Missing Middle Housing

Implementing Missing Middle Housing Symposium

Des Moines, IA
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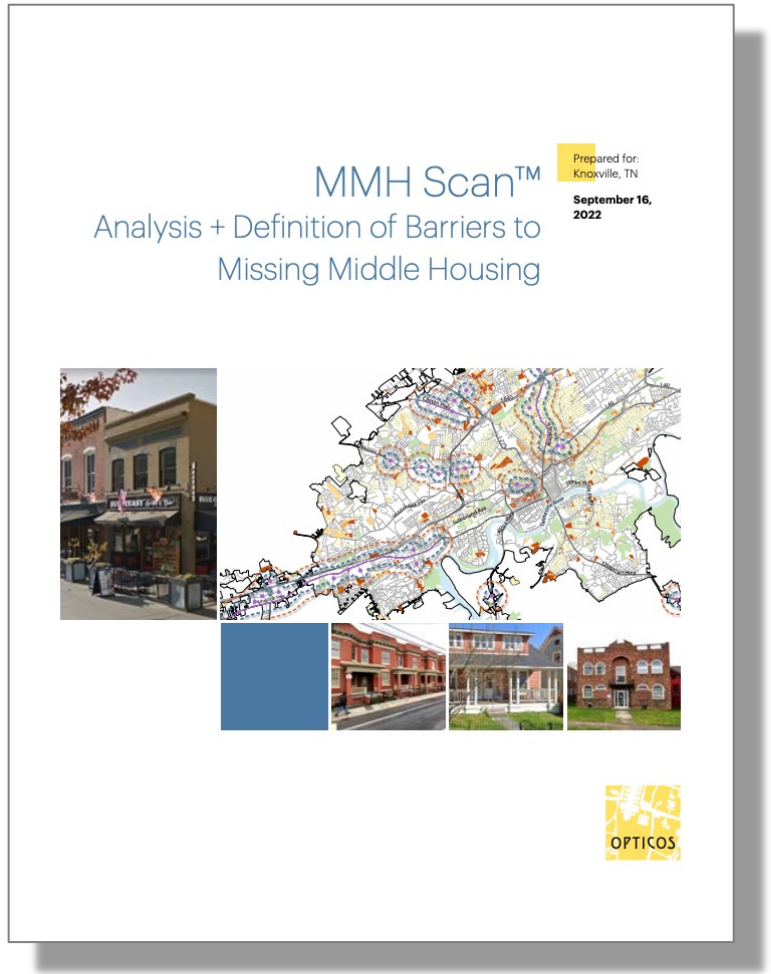
AARP®

MISSING MIDDLE HOUSING

OPTICOS

Today's Presentation and Discussion

1. What is Missing Middle Housing?
2. Why is it Needed?
3. What are the barriers and key Best Practices?
4. Where/How to begin?
5. Your questions and discussion



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SECTION 1

What is Missing Middle Housing?

House-scale buildings with multiple units in walkable neighborhoods

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Why do we call it missing?

Single-Family House

Townhouses

Mid-rise and high-rise apartments

Over the last 75 years, two primary choices have been offered:

- Single-family houses,
- Mid-rise and high-rise apartments

And more recently:

- Townhouses

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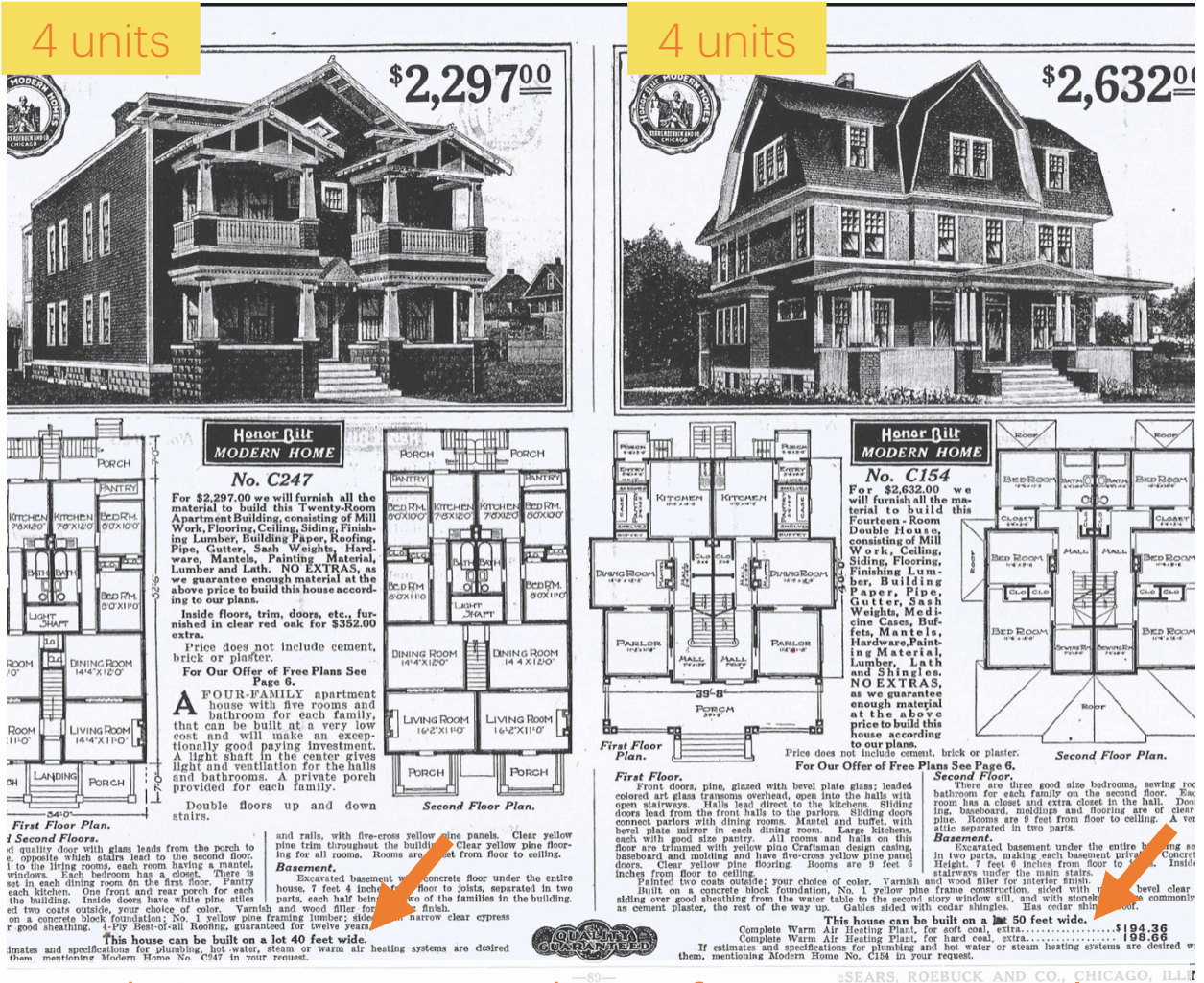
We once knew how to deliver these types

Photo source: Sears Catalog

4 units

4 units



Each type was made to fit on existing lots

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The palette of Missing Middle Housing types

Smaller buildings, fewer units

Larger buildings, more units

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Duplex: Side-by-Side

Typical Lot Size	Density
55’ x 100’	16 du/acre
55’ x 150’	10.6 du/acre
50’ x 100’	17.4 du/acre

Resultant Density:
11 to 17 per acre

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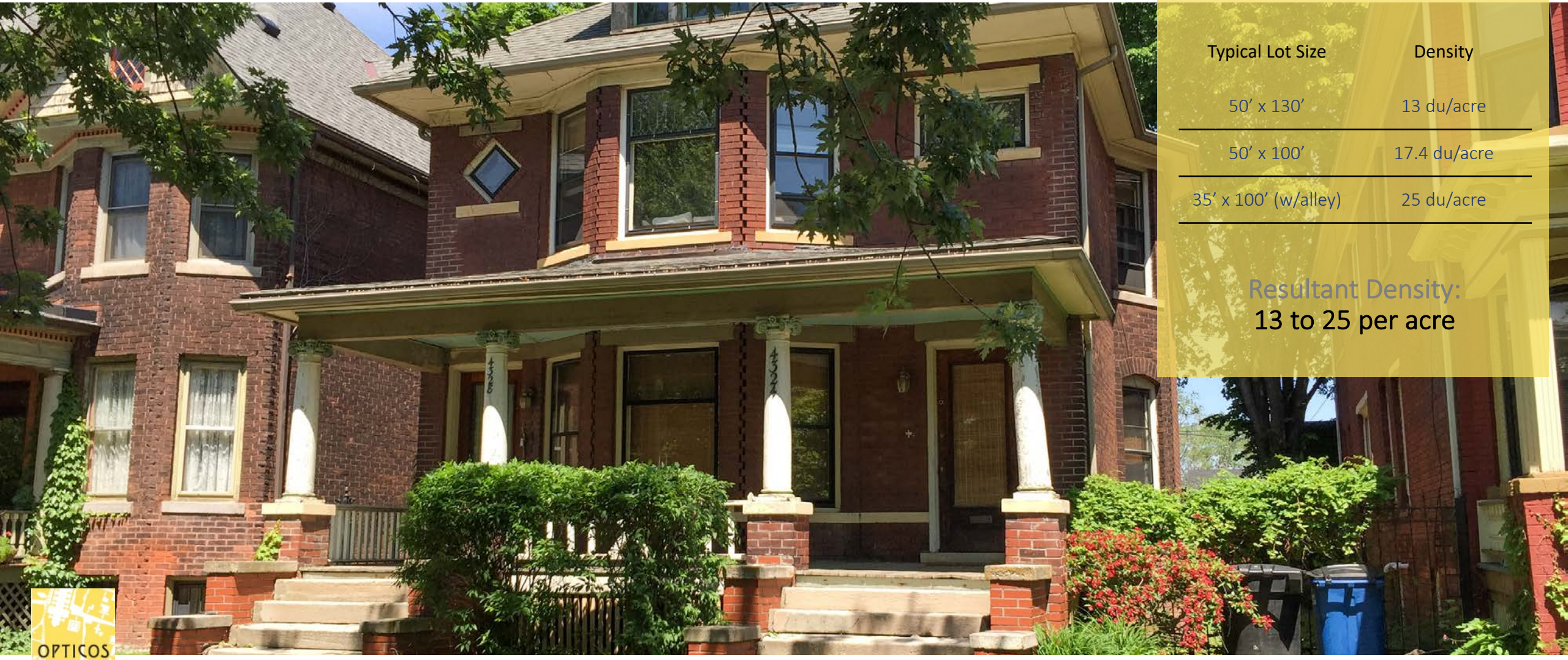
Duplex: Stacked



Typical Lot Size	Density
50’ x 130’	13 du/acre
50’ x 100’	17.4 du/acre
35’ x 100’ (w/alley)	25 du/acre

Resultant Density:
13 to 25 per acre

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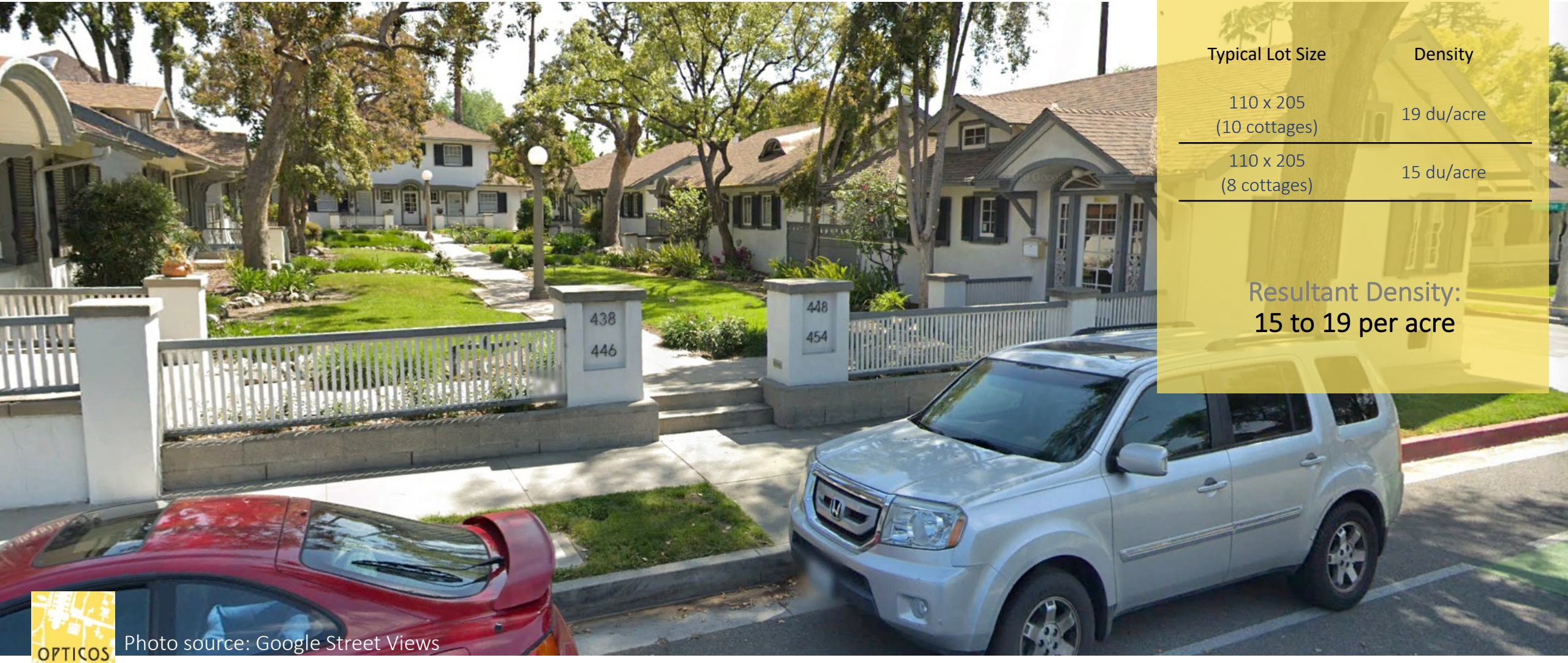
Cottage Court (Bungalow Court)



Typical Lot Size	Density
110 x 205 (10 cottages)	19 du/acre
110 x 205 (8 cottages)	15 du/acre

Resultant Density:
15 to 19 per acre

Photo source: Google Street Views

Triplex / Fourplex

Typical Lot Size	Density
50’ x 140’ (4 units)	25 du/acre
50’ x 120’ (4 units)	29 du/acre
60’ x 120’ (4 units)	24 du/acre

Resultant Density:
24 to 29 per acre

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Multiplex Medium (Mansion)

Typical Lot Size	Density
85’ x 115’ (5 units)	22 du/acre
85’ x 115’ (6 units)	27 du/acre

Resultant Density:
22 to 27 per acre

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Courtyard (Neighborhood Courtyard)

Typical Lot Size	Density
157’ x 167’ (20 units)	33.2 du/acre
150’ x 150’ (20 units)	38.8 du/acre
150’ x 150’ (15 units)	29 du/acre

Resultant Density:
29 to 38.8 per acre

Courtyard (Neighborhood Courtyard)

Moule & Polyzoides Architects and Urbanists

Townhouse

Typical Lot Size	Density
120'' x 150' (6 townhouses)	14.6du/acre
90' x 150' 6 townhouses)	19.3 du/acre

Resultant Density:
14.6 to 19.3 per acre

OPTICOS

Multiplex Large (Mansion)

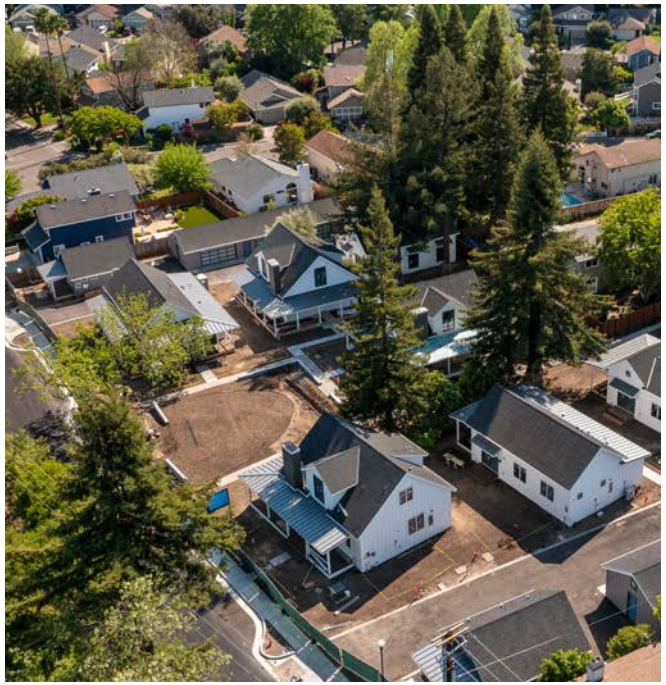
Typical Lot Size	Density
60’ x 150’ (12 units)	57 du/acre (alley)
70’ x 150’ (12 units)	50 du/acre (no alley)

Resultant Density:
50 to 57 per acre

Riverhouse Cottage Court

Location: Healdsburg, California

Site plan diagram source: riverhousehealdsburg.com



Pocket Neighborhood: A group of detached, House-Scale Buildings each containing one to four units, arranged to define a shared open space.

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Cloverdale Cottages

Location: Seattle, WA

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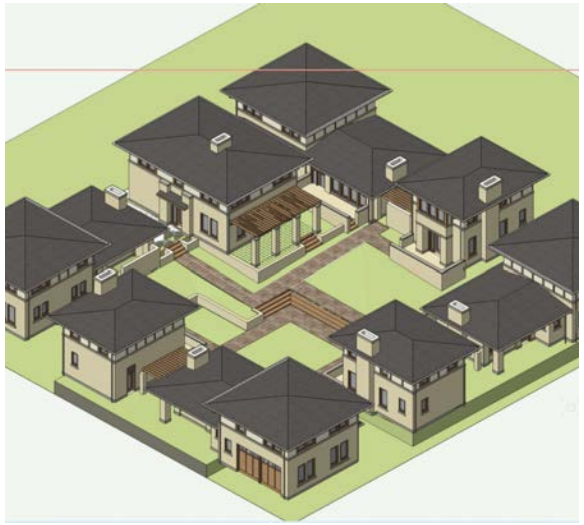
West Village

Location: Florence, AL



Daybreak Mews Homes™

Location: South Jordan, UT

Extra Small footprint. Simple building form

Mews A | 1,416 sq. ft.

First Floor

Second Floor

$217,900

Mews E | 968 sq. ft.

First Floor

Second Floor

$185,900

Delivered at price points that builders could not hit with previous homes

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New Neighborhoods

Location: Papillion, Nebraska

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Why is MMH needed?

SECTION 2

Shifting household demographics

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

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

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

Sources: US Census, 2020, www.brookings.edu

Communities are exploring other housing types to match these demographic shifts

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Promoting housing attainability and homeownership opportunities

In 2017, 31% of US households were housing cost-burdened

~American Housing Survey

A household is considered house-burdened if spending more than 30% of its household income on housing.

If spending more than 50%, it is considered “severely cost-burdened”.

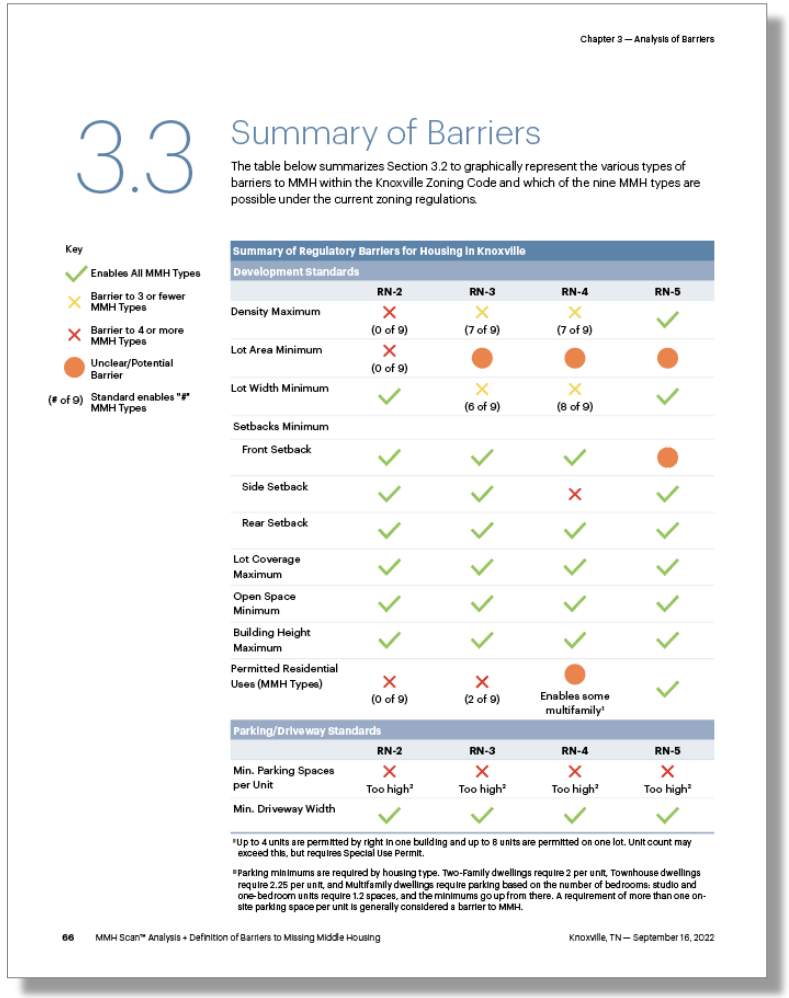
OPTICOS

SECTION 3

What are the barriers to MMH?

and Key Best Practices

Primary Barriers to MMH



Chapter 3 — Analysis of Barriers

3.3 Summary of Barriers

The table below summarizes Section 3.2 to graphically represent the various types of barriers to MMH within the Knoxville Zoning Code and which of the nine MMH types are possible under the current zoning regulations.

Key
- ✓ Enables All MMH Types
- ✕ Barrier to 3 or fewer MMH Types
- ✕ Barrier to 4 or more MMH Types
- ● Unclear/Potential Barrier
- (# of 9) Standard enables "#" MMH Types

Summary of Regulatory Barriers for Housing in Knoxville

Development Standards	RN-2	RN-3	RN-4	RN-5
Density Maximum	✕ (0 of 9)	✕ (7 of 9)	✕ (7 of 9)	✓
Lot Area Minimum	✕ (0 of 9)	●	●	●
Lot Width Minimum	✓	✕ (6 of 9)	✕ (8 of 9)	✓
Setbacks Minimum				
Front Setback	✓	✓	✓	●
Side Setback	✓	✓	✕	✓
Rear Setback	✓	✓	✓	✓
Lot Coverage Maximum	✓	✓	✓	✓
Open Space Minimum	✓	✓	✓	✓
Building Height Maximum	✓	✓	✓	✓
Permitted Residential Uses (MMH Types)	✕ (0 of 9)	✕ (2 of 9)	● Enables some multifamily[1]	✓

Parking/Driveway Standards	RN-2	RN-3	RN-4	RN-5
Min. Parking Spaces per Unit	✕ Too high[2]	✕ Too high[2]	✕ Too high[2]	✕ Too high[2]
Min. Driveway Width	✓	✓	✓	✓

[1]Up to 4 units are permitted by right in one building and up to 8 units are permitted on one lot. Unit count may exceed this, but requires Special Use Permit.

[2]Parking minimums are required by housing type. Two-Family dwellings require 2 per unit, Townhouse dwellings require 2.25 per unit, and Multifamily dwellings require parking based on the number of bedrooms: studio and one-bedroom units require 1.2 spaces, and the minimums go up from there. A requirement of more than one on-site parking space per unit is generally considered a barrier to MMH.

66 MMH Scan™ Analysis + Definition of Barriers to Missing Middle Housing Knoxville, TN — September 16, 2022

- Lack of clarity on intended building scale; lack of dimensional regulations
- Allowed density ranges are too low
- Housing types stated as allowed but prevented by other standards
- Min. parking too high for smaller infill lots
- Min. lot area requirement prevents infill on smaller, existing lots

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Be clear what scale of multi-family housing is intended

6 units in this building

24 units in this building

House-Scale buildings? or Block-Scale buildings?

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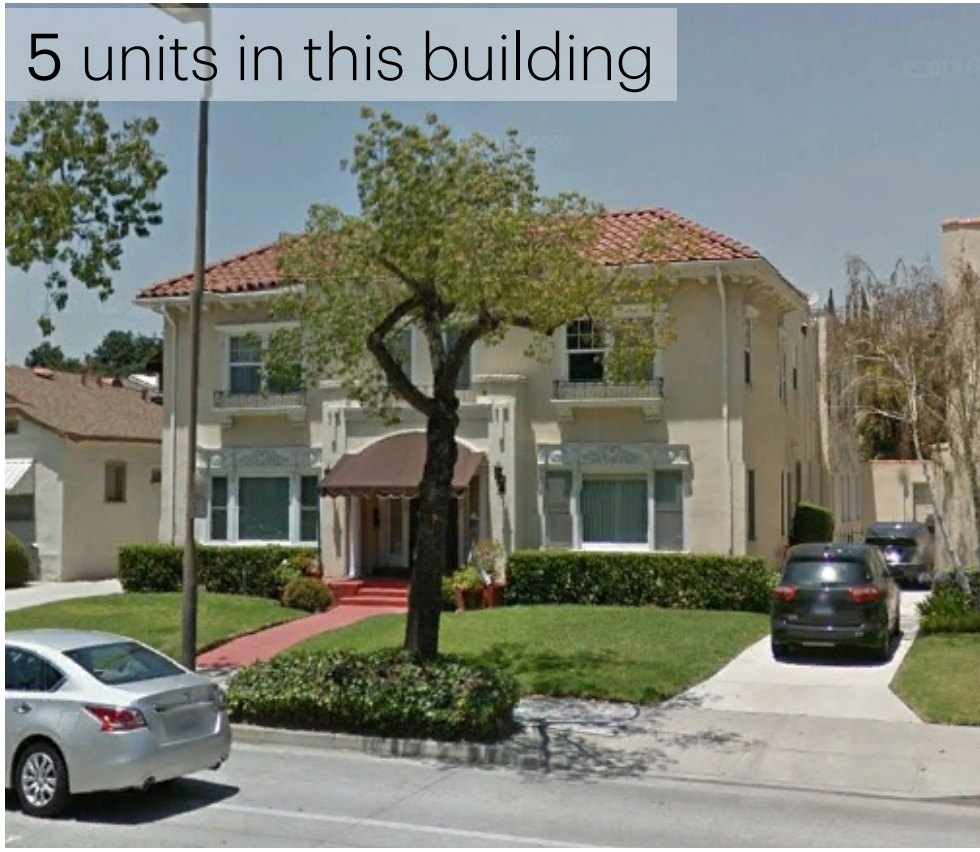
Regulating maximum allowed density isn't helpful

Density = 30 units per acre



Density = 29 units per acre

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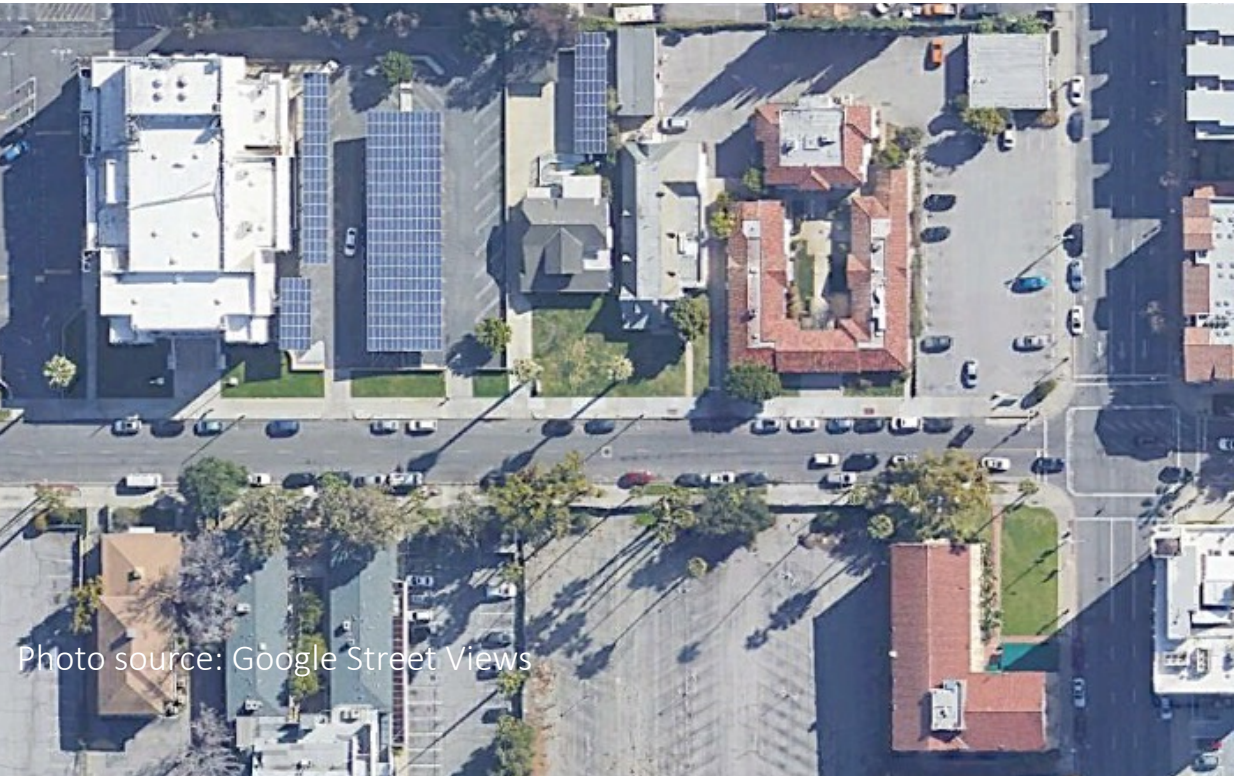
Coordinate parking with existing lot sizes and context



Existing buildings demolished to meet parking requirement

Required parking fits on same lot as building

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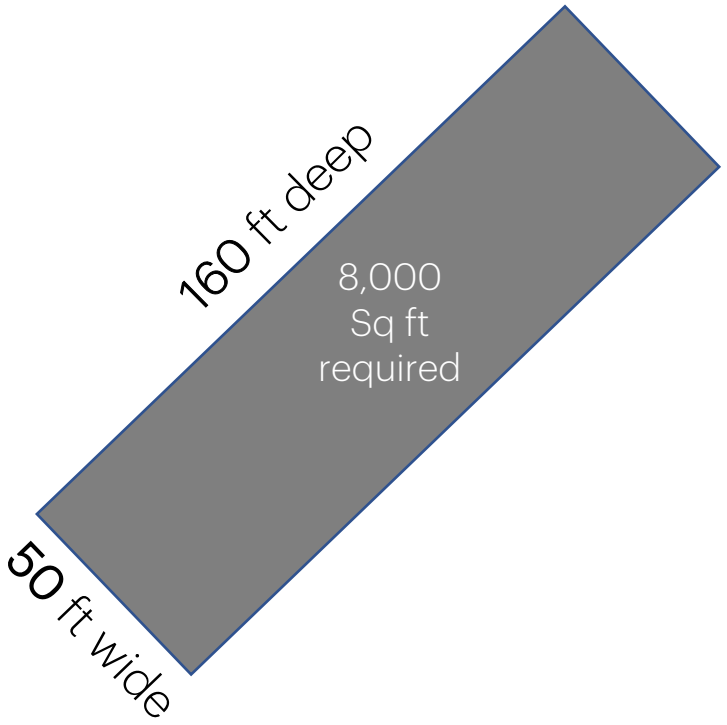
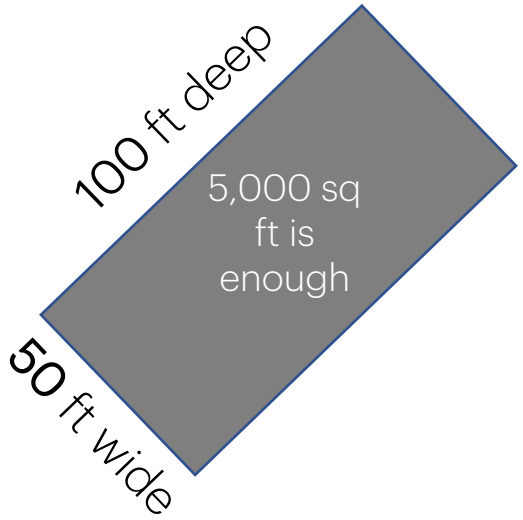
Focus on Minimum Lot Width, not Lot Area

Typical Approach: Lot Area



MMH Approach: Lot Width



OPTICOS

Distinguish between standards for MMH and larger developments

Conventional Apartment Project

Missing Middle Housing

OPTICOS

Distinguish between typical apartment development and 3 to 4 story/Large MMH

Conventional Apartment Project

Large Missing Middle

OPTICOS

Where/How to Begin?

SECTION 4

It's part of walkable environments

Build community group alliances

AARP is a leading proponent of MMH

Other local non-profits (United Way, AIA, APA)

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Advocacy and Feedback

What is the need?

Who is it serving?

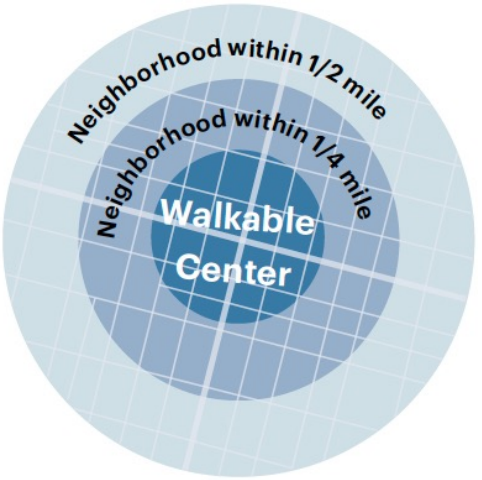
Reducing the fear = Reducing the pushback

What can I walk or bike to?

Two general areas:

1) Walkable Places: Ideally, the parcels within short walking distance of services, food, shopping, or transit

2) Alternatively, areas within short walking distance of other amenities: parks and schools



Regional-Serving

Community-Serving

Neighborhood Center

OPTICOS

Lot testing of existing zoning vs MMH

Compliant w Existing Zoning

Non-Compliant w Existing Zoning

Test potential changes through Test Fits

Building Type Test Fits: Program Information

Single Family Lot Prototype		
Description		
Single family building with carriage house ADU on 50 x 160 lot.		
Site Info	50 x 160 [1]	
Width	50 ft	
Depth	160 ft	
Area	8,000 sf	(0.18 ac)
Density	10.9 du/ac	
Building Coverage	39%	
Impervious Coverage	6%	
Building Info	SF Building	ADU

Duplex Lot Prototype		
Description		
Side-by-side duplex with carriage house ADU on 50 x 160 lot.		
Site Info	50 x 160 [1]	
Width	50 ft	
Depth	160 ft	
Area	8,000 sf	(0.18 ac)
Density	16.3 du/ac	
Building Coverage	40%	
Impervious Coverage	7%	
Building Info	Duplex	ADU

Fourplex Lot Prototype		
Description		
Fourplex with carriage house ADU on 50 x 160 lot.		
Site Info	50 x 160 [1]	
Width	50 ft	
Depth	160 ft	
Area	8,000 sf	(0.18 ac)
Density	27.2 du/ac	
Building Coverage	41%	
Impervious Coverage	24%	
Building Info	Fourplex	ADU

Key Code Barriers in R5 Zone

1. No more than 2 units allowed
2. Limited site area per unit (3,000 square feet minimum)
3. High setback minimums (Front = 25 ft, Side = 5 to 10 ft, Rear = 25 ft)
4. Restrictive parking requirements (Duplex = 1.5 sp/du and Multifamily = 1 to 2 sp/du)
5. 60' minimum lot width

Potential Solutions

1. Expand R-WRM zone to include this neighborhood given the the present walkabilty, access to commercial uses, and proximity to bus lines.
2. Modify R5 development standards.

Pilot projects

Tests for future zoning changes

Partner with incentivized land owner

Conover Commons:
Redmond, WA

The Cottage Company

Corridors with too much commercial

10th Street/11th Street Opportunity Site

Opportunity Site Overview

Context type
Downtown Transition

Current site condition
Surface parking lot

Site dimensions
140 ft deep x 200 ft wide (along 10th Street) and 140 deep x 400 ft wide (along 11th Street)

Illustrative Example Of Development Potential

Near-Term *Yield: 24 units*

- A Existing buildings
- B Townhouses up to three stories in height
- C Four story Multiplex on the corner
- D Parking is located behind the buildings and accessed from the alley

Long-Term *Yield: 80 units*

- E An additional half block develops with taller Multiplexes on the corners, Fourplexes on 11th Street, and Townhouses
- F Flexible maker spaces provide affordable work space and activate the alley. Accessory Dwelling Units (ADUs) could also be built as an alternative

Key
- Existing
- Proposed

These rendering are illustrative only. They represent hypothetical build-outs used to calculate potential new housing and do not represent actual design intent.

McHenry Avenue Opportunity Site

Opportunity Site Overview

Context type
Mixed-Use Corridor

Current site condition
Large-format retail in aging buildings with large, underutilized parking lots

Site dimensions
475 ft x 1320 ft

Illustrative Example Of Development Potential

Near-Term *Yield: 99 units*

- A Buildings face new street perpendicular to McHenry
- B New public green for neighborhood
- C Fourplexes and other Missing Middle Housing types could be built by individual developers
- D Live/Work buildings face McHenry providing opportunities for small and local businesses

Long-Term *Yield: 359 units*

- E Larger Courtyard Buildings front onto McHenry
- F Townhouses and Fourplexes are shown facing new streets perpendicular to McHenry
- G Small public green

Key
- Existing
- Proposed

These renderings are illustrative only. They represent hypothetical build-outs used to calculate potential new housing and do not represent actual design intent.

OPTICOS

Corridors with too much commercial

McHenry Avenue **Opportunity Site**

Illustrative Rendering of Capacity Study

Above: Buildings lining the corridor

As a first step, Courtyard Buildings and Live/Work buildings line McHenry, while the existing parking lot and retail buildings remain in place. The Live/Work units depicted here provide small-scale commercial spaces that can help incubate local businesses.

OPTICOS

Coordinate existing lots with buildings

Key Housing Production Strategies

Bring New Energy to Downtown

Strategically allowing new housing development opportunities in transition areas between Modesto's Downtown Core and established residential neighborhoods will add more options for living close to downtown and meeting demand from young professionals, families, and empty nesters in search of an urban neighborhood experience where they can be less dependent on driving.

Expand Housing Options in Established Neighborhoods

Providing more flexibility for property owners and housing developers in Modesto's established downtown-adjacent neighborhoods has the power to create more housing choices benefitting homeowners and renters seeking to live in these areas that are well served by amenities and services.

Expand Housing Options in Newer Neighborhoods

Providing more flexible options for property owners and housing developers in Modesto's newer neighborhoods creates additional opportunities for infill development that is less expensive to build, buy, and rent. It also provides choices for multigenerational living, downsizing, and aging in place that appeal to many of Modesto's growing demographics and their consumer preferences.

Transform Major Commercial Corridors into Neighborhoods

Allowing housing along Modesto's commercial corridors creates new possibilities for developing mixed-use neighborhoods throughout the city and transforming Modesto's major streets. This transformation will unlock new and exciting opportunities to locate housing, jobs, shopping, and entertainment close to each other and to revitalize vacant and underused commercial areas in the process.

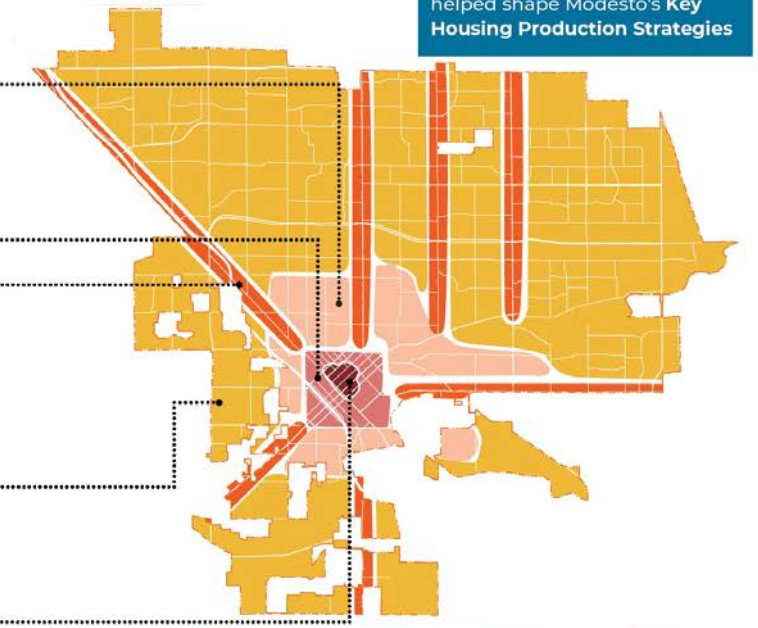
Make Housing Cheaper to Build

The price of housing is a direct reflection of land and development costs. Making housing cheaper to build by reducing up-front development costs passes on the benefits directly to the consumer in the form of reduced rent and sales prices.

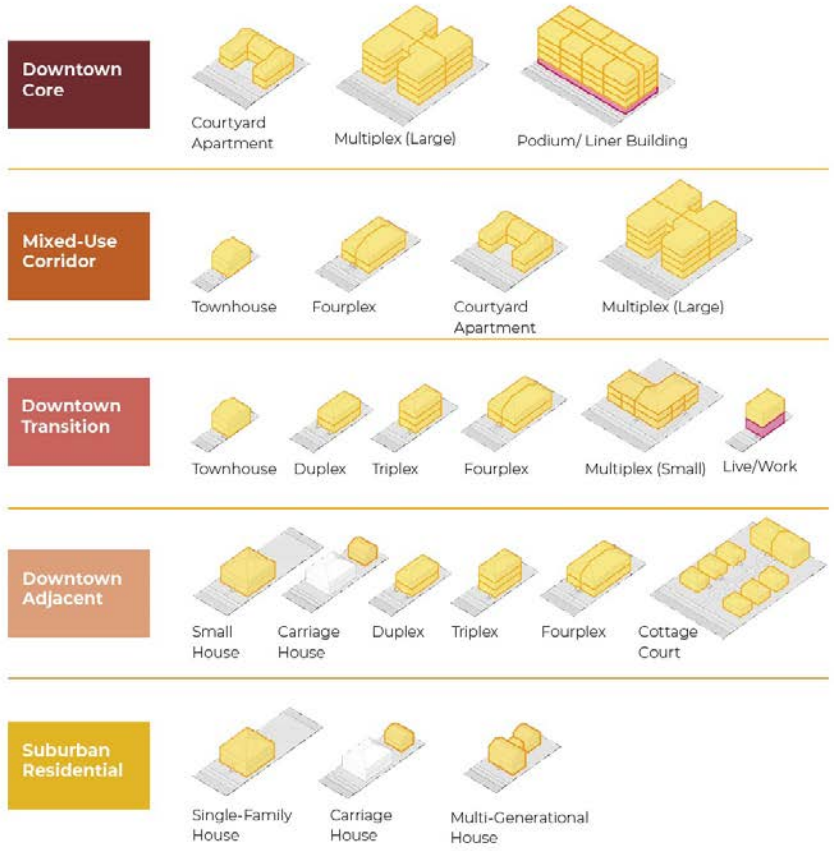
Let the Downtown Core Reach its Full Potential

Tall buildings are already allowed in Modesto's Downtown Core, but they aren't financially feasible. Changing certain downtown zoning requirements, such as parking, could enable downtown Modesto to become what it was always envisioned to be: the heart of the city, where people work, play, and live in walkable areas with great access to desirable urban amenities.

Results of the Policy Scenarios helped shape Modesto's **Key Housing Production Strategies**



At-A-Glance Building Types by Context Type



OPTICOS

Make tweaks or big changes to your zoning to fully enable MMH

3.050 T4 Neighborhood.Medium (T4N.M)

General note: the illustration above is intended to provide a brief overview of the zone and are descriptive in nature.

1. Intent

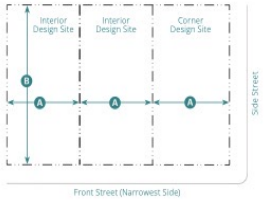
A walkable neighborhood environment with medium footprint, moderate-intensity housing choices, supporting and within short walking distance of neighborhood-serving retail and services.

The following are allowed form elements in the zone.

House-Scale Buildings	Small Multiplexes, Townhouses, Courtyards, Pocket Neighborhoods, and Large Multiplexes
Primarily Detached Buildings	
Small-to-Medium Building Footprint	
Small-to-Medium Front Setbacks	
Small-to-Medium Side Setbacks	Porch Projecting, Porch Engaged, Dooryard, Stoop, and Common Entry Frontage Types
Up to 3 Stories	

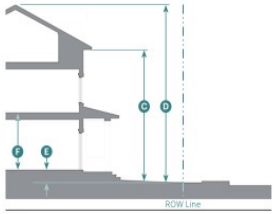
2. Sub-Zone(s)

T4N.M-Open. The open sub-zone allows additional building and frontage types within the same form and character of the T4N.M zone.



Key

ROW/ Design Site Line



Key

ROW Line

3. Building Types and Design Site Size

Allowed Building Types	Design Site[1] Width (A)	Depth[2] (B)	Standards
House	50' min.	100' min.	5.040
Duplex Side-by-Side	55' min.	110' min.	5.050
Duplex Stacked	50' min.	110' min.	5.060
Cottage Court	125' min.	130' min.	5.070
Multiplex Small	50' min.	110' min.	5.080
Townhouse	24' min.[3]	100' min.	5.090
Side Court	65' min.; 100 max	150' min.	5.100
Pocket Neighborhood	170' min.; 300' max.	260' min.; 500' max.	5.110

Except for the Cottage Court and Pocket Neighborhood building types, each design site shall have only one primary building type.

[1] See Table 3.020.B, Applicability of Design Site Requirements.

[2] Minimum depth of design sites adjoining a rear alley at least 20' wide may be reduced by 20'.

[3] Represents one townhouse.

4. Building Form

Height		
Primary Building[4]		
Stories	2.5 max.	
To Eave/Parapet	22' max.	(C)
Overall	35' max.[5]	(D)
Ground Floor Finish Level	6" min.[4]	(E)
Floor-to-Floor (Ground Floor)	10' min.	(F)

[4] See Chapter 5 (Specific to Building Types) for refinements to massing and height standards.

[5] Max. 28' in the San Tomas Area Neighborhood Plan area, measured from adjacent natural grade.

[6] Common entries may be set at grade in compliance with local and federal accessibility standards.

5.130 Multiplex Large

Multiplex Large, Example 1

Multiplex Large, Example 2

Multiplex Large, Example 3

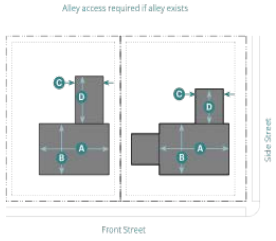
1. Description

A medium-to-large-sized, detached building that consists of multiple stacked units, typically with one shared entry. The type is scaled to fit within moderate- to high-intensity neighborhoods.

2. Number of Units

	T4N.L
Units per Building	In compliance with Section 5.130.3 (Building Size and Massing)
Buildings per Design Site	1 max.

General Note: Photos on this page are illustrative, not regulatory.



Key

ROW/ Design Site Line

Building

Building Setback Line

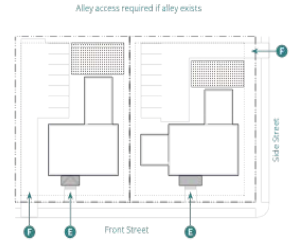
3. Building Size and Massing

Height	T4N.M	T4N.L	
Stories	3 max.	4 max.	
Main Body[1]			
Width	60' max.	70' max.	(A)
Depth	85' max.	100' max.	(B)
Wing(s)[1,2]			
Width	25' max.	30' max.	(C)
Depth	40' max.		(D)
Separation between Wings on Same Façade	15' min.		
Massing Types			
Side Gable	Section 5.170.1.B		
Gable L	Section 5.170.1.C		
Center Gable	Section 5.170.1.D		
Twin Gable	Section 5.170.1.E		

Façades shall be designed in compliance with Chapter 7 (Architectural Standards).

[1] In compliance with Subsection 5 of the zone

[2] For 4-story buildings, height is limited to 1 story less than main body and 10' less to eave.



Key

ROW/ Design Site Line

Frontage

Building Setback Line

4. Pedestrian Access

Main Entrance Location	Front Street	(E)

Units located in the main body shall be accessed by a common entry along the front street.

On corner design sites, units in a wing may enter from the side street.

5. Vehicle Access and Parking

Driveway and parking location shall comply with standards in Subsection 7 of the zone. (F)

Parking may be covered, uncovered, or in a garage.

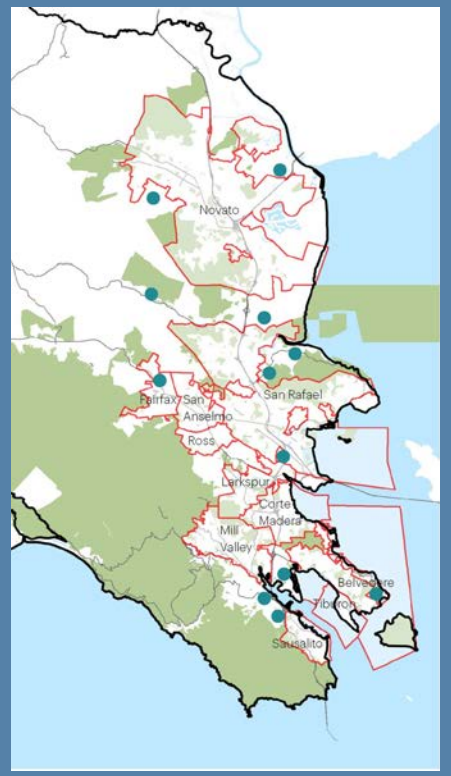
6. Open Space

Common or private open space is not required.

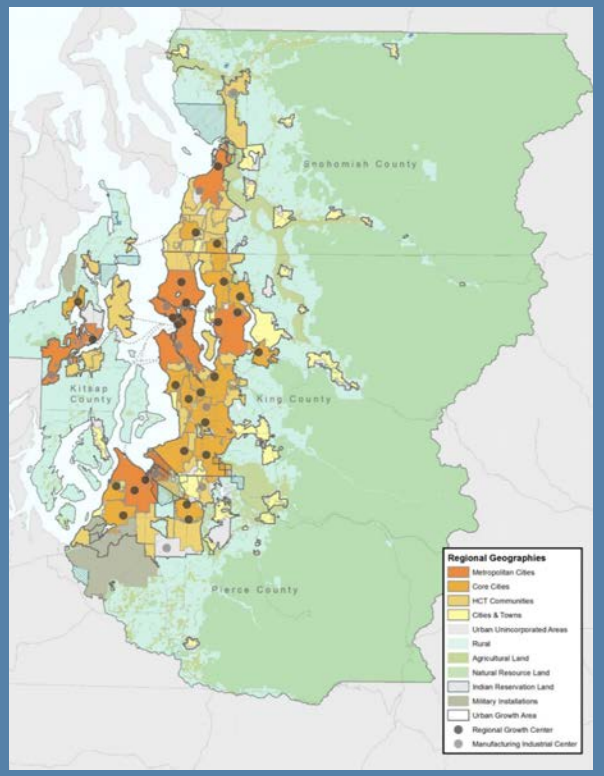
OPTICOS

Regional Toolkit of Objective Standards

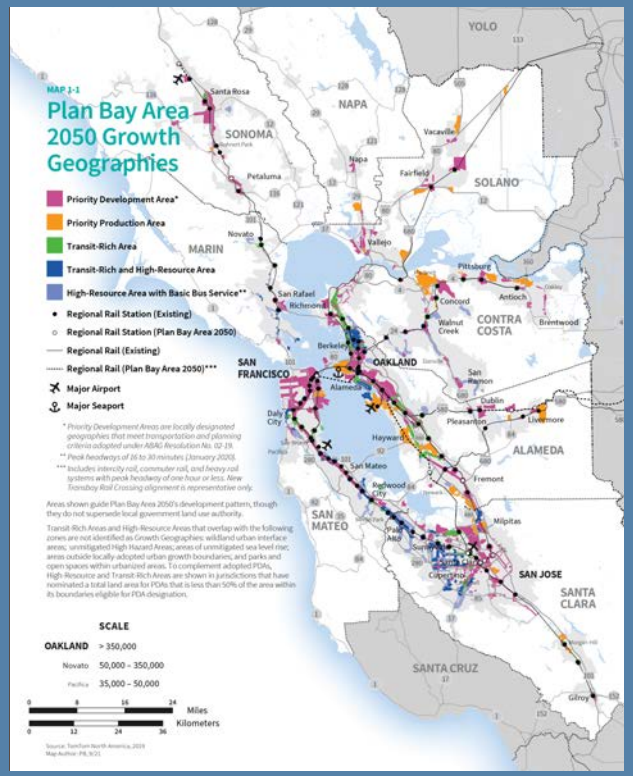
Marin County, CA:
1 County, 11 cities



Puget Sound, WA:
3 Counties, 82 cities



San Francisco Bay Area, CA:
9 Counties, 107 cities



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Discussion

AARP®

MISSING MIDDLE HOUSING

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