RICHMOND ZONING REFRESH

EXISTING PATTERN ANALYSIS

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This is a planning study intended to show basic urban patterns and data trends throughout areas of the City of Richmond so as to help inform policy decision-making. It is not intended to determine legal compliance or noncompliance of an individual building or property with any portion of Chapter 30 - Zoning of the Code of Ordinances. This analysis has been performed using data from the City of Richmond, visual assessment, and other sources. Data are not guaranteed.

WHY A PATTERN BOOK?

In alignment with the Zoning update, key objectives include:

1. Identify patterns that will give us information about metrics that need to be regulated, which will inform the zoning reform process

2. Communicate to the public why the zoning changes may be necessary to align the regulations with desirable existing built patterns

3. Identifying areas with nonconformities. These are areas with existing buildings that would not be legal to build under current zoning regulations.

4. Identify areas that have unbuilt zoning capacity, including unbuilt height and lot coverage, that may not be consistent with existing local built patterns.
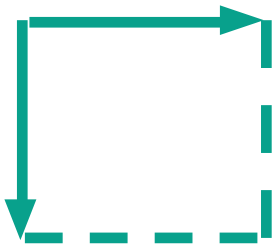
WHAT IS AN URBAN PATTERN?

+ Identify what is most prevalent FORM and USE conditions in a specific area of the city

WHAT IS A NONCONFORMITY?

+ When a property does not meet one or more of the existing requirements of the Zoning Ordinance, it is known as a "nonconformity"

FORM NONCONFORMITIES

When requirements related to the form of the building are not met

USE NONCONFORMITIES

When requirements related to the way the building is used are not met

ANALYSIS ACROSS SCALES

1. City Scale

Mapping contextual patterns and misalignments between existing patterns and zoning.

Identify areas with nonconformities and areas with unbuilt zoning capacity.

What are the most prevailing types non-conformities visible at the <u>city</u> scale?

RESULT: City-wide misalignments and selection of 10 representative areas to analyze at the neighborhood scale
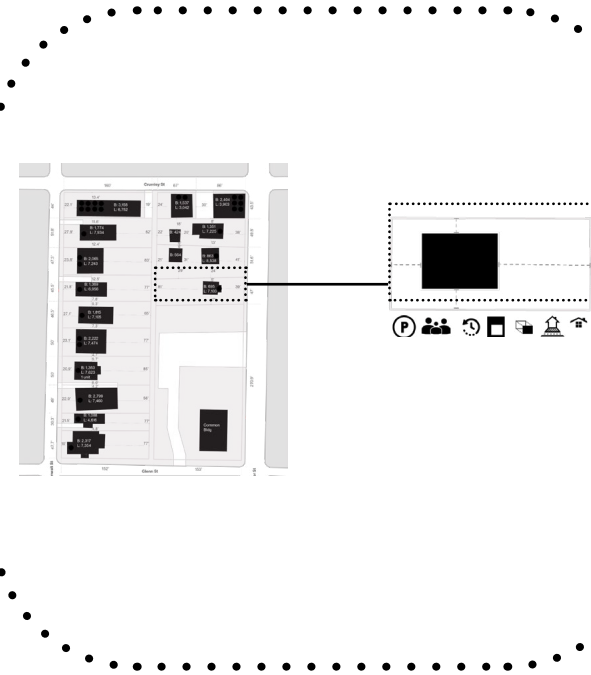
2. Neighborhood Scale

Mapping misalignments between existing patterns and zoning.

What are the most prevailing types of form non-conformities visible at the <u>neighborhood scale</u>?

RESULT: Sub-patterns in each representative study area. Select 12 representative blocks to test qualitative and metric-specific patterns
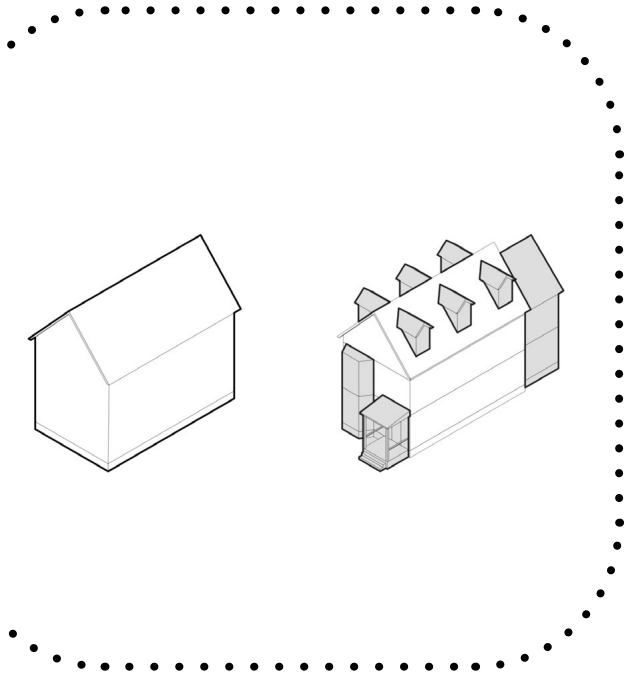
3. Block Scale

Illustrating misalignments between existing patterns and zoning.

Illustrating contextual patterns.

What are the most strategic things we need to regulate at the <u>block</u> scale?

RESULT: Sub-patterns in each block analysed

4. Building Scale

Illustrating misalignments between existing patterns and zoning.

Illustrating relationship between buildings and the public realm.

What are the most strategic things we need to regulate at the <u>building</u> scale?

RESULT: Building taxonomy to test potential code changes.

CITY SCALE ANALYSIS

ANALYSIS ACROSS SCALES

City Scale

Mapping contextual patterns and misalignments between existing patterns and zoning.

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Neighborhood Scale

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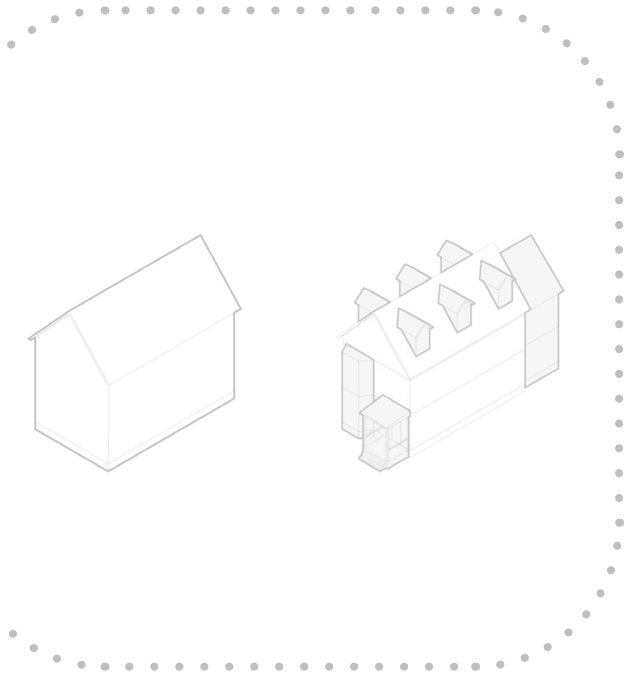
Block Scale

Illustrating misalignments between existing patterns and zoning.

Illustrating contextual patterns.

What are the most strategic things we need to regulate at the <u>block</u> scale?

RESULT: Sub-patterns in each block analysed

Building Scale

Illustrating misalignments between existing patterns and zoning.

Illustrating relationship between buildings and the public realm.

What are the most strategic things we need to regulate at the <u>building</u> scale?

**RESULT**: Building taxonomy to test potential code changes.

CITY SCALE ANALYSIS

Mapping contextual patterns

+ Historic patterns

+ Urban fabric patterns

+ Existing Land Use and Zoning

Mapping nonconformities between existing patterns and zoning

+ Parcel size

+ Building height

+ Unbuilt building height

+ Special Use Permits

Where does the current zoning not reflect existing traditional patterns of parcel size and use- what planners like to call their "conformity"? Where can we zoom in to unpack these disconnects?

