?



**Limiting Factors**  
Maximum Building Coverage  
Building Setbacks



Example of built-out based on the current zoning code standards and with the Historic Preservation Handbook guidelines applied.



Lot in RM5-12 Zone without Historic Preservation or Conservation District Overlay and built prior to the adoption of the Central Planning District Multi-Family District Site Development Standards.

#### Build-Out Assumptions

1. Corner lot shows duplex unit, interior lot shows detached single-family unit.
2. Additional HP Handbook requirements:
  - a. Surface area of the street elevation of a new primary structure must be less than 1.25x of existing primary structures (area not be expanded to surpass this).
  - b. New structures must be 1.5 or 2 stories in height.
  - c. Parking areas must not be located between the principal building and the street; garage doors cannot face street if located in primary building.
  - d. The width of the front facade of new buildings must not exceed 40 feet without articulating the horizontal plane of any street-facing facade.

# Palette of four zoning districts to implement

Each represents different desired mix of Missing Middle types



14-2H-2C Transect Zones

**Table 14-2H-2E-1: Transect Zones Overview**

← Less Urban

**T3 Neighborhood Edge Zone 14-2H-2F**

**Zone Abbreviation**  
T3NE  
**Sub-Zone(s)**  
None

**Intent**  
A walkable neighborhood environment of detached, small-to-large building footprint, low-intensity housing choices from House Large, Duplex Side-by-Side to Cottage Court, supporting and within short walking distance of neighborhood-serving retail, food and service uses.

**Desired Form**  
House-Scale Buildings  
Detached Buildings  
Small-to-Large Design Site Width  
Small-to-Large Building Footprint  
Medium-to-Large Front Setbacks  
Medium Side Setbacks  
Up to 2.5 Stories  
Porch, and Dooryard Frontage Types

**T3 Neighborhood General Zone 14-2H-2G**

**Zone Abbreviation**  
T3NG  
**Sub-Zone(s)**  
T3NG-Open.  
The open sub-zone allows more uses than the base zone within the same form and character of the base zone.

**Intent**  
A walkable neighborhood environment of small footprint, low-intensity housing choices from House Small, Duplex Side-by-Side, Duplex Stacked, Cottage Court, Multiplex Small to Townhouse, supporting and within short walking distance of neighborhood-serving retail and services.

**Desired Form**  
House-Scale Buildings  
Detached Buildings  
Small-to-Medium Design Site Width  
Small Building Footprint  
Medium Front Setbacks  
Medium Side Setbacks  
Up to 2.5 Stories  
Porch and Dooryard Frontage Types

26 Iowa City - Article H: Transect Zones and Standards Public Review Draft — July 2020

Transect Zones 14-2H-2E

**Table 14-2H-2E-1: Transect Zones Overview (Continued)**

More Urban →

**T4 Neighborhood Small Zone 14-2H-2H**

**Zone Abbreviation**  
T4NS  
**Sub-Zone(s)**  
T4NS-Open.  
The open sub-zone allows more uses than the base zone within the same form and character of the base zone.

**Intent**  
A walkable neighborhood environment of small-to-medium footprint, moderate-intensity housing choices from Cottage Court, Multiplex Small, Courtyard Building to Townhouse, supporting and within short walking distance of neighborhood-serving retail and services.

**Desired Form**  
Primarily House-Scale Buildings  
Detached and Attached Buildings  
Small-to-Medium Design Site Width  
Small-to-Medium Building Footprint  
Small-to-Medium Front Setbacks  
Small-to-Medium Side Setbacks  
Up to 2.5 Stories  
Porch, Dooryard, and Stoop Frontage Types

**T4 Neighborhood Medium Zone 14-2H-2I**

**Zone Abbreviation**  
T4NM  
**Sub-Zone(s)**  
T4NM-Open.  
The open sub-zone allows more uses than the base zone within the same form and character of the base zone.

**Intent**  
A walkable neighborhood environment with medium footprint, moderate-intensity housing choices from Multiplex Large, Courtyard Building to Townhouse, supporting and within short walking distance of neighborhood-serving retail and services.

**Desired Form**  
Primarily House-Scale Buildings  
Detached and Attached Buildings  
Medium Design Site Width  
Medium Building Footprint  
Small Front Setbacks  
Small Side Setbacks  
Up to 3.5 Stories  
Porch, Dooryard, Stoop, Forecourt and Terrace Frontage Types

Public Review Draft — July 2020 Iowa City - Article H: Transect Zones and Standards 27



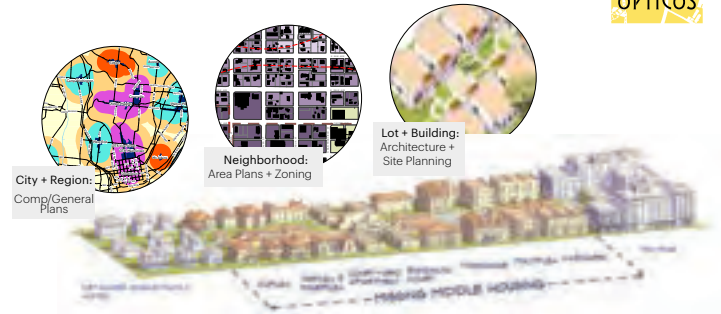
Avoiding one-size-fits-all solution:

Place-based approach  
is key to success

# Implementation Strategies

1. Education & Walking Audits
2. Comprehensive + Housing Plans
3. Missing Middle Analysis and Testing
4. Zoning Fixes and Reform that Incentivize MM
5. Small Area Planning + Pilot Projects
6. Regional Toolkit & Shared Code Template for optional adoption

## Enable Missing Middle in Your Town Public Sector Services for Missing Middle Housing (MMH)



### 1 MMH Presentation + Strategic Advising

Plant the seeds for discussion about housing choice and MMH in your community through a 1.5-day visit or interactive webinar to engage decision makers, the development community, and community members. Opticos Design will deliver a formal presentation, lead a tour, and participate in targeted small group meetings.

### 2 MMH Scan™: Analysis + Definition of Barriers

Opticos Design will broaden understanding of the need for change to foster MMH by analyzing where MMH could apply and reviewing your Comprehensive Plan and existing zoning standards to identify barriers. Opticos Design will present this information in a Memo that is graphically rich and visual in nature for a variety of audiences.

### 3 MMH Deep Dive™: Testing + Solutions

Ready for more? Once the MMH Scan™ is complete, dive deeper with an analysis of what physical form your zoning is allowing on selected sites. The team will propose solutions and identify next steps. Opticos Design will deliver a 15-20 page, graphically-rich, user-friendly document to give you a roadmap to success.

#### More Options:

**Zoning Fixes**  
Expertise for quick zoning fixes or new custom content

**Local Pilot Projects**  
Site selection, design, entitlement and advising for cities to be proactive and develop a local pilot project

**Small Area Planning**  
Planning services for neighborhoods, corridors, or opportunity sites, such as abandoned malls or brownfield sites

**Planning, Zoning, and Policy Analysis**  
Strategic analysis and advising to inform General/Comprehensive Plan, code update, or policies to deliver housing choice and effective integration



Want more information? Give us a call!

Opticos Design | Architects of the Missing Middle Movement  
opticosdesign.com | 510.558.6957 | info@opticosdesign.com

Thank you!

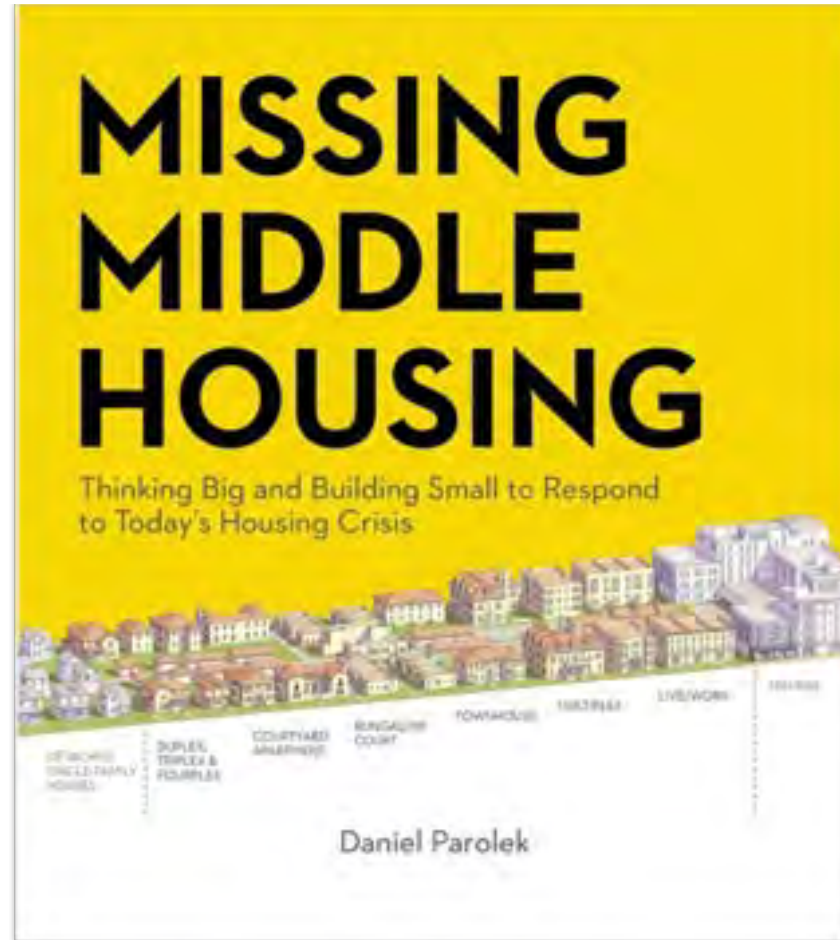
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<https://www.missingmiddlehousing.com>