

APPENDICES.



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**CITY OF SEATTLE**  
Office of Planning & Community Development

# — CITYWIDE IMPLEMENTATION OF MANDATORY HOUSING AFFORDABILITY (MHA)

## Draft Environmental Impact Statement

June 8, 2017







# APPENDIX A



## CITY OF SEATTLE GROWTH AND EQUITY ANALYSIS.

Available online at:

[https://www.seattle.gov/DPD/cs/groups/pan/@pan/documents/web\\_informational/p2427615.pdf](https://www.seattle.gov/DPD/cs/groups/pan/@pan/documents/web_informational/p2427615.pdf)



MHA Draft EIS  
June 2017

# Seattle 2035

## Growth and Equity

Analyzing Impacts on Displacement and Opportunity  
Related to Seattle's Growth Strategy



May 2016



**Seattle**  
Office of Planning &  
Community Development





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**above** Seattle Department of Neighborhoods

# Growth and Equity

## Analyzing Impacts on Displacement and Opportunity Related to Seattle's Growth Strategy

### Introduction

The City of Seattle is in the process of updating its Comprehensive Plan, the document that guides how the City will manage the 70,000 housing units and 115,000 new jobs expected to be added in Seattle over the next 20 years, as well as establish what kind of city we want to be. The City has prepared an Environmental Impact Statement (EIS) to evaluate four alternative ways for distributing that amount of growth throughout the city. The EIS informs decisions about selecting a preferred growth pattern and identify methods for addressing undesired impacts. This document is a companion to that EIS, providing analysis of some of the ways that the growth strategies could affect the city's marginalized populations.

Social equity has been one of the core values guiding the Comprehensive Plan since its adoption in 1994. The City's Race and Social Justice Initiative (RSJI) began in 2005. Its mission is to overcome institutional racism by changing City policies and practices. Its vision is a future where:

- Race does not predict how much a person earns or their chance of being homeless or going to prison;
- Every schoolchild, regardless of language and cultural differences, receives a quality education and feels safe and included; and
- African Americans, Latinos, and Native Americans can expect to live as long as white people.

In 2009, the City Council adopted [Resolution 31164](#) directing City departments to focus on achieving racial equity in the community in specific focus areas, including equitable development. In 2014, Mayor Murray issued Executive Order 2014-02 reaffirming the City's commitment to equitable development.

In 2015, the City Council unanimously adopted the Mayor's [Resolution 31577](#) confirming that "the City of Seattle's core value of race and social equity is one of the foundations on which the Comprehensive Plan is built." This resolution advances the goal of reducing racial and social disparities through the City's capital and program investments. The Office of Planning and Community Development (OPCD) and the RSJI Core Team are partnering to implement the resolution's directives by including new policies directly related to achieving equity through growth, developing equity measures of growth, and conducting this equity analysis of the growth alternatives.

*Social equity has been one of the **core values** guiding the Comprehensive Plan since its adoption in 1994.*

The objective of the Growth & Equity Analysis is to inform elected officials and the public about:

- Potential future displacement impacts of the recommended Growth Strategy on marginalized populations; and
- Strategies for mitigating identified impacts and increasing access to opportunity for marginalized populations.

## Key Terms

**Marginalized populations:** Persons and communities of color, immigrants and refugees, English language learners, and those experiencing poverty. These communities are systematically blocked from or denied full access to various rights, opportunities, and resources that are normally available to members of other groups and are fundamental to social integration within that particular group (e.g., housing, employment, healthcare, civic engagement, democratic participation, and due process).

**Access to opportunity:** Living within walking distance or with transit access to services, employment opportunities, amenities, and other key determinants of social, economic, and physical well-being.

**Displacement:** The involuntary relocation of current residents or businesses from their current residence. This is a different phenomenon than when property owners voluntarily sell their interests to capture an increase in value. This analysis addresses both physical (direct) and economic (indirect) displacement. Physical displacement is the result of eviction, acquisition, rehabilitation, or demolition of property or the expiration of covenants on rent- or income-restricted housing. Economic displacement occurs when residents and businesses can no longer afford escalating rents or property taxes. Cultural displacement occurs when people choose to move because their neighbors and culturally related businesses have left the area.

**Equitable Development:** Public and private investments, programs, and policies in neighborhoods taking into account past history and current conditions to meet the needs of marginalized populations and to reduce disparities so that quality of life outcomes such as access to quality education, living wage employment, healthy environment, affordable housing and transportation, are equitably distributed for the people currently living and working here, as well as for new people moving in.

This analysis distinguishes displacement from a related phenomenon, gentrification. Gentrification is a broad pattern of neighborhood change typically characterized by above-average increases in household income, educational attainment, and home values and/or rents. These changes can contribute to displacement, but they can also benefit existing residents. Displacement of existing residents can also occur without gentrification. Displacement and gentrification are the result of a complex set of social, economic, and market forces at both the local and regional scale.

This analysis recognizes that people live multiple and layered identities. All historically marginalized groups — people of color, LGBTQ people, women, people with disabilities, low-income households, to name a few — experience systemic inequity. Many people and communities, such as lesbians of color, live at the intersection of these identities and experience multiple inequities at once. It is important to respond to the intersecting ways that barriers limit opportunities for people to reach their full potential. By focusing on race and racism, the City of Seattle recognizes that we have the ability to impact all communities. This focus is not based on the intent to create a ranking of oppressions (i.e. a belief that racism is “worse” than other forms of oppression). For an equitable society to come into being, government needs to challenge the way racism is used as a divisive issue that keeps communities from coming together to work for change. The institutional and structural approaches to addressing racial inequities can and will be applied for the benefit of other marginalized groups.

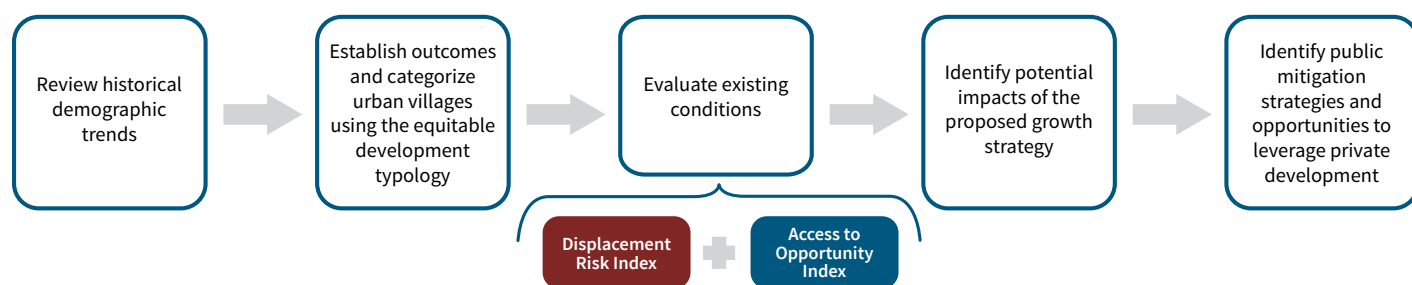
## Overarching Analytical Framework

The Growth & Equity Analysis looks at both people and places. It combines a traditional EIS approach of analyzing potential impacts and identifying mitigation with the RSJI Racial Equity Toolkit (RET), which assesses the benefits and burdens of policies, programs, and investments for communities of color. Per the RSJI RET, the analysis includes a thorough description of desired equitable outcomes. In addition to identifying impacts and mitigation associated with the recommended Growth Strategy in the Comprehensive Plan, the Growth & Equity Analysis evaluates the opportunities for equitable development that the Growth Strategy presents or misses.

The analysis seeks to answer the following questions:

- Is the intensity of expected growth in particular urban centers and villages likely to have an impact on displacement of marginalized populations?
- Is the intensity of expected growth in particular urban centers and villages likely to have an impact on marginalized populations' access to key determinants of physical, social, and economic well-being?
- What strategies and levels of investment are necessary to mitigate the impacts of expected growth and to maximize opportunities for equitable outcomes?

**Figure 1** Visual representation of the overarching analytical framework





## Historical Context

Critical to crafting policy and investment strategies to achieve equity is an understanding of existing disparities and their historical origins.

Throughout Seattle's history, certain populations and neighborhoods prospered at the expense of others. Redlining and racially restrictive covenants limited where racially and culturally distinct communities could live and where banks provided home mortgages. Public subsidies and discriminatory real estate lending and marketing practices gave white households substantial wealth in the form of home equity. Racialized housing patterns and investment practices contributed to the wealth and poverty of households and neighborhoods for multiple generations.

These place-based policies and investments also solidified social structures and cultural identities. Community-based organizations arose to meet the needs of specific cultural groups and neighborhoods. This continues today as immigrants and refugees settle in the city and look to maintain their cultures alongside mainstream American culture.

Both the private and public sectors helped solidify the systemic structure of wealth and poverty in Seattle, and both have roles in influencing growth to achieve equitable outcomes. The private sector builds most of the housing and builds and operates most of the businesses in Seattle, primarily in response to market demand. The public sector's investments and regulations guide, serve, and control development to achieve a variety of goals including an equitable distribution of the benefits and burdens of growth. Supportive public policy and public investments can create community stability and economic mobility opportunities. Public investments can meet the needs of marginalized populations when the market will not and can help them benefit from future growth.

*Both the private and public sectors helped solidify the systemic structure of wealth and poverty in Seattle, and both have roles in influencing growth to achieve equitable outcomes.*

## Demographic Trends

Before evaluating existing conditions and future impacts, it is helpful to take note of some relevant historical trends and at least one example of displacement in Seattle.

### DISPLACEMENT OF THE BLACK COMMUNITY IN SEATTLE'S CENTRAL DISTRICT

Though displacement is difficult to track, demographic changes at the neighborhood level suggest when and where it has occurred. A study of the Central District found that in 1990 "there were nearly three times as many black as white residents in the area, but by 2000, the number of white residents surpassed the number of blacks for the first time in 30 years."<sup>1</sup> Given the net decline of 4,407 black residents in Seattle (2,405 from the Central District alone) and the doubling and quadrupling of the black population in Renton and Kent respectively between 1990-2000, the study concluded that "African Americans are moving southeast into Seattle's Rainier Valley or beyond into Renton and other inner suburbs." White residents in the Central District doubled during this period from 2,508 to 5,191.

<sup>1</sup> Henry W. McGee, Jr. Seattle's Central District, 1990-2006: Integration or Displacement. Urban Lawyer, Vol. 39, p. 2, Spring 2007.



Increases in educational attainment and income accompanied this racial demographic inversion. Increases in renter housing cost burden and a dramatic increase in home values were also documented by this report. For example a 1,270 square-foot single family, three bedroom one bathroom home, was assessed by the county at a value of \$5,000 in 1960, \$190,000 in 2001, \$262,000 in 2003, and \$355,000 in 2005.

The report does not determine whether this relocation of African Americans was voluntary or involuntary. However, a closer look at racial trends shows that groups least likely to have the financial stability to absorb steep increases in the cost of housing experienced the sharpest declines; specifically black renters, low-income black households, and young black residents. Black renter-occupied households declined by 26% (460 households) while black owner-occupied households declined by 19% (311 households). There were 965 fewer black households reporting less than \$25,000 in annual income in 2000 than in 1990. This is in contrast to an almost identical increase of 968 white households reporting more than \$75,000 in annual income in 2000 than in 1990. While the white population under 39 years old increased by 2,150, the black population under 39 years of age decreased by 2,070.

**Seattle's population is more diverse than in 1990.** Decennial Census figures indicate that persons of color increased from about 26 percent of Seattle's population in 1990 to 34 percent in 2010. In King County as a whole, the population of color grew much more dramatically over the same period, from 15 percent to 31 percent.

**Seattle has become a more international city.** The percentage of Seattle residents born outside the United States increased from roughly 13 percent in 1990 to 18 percent in 2010.

**People of color are more likely to live inside an urban center or village.** Census data show that since 1990 the population of color has been about 10 percent higher inside urban centers and villages than outside. In 2010, persons of color were 41 percent of the population in urban centers and villages compared to 30 percent of the population outside.

**People of color make up a growing share of the population in urban centers and villages as well as in the city as a whole.** These increases have been primarily due to growing shares of Asian and Hispanic or Latino populations. While the Black or African American population in urban centers or villages was relatively constant between 1990 (20,048) and 2010 (21,802), it decreased from 14 percent to 11 percent of the total population within urban centers and villages. In Seattle as a whole, the Black/African American population declined in both relative and absolute terms from 51,948 or 10 percent of the population in 1990 to 48,316 or 8 percent in 2010. In King County as a whole, the Black/African American population grew from 5.1 percent to 6.2 percent from 1990 to 2010.

**Table 1** Urban centers and villages in Seattle with a decrease in population by race, 1990 to 2010

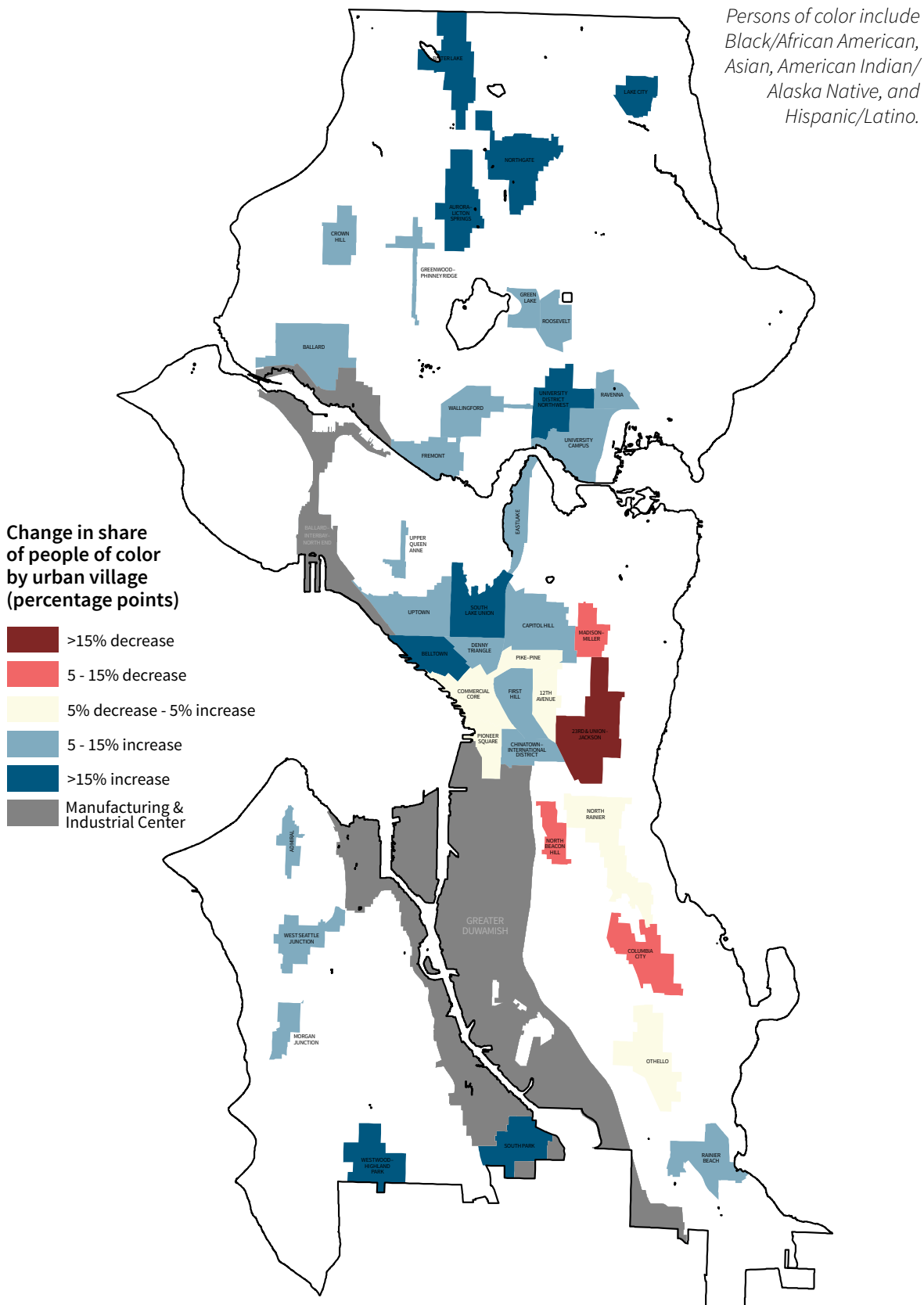
	White	Black or African American	Asian	American Indian or Alaska Native	Hispanic or Latino
Number of urban centers or villages with an absolute decrease in population (out of 30 total)	3	8	1	26	0

May 2016

Three urban villages where the Black or African American population decreased substantially both in absolute and relative terms are 23rd & Union-Jackson, Columbia City, and Madison-Miller. In 1990, Black or African American people were between 43 percent and 66 percent of the population in these urban villages; by 2010, their share had fallen to between 16 percent and 31 percent. At the same time, several urban centers and villages experienced significant increases in the share of people of color between 1990 and 2010. These include Northgate (25 percent to 48 percent), Lake City (25 percent to 51 percent), Aurora-Licton Springs (22 percent to 39 percent), South Park (37 percent to 68 percent), and Westwood-Highland Park (40 percent to 61 percent). South Lake Union, where the total population more than tripled over this 20-year period, also saw a large increase in the share of people of color (14 percent to 33 percent).

[Attachment A](#) provides population counts by race for each urban center and village in 1990 and 2010. Figure 2 on the following page illustrates the change in the percentage of the population of color between 1990 and 2010 in each urban center and village.

**Figure 2** Urban centers and villages in Seattle with a decrease in population by race, 1990 to 2010



## An Equitable Development Framework for Growth

This section defines equitable outcomes and introduces a framework for mitigating and leveraging growth to achieve these outcomes.

### Defining an Equitable City

Establishing an equitable outcome and strategies to reduce disparities are a critical component of the Racial Equity Toolkit. The following is the vision for an equitable Seattle

*Equitable growth will be achieved when Seattle is a city with people of diverse cultures, races and incomes and all people are thriving and able to achieve their full potential regardless of race or means. Seattle's neighborhoods will be diverse and will include the community anchors, supports, goods, services, and amenities people need to lead healthy lives and flourish.<sup>2</sup>*

All marginalized people can attain those resources, opportunities, and outcomes that improve their quality of life and enable them to reach their full potential. The city has a collective responsibility to address the history of inequities in existing systems and their ongoing impacts in Seattle communities, leveraging collective resources to create communities of opportunity for everyone, regardless of race or means.

Population and employment growth is a dynamic force that introduces change into the urban environment and can help transform Seattle into a more equitable city. Influencing the locations and types of development can contribute to achieving equitable outcomes.

In an equitable approach to growth, the City views all policy, programs, and investments through a race and social equity lens. This approach would manage growth to minimize displacement of marginalized populations and increase their access to opportunity.

### An Equitable Development Framework

A **framework to achieve racial and social equity** identifies two goals: strong communities and strong people

A framework to achieve racial and social equity identifies two goals: (1) strong communities and people and (2) great places with equitable access. This means community stability and resilience in the face of displacement pressures and great neighborhoods throughout the city that provide equitable access to all.

In Seattle's current context of rapid growth and escalating cost of living, market forces alone will not be able to produce equitable growth. Displacement risk exists for marginalized populations and will worsen without government action to create the conditions for community stability and economic mobility. A scan of key determinants of social, physical, and economic well-being indicates they are not equitably distributed and that many already do not have the means to access what is necessary to flourish. This limited access to resources for some will persist without government intervention to fill gaps and leverage market strength to create equitable access to all neighborhoods.

Achieving equitable growth will require:

- Implementation of programs and investments that are designed to create community stability and economic mobility for current residents in areas where new development could lead to displacement and where marginalized populations currently lack access to opportunity.
- Leveraging private-sector development to increase the supply and variety of housing options to create equitable access to neighborhoods that already have key determinants of well-being.
- A public investment strategy that reflects need rather than a distribution based solely on numbers of people or households.

Mitigation measures described in this analysis were derived from the Puget Sound Regional Equity Network's Principles of Equitable Development. Seattle and other public institutions have some of the tools to operationalize this equitable development framework. However, new tools are necessary to fill gaps. Detailed sub-measures are provided in the Equitable Development Implementation Plan.

The measures are designed to mitigate harm and improve outcomes for marginalized populations. They operationalize many of the City's "goals and policies for capital investments and the provision of public services...to eliminate racial and social disparities."<sup>3</sup> This requires coordinating and targeting City policies and investments first in neighborhoods with the highest displacement risk and/or the lowest access to opportunity.

A mitigation strategy to distribute resources equitably, rather than equally, is necessary to produce equitable outcomes. Though targeted to specific neighborhoods with the greatest need, these measures will benefit all neighborhoods throughout the city. Similarly, some measures should target specific marginalized populations with the greatest disparities, such as unemployment among Black youth. These measures can and will be deployed to also improve outcomes for the benefit of other marginalized populations.

**Goal 1: Strong communities and people.** Community stability and economic mobility in the face of displacement pressures.

**Strategy 1: Advance economic mobility and opportunity.** Promote economic opportunities for marginalized populations and enhance community cultural anchors. Provide access to quality education, training, and living-wage career path jobs for marginalized populations.

**Strategy 2: Prevent residential, commercial, and cultural displacement.** Enact policies and programs that allow marginalized populations, businesses, and community organizations to stay in their neighborhoods.

**Strategy 3: Build on local cultural assets.** Respect local community character, cultural diversity, and values. Preserve and strengthen cultural communities and build the capacity of their leaders, organizations, and coalitions to have greater self-determination.

**Strategy 4: Promote transportation mobility and connectivity.** Prioritize investment in effective and affordable transportation that supports transit-dependent communities and provides equitable access to key determinants of well-being.

**Goal 2: Great places with equitable access.** A city with an equitable distribution of great neighborhoods full of strong amenities that provide equitable access throughout.

**Strategy 5: Develop healthy and safe neighborhoods.** Create neighborhoods that enhance community health through access to public amenities (schools, parks, open spaces, complete streets, health care and other services), healthy affordable and culturally relevant food, and safe and inviting environments for everyone.

**Strategy 6: Equitable access to all neighborhoods.** Leverage private redevelopment to expand the supply and variety of housing and employment choices, fill gaps in amenities, and create equitable access to neighborhoods with high access to opportunity.

## Existing Conditions

### Data and Analytical Framework for Equity Analysis

The Growth & Equity Analysis combines data about demographics, economic conditions, and the built environment. As shown in Figure 3, the analysis integrates these indicators into composite indices of displacement risk and access to opportunity. The displacement risk index identifies areas of Seattle where displacement of marginalized populations is more likely to occur. The access to opportunity index identifies disparities in marginalized populations' access to some key determinants of well-being.

**Figure 3** Indicators combined to create a composite index of displacement

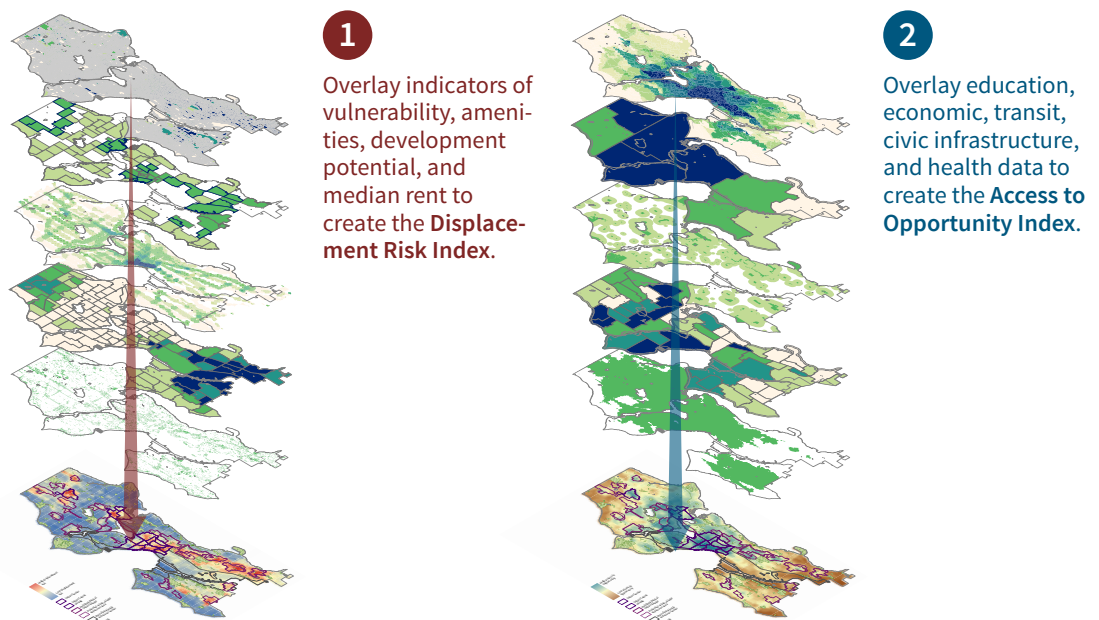


Table 3 and Table 4 describe the data used in this analytical model. The maps that follow illustrate the variation in displacement risk and access to opportunity across the city.

**Table 3** Displacement Risk Index indicators

Indicator	Description	Source
1 People of color	Percentage of the population that is a race other than non-Hispanic White	2010 Census
2 Linguistic isolation	Percentage of households in which no one 14 and over speaks English only or no one 14 and over speaks both a language other than English and English "very well"	2008–2012 American Community Survey
3 Educational attainment	Percentage of the population 25 years or older who lack a Bachelor's degree	2008–2012 American Community Survey
4 Housing tenancy	Percentage of households that are renters	2010 Census
5 Housing cost-burdened households	Percentage of households with income below 80% of area median income (AMI) that are cost burdened (paying > 30% of income on housing)	Consolidated Housing Affordability Strategy (CHAS) (based on 2007–2011 American Community Survey)
Severely housing cost-burdened households	Percentage of households with income below 80% of area median income (AMI) that are or severely cost burdened (> 50% of income on housing)	
6 Household income	Percentage of the population whose income is below 200% of poverty level	2008–2012 American Community Survey
7 Proximity to transit	Number of unique transit trips within a quarter-mile walking distance	King County Metro General Transit Feed Specification (GTFS)
8 Proximity to current or future Link light rail and streetcar	Location near a current and future light rail stations and streetcar stops, measured by walking distance	Sound Transit
9 Proximity to core businesses	Location within a certain distance of supermarket/grocery (0.5 mi), pharmacy (0.25 mi), and restaurant/café/diner (0.25 mi)	City of Seattle
10 Proximity to civic infrastructure	Location within a certain distance of a public or private school (0.25 mi), community center (0.25 mi) or park of at least 0.25 acre (distance varies based on park size), or library (0.5 mi)	ReferenceUSA
11 Proximity to high-income neighborhood	Census tracts that (a) have a median household income < 80% of AMI and (b) about a tract where median household income is > 120% of AMI	King County GIS
12 Proximity to job center	Travel time to designated King County Urban Centers and Manufacturing/Industrial Centers	City of Seattle
13 Development capacity	Parcels that allow residential uses identified as likely to redevelop in City development capacity model	2008–2012 American Community Survey
14 Median rent	Ratio of rent per net rentable square foot by tract to the Seattle average for rent per net rentable square foot	Dupre + Scott (Spring 2016)

**Table 4** Access to Opportunity Index indicators

Indicator	Description	Source
<b>1</b>	Elementary school math and reading proficiency scores by attendance area	Washington Office of Superintendent of Public Instruction (OSPI)
<b>School performance</b>		
<b>2</b>	Middle school math and reading proficiency scores by attendance area	
<b>3</b>	Graduation rate	High school graduation rate by attendance area
<b>4</b>	Access to college or university	Location within 30 minutes of a college or university by transit (bus and/or light rail)
<b>5</b>	Proximity to a library	Location within quarter-mile walking distance to a library
<b>6</b>	Proximity to employment	Number of (by census tract centroid) jobs accessible in 30 minutes by transit
<b>7</b>	Property appreciation	Change in median home value 2000–2013
<b>8</b>	Proximity to transit	Number of unique transit trips within 0.25-mile walking distance
<b>9</b>	Proximity to current or future Link light rail and streetcar	Location near a current and future light rail stations and streetcar stops, measured by walking distance
<b>10</b>	Proximity to a community center	Location near a City-owned and City-operated community center, measured by walking distance (Proximity determined by the size of the park. Larger parks have larger service areas.)
<b>11</b>	Proximity to a park	Location near a public open space, measured by as-the-crow-flies distance
<b>12</b>	Sidewalk completeness	Percentage of block faces within a quarter mile missing a sidewalk (excluding those SDOT has not identified should be improved)
<b>13</b>	Proximity to a health care facility	Location near a health care facility, measured by walking distance
<b>14</b>	Proximity to a location that sells produce	Location near a supermarket, produce stand, or farmers market, measured by walking distance



## Limitations

The indices and maps in the Growth & Equity Analysis should be used with caution. This is a first attempt to understand equity effects of broad City policies, and results of the analysis depend on the selection and weighting of indicators.

**All data sources have limitations.** These indices are high-level assessments that can inform (but should not predetermine) decisions about growth, investment, and policy. Greater historical and qualitative context is needed to avoid simplistic conclusions. Engagement with those most affected by the equity issues evaluated here should complement this analysis and inform policy makers' decisions.

**The indices present “snapshots in time”** based on the best currently available data and on research indicating relationships between that data and both displacement risk and access to opportunity. It is important to recognize that anomalies exist in both indices. Furthermore, these indicators will change over time. For example, late in 2015 bus service significantly expanded in Seattle, increasing the number of bus trips within walking distance for many locations in the city.

**Income, behavior, and physical proximity affect opportunity in complex and nuanced ways.** Some neighborhoods that appear at the lower end of the access to opportunity index may in fact have desirable neighborhood amenities such as a walkable business district or other determinants of well-being not measured by this index. Unique neighborhood characteristics can affect the outcomes of the indices; for instance, the large student population in the University District skews census data for that neighborhood, and findings about displacement risk there are less reliable as a result.

**Marginalized populations exist across the entire city,** including outside neighborhoods identified as high risk on the displacement risk index. These populations are at risk to have to relocate due to rising housing costs, whether these increases are due to limited housing putting upward pressure on prices or due to particular development in their neighborhood.

**The displacement risk index is an assessment of susceptibility, not a predictor of future outcomes.** Whether displacement occurs depends on several factors, such as the timing and intensity of growth and the public investments that precede or accompany it.

**The relationship between growth and potential displacement is not straightforward.** Displacement has many interrelated causes that are difficult to quantify. In areas where current rents are below average, the higher price of new market-rate development can exert upward pressure on the rents in the immediate vicinity, even as overall housing supply increases. Yet while new development in certain areas can exacerbate displacement pressures, new development is critical for absorbing the increasing citywide housing demand that leads to displacement. Growth can also reduce transportation costs, attract new customers to local businesses, and bring in infrastructure and service investments.

**The displacement risk index does not directly assess displacement risk for businesses or cultural organizations** that are also sometimes forced to relocate as a result of market pressures. Many of the same vulnerability and market indicators could make it difficult for an existing business or community organization to remain. Their displacement can also further destabilize communities of marginalized populations. This displacement may occur at a faster rate than housing displacement since more protections exist for affordable housing than for businesses and cultural anchors.

## Displacement Risk Index

This analysis focuses on both physical (direct) and economic and cultural (indirect) displacement that affects marginalized populations. By combining data on vulnerability, amenities, development potential, and rents, the displacement risk index identifies areas where displacement of marginalized populations may be more likely.

- **Vulnerability:** Populations less able to withstand housing cost increases and more likely to experience discrimination or other structural barriers to finding new housing.
- **Amenities:** Potential contributors to real estate demand. Some factors include access to transit, proximity to certain core businesses, and adjacency to gentrifying or affluent neighborhoods.
- **Development capacity:** A measure of how much future development could exist parcel by parcel under current zoning. This roughly suggests the potential location and scale of future development, but it is not a reliable predictor of when development will occur in a given place.
- **Median rent:** Comparing a neighborhood's median rent to the citywide average can suggest the extent to which new market-rate development could affect current rents in that neighborhood.

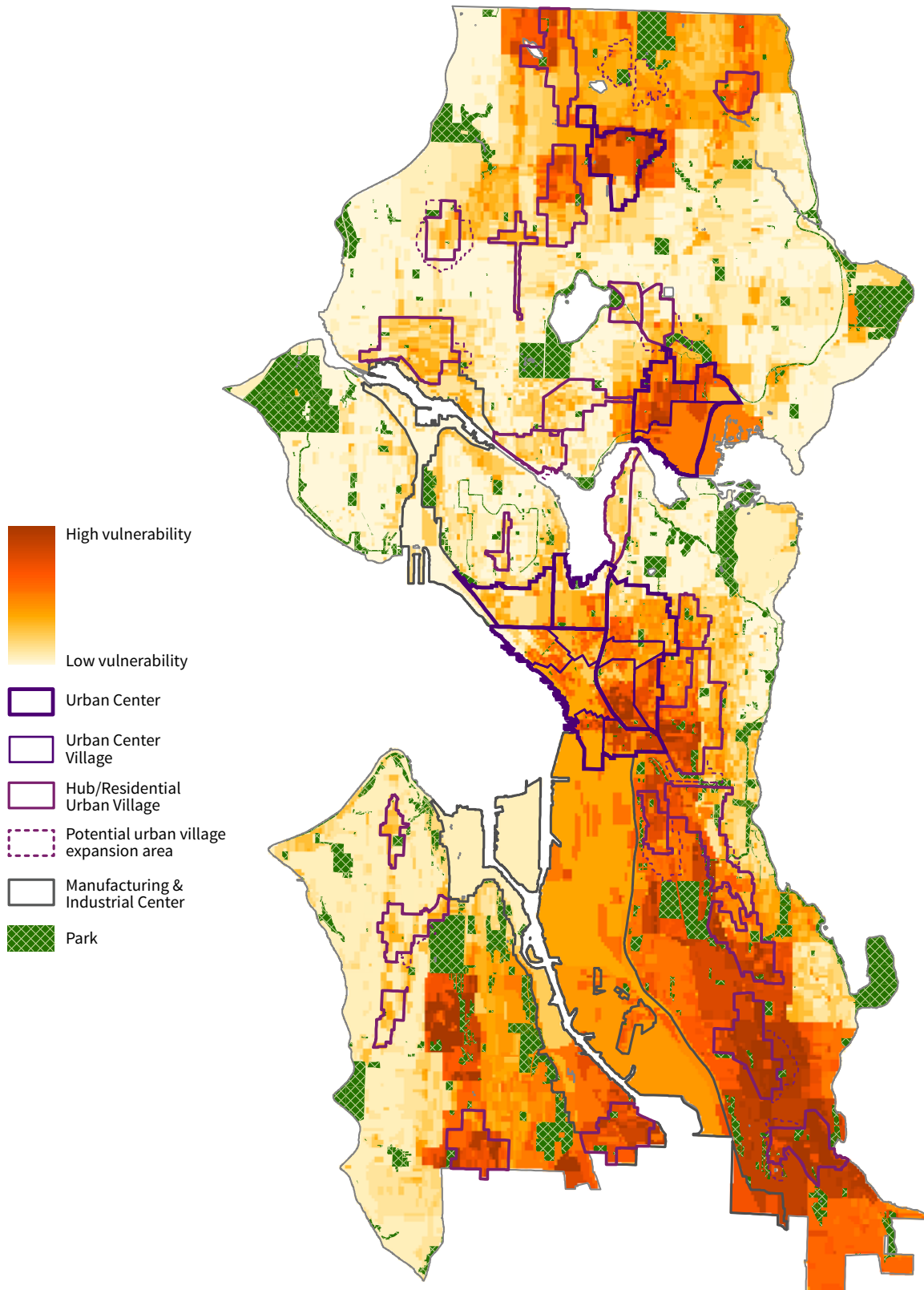
Figure 4 integrates the vulnerability indicators (the first six indicators in Table 3) into a single map. These are just some of the factors that contribute to the level of displacement risk across Seattle, which is shown in Figure 5.

## Access to Opportunity Index

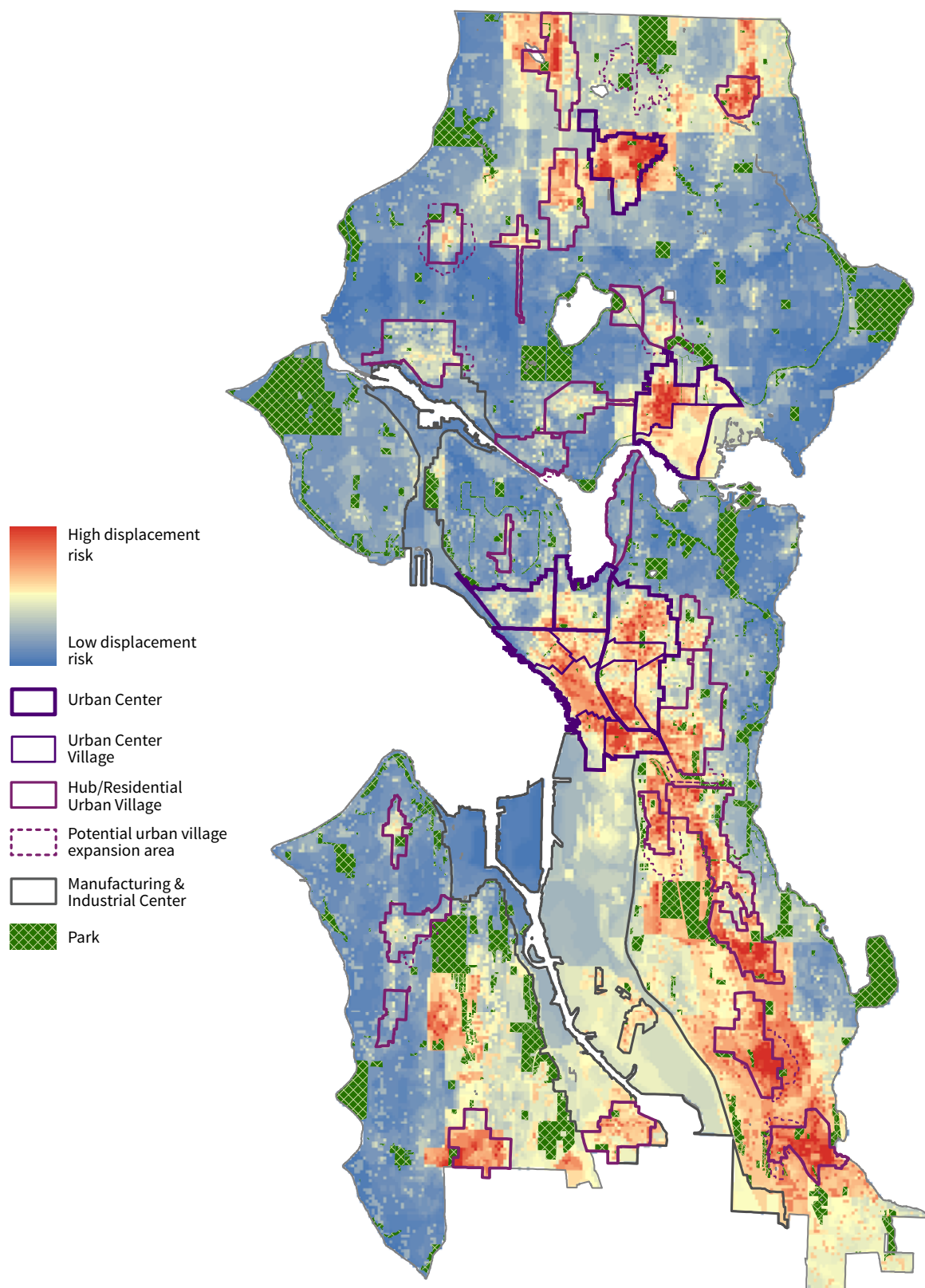
The analysis also considers marginalized populations' access to key determinants of social, economic, and physical well-being. Access to economic opportunity depends on not only physical proximity to quality jobs but also the ability to attain the skills and experience needed to acquire such jobs. Shown in Figure 6, the access to opportunity index integrates a broad range of indicators, but it is not an exhaustive assessment of the factors that contribute to well-being and allow individuals to flourish.

The access to opportunity index includes measures related to education, economic opportunity, transit, civic infrastructure, and public health.

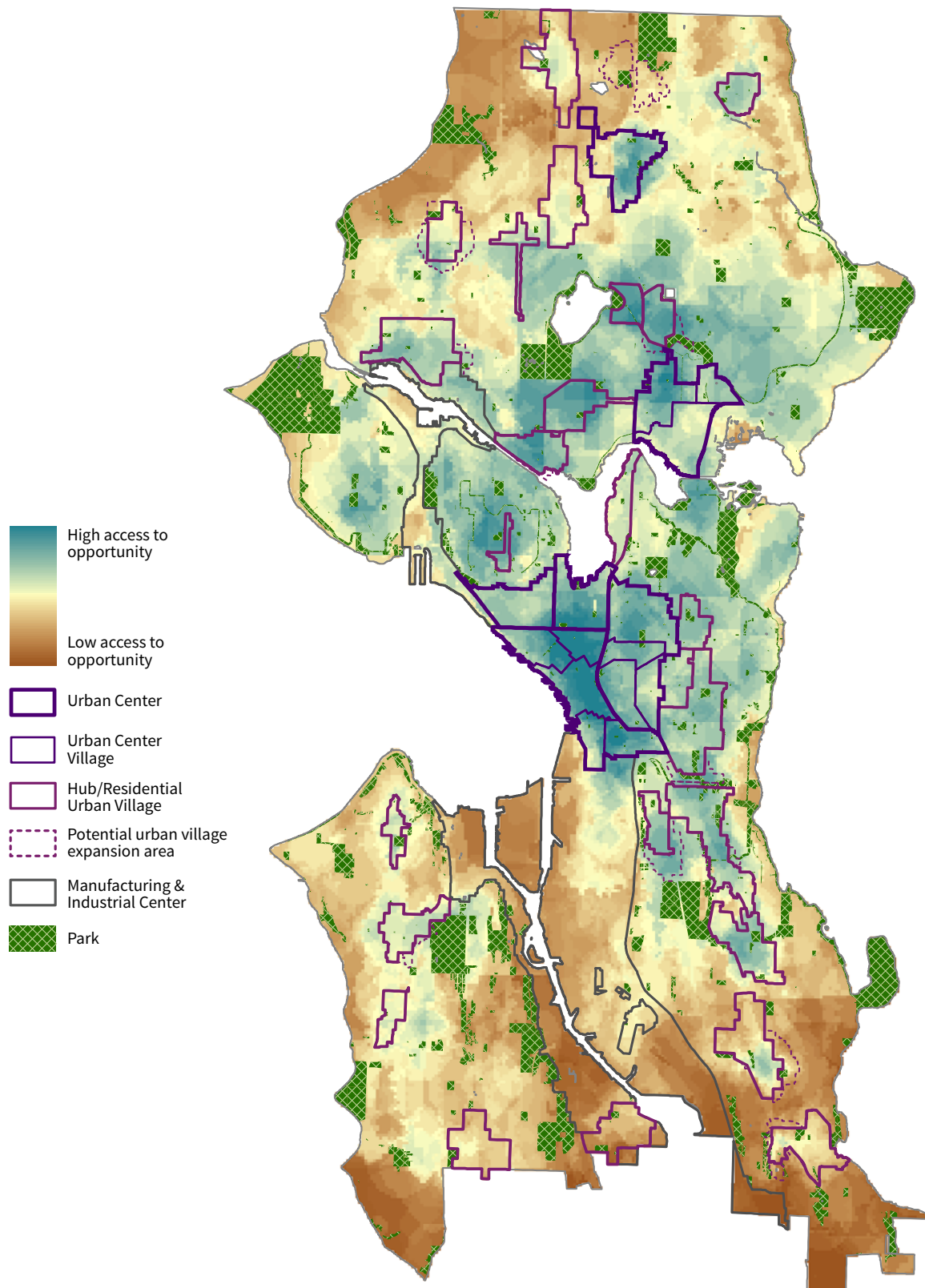
**Figure 4** Composite vulnerability indicators



**Figure 5** Displacement Risk Index



**Figure 6** Access to Opportunity Index





Together, the indicators in Table 4 produce an index that assesses access to social, physical, and economic opportunity. The indicators measure access to some of the resources people need to succeed and thrive. Because these resources can attract private development and influence residents' decisions about where to live, communities with more of these resources also have some of Seattle's highest housing costs. Note that some of the access to opportunity indicators are also factors that increase the potential for displacement, such as access to transit and jobs.

In 2010, the Kirwan Institute for the Study of Race and Ethnicity released [The Geography of Opportunity](#), an opportunity mapping report for King County. While that research has informed our analysis, Kirwan uses a larger set of education, economic opportunity, and housing indicators that includes both determinants (such as proximity to jobs) and outcomes (such as unemployment rate). Other outcome measures in the Kirwan work are crime rate and neighborhood poverty rate. Since this analysis is intended to inform Seattle's long-range growth strategy, it focuses on place-based determinants that could lead to unwanted changes in a neighborhood, rather than on outcomes.

The access to opportunity index also incorporates some of the neighborhood amenities identified in the Seattle Planning Commission's [Seattle Transit Communities](#) report. The index does not catalog amenities such as locally owned stores that sell culturally appropriate food or cultural organizations.

## Methodological Updates

In response to public comments on the Draft Growth & Equity Analysis, these maps of the displacement risk and access to opportunity reflect several minor methodological updates. Table 5 summarizes these changes. Most methodological updates occurred in order to use the most current datasets available. Individual maps for each factor in the displacement risk and access to opportunity models are available in [Attachment B](#).

## Introducing a Displacement Risk / Access to Opportunity Typology

The maps of existing conditions show that disparities exist. Displacement risk is greater in some neighborhoods than others, and Seattle's geography of opportunity is uneven. Some neighborhoods, such as southeast Seattle, present a very high level of displacement risk and very low access to opportunity. Key determinants of social, physical, and economic well-being are not equitably distributed, leaving many marginalized populations without access to factors necessary to succeed in life.

Figure 7 illustrates a typology that categorizes each of the city's urban centers and villages according to its relative position on the displacement risk and access to opportunity indices. The typology helps identify the potential impacts of future growth and suggests which mitigation measures could address the differential needs and opportunities present

**Table 5** Methodological changes between the Draft and Final Growth & Equity Analysis

Indicator	Change in methodology
<b>Linguistic isolation</b>	Previously this indicator was English-speaking ability. The linguistic isolation indicator captures households where adults do not speak English very well, even if children in that household do speak English very well.
<b>Proximity to transit</b>	This indicator was updated to reflect the most current transit service data available.
<b>Proximity to light rail</b>	This indicator was updated to reflect University Link service, which came online in March 2016.
<b>Proximity to regional job center</b>	This indicator now includes designated Manufacturing and Industrial Centers.
<b>Median rent</b>	This indicator was updated to reflect the most current rent data available. Previously, median rent data was gathered at the census tract level, but for many tracts no data was available for a given unit type. To address this, the updated version incorporates median rent data at the neighborhood scale.
<b>School performance</b>	Previously this indicator reflected elementary and middle school reading and math proficiency scores relative to a citywide average. In the updated model, school performance data is classified according to the percentage of students at grade level. This changes only how the data are visualized; it does not have an effect on the results.
<b>Graduation rate</b>	Previously this indicator reflected high school graduation rates to a citywide average. In the updated model, each high school's graduation rate is classified as an absolute percentage. This changes only how the data are visualized; it does not have an effect on the results.
<b>Access to college or university</b>	This indicator now incorporates University Link service, which increases the area in certain parts of the city that can access a college or university within 30 minutes by transit.
<b>Proximity to employment</b>	This indicator was updated to reflect the most recent employment dataset available. Previously this indicator used as-the-crow-flies distance to assess proximity. In the updated model, it uses access via the transit network.
<b>Sidewalk completeness</b>	This is a new indicator added in response to public comment that sidewalk connectivity influences the level of access to services and amenities.
<b>Proximity to a location that sells produce</b>	The dataset for this indicator has been adjusted. Previously it reflected an outdated and unreliable dataset. The updated model includes supermarkets, produce stands, and farmers markets.

in urban centers and villages. For certain urban villages whose boundaries are proposed to change, their placement on the typology reflects the expanded geography. This analysis builds on the Puget Sound Regional Council's (PSRC) *Growing Transit Communities* work, which also accounts for both the physical and social conditions of communities.

This typology informed the development of the recommended Growth Strategy. Similar to the emphasis on higher relative growth near high capacity transit, slightly lower growth estimates reflect areas with high displacement risk and low access to opportunity. The typology also informs the mitigation strategies appropriate for each type of urban village, as outlined in the Equitable Development Implementation Plan. The methodological changes described in Table 4 did not change the categorization of any urban village, but it slightly refines their relative position on the typology.

The general clustering of urban villages into four distinct categories is a more meaningful pattern than the precise relationship of any single urban village to another. Because many

## Growth and Equity

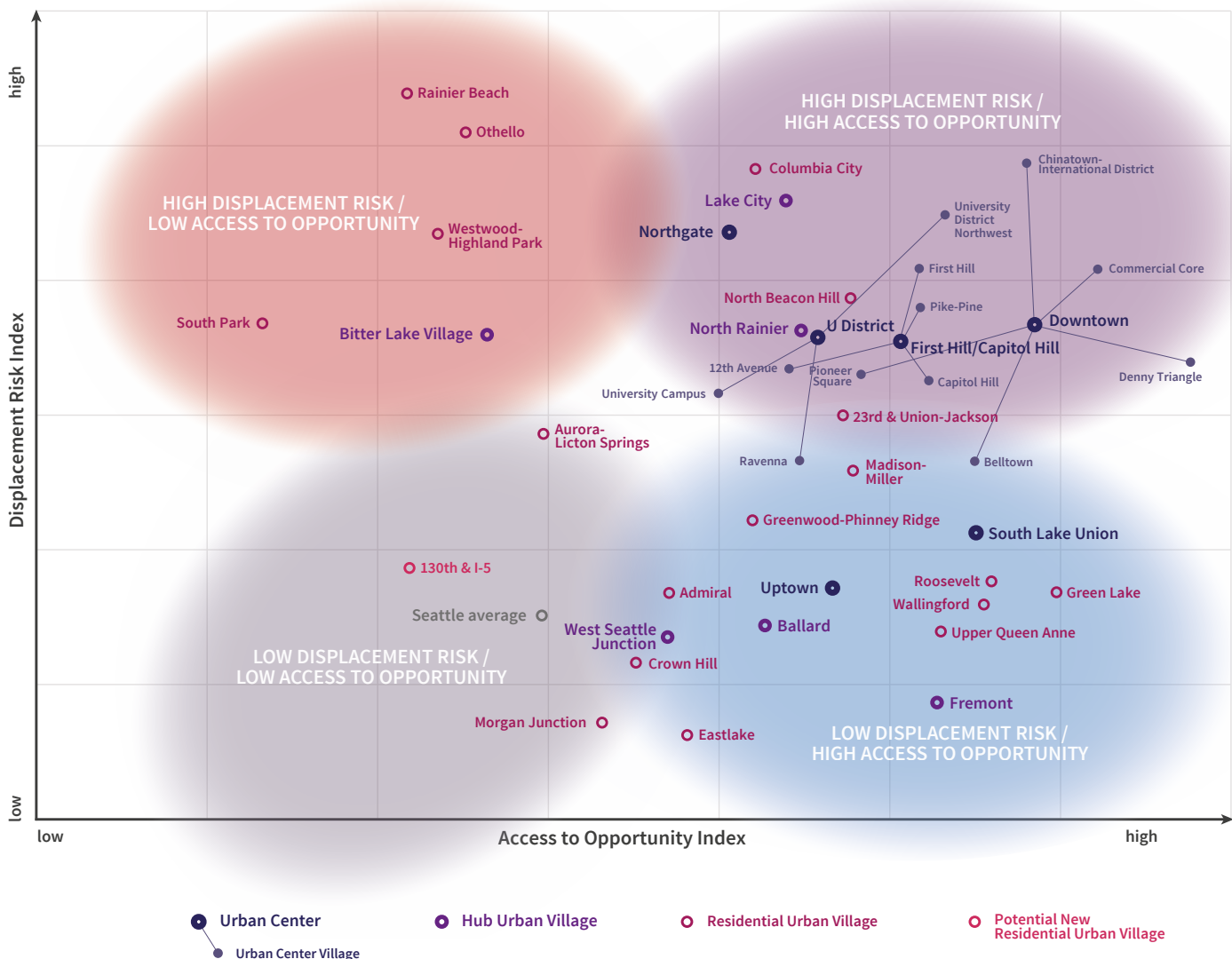
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factors contribute to a neighborhood's position on this diagram, it is critical to examine carefully the underlying data layers before adopting investments or programs to mitigate displacement or increase access to opportunity. Two urban villages may coincide on the typology diagram but for different reasons. For example, because this analysis integrates several inputs into a single result, an urban village with marginalized populations and fewer amenities could occupy a very similar position on the displacement risk axis of the typology as an urban village with inverse characteristics. In this case, a similar result for displacement risk in two urban villages masks their dissimilar socioeconomic conditions that investments and policy decisions must consider.

We can see this phenomenon at work in Seattle's urban centers — six large, populous areas with a varied social and economic landscape. To address this, the typology not only classifies urban centers but also their component urban center villages according to the average

**Figure 7** Displacement Risk / Access to Opportunity Typology





level of displacement risk and access to opportunity each presents. This granular level of analysis allows us to distinguish, for example, subareas of the Downtown Urban Center, such as Chinatown-International District, where displacement risk is very high, and Belltown, where it is very low.

[Attachment B](#) presents a series of maps that illustrate each of the individual factors used in the displacement risk and access to opportunity indices. These are important resources to consult whenever the typology informs investment or policy decisions because they provide context behind the high-level categorization of an urban village on the typology.

The following discussion explores the characteristics of each type of urban village, their role in an equitable growth strategy, and the strategies and interventions necessary to create an equitable city.

#### HIGH DISPLACEMENT RISK/LOW ACCESS TO OPPORTUNITY

As they grow, some areas with high displacement risk and low access to opportunity are transitioning to higher levels of desirability. Several have light rail service that is beginning to attract private market investment. However, some still do not have all the amenities and services found elsewhere in Seattle. Urban villages in this category are often adjacent to neighborhoods that have already experienced physical and demographic change.

Growth can benefit these communities because it leads to new services, amenities, and opportunities. Furthermore, at the citywide level, new housing is critical to addressing upward pressure on housing costs due to employment growth and increasing demand for housing. However, in certain areas rapid private-market-led development without mitigation will lead to displacement of marginalized populations. Where displacement risk is higher, mitigation strategies must accompany market-rate housing growth to ensure that new development benefits the neighborhood and limits displacement of existing residents.

Even without growth, these areas need significant assistance to provide more opportunities for current residents. Strategies to address equity in these neighborhoods lead with public investments in physical and social infrastructure and public- and non-profit-led development that serves the needs of the existing community. For example, investments to foster new quality job centers and the new post-secondary education facilities that train local residents to fill those jobs. These interventions are the same as those required to mitigate growth impacts in neighborhoods with high displacement risk. Therefore, early interventions can also serve as mitigation for additional growth allocation.

#### HIGH DISPLACEMENT RISK/HIGH ACCESS TO OPPORTUNITY

Neighborhoods with high risk of displacement and high levels of access to opportunity are often highly desirable because of the amenities they contain and can have relatively lower housing costs. The desirability of these neighborhoods attracts new development that could displace marginalized populations in these places.

An equitable development strategy for these neighborhoods is to stabilize existing marginalized populations while also providing opportunities for economic mobility. This approach would lead with public and non-profit investment in affordable housing and stabilization of small businesses and cultural organizations to allow market-rate development to occur with minimal displacement.

#### **LOW DISPLACEMENT RISK/HIGH ACCESS TO OPPORTUNITY**

Neighborhoods with low risk of displacement and high access to opportunity are desirable and have fewer marginalized populations. These areas generally offer good access to economic and educational opportunities. In these neighborhoods, housing costs tend to be high, housing choices limited, and market-rate housing unaffordable to lower-income households. With relatively few marginalized populations, these areas may also lack the cultural services and community organizations geared to those populations.

An equitable approach to development in these places expands pathways into the neighborhood for people who currently cannot afford to live, work, or operate a business there and leverages market demand to welcome new residents, jobs, and businesses.

This approach calls for allowing the private market to meet the high levels of demand for housing in these neighborhoods by increasing the supply and variety of housing options available. Because they have lower displacement risk and higher access to opportunity, these urban villages can welcome higher levels of growth in order to expand access for marginalized populations without displacement. Incentives for private market housing that serves a range of incomes and household sizes could make it possible for marginalized populations to live and work in these areas and take advantage of the opportunities that exist there. This means allowing and encouraging a denser and broader range of housing types, such as duplexes, triplexes, rowhouses, flats, and other forms appropriate for a range of incomes and household sizes, within and adjacent to these urban villages beyond what current zoning allows.

#### **LOW DISPLACEMENT RISK/LOW ACCESS TO OPPORTUNITY**

Few urban villages fall in this category. All could absorb growth with minimal displacement risk, but access to opportunity in these places is also limited.

Currently, constrained capacity for growth in these areas limits the possibility for expanded housing supply, new affordable housing, and a greater variety of housing options. Depending on the market, these areas may need public intervention to encourage growth. An equitable development strategy could also make investments to improve access to key determinants of well-being in these areas where there are gaps.

Table 6 broadly outlines approaches to producing more equitable conditions in different village types. The Equitable Development Implementation Plan contains more detailed strategies for each of the general approaches.

**Table 6** Equitable development measures for each type of urban center and village

High Displacement Risk/Low Access to Opportunity	High Displacement Risk/High Access to Opportunity
<ul style="list-style-type: none"> <li>• Advance Economic Mobility and Opportunity</li> <li>• Prevent Residential, Commercial, and Cultural Displacement</li> <li>• Build on Local Cultural Assets</li> <li>• Promote Transportation Mobility and Connectivity</li> <li>• Develop Healthy and Safe Neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>• Advance Economic Mobility and Opportunity</li> <li>• Prevent Residential, Commercial, and Cultural Displacement</li> <li>• Build on Local Cultural Assets</li> </ul>
Low Displacement Risk/Low Access to Opportunity	Low Displacement Risk/High Access to Opportunity
<ul style="list-style-type: none"> <li>• Develop Healthy and Safe Neighborhoods</li> <li>• Equitable Access to all Neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>• Advance Economic Mobility and Opportunity</li> <li>• Equitable Access to all Neighborhoods</li> </ul>

## Analysis of the Recommended Growth Strategy

The City's Comprehensive Plan describes how and where the City plans to accommodate expected growth. Between 2015 and 2035, Seattle expects to add 70,000 housing units and 115,000 jobs. Because Seattle is a fully built city, most new development will occur on sites that already contain some existing residences or businesses. The City's primary approach to accommodating growth is to locate new housing and jobs in the urban villages well served by light rail or bus transit. Table 8 lists the housing and employment growth estimates for urban centers.

**Table 7** Expected growth in housing units and jobs for the six urban centers

Urban Center	Expected housing growth	Expected employment growth
Downtown	12,000	35,000
First Hill / Capitol Hill	6,000	3,000
University District	3,500	5,000
Northgate	3,000	8,000
South Lake Union	7,500	12,000
Uptown	3,000	2,000

Table 8 indicates the growth rate for different categories of urban villages, with hub villages expected to have a higher growth rate than residential urban villages. Villages with very good transit service are expected to grow faster than those without. However, recognizing the potential for displacement of marginalized populations and small businesses, the City

proposes a moderate rate of growth in those villages that have both a high risk of displacement and low access to opportunity and aims to make near-term public investments to stabilize and create economic mobility opportunities. The accompanying Equitable Development Implementation Plan details these investments. The map on the following page identifies villages by category and illustrates the growth rates shown below.

**Table 8** Proposed growth estimates by urban village types

	Expected housing growth rate*	Expected employment growth rate*
<b>Hub Urban Villages</b>		
Fremont	40%	50%
Lake City		
<b>Hub Urban Villages with very good transit service</b>		
Ballard	60%	50%
Mount Baker (North Rainier)		
West Seattle Junction		
<b>Hub Urban Villages with high displacement risk and low access to opportunity, regardless of the level of transit service</b>	40%	50%
Bitter Lake Village		
<b>Residential Urban Villages</b>		
Admiral		
Eastlake		
Greenwood-Phinney Ridge	30%	not applicable
Madison-Miller		
Morgan Junction		
Upper Queen Anne		
Wallingford		
<b>Residential Urban Villages with very good transit service</b>		
23rd & Union-Jackson		
Aurora-Licton Springs		
Columbia City	50%	not applicable
Crown Hill		
Green Lake		
North Beacon Hill		
Roosevelt		
<b>Residential Urban Villages with high displacement risk and low access to opportunity, regardless of the level of transit service</b>		
Othello	30%	not applicable
Rainier Beach		
South Park		
Westwood-Highland Park		

\* Percentage growth above the actual number of housing units or jobs in 2015, except as limited by zoning capacity.

The recommended Growth Strategy continues the Comprehensive Plan's urban village strategy, with varying rates of growth expected among the city's urban centers and villages to reflect multiple policy goals, such as densifying the city's urban centers, locating more growth near high-capacity transit service, and addressing the risk of displacement for marginalized populations.

## Summary of Growth Alternatives Analyzed in the DEIS

The City of Seattle expects to add 70,000 housing units and 115,000 jobs over the next 20 years. In the Draft Environmental Impact Statement, the City analyzed four growth alternatives for distributing the 70,000 housing units and 115,000 jobs expected over the next 20 years. In brief, the Draft Growth & Equity Analysis of the four alternatives made the following conclusions:

Alternative 1 Continue Current Growth Trends (No Action)	Alternative 2 Guide Growth to Urban Centers	Alternative 3 Guide Growth to Urban Villages near Light Rail	Alternative 4 Guide Growth to Urban Villages near Transit
<b>What level of public investment is necessary for marginalized populations to benefit from growth without displacement?</b>			
Required public investment is in the middle compared to other alternatives because growth is more evenly distributed in both high- and low-displacement risk urban villages.	Potentially lower levels of investment needed because less growth is allocated in high-displacement risk areas. However, more growth would be in expensive high-rise construction.	Highest level of growth in high-displacement risk areas like Rainier Beach, Othello, and North Beacon Hill, requiring the greatest degree of anti-displacement mitigation.	Substantial anti-displacement investments required in the southeast Seattle urban villages with light rail stations where displacement risk is high.
<b>How much does the alternative expand access to opportunity for marginalized populations?</b>			
Allocates significant growth to a few urban villages where displacement risk is low and access to opportunity is high.	Does the least to expand access for marginalized populations because less growth is allocated to areas with high opportunity and low displacement risk.	Potential to expand access to opportunity in some, but not most, areas with low displacement risk and high access to opportunity.	Greater potential to grow in areas with high access to opportunity than Alternative 3, but limited potential to expand access to other high-access urban villages.

Each of the growth alternatives studied in the DEIS reflected the same estimates of the new housing units and jobs expected in Seattle over the next 20 years. The alternatives did not address the timing of growth during that period or specify the type of development that could occur. Yet timing and type could determine the impact that new development would have on marginalized populations with respect to displacement and access to opportunity.

## Difference between Existing Units and Expected Growth

To understand the potential impacts of the recommended Growth Strategy, the Growth & Equity Analysis focuses on the expected rate of housing growth for an urban village in the context of its current stock of housing units. The analysis then examines this relative growth rate with the degree of displacement risk and access to opportunity for the urban village.

The proportional difference in magnitude between existing units and expected growth is important. 500 new housing units in an urban village that currently has 1,000 housing units, a 50 percent increase over the current housing stock, is likely to have a greater impact on current real estate prices in that submarket than 500 new units in an urban village that already has 5,000 housing units, a 10 percent increase.

Figure 8 illustrates the expected housing growth rates for each urban village as listed in Table 8.

## Impacts of the Recommended Growth Strategy on Displacement Risk and Access to Opportunity

This section analyzes how the recommended Growth Strategy affects displacement risk and access to opportunity for marginalized populations and identifies how managed growth and equitable investments can lower the risk of displacement and expand access to opportunity to create an equitable city. This analysis cannot account for many of the factors that contribute to these outcomes, such as market dynamics and the timing of development in individual urban centers and villages. Instead, it assumes that growth will occur evenly over time and distributed to different villages according to the assumptions in the Comprehensive Plan. Numerous policy choices must accompany the recommended Growth Strategy, and additional study is necessary to understand more fully the specific actions to take and their full costs.

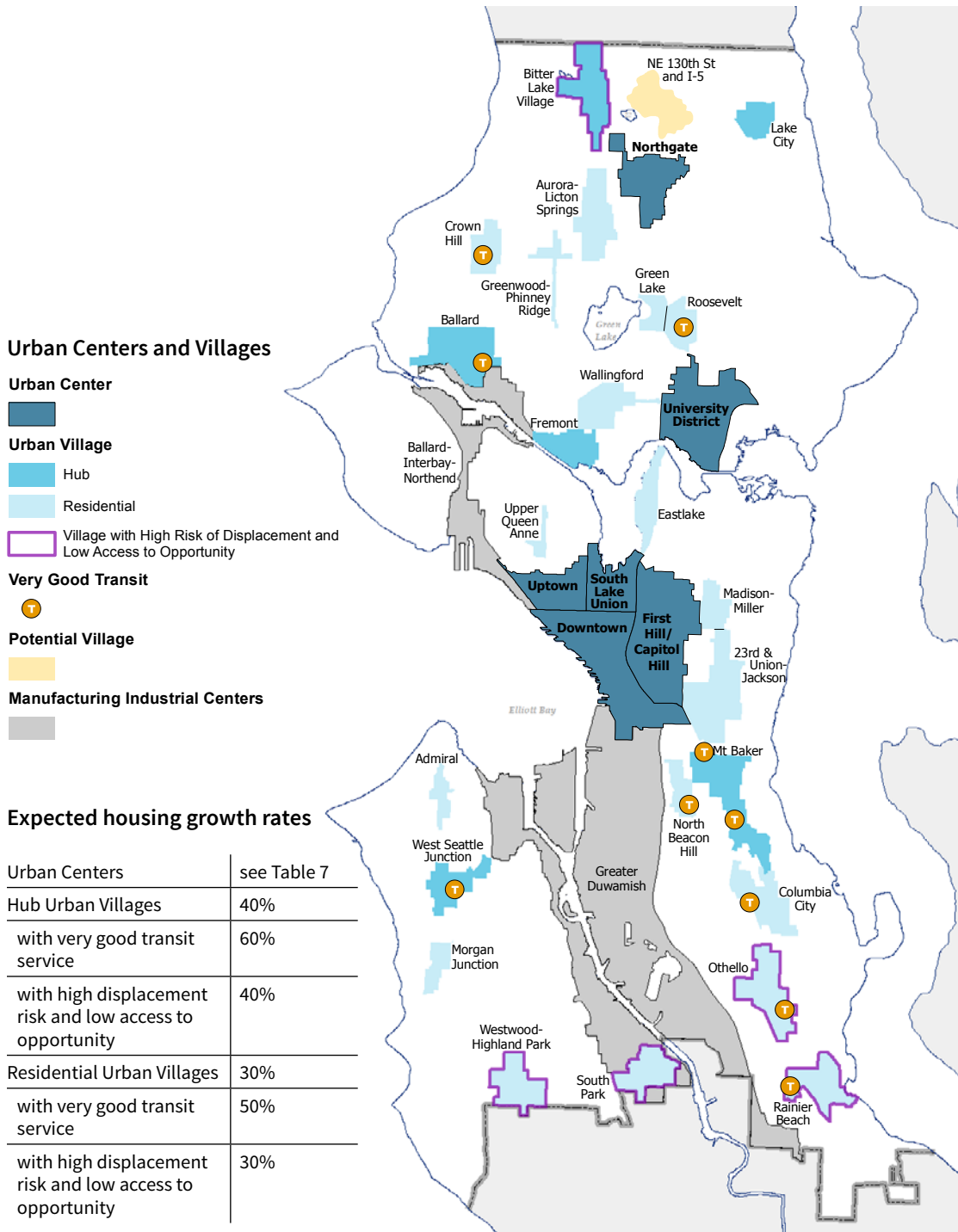
*For achieving equity, how growth unfolds is much more important than the amount of growth.*

To achieve equity, how growth unfolds is as important as the amount of growth. The relative growth expected for a particular neighborhood is not the only determinant of whether the neighborhood will develop equitably. The timing and pace of redevelopment can also influence the likelihood of displacement. Rapid changes can be more destabilizing for a neighborhood real estate market and therefore more likely to displace existing residents than a steady rate of growth that allows time for accompanying offsetting investments to be effective.

If unmitigated, rapid market-rate redevelopment in high displacement risk areas is likely to exacerbate displacement pressures. Limited housing choice and supply in areas with low displacement risk and high access to opportunity is likely to continue to inhibit equitable access for marginalized populations.

In the recommended Growth Strategy, the City anticipates a higher rate of growth in urban villages with good transit service and a relatively lower rate of growth in urban villages with

**Figure 8** Expected housing growth rates relative to existing housing units



high displacement risk and low access to opportunity, as shown in Table 8. This addresses the existing conditions reflected in the displacement risk and access to opportunity indices and builds into the Plan a key strategy for mitigating displacement risk. However, in certain areas, displacement is a concern regardless of the level of growth and is likely to have disproportionate impacts on marginalized populations. The Equitable Development Implementation Plan identifies near-term investments in anti-displacement strategies that the City can use to ensure equitable growth in neighborhoods with high displacement risk and low access to opportunity. With sufficient public resources, neighborhoods with the highest risk of displacement could experience significant private-sector housing development without displacement, provided that appropriate public investment in the associated mitigation strategies accompany or, ideally, precede that growth. For neighborhoods identified in the previous section as having low access to opportunity, some intervention is necessary to make them more equitable communities, even without any growth.

A higher rate of growth in areas with frequent transit service can help expand access and housing choices for marginalized populations. Because access to transit can help to offset higher housing costs, substantial investment in affordable housing close to light rail and frequent bus service can increase access to education and employment opportunities and help to stem displacement, especially as expanded transit service attracts new residents to these areas. Without increased access to transit, marginalized populations may experience only the market pressures associated with living in a desirable neighborhood and not the benefits.

Similar to the relatively lower growth rates for areas where displacement risk is high, the recommended Growth Strategy takes a complementary approach for some urban villages with low displacement risk and high access to opportunity where very good transit service is present: Roosevelt, Crown Hill, and Ballard. As previously discussed, urban villages with high access to opportunity and low displacement risk often have higher real estate values, fewer housing choices for lower-income households, and fewer marginalized populations. In these areas, higher rates of redevelopment could accommodate more of the city's expected 20-year growth, absorbing citywide housing demand, without increasing displacement risk. Higher rates of growth can also increase options for a broader range of people and households to live and work in these high-opportunity neighborhoods. Leveraging new development to expand access for marginalized populations without displacement beyond the growth estimates in the recommended Growth Strategy would advance the City's goal of equitable development. These policy changes could be considered during future Comprehensive Plan annual amendment cycles.

Roughly half of the 20-year housing growth in the recommended Growth Strategy is expected to occur in the six urban centers. Many of these 35,000 housing units will be in high-rise buildings, which are inherently more expensive to construct than the wood-frame construction typical in, for example, low-rise multifamily zones. Higher construction costs generally yield higher rents. The high access to opportunity found in urban centers can partially offset some of the added cost of housing in these areas. Further, construction of housing tar-



geted for high-income households absorbs demand that otherwise puts upward pressure on housing costs elsewhere in the city. Policies such as the proposed Mandatory Housing Affordability (MHA) program can help to ensure that growth in expensive building types nonetheless contributes to affordability and inclusion.

## Urban Village Boundary Changes

The Draft Growth & Equity Analysis considered expanded urban village boundaries for several urban villages, which would affect future use and density levels in areas predominantly zoned for single-family residential use currently. The displacement risk and access to opportunity typology reflects these expanded urban villages, which would include land within a 10-minute walk of frequent transit facilities. These potential boundary changes largely fall into two categories:

### LOW DISPLACEMENT RISK/HIGH ACCESS TO OPPORTUNITY URBAN VILLAGES: BALLARD, FREMONT, CROWN HILL, ROOSEVELT, AND FREMONT

Adding development capacity to areas in close proximity to frequent transit is consistent with a strategy to create more multifamily development, expand housing choice and supply, and increase the possibility of having more affordable housing in these neighborhoods.

### HIGH DISPLACEMENT RISK URBAN VILLAGES: OTHELLO, COLUMBIA CITY, NORTH RAINIER, NORTH BEACON HILL AND RAINIER BEACH

It is not clear that expanding urban village boundaries supports the equitable development strategies outlined for these villages. New development may put upward pressure on rents before community stabilizing investments take effect. A well-resourced mitigation strategy coupled with expansion of housing choices over time could prove successful, but further community engagement and analysis should be undertaken to determine the feasibility and details of such a strategy.

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# Attachment A

## Decennial Census Population Estimates by Race and Hispanic/Latino Origin

	TOTAL POPULATION		WHITE				BLACK (1990); BLACK OR AFRICAN AMERICAN (2010)				ASIAN OR PACIFIC ISLANDER (1990); ASIAN (2010)				AMERICAN INDIAN, ESKIMO, OR ALEUT (1990); AMERICAN INDIAN & ALASKA NATIVE (2010)				HISPANIC (1990); HISPANIC OR LATINO (2010)				PERSONS OF COLOR			
	1990	2010	1990		2010		1990		2010		1990		2010		1990		2010		1990		2010		1990 (of a race other than White and/or of Hispanic origin)		2010 (of a race other than White alone and/or of Hispanic/Latino origin)	
King County	1,507,319	1,931,249	1,278,532	85%	1,325,845	69%	76,289	5%	119,801	6%	118,784	8%	282,075	15%	17,305	1.1%	16,147	0.8%	44,337	3%	172,378	9%	273,124	18%	852,327	44%
City of Seattle	516,259	608,660	388,858	75%	422,870	69%	51,948	10%	48,316	8%	60,819	12%	84,215	14%	7,326	1.4%	4,809	0.8%	18,349	4%	40,329	7%	135,836	26%	205,082	34%
Outside Urban Centers/ Villages	365,931	399,870	285,003	78%	291,445	73%	31,479	9%	26,270	7%	40,946	11%	33,654	8%	4,226	1.2%	2,589	0.6%	11,333	3%	22,596	6%	86,453	24%	119,730	30%
All Urban Centers/Villages	146,662	206,068	101,313	69%	129,587	63%	20,048	14%	21,802	11%	19,397	13%	50,395	24%	2,979	2.0%	2,138	1.0%	6,724	5%	17,286	8%	48,126	33%	84,300	41%
URBAN CENTERS	69,857	102,883	52,805	76%	68,355	66%	6,213	9%	7,684	7%	8,263	12%	17,813	17%	1,381	2.0%	1,164	1.1%	3,226	5%	6,870	7%	18,565	27%	38,189	37%
Northgate	5,136	6,369	3,942	77%	3,600	57%	279	5%	580	9%	752	15%	1,353	21%	59	1.1%	89	1.4%	256	5%	679	11%	1,303	25%	3,063	48%
South Lake Union	1,116	3,774	1,001	90%	2,663	71%	45	4%	394	10%	39	3%	410	11%	16	1.4%	36	1.0%	57	5%	235	6%	156	14%	1,257	33%
University District Northwest	10,552	13,654	8,206	78%	8,318	61%	273	3%	386	3%	1,852	18%	3,756	28%	106	1.0%	73	0.5%	319	3%	714	5%	2,523	24%	5,705	42%
Ravenna	2,850	3,323	2,171	76%	2,199	66%	117	4%	93	3%	449	16%	754	23%	48	1.7%	11	0.3%	115	4%	194	6%	722	25%	1,219	37%
University Campus	4,598	5,727	3,014	66%	3,282	57%	211	5%	101	2%	1,202	26%	1,784	31%	58	1.3%	25	0.4%	211	5%	291	5%	1,666	36%	2,646	46%
University Community	18,000	22,704	13,391	74%	13,799	61%	601	3%	580	3%	3,503	19%	6,294	28%	212	1.2%	109	0.5%	645	4%	1,199	5%	4,911	27%	9,570	42%
Uptown	4,472	7,300	3,943	88%	5,824	80%	186	4%	258	4%	206	5%	720	10%	61	1.4%	55	0.8%	162	4%	457	6%	611	14%	1,739	24%
Belltown	4,116	11,961	3,490	85%	8,404	70%	300	7%	871	7%	168	4%	1,703	14%	105	2.6%	166	1.4%	152	4%	789	7%	691	17%	4,016	34%
Denny Triangle	732	3,248	562	77%	2,240	69%	65	9%	253	8%	43	6%	475	15%	55	7.5%	57	1.8%	32	4%	229	7%	185	25%	1,143	35%
Commercial Core	3,898	5,917	2,613	67%	3,996	68%	979	25%	1,031	17%	135	3%	538	9%	134	3.4%	107	1.8%	182	5%	288	5%	1,361	35%	2,096	35%
Pioneer Square	1,485	2,252	943	64%	1,385	62%	389	26%	464	21%	40	3%	137	6%	74	5.0%	80	3.6%	164	11%	187	8%	637	43%	954	42%
Chinatown-ID	1,962	3,466	728	37%	868	25%	222	11%	351	10%	888	45%	1,977	57%	70	3.6%	64	1.8%	159	8%	177	5%	1,274	65%	2,670	77%
Downtown	12,193	26,844	8,336	68%	16,893	63%	1,955	16%	2,970	11%	1,274	10%	4,830	18%	438	3.6%	474	1.8%	689	6%	1,670	6%	4,148	34%	10,879	41%
Capitol Hill	16,334	18,279	13,714	84%	14,493	79%	1,294	8%	832	5%	825	5%	1,464	8%	229	1.4%	161	0.9%	699	4%	1,276	7%	2,993	18%	4,532	25%
Pike/Pine	2,624	4,413	1,971	75%	3,261	74%	328	13%	277	6%	193	7%	515	12%	85	3.2%	55	1.2%	123	5%	292	7%	711	27%	1,322	30%
First Hill	7,568	8,681	5,081	67%	5,220	60%	1,050	14%	1,230	14%	1,096	14%	1,396	16%	209	2.8%	124	1.4%	404	5%	682	8%	2,658	35%	3,749	43%
12th Avenue	2,414	4,519	1,426	59%	2,602	58%	475	20%	563	12%	375	16%	831	18%	72	3.0%	61	1.3%	191	8%	380	8%	1,074	44%	2,078	46%
First/Capitol Hill	28,940	35,892	22,192	77%	25,576	71%	3,147	11%	2,902	8%	2,489	9%	4,206	12%	595	2.1%	401	1.1%	1,417	5%	2,630	7%	7,436	26%	11,681	33%
HUB URBAN VILLAGES	22,264	30,906	17,030	76%	20,912	68%	1,823	8%	2,730	9%	2,612	12%	4,186	14%	409	1.8%	318	1.0%	825	4%	2,302	7%	5,579	25%	11,006	36%
Ballard	7,311	10,078	6,602	90%	8,551	85%	128	2%	218	2%	294	4%	578	6%	168	2.3%	89	0.9%	263	4%	557	6%	848	12%	1,839	18%
Bitter Lake Village	3,175	4,273	2,711	85%	2,642	62%	96	3%	523	12%	284	9%	626	15%	50	1.6%	49	1.1%	112	4%	290	7%	530	17%	1,754	41%
Fremont	3,153	3,960	2,740	87%	3,249	82%	92	3%	104	3%	193	6%	326	8%	68	2.2%	23	0.6%	107	3%	173	4%	456	14%	800	20%
Lake City	2,111	3,899	1,603	76%	2,108	54%	142	7%	462	12%	288	14%	763	20%	22	1.0%	63	1.6%	88	4%	494	13%	533	25%	1,985	51%

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TOTAL POPULATION			WHITE				BLACK (1990); BLACK OR AFRICAN AMERICAN (2010)				ASIAN OR PACIFIC ISLANDER (1990); ASIAN (2010)				AMERICAN INDIAN, ESKIMO, OR ALEUT (1990); AMERICAN INDIAN & ALASKA NATIVE (2010)				HISPANIC (1990); HISPANIC OR LATINO (2010)				PERSONS OF COLOR			
	1990	2010	1990		2010		1990		2010		1990		2010		1990		2010		1990		2010		1990 (of a race other than White and/or of Hispanic origin)		2010 (of a race other than White alone and/or of Hispanic/Latino origin)	
North Rainier	3,629	4,908	877	24%	1,371	28%	1,227	34%	1,281	26%	1,404	39%	1,633	33%	59	1.6%	57	1.2%	132	4%	472	10%	2,779	77%	3,686	75%
West Seattle Junction	2,885	3,788	2,497	87%	2,991	79%	138	5%	142	4%	149	5%	260	7%	42	1.5%	37	1.0%	123	4%	316	8%	433	15%	942	25%
HUB URBAN VILLAGES	22,264	30,906	17,030	76%	20,912	68%	1,823	8%	2,730	9%	2,612	12%	4,186	14%	409	1.80%	318	1.00%	825	4%	2,302	7%	5,579	25%	11,006	36%
23rd & Union-Jackson	6,926	9,468	1,077	16%	4,191	44%	4,407	64%	2,617	28%	1,207	17%	1,429	15%	85	1.2%	74	0.8%	296	4%	962	10%	5,930	86%	5,634	60%
Admiral	1,186	1,528	1,087	92%	1,260	82%	27	2%	56	4%	44	4%	89	6%	21	1.8%	18	1.2%	32	3%	96	6%	120	10%	324	21%
Aurora-Licton Springs	4,709	6,179	3,812	81%	4,065	66%	258	5%	469	8%	460	10%	845	14%	96	2.0%	58	0.9%	218	5%	704	11%	1,013	22%	2,418	39%
Columbia City	3,617	3,937	822	23%	1,271	32%	1,646	46%	1,210	31%	977	27%	1,005	26%	112	3.1%	29	0.7%	146	4%	375	10%	2,819	78%	2,798	71%
Crown Hill	2,109	2,459	1,886	89%	1,934	79%	46	2%	95	4%	99	5%	126	5%	55	2.6%	23	0.9%	56	3%	271	11%	250	12%	641	26%
Eastlake	3,602	5,084	3,286	91%	4,173	82%	93	3%	128	3%	166	5%	459	9%	31	0.9%	22	0.4%	83	2%	249	5%	364	10%	1,040	20%
Green Lake	2,119	2,904	1,951	92%	2,361	81%	33	2%	53	2%	102	5%	292	10%	17	0.8%	15	0.5%	49	2%	126	4%	200	9%	619	21%
Greenwood-Phinney Ridge	2,016	2,927	1,750	87%	2,232	76%	33	2%	180	6%	128	6%	228	8%	38	1.9%	27	0.9%	92	5%	221	8%	297	15%	799	27%
Madison-Miller	2,829	4,066	1,407	50%	2,697	66%	1,228	43%	658	16%	112	4%	326	8%	35	1.2%	16	0.4%	90	3%	295	7%	1,463	52%	1,495	37%
Morgan Junction	1,667	2,046	1,448	87%	1,596	78%	76	5%	122	6%	89	5%	118	6%	32	1.9%	19	0.9%	53	3%	171	8%	242	15%	538	26%
North Beacon Hill	2,531	2,900	534	21%	1,079	37%	324	13%	208	7%	1,450	57%	932	32%	98	3.9%	43	1.5%	224	9%	769	27%	2,028	80%	2,056	71%
Othello	4,570	7,267	643	14%	908	12%	1,953	43%	2,792	38%	1,638	36%	2,932	40%	168	3.7%	35	0.5%	260	6%	390	5%	3,950	86%	6,492	89%
Rainier Beach	2,703	3,583	616	23%	629	18%	1,211	45%	1,618	45%	637	24%	733	20%	133	4.9%	53	1.5%	157	6%	583	16%	2,097	78%	3,127	87%
Roosevelt	2,008	2,384	1,812	90%	1,964	82%	53	3%	51	2%	114	6%	207	9%	10	0.5%	9	0.4%	76	4%	132	6%	245	12%	506	21%
South Park	2,161	3,448	1,470	68%	1,516	44%	156	7%	386	11%	282	13%	596	17%	72	3.3%	62	1.8%	314	15%	1,212	35%	794	37%	2,337	68%
Upper Queen Anne	1,921	2,143	1,745	91%	1,809	84%	58	3%	48	2%	75	4%	147	7%	12	0.6%	10	0.5%	65	3%	98	5%	206	11%	394	18%
Wallingford	4,102	5,350	3,722	91%	4,437	83%	82	2%	152	3%	197	5%	418	8%	42	1.0%	19	0.4%	153	4%	277	5%	468	11%	1,088	20%
Westwood-Highland Park	3,765	4,606	2,410	64%	2,198	48%	328	9%	545	12%	745	20%	773	17%	132	3.5%	124	2.7%	309	8%	1,183	26%	1,496	40%	2,799	61%
MFG./INDUSTRIAL CENTERS	3,666	2,722	2,542	69%	1,838	68%	421	11%	244	9%	476	13%	166	6%		0.0%		0.0%	292	8%	447	16%	1,257	34%	1,052	39%
Ballard-Interbay-Northend	1,316	1,658	1,106	84%	1,214	73%	81	6%	131	8%	66	5%	109	7%	44	3.3%	24	1.4%	86	7%	176	11%	261	20%	526	32%
Greater Duwamish	2,350	1,064	1,436	61%	624	59%	340	14%	113	11%	410	17%	57	5%	77	3.3%	58	5.5%	206	9%	271	25%	996	42%	526	49%

### Notes:

Census questionnaire changes limit comparability of 1990 Census estimates on race and ethnicity with later Census estimates. Small differences over time may be due to changes in the questionnaire, but larger differences are more likely to represent actual demographic shifts.

One of the most changes was the option respondents were given, beginning with the 2000 Census questionnaire, to select more than one race.

Population estimates by race are shown for non-Hispanic/Latino individuals in each of the major race categories listed. The Census collects information on Hispanic/Latino ethnicity in a separate question from race.

Persons of color include persons of any race other than white alone (other than white in 1990) as well as persons of any race who are of Hispanic /Latino (Hispanic in 1990) origin.

Sources: 1990 and 2000 Decennial Census estimates, (100% count datasets), U.S. Census Bureau.  
Estimates for Urban Villages produced by the City of Seattle's Department of Planning and Development based on combinations of census blocks approximating Urban Villages.

# Attachment B

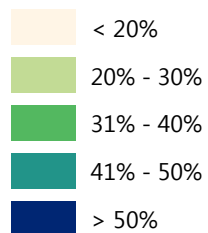
## Displacement Risk and Access to Opportunity Indicators

May 2016

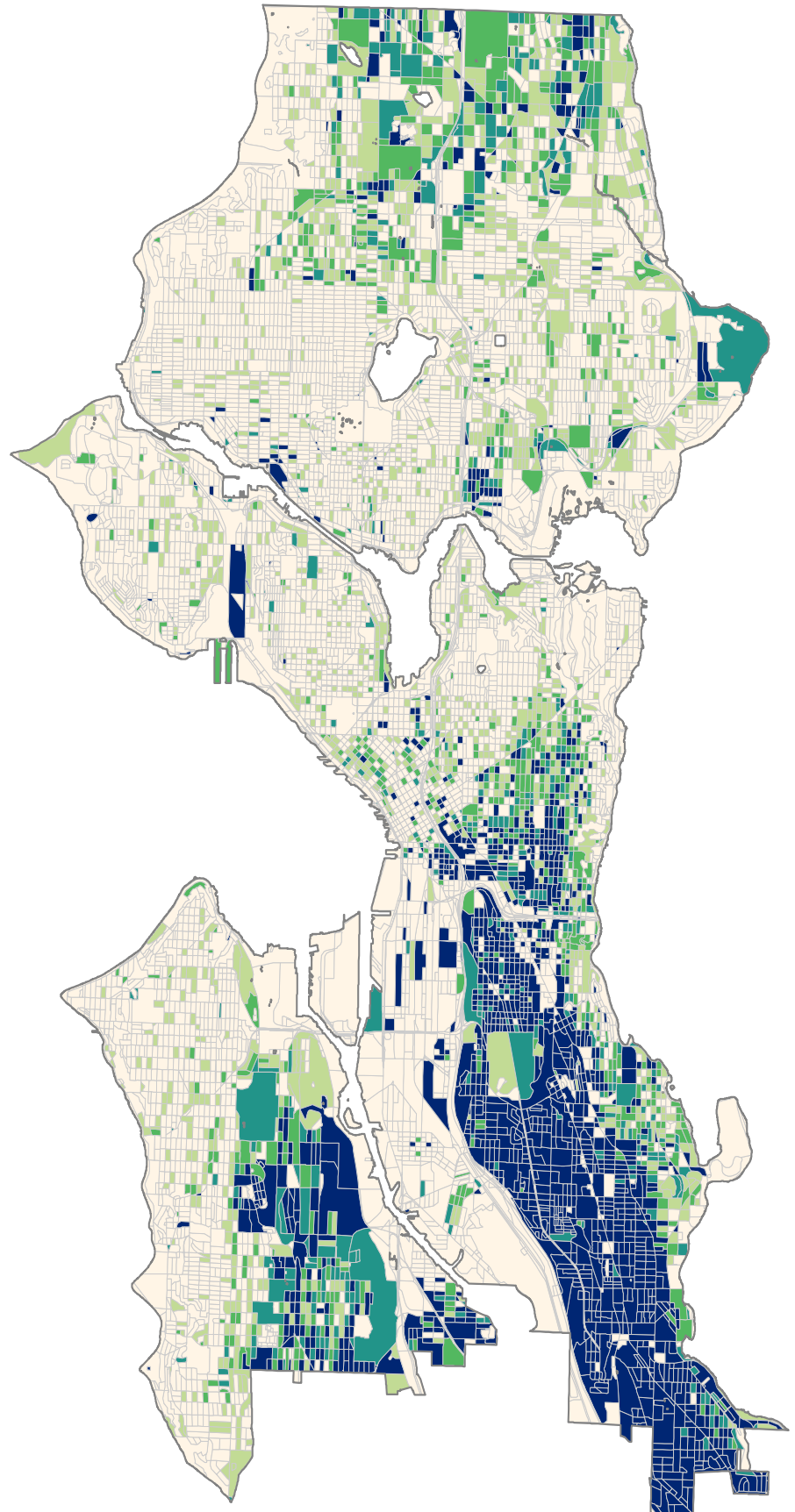
## Displacement Risk Index

- People of color
- Linguistic isolation
- Educational attainment
- Housing tenancy
- Housing cost-burdened households
- Severely housing cost-burdened households
- Household income
- Proximity to transit
- Proximity to current or future Link light rail and streetcar
- Proximity to core businesses (supermarket/grocery, pharmacy, and restaurant)
- Proximity to civic infrastructure (location within a certain distance of a school, park, community center, or library)
- Proximity to high-income neighborhood
- Proximity to regional job center
- Development capacity
- Median rent

**Percentage of population that is a race other than non-Hispanic White (Census block)**



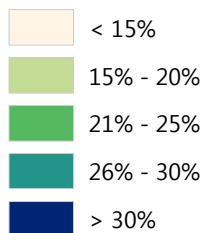
Source: 2010 Census



## Displacement Risk Index

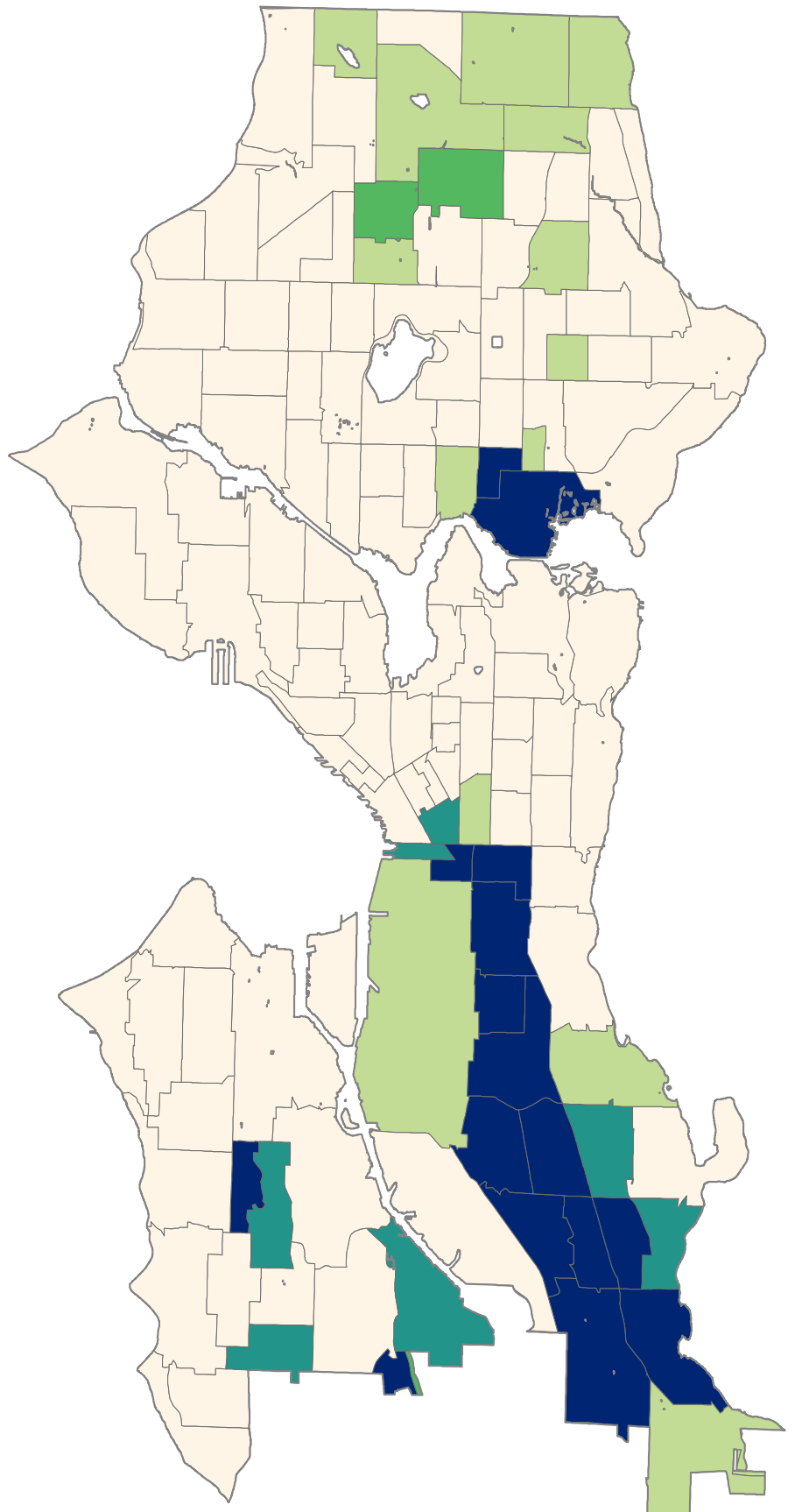
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### Percentage of households that are linguistically isolated (Census tract)



Source: 2008-2012 American Community Survey

A linguistically isolated household is one in which no one 14 years and older speaks English only or no one 14 years and older speaks both a language other than English and English "very well."

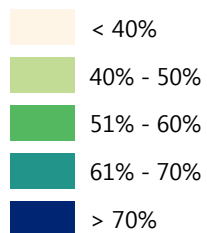


May 2016

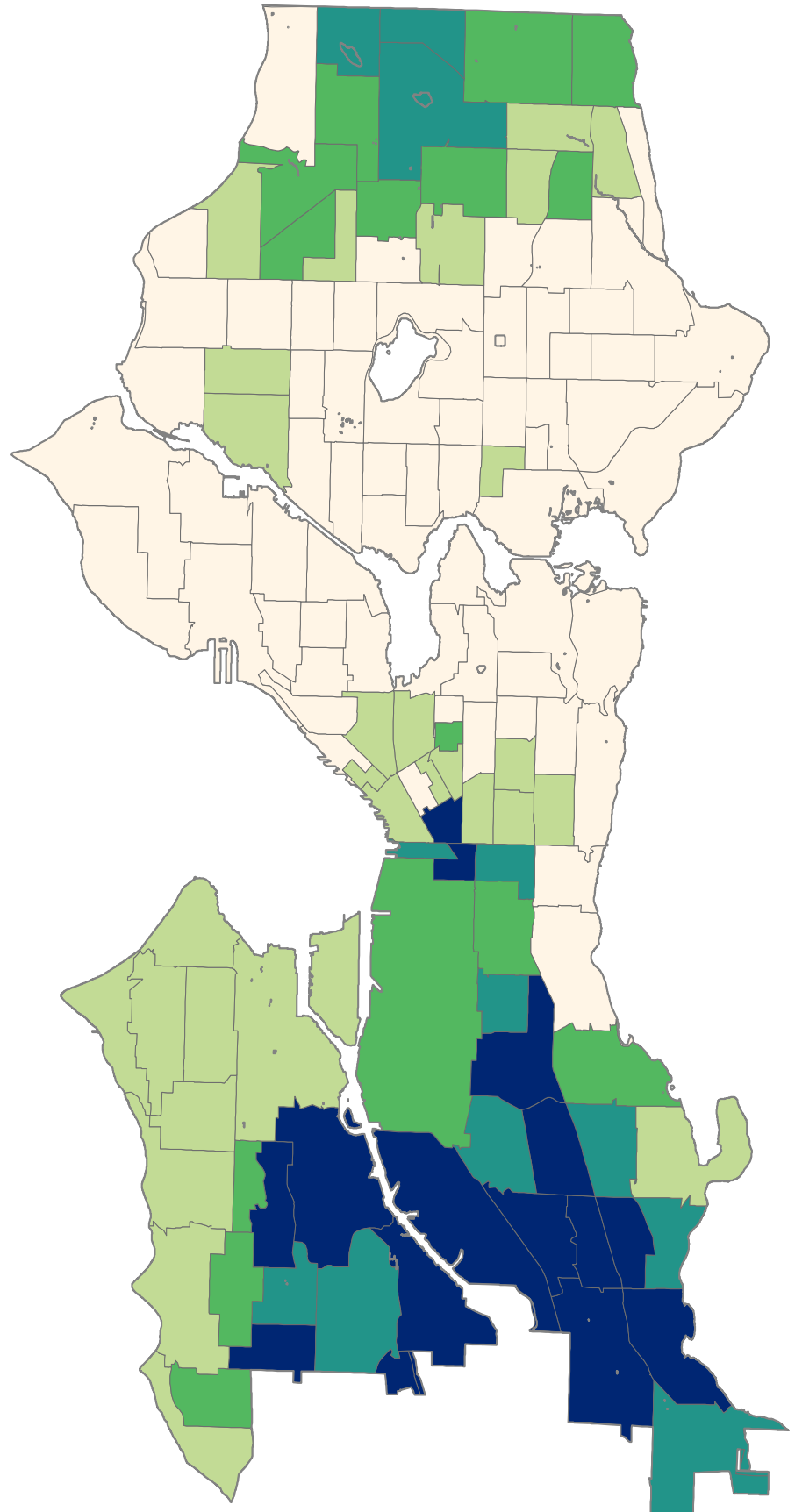
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**Percentage of population 25 years and older who does not have a Bachelor's degree (Census tract)**



Source: 2008-2012 American Community Survey

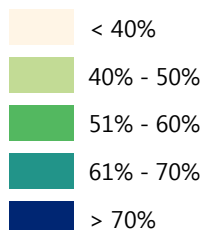




## Displacement Risk Index

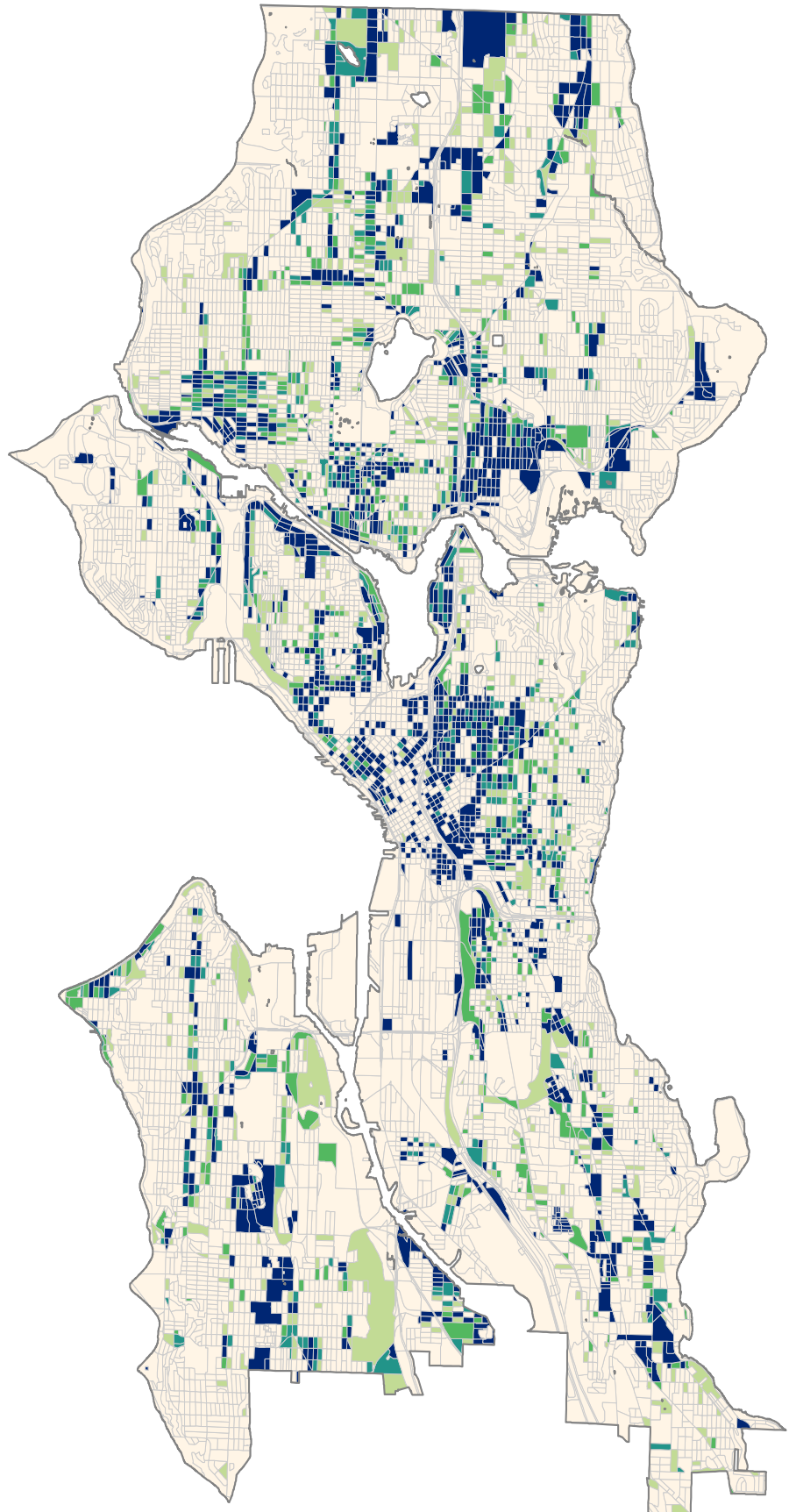
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### Percentage of population in occupied housing units that are renters (Census block)



Source: 2010 Census

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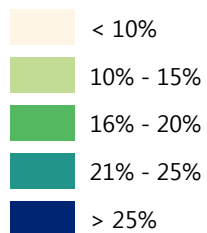


May 2016

## Displacement Risk Index

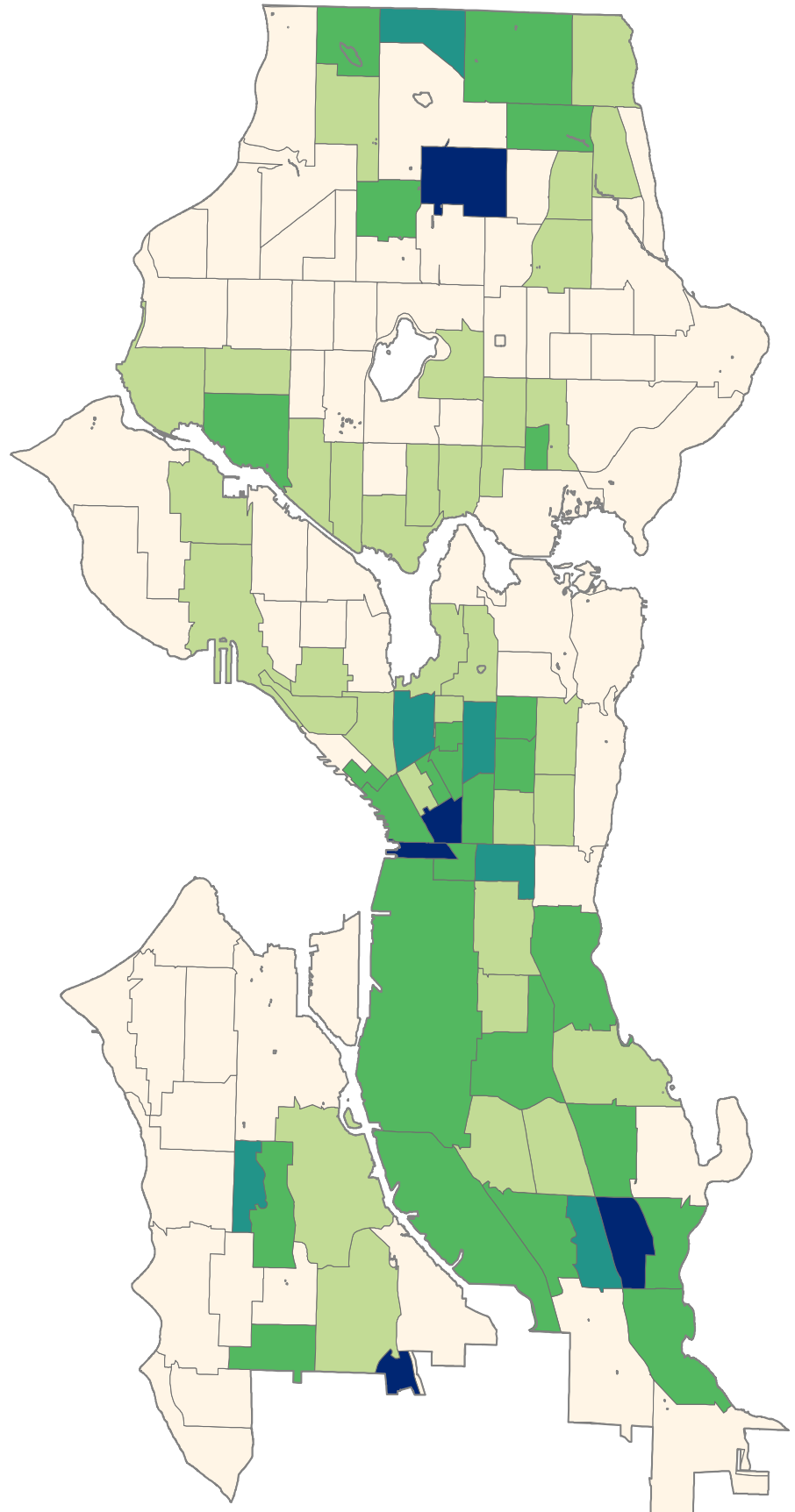
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**Percentage of households with income below 80% of the Area Median Income that are cost burdened (Census tract)**



*Source: Comprehensive Housing Affordability Strategy (based on 2007-2011 American Community Survey)*

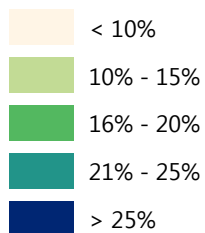
A cost-burdened household is one that pays between 30 and 50 percent of its income on housing costs.



## Displacement Risk Index

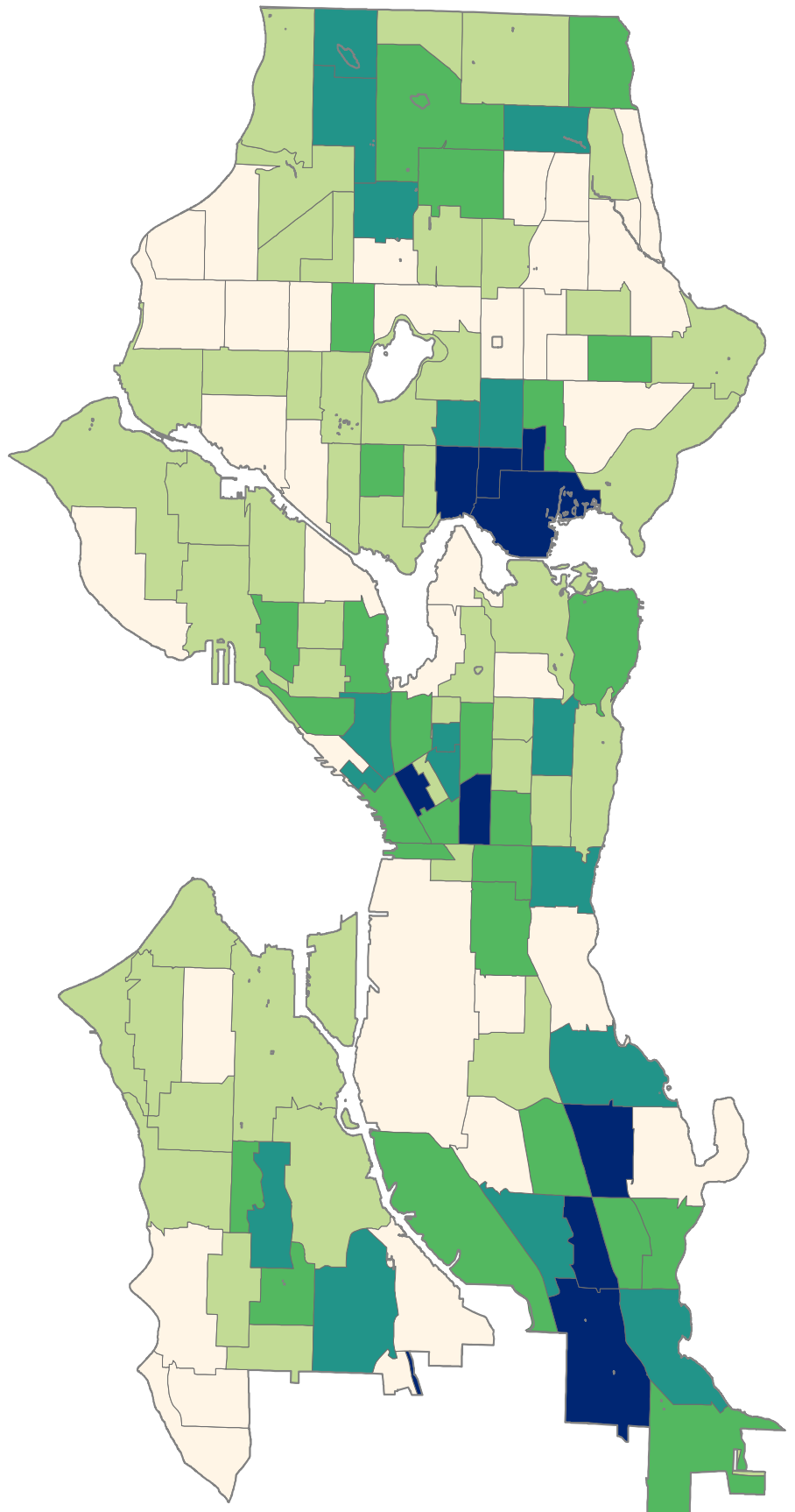
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Percentage of households with income below 80% of the Area Median Income that are severely cost burdened (Census tract)



Source: Comprehensive Housing Affordability Strategy (based on 2007-2011 American Community Survey)

A severely cost-burdened household is one that pays more than 50 percent of its income on housing costs.

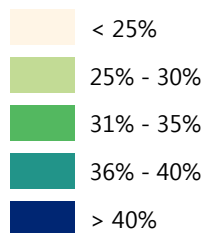


May 2016

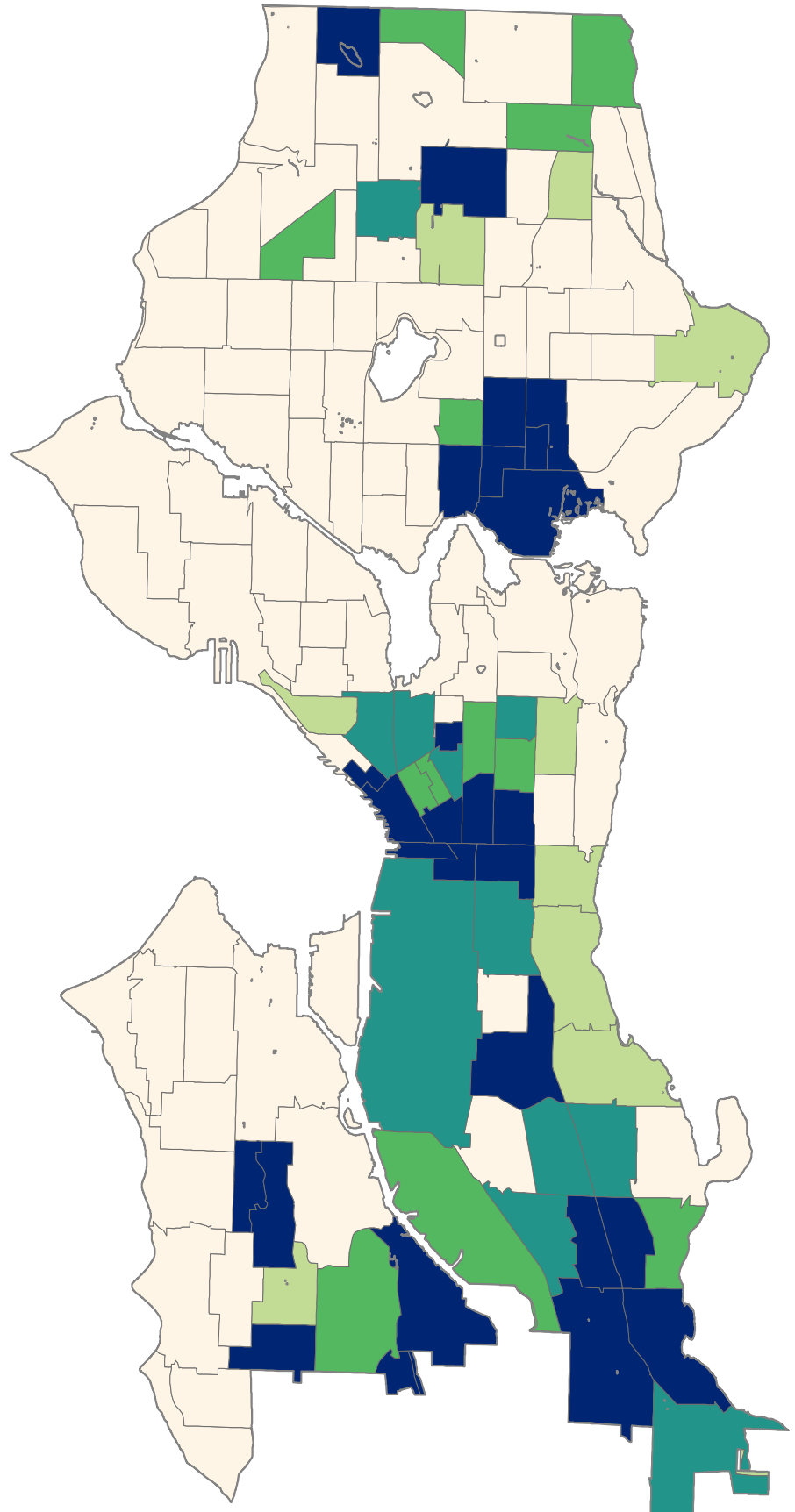
## Displacement Risk Index

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**Percentage of the population with income below 200% of the Federal poverty level (Census tract)**



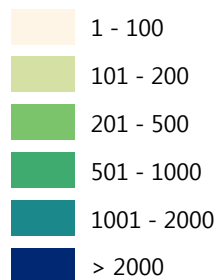
Source: 2008-2012 American Community Survey



## Displacement Risk Index

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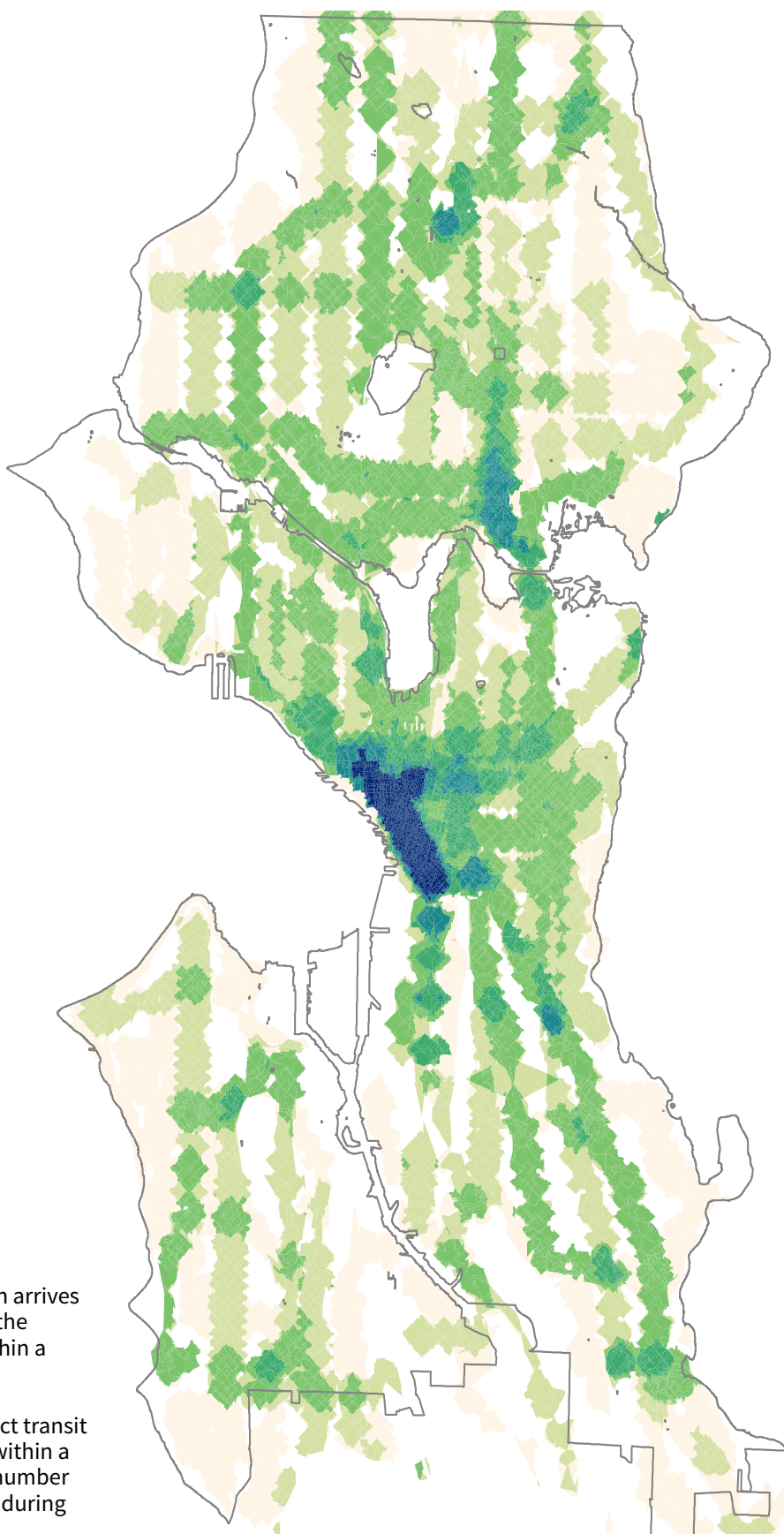
### Number of daily unique transit trips within a quarter-mile walking distance of a location



Source: King County Metro

A transit “trip” occurs each time a bus or train arrives at and departs from a stop. This map shows the number of unique transit trips that occur within a quarter-mile along the walking network.

It does not double count when the same exact transit vehicle stops at two locations that are both within a quarter-mile walk. Instead, it quantifies the number of unique bus trips that someone can access during an entire weekday.



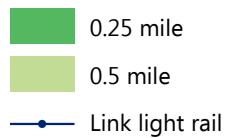


May 2016

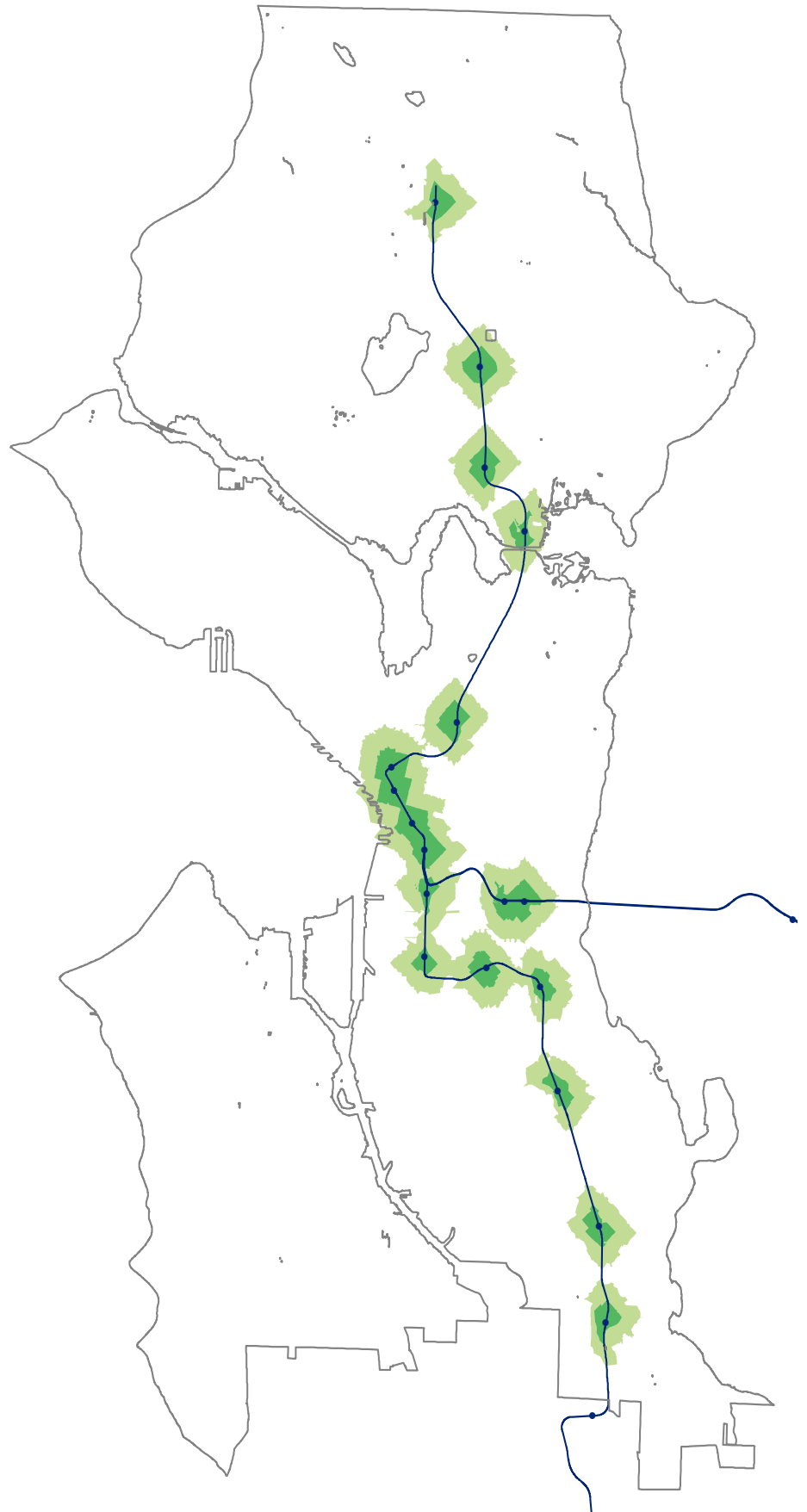
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### Walking distance to a current or future Link light rail station



Source: Sound Transit





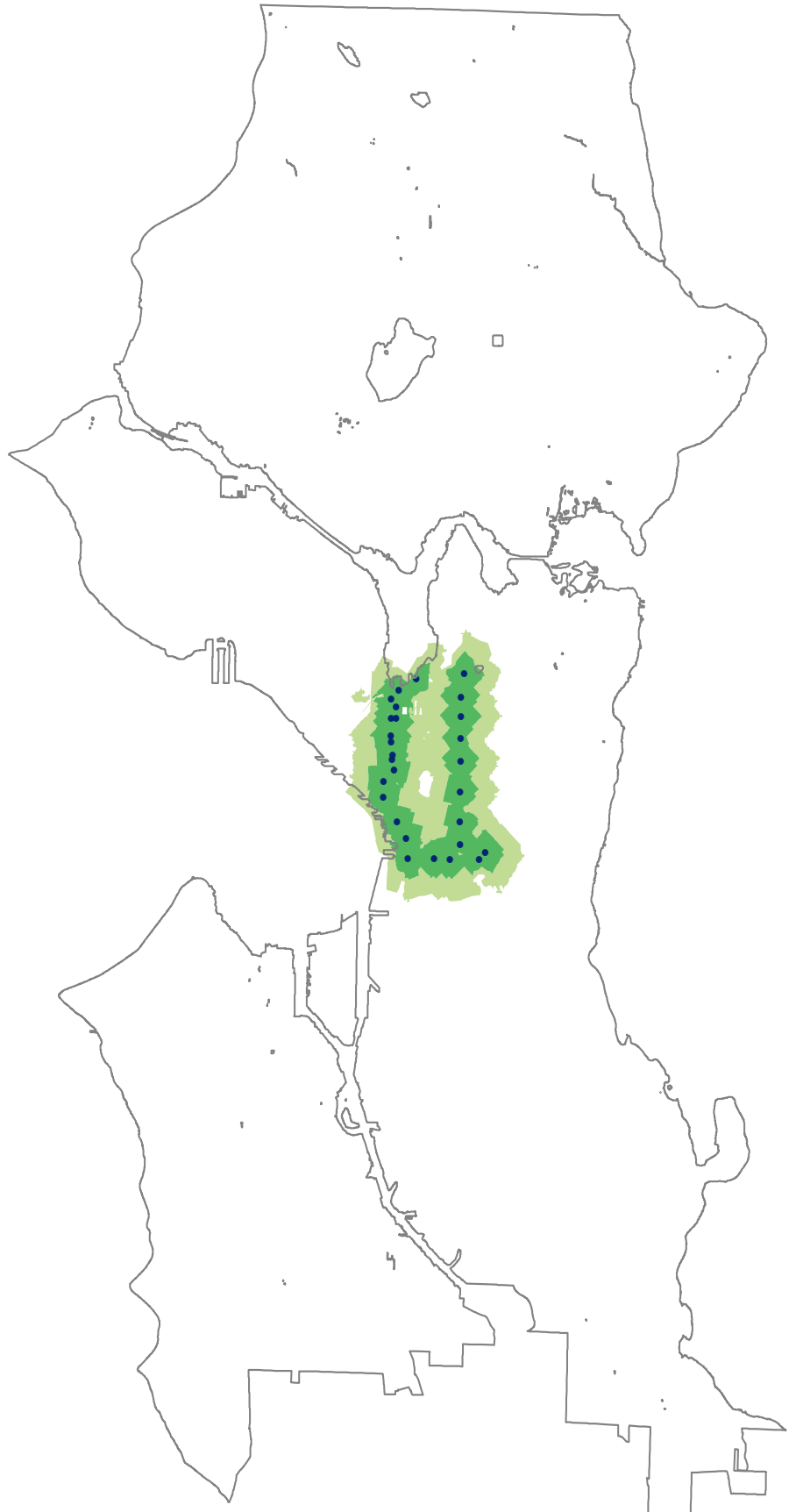
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### Walking distance to a current or future streetcar stop

- 0.25 mile
- 0.5 mile
- Streetcar stop

Source: Seattle Department of Transportation



May 2016

## Displacement Risk Index

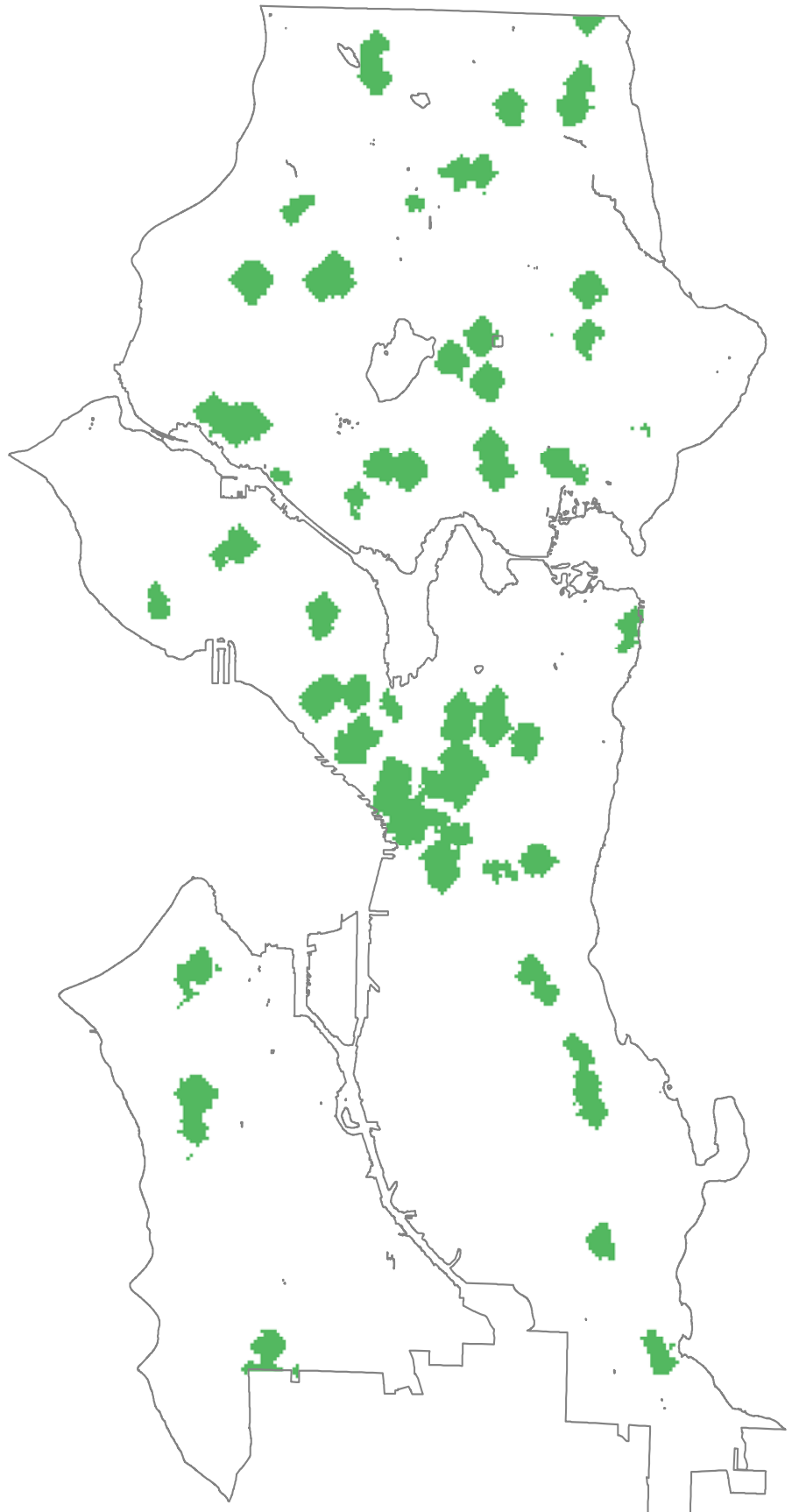
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### Locations within walking distance of core businesses



Within 0.5 mile of a supermarket/grocery, 0.25 mile of a pharmacy, and 0.25 of a restaurant, cafe, or diner

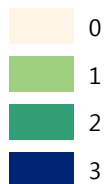
Source: ReferenceUSA



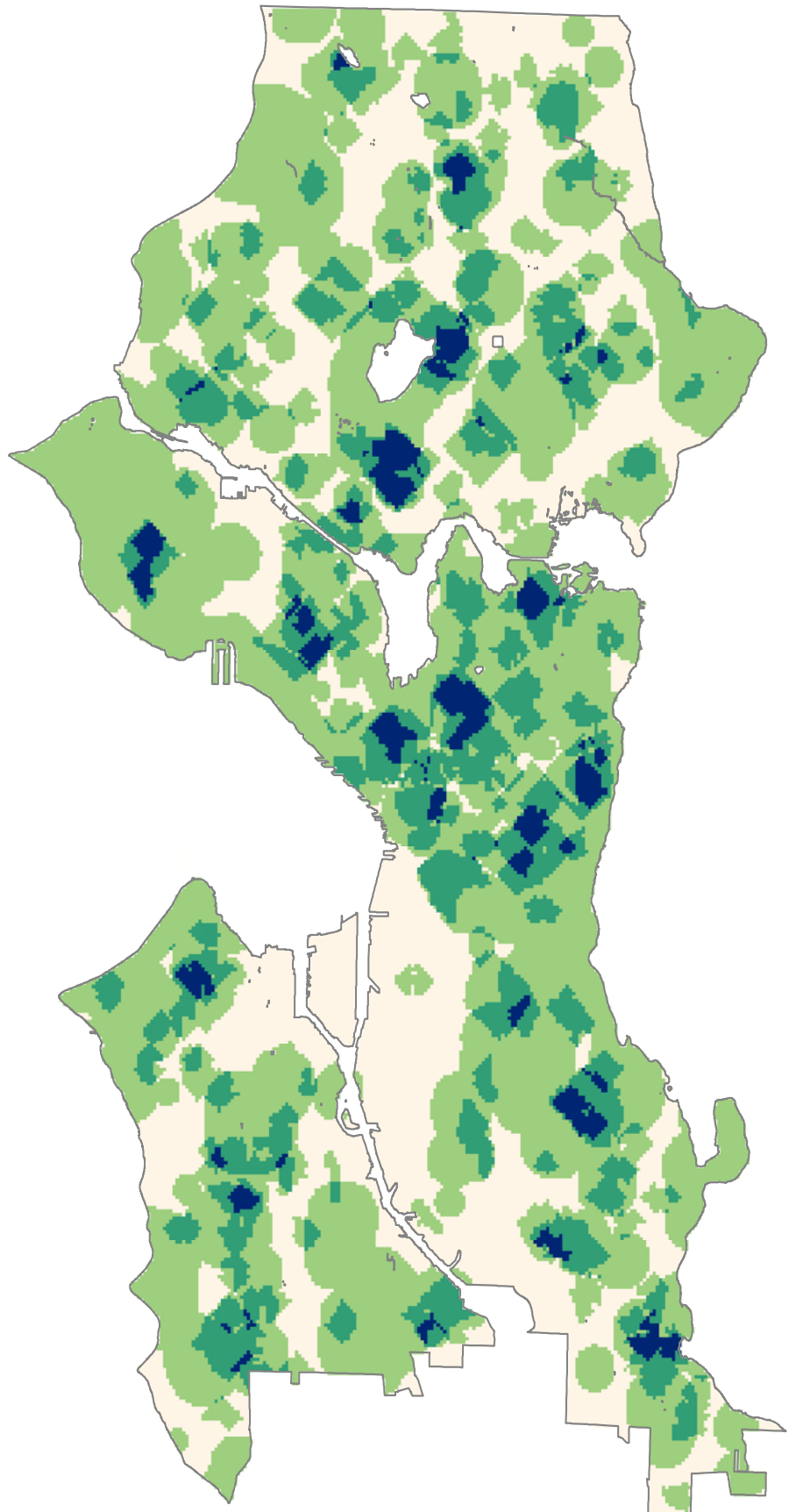
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Number of the following locations within the specified distance:  
 School (0.25 mile)  
 Community center (0.25)  
 Library (0.5 mile)  
 Park (varies by acreage)



Source: City of Seattle



May 2016

## Displacement Risk Index

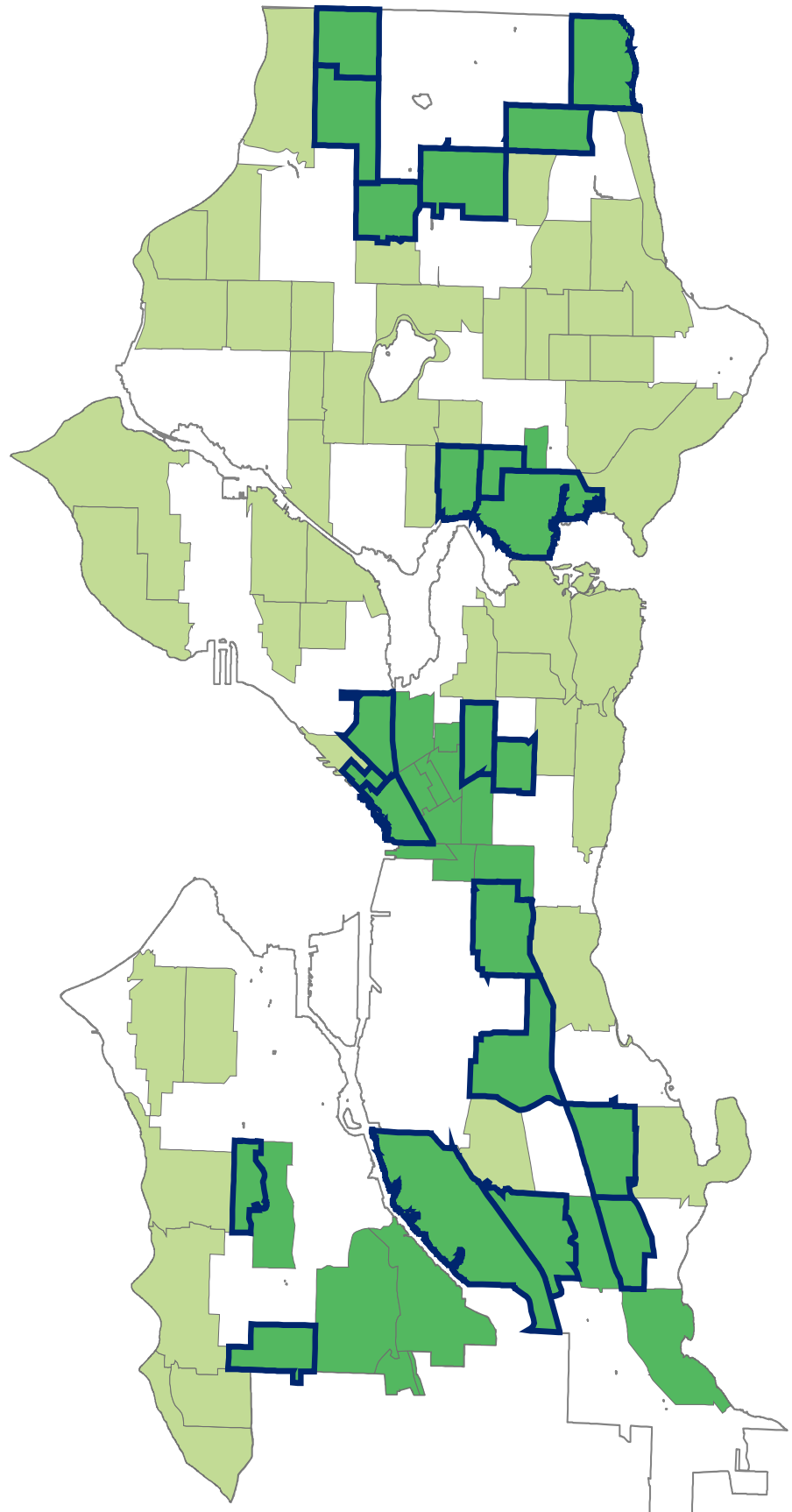
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### Median household income relative to Area Median Income (AMI) (Census tract)

- > 120% of AMI
- < 80% of AMI
- "Spillover" tract

Source: 2008-2012 American Community Survey

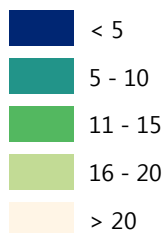
A "spillover" Census tract is one that  
a) has a median household income under 80% of the Area Median Income and b) abuts a tract where the median household income is above 120% of the Area Median Income.



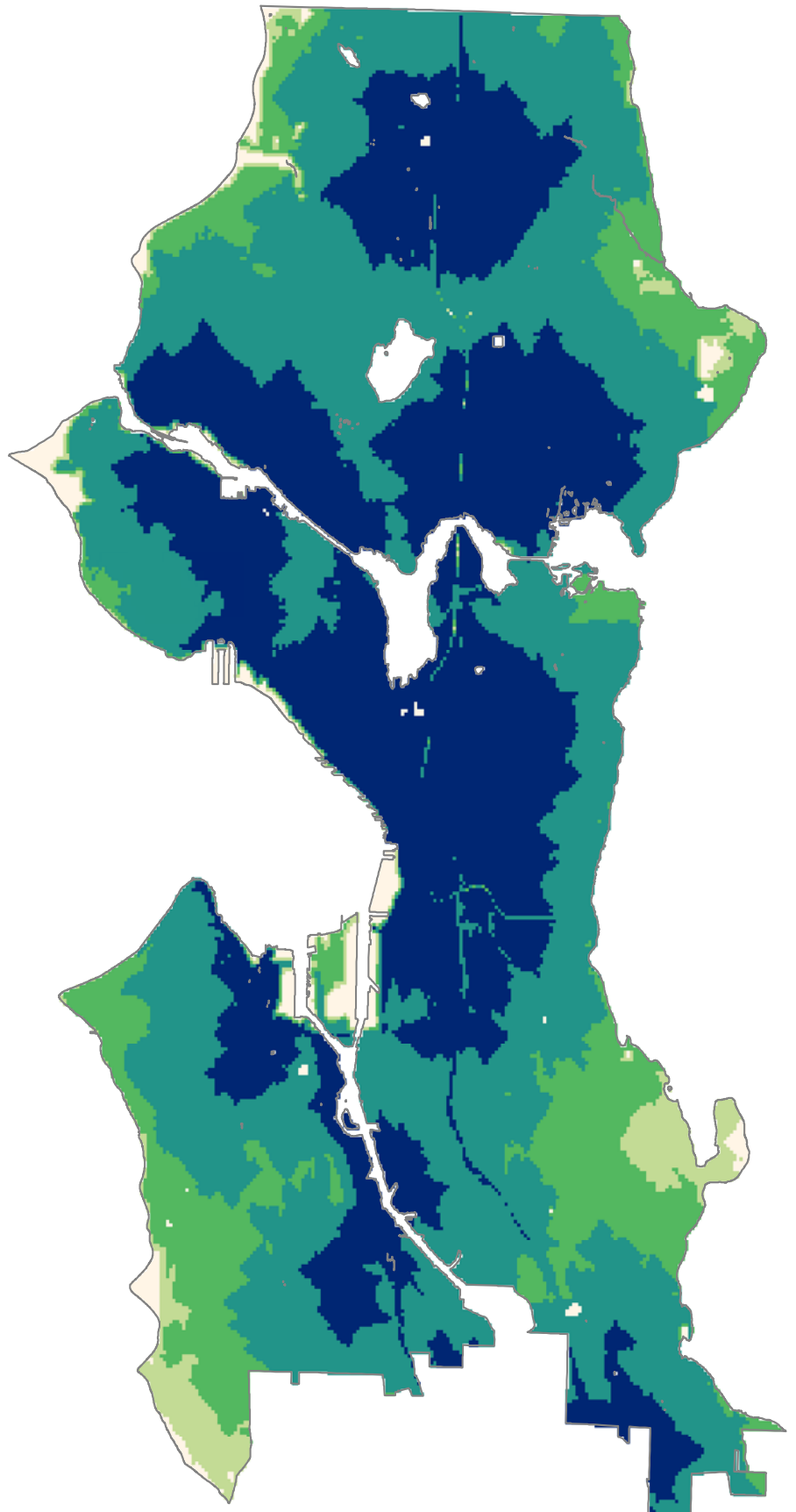
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### Travel time to designated King County Urban Centers and Manufacturing & Industrial Centers (minutes)




Source: King County



May 2016

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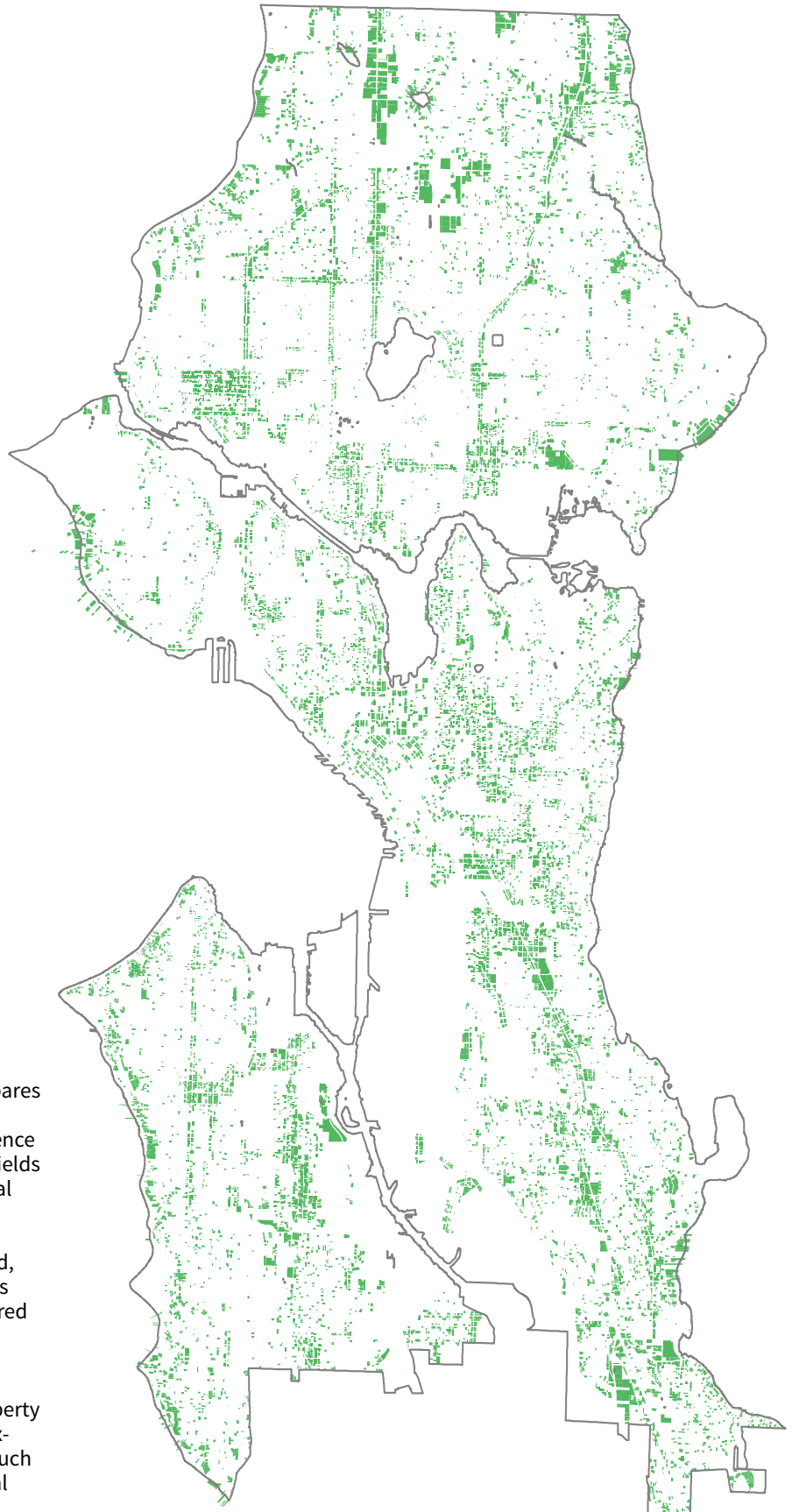
 Parcels that allow residential uses identified as likely to redevelop in City development capacity model

*Source: City of Seattle*

The City maintains a capacity model that compares existing development to an estimate for what could be built under current zoning. The difference between existing and potential development yields the capacity for new residential and commercial development.

Certain parcels unlikely to develop are excluded, such as public facilities, cemeteries, and parcels that contain landmarked structures or transferred development rights.

The model does not predict market trends or suggest when redevelopment will occur. A property owner's decision to demolish and replace an existing building involves many considerations, such as whether the land is owned outright, financial feasibility, and current revenue.

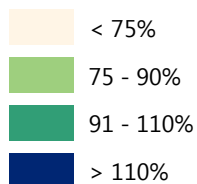




## Displacement Risk Index

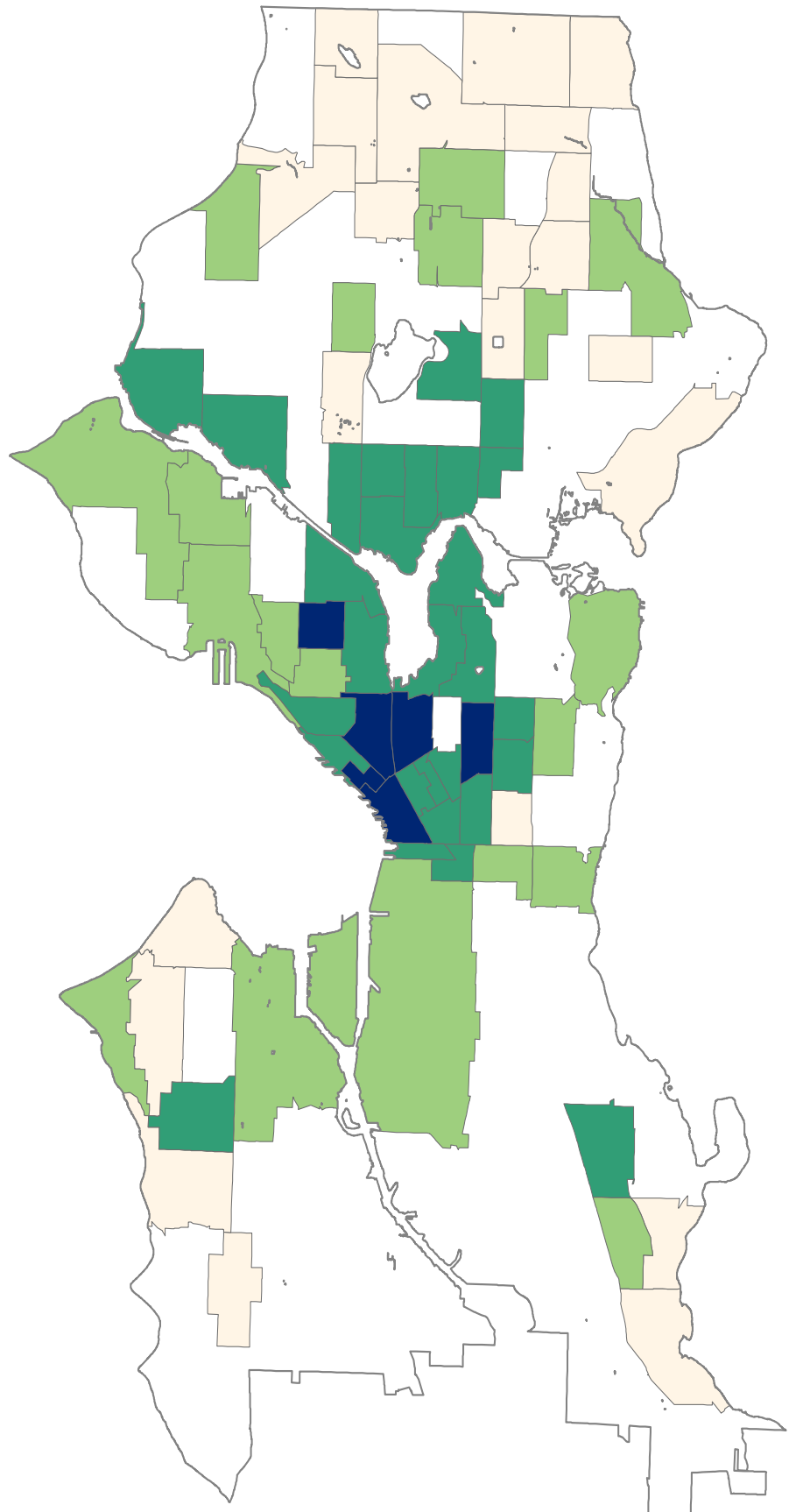
- People of color
- Linguistic isolation
- Educational attainment
- Housing tenancy
- Housing cost-burdened households
- Severely housing cost-burdened households
- Household income
- Proximity to transit
- Proximity to current or future Link light rail and streetcar
- Proximity to core businesses (supermarket/grocery, pharmacy, and restaurant)
- Proximity to civic infrastructure (location within a certain distance of a school, park, community center, or library)
- Proximity to high-income neighborhood
- Proximity to regional job center
- Development capacity
- Median rent

### Ratio of average rent per census tract to Seattle average



Source: Dupre + Scott (Spring 2016)

Based on multifamily buildings with 20 or more units, for all unit sizes, in dollars per net rentable square feet.

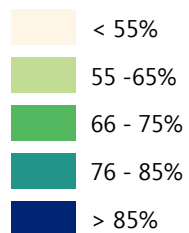


May 2016

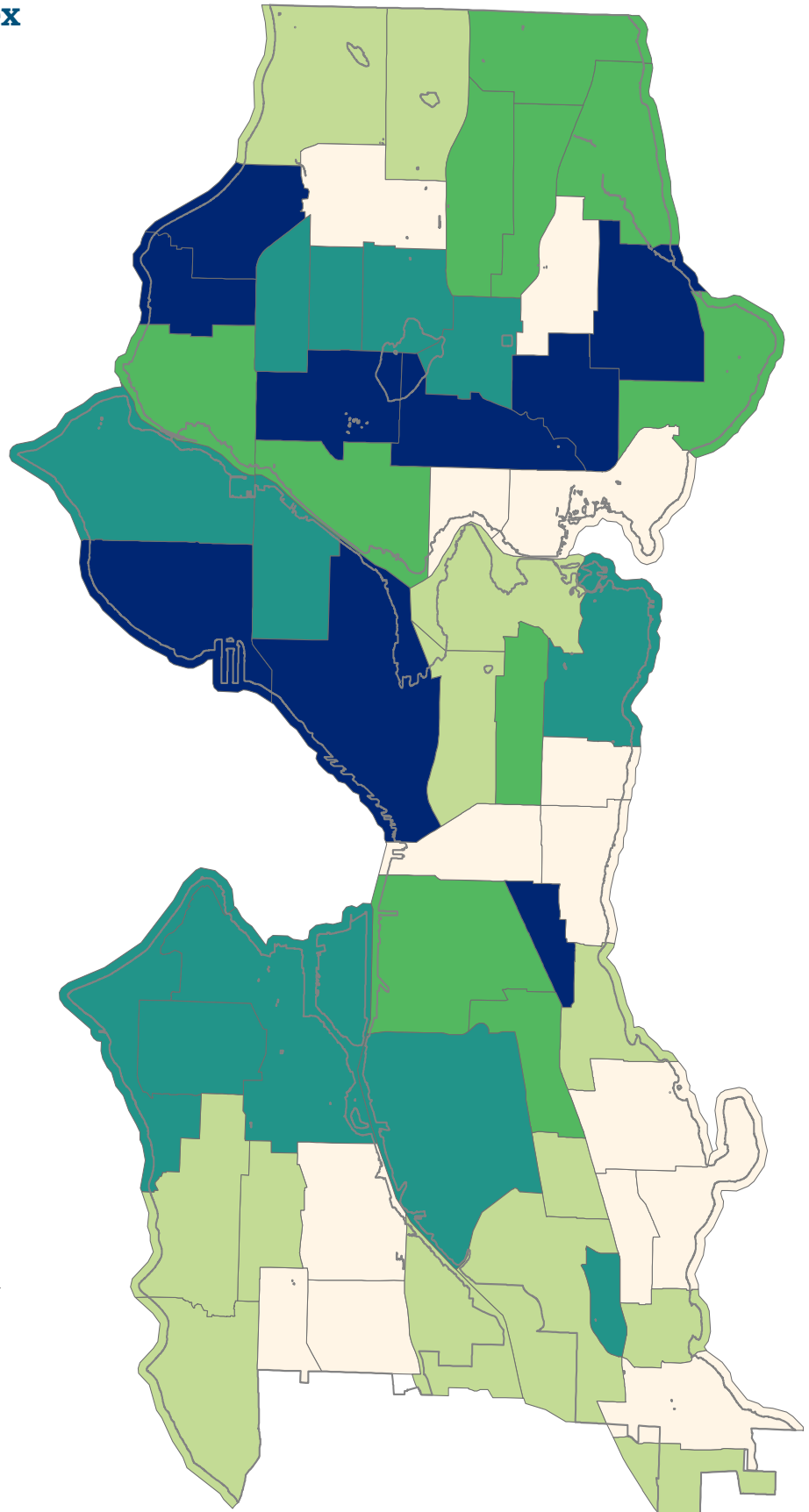
## Access to Opportunity Index

- School performance
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  - Proximity to employment
  - Property appreciation
  - Proximity to transit
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  - Proximity to a park
  - Sidewalk completeness
  - Proximity to a health care facility
  - Proximity to a location that sells produce

**Percentage of elementary school students performing at grade level in math (attendance area)**



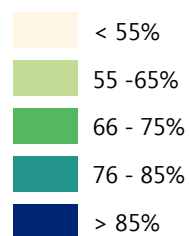
*Source: Washington Office of Superintendent of Public Instruction (2012-2013 school year)*



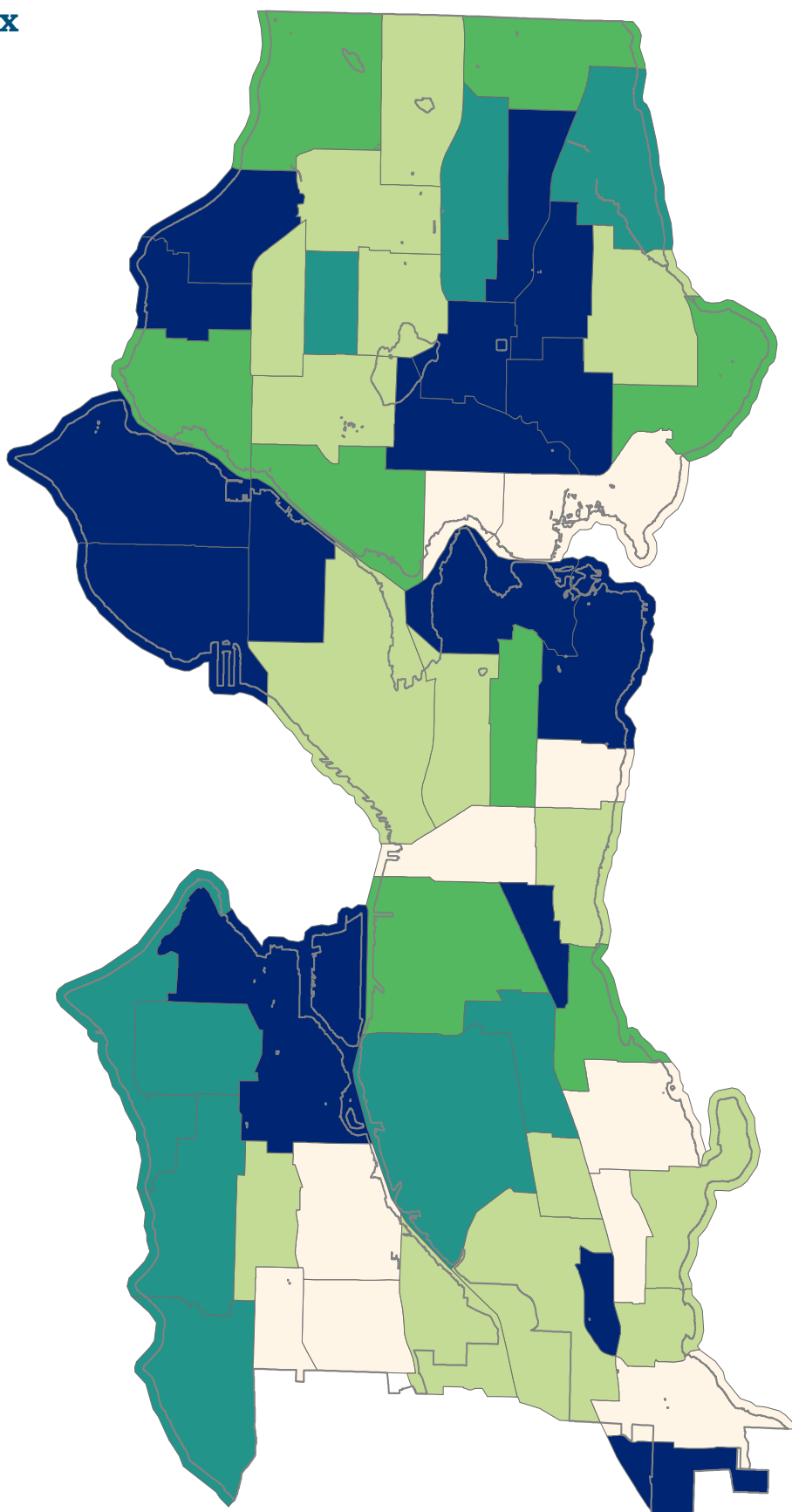
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Percentage of elementary school students performing at grade level in reading (attendance area)



Source: Washington Office of Superintendent of Public Instruction (2012-2013 school year)

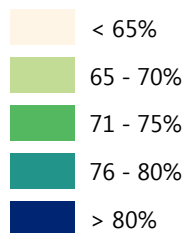


May 2016

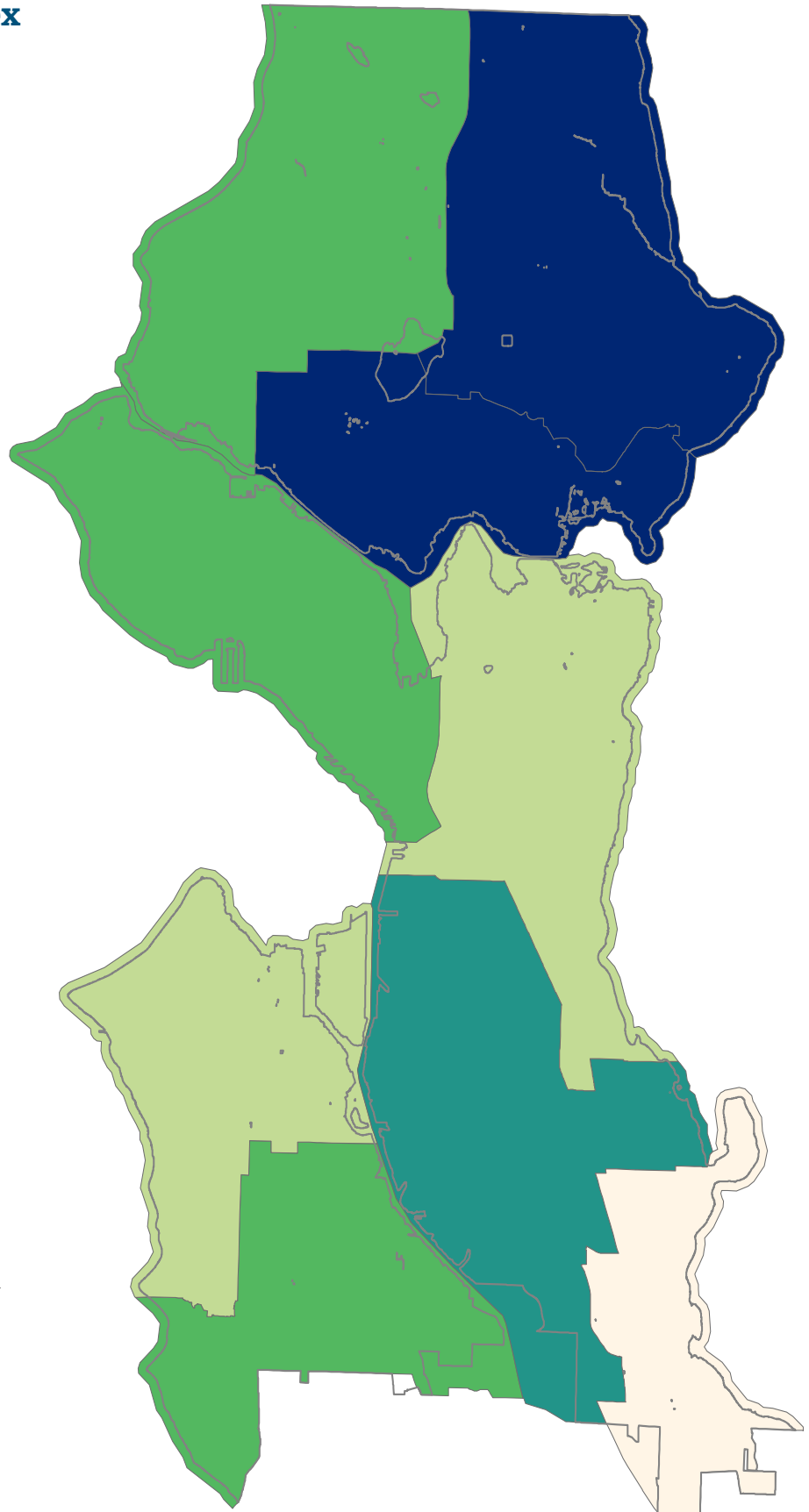
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**Percentage of middle school students performing at grade level in math (attendance area)**



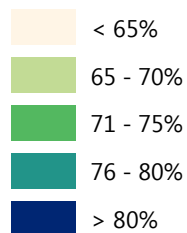
*Source: Washington Office of Superintendent of Public Instruction (2012-2013 school year)*



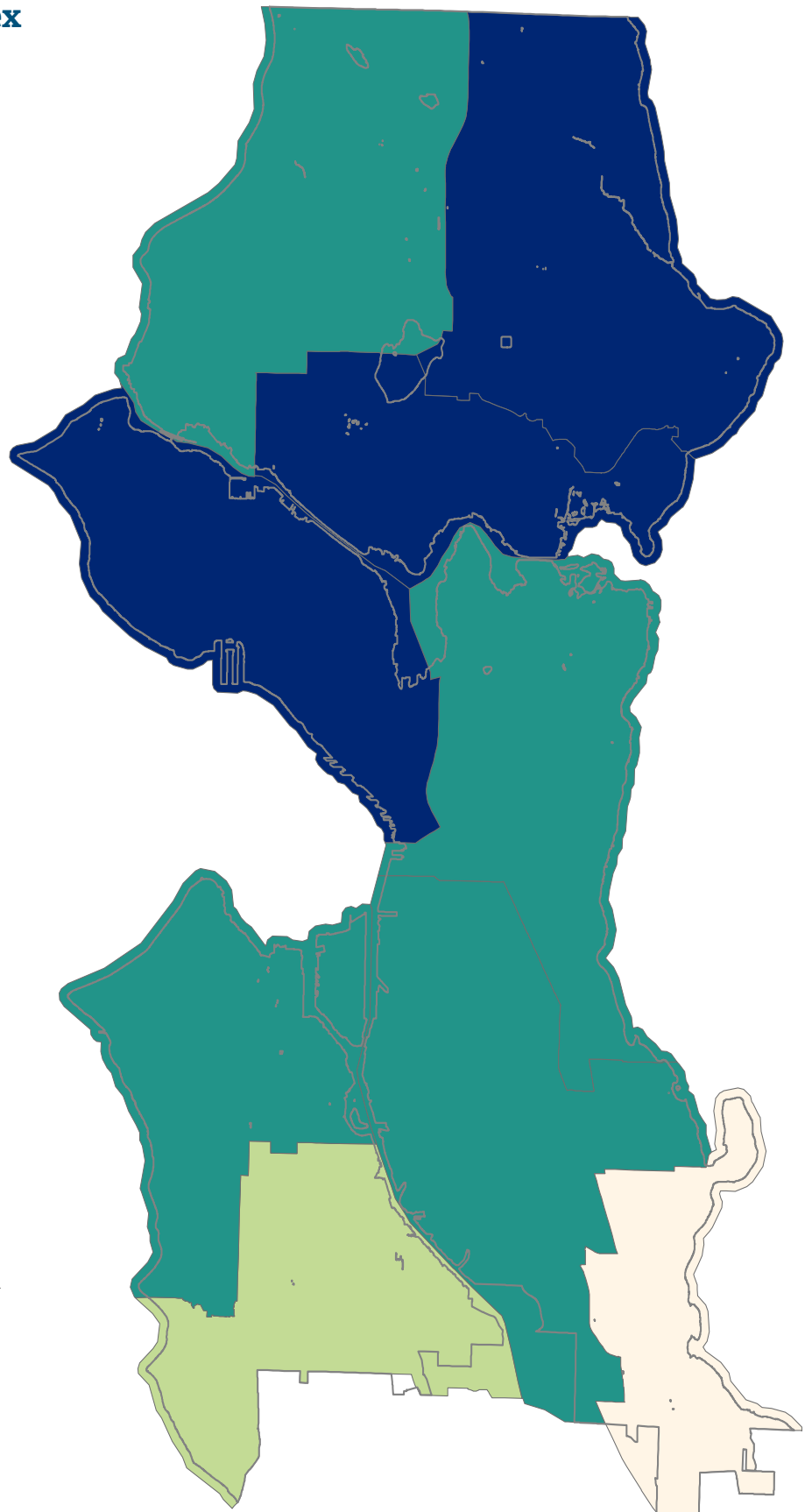
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Percentage of middle school students performing at grade level in reading (attendance area)



Source: Washington Office of Superintendent of Public Instruction (2012-2013 school year)

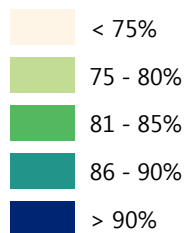


May 2016

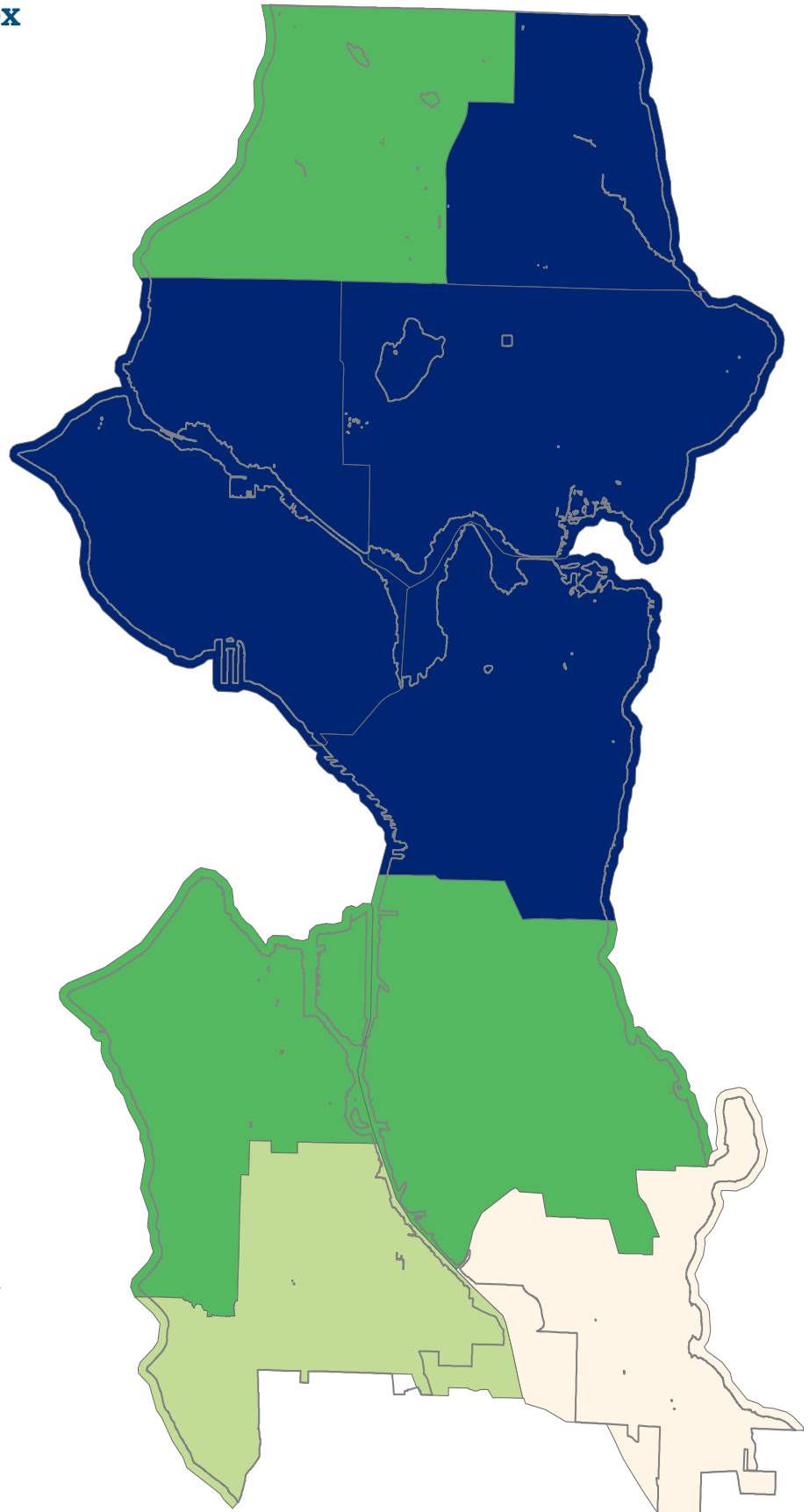
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### Four-year cohort high school graduation rate (attendance area)




Source: Washington Office of Superintendent of Public Instruction (2012-2013 school year)



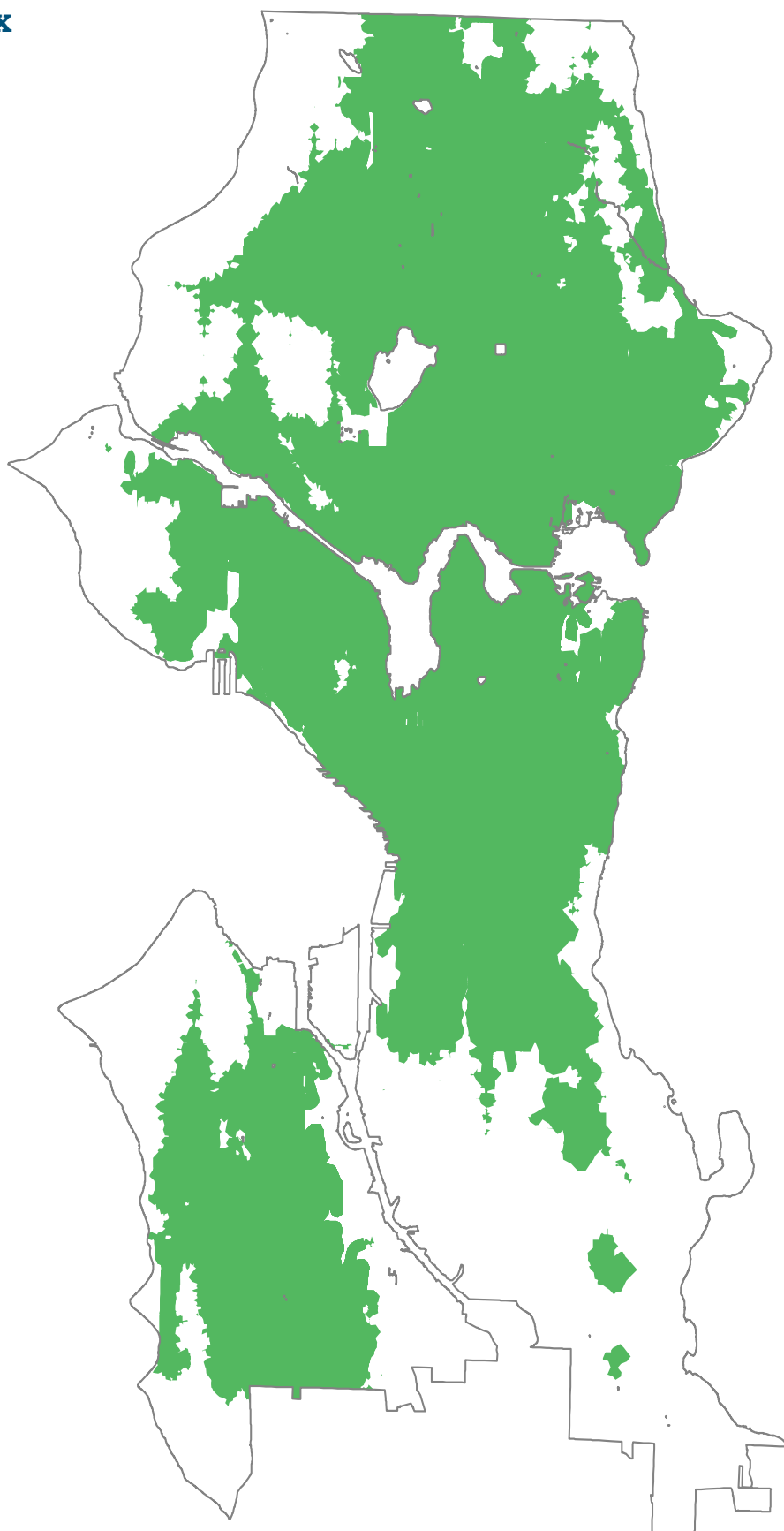


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 Within 30 minutes of a college or university by transit (bus and/or light rail)


Source: King County Metro, Sound Transit



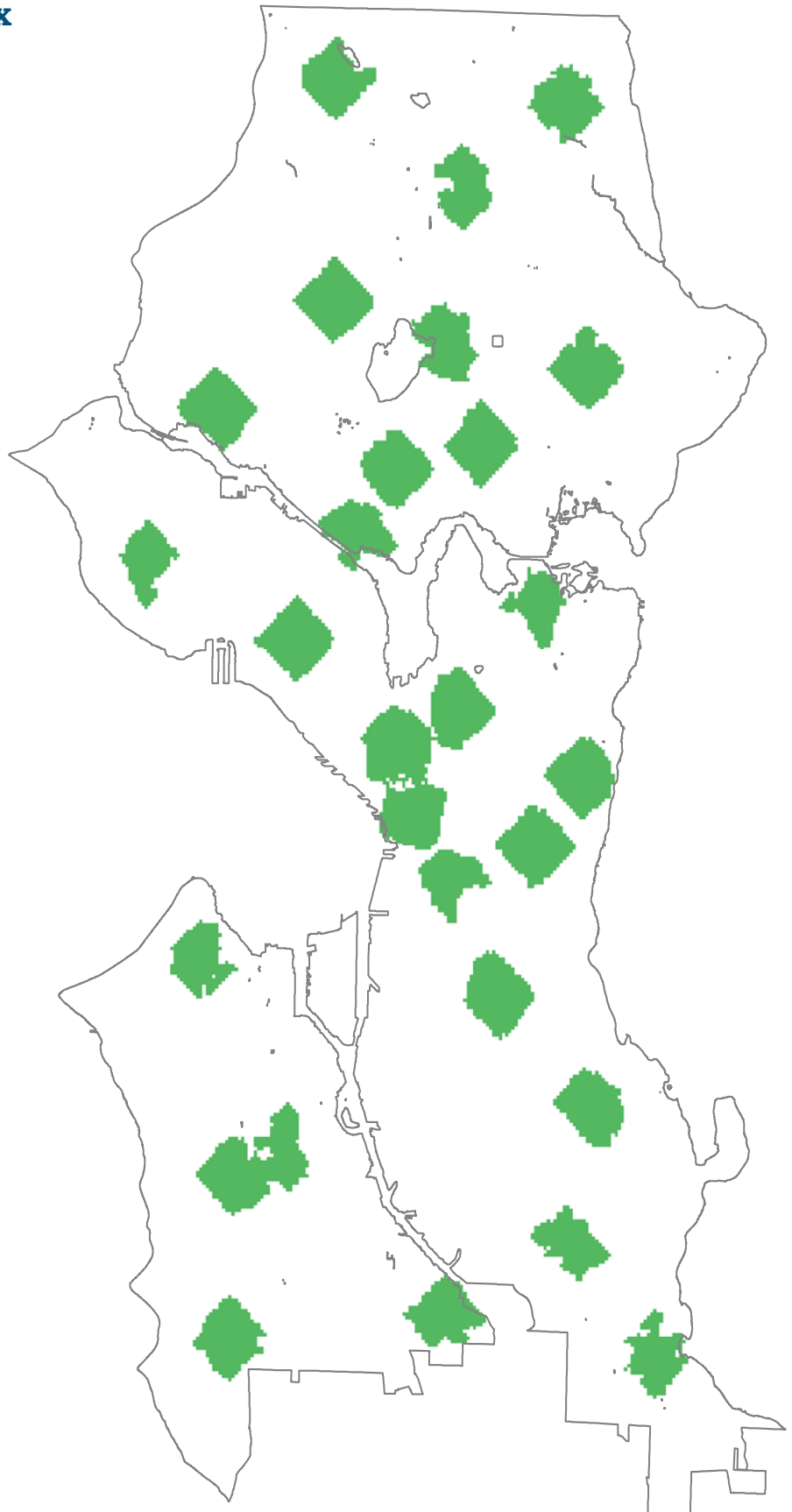
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 Within 0.5 mile of a library

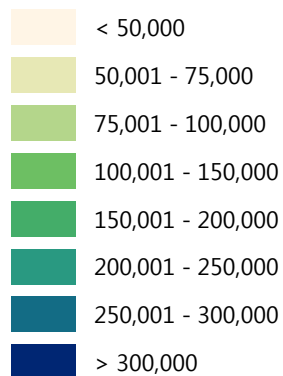
Source: City of Seattle



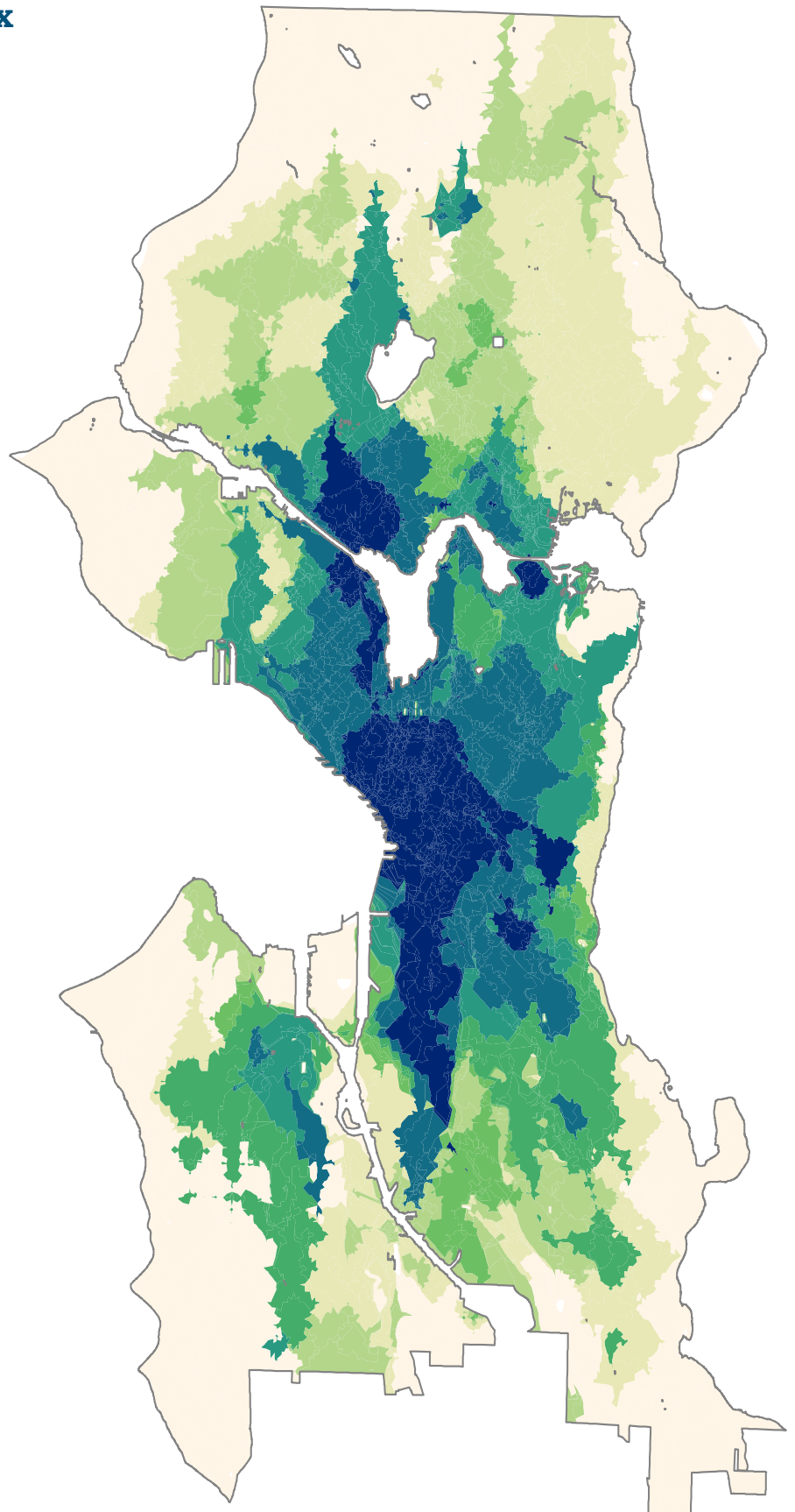
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### Number of jobs accessible in 30 minutes by transit



Source: Puget Sound Regional Council 2014 Covered Employment Estimates by Census tract

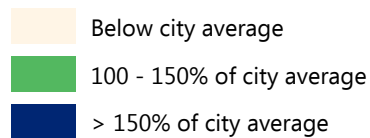


May 2016

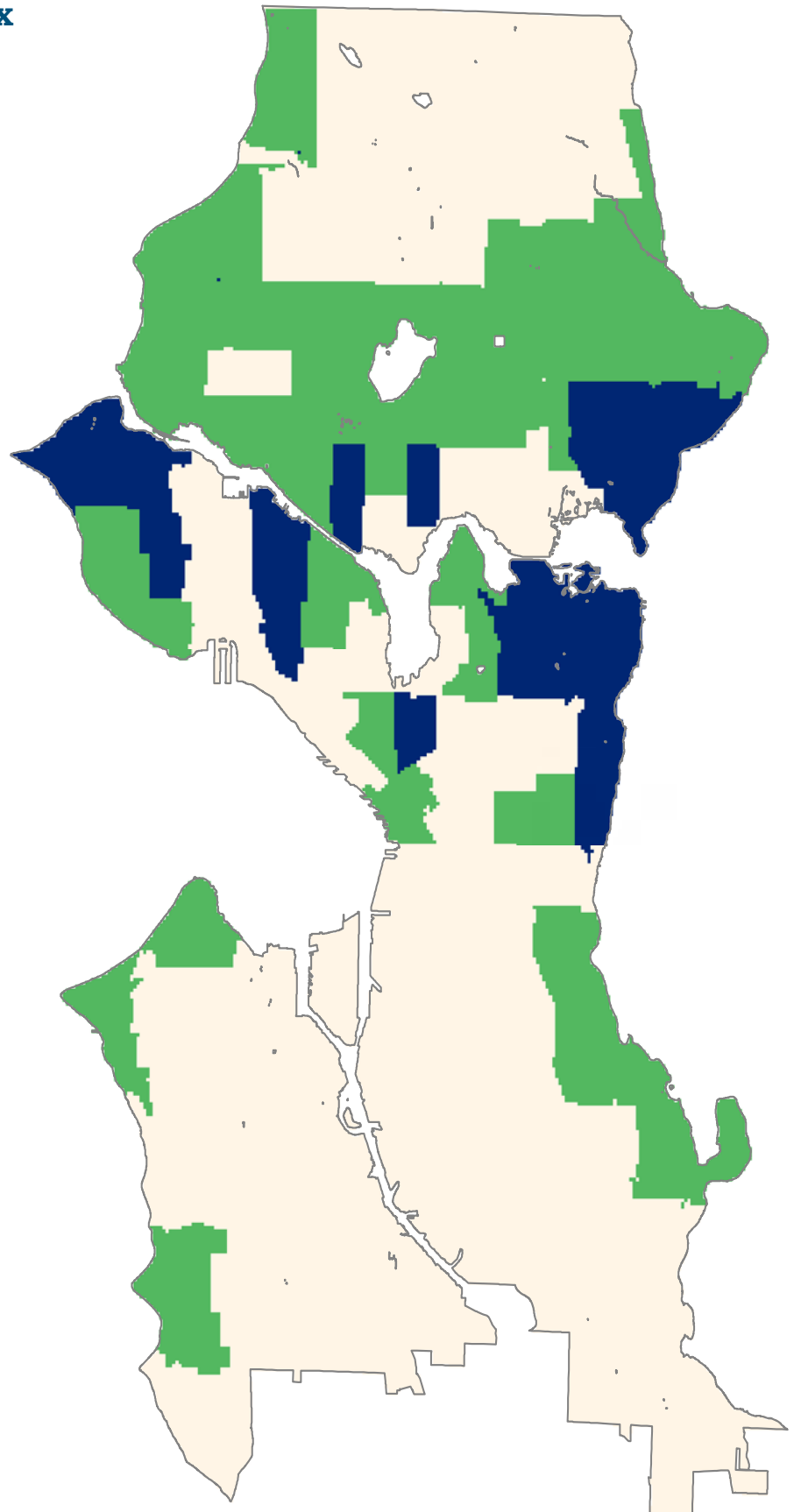
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### Change in median home value 2000-2013 (Census tract)



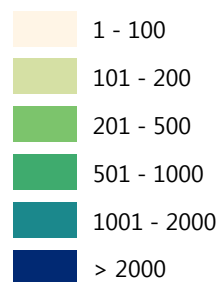
Source: 2000 Census, 2009-2013 American Community Survey



## Access to Opportunity Index

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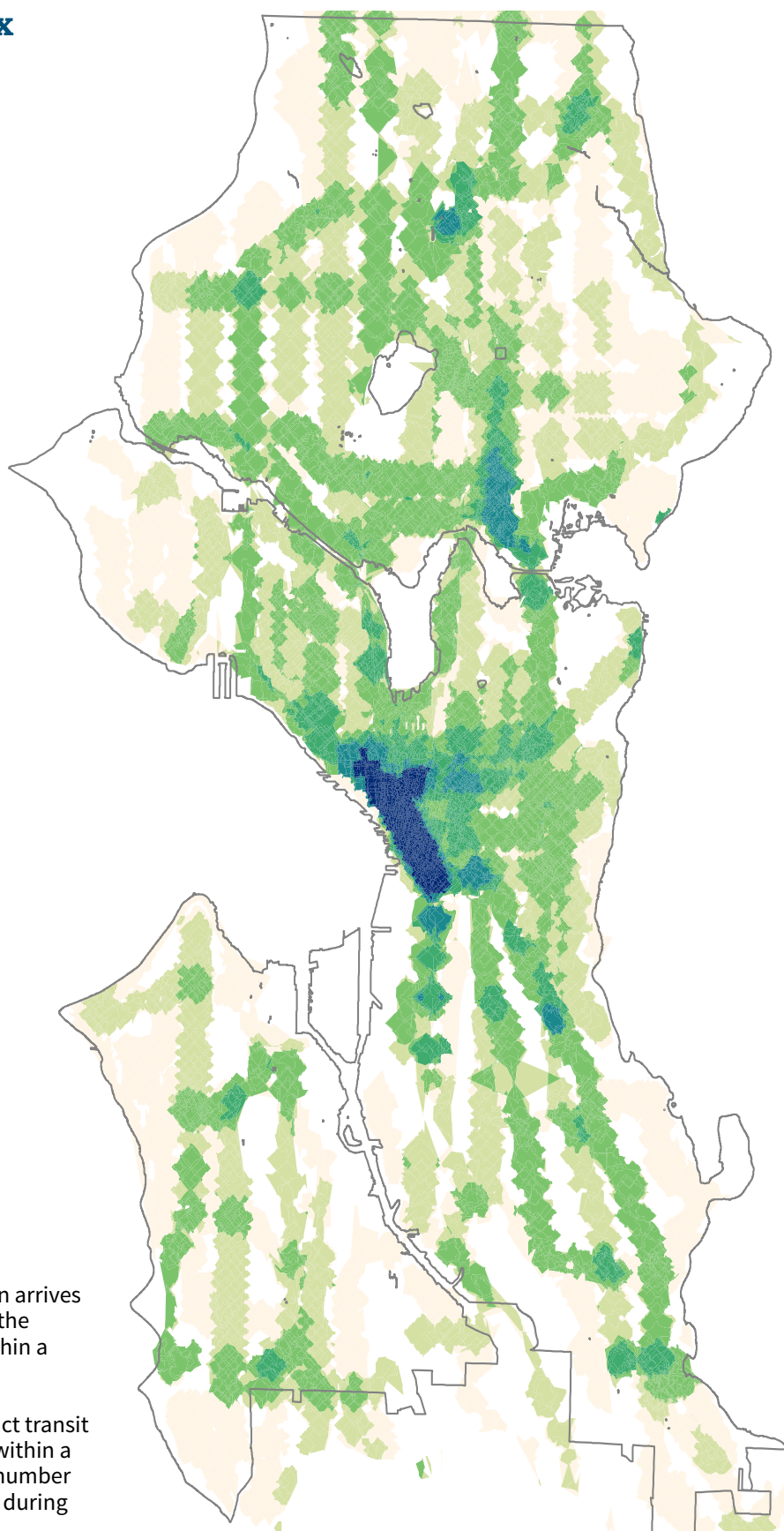
### Number of daily unique transit trips within a quarter-mile walking distance of a location



Source: King County Metro

A transit “trip” occurs each time a bus or train arrives at and departs from a stop. This map shows the number of unique transit trips that occur within a quarter-mile along the walking network.

It does not double count when the same exact transit vehicle stops at two locations that are both within a quarter-mile walk. Instead, it quantifies the number of unique bus trips that someone can access during an entire weekday.

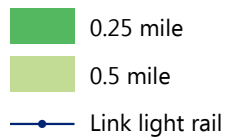


May 2016

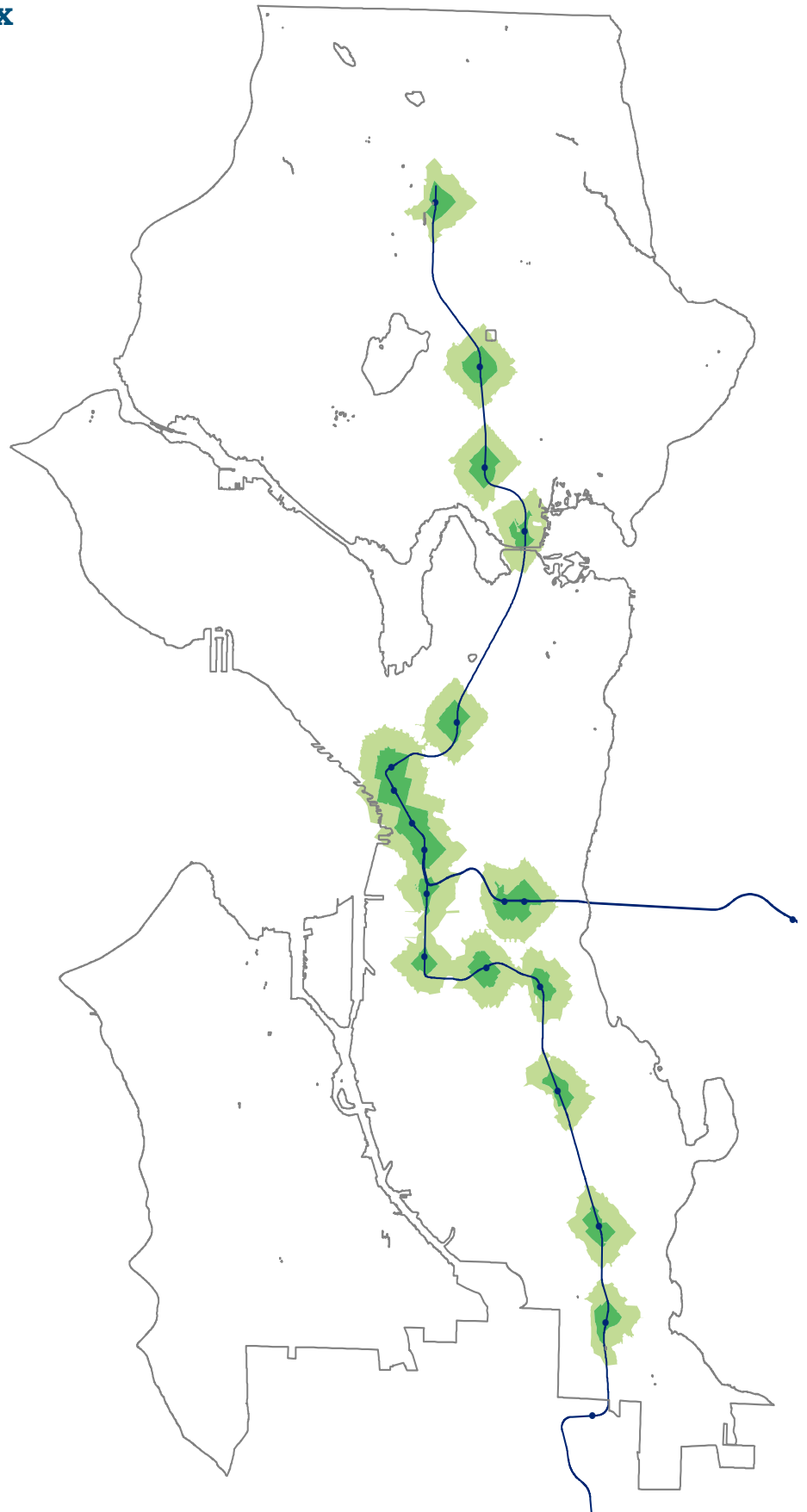
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### Walking distance to a current or future Link light rail station



Source: Sound Transit





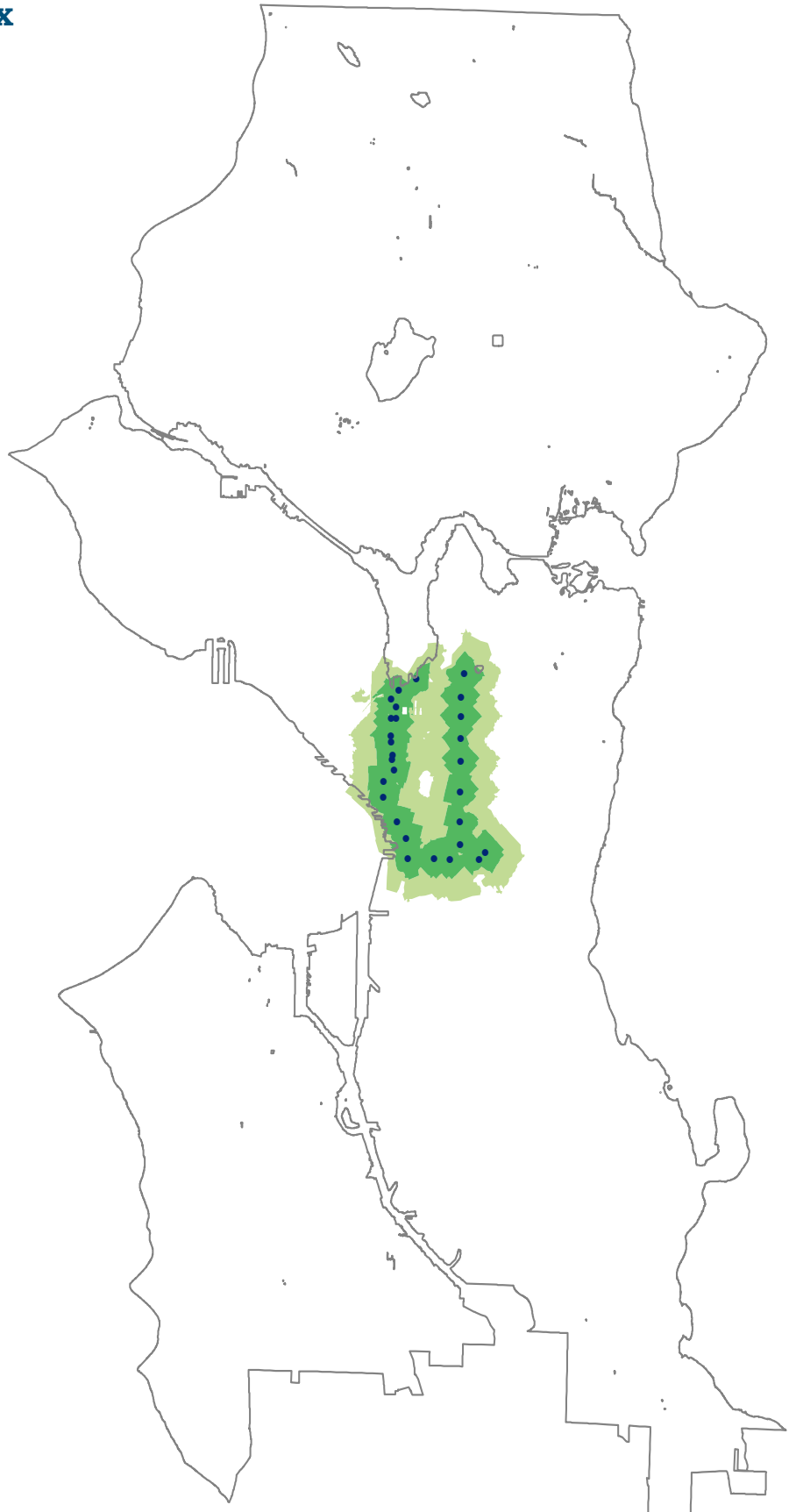
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### Walking distance to a current or future streetcar stop

- 0.25 mile
- 0.5 mile
- Streetcar stop


Source: Seattle Department of Transportation



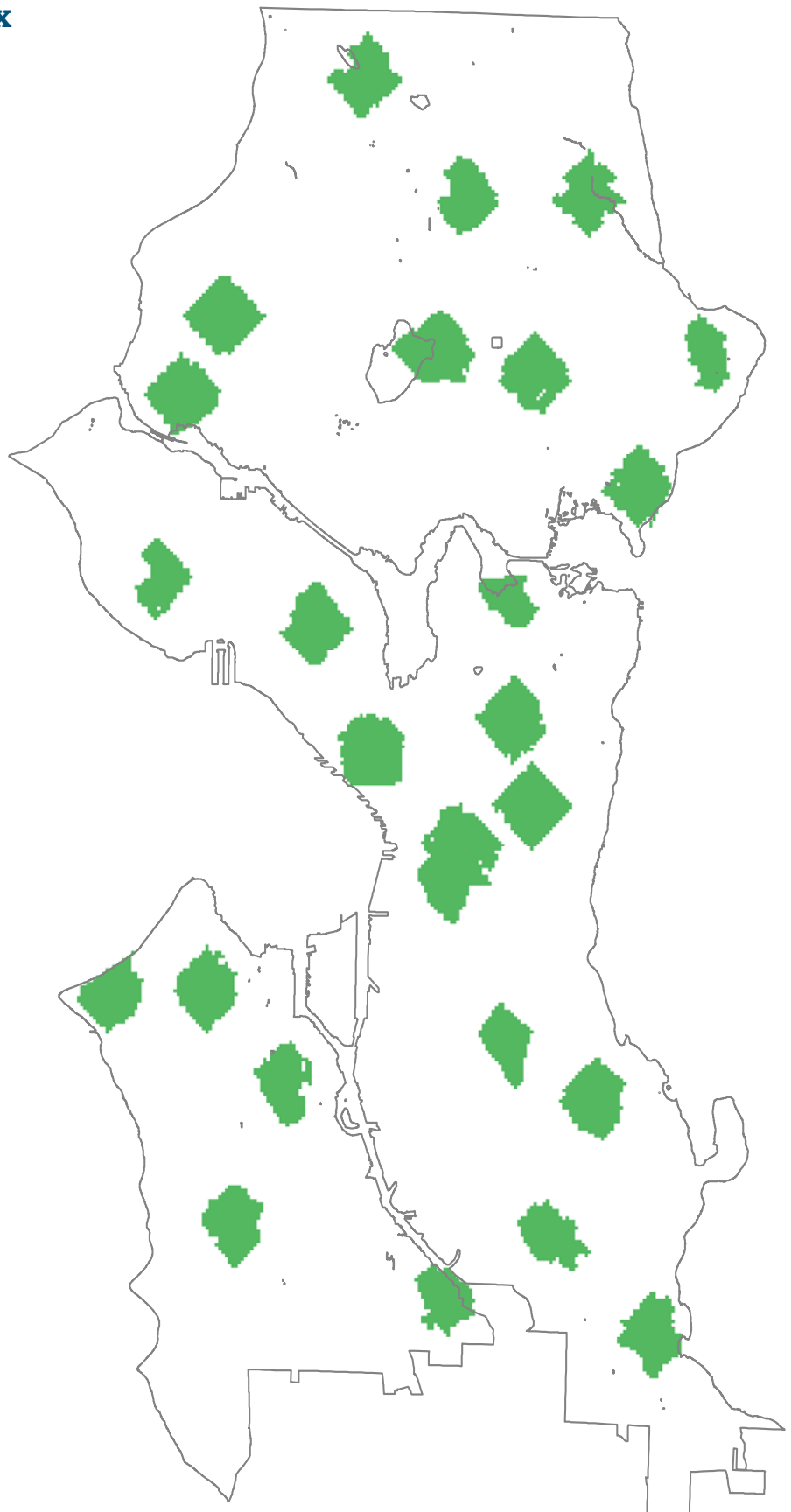
May 2016

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 Within a 0.5 mile walk of a City-owned and City-operated community center

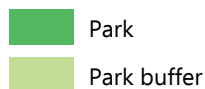
Source: City of Seattle



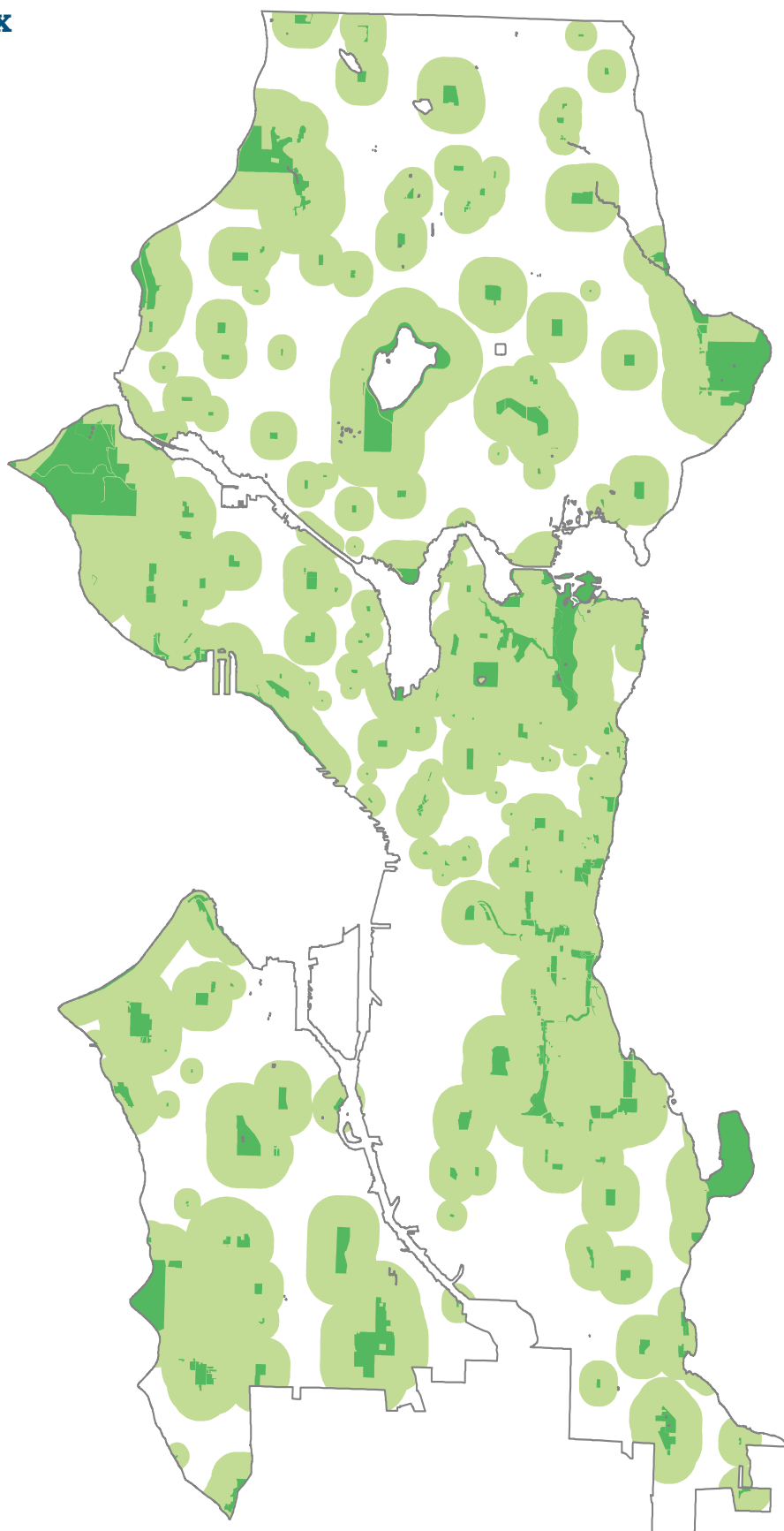
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Locations near a public open space, measured by as-the-crow-flies distance



Source: City of Seattle



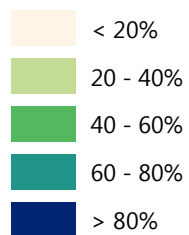
The size of the service area “buffer” around each park varies according to the area of the park.

May 2016

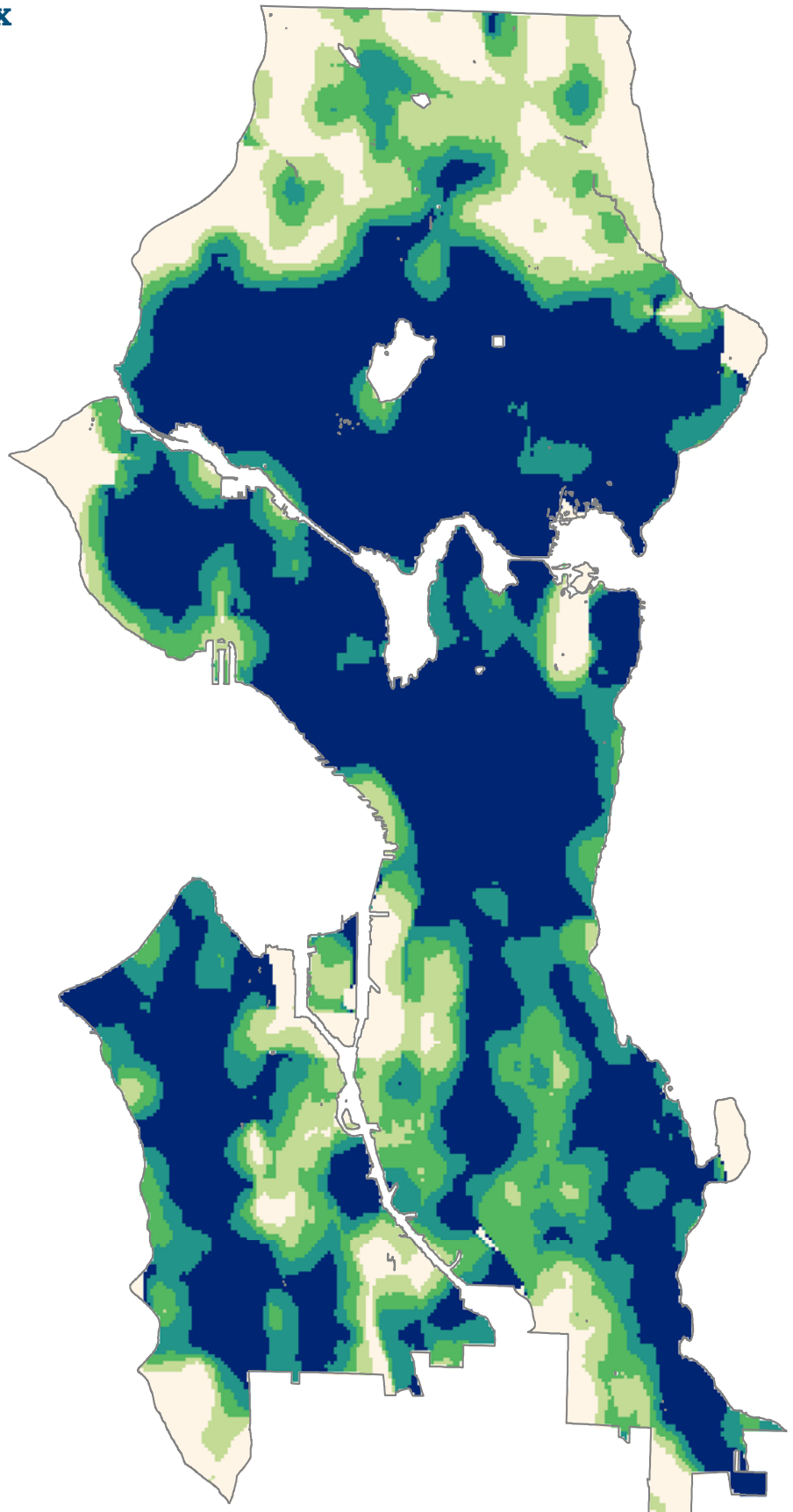
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### Percentage of block faces within a quarter mile with sidewalks




Source: City of Seattle

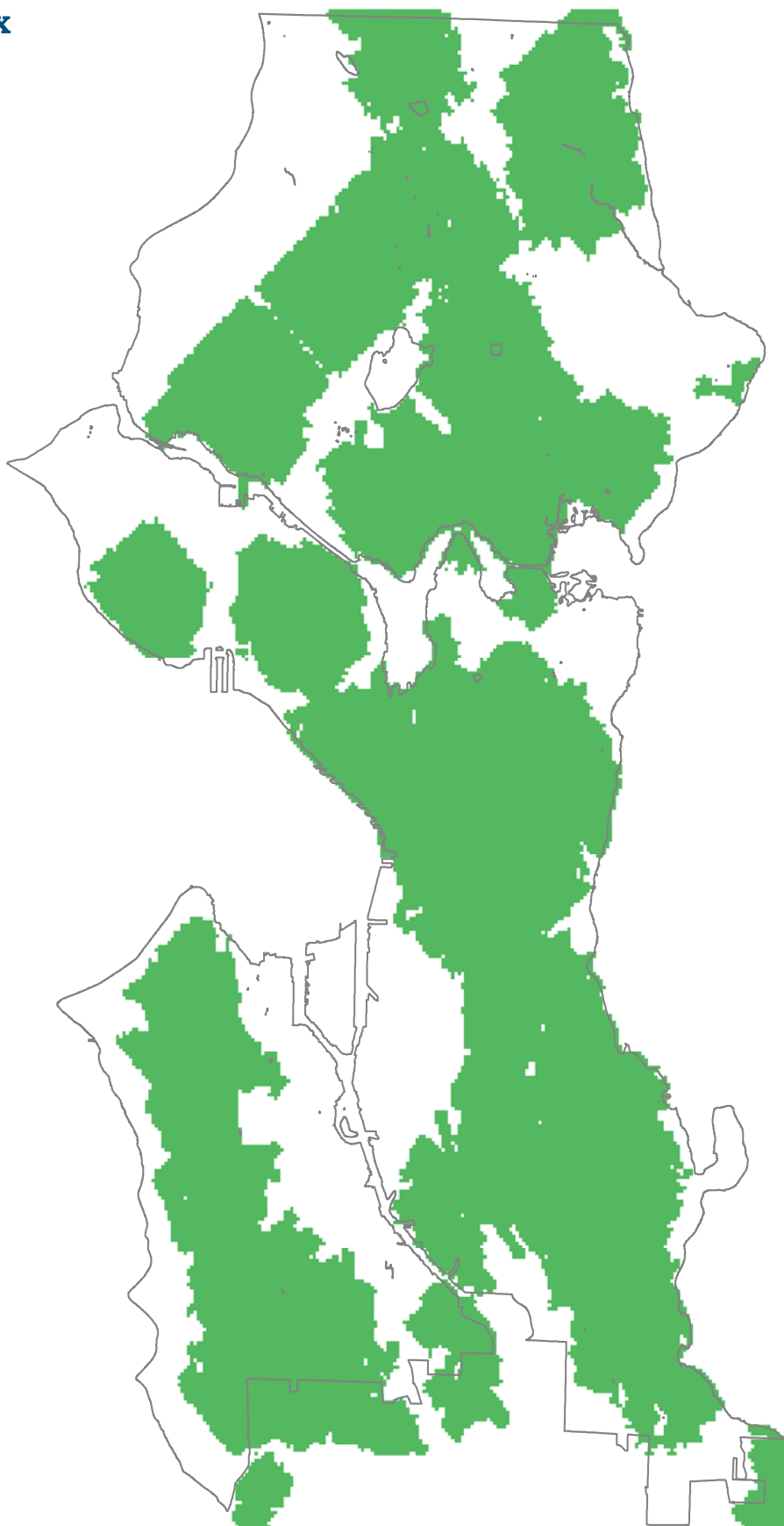


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 Within one mile of a healthcare facility (measured by walking distance)

Source: King County Public Health (2010)





May 2016

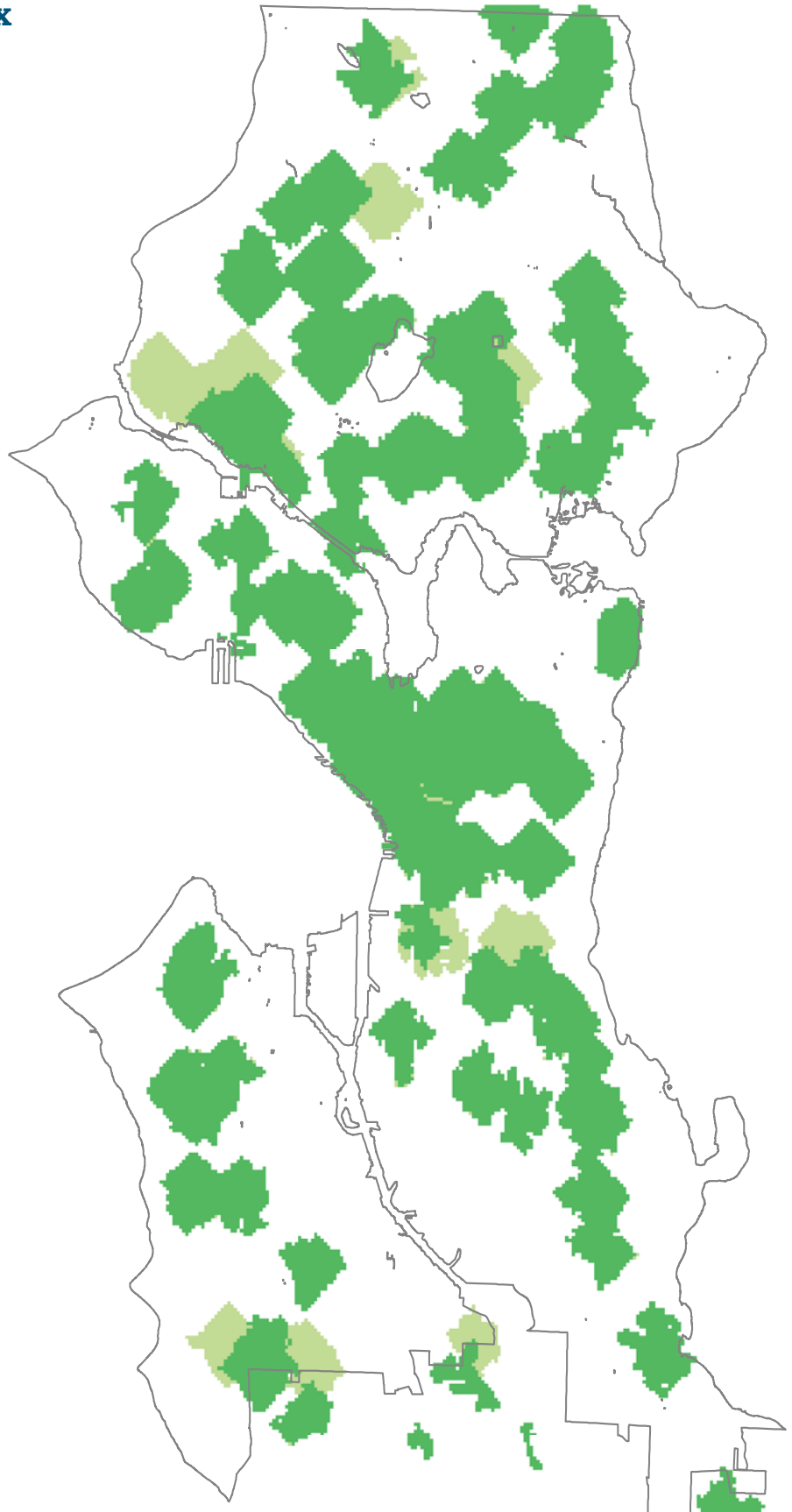
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### Walking distance to a supermarket, produce stand, or farmers market

-  within 0.5 mile and accepts SNAP
-  within 0.5 mile

Source: ReferenceUSA, Washington State Farmers Market Association





# APPENDIX B



## SUMMARY OF COMMUNITY INPUT.

Draft document as of June 2017.



MHA Draft EIS  
June 2017

## Mandatory Housing Affordability (MHA)

# Community Input Summary



**DRAFT 6/7/2017**



# Thank you.

A photograph of a community meeting. In the foreground, the backs of several audience members are visible as they sit in black plastic chairs. The audience is diverse in age and ethnicity. In the background, a stage area features a wooden podium and a large projection screen. Two women, one wearing a pink hijab and the other a black hijab, are standing on the stage, possibly presenting or moderating. The room has light-colored walls and a wooden floor.

South East Seattle HALA Meetup hosted by CORE & South East District Council | February 2016

**DRAFT 6/7/2017**

# Thank you.

---

**Since October 2015,  
thousands of community  
members have come  
together to talk about  
housing affordability in  
Seattle.**

Thank you for dedicating your time and energy. Your input will help Seattle remain a welcoming city for years to come.

We want to celebrate your accomplishments and thank you for your efforts. You shaped principles that directly informed the draft MHA proposal. You advanced design standards that will enhance livability in our neighborhoods. And the rich local knowledge you brought to the process helped tailor urban village zoning maps to better reflect our shared principles.

**DRAFT 6/7/2017**



# Executive Summary

## TOWARD AN EQUITABLE CITY

Seattle is facing its worst affordability crisis in decades. Our beautiful, welcoming, thriving city is attracting more businesses and residents than ever. Our population has grown by more than 75,000 people in just five years—about 40 per day—but housing has not kept pace. Mandatory Housing Affordability (MHA) is a new policy to leverage the city's growth so that more people can afford to live in Seattle near transit, parks, and more.

In order to effectively implement MHA, the City has engaged thousands of community members in conversations about how their neighborhoods should grow. As Seattle's population changes and increases, we need to hear from you about how we can grow equitably and sustainably so that together we thrive. We also need to ensure that growing demographic groups have a voice in our decision-making processes and that we eliminate barriers to participation.

With your insight, we designed an inclusive approach that responds to unique conditions of each neighborhood while providing more housing options for workers of all income levels.

**This report summarizes MHA outreach and engagement, and synthesizes your valued input.**

## Outreach Goals

MHA is designed to meet affordable housing goals while enhancing quality of life in Seattle. We rely on your perspectives to get this right. That means we need to hear from a broad array of residents: new and old; renters and owners; experienced community advocates and newcomers to the conversation. It is especially important that we hear from those traditionally underrepresented. To that end, our public engagement efforts aimed to achieve the following goals:

-  **Recruit, engage, and receive key feedback from a diversity of perspectives**
-  **Lower barriers to participation by providing supports**
-  **Bring varying perspectives together to discuss the merits of a proposal with one another, not just with City staff**
-  **Foster understanding between people from geographically distant communities**
-  **Ensure participation among traditionally underrepresented groups**
-  **Meet people where they are with subject matter, conveying content to all levels of expertise**

DRAFT 6/7/2017



# Executive Summary

## Where Community Members Agree

During our many conversations, we heard about your experiences with growth in Seattle. There is a lot of optimism about how our city can continue to flourish, along with some growing pains. Together you affirmed a shared vision of inclusivity, connectedness, sustainability, and community vibrance. Though there was not always agreement on how to achieve this vision, your conversations were creative, inspired, passionate, and productive. Here are a few highlights of general agreement:

- Create more housing for people at all income levels
- Minimize displacement of current residents
- Prioritize populations most at risk, including those experiencing homelessness, those with very low incomes, and traditionally untapped groups
- Create housing choices, including home ownership options and family size units
- Create more opportunities to live near parks, schools, and transportation
- Strengthen the sense of place within our Urban Villages
- Retain the urban and architectural character of our neighborhoods as individual buildings redevelop
- Promote environmental health and sustainability, which includes cutting carbon emissions, supporting transit use, and having space for trees

## Your Input Matters

We have already begun to respond to the input gathered from community members, since the process of developing the MHA proposal began in Fall 2015. Your input has been critical to shaping MHA, ensuring that we address both concerns about the way MHA will guide growth in Seattle's neighborhoods, as well as hopes for how it will benefit communities. Later in this report, we describe some of the key changes we have already made in response to your feedback, as well as the final process for considering additional changes to the proposal.

## How Input Shapes Policy

### Additional Changes to Zoning Proposals

With the close of public comment on the MHA proposal in Summer 2017, City staff work to incorporate nearly two years of community engagement and economic and environmental analysis into a final proposal that City Council will consider later in 2017. Staff rely heavily on the MHA program goal to produce at least 6,000 income and rent-restricted homes, the community-guided implementation principles, and the statutory allowances and constraints of the program, to direct this work in a manner that is transparent and consistent across the City.

### Delivery of Proposal to City Council

Once a final proposal is transmitted to City Council, another phase of community engagement will begin. Through its deliberations, City Council will provide opportunities for input through public comment periods at all Council meetings, and formal public hearings. City Council will take action on the MHA citywide proposal after a lengthy process, likely in mid-2018.

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**Outreach Activities: A New Approach**  
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**Principles for MHA Implementation**  
**What We Heard: Citywide Themes**  
**What We Heard: Urban Village Themes**

**23rd & Union-Jackson**

**Admiral**

**Aurora-Licton Springs**

**Ballard**

**Bitter Lake**

**Columbia City**

**Crown Hill**

**Eastlake**

**First Hill-Capitol Hill**

**Fremont**

**Green Lake-Roosevelt**

**Greenwood-Phinney Ridge**

**Lake City**

**Madison-Miller**

**Morgan Junction**

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**Othello**

**Rainier Beach**

**Ravenna**

**South Park**

**Upper Queen Anne**

**Wallingford**

**West Seattle Junction**

**Westwood-Highland Park**

**Reflection**

DRAFT 6/7/2017

# Project Background

## WHAT IS THE PROBLEM?

**People at all income levels are finding it harder than ever to afford housing in Seattle.**

In response, the City of Seattle seeks to address the need for affordable housing. The need is greatest for households with lower incomes who are not adequately served by the current housing market. The need for affordable housing is well documented and can be measured in many ways.

**More than 45,000 households spend more than half of their income on housing.**

This condition is referred to as a severe cost burden. Nearly one in seven Seattle households is severely cost burdened when it comes to housing. This means these households have less money to spend on education, healthcare, healthful food, transportation, and more. The lack of affordable housing has disproportionate impacts on certain populations. Nearly 35 percent of Black/African American renter households in Seattle pay more than half of their income on housing, compared to about 18 percent of White renter households.



**1 in 7 Seattle households are severely cost burdened when it comes to housing**

**4,665 people are living without shelter in Seattle.**

The unsheltered population has grown 31% in one year, from 2,942 to 3,857. Across King County there are 6,158 people living unsheltered, and an additional 5,485 sheltered people experiencing homelessness, bringing the total to 11,643 people experiencing homelessness in King County.

**77 percent of survey respondents were living in King County at the time they lost their housing.**

Contrary to some misconceptions, homelessness is a homegrown problem. During the Count Us In Survey, twenty percent (20%) of survey respondents reported being born or growing up in King County, and 24% reported having lived in King County for a decade or longer.

**In 2017, Count Us In identified 905 families with children experiencing homelessness in Seattle/King County.**

Homelessness is a humanitarian crisis with many causes. Broadly defined, people experiencing homelessness are those who lack a fixed, regular, and adequate nighttime residence. This includes sleeping in a public space, a car, or a camp ground. When priced out of a home, some families have chosen to live out of doors instead of moving out of the city entirely. Many do this in order to stay in the communities they have worked hard to establish. Some parents work full time and choose to live in a friend's living room or in a car so that they can maintain regular access to jobs, beloved schools for their children, and proximity to support systems.

# Project Background

**Average rent for a 1-bedroom apartment increased 35% in the last five years to \$1,641.**

The rising cost of housing makes the average one bedroom unit unaffordable by conventional measures to a worker earning a \$15 minimum wage. These rates are rising faster than anywhere else in the country, at about four times the national average. This means that lower wage workers such as nursing assistants, teachers, paramedics, and social workers, among others, are finding it more difficult to live near their jobs. Some have chosen to move out of the city entirely, making for long commutes and less time with family and friends. This undermines cherished community fabric as well as our climate change mitigation goals.

## We are not growing equitably.

**People of Color in Seattle are more than five times more likely to be part of the working poor.**

The share of adults who are working full-time jobs but still cannot make ends meet has increased, particularly among Latinos and other workers of color. As the low-wage sector has grown, the failure of even full-time work to pay family-supporting wages dampens the potential of millions of workers and our nation as a whole. | *PolicyLink*



**Seattle adults working full-time, living below 200% of the poverty level (2014)**  
*PolicyLink*

**In 2014, Black households had the lowest homeownership rate in Seattle, at 25%.**

Homeownership can be a critical pathway to economic security and mobility, helping lower-income people build an asset that can be used to pay for education or other productive investments.

But people of color have faced major barriers to accessing sustainable homeownership. Communities of color were disproportionately targeted by predatory lenders and negatively impacted by the foreclosure crisis, contributing to the rising racial wealth gap. | *PolicyLink*

**Nearly a third of the homeless population is African American, but African Americans make up only 6 percent of the general population in King County.**  
| *KUOW*

# Project Background

## A COLLABORATIVE, EQUITABLE SOLUTION

HALA is a multi-pronged approach to addressing the housing affordability crisis in Seattle. A key recommendation is Mandatory Housing Affordability (MHA). MHA is a landmark agreement between community groups, low-income and affordable housing advocates, homeless advocates, private development, and the City of Seattle to ensure we grow more equitably than ever before. MHA expands rent- and income-restricted affordable housing by requiring all new commercial and multifamily residential development to contribute to affordable housing. MHA has been twenty years in the making and will allow us to grow more equitably than ever before.

### Planning for equitable growth

The City's Comprehensive Plan (Seattle 2035) includes a goal to help meet current and projected regional housing needs of all economic and demographic groups by increasing Seattle's housing choices. To help achieve that goal, Seattle's Housing Affordability and Livability Agenda (HALA) strives to create 50,000 homes by 2025, including 20,000 affordable homes.

Critical to this overall vision, Mandatory Housing Affordability (MHA) will provide at least 6,000 of the 20,000 net new rent-restricted homes for households with incomes no higher than 60 percent of the area median income. In 2016, 60 percent of the area median income was about \$38,000 for an individual and \$54,000 for a family of four.

**To provide people with safe and affordable housing, that is one of the most key things that can possibly be done to change our society. | Rick Wyman**

### How does it work?

Developers comply with MHA by providing affordable housing (performance option) or paying into a fund that Seattle's Office of Housing uses to support the development of affordable housing throughout Seattle (payment option). In exchange for this public benefit, new height and/or floor area limits are adopted to increase development capacity. Zoning changes provide this additional capacity within existing multifamily and commercial zones, as well as within existing urban villages and their expansion areas.

Enacting affordable housing requirements and development capacity increases simultaneously is consistent with a state-approved approach used in other cities to help increase the creation of rent-restricted and market-rate housing. This strategy is an important tool for slowing rent increases and providing a wider array of housing choices. The amount of additional height and/or floor area granted would vary by zone to account for the size of buildings currently allowed, as well as specific design considerations. In most zones, a typical change would allow one additional story of development.



*Rick Wyman is a resident of Arbor Woods Apartments, Mt. Baker Housing*



# Project Background

However, to increase housing choices in urban villages, close to public transit, and near other urban amenities, some proposed zoning changes could allow development beyond the typical one-story increase.

Both payment and performance options offer unique benefits and are equally important to the success of MHA. With the performance option, a specified percentage of homes in new multifamily residential buildings will be reserved for income-eligible households and have restricted rents. These affordable homes will be comparable to market-rate units (e.g., size, number of bedrooms, and lease terms).

With the payment option, developer contributions enable the Office of Housing to leverage other funds to produce more affordable housing overall. In addition, affordable housing funded with MHA payments advances other City goals, such as expanding housing opportunity in all neighborhoods, addressing displacement, providing housing for families with children, and building in locations near transit and other amenities.

## What's next?

The City Council adopted legislation establishing frameworks for how MHA will apply to commercial and residential development. However, the MHA requirements included in the frameworks do not take effect until the City adopts zoning changes that increase development capacity and tie MHA requirements to those specific zones. The University District is the first area to have MHA, as zoning changes were adopted by City Council in February of 2017. Downtown and South Lake Union occurred in April of 2017. Increases in development capacity in other areas are expected to go to City Council late 2017 or early 2018.

2014

### Planning

#### HALA Advisory Committee

**Oct 2014** Multi-stakeholder committee meets monthly for ten months

**Jul 2015** Committee publishes report of [65 recommendations](#) addressing housing affordability crisis in Seattle

2015

#### [Mayor's Recommended Plan Housing Seattle: A Roadmap to an Affordable and Livable City](#) [An Action Plan to Address Seattle's Affordability Crisis](#)

### Community Engagement

**Fall 2015**

#### Kickoff!

Start of 2+ years talking with communities and gathering input on HALA and MHA

### City Council Action

#### MHA Framework Legislation

**Nov 2015** Commercial framework

**Aug 2016** Residential framework

2016

#### Area-Specific Zoning Changes

*(EIS conducted separately for each area)*

**Feb 2017** University District

**Apr** Downtown & South Lake Union

**May** Chinatown–International District

**May** 23rd & Union, Cherry, Jackson

2017

#### MHA Citywide Zoning Changes

**Jun** Draft Environmental Impact Statement (DEIS)

**Jun–Jul** Public comment on DEIS

**Sep** Final Environmental Impact Statement (FEIS)

**What's next? Go online to [www.seattle.gov/HALA](http://www.seattle.gov/HALA) for the latest information on how this policy is progressing.**



# Outreach Activities

## A NEW APPROACH

From the beginning this process was a little bit different than how the City has done traditional engagement. We asked neighborhoods to come together with other neighborhoods not based on geography but based on community needs, experiences, and application of MHA. We asked people who have been a part of previous planning processes to welcome community members who were participating for the first time.

The scope of MHA called for a multi-pronged approach that gathered feedback from many voices across the city. We took feedback in person, online, and over the phone. We held meetings in all neighborhoods and many were centrally located to serve the greatest number of community members.

Following are descriptions of the events and interactions we had with community discussing MHA.



*Hale's Ales Open House with Hololens mixed reality headsets showing proposed zoning changes in 3D*

## Citywide Activities

We focused on reaching out to a broad public audience through a variety of events, venues, and formats. Citywide conversations aimed at:

- getting the word out about MHA,
- updating the community at large on MHA progress and next steps, and
- listening to feedback from a broad public audience.

These events included citywide meetings such as an open house at City Hall. There was a citywide mailer sent to all households within zoning change areas. We also conducted doorknocking aimed at informing all single family zoned areas in urban villages and proposed expansion areas about MHA.

## Neighborhood Meetings

City staff met with community members in their neighborhoods by attending standing neighborhood council meetings and through City-hosted Open Houses. City staff attended groups' regular meetings throughout the year in between citywide conversations. City staff responded to requests for neighborhood meetings to the extent possible and reached areas throughout the city. The purpose of MHA participation at neighborhood meetings was to:

- update local neighborhood areas on MHA progress and next steps,
- listen to feedback from local groups that shape MHA implementation, and
- consider neighborhood preferences for how MHA actions fit local conditions.

At our Spring 2017 Regional Open Houses, we debuted the Hololens, a mixed reality experience enjoyed by many. It allowed community members to see proposed zoning changes in 3D. It was pretty cool!

# Outreach Activities

## Digital Media

The City broke new ground in gathering your input through multiple types of media. We recognize that many community members choose not to interact with City staff in person, for a variety of reasons. We wanted to reach as diverse an audience as possible by opening up our dialogue online, over the phone, and through experimental platforms. Digital media engagement aimed at:

- making the best use of people's time by allowing them to weigh in remotely,
- hearing candid views that some felt more comfortable sharing in a non-public setting,
- helping people see information in a new way or from a different angle,
- providing easy-access resources for self-guided exploration and learning,
- gathering input from community members who may not have time or resources to meet us in person,
- share information broadly in a way that could be easily shared among community members, and
- making this process fun!

Our [website](#) hosted our [event calendar](#) with constantly updating events, key resources, [Weekly Wonk videos](#) demystifying land use topics, an [interactive web map](#), [PDF maps available for download](#), [Land Use 101 slideshows](#), an [MHA neighborhood model slideshow](#), and [a video highlighting HALA accomplishments for 2015 and 2016](#).

We received feedback via email through our email address ([HALAInfo@seattle.gov](mailto:HALAInfo@seattle.gov)), and additionally, many community members wrote directly to City staff. We also sent out email newsletters through our sign-up listserv, packed with information about HALA progress, opportunities to get involved and provide feedback, City Council hearings on MHA, and what we heard at various points throughout the process.



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# Outreach Activities

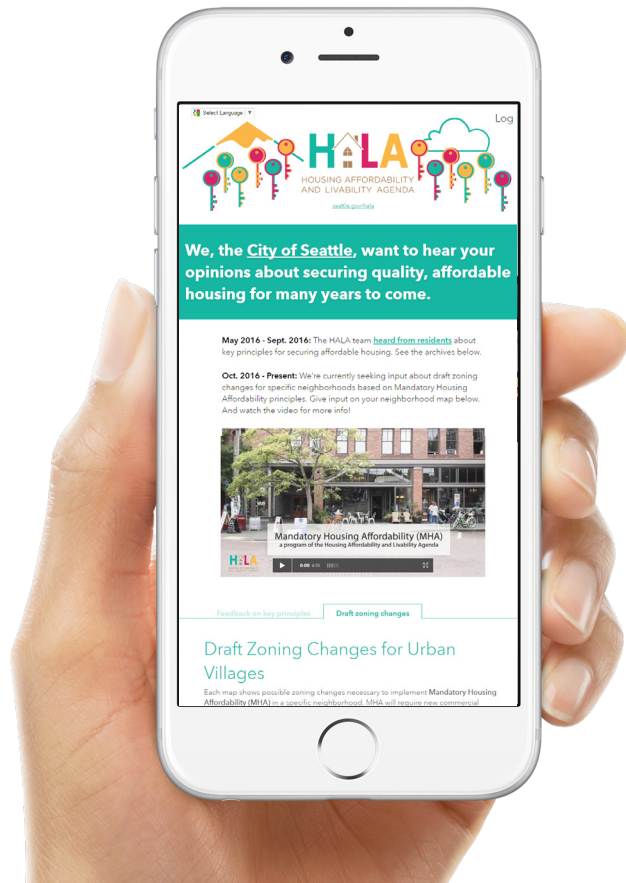
We shared [Housing Stories](#) as told by community members across the city, in their own words. These in-depth interviews shed light on the housing crisis and measures we are already taking to make Seattle more affordable for all.

Many community members chose to engage directly with City staff over the phone by calling the HALA Hotline (206) 743-6612.

Early in the process we held three Telephone Town Halls with the mayor and City staff. These conversations involved phonecall notification to more than 70,000 landlines across the city, inviting households to pose questions about HALA, MHA, and other city issues. You can listen to recordings online: [January 31](#), [February 2](#), and [February 4](#), 2016.

We gathered input online through the HALA [Consider.it](#) platform. Community members weighed in on MHA implementation principles, proposed design standards, and urban village expansion boundaries. Comments were constructive and there was a rich dialogue among community members from across the city.

At many of our citywide events we broadcasted directly to you with Facebook Live. This involved live question and answer with City staffers, streaming in real time on our Facebook page.



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# Outreach Activities

## Open Houses

The City hosted several rounds of open houses. Some of these were broad, citywide invitations to join in conversation around HALA, MHA, and many aspects of city life. Other events were aimed at bringing together people from specific communities, with localized conversations about housing, livability, and more.

City staff from multiple departments were on-hand at these events to answer questions about our transit network, tree canopy, parks, democracy vouchers, parking, and more.

Together we shared information about our housing affordability crisis, existing and proposed programs for housing more people, new transportation investments such as Move Seattle, Bus Rapid Transit (BRT), and Seattle Neighborhood Greenways. Many asked questions and got answers.

Participants also shared their experiences with one another while considering the merits of the MHA proposal. Community members reviewed and commented on urban village maps, making suggestions about the proposed zoning changes.

## Community Focus Groups

In January 2016 we sent out a call for applicants to our HALA Community Focus Groups. By the end of February, nearly seven hundred community members across Seattle had submitted applications to participate. Applicants wrote about commonly held aspirations for Seattle to become an affordable place as we grow. One hundred and seventy applicants were invited to join us for this series of monthly conversations.

HALA Community Focus Groups consisted of four to six representatives from each urban village and adjacent neighborhood area. The groups were a sounding board to give focused feedback—particularly on how the MHA program would apply in neighborhood areas. More about focus groups:

- There were four focus groups, each with about 40 community members.
- Each reflected a broad range of perspectives.
- Focus groups met monthly starting in April 2016 and were facilitated by an independent third party.
- Groups conducted a detailed review of proposed land use changes to implement the Mandatory Housing Affordability (MHA) program.
- Meetings and conversations were transparent and open to the public.
- Participants were encouraged to relay information to their home neighborhoods.

The four focus groups were arranged by urban village type and included:

- Expansion Area Urban Villages
- Hub Urban Villages
- Medium Density Urban Villages
- Lower Density Urban Villages

To support focus group members so that

# Outreach Activities

they could participate fully in the process, the City provided accommodation as needed:

- Child Care
- Transportation
- Translation
- Interpretation
- Small Stipend (for low-income participants only)

Overall there were thirty two meetings with participation of both focus group members and the general public. Meetings were held downtown at City Hall.

## City Council-Hosted Community Design Workshops

HALA Community Urban Design Workshops were organized by Councilmember Rob Johnson's office with a goal of giving communities the opportunity to give input on MHA maps in a setting and location specific to their neighborhood. These workshops helped inform the City Council about community vision of how our urban villages should look, feel, and function in support of important citywide goals for increased affordability, design quality, and housing options throughout the city.

These workshops encouraged exchange of ideas and opinions in small groups on the recently proposed zoning changes for many neighborhoods, including where the boundary for urban villages should be drawn, what mix of zones best support the context and conditions of local areas, and how to encourage more housing options and elements of livability (including neighborhood infrastructure such as frequent and reliable transit, community-serving businesses, parks, and schools).

The goals of these workshops were to:

- Assist community members to understand preliminary recommendations for MHA and potential changes to zoning and land use;
- Provide an additional opportunity for community members and other interested groups to provide focused input on the program, especially where:
  - there is a recommendation for significant boundary expansions,
  - there are proposed changes to single family areas within Urban Villages,
  - there are areas with both a high risk of displacement and low access to opportunity as identified in the City of Seattle's Growth and Equity Analysis.
- Help inform the Office of Planning and community Development (OPCD) and City Council about these communities' vision of how Urban Villages should look, feel, and function in support of important citywide goals for increased affordability, design quality, and housing options in neighborhoods throughout the city.

# Outreach Activities

## Calendar of Events *140 meetups & counting!*

# 2015

### October

- 10/8 Uptown Community Council
- 10/13 Beacon Hill Community Council
- 10/19 Miller Community Center
- 10/24 Crown Hill Neighborhood Association

### November

- 11/5 Leif Erikson Hall, Ballard
- 11/5 Haller Lake with Councilmember O'Brien
- 11/7 Comprehensive Plan Meeting - South End
- 11/12 Comprehensive Plan Meeting - West Seattle
- 11/12 Central District Community Council
- 11/14 Comprehensive Plan Meeting - North Seattle

### December

- 12/1 South Lake Union Community Meeting
- 12/2 Southwest Community Council
- 12/8 Green Drinks
- 12/14 Queen Anne / Magnolia Community Council
- 12/16 SAGE Equity and Density Panel

# 2016

### January

- 1/20 Morgan Junction Community Council
- 1/26 Belltown Community Council
- 1/26 Seattle at Work, City Hall
- 1/28 Alliance for Pioneer Square
- 1/31 Telephone Town Hall - North Seattle

### February

- 2/2 Telephone Town Hall - Central Seattle
- 2/4 Telephone Town Hall - South / West Seattle
- 2/9 Lakewood Neighborhood Association
- 2/10 Belltown Community Council
- 2/13 Seattle Neighborhood Coalition
- 2/17 OPCD Wallingford Houseparty
- 2/18 Capitol Hill Community Council & Capitol Hill Housing
- 2/20 HALA at Lake City Neighborhood Alliance
- 2/23 Housing Levy & HALA in West Seattle
- 2/24 International District HALA meet up hosted by SCIDpda, Interim CDA, CIDBIA
- 2/25 South East Seattle HALA meet up hosted by South CORE, SE Dist. Council

### March

- 3/3 Meet Up with Wallingford Folks
- 3/12 West Seattle VIEWS
- 3/15 Facebook Lunch and Learn
- 3/15 Housing Levy at Magnolia Community Council
- 3/16 Wallingford for Everyone
- 3/17 Law Seminars Conference
- 3/21 Downtown Focus Group + Livability
- 3/23 Goodwill Event with ESL
- 3/30 Ethiopian Community in Seattle
- 3/30 Wallingford Community Meeting

### April

- 4/4 HALA Community Focus Group Orientation
- 4/5 Designer/Builder Working Group
- 4/13 Arts in the City
- 4/19 Livability Night Out

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# Outreach Activities

## Calendar of Events

### May

5/11 Rainier Beach Community Club  
5/11 Greenlake Community Council  
5/16 Queen Anne Land Use Review  
5/17 Ravenna/Bryant Neighborhood Association  
5/21 HALA table at the U District Street Fair  
5/23 Focus Group - Expansion Areas  
5/23 Focus Group - Lower Density Urban Villages  
5/24 Focus Group - Hub Urban Villages  
5/26 Focus Group - Medium Density Urban Villages  
5/31 Aurora-Licton Springs Find It Fix It Walk  
5/31 POEL Focus Group Discussion

### June

6/1 Aurora Neighbor Gathering  
6/2 Community Representative Working Group  
6/6 Land Use 101  
6/8 WallHALA  
6/8 Jubilee Women's Circle  
6/8 Rainier Beach Community Club  
6/13 Judkins Park Community Council  
6/14 Arts Commission  
6/20 Focus Group - Expansion Areas  
6/20 Focus Group - Lower Density Urban Villages  
6/21 Focus Group - Hub Urban Villages  
6/30 Focus Group - Medium Density Urban Villages

### July

7/11 Focus Group - Expansion Areas  
7/12 Focus Group - Hub Urban Villages  
7/21 Designer / Builder Working Group  
7/25 Focus Group - Lower Density Urban Villages  
7/27 Maple Leaf Ice Cream Social  
7/28 Focus Group - Medium Density Urban Villages  
7/29 Phinney Ridge Farmer's Market

### August

8/2 Rainier Beach Big Night Out  
8/5 Phinney Ridge Farmer's Market  
8/8 Latino Equity Lunch  
8/11 Lake City Farmer's Market  
8/12 Rainier Valley Summer Parkways with City Scoop  
8/12 Urban League Lunch  
8/15 Focus Group - Expansion Areas  
8/18 Lake City Farmer's Market  
8/21 West Seattle Farmer's Market

8/22 Focus Group - Lower Density Urban Villages  
8/23 Focus Group - Hub Urban Villages  
8/23 Meeting with Crown Hill Urban Village Committee for Smart Growth  
8/25 Focus Group - Medium Density Urban Villages  
8/25 Summer Parkways in Ballard with CityScoop

### September

9/8 Discussion at University of Washington  
9/14 Meeting with Columbia City Business Association  
9/14 Meeting with Aurora-Licton Springs Urban Village Community Council representatives  
9/19 Designer / Builder Working Group  
9/19 Community Representative Working Group  
9/22 Meeting with Othello Area Stakeholders  
9/25 CityScoop West Seattle  
9/27 Focus Group - Combined Meeting  
9/29 Meeting with Anti-Displacement Stakeholders

### October

10/2 Mt. Baker Community Club  
10/4 Seattle Planning Commission  
10/5 Meeting with Sightline Institute  
10/7 EIS Scoping discussion with Fremont and U-District commenters  
10/16 Meeting with The Urbanist writers  
10/17 Focus Group - Expansion Areas  
10/20 Beacon Hill Council Workshop  
10/24 Focus Group - Lower Density Urban Villages  
10/25 Focus Group - Hub Urban Villages  
10/27 Focus Group - Medium Density Urban Villages  
10/27 Seattle Planning Commission committee  
10/29 Roosevelt Council Workshop

### November

11/1 On Board Othello at Homesight  
11/1 West Seattle small group walk  
11/9 City Council-hosted Community Design Workshop - Westwood Village  
11/15 First Hill Improvement Association  
11/15 Crown Hill Council Workshop  
11/19 Crown Hill Whittier Heights Find It Fix It  
11/21 Focus Group Webinar - Expansion Areas  
11/22 Focus Group Webinar - Hub Urban Villages  
11/28 Focus Group Webinar - Lower Density Urban Villages

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# Outreach Activities

## Calendar of Events

11/29 Morgan Community Association  
11/29 City Council-hosted Community Design  
Workshop - Aurora-Licton Springs

### December

12/1 Focus Group Webinar - Medium Density  
Urban Villages  
12/3 HALA Winter Open House - Northwest  
Neighborhoods - Bitter Lake Community  
Center  
12/6 Unreinforced Masonry (URM) advisory group  
meeting  
12/7 HALA Winter Open House - Southwest  
Neighborhoods - Youngstown Cultural Arts  
Center & Shelby's Bistro and Ice Creamery  
12/10 Presentation and meeting at Roosevelt  
Neighborhood Association Land Use Academy  
12/10 December Focus Group Drop-in  
12/13 HALA Winter Open House - Northeast  
Neighborhoods - Ravenna Community Center  
12/15 Housing Development Consortium Affinity  
Group  
12/16 Meeting with Anti-Displacement Stakeholders

# 2017

### January

1/4 Capitol Hill Renters Initiative  
1/10 HALA Winter Open House - Central  
Neighborhoods - Optimism Brewing  
1/11 City Council-hosted Community Design  
Workshop - South Park  
1/12 Seattle Planning Commission  
1/17 City Council-hosted Community Design  
Workshop - Wallingford  
1/19 City Council-hosted Community Design  
Workshop - Othello  
1/23 Pike Pine Urban Neighborhoods Committee  
(PPUNC)  
1/24 HALA Building Code Charette  
1/25 Meeting with Rainier Beach Action Coalition  
(RBAC) leadership  
1/26 City Council-hosted Community Design

Workshop - West Seattle Junction  
1/31 City Council-hosted Community Design  
Workshop - 23rd & Union/Jackson  
1/31 Meeting with Wallingford community member  
about RSL standards  
1/31 Meeting Crown Hill Committee for Smart  
Growth leadership

### February

2/1 Wallingford Community Council  
2/4 HALA Winter Open House - Southeast  
Neighborhoods - The Royal Room  
2/7 Focus Group Wrap-up Event  
2/11 City Council-hosted Community Design  
Workshop - Admiral  
2/11 Seattle Neighborhood Coalition  
2/17 Yesler Community Collaborative Policy  
Committee  
2/28 City Council-hosted Community Design  
Workshop - Madison-Miller

### March

3/2 City Council-hosted Community Design  
Workshop - North Rainier / Mt. Baker  
3/5 HALA and Historic Preservation Panel  
3/6 City Council-hosted Community Design  
Workshop / Morgan Junction  
3/8 Columbia City in-home hosted discussion  
3/10 MHA for Downtown Residents and  
Stakeholders  
3/11 Capitol Hill Renters Initiative at Optimism  
Brewing Company  
3/13 City Council-hosted Community Design  
Workshop - Eastlake  
3/13 Downtown Projects Information Sharing  
3/14 Wallingford Find It Fix It Community Event  
3/16 Chong Wa Benevolent Association  
3/17 Seattle for Everyone Coalition Meeting  
3/28 Small Developer, Designer, and Builder  
Stakeholder Meeting  
3/29 City Council-hosted Community Design  
Workshop - Rainier Beach  
3/29 Uptown Rezone Public Open House  
3/30 Reddit Ask Me Anything

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# Outreach Activities

## Calendar of Events

### April

- 4/11 Presentation to Ankrom Moisan Architects
- 4/11 Chinatown-International District Safety Task Force
- 4/13 Seattle Planning Commission
- 4/27 Community Open House - Northwest Neighborhoods - Hale's Ales Brewery
- 4/29 Community Open House - Northeast Neighborhoods - Northgate Community Center

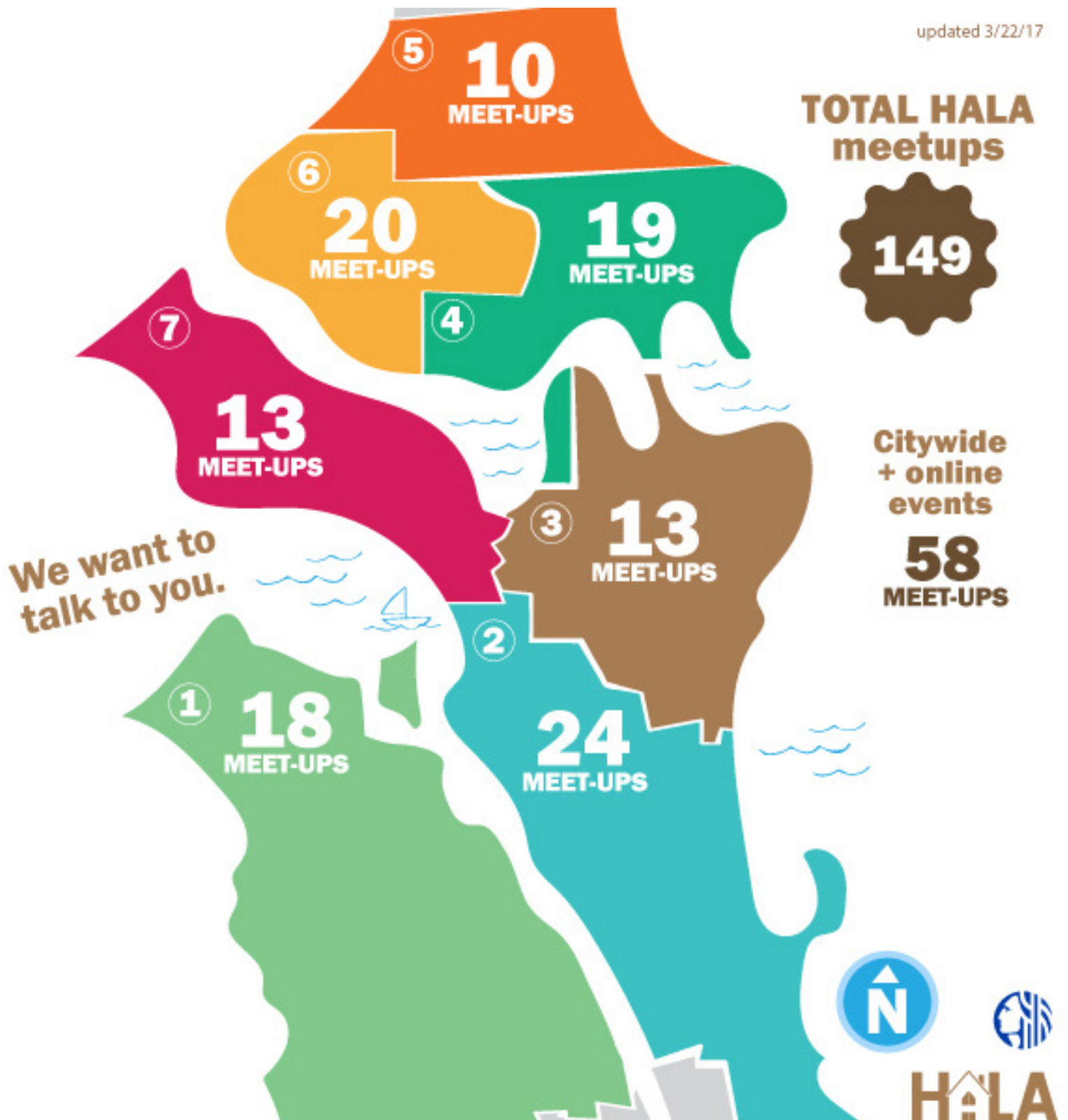
### May

- 5/6 Community Open House - Southwest Neighborhoods - Westside School
- 5/13 Community Open House - Southeast Neighborhoods - Rainier Beach Community Center
- 5/16 Community Open House - Central Neighborhoods - Washington Hall

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# Outreach Activities

## Event Map



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# How Community Input Shapes Policy

## YOUR INPUT MATTERS

**Community input is invaluable to ensuring that we implement MHA thoughtfully and equitably across Seattle's diverse neighborhoods.**

This section discusses some of the ways that community input has already shaped the MHA proposal, and describes the process for City staff to make additional changes that reflect neighborhood-level input in the final proposal to City Council.

## Changes to Date

### Elevating Areas at Greatest Risk of Displacement

**Many community members are concerned about physical, economic, and cultural displacement.**

For example, community-based organizations in Chinatown-International District and the Central Area asked how we can strengthen MHA to mitigate displacement in those neighborhoods. Our Seattle 2035 Growth and Equity Report found that Chinatown-International District and the Central Area are the two Seattle communities most impacted by all three types of residential displacement: physical, economic, and cultural. In response to these trends, coupled with engagement with key community-based organizations from those communities, Chinatown-International District and the Central Area were moved

to a higher tier of MHA requirements to ensure that when development occurs, the community will see the highest public benefit.

### Linking Greater Upzones to Increased Affordable Housing

**There has been consistent community interest in making affordability requirements proportional to the scale of new zoning changes.**

The initial proposal suggested varying MHA requirements based on growth and market characteristics of each neighborhood (through a classification of low, medium, or high). In late 2016, a second consideration was added to address the size of the rezone (through a classification of M, M1, or M2 rezones) such that areas with larger rezones would make greater contributions toward affordable housing.

### Responding to Desire for Affordable Housing in Neighborhoods Experiencing Development

**Community members across the city have conveyed a desire for funds generated in their neighborhood to be invested there.**

In response, we made two key changes to the MHA proposal. First, we added an explicit direction to the Office of Housing to consider the location of where payments are generated in its investment decisions, in addition to other strategic goals such as addressing displacement and locating near transit. Second, we added requirements to ensure transparency and accountability as the Office of Housing implements MHA. In

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# How Community Input Shapes Policy

addition to annual reporting to City Council on the overall performance of the program, including how and where funds are invested, the Office of Housing will be required to identify as a priority any area where there is a significant imbalance between its investments and receipts of MHA payments.

## Addressing Concerns about Impact to Historic Districts

### **Community members are concerned about the potential impacts of allowing taller buildings in Historic Districts.**

Examples of these areas include Pioneer Square and the Chinatown-International District. While these areas generally accommodate a mix of old and new structures, many expressed concerns that increasing the potential height difference between existing historic buildings and new development could have negative impacts on the overall character of the districts. Additionally, since these areas represent a very small portion of the city and are unlikely to see much redevelopment due to existing protections, many people felt that excluding these areas from MHA would not significantly reduce the amount of affordable housing generated.

In response to this input, the City included as a principle for MHA implementation that National Historic Register Districts should be excluded from MHA implementation. The legislation implementing MHA in Downtown and South Lake Union, which was adopted by City Council in April 2017, excluded the National Historic Register Districts in that area as well as a small area in which increasing height could interfere with a protected view corridor from Pike Place Market.

## Community Generated Principles & Proposed Zoning Changes

Community-generated MHA principles were a frequent touchstone for developing the initial set of recommended zoning proposals across Seattle's urban villages and centers. These principles influenced choices about the amount of additional development capacity to propose on a given block, what areas should not participate in the program, and the types and amount of housing to encourage, among others. Following are specific examples of how these principles were applied in various urban villages:

- We've suggested more room for housing near community assets like parks and schools. We proposed Lowrise zoning in areas close to Jefferson Park, Judkins Park, Wallingford Playfield, and Miller Playfield.
- We heard consistent support for allowing more people to live within walking distance good transit. Accordingly, we've proposed Lowrise zoning near the Beacon Hill and future Roosevelt light rail stations in areas that currently allow only single-family homes.
- We continue to analyze MHA implementation through a racial equity lens. In our draft proposal, we have considered smaller changes in zoning where there's a high risk of displacement for marginalized people. Likewise, we've proposed to allow more housing in neighborhoods where displacement risk is low and the cost of housing leads limits access for marginalized populations.
- In Crown Hill, we've proposed Lowrise and Residential Small Lot (RSL) zoning to create a more gradual transition between the midrise buildings along 15th



# How Community Input Shapes Policy


Ave NW and the nearby blocks zoned for single-family homes. You can also see this approach in parts of the Aurora–Lifton Springs Urban Village, where current zoning has resulted in small-scale development almost directly next to a highway, and in Wallingford, where Lowrise zoning behind the Commercial zoning on Stone Way would create a transition to single-family areas outside the urban village.

- In most urban village expansion areas, Residential Small Lot zoning would allow a wider range of housing types but at a scale similar to existing single-family neighborhoods. For example, you will see RSL in the proposed expansion areas in Crown Hill, Roosevelt, North Rainier, and Othello.
- We are proposing a few strategies to encourage family-size housing as we welcome new neighbors. A family-size unit requirement for Lowrise 1 zones would ensure new housing options include two- or three-bedroom units that serve larger households. And we've proposed RSL and Lowrise 1 zoning along quiet streets to encourage family-friendly housing like cottages, rowhouses, and townhomes, where each unit has direct access to ground-level open space.
- To promote urban design quality, we're proposing a new upper-level setback in several zones to help reduce the visibility of the additional height of new buildings under MHA.
- Following our principles, we have not proposed zoning changes in Seattle's designated Historic Districts, like Ballard Avenue, Harvard-Belmont, and Columbia City. With this approach, there's no change to the currently allowed height and scale for new buildings in these areas, and new development would not have MHA requirements for affordable housing.
- Our draft proposal frequently reflects several different MHA Principles that don't point to the same zoning choice. For example, the urban village expansion area in Ballard includes a mix of Lowrise 2, Lowrise 1, and Residential Small Lot zoning. This approach seeks to balance the principle to ensure development in expansion areas is compatible with existing context, the principle to allow more people to live near transit investments like RapidRide bus rapid transit, and the principle to plan for a gradual transition between major arterials like 15th Ave NW and surrounding lower-scale areas. In these instances where the community-generated MHA Principles suggest varying zoning choices, we seek guidance in the core MHA Principles, like advancing racial equity, and in our Comprehensive Plan, which charts an

# Principles for MHA Implementation

Principles guiding MHA implementation reflect what we heard during months of conversations in neighborhoods and online. These principles were finalized in August 2016 and were used to guide the first draft of MHA zoning maps, which included zoning change proposals as well as changes to urban village boundaries in some neighborhoods. As we worked with communities on MHA, we revisited these principles to inform and evaluate policy and program choices.

While we recognize that not everyone agreed with the final adopted principles, the goal was to reflect widely held community-based ideas. The principles have been presented in writing to Mayor Murray and City Councilmembers in order to inform them about community input regarding MHA implementation.



See community  
input on MHA  
implementation  
principles online at  
[HALA.consider.it](http://HALA.consider.it)

MHA implementation principles were grouped into the three categories:

## **A. Principles that form the foundation of MHA**

- These are essential to MHA.
- They include core values critical to HALA goals.

## **B. Community-generated principles that guided MHA implementation**

- These are statements about how to implement MHA, based on community-generated ideas and preferences.
- These ideas will meaningfully shaped MHA implementation choices.

## **C. Principles addressed outside of MHA**

- These are important principles about housing and livability that cannot be addressed through MHA.
- Other existing or proposed programs will address these principles.
- The final set of these principles were shared with City departments, and used to inform their work outside of MHA implementation.

*C Principles are not shown here but are reflected in both citywide and neighborhood-specific input summaries that follow.*

In person and online, the City took extensive feedback on how MHA implementation principles were represented in the first draft of zoning maps.

# Principles for MHA Implementation



## Principles that form the foundation of MHA



**Community comments and suggestions shaped these principles.**

1. Contribute to the 10-year HALA goal of 20,000 net new units of rent- and income-restricted housing. Specifically, the MHA goal is at least 6,000 units of housing affordable to households with incomes up to 60% of the area median income (AMI), units that will remain affordable for 75 years. In 2016, 60% of the AMI is \$37,980 for an individual and \$54,180 for a family of four.
2. Require multifamily and commercial development to contribute to affordable housing.
3. Contributions to affordable housing will be provided by including affordable housing on site or by providing a payment to the Seattle Office of Housing for creation of new affordable housing.
4. Ensure MHA creates affordable housing opportunities throughout the city.
5. In alignment with a state-approved affordable housing based incentive zoning approach (37.70A.540), new affordability requirements are linked to allowing some additional development capacity in commercial and multifamily zones (in many cases this includes one additional floor).
6. Allow a variety of housing types in existing single-family zones within urban villages.
7. Expand the boundaries of some urban villages to allow for more housing near high-frequency transit hubs.
8. Maintain Seattle as an inclusive city by providing housing opportunities for everyone: people of all ages, races, ethnicities, and cultural backgrounds and households of all sizes, types, and incomes.
9. Evaluate MHA implementation using a social and racial equity/justice lens.

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# Principles for MHA Implementation



## Community-generated principles that will help guide MHA implementation



**Community comments and suggestions shaped these principles.**

### 1. Housing Options

- a. Encourage or incentivize a wide variety of housing sizes, including family-sized homes and not just one-bedroom and studio homes.
- b. Encourage more small-scale multi-unit housing that is family friendly, such as cottages, duplexes or triplexes, rowhouses, and townhouses.

### 2. Urban Design Quality:

- a. Address urban design quality, including high-quality design of new buildings and landscaping.
- b. Encourage publicly visible green space and landscaping at street level.
- c. Encourage design qualities that reflect Seattle's context, including building materials and architectural style.
- d. Encourage design that allows access to light and views in shared and public spaces.

### 3. Transitions:

- a. Plan for transitions between higher- and lower-scale zones as additional development capacity is accommodated.
- b. Zone full blocks instead of partial blocks in order to soften transitions.
- c. Consider using low-rise zones to help transition between single-family and commercial / mixed-use zones.
- d. Use building setback requirements to create step-downs between commercial and mixed-use zones and other zones.

### 4. Historic Areas

- a. In Seattle's Historic districts, do not increase development capacity, even if it means these areas do not contribute to housing affordability through MHA.
- b. In other areas of historic or cultural significance, do not increase development capacity, even if it means these areas do not contribute to affordability through MHA.

### 5. Assets and Infrastructure

- a. Consider locating more housing near neighborhood assets and infrastructure such as parks, schools, and transit.

### 6. Urban Village Expansion Areas

- a. Implement the urban village expansions using 10-minute walksheds similar to those shown in the draft Seattle 2035 Comprehensive Plan update.
- b. Implement urban village expansions recommended in Seattle 2035 but with modifications to the 10-minute walkshed informed by local community members. Consider topography, "natural" boundaries, such as parks, major roads, and other large-scale neighborhood elements, and people with varying ranges of mobility
- c. In general, any development capacity increases in urban village expansion areas should ensure that new development is compatible in scale to the existing neighborhood context.

DRAFT 6/7/2017

# Principles for MHA Implementation



## Community-generated principles that will help guide MHA implementation (continued)

### 7. Unique Conditions

- a. Consider location-specific factors such as documented view corridors from a public space or right-of-way when zoning changes are made.

### 8. Neighborhood Urban Design

- a. Consider local urban design priorities when zoning changes are made.

DRAFT 6/7/2017





# Community Input: Citywide Themes

This section outlines consistent themes we heard across the city. Some of this input may be incorporated into MHA, while much of it is already being addressed through the ongoing programs at various department throughout the City, outside of MHA.

This is an attempt to document the entire spectrum of themes that emerged through engagement. There are often conflicting themes described below, as community members hold different viewpoints on these issues. In addition, there are some themes that may be inconsistent with either the MHA program goals or its legal mechanisms; however they are captured here in the interest of documenting the variety of perspectives and responses gathered through the community engagement process.

Community input themes are organized in the following way:

## Community input on MHA basics

The City took input on the various mechanics essential to putting MHA in place. These include basics of the program structure, such as affordable housing contributions required of developers, development capacity provided through zoning changes, and more.

## Community input on MHA implementation

The City took input on how MHA would be interpreted and applied at the local level, both as a cohesive, citywide housing policy, and in the form of zoning decisions shaping each neighborhood. Examples include zoning transitions, housing options, and urban design quality. These and other aspects of MHA implementation have been informed and improved with your input.

## Community input on aspects of city life to be addressed outside of MHA

Throughout community outreach and engagement on MHA, we heard about growing pains felt throughout the city. And while we can craft MHA to update zoning designations, design standards, and affordable housing contributions, we can't tackle all issues of a growing city in one policy.

This section describes what we heard about shared concerns for the livability of our city. Most topics touched on areas of work already underway within the City's various departments. We continue to work hard addressing these concerns, and you will hear more about current and upcoming policies and initiatives designed to address this work in a comprehensive way. In an upcoming report titled "Growth with Livability," we will share highlights of the many ways in which your city government is working hard to deliver services, information, and vital infrastructure.



# Community Input: Citywide Themes

## Community input on MHA basics

### Displacement

Many community members expressed concern about displacement, and wondered how MHA could help minimize it. Many have observed displacement of neighbors and friends, find themselves at risk of displacement, or have already found the need to move out of their neighborhood or the city entirely. Community members attributed displacement trends to rising housing costs, redevelopment of existing housing, and lack of sufficient affordable housing choices.

Many community members suggested the City combat this trend by incentivizing preservation of low-cost, market-rate housing where possible, while also creating new affordable housing. There was a desire to focus anti-displacement efforts toward low-income populations, seniors, people with disabilities, communities of color, immigrant and refugee communities, and long-term homeowners. Many of these groups are most at risk of displacement.

Some community members also expressed concern that if new MHA requirements suppress development in some areas, it would reduce both new market-rate housing and new affordable housing, and exacerbate displacement trends.

### Duration of affordability

Some community members suggested that affordable units be required to stay affordable indefinitely.

### Affordable housing requirements

Nearly every conversation about MHA included discussion of proposed affordability requirements. The City heard many perspectives—some expressing the affordable housing requirements are too

high, and others that they are too low. Many participants voiced a desire for requiring more affordable housing onsite or higher fees. Others expressed concern that high requirements could stifle development and further drive up housing costs.

Many questioned why developers should be allowed to make a payment instead of building affordable housing as part of each development. Others felt that we should encourage more payment in-lieu of performance since it would result in a larger number of affordable housing units overall. There was widespread concern that in-lieu fee revenue might not be used in same neighborhoods where development is occurring. There was even some concern that this revenue might be used entirely in relatively low-cost neighborhoods.

There were questions about why the City needs to provide additional development capacity as part of MHA. Many felt that developers should be required to contribute to affordable housing without added capacity.

### Affordability levels

There was conversation about the levels of affordability required with MHA. Many expressed concern about community members making far less than 60% of Area Medium Income (AMI), and many were aware of a “missing middle”—those who do not qualify for rent-restricted housing but still find themselves cost burdened when it comes to housing. Across the board there was support for more housing affordable to all income levels.

There was also strong support for including community ownership models so that long-term residents can benefit from change.

# Community Input: Citywide Themes

## Community input on MHA basics (continued)

There were suggestions for MHA to encourage affordable homeownership using models like community land trusts.

### Property taxes

Some homeowners expressed concern that zoning changes in their neighborhoods could elevate assessed property values, which might increase property taxes. Others suggested that property values would decrease with zoning changes, which could cause a loss of equity.

### Zoning changes where MHA will apply

Many community members supported adding density to urban villages by rezoning Single Family areas. There was strong support for increasing development capacity near high frequency transit in urban villages, which would allow more people access to the transit network, particularly for low-income households. Many felt that capacity increases are a good trade-off for more affordable housing, and will help create more housing options. Many expressed support for more Lowrise instead of Residential Small Lot (RSL) in urban villages, particularly near major transit investments such as light rail and bus rapid transit (BRT).

In contrast, community members also expressed concern that allowing new building types in areas currently zoned Single Family would negatively impact neighborhood character and livability. Concerns raised included parking challenges, taller buildings blocking light and air, and more. Some were concerned about development somehow encouraging crime, or sought to encourage homeownership as perceptions of renters were not positive. There were suggestions to remove current Single Family areas from urban villages or exclude them from MHA.

### Zoning changes where MHA will not apply

Some community members expressed desires for MHA to apply to areas other than existing multi-family and commercial zoned properties and within existing urban villages or urban village expansion areas. Ideas included allowing additional residential growth in Single-Family areas outside of urban villages and in areas currently zoned for commercial or industrial uses.

Many community members—homeowners and renters alike—questioned why Single Family areas outside of urban villages would not contribute to affordability through MHA. Many expressed support for including all Single Family areas of the city in a rezone. Many community members observed that Single Family areas across the city already have a variety of building types, including duplexes, triplexes, and apartment buildings. Most were built before the areas were zoned Single Family, and provide living examples of multiple housing types in one neighborhood.

Many community members pointed to some commercial zones and industrial areas that limit or preclude residential development as areas where the City should consider allowing housing, particularly in areas well served by transit and other amenities.

# Community Input: Citywide Themes

## Community input on MHA implementation

**This is the feedback we have collected to date. There is still more time to weigh in on the zoning changes and this feedback has not yet been incorporated into the current mapping or development proposal.**

**Public Comment closes on July 15, 2017 and new maps will be released later this year.**

### Housing options

There was general agreement among community members that we need more family-size housing within new development, specifically units with two or more bedrooms and family-friendly features. These multi-bedroom units could help more families live in walkable neighborhoods near schools, parks, and transit.

There was some agreement that RSL should still allow Accessory Dwelling Units (ADUs) and Detached Accessory Dwelling Units (DADUs) and other options to be built by homeowners.

Some suggested that RSL zoning might support homeowners seeking to stay in their neighborhoods while adding housing to their property and requested that we seek opportunities to encourage this option. Encouraging this type of approach could help homeowners build and maintain equity.

Some individuals also felt that the amount of additional development capacity that was proposed in some areas was too low in comparison to the cost of the affordable housing requirements. These individuals were concerned that overall the program would reduce the value of redevelopment in these zones which would reduce the amount of market-rate housing (and thus also the

amount of affordable housing generated through MHA). These comments tended to focus on the zones that currently allow townhouses, zones where additional floors result in different, more expensive building code requirements, and zones where the increase in Floor Area Ratio was less than 20%.

Some people suggested we consider allowing more housing types beyond Single Family in other areas outside of urban villages.

### Urban design quality

Much of the conversation about adding development capacity centered on the size, shape, architectural style, and material choices of new buildings.

There were many suggestions that we relax development standards on building use, height, setbacks, and FAR in all existing and proposed Multifamily and Commercial zones in order to maximize utility of developable land and ease upward pressure on housing prices.

Contrasting suggestions were aimed at limiting the scale of new buildings to minimize their impact on existing buildings and yards. Community members suggested this could be achieved by requiring greater setbacks and limiting bulk and height of new development adjacent to existing single-family homes. Most concerns focused on the importance of open space, vegetation, and access to light and air at ground level. Many community members recommended reducing the impact of rooftop height extensions like penthouses and roof decks.

Many people felt that new buildings aren't

# Community Input: Citywide Themes

## Community input on MHA implementation (cont'd)

designed well. Community members often expressed a strong desire for greater public influence over building design through the design review process. Contrastingly, some in the design and development fields recommended reducing project delays and expense by easing design review standards, which could help lower housing costs.

### Transitions

Community members expressed concern that transitions where Single Family zones abut neighborhood commercial zones are too extreme. There were suggestions to soften that transition with an intermediate zone, such as Lowrise.

Many observed that the Lowrise 1 zone has roughly the same height requirements as Single Family, and so can be an appropriate transition zone between Single Family areas and zones that allow taller buildings. There were also assertions that Residential Small Lot is the most appropriate zone to place between Single Family and higher zones.

Some community members suggested forgoing transitions altogether if it would allow Single Family zones to remain unchanged, even in cases where Single Family would then abut six-eight story midrise buildings.

### Historic areas

Community members expressed opinions that historic areas should contribute to affordable housing. They underscored the idea that fewer areas contributing to MHA may result in less affordable and market rate housing.

Many others spoke in favor of keeping current zoning in historic areas and not requiring those sites to contribute to

affordability. There was a shared goal of preserving the existing scale in those places.

Some suggested that the City designate more historic areas in certain business districts and Single Family areas to preserve the character of these places.

### Locating near assets and infrastructure

There was strong support all around for locating more housing near transit, especially existing and future light rail, retail areas, and parks. People expressed a greater diversity of options about whether housing should be located near schools, which are often located on the edge of urban centers and villages.

Some commenters suggested that we should consider locating less housing in areas with streets that are unimproved, have dead ends, or have few sidewalks nearby.

### Urban village expansion areas

Some community members suggested that the City focus zoning changes to existing urban villages before expanding any boundaries. Others supported proposals to expand boundaries near high frequency transit, so as to allow more multifamily land near these transit investments. Some supported additional expansion areas not currently in the proposal—either to incorporate key investments or community assets into the urban village, or to include specific lower-density properties that would otherwise be surrounded by higher-density uses.

### Unique conditions

Many recommended that the City consider topography when making zoning changes so that transitions from one zone to the next are reasonable.

# Community Input: Citywide Themes

## Community input on topics outside of MHA

**As a reminder these topics will be more fully explored in the Growth with Livability Report due out soon and fall outside of MHA.**

### **Traffic**

Many identified traffic congestion as a significant challenge to livability across the city. There was broad desire to ensure that transportation infrastructure is in place before additional development capacity, especially in areas like West Seattle that are dependent on limited travel corridors.

Others acknowledged that traffic congestion is likely to worsen regardless of whether MHA is implemented, and that providing more housing options near transit hubs will help more people get around more easily.

### **Public transit**

Many believed that transit is improving, and if the City waits too long to require affordable housing, more people will be priced out, resulting in more long distance commutes. There was shared understanding that more people commuting longer distances undermines equity and climate goals. Many suggested that urban villages with lower levels of transit available should not receive additional development capacity until expanded transit service is available. Some observed that some buses are at capacity during peak travel times.

Many suggested that we consider planned transit investments when making capacity increases. Those include Bus Rapid Transit (BRT) on Madison Avenue, the Judkins Park Light Rail station, and future light rail stations in Ballard and West Seattle.

### **Tree canopy**

Some expressed concern that zoning changes could result in loss of the city's tree canopy coverage. There were suggestions that the City strengthen protection for trees.

### **Parks & open space**

Some expressed concern that some urban villages lacked sufficient parks and open space and suggested expansion of these amenities prior to allowing more development capacity in select areas.

### **Commercial affordability & small business**

There was widespread agreement that small and affordable retail spaces be incentivized so that existing local businesses can transition into appropriately sized new commercial spaces. It was suggested that this type of retail space be included in MHA or other City actions.

### **Public safety**

Some expressed concerns about public safety, including car prowls, and requested that the City enhance police presence prior to adding more capacity. to adding more capacity.



# Community Input: Citywide Themes

## Community input on topics outside of MHA (cont'd)

### Sidewalks & walkability

Community members observed that some urban villages have significant gaps in the sidewalk network. There were suggestions that these places not receive additional development capacity until the sidewalk network is complete. Many also supported existing requirements to provide sidewalks with all new buildings. Further, some suggested that missing sidewalks should be considered when making urban village expansions.

Among the development community and those seeking to build single family homes, there was agreement that not all new development should require sidewalks, as the cost is overly burdensome to small developers.

### Parking

Parking is a particularly hot topic, and was discussed regularly at meetings and online. Many expressed strong support for current policy that does not require parking spaces with new development inside urban villages. Many said that support for the current policy helps advance CO2 reduction goals. It was agreed that the transition from a car culture to a transit culture is difficult but necessary to achieve equity and climate goals. Many others suggested that we require new development to include parking so as to reduce impacts on scarce street parking.

### Schools

Many were concerned about overcrowding in schools, and asked that we make sure to coordinate with Seattle Public Schools when planning zoning changes.

### Community planning

Some community members requested additional community planning processes prior to, or along with, zoning changes so residents can shape local changes and prioritize needed investment.

### Infrastructure

Some community members expressed strong support for addressing local drainage problems before adding development capacity in those areas.



# Community Input: Citywide Themes

Each of Seattle's neighborhoods is unique. Much of the input the City received on MHA was specific to conditions on the ground within a given urban village, though many of these themes resonate across the city. In this section you will read about input received that is both specific to a particular neighborhood as well as citywide themes most discussed.

Note that the input does not convey consensus among community members. The purpose of this section is to share the diversity of opinions expressed. We will not draw conclusions from those opinions, but rather appreciate that our diversity of opinions are oftentimes geared toward the same goals: a thriving, diverse, and livable city, where housing affordability is the key to our shared quality of life.

DRAFT 6/7/2017





**South Lake Union Urban Center**

**Under current rules for this hatched NC-40 area, the height limit is 65 feet if residential uses occur above 10 feet (SMC 23.47A.012).**

**Principle 4a:** In designated historic districts, do not make zoning changes.

**Principle 5a:** Expand housing options near infrastructure like transit.

**Major Institution Overlay**  
(MIA applies only to non-institutional uses)

**South Lake Union Urban Center**

**PIONEER SQUARE PRESERVATION DISTRICT**

**INTERNATIONAL DISTRICT SPECIAL REVIEW**

**Legend:**

- MHA area
- First Hill-Capitol Hill
- NC3-75 (M)
- NC2-40
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# Community Input: [Urban Village Name Here]

## Neighborhood-specific community input

Key topics

Conversations with community

## Analyses

Racial Equity Analysis

Draft Environmental Impact Statement

Citywide themes most discussed

- 

[Content for each urban village in development and to be included in final draft.]

# APPENDIX C



## MHA IMPLEMENTATION PRINCIPLES.

Available online at:

[http://www.seattle.gov/Documents/Departments/HALA/FocusGroups/Principles\\_MHA\\_Implementation\\_2pager.pdf](http://www.seattle.gov/Documents/Departments/HALA/FocusGroups/Principles_MHA_Implementation_2pager.pdf)



MHA Draft EIS  
June 2017

# Principles for MHA Implementation

## Community generated principles that will guide MHA implementation



### 1. Housing Options

- a. Encourage or incentivize a wide variety of housing sizes, including family- sized units and not just one-bedroom and studio units.
- b. Encourage more small-scale multi-unit housing that is family friendly, such as cottages, duplexes or triplexes, rowhouses, and townhouses.

### 2. Urban Design Quality: Address urban design quality, including high-quality design of new buildings and landscaping.

- a. Encourage publicly visible green space and landscaping at street level.
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- c. Encourage design that allows access to light and views in shared and public spaces.

### 3. Transitions: Plan for transitions between higher- and lower-scale zones as additional development capacity is accommodated.

- a. Zone full blocks instead of partial blocks in order to soften transitions.
- b. Consider using low-rise zones to help transition between single-family and commercial / mixed-use zones.
- c. Use building setback requirements to create step-downs between commercial and mixed-use zones and other zones.

### 4. Historic Areas

- a. In Seattle's Historic districts, do not increase development capacity, even if it means these areas do not contribute to housing affordability through MHA.
- b. In other areas of historic or cultural significance, do not increase development capacity, even if it means these areas do not contribute to affordability through MHA.

### 5. Assets and Infrastructure

- a. Consider locating more housing near neighborhood assets and infrastructure such as parks, schools, and transit.

### 6. Urban Village Expansion Areas

- a. Implement the urban village expansions using 10-minute walksheds similar to those shown in the draft Seattle 2035 Comprehensive Plan update.
- b. Implement urban village expansions recommended in Seattle 2035 but with modifications to the 10-minute walkshed informed by local community members. Consider topography, "natural" boundaries, such as parks, major roads, and other large-scale neighborhood elements, and people with varying ranges of mobility
- c. In general, any development capacity increases in urban village expansion areas should ensure that new development is compatible in scale to the existing neighborhood context.

### 7. Unique Conditions

- a. Consider location-specific factors such as documented view corridors from a public space or right-of-way when zoning changes are made.

### 8. Neighborhood Urban Design

- a. Consider local urban design priorities when zoning changes are made.



# Principles for MHA Implementation

## Principles that form the foundation of MHA



1. Contribute to the 10-year HALA goal of 20,000 net new units of rent- and income-restricted housing. Specifically, the MHA goal is at least 6,000 units of housing affordable to households with incomes up to 60% of the area median income (AMI), units that will remain affordable for 50 years. In 2016, 60% of the AMI is \$37,980 for an individual and \$54,180 for a family of four.
2. Require multifamily and commercial developments to contribute to affordable housing.
3. Contributions to affordable housing will be provided by including affordable housing on site, or by providing a payment to the Seattle Office of Housing for creation of new affordable housing.
4. Ensure MHA program creates affordable housing opportunities throughout the city.
5. In alignment with a state-approved affordable housing based incentive zoning approach (37.70A.540), new affordability requirements are linked to allowing some additional development capacity in commercial and multifamily zones (in many cases this includes one additional floor).
6. Allow a variety of housing types in existing single-family zones within urban villages.
7. Expand the boundaries of some urban villages to allow for more housing near high-frequency transit hubs.
8. Maintain Seattle as an inclusive city by providing housing opportunities for everyone: people of all ages, races, ethnicities, and cultural backgrounds and households of all sizes, types, and incomes.
9. Evaluate MHA implementation using a social and racial equity/justice lens.

# APPENDIX D



## ENVIRONMENTAL SCOPING REPORT.

Available online at:

[http://www.seattle.gov/Documents/Departments/HALA/Policy/MHA%20Scoping%20Summary%20FINAL\\_110916.pdf](http://www.seattle.gov/Documents/Departments/HALA/Policy/MHA%20Scoping%20Summary%20FINAL_110916.pdf)



MHA Draft EIS  
June 2017

# MANDATORY HOUSING AFFORDABILITY EIS SCOPING SUMMARY

City of Seattle, Office of Planning and Community Development | November 9, 2016

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## 1 INTRODUCTION

The City of Seattle is proposing amendments to the Land Use Code to implement Mandatory Housing Affordability (MHA) for multifamily and commercial development meeting certain thresholds. MHA would require developers either to build affordable housing on-site or to make an in-lieu payment to support the development of affordable housing throughout the city. MHA is expected to create a total of 6,000 new affordable homes over the next 10 years for low-income families and individuals.

To implement MHA, the City would make changes to the Land Use Code to grant additional development capacity in existing commercial and multifamily zones and in areas currently zoned single family in existing or expanded urban villages. A summary of the current draft of the additional development capacity in each zone can be found at <http://www.seattle.gov/hala/focus-groups#MHA%20Development%20Examples>.

The City is proposing to prepare an Environmental Impact Statement (EIS) that will analyze three alternatives and identify the impacts of each alternative. Alternatives to be addressed in the EIS include *No Action*, or continued growth as guided by the City's Comprehensive Plan and Land Use Code standards; and two *action alternatives* that will consider growth under different development patterns and Land Use Code standards. The No Action alternative includes the 20-year growth estimate of 70,000 additional households, consistent with the *Seattle 2035 Comprehensive Plan*, and no MHA. The two Action alternatives both consider increased amounts of growth compared to the No Action alternative and implementation of MHA to create at least 8,400 affordable homes citywide.<sup>1</sup> The alternatives differ in whether MHA is implemented and

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<sup>1</sup> These are citywide estimates; estimates would be lower for the particular alternatives being evaluated. MHA is expected to yield approximately 6,000 new affordable homes over the next 10 years. For purposes of this EIS analysis, this number has been extrapolated to maintain consistency with the Seattle 2035 Comprehensive Plan's 20-year

how growth and affordable homes are distributed among urban villages. Both action alternatives will evaluate increases in the maximum height and floor area limits in commercial and multifamily zones, as well as single family zones in designated urban villages and potential urban village expansion areas identified in the *Seattle 2035 Comprehensive Plan*. The primary difference between the two Action alternatives is the intensity and location of land use changes, including the extent of potential urban village boundary expansions. The proposal considered in this EIS does not include the Downtown or South Lake Union neighborhoods or the core of the University District.

The EIS analysis will incorporate and leverage information and analyses contained in the recent *Seattle 2035 Comprehensive Plan EIS* (2016), *Growth and Equity Analysis* (2016), and other recent city studies and plans.

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## 2 EIS SCOPING

Scoping is the process of identifying the elements of the environment to be evaluated in an EIS. Scoping is intended to help identify and narrow the issues to those that are significant. Scoping includes a public comment period so that the public and other agencies can comment on key issues and concerns. Following the comment period, the City considers all comments received and determines the scope of review for the environmental analysis.

The City issued a Determination of Significance/Scoping Notice for MHA on July 28, 2016, and made it available to the public through a variety of methods (see Attachment 1). The Scoping Notice states that the EIS will consider potential impacts associated with land use, housing and socioeconomics, aesthetics and height/bulk/scale, historic resources, open space and recreation, transportation, public services, and utilities. The scoping period closed on September 9, 2016.

During the scoping period, comments were invited through the project website, via mail and email, at four HALA Community Focus Groups held in August, and at two tabling events held at the Seattle Summer Parkways in Rainier Valley on August 13, 2016, and in Ballard on August 27, 2016. Materials from the tabling events are contained in Attachment 2. In total, the City received 59 scoping comments. Summarized public scoping comments and responses to these comments are shown in the table on the following page.

All comments are summarized in Section 3 (Table of Comments) in this Scoping Summary. All letters and emails, as well as written comments received at the scoping events, may be reviewed with advance notice (contact [Geoffrey.Wentlandt@seattle.gov](mailto:Geoffrey.Wentlandt@seattle.gov)).

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*planning horizon. For this reason, the City estimates approximately 8,400 affordable homes will be added within 20 years.*

In response to the comments received through the scoping process, the City will make adjustments to the analysis of the environmental elements in the proposed EIS scope and the formulation of the action alternatives, compared to what was outlined in the Scoping Notice. Responses to comments in Section 3 below document areas where the City will make adjustments.



### 3 TABLE OF COMMENTS

The following tables summarize comments by EIS element/topic, with the City's response to comments provided below each table.

#### Overall Approach

EIS TOPIC	COMMENTS
Approach to Analysis	<ul style="list-style-type: none"> <li>Consider impacts for each urban village individually</li> <li>Consider citywide and regional impacts</li> <li>Establish clear baselines for analyzing impacts in each urban village</li> <li>Analyze existing conditions and impacts for each block of each urban village</li> <li>Conduct a separate EIS for each area proposed to have zoning changes</li> <li>Eliminate vague terms such as "slightly higher," "slightly more floor area," or "certain zones"</li> <li>Include current projects under development in calculations of density and growth models, in addition to the projected growth</li> </ul>

#### Response:

- While the proposal considered in this EIS is for a very broad geographical area, where information is available and would help in understanding potential impacts of the alternatives, smaller geographic areas may be examined. These include, for example, urban villages, police precincts and fire service battalions.
- The analysis will include documentation of existing conditions and identification of threshold for determining significance of impacts.
- The description of the proposal and alternatives will quantify proposed building height limits, affected zones and other data as available. The environmental analysis will quantify data and conclusions to the extent that reliable quantifiable data is available and would help inform the discussion. Where reliable quantitative data is not available, environmental analysis will rely on a qualitative and comparative review of alternatives. As established in the SEPA Rules, this is appropriate for a programmatic analysis of a legislative proposal of this scale.
- Each action alternative will be associated with a detailed zoning map and urban village boundary expansion map. Amounts and distribution of estimated growth, as well as affordable housing quantities, will be provided based on the detailed maps, and include estimations for

urban villages individually. To the extent possible, if the potential for any acute localized impacts are identified for any of the elements of the environment reviewed, discussion of such localized impacts and mitigating measures may be included.

- Pipeline development proposals will be considered in estimating future growth estimates.

## Alternatives

EIS TOPIC	COMMENTS
Alternatives	<ul style="list-style-type: none"> <li>• Include alternative(s) where growth exceeds projections</li> <li>• Study alternatives that include more affordable housing, with lower AMI thresholds</li> <li>• Broaden the range of alternatives</li> <li>• Consider an alternative that doesn't require demolition of existing housing stock or historic buildings</li> <li>• Consider alternative(s) that do not increase allowable height, floor area, or building footprint through upzones</li> <li>• Consider alternative(s) that require builders to provide affordable housing on site, rather than in-lieu fees</li> <li>• Include an alternative that focuses on non-Mandatory Inclusionary Zoning policy, like expanding the Multifamily Tax Exemption program</li> <li>• Consider an alternative that limits growth to the types and amounts of growth in the individual neighborhood plans</li> </ul>

### Response:

- Each alternative will be associated with a detailed zoning proposal and the alternatives will include a range of growth projections generated from these specific zoning proposals, including projections that exceed the 2035 Comprehensive Plan growth estimates.
- Consistent with SEPA Rules, the EIS will consider a reasonable range of alternatives consistent with the objectives of the proposed action. The proposed action is Mandatory Housing Affordability (MHA) consistent with the State authorized incentive program pursuant to RCW 36.70A.540 that will achieve at least 8,400 affordable homes over a 20-year period. The proposal will consider variations that can achieve the stated objective.
- The No Action Alternative, which is one of the EIS alternatives, will consider no increase in height, floor area or building footprint because of MHA. The No Action alternative includes the City's existing Incentive Zoning program.
- The proposal is not intended to limit or slow growth, so an alternative that limits growth in individual neighborhoods is not included.

- The MFTE program and other suggested programs are outside of the scope of the proposed action and are therefore not included in the alternatives.

## Housing and Socioeconomics

EIS TOPIC	COMMENTS
<b>Affordable Housing</b>	<ul style="list-style-type: none"> <li>• Address increased housing affordability for a range of people (economically diverse, culturally diverse, all ages, various physical abilities, etc.)</li> <li>• Consider the risk that MHA may result in a net zero or net loss in affordable housing</li> <li>• Include the ratio of affordable housing produced under HALA relative to market priced housing produced</li> <li>• Analyze the impacts of increased residential development on current rental units – consider rent control</li> <li>• Could a fee or tax such as Vancouver's be considered for individuals or companies from out-of-state or out-of-country buying up Seattle's real estate?</li> <li>• If we continue to have an overall regulatory environment where the supply of new housing is not keeping up with demand, we will continue to see a meteoric escalation in the cost of housing</li> <li>• Do not replace the current housing mix with more expensive multifamily housing</li> <li>• Need more mid-income housing</li> <li>• MHA driven development will accelerate our loss of moderately priced homes and decrease housing diversity</li> <li>• Home ownership is not attainable or affordable for mid-income families</li> </ul>
<b>MHA Requirements</b>	<ul style="list-style-type: none"> <li>• State MHA-R project objectives and basis for claims that 6,000 new affordable homes will be added over the next 10 years</li> <li>• Distribute where affordable housing is built with developer fees – where will the fees be spent?</li> <li>• Will MHA payments create public housing and/or permanently affordable housing?</li> <li>• In-lieu fees delay the creation of affordable homes in comparison to developer built affordable homes</li> <li>• Allowing developers to pay in-lieu fees instead increases the socioeconomic segregation of neighborhoods</li> <li>• Consider that higher fees in areas "at risk of displacement" will discourage investment in new housing in poorer less developed neighborhoods</li> <li>• Renters and homebuyers end up paying for the additional cost to developers from policies and constraints</li> <li>• Mandatory Inclusionary Zoning is bad housing policy as it inflates the price of market rate housing all over the city</li> </ul>

EIS TOPIC	COMMENTS
<b>Equity, Displacement, and Vulnerable Populations</b>	<ul style="list-style-type: none"> <li>• Describe any perceived implication for the principles of the Race and Social Justice Initiative</li> <li>• Accurately identify areas with a high risk of displacement</li> <li>• Distinguish displacement caused by development (physical) from displacement due to rising housing prices (economic)</li> <li>• Refine the Growth and Equity Analysis to more accurately reflect displacement risks by geographic sub-region within urban villages</li> <li>• Address the growing economic disparity in “hot development” neighborhoods</li> <li>• Consider the recent history of gentrification within each urban village</li> <li>• Consider options for allowing displaced families to remain in the same area</li> <li>• Expand urban village boundaries in strategic ways that limit impacts on vulnerable areas</li> <li>• Provide support for homeless communities (like tent cities) moving into more long-term housing</li> <li>• Explain how the City will track economic displacement due to rising rents, property taxes, etc.</li> </ul>
<b>Jobs/Business</b>	<ul style="list-style-type: none"> <li>• Consider the displacement of small businesses in urban villages due to escalating rents and increased property taxes</li> <li>• Address the design standards and planning needed to include affordable commercial spaces</li> <li>• Consider the availability of “average” jobs – working class families won’t be able to buy even if housing becomes more affordable if they don’t have access to jobs</li> </ul>

## Response:

### Housing Affordability

- Housing affordability review will include an analysis of neighborhood socio-economic characteristics, current housing affordability, and the relative potential for displacement due to growth. The analysis will include an estimate of housing with potential to be demolished and replaced by redevelopment in order to characterize the potential loss of existing affordable homes. In addition, the analysis will quantify new market rate and affordable housing that is likely to be produced and discuss the likely geographic distribution of new affordable housing at income levels served by the MHA.
- Several comments suggest measures to support housing affordability separate from the MHA proposal. Potential actions outside of the scope of the proposed action are not included in the alternatives, but may be identified as possible mitigating measures.

### MHA Requirements

- MHA-R objectives and basis for the 10 year 6,000 new affordable homes estimate will be described in the description of the alternatives chapter of the EIS.
- Several comments raise questions about how MHA will be implemented and administered. The EIS will include a full description of the proposed implementation of MHA.

### Equity/Displacement/Vulnerable Populations

- The EIS analysis will leverage and build upon the City's Growth and Equity analysis to examine neighborhood socio-economic characteristics within the study area, current housing affordability, and the relative potential for displacement due to growth.
- The consistency of the proposal with the Race and Social Justice Initiative will be considered in the EIS Plans and Policies analysis.
- The EIS analysis will include analysis of the potential for direct displacement due to demolition.
- The analysis will include discussion of the potential for economic displacement in addition to discussion of direct physical displacement.
- Several comments propose measures, such consideration of urban village boundary expansions, to limit impacts on displacement. These measures will be considered for incorporation into the alternatives, and will be varied to determine the effectiveness of such measures to address displacement. Such actions may also be considered as mitigation measure to reduce impacts of the alternatives.
- The proposal considered in this EIS is intended to serve low-income households. Other programs in the City provide services to support the homeless in transitioning to long-term housing.
- In addition to the EIS process, the City is undertaking a companion report that focuses on a broader discussion of anti-displacement measures and identifies strategies for increasing access to opportunity for marginalized populations. This will include discussion of economic and cultural displacement. The companion study will explore a broad range of strategies to mitigate displacement not limited to housing strategies.

### Jobs/Businesses

- The analysis will include a review of income and demographic characteristics of Seattle's population, based on the analysis contained in the Comprehensive Plan EIS.

## Land Use

EIS TOPIC	COMMENTS
<b>Zoning and Land Use Patterns</b>	<ul style="list-style-type: none"> <li>• There are enough properties already zoned multifamily and LR to provide the affordable homes needed</li> <li>• Zoning changes could have dramatic effects on the distribution of growth and impacts</li> <li>• Require zoning changes to go through individual neighborhood plans</li> <li>• The proposed zoning changes do not take livability values into account</li> <li>• Consider the impacts of institutional overlays</li> <li>• Allow density but slow it's pace to avoid unintended consequences</li> <li>• Don't just put density on arterials and don't turn all arterials into upzones</li> <li>• Limit allowed density (number of people per lot) of single family lots and LR1 in single family areas</li> <li>• Provide transition areas to single family properties</li> <li>• Distribute growth/density throughout the city</li> <li>• Increase allowable height and FAR in multifamily and single family zones (infill) to accommodate current and forecasted population growth and support increases in services, transit, diversity, etc.</li> </ul>
<b>Single Family Areas</b>	<ul style="list-style-type: none"> <li>• Analyze expanding MHA into single family zones outside of urban villages</li> <li>• Complete an inventory of the current number of single-family residences in LR1 zones</li> <li>• Single family homes are an important part of affordable housing options</li> <li>• Redevelopment of single family areas, whether near or in urban villages, should not be a City policy</li> </ul>
<b>Plans and Policies</b>	<ul style="list-style-type: none"> <li>• Include evaluation of the relative compliance of the alternatives with the Comprehensive Plan</li> <li>• Compliance with HUD Fair Housing rules</li> <li>• Opposition to Seattle 2035 policy LU 7.3 in general and to proposed amendments to support redevelopment in single-family areas near urban villages (not just inside)</li> </ul>

### Response:

- The land use analysis will include a review of compatibility of the proposal and alternatives with the existing and planned zoning designations and land use patterns, potential land use conflicts and impacts on overall growth distribution for all alternatives. This analysis



will include a review of existing conditions and potential impacts to single family zoned areas, but is not anticipated to include an inventory of housing by zoning category.

- The alternatives will include variations in the distribution of expected growth based on a specific zoning proposal to implement MHA. Potential impacts of the alternative distributions of growth will be evaluated.
- The EIS will include an analysis of the impacts of conversion of single family zoned areas inside urban villages, and any expanded urban village areas.
- Expansion of MHA into single family areas outside of existing or expanded urban villages is not proposed by the City and is not considered in the EIS.
- Plans and policies analysis will include a review of consistency of the alternatives with the Growth Management Act, PSRC Vision 2040, King County Countywide Planning Policies, Seattle Comprehensive Plan and Seattle Land Use Code. Based on comments received through this scoping process, the analysis will also include a review of the City of Seattle Race and Social Justice Initiative, HUD Fair Housing rules and the Seattle Climate Action Plan.

## Aesthetics, Height/Bulk/Scale

EIS TOPIC	COMMENTS
<b>Aesthetics</b>	<ul style="list-style-type: none"> <li>• How will the alternatives change the look of each urban village? What relationship will new buildings have to the existing neighborhoods? What will transition areas look like?</li> <li>• Pay attention to the quality of development</li> <li>• Consider the architectural character of existing development</li> <li>• Consider the impacts of increased building heights and size to general neighborhood aesthetic and spatial cohesion</li> <li>• Include programs, policies, and development codes to ensure visual interest of homes and the urban environment</li> <li>• Evaluate and compare the impacts of the MHA code amendments and increased floor area/building height on those neighborhoods with adopted neighborhood design standards versus those without</li> </ul>

EIS TOPIC	COMMENTS
<b>Height/Bulk/Scale</b>	<ul style="list-style-type: none"> <li>• What impacts will the height, bulk, and scale of proposed zoning changes have on the surrounding areas, including potential wind tunnels, access to light, privacy, auditory disturbance, green space, building access, waste storage, and view corridors?</li> <li>• Be more specific than “slight” with regards to increased building height FAR, and setbacks and be specific about the zones in which these apply – heights, setbacks, and openings in the building bulk are too vague and masses too large</li> <li>• Focus on small-scale affordable housing (duplexes, cottages, etc.)</li> </ul>
<b>Shade</b>	<ul style="list-style-type: none"> <li>• Consider the environmental and financial impact of taller buildings shadowing solar panels, especially in zones changed from single family to multifamily</li> <li>• Developers should compensate preexisting shadowed solar installations or allow them to be moved to the top of the shadowing building</li> </ul>

**Response:**

- The aesthetics analysis will consider street-level character, public spaces, general sun and shadowing impacts, and relationship of new buildings to existing development patterns. Based on visualizations of neighborhood prototypes, the analysis will include a discussion of neighborhood context, impacts associated with increased height, bulk, and scale of development and identification of potential measures to mitigate any identified impacts.
- The description of the proposal and alternatives will quantify proposed building height limits, affected zones and other data as available. The environmental analysis will quantify data and conclusions to the extent that reliable quantifiable data is available and would help inform the discussion. Where reliable quantitative data is not available, environmental analysis will rely on a qualitative and comparative review of alternatives. As established in the SEPA Rules, this is appropriate for a programmatic analysis of a legislative proposal of this scale.
- Compatibility with and impact on existing development standards will be considered.
- The EIS will include a qualitative analysis of shadow impacts associated with proposed increased building height and bulk.

## Transportation

EIS TOPIC	COMMENTS
<b>Traffic/Congestion</b>	<ul style="list-style-type: none"> <li>• Impact(s) of zoning changes on traffic – LOS and traffic delays at major intersections in urban villages and congestion citywide</li> <li>• Analyze the impacts on arterial traffic as well increased traffic diverted to side streets</li> <li>• Impact of increased housing density on freight mobility</li> <li>• Improve gridlock by focusing density into walkable neighborhoods supported by mass transit</li> <li>• Affordable housing should help ensure commute times are lower and traffic is reduced (e.g., live close to where you work)</li> </ul>
<b>Transit</b>	<ul style="list-style-type: none"> <li>• What impact will future light rail have on nearby land and property values and on small business currently located on the lines?</li> <li>• Consider expanding Commute Trip Reduction programs or expanded vanpool/carpool systems instead of light rail</li> <li>• Existing public transportation deficiencies in many urban villages will be exacerbated by increased density/housing – impact on public transportation capacity generally (and bus service specifically)</li> <li>• Light rail will not be here soon enough to support the massive population growth</li> <li>• Need mass transportation and/or parking around new apartment buildings</li> </ul>
<b>Parking</b>	<ul style="list-style-type: none"> <li>• Consider the impacts of new construction without parking spaces on available street parking</li> <li>• Plan for car ownership and establish realistic parking requirements for new developments</li> <li>• Impact of loss of parking to street-side businesses and residents where density and bike lanes have been put in</li> <li>• Consider impacts of constrained parking on low-income persons and those who can't walk far</li> <li>• Consider parking for delivery vehicles, schools buses, and other services not replaceable by transit</li> </ul>
<b>Pedestrian/Bicycle</b>	<ul style="list-style-type: none"> <li>• Impacts on pedestrian safety and mobility in residential areas that don't currently have sidewalks or street crossings on major arterials</li> <li>• Consider the need for increased pedestrian and bike paths in neighborhoods that will receive increased density</li> <li>• Encourage walking and biking</li> <li>• Ensure new sidewalks are functional for all users</li> </ul>
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>• Existing streets have many paving/pothole issues, resulting in difficulties for biking, driving and walking</li> <li>• Increased density may lead to accelerated depreciation and earlier need for rebuilding of critical infrastructure like roads and bridges</li> </ul>

**Response:**

- The transportation analysis will evaluate mobility impacts and other potential impacts, including vehicular and non-motorized circulation, transit, parking, and freight. Existing transportation system operations and functionality versus analysis of system operations under alternate patterns identified in the alternatives analysis will be analyzed. The transportation analysis will be based largely on the transportation analysis completed for the *Seattle 2035 Comprehensive Plan* updated with current information, as well as other city modal transportation plans including the City’s Bicycle Master Plan, Pedestrian Master Plan, and Transit Master Plan. The effects of Sound Transit 3 investments, if approved, will be considered in the transportation analysis.
- The analysis will analyze level of services using both the mode share measure discussed in the Draft Seattle 2035 Comprehensive Plan and the currently adopted screenline volume-to-capacity ratios. Additional metrics, based on the analysis in the Comprehensive Plan EIS, will also be analyzed.

## Historic Resources

EIS TOPIC	COMMENTS
<b>Historic Buildings</b>	<ul style="list-style-type: none"> <li>• Consider impact(s) of increased density on properties listed on landmark registries and properties that meet the criteria to be listed but have not yet achieved landmark status</li> <li>• Consider a transfer of development rights scheme to mitigate the adverse impact of zoning changes on historic resources</li> <li>• Specific steps to protect Seattle’s historic buildings and prevent their destruction with new developments</li> </ul>
<b>Archeological, Cultural Resources</b>	<ul style="list-style-type: none"> <li>• Precautions to limit potential disruption to cultural sensitive resources (especially for taller buildings with greater excavation depths).</li> </ul>

**Response:**

- The historic resources analysis will describe the general distribution of older and potentially historic buildings and the historic patterns of development across Seattle. The impact analysis will describe the potential for MHA to result in significant changes to the historic fabric through incremental redevelopment of older neighborhoods. Mitigation measures to reduce these impacts, such as incentives for preserving

all or part of historic structures, will be described. The historic preservation analysis will focus primarily on differences, if any, from the analysis and findings in the Comprehensive Plan EIS. Material may be summarized and Comprehensive Plan EIS findings referenced.

- MHA is not proposed to be applied in designated National Register Historic Districts. No application of MHA or associated zoning changes will be studied in an Alternative, within the Districts.

## Open Space, Urban Forest, Sustainability

EIS TOPIC	COMMENTS
<b>Open Space</b>	<ul style="list-style-type: none"> <li>• What will be done to increase open space in various urban villages and address the city's growing deficit?</li> <li>• Preserve public views and access to water</li> <li>• MHA will reduce private yard space and increase the burden on existing park space</li> <li>• Public space needs to be clearly visible and available for all – communal greenspaces, large trees, and areas that people can individually garden are essential elements for Seattle identity/character and public health</li> </ul>
<b>Urban Forest</b>	<ul style="list-style-type: none"> <li>• Examine the potential net loss of trees in rezoned areas – impact on the tree canopy and associated wildlife</li> <li>• Address the preservation of trees and green spaces</li> <li>• Opportunities for urban food production, including fruit and vegetables, will be drastically reduced with the loss of vegetated open space and trees</li> <li>• 'Green Factor' features (such as green roofs, planting strips, and green walls) are not adequate substitutes for the loss of large trees</li> </ul>
<b>Sustainability</b>	<ul style="list-style-type: none"> <li>• Consider impact(s) of construction, vegetation loss, and increased population on CO2 and other greenhouse gas emission levels</li> <li>• Focus on the sustainability/durability of development patterns – will the changes provide an improved city 30 years from now?</li> <li>• Consider the impacts to urban habitat from increased density (birds, salmon, etc.)</li> <li>• Quantify the environmental impacts of replacing existing housing stock types with small-scale infill housing (like ADUs)</li> <li>• What impacts will there be to noise levels?</li> <li>• How will the increased density and changes to urban form impact physical health and access to healthy foods?</li> <li>• Ensure that denser neighborhoods are sustainable across all dimensions – housing, transportation, utilities, and the natural environment</li> <li>• Encourage green building design practices in large developments and ensure that construction methods are sustainable.</li> </ul>

**Response:**

- Open Space: The EIS will use the analysis for the Comprehensive Plan EIS to compare potential MHA areas with areas where gaps in open space currently exist. Impacts will be defined as areas where open space shortfalls would be increased by increased density within open space gaps. Mitigation measures such as targeting gaps for future open space acquisition will be discussed. The open space and recreation analysis will focus primarily on differences, if any, from the analysis and findings in the Comprehensive Plan EIS. Material may be summarized and Comprehensive Plan EIS findings referenced.
- Urban Forest: The EIS will build from the Urban Forest discussion included in the Comprehensive Plan EIS and incorporate updated information from the Seattle Office of Sustainability and Environment's (OSE) 2016 update to the Tree Canopy Cover Assessment and the Urban Forest Stewardship Plan. The EIS will provide a qualitative assessment of potential impacts to the tree canopy. To the extent possible, the EIS will include a quantitative evaluation of impacts to the urban forest and tree cover. Methods to evaluate impacts on the urban forest will include a review of potential tree canopy impacts in areas that are converted from single family zoning to other zoning categories that allow greater lot coverage. The analysis will consider LiDAR data and past permit data. Measures to mitigate potential loss of tree canopy will be identified in partnership with OSE and described in the EIS.
- Sustainability: Future development that would be associated with the proposal, if adopted, would be subject to existing City of Seattle standards for sustainable development, including individual project-level SEPA review, standards for sustainable development, low impact development, and related requirements. The proposal would not impact these processes and requirements and no additional analysis of potential sustainability impact is proposed. Development standards in the proposal may consider minor modification to Green Factor requirements to enhance sustainability of future construction projects. The impact of modifications to Green Factor will be considered in the Alternatives and/or as a mitigating measure.
- Noise: The Seattle Noise Control Code (Seattle Municipal Code Chapter 25.08) is applicable to the construction and operation of all development proposed as part of the project. The Noise Code sets levels and durations of allowable daytime/nighttime operational noise and daytime construction noise. These limits are based on the zoning of the source and receiving properties. Because the proposed uses under any of the alternatives would be consistent with existing uses, no significant impacts to noise levels, as defined in the Seattle Noise Code, are anticipated.
- Greenhouse Gas (GHG) Emissions. The consistency of the proposal with the City's Climate Action Plan will be considered in the EIS Plans and Policies analysis. The Seattle Comprehensive Plan Update EIS (2016) included an analysis of GHG emissions resulting from future growth



alternatives, including an assessment of GHG emissions associated with an increase in residential growth of 30,000 more housing units than anticipated in the City’s growth estimate. Because the proposal being considered in the MHA EIS would not result in a significantly different land use pattern or increased residential growth compared to that considered in the Comprehensive Plan EIS, no additional analysis of potential GHG emissions is needed.

- Physical Health: The MHA proposal considered in this EIS would focus increased development intensities within the urban villages and in multifamily and commercial areas outside of the urban villages. In these areas, existing and future development patterns are more likely to result in walkable neighborhoods with greater access to services, such as options for healthy food. Significant adverse impacts are not anticipated as a result of the proposal and no additional analysis is needed.

## Public Services and Utilities

EIS TOPIC	COMMENTS
<b>General</b>	<ul style="list-style-type: none"> <li>• Impact on infrastructure, such as sewers (especially those in which CSO sewage outflows into Lake Union), parks, schools, community centers, senior centers, services for the elderly and disabled, and transportation</li> <li>• Impose impact fees on developers so that the cost of public service and utility infrastructure improvements is shared</li> </ul>
<b>Schools and Community Services</b>	<ul style="list-style-type: none"> <li>• Impacts to school capacity/classroom size, the ability of students to attend local schools, and safe walking routes to schools</li> <li>• Consider impact(s) to community services for senior citizens and the disabled Make sure everyone has easy access to full library services – especially low-income and refugee families</li> </ul>
<b>Public Safety</b>	<ul style="list-style-type: none"> <li>• Plan for and propose funding for the increased demand on public safety services (police, fire, and public health) – what existing deficiencies in fire and police protection will be amplified by increased density and population?</li> <li>• Analyze impacts to police and fire/EMS response times</li> <li>• What is the existing availability and location of equipment capable of addressing emergencies in high rise structures?</li> <li>• Ensure adequate access for emergency service vehicles, especially in neighborhoods with existing narrow streets</li> </ul>

EIS TOPIC	COMMENTS
<b>Utilities</b>	<ul style="list-style-type: none"> <li>Analyze impacts on stormwater drainage and sewer systems under estimated growth, as well as if growth exceeds estimated levels – specifically look at existing hotspots of flooding and sewer failures within the urban villages slated for upzoning</li> <li>Address increased risks to water quality, public health, and environmental safety due to increased runoff from greater paved areas and discharges from untreated sewage (especially in the context of the State Shoreline Act and the CSO sewer system)</li> <li>Make sure electrical infrastructure is adequate</li> </ul>

**Response:**

- The EIS will use the analysis and data gathered for the Comprehensive Plan EIS to disclose the potential for the proposal and alternatives to impact demand for services overall and in different geographic areas of the City. The public services and utilities analysis will focus primarily on differences, if any, from the analysis and findings in the Comprehensive Plan EIS. Material may be summarized and Comprehensive Plan EIS findings referenced.

**Other**

EIS TOPIC	COMMENTS
<b>Communication and Outreach</b>	<ul style="list-style-type: none"> <li>Coordinate with neighboring communities/cities</li> <li>Need more community involvement – outreach seemed minimal and upzones should not be accomplished without proper community engagement</li> <li>Scoping notice did not make it clear if the scope of the EIS is focused on the MHA code amendment only or if it also includes the proposed zoning changes</li> <li>Bring members of affected communities to the table early in the process and educate them about potential zoning changes and what these changes may mean</li> <li>Need more education about why density and affordability are not at odds</li> </ul>

**Response:**

- Communication: Comments are noted. Following issuance of the Draft EIS, there will be a public comment period and opportunities to provide verbal and written comment. Please see also <http://www.seattle.gov/hala> for additional information about the project and community engagement opportunities.

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## ATTACHMENTS

- Attachment 1 Determination of Significance and Scoping Notice  
Attachment 2 Scoping Informational Handout



Jul 28, 2016

Seattle Department of Construction and Inspections

## Land Use Information Bulletin

A Twice-Weekly Bulletin Announcing Land Use Applications, Decisions, Hearings, and Appeals

[www.seattle.gov/dpd](http://www.seattle.gov/dpd)

### DETERMINATION OF SIGNIFICANCE AND REQUEST FOR COMMENTS ON SCOPE OF EIS

**Area:**   **Address:**

**Project:**   **Zone:**   **Notice Date:** 07/28/2016

**Description of proposal:** The City of Seattle is proposing amendments to Land Use Code (Seattle Municipal Code Title 23) to implement a proposed new program, Mandatory Housing Affordability (MHA). MHA would require that all new multifamily and commercial developments meeting certain thresholds to either build affordable housing units on-site or make an in-lieu payment to support the development of new affordable housing. The MHA program would focus primarily on creating housing reserved for community members earning 60% of the Area Median Income (AMI) or below. MHA is expected to create a total of 6,000 new affordable housing units over the next 10 years. In order to implement the new MHA program, the City is considering zoning code amendments to allow developments to build slightly higher or slightly more floor area in certain zones.

Alternatives to be addressed in the EIS include *No Action*, or continued growth as guided by the City's Comprehensive Plan and Land Use Code standards; and two *action alternatives* that will consider growth under different development patterns and Land Use Code standards. Both action alternatives will evaluate increased allowable height and floor area in commercial and multi-family zones, as well as single family zones in designated urban villages and potential urban village expansion areas identified in the Seattle 2035 Comprehensive Plan. It is likely that one action alternative will consider MHA implementation, and one alternative will consider MHA implementation with program measures seeking to reduce potential for displacement in high risk areas.

**Proponent:** City of Seattle

**Location of proposal:** The proposal considered in this EIS is for areas in the City of Seattle outside of the Downtown and South Lake Union neighborhoods. The MHA program and associated zoning changes are expected to be considered for all areas that are currently zoned for commercial or multi-family development, plus any existing single family zoned areas that are located in an urban village or urban center as designated in the City's Comprehensive Plan and in potential urban village expansion areas identified in the Seattle 2035 Comprehensive Plan. In addition, the EIS will incorporate the separate environmental analysis conducted for MHA implementation in the Downtown and South Lake Union neighborhoods. This will allow the EIS to conduct a citywide cumulative analysis of potential impacts associated with the proposal and alternatives.

**Lead agency:** City of Seattle

**EIS Required.** The lead agency has determined this proposal is likely to have a significant adverse impact on the environment. An environmental impact statement (EIS) is required under RCW 43.21C.030 (2)(c) and will be prepared. Once they are prepared, a draft EIS and technical appendices will be available for review at our offices.

**The lead agency has identified the following areas for discussion in the EIS:**

The EIS will consider potential impacts associated with land use, housing and socioeconomics, aesthetics and height/bulk/scale, historic resources, open space and recreation, transportation, public services, and utilities.

**Scoping.** Agencies, affected tribes, and the public are invited to comment on the scope of the EIS. You may comment on alternatives, mitigation measures, probable significant adverse impacts, and licenses or other approvals that may be required. The methods and deadlines for providing comments are:

1. Provide written or verbal comment at the public scoping meetings on:

**Saturday, August 13, 2016**

Rainier Valley Summer Parkways Event

Rainier Ave. S., between 29<sup>th</sup> Ave. S. and 42<sup>nd</sup> Ave. S.

1:00PM – 3:00PM

**Saturday August 27, 2016**

Ballard Summer Parkways Event

Ballard Ave. NW, between NW Market St. and 22<sup>nd</sup> Ave. NW

1:00PM – 3:00PM

2. Mail written comments to the Responsible Official at the address below or email comments to [Geoffrey.Wentlandt@seattle.gov](mailto:Geoffrey.Wentlandt@seattle.gov). The City must receive comments by 5:00 pm on September 9, 2016 for the comments to be considered.

**Responsible official:** Sam Assefa, Director  
Office of Planning & Community Development  
700 5<sup>th</sup> Ave, Suite 1900  
PO Box 94788  
Seattle, WA 98124-7088

There is no agency appeal.

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## MANDATORY HOUSING AFFORDABILITY EIS



# ENVIRONMENTAL IMPACT STATEMENT

The City of Seattle is proposing Mandatory Housing Affordability (MHA) to require all new multifamily and commercial developments to build affordable homes, either constructing them on-site or paying the City to build them elsewhere in the city. MHA is expected to create a total of 6,000 new affordable homes over the next 10 years for low-income and moderate-income families and individuals.

In order to implement MHA, the City would allow developers to build slightly higher or larger buildings where these kinds of developments are already allowed.

The City is proposing to prepare an Environmental Impact Statement (EIS) that will analyze three alternatives and identify the impacts of each alternative. As we consider additional density, we want your feedback on what issues need to be considered and evaluated.







# ALTERNATIVES

Three alternatives all include same 20 year growth estimate:

**+70,000 Total Households;**

**+8,400 Affordable Units\***

The alternatives differ in whether the MHA program is implemented and how the affordable units are distributed amongst urban villages and centers.

## NO ACTION

**MHA is not implemented**

**MHA Affordable Units:** None

**Building Height/Mass:** No change to existing requirements

**Urban Village/Center Boundaries:** Based on Comprehensive Plan

**Rezones:** Based on Comprehensive Plan

**Program Options:** None

## ALTERNATIVE 2

**Implement MHA**

**MHA Affordable Units:** 8,400\*

**Building Height/Mass:** Revised standards to allow additional height and floor area in existing urban village/center multi family and commercial zones, existing single family zones in new/expanded urban villages, and existing multi family/commercial zones outside of urban villages

**Urban Village/Center Boundaries:** All Comprehensive Plan boundary expansions included

**Rezones:** Single-family rezones to allow greater variety of housing in all urban villages uniformly; capacity increases to commercial and multifamily zones uniformly

No changes to single-family zoned areas outside of urban villages

**Program Options:** Distribution of units developed through the payment option according to current criteria

## ALTERNATIVE 3

**Implement MHA with integrated program measures intended to reduce displacement in high risk areas**

**MHA Affordable Units:** 8,400\*

**Building Height/Mass:** Revised standards to allow additional height and floor area in existing urban village/center multi family and commercial zones, existing single family zones in new/expanded urban villages, and existing multi family/commercial zones outside of urban villages

**Urban Village/Center Boundaries:** Limit expansions in high risk displacement areas

**Rezones:** Variations in rezones in urban villages depending on displacement risk, with areas at high risk of displacement proposed for lower intensity rezones

No changes to single-family zoned areas outside of urban villages

**Program Options:** Focused investment of units developed through the payment option in areas at risk of displacement

\* MHA is expected to yield approximately 6,000 new affordable housing units over the next 10 years. For purposes of this EIS analysis, this number has been extrapolated to maintain consistency with the Seattle 2035 Comprehensive Plan's 20 year planning horizon. For this reason, the City estimates approximately 8,400 affordable units will be added within 20 years.



## PROPOSED SCOPE

The EIS analysis will incorporate and leverage information and analyses contained in the recent Seattle 2035 Comprehensive Plan EIS (2016), Growth and Equity Analysis (2016), and other recent city studies and plans.

### HOUSING AND SOCIOECONOMICS

- Review of future housing development and supply
- Housing affordability, including a qualitative assessment of the MHA performance and fee options on the overall supply and distribution of affordable housing and MHA requirements on market-rate housing production
- Assessment of socio-economic characteristics, current housing affordability, and relative potential for displacement under each alternative

### LAND USE

- Impacts to land use patterns, compatibility with existing and planned land use patterns, consistency with applicable plans and policies

### AESTHETICS, HEIGHT/BULK/SCALE

- Impacts to visual character, including scale compatibility, street-level conditions, public spaces
- Qualitative review of potential shadow impacts

### TRANSPORTATION

- Assessment of potential impacts on mobility, circulation, transit, parking, bicycle and walking patterns

### HISTORIC RESOURCES

- Potential impacts to historic character and patterns of development and potential impacts on national register historic districts

### OPEN SPACE AND RECREATION

- Assessment of potential changes to development patterns with respect to existing open space needs, potential impacts of increased density and development on open space needs

### PUBLIC SERVICES AND UTILITIES

- Police, fire and emergency medical services, public schools, water, sewer, stormwater
- Potential impacts related to demand for services overall and in different geographic areas of the City



# PROCESS

ISSUE DETERMINATION  
OF SIGNIFICANCE AND  
SCOPING NOTICE

Determination of Significance and Scoping Notice  
for Mandatory Housing Affordability was issued on  
**July 28, 2016**

we  
are  
here

CONDUCT SEPA SCOPING

Scoping comment period will close  
**September 9, 2016**

PREPARE DRAFT EIS

Draft EIS will be prepared

ISSUE DRAFT EIS

Tentative issuance **December 2016**

DRAFT EIS PUBLIC  
COMMENT PERIOD

45-day period following issuance of the Draft EIS,  
will include a public hearing

PREPARE FINAL EIS

Responds to public comments after close of public  
comment period

ISSUE FINAL EIS

Tentative issuance **March 2017**

CITY ACTION

Implement Mandatory Housing Affordability

# APPENDIX E



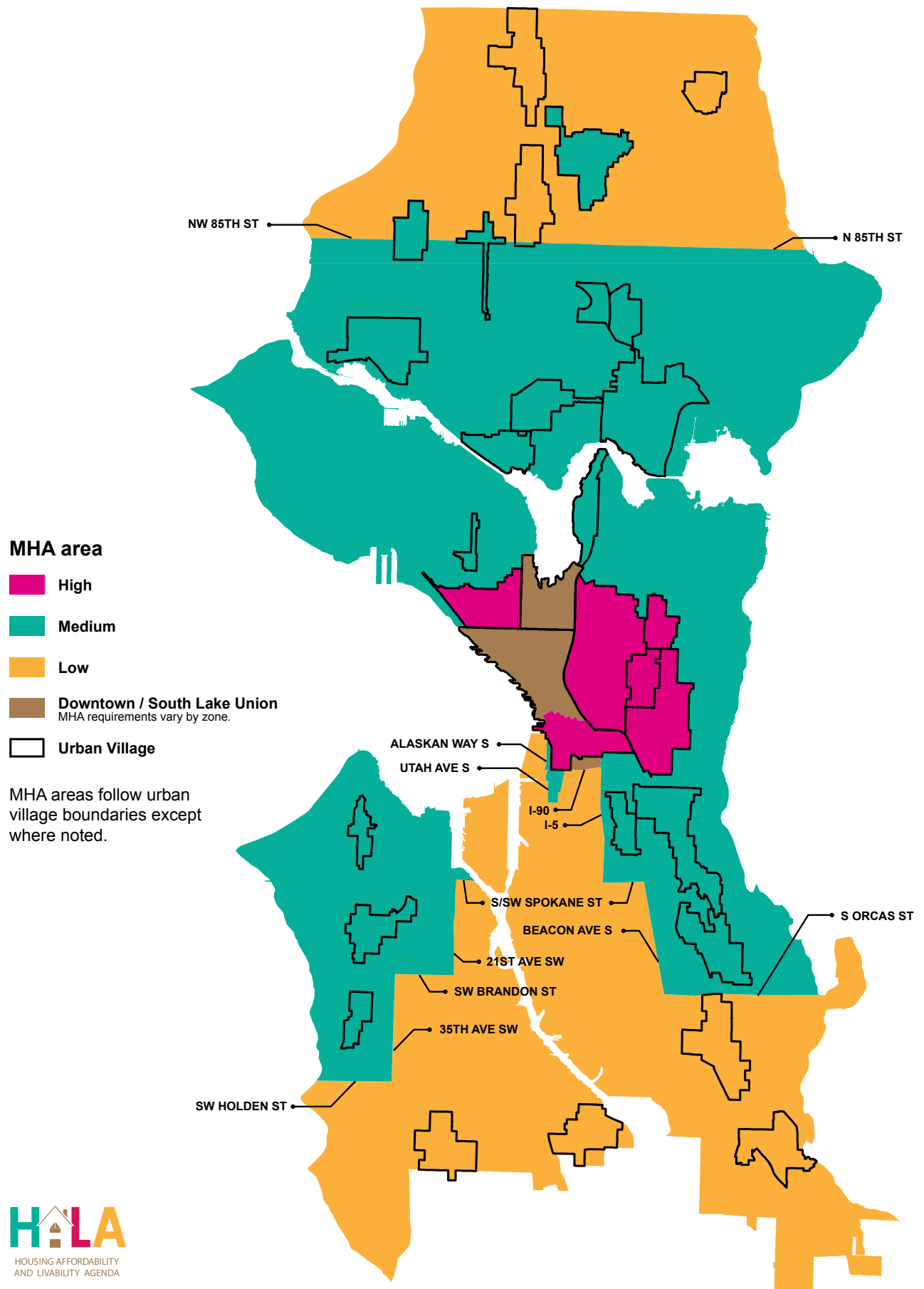
## MAP OF MHA AREAS.

Available online at:

<http://www.seattle.gov/Documents/Departments/HALA/Policy/MHA%20Areas.pdf>



# Mandatory Housing Affordability (MHA) Areas







# APPENDIX F



## SUMMARY OF CHANGES TO LAND USE CODE, AND MHA URBAN DESIGN AND NEIGHBORHOOD CHARACTER STUDY.

### DEVELOPMENT CAPACITY INCREASES

**Exhibit F–1** Standard MHA Development Capacity Increases in the Residential Small Lot (RSL) Zone

ZONING		Housing Type	DENSITY LIMIT		HEIGHT LIMIT*	
Existing	Proposed		Existing	Proposed	Existing	Proposed
Residential Small Lot	Residential Small Lot	RSL	1 / 2,500 ft <sup>2</sup>	1 / 2,000 ft <sup>2</sup>	25'	30'
(RSL, RSL/T, RSL/C)	(RSL)	Tandem RSL/T	1 / 2,500 ft <sup>2</sup>	(all housing types)	18'	(all housing types)
		Cottage RSL/C	1 / 1,600 ft <sup>2</sup>		18'	

**Far Limits:** Existing RSL zones have no maximum FAR Limit. The proposed RSL zone would have a maximum FAR Limit of 0.75.

\* Allowances for 5' additional height for roof pitch are included in all existing and proposed cases.

Source: City of Seattle, 2017.

**Exhibit F-2** Standard MHA Development Capacity Increases in Lowrise Zones: Height and FAR Limits

ZONING		Housing Type	FAR LIMIT*		HEIGHT LIMIT	
Existing	Proposed		Existing	Proposed	Existing	Proposed
Lowrise 1 (LR1)	Lowrise 1 (LR1)	Cottage Housing	1.1	1.3		
		Townhouse	1.2	1.3	30'	30'
		Rowhouse	1.1	1.2	+ 5' roof pitch	+ 5' roof pitch
		Apartment	1.0	1.3		
Lowrise 2 (LR2)	Lowrise 2 (LR2)	Cottage Housing	1.1	1.3		
		Townhouse	1.3	1.4	30'	40'
		Rowhouse	1.2	1.4	+ 5' roof pitch	+ 5' roof pitch
		Apartment	1.3	1.5		
Lowrise 3 (LR3) Outside of urban village, center, or station areas	Lowrise 3 (LR3) Outside of urban village, center, or station areas	Cottage Housing	1.1	1.3		
		Townhouse	1.4	1.6	30'	40'
		Rowhouse	1.3	1.5	+ 5' roof pitch	+ 5' roof pitch
		Apartment	1.5	1.8		
Lowrise 3 (LR3) Inside of urban village, center, or station areas	Lowrise 3 (LR3) Inside of urban village, center, or station areas	Cottage Housing	1.1	1.3		
		Townhouse	1.4	1.6	40'	50'
		Rowhouse	1.4	2.2	+ 5' roof pitch	+ 5' roof pitch
		Apartment	2.0	2.3		

*Height limit for Cottage Housing is 18' +7' for roof pitch in all Lowrise Zones*

\* To achieve the maximum FAR limit under existing regulations, a builder must meet standards for the location and configuration of parking and achieve green building performance. In the proposed builders must achieve green building performance standard.

Source: City of Seattle, 2017.

**Exhibit F-3** Standard MHA Development Capacity Increases in Lowrise Zones: Density Limits

ZONING		DENSITY LIMIT		
Existing	Proposed	Housing Type	Existing*	Proposed
Lowrise 1 (LR1)	Lowrise 1 (LR1)	Townhouse	1 Unit / 1,600 ft²	No Limit
		Rowhouse	1 Unit / 1,600 ft²	
		Apartment	1 Unit / 2,000 ft²	
Lowrise 2 (LR2)	Lowrise 2 (LR2)	Townhouse	No Limit	No Limit
		Rowhouse		
		Apartment		
Lowrise 3 (LR3) Outside of urban village, center, or station areas	Lowrise 3 (LR3) Outside of urban village, center, or station areas	Townhouse	No Limit	No Limit
		Rowhouse		
		Apartment		
		Density limit for cottage housing is 1 unit / 1,600sf of lot area for all Lowrise zones		
		No Limit		

\* To achieve the maximum density limit under existing regulations a builder must meet standards for the location and configuration of parking, and achieve green building performance. In the proposed builders must achieve green building performance standard.

Source: City of Seattle, 2017.

**Exhibit F-4** Standard MHA Development Capacity Increases Midrise and Highrise Zones

ZONING		FAR LIMIT*		HEIGHT LIMIT	
Existing	Proposed	Existing	Proposed	Existing	Proposed
Midrise (MR)	Midrise (MR)	3.2 base 4.25 bonus	4.5 (no base or bonus)	60' base 75' bonus	80' (no base or bonus)
Highrise (HR)	Highrise (HR)	13 (with bonuses) for buildings 240' and less 14 (with bonuses) for buildings over 240'	14 (with bonuses) for buildings 240' and less 15 (with bonuses) for buildings over 240'	300'	340'

\* To achieve the maximum FAR limit under existing regulations a builder must meet standards for the location and configuration of parking, and achieve green building performance. In the proposed builders must achieve green building performance standard.

Source: City of Seattle, 2017.

**Exhibit F-5** Standard MHA Development Capacity Increases Action Alternatives in Commercial and Neighborhood Commercial Zones

ZONING		FAR LIMIT*		HEIGHT LIMIT	
Existing	Proposed	Existing	Proposed	Existing	Proposed
NC-30 C-30	NC-40 C-40	2.25 single use 2.5 all uses	3.0 (no single use limit)	30' + 4' or 7' for ground floor commercial space features	80' + 4' or 7' for ground floor commercial space features
NC-40 C-40	NC-55 C-55	3.0 single use 3.25 all uses	3.75 (no single use limit)	40' + 4' or 7' for ground floor commercial space features	55'
NC-65 C-65	NC-75 C-75	4.25 single use 4.75 all uses	5.5 (no single use limit)	65'	75'
NC-85 C-85	NC-95 C-95	4.5 single use 6.0 all uses	5.0 single use 6.25 all uses	85'	95'
NC-125	NC-145	5.0 single use 6.0 all uses	6.0 single use 7.0 all uses	125'	145'
NC-160	NC-200	5.0 single use 7.0 all uses	6.5 single use 8.5 all uses	160'	200'
All IC Zones		2.5	2.75	Varies, no changes to height limit proposed.	

\* To achieve the maximum FAR limit under existing regulations a builder must meet standards for the location and configuration of parking, and achieve green building performance. In the proposed builders must achieve green building performance standard.

Source: City of Seattle, 2017.

## Other Development Capacity Increases

The zone designations summarized above cover a large majority of all lands in the study area. Several other zones not summarized above would receive similar increments of development capacity increase. Information on development standard increases for zones that apply in limited locations and overlay zone conditions may be found in the Urban Design and Neighborhood Character Study, and in the list below:

- A new Seattle Mixed (SM) Northgate zone would be established in Alternative 2. It would have a height limit of 240' and a maximum FAR of 7.0.
- Northgate Overlay Development Standards in SMC 23.71.040 that limit housing density would be removed in Alternative 2 and 3.
- Additional development capacity in Station Area Overlay districts would be provided in Action Alternatives as listed in the Urban Design and Neighborhood Character Study.
- Standards in the Pike / Pine Conservation Overlay District would be modified to allow for one extra floor of development in addition to what can be achieved through the incentive program. Amendments to the existing NC-65 zone could include:
  - » Increase commercial maximum FAR to 2.25, and overall FAR limit to 5.5 (underlying zone)
  - » Allow a 15 percent increase in the 15,000 square foot floor plate limit for retention of a character structure and participation in MHA, and increase height at which the floor plate limit applies to 45'.
  - » Retain existing 10' height allowance for retention of a character structure.
- Development Capacity increases that can be achieved through the Living Building Pilot program would be in addition to MHA capacity increases granted in the Action Alternatives.

The development capacity increases summarized here are provided based on the most recent information on the proposed action. As land use regulations are complex, minor adjustments to proposed development standards may occur as a legislative proposal is refined. The analysis in this programmatic EIS would adequately account for any such minor adjustments, and no additional significant impacts would result.

## REZONE CRITERIA

Chapter 23.34.010 of the Seattle Municipal Code defines criteria for the re-designation of lands zoned from one zone to another. As a part of the proposal several rezone criteria would be modified. Proposed modifications of rezone criteria are intended to be consistent with the Seattle 2035 Comprehensive Plan adopted in 2016. The text below indicates potential text amendments to rezone criteria in line in / line out of existing code.

### Single Family Zones

#### 23.34.010—Designation of single-family zones

Except as provided in subsections B or C of Section 23.34.010, single-family zoned areas may be rezoned to zones more intense than Single-family 5000 only if the City Council determines that the area does not meet the criteria for single-family designation.

- A. Areas zoned single-family or RSL that meet the criteria for single-family zoning contained in subsection B of Section 23.34.011 and that are located within the adopted boundaries of an urban village may be rezoned to zones more intense than Single-family 5000 if all of the following conditions are met:
  1. ~~A neighborhood plan has designated the area as appropriate for the zone designation, including specification of the RSL/T, RSL/C, or RSL/TC suffix, if applicable~~ The Comprehensive Plan Future Land Use Map designation is a designation other than Single Family;
  2. ~~The rezone would apply Chapter 23.58B and Chapter 23.58.C. is:~~
    - a. ~~To a Residential Small Lot (RSL), Residential Small Lot-Tandem (RSL/T), Residential Small Lot-Cottage (RSL/C), Residential Small Lot-Tandem/Cottage (RSL/TC), Lowrise 1 (LR1), Lowrise 1/Residential-Commercial (LR1/RC), or~~
    - b. ~~Within the areas identified on Map P-1 of the adopted North Beacon Hill Neighborhood Plan, and the rezone is to any Lowrise zone, or to an NC1 zone or NC2 zone with a 30 foot or 40 foot height limit, or~~



- ~~c. Within the residential urban village west of Martin Luther King Junior Way South in the adopted Rainier Beach Neighborhood Plan, and the rezone is to a Lowrise 1 (LR1) or Lowrise 2 (LR2) zone, or~~
- ~~d. Within an urban village and the Comprehensive Plan Future Land Use Map designation is a designation other than Single Family.~~

#### **23.34.011—Single-family zones, function and locational criteria**

- A. Function. An area that provides predominantly detached single-family structures on lot sizes compatible with the existing pattern of development and the character of single-family neighborhoods.
- B. Locational Criteria. A single-family zone designation is most appropriate in areas meeting the following criteria:
  - 1. Areas that consist of blocks with at least seventy (70) percent of the existing structures, not including detached accessory dwelling units, in single-family residential use; or
  - 2. Areas that are designated by an adopted neighborhood plan as appropriate for single-family residential use; or
  - 3. Areas that consist of blocks with less than seventy (70) percent of the existing structures, not including detached accessory dwelling units, in single-family residential use but in which an increasing trend toward single-family residential use can be demonstrated; for example:
    - a. The construction of single-family structures, not including detached accessory dwelling units, in the last five (5) years has been increasing proportionately to the total number of constructions for new uses in the area, or
    - b. The area shows an increasing number of improvements and rehabilitation efforts to single-family structures, not including detached accessory dwelling units, or
    - c. The number of existing single-family structures, not including detached accessory dwelling units, has been very stable or increasing in the last five (5) years, or
    - d. The area's location is topographically and environmentally suitable for single-family residential developments.
  - 4. Areas outside of urban villages or urban centers designated on the comprehensive plan future land use map.

## Midrise Zones

- A. Function. An area that provides concentrations of housing in desirable, pedestrian-oriented urban neighborhoods having convenient access to regional transit stations, where the mix of activity provides convenient access to a full range of residential services and amenities, and opportunities for people to live within walking distance of employment.
- B. Locational Criteria.
  - 1. Threshold Conditions. Subject to subsection 23.34.024.B.2 of this section, properties that may be considered for a Midrise designation are limited to the following:
    - a. Properties already zoned Midrise;
    - b. Properties in areas already developed predominantly to the intensity permitted by the Midrise zone; or
    - c. Properties within an urban center or urban village, ~~where a neighborhood plan adopted or amended by the City Council after January 1, 1995 indicates that the area is appropriate for a Midrise zone designation.~~

## AMENDMENTS TO POLICIES IN NEIGHBORHOOD PLAN ELEMENT OF THE COMPREHENSIVE PLAN

Several policies in individual urban villages contained in the Neighborhood Plan policies section of the Comprehensive Plan may conflict with elements of the proposed action concerning changes to single family zones within urban villages. Amendments to these policies will be docketed and the policies modified to remove potential inconsistencies. The potential impacts of these policy amendments is considered in this EIS.



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# Mandatory Housing Affordability (MHA)

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## URBAN DESIGN and NEIGHBORHOOD CHARACTER Study

(Draft for Public Comment)



HOUSING AFFORDABILITY  
AND LIVABILITY AGENDA

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ZGF Architects, LLP.:

ZGF

ZIMMER GUNSUL FRASCA ARCHITECTS LLP



# Introduction

## Background

This report provides urban design analysis used to evaluate potential zoning changes to implement Mandatory Housing Affordability (MHA) in neighborhoods outside Downtown and South Lake Union. Under MHA, anyone developing multifamily and commercial buildings in Seattle would be required to provide for affordable housing either by building affordable homes or by paying into a fund that the City uses to support the development of affordable housing through Seattle.

Consistent with a state-approved approach for affordable housing incentive programs, MHA requirements take effect with adoption of zoning changes that increase development capacity. Zoning changes would apply in designated urban villages and in existing commercial and multifamily zones. As part of MHA implementation, we propose to expand some urban village boundaries.

This report focuses on changes in Seattle's Multifamily Residential (LR, MR, HR), Neighborhood Commercial (NC), and Commercial (C) zones. Separate [documents](#) review potential changes to implement zoning in Downtown and South Lake Union and other neighborhoods that have recently undergone area planning, such as the University District.

The zoning changes to create additional capacity vary by zone and generally include increases in the maximum height limit and the maximum floor area ratio (FAR) limit. In some zones, we propose to modify other development standards to provide additional development capacity and encourage good urban design.

## Community Input

The models in this study reflect public input received since June 2016. Earlier versions of the zone change models were made available for public comment on-line, in public meetings, and in focus group meetings. Input received so far has influenced the development standards depicted in this report. Summaries of public input received and how it influenced the current draft are included.

## Draft for Public Input

This is a draft to solicit further public comment. The City Council will not complete adopting zoning changes to put MHA into effect until summer 2017 or later. The MHA development examples illustrate what future buildings could look like with the MHA zoning changes.

## Community Input Themes (to date):

These are overarching comments and ideas expressed by focus group and other community members during the review of example MHA zone changes:

- The proposed height and FAR increases are incremental and moderate, and are appropriate tradeoffs for affordable housing requirements.
- The proposed increases are too limited; additional affordable housing and greater zoning increases should be incorporated to help Seattle meet its affordable housing needs.
- There is no one-size-fits-all approach, and development needs to consider local factors.
- Include commercial space that is attractive to small, local businesses.
- Incorporate space for retail and other services that communities need (e.g., daycare, community spaces, shared work spaces, etc.).
- Encourage variety in building design.
- Where possible include requirements for usable open spaces, usable plazas, courtyards, mid-block cut-throughs, and similar public spaces.
- Where possible the zoning changes should ensure that residents have access to needed amenities, such as laundry facilities.
- Development in single-family zones should also be included in MHA.
- Look for ways to provide for a variety of housing types to encourage both rental and ownership housing.
- Identify fund sources for infrastructure and quality-of-life investments corresponding with anticipated population growth.
- Consider zoning changes that will encourage housing options for larger households.
- In all Seattle zones, HALA and MHA need to consider the potential displacement of existing low-cost market-rate housing as redevelopment occurs.
- Increase development capacity in small scale zones to a level that makes affordable housing performance option viable.



Comments received at the September 27, 2016 Focus Group meeting

## MHA Zone Prototypes

This study compares the scale and character of development that could be allowed by existing zoning compared to development that could be built under MHA zoning changes. For each zone, a series of before and after prototypes is shown. The range of development prototypes for each zone is intended to model realistic development scenarios. The different prototypes vary by:

- site sizes and shape
- neighborhood context
- housing formats (eg. townhouses vs. apartments)
- design and massing choices

The prototypes in this report show the increment of change that can be expected for standard MHA implementation scenarios. Typical MHA capacity increases approximate a one-story increase for most zones considered. Typical zone changes will have an (M) suffix in the zone name, applied as a naming convention.

Examples of typical zoning changes include:

- C and NC zones: The zone names change to reflect the height increase. For example, an NC-65 zone becomes an NC-75 zone, reflecting a 10-foot increase in the maximum height limit.
- LR, MR, HR ZONES: The zones retain the same name, but their development standards enable additional height and/or floor area.
- Change of single family zones: Where zoning changes apply in single family areas, a typical change is to the Residential Small Lot (RSL) zone.

In certain areas, based on our community-generated [Principles for MHA Implementation](#) or community input, we propose selective zoning changes. Where selective zoning changes provide a larger increase in development capacity, larger affordable housing requirements will apply. These zones will have a (M1) or (M2) suffix indicating that higher MHA requirements apply.

## Affordable Housing Quantities

Each prototype includes an estimate of how much affordable housing the development would produce through MHA. The intent of MHA is to increase production of affordable housing. Based on the amount of floor area developed in each prototype, a projection is made for both the amount of affordable homes and the amount of in-lieu payment that would be required. Housing quantities are estimates based on current assumptions about the MHA requirements, and are included to provide a sense for how such affordable housing requirements relate to the development prototypes.

## Urban Design and Neighborhood Character

Seattle's growth strategy as laid out in the Seattle 2035 Comprehensive Plan is based on the urban village concept. Centered around amenities and around existing and future transit stops, urban villages will capture most of the city's expected future growth. The zoning standards recommended under Mandatory Housing Affordability build on the urban village strategy and explore opportunities to improve overall neighborhood character.

The recommended zoning includes carefully selected design standards that allow for increased development capacity without compromising the building form and scale. They offer a harmonious built landscape and as much as possible provide comfortable living spaces to building inhabitants. The prototypes explore a variety of site conditions and lot sizes and a range of unit sizes to accommodate a diversity in family and household sizes.

The location of the zoning prototypes supports livability principles. The denser Midrise (MR) and Neighborhood Commercial (NC) zones are usually closest to the urban village center services and amenities that serve more people. The Lowrise (LR) and Residential Small Lot (RSL) zones help transition to the single family areas. The proposed modification of the existing RSL zone provides greater flexibility and a variety of housing types in the scale and character of single family homes.

The next few pages discuss the development standards and the urban design elements for each zone.





The Jefferson apartments in First Hill were supported with in-lieu payments received from a development project in another location using the existing voluntary incentive zoning program.



Upper level setbacks in MHA zones will offer a less jarring built landscape to street users.

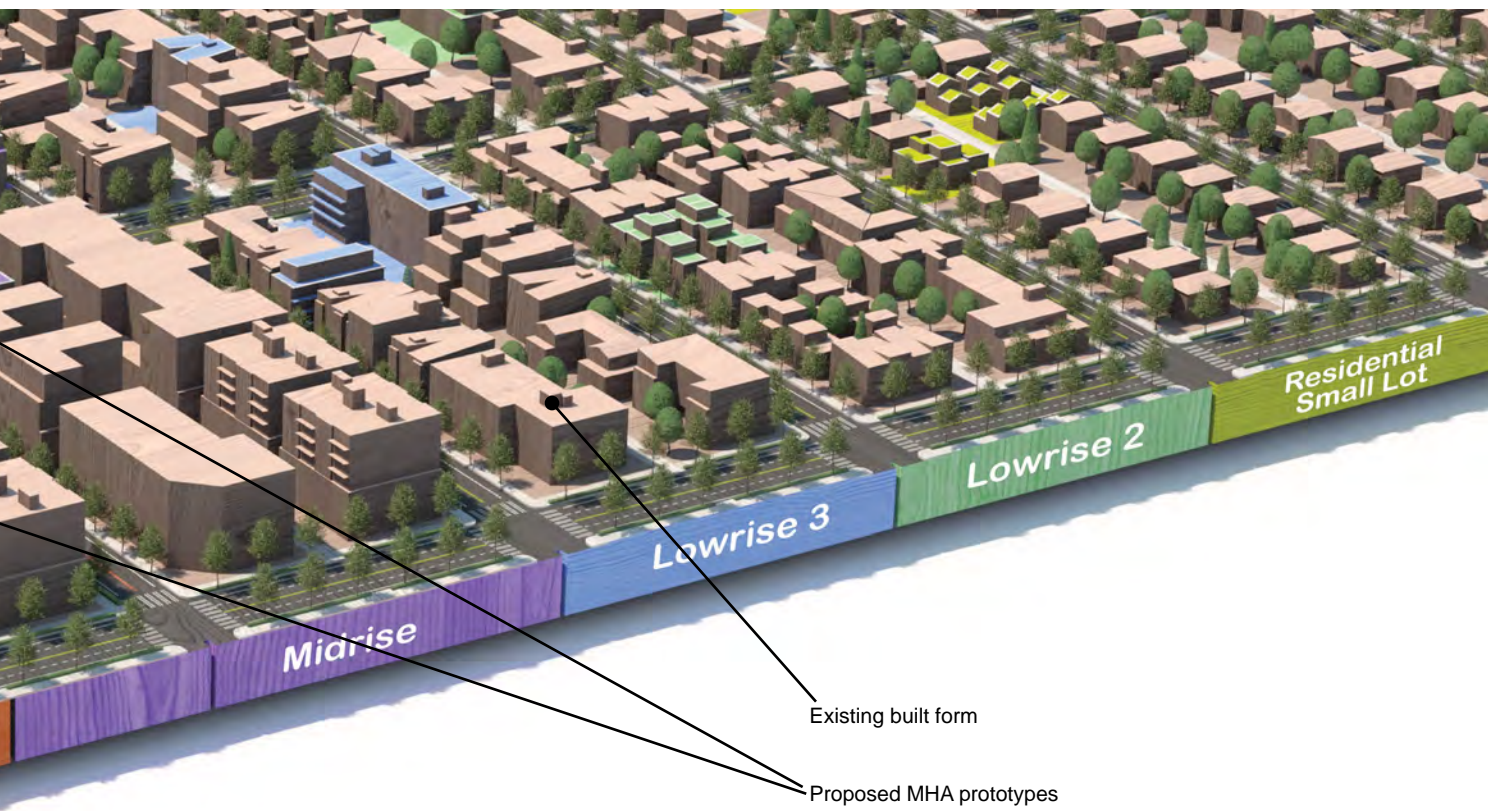


Indoor amenities offered for residents such as those in downtown mixed commercial zones will be included in the multifamily MHA zones.



# MHA Development Examples





Existing built form

Proposed MHA prototypes



# Residential Small Lot (RSL)

## Community Input Themes

- A good option for areas with existing single family housing
- Ensure units are conducive to families and larger household sizes
- Explore a variety of conditions for how the housing would fit on a range of typical single family lots (i.e., 4,000, 5,000, and 6,000 sq. ft)

## Development Examples

The following pages discuss four prototypes within the RSL zone: cottages, attached townhouses, stacked housing and tandem housing.



Cottages



Tandem housing



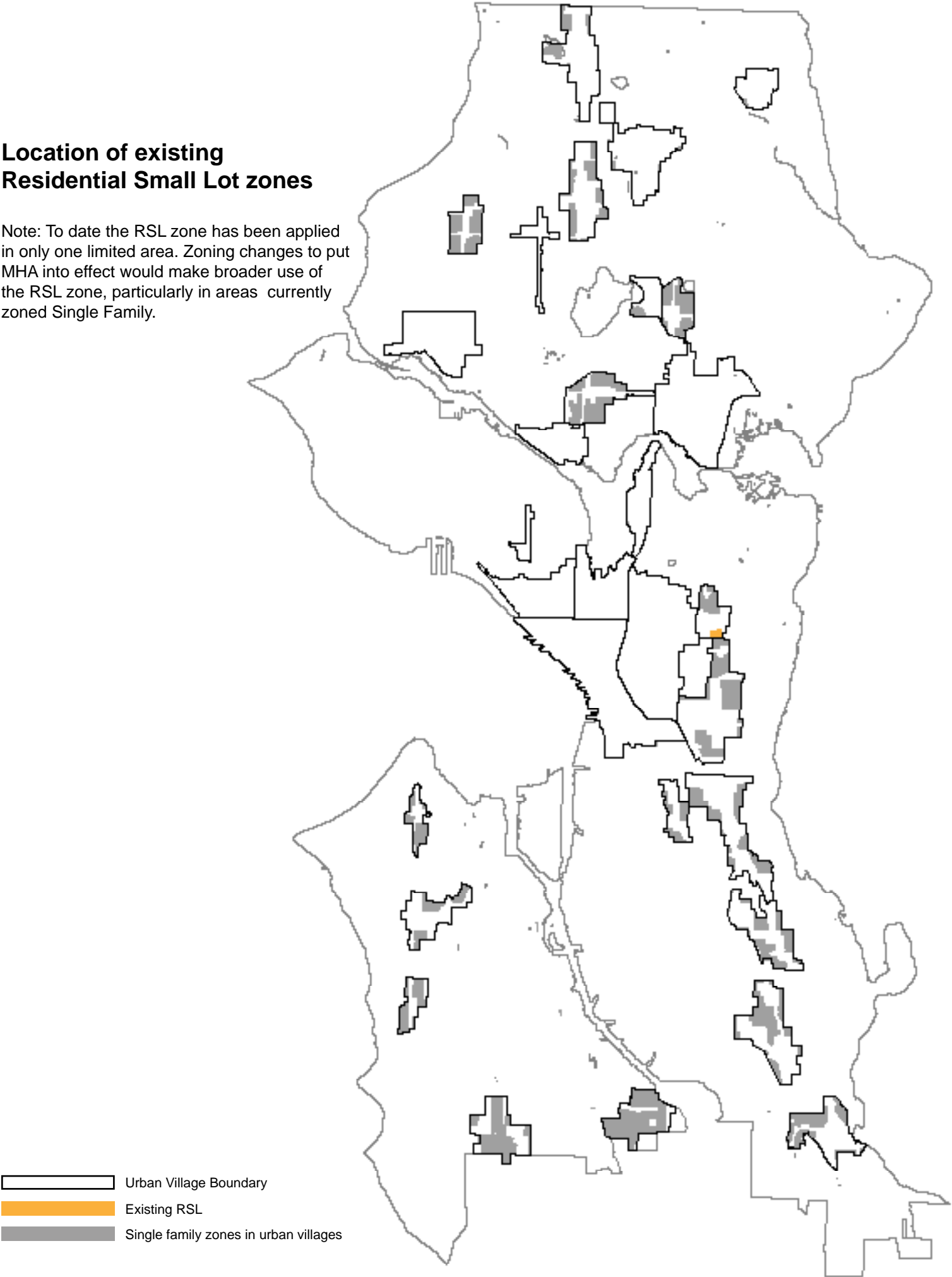
Attached townhouses



Stacked housing

**Location of existing  
Residential Small Lot zones**

Note: To date the RSL zone has been applied in only one limited area. Zoning changes to put MHA into effect would make broader use of the RSL zone, particularly in areas currently zoned Single Family.



# cottages

## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	.35 = 1 unit
Medium MHA area (6%)	.30 = 1 unit
Low MHA area (5%)	.25 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$156,000
Med MHA area (\$13.25/sq. ft.)	\$99,000
Low MHA area (\$7/sq. ft.)	\$52,500

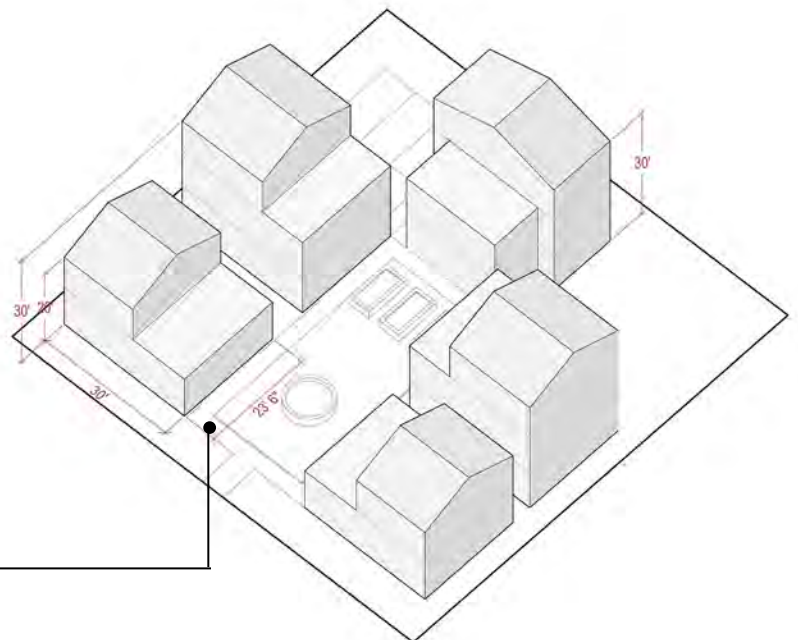
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA RSL

Lot coverage	50%
Density limit	1 unit per 2000 sq. ft. of lot area
FAR maximum	0.75
Height limit	30 feet
Setbacks	
Front	10 feet
Rear	10 feet
Sides	5 feet
Parking	1 per unit; no minimum in urban villages

## RSL Prototype

Lot size	10,000 sq. ft.
Lot coverage	30%
Total allowed gross area	7,500 sq. ft.
Efficiency factor	1
Total net sq. ft.	7,500 sq. ft.
Total units	5
Average net unit size	1,500 sq. ft.
Parking spaces provided	3





# attached townhouses

## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	.14 = 1 unit
Medium MHA area (6%)	.12 = 1 unit
Low MHA area (5%)	.10 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$62,000
Med MHA area (\$13.25/sq. ft.)	\$40,000
Low MHA area (\$7/sq. ft.)	\$21,000

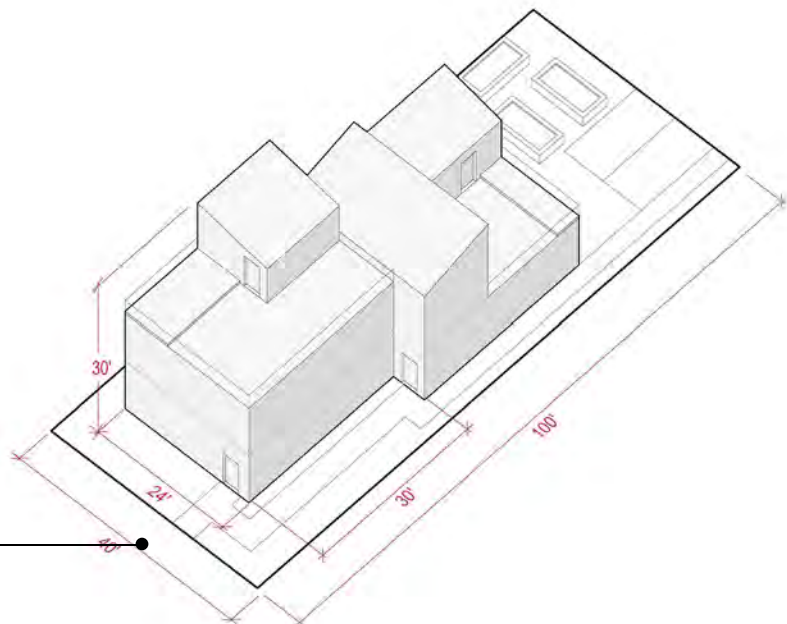