0   7,500   15,000 ft
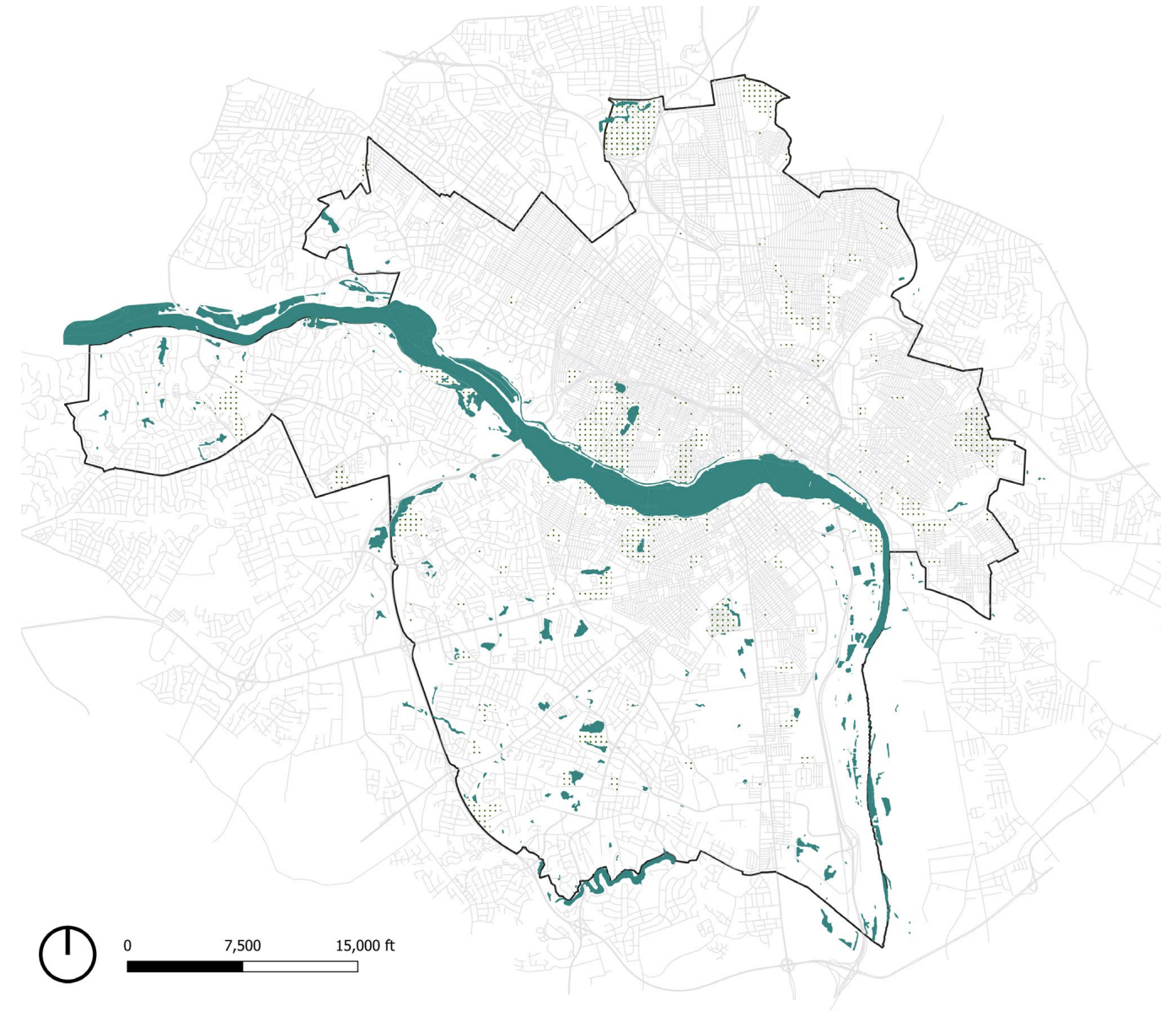
KEY DATASETS NOTES

Parcel Dataset

The parcel dataset used was provided by the city of Richmond and is based on the ownership and tax records from the Assessor of Real Estate. Sometimes, this data does not align with what is considered a "lot" for zoning purposes. For condominiums, the parcel is sometimes a subdivision of a larger zoning lot.

Condominium Adjustment: For multi-family condominiums, one single lot will have multiple parcel information stacked on each other, one per property owner. The dataset was adjusted, and duplicates were removed from the different parcel analyses.

Addresses Count: If multiple addresses were found on the same geographic parcel, it was accounted as multi-family housing but condensed into a single parcel for zoning analysis purposes.

Structures Dataset

All building-based calculations at the city and neighborhood scales were completed using the LiDAR-generated building footprint dataset provided by the City of Richmond. Although useful for large-scale analysis, this dataset can include roof overhangs, hardscapes, and auxiliary structures, and tree canopy can also interfere with it.
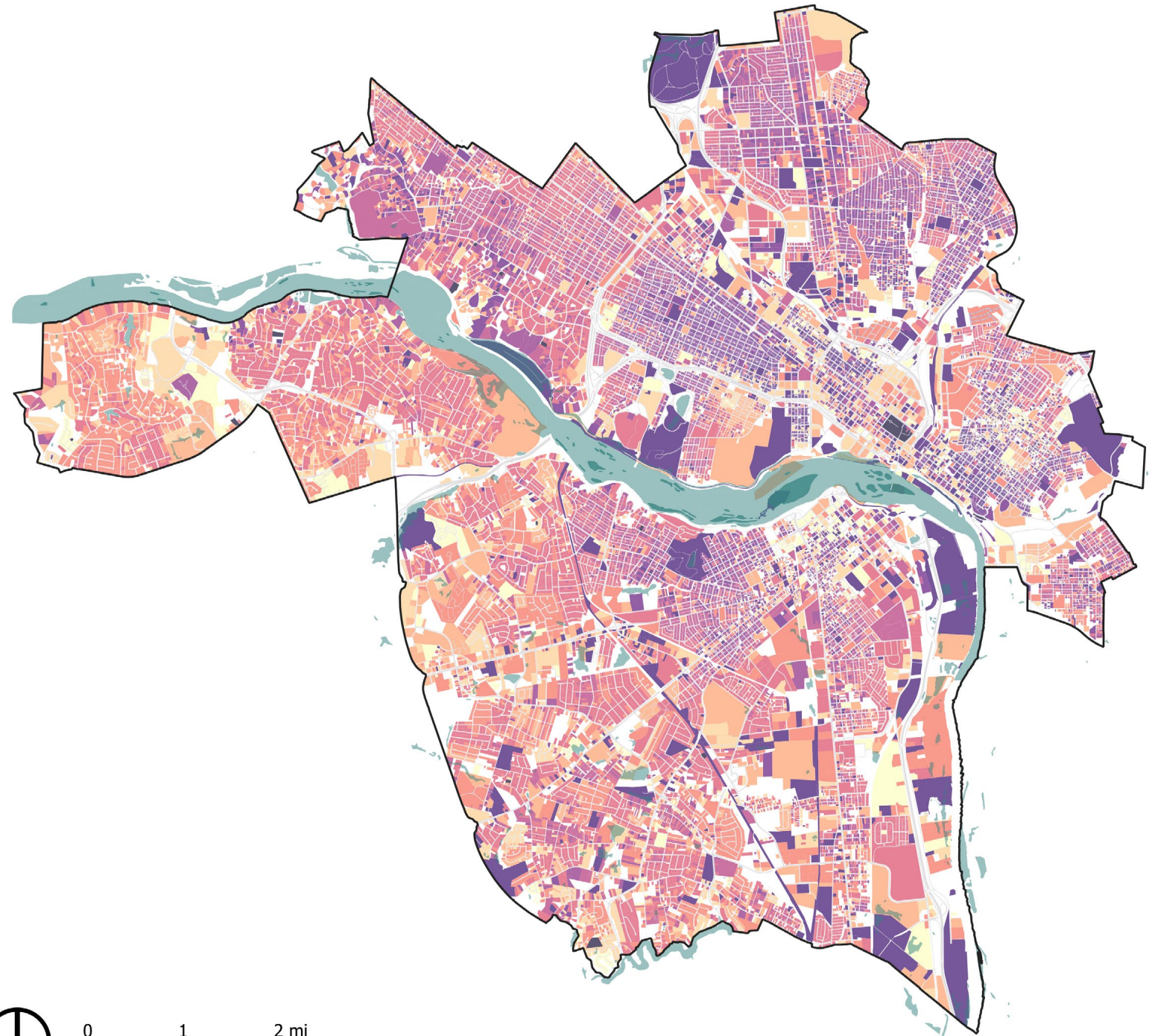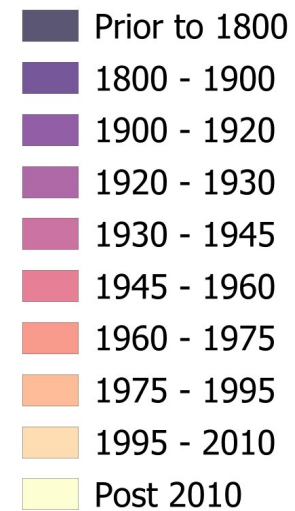
At the block scale, the Master Building Footprint Layer was selectively modified, as described within the block-scale analysis intensity method, to arrive at more precise coverage calculations and representation. These labor-intensive manual modifications and ground-truthing of the dataset were not possible at the citywide and neighborhood levels.

Contextual Patterns
HISTORIC PATTERNS

- Larger concentration of newer structures in the outer neighborhoods and south of the river.

ASR Parcels by Year Built

- Prior to 1800
- 1800 - 1900
- 1900 - 1920
- 1920 - 1930
- 1930 - 1945
- 1945 - 1960
- 1960 - 1975
- 1975 - 1995
- 1995 - 2010
- Post 2010

0   1   2 mi

Contextual Patterns

URBAN FABRIC - BLOCKS

- Larger city blocks are located in South Richmond and along the river.

- Larger blocks are consistent with a more suburban urban pattern.
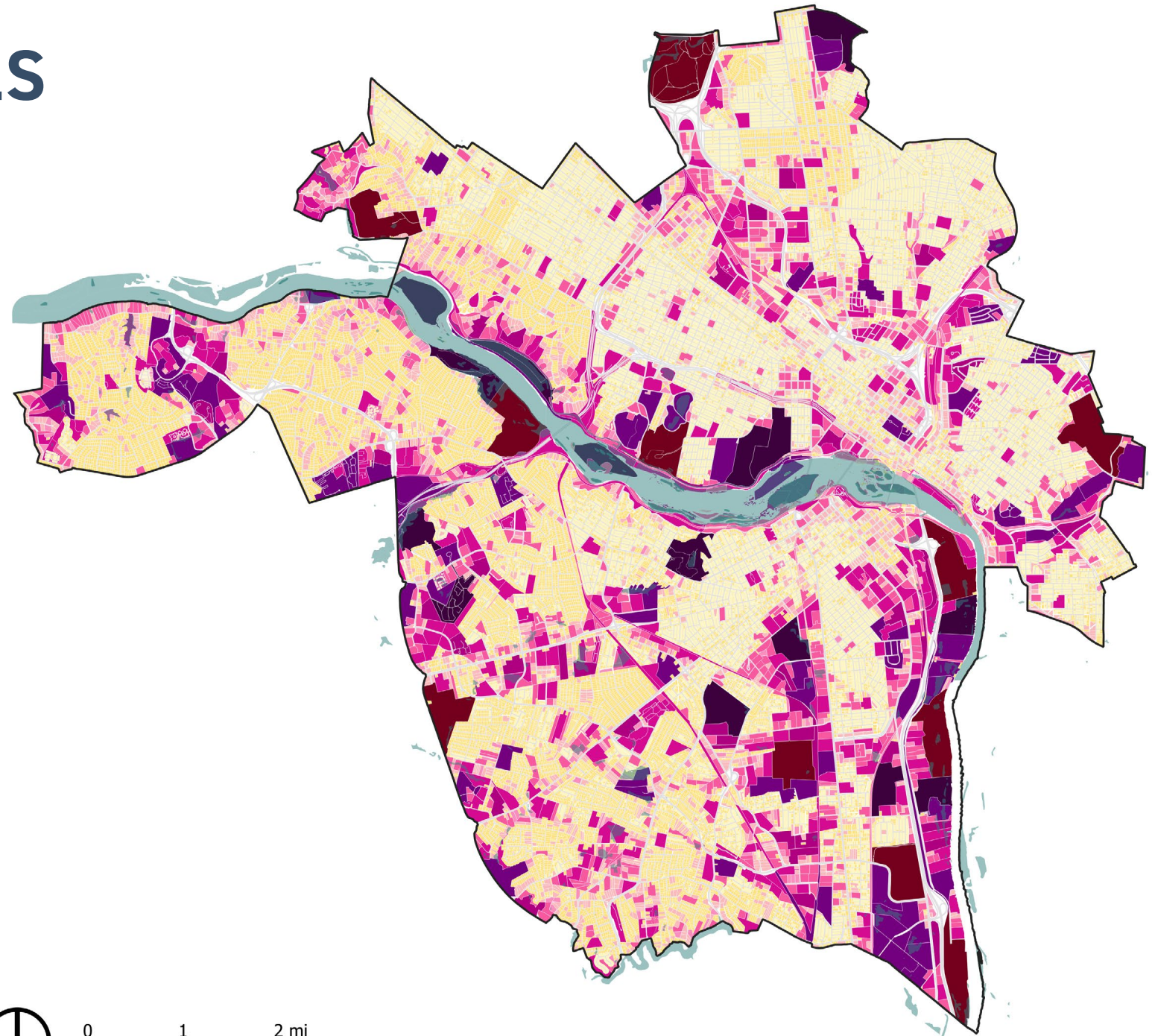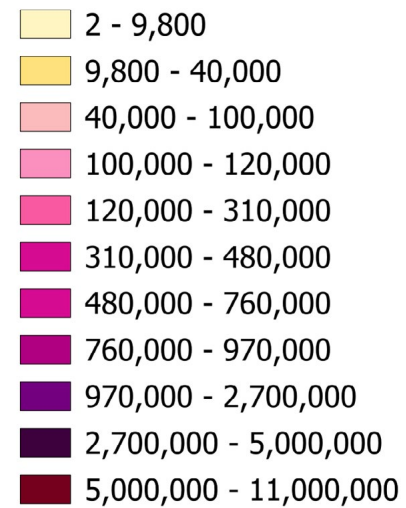
City Block Size (Acres)

- 0 - 3
- 3 - 6
- 6 - 15
- 15 - 25
- 25 - 43
- 43 - 75
- 75 - 117
- 117 - 170
- 170 - 270
- 270 - 385

0   1   2 mi
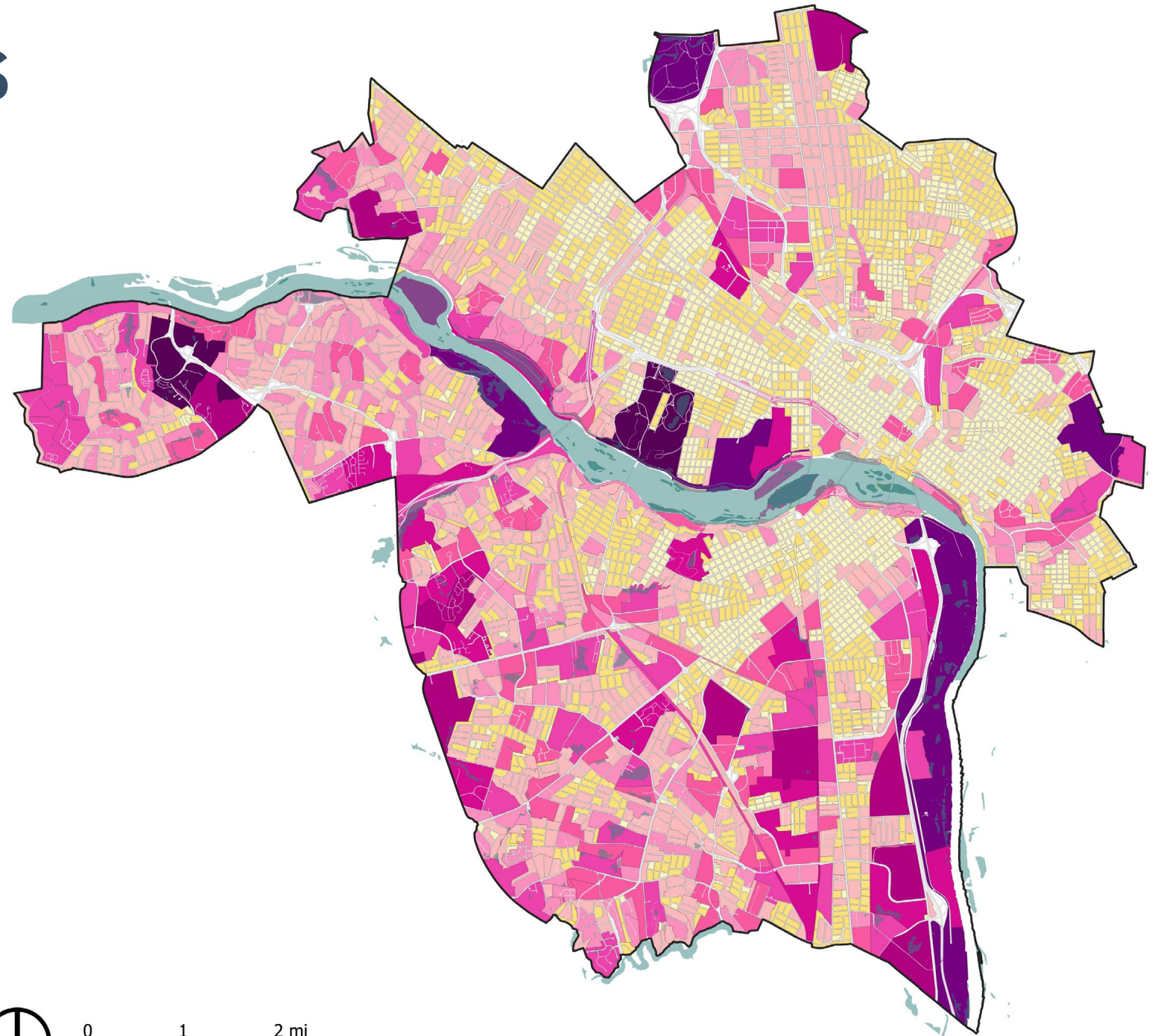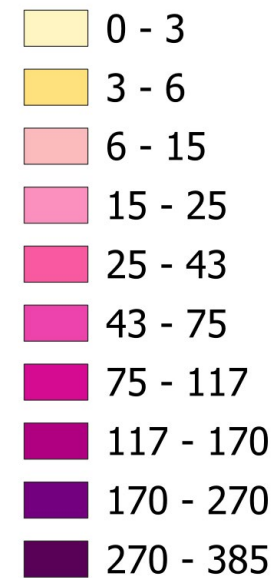
Contextual Patterns
URBAN FABRIC - PARCELS

- Larger parcels are found along the river and different industrial areas and highway corridors.
- Outter residential neighborhoods have larger parcels than inner districts.

Parcel Size (Square Feet)
- 2 - 9,800
- 9,800 - 40,000
- 40,000 - 100,000
- 100,000 - 120,000
- 120,000 - 310,000
- 310,000 - 480,000
- 480,000 - 760,000
- 760,000 - 970,000
- 970,000 - 2,700,000
- 2,700,000 - 5,000,000
- 5,000,000 - 11,000,000

Contextual Patterns
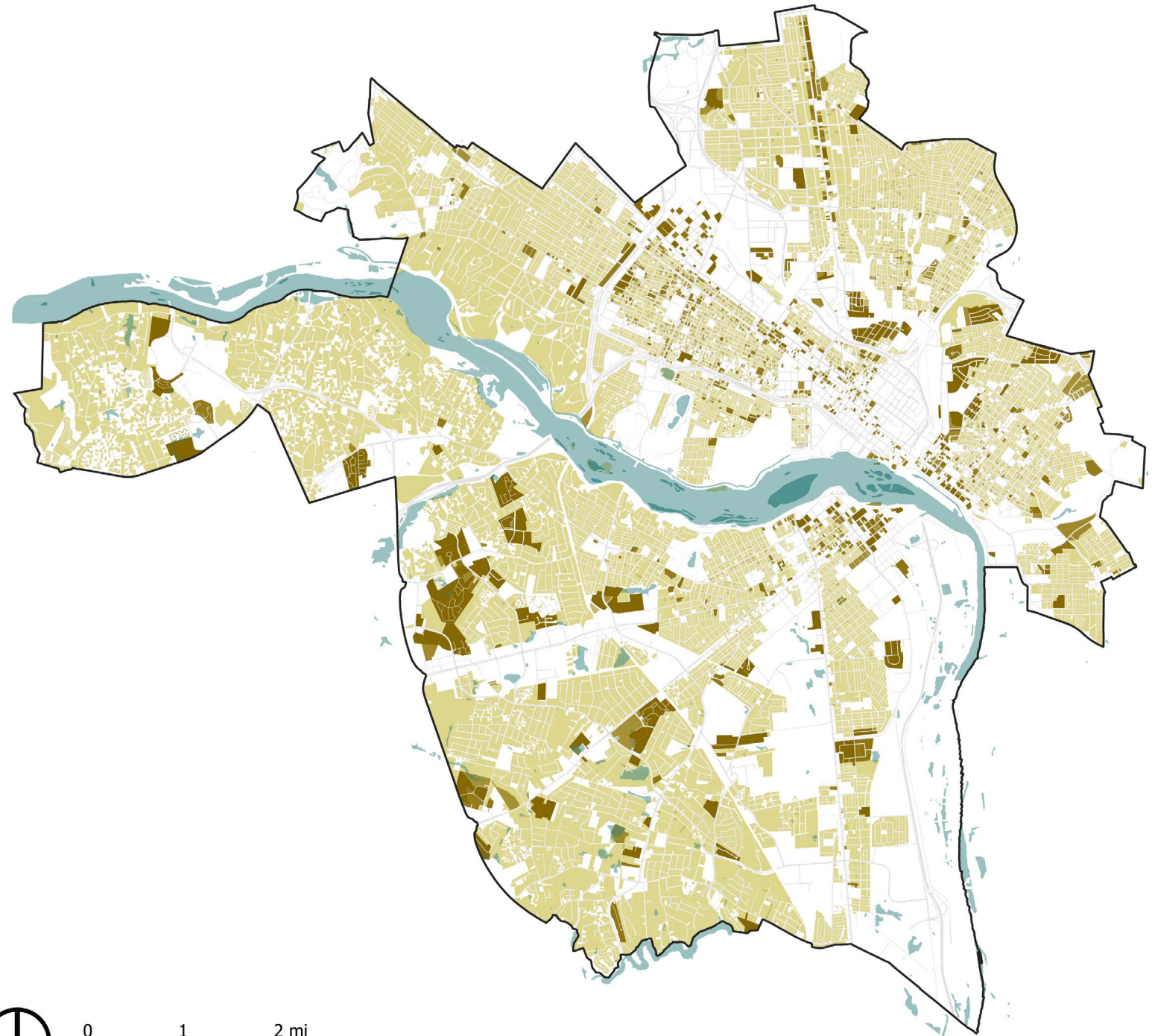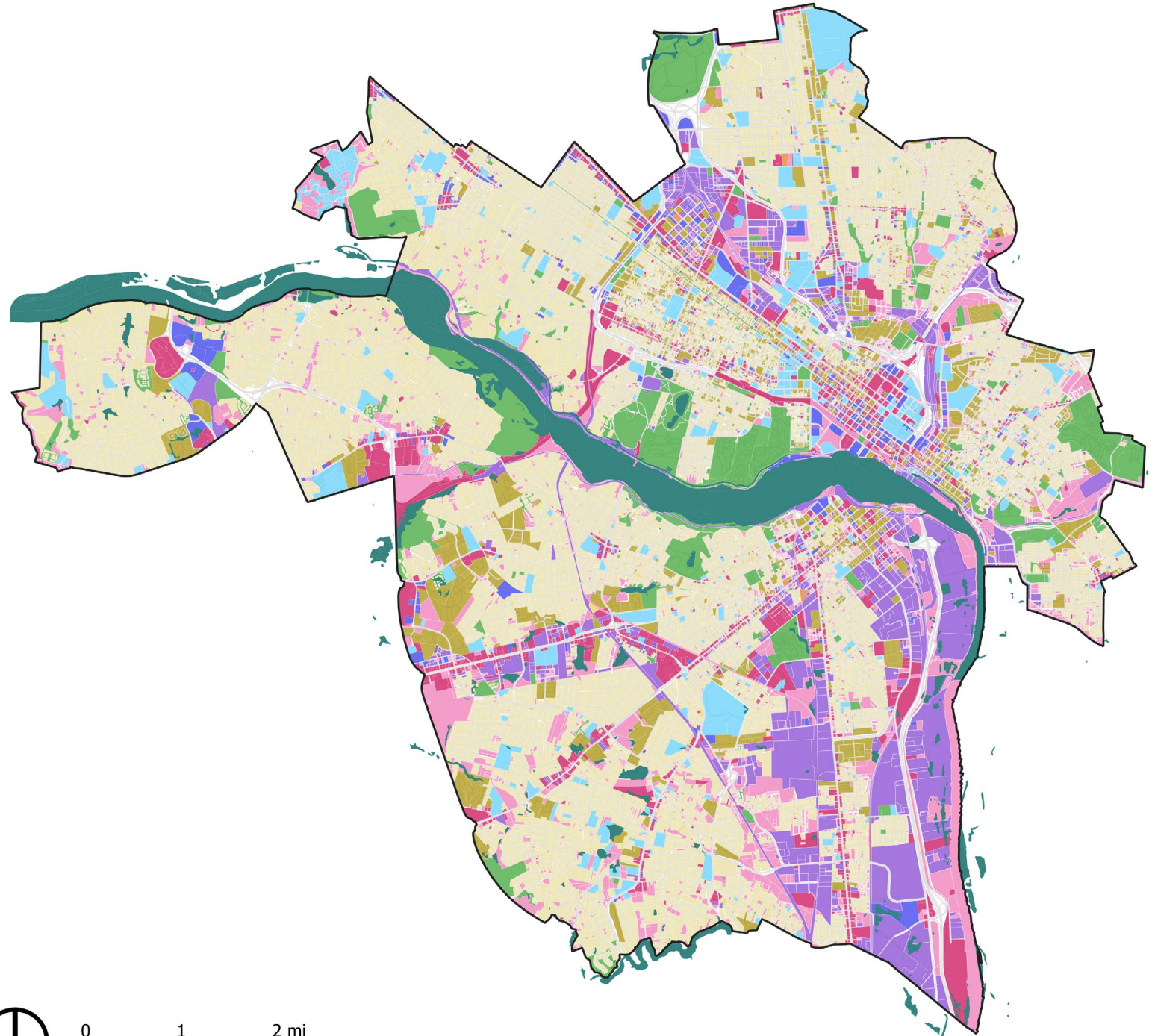# RESIDENTIAL TYPOLOGY

Residential Parcel Typology

- 100+ Units
- 50+ Units
- 25-99 Units
- 10-50 Units
- 5-49 Units
- 1-10 Units
- Multi-Family
- Mixed Use
- Mobile Home Park
- Senior Living
- Four Family
- Three Family
- Two Family
- Two Story
- One Story
- Single Family

0   1   2 mi

Contextual Patterns
EXISTING LAND USE

Land Use

- Single Family
- Duplex
- Multi-Family
- Mixed-Use
- Government
- Institutional
- Commercial
- Industrial
- Office
- Public-Open Space
- Vacant

0   1   2 mi
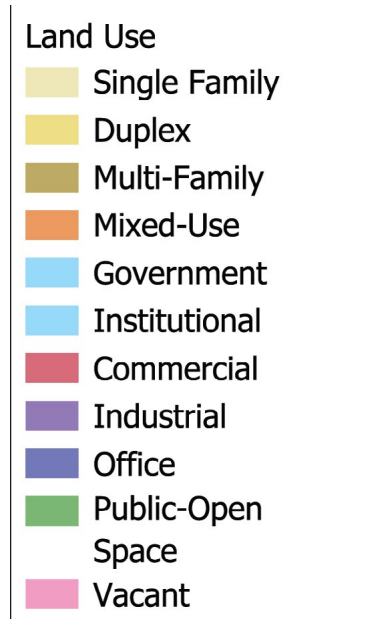
Contextual Patterns
EXISTING ZONING

Zoning Districts

- B-1 Neighborhood Business
- B-2 Community Business
- B-3 General Business
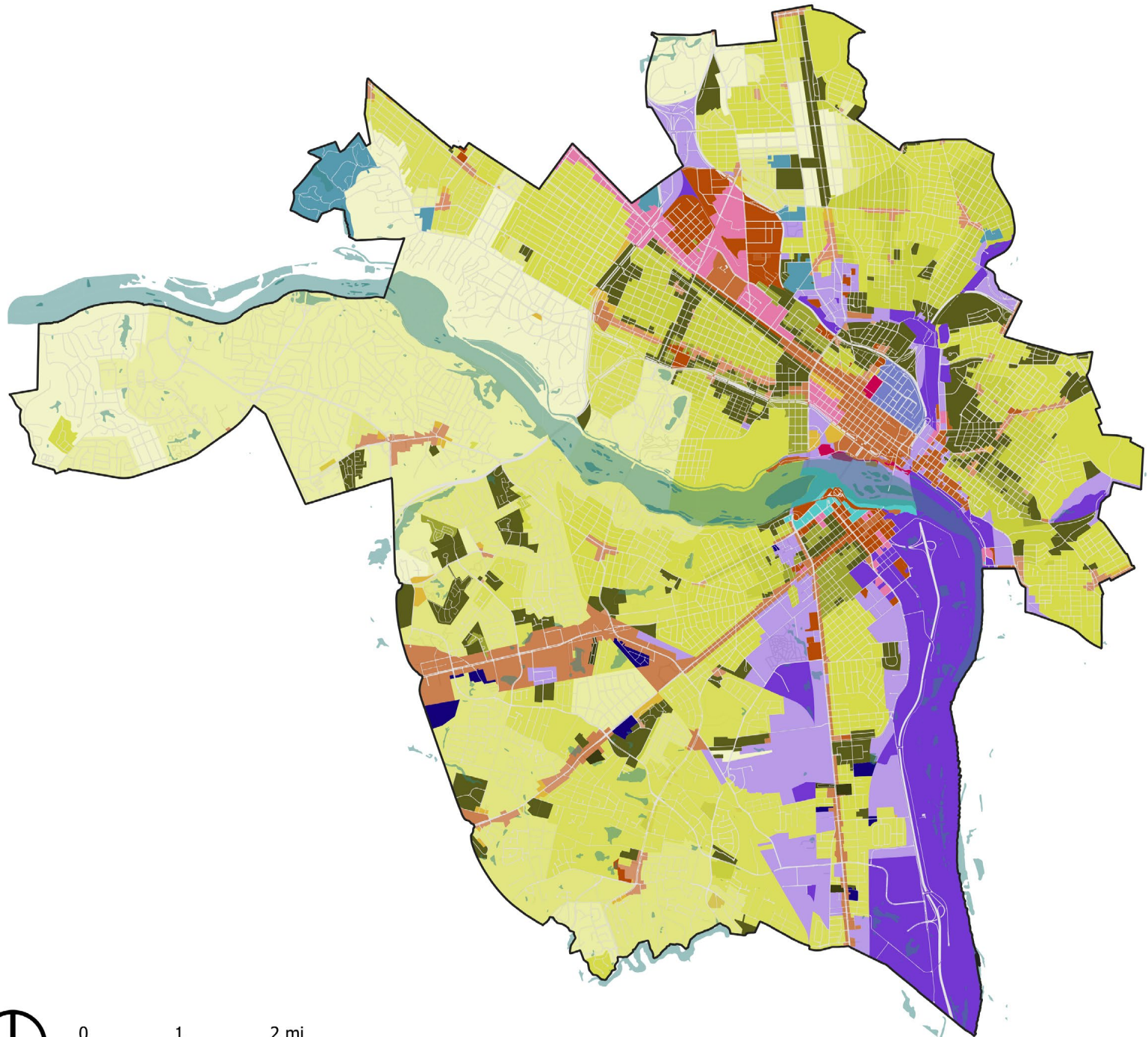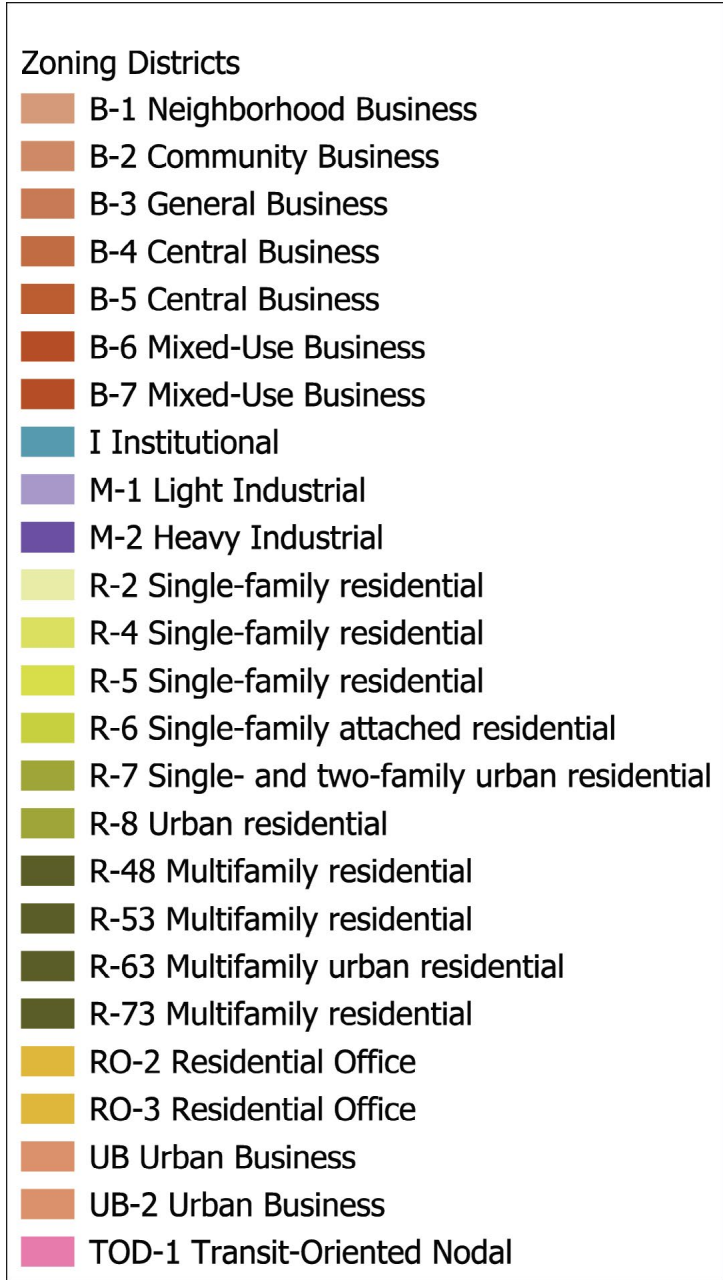- B-4 Central Business
- B-5 Central Business
- B-6 Mixed-Use Business
- B-7 Mixed-Use Business
- I Institutional
- M-1 Light Industrial
- M-2 Heavy Industrial
- R-2 Single-family residential
- R-4 Single-family residential
- R-5 Single-family residential
- R-6 Single-family attached residential
- R-7 Single- and two-family urban residential
- R-8 Urban residential
- R-48 Multifamily residential
- R-53 Multifamily residential
- R-63 Multifamily urban residential
- R-73 Multifamily residential
- RO-2 Residential Office
- RO-3 Residential Office
- UB Urban Business
- UB-2 Urban Business
- TOD-1 Transit-Oriented Nodal

0   1   2 mi

HOW TO TEST FOR NONCONFORMITIES?

Comparing existing conditions with dimensions required by zoning:

PARCEL SIZE MIN

+ Parcel minimums for Single-Family and Two-Family

+ Parcel minimum range for zoning with multiple metrics

Parcels with multi-family buildings were excluded due to lack of comparable data. Parcel minimums are defined by unit count in a case-by-case basis.

BUILDING HEIGHT MAX

+ Comparison of current building height to the allowed height by zoning

+ Height was calculated by allowed stories

UNBUILT BUILDING HEIGHT

+ Comparison of current building heights that are below the potential height allowed by zoning

+ Height was calculated by allowed stories

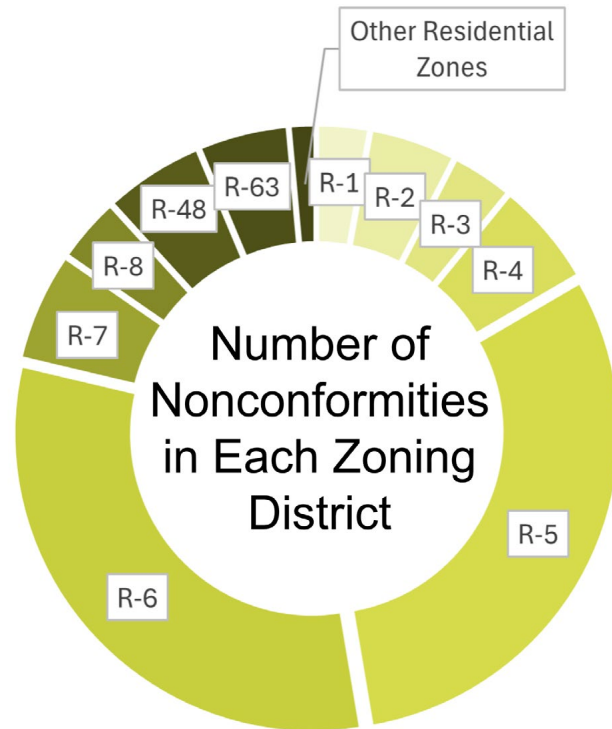**Where does the current zoning not reflect existing patterns of lot size, height, and use?**

Where has the city seen the most special permit requests to bridge those misalignments?
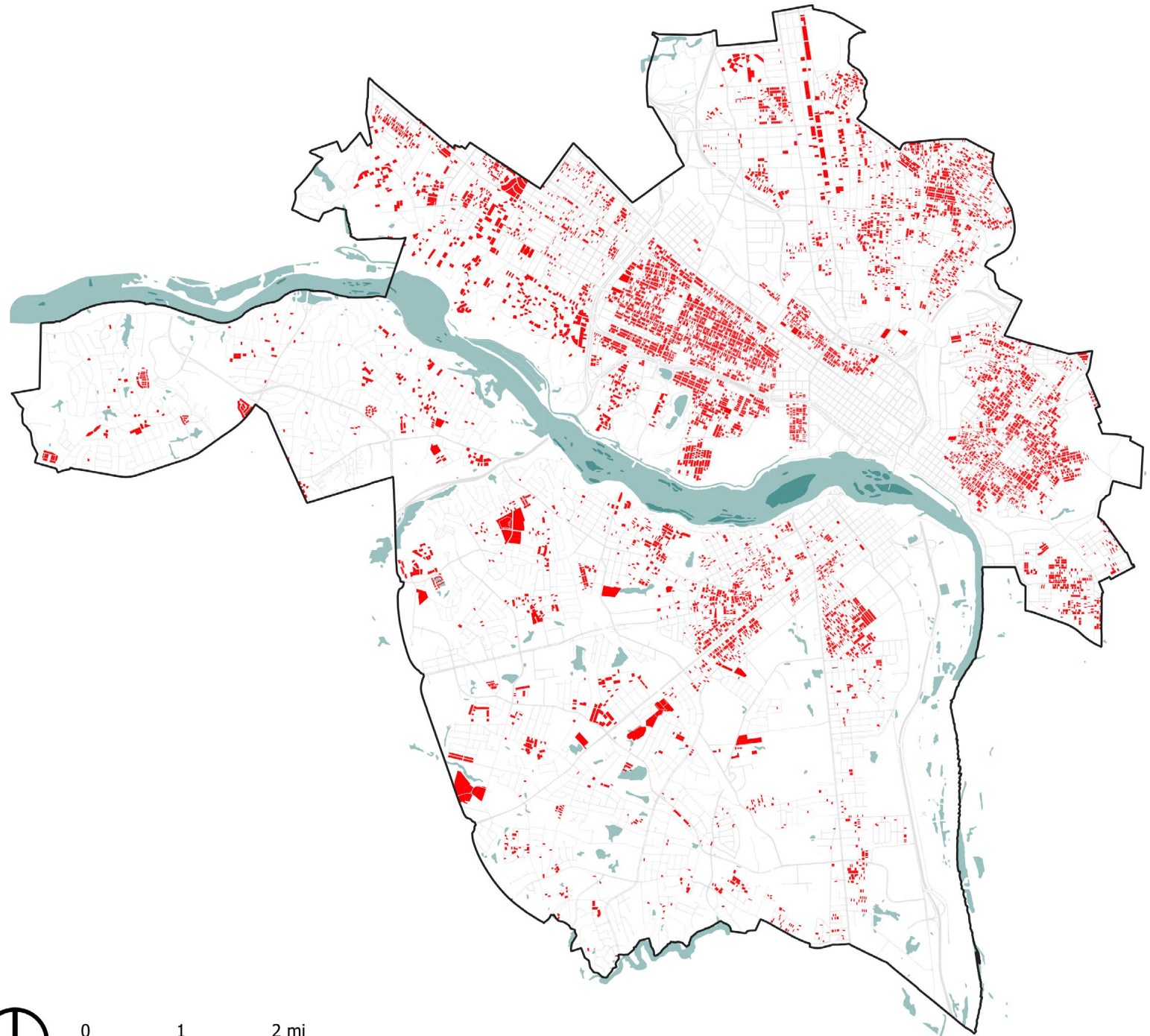
Where can we zoom in to unpack these disconnects?

Mapping nonconformities
PARCEL SIZE

+ **27% of parcels** citywide are smaller than the minimum required by current zoning

+ The two zones with the **most nonconformities** was the **R-5 Single-Family Residential District** and **R-6 Single-Family Attached Residential District**, with **31%** of parcels in each district being nonconforming


Other Residential Zones

R-48 R-63 R-1 R-2 R-3 R-4
R-8
R-7
R-5
R-6

Number of Nonconformities in Each Zoning District

■ Lot Size Nonconformities for Residential Parcels

0   1   2 mi

Mapping nonconformities

BUILDING HEIGHT

+ **Only around 1% of parcels** citywide citywide are nonconforming with zoned building height

+ Most buildings that exceed allowed height are around the downtown area**.**
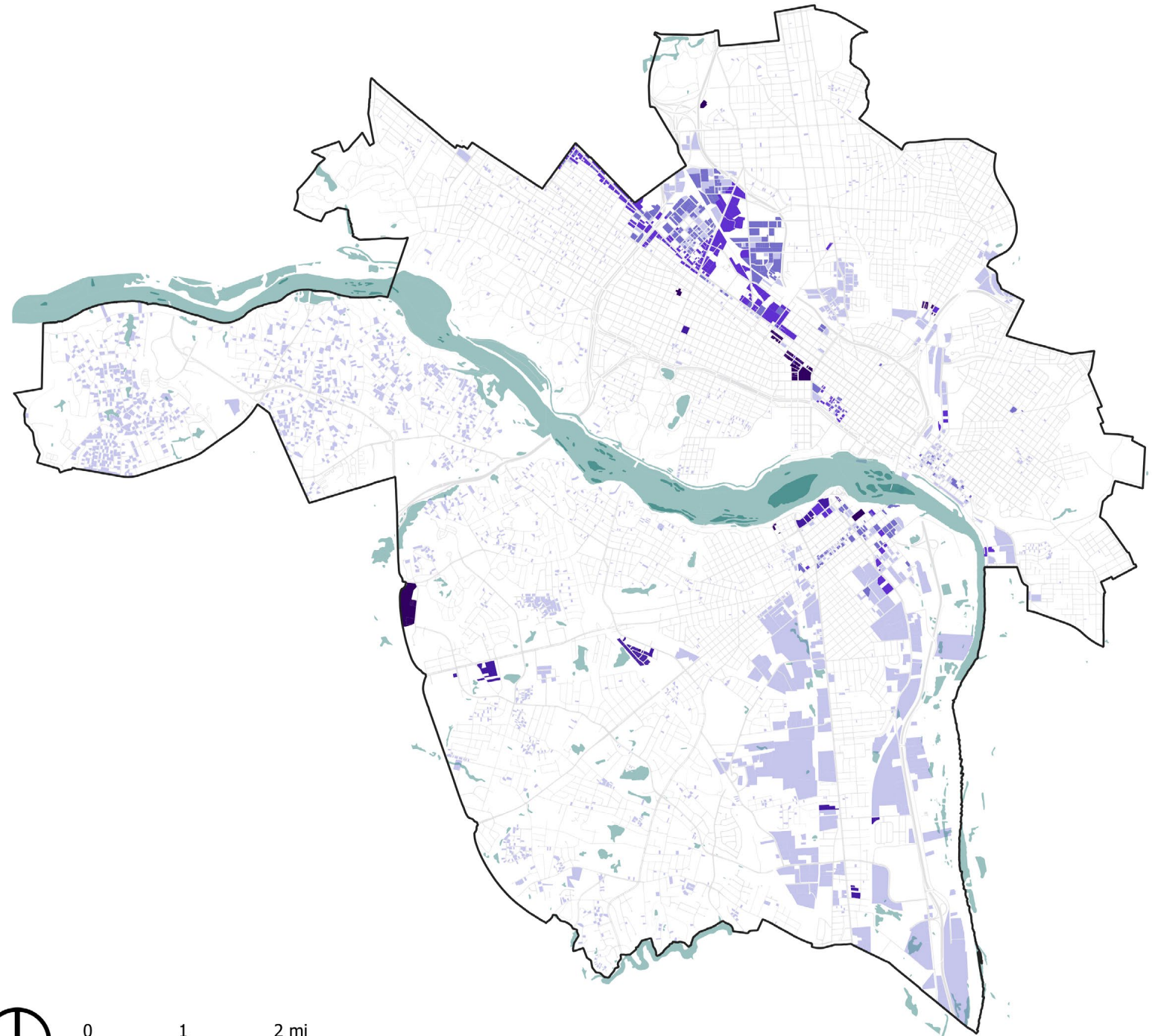
0   1   2 mi
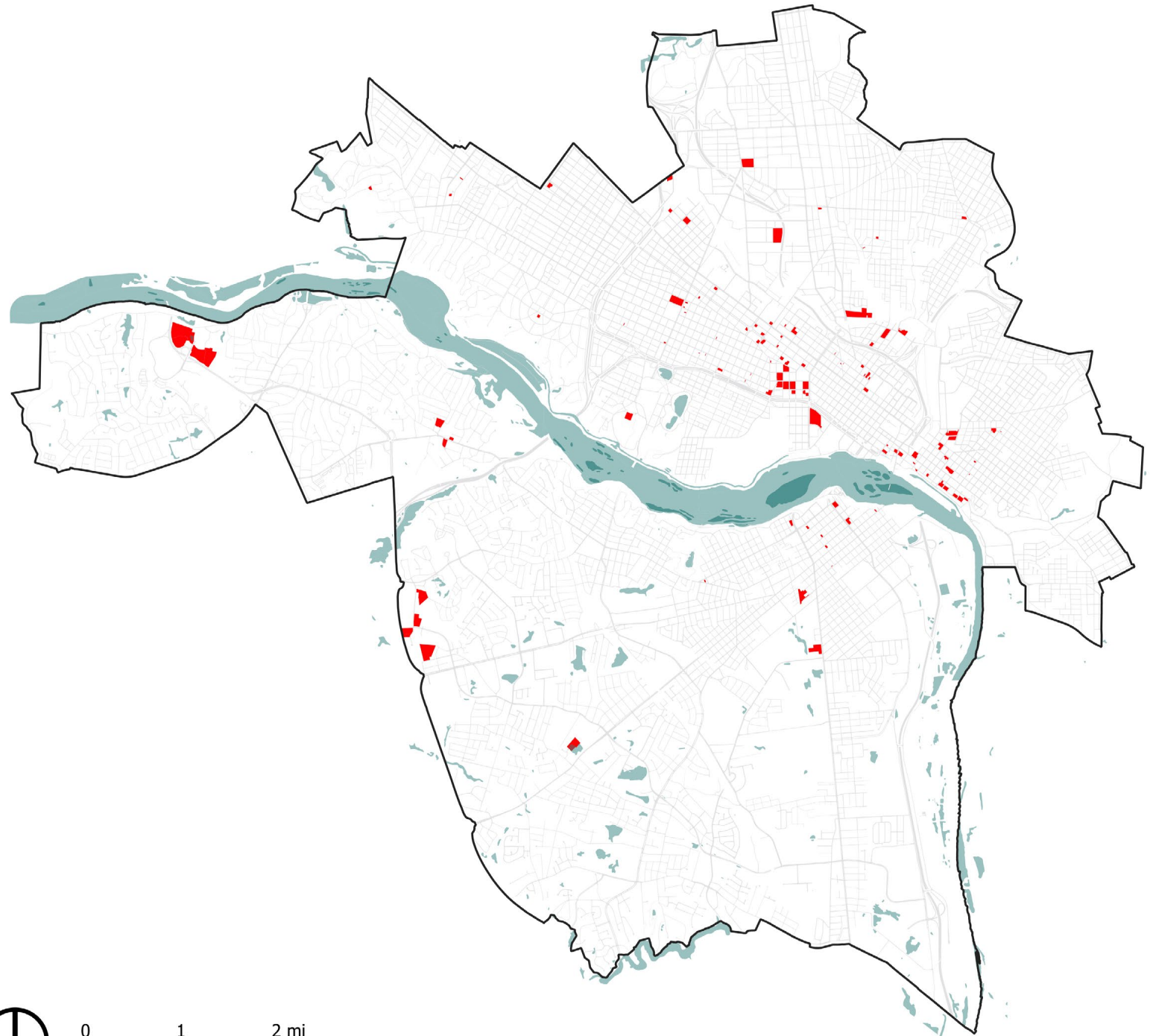
🟥 Building Height Nonconformities

Mapping nonconformities
UNBUILT HEIGHT

+ There are pockets of unbuilt height concentrated at Mixed-use and TOD districts, and at industrial zones


Three or more stories of unbuilt height

- ■ 12 to 14 stories
- ■ 9 to 12 stories
- ■ 6 to 9 stories
- ■ 4 to 6 stories
- ■ 3 to 4 stories

0   1   2 mi

Mapping nonconformities
SPECIAL USE PERMITS

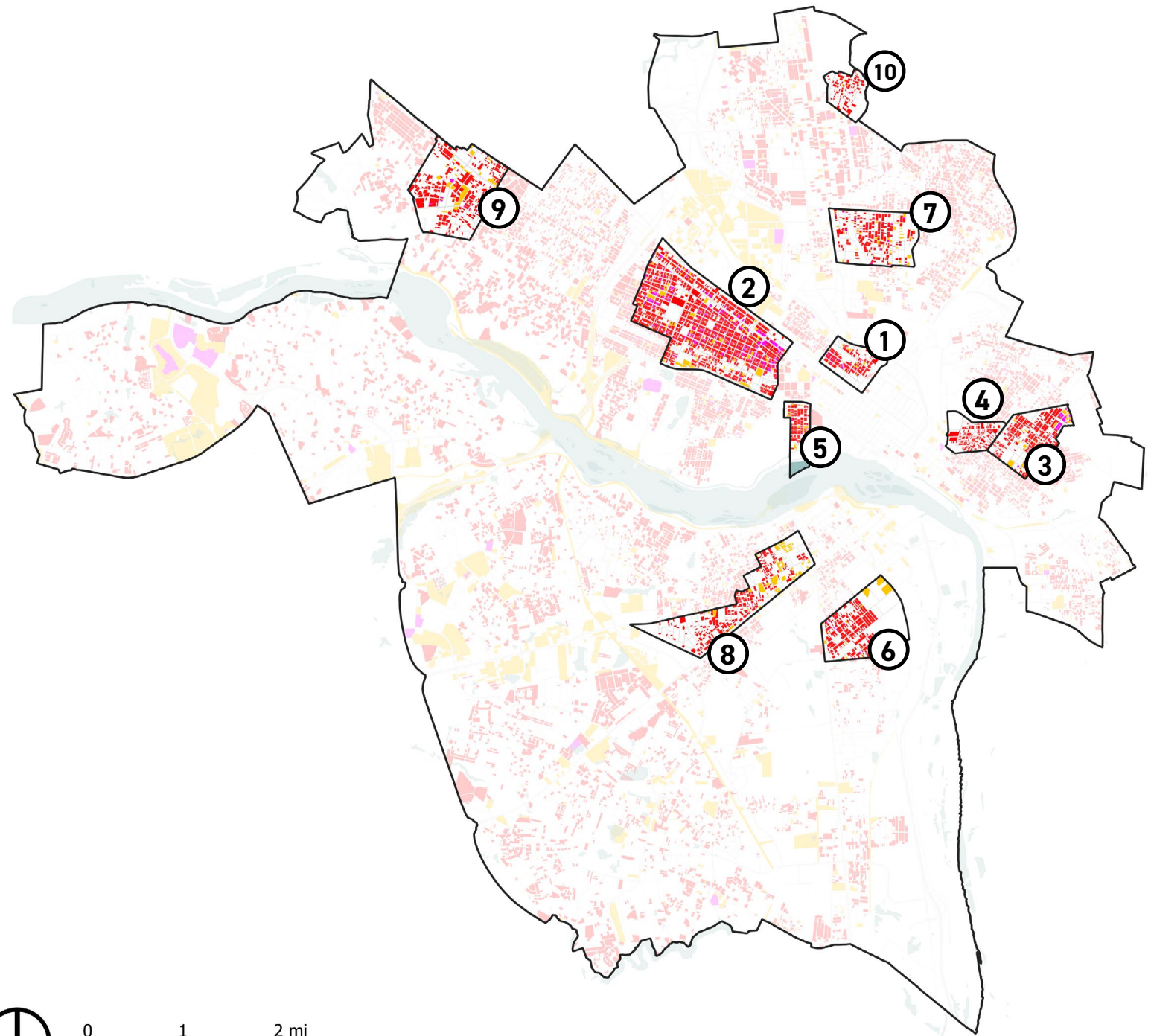| Neighborhood	SUP Count
The Fan	151
The Museum District	66
Church Hill	60
Church Hill North	52
Three Chopt	47
Jackson Ward	42
Monroe Ward	42
Carytown	37
Shockoe Bottom	33
Carver	32
Westhampton	31
Scott's Addition	29
Swansboro	29
Manchester	28
Northern Barton Heights	27
Ginter Park	26
Union Hill	21
VCU	21
Oregon Hill	18
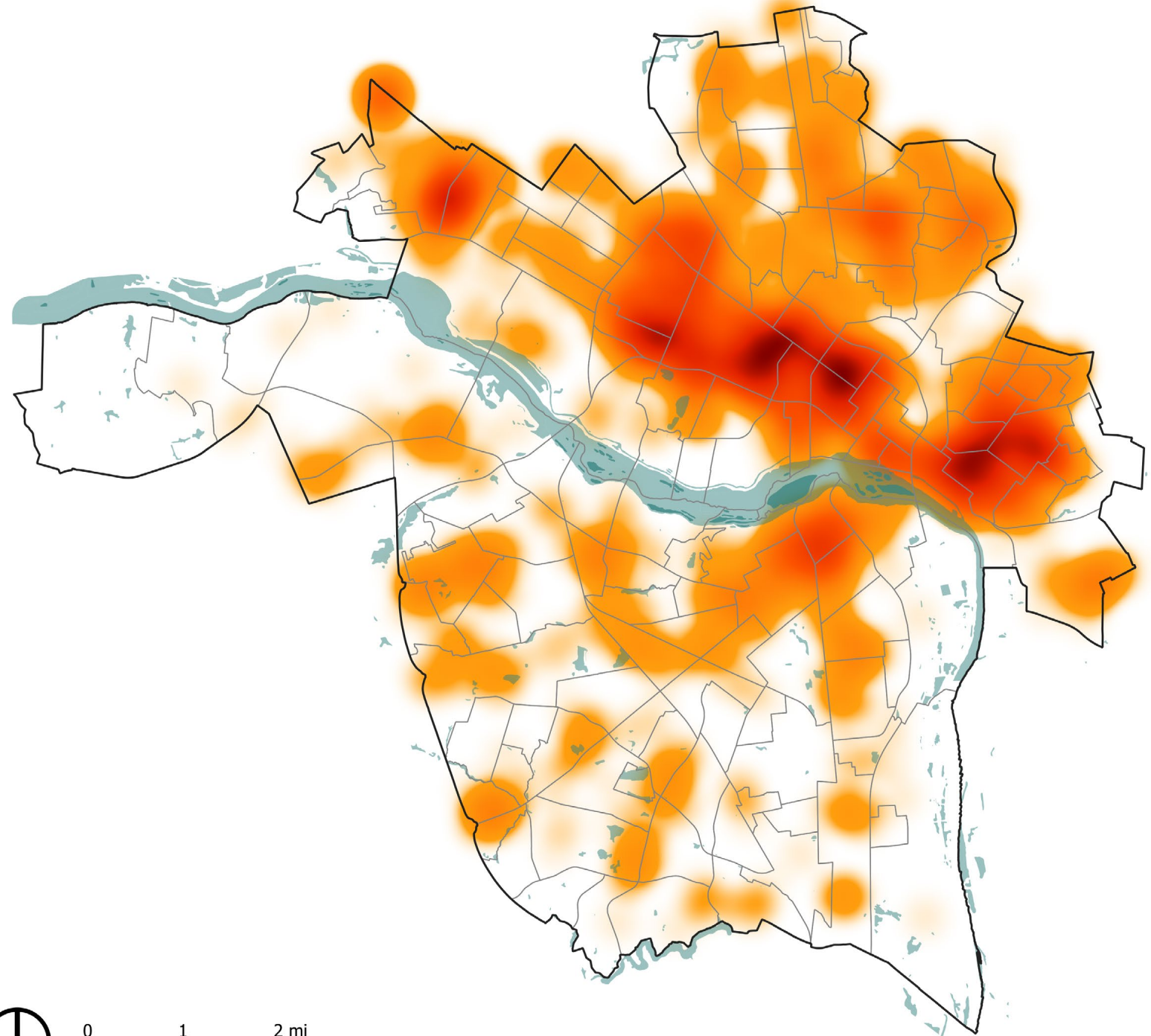
Concentration of SUPs

0   1   2 mi

SPECIAL USE PERMITS

Representative Neighborhoods	Dominant Zoning
1. Jackson Ward	R-6 / R-63
2. The Fan / Museum District	R-6
3. Church Hill North	R-5 / R-6
4. Union Hill	R-63
5. Oregon Hill	R-7
6. Oak Grove	R-5
7. Northern Barton Heights	R-5
8. Swansboro / Swansboro West	R-5
9. Three Chopt / Westhampton	R-4
10. Washington Park	R-5

Nonconforming Parcels by Use and Form

- Use
- Form
- Both

0   1   2 mi

COMPARISON MATRIX

	Nonconformities (form and use)	Special Use Permits	Land Use	Residential Typology	Historic Pattern	Urban Fabric Pattern
JACKSON WARD						
THE FAN / MUSEUM DISTRICT						
CHURCH HILL NORTH						
UNION HILL						
OREGON HILL						

COMPARISON MATRIX

	Nonconformities (form and use)	Special Use Permits	Land Use	Residential Typology	Historic Pattern	Urban Fabric Pattern
OAK GROVE						
NORTHERN BARTON HEIGHTS						
SWANSBORO / SWANSBORO WEST						
THREE CHOPT / WESTHAMPTON						
WASHINGTON PARK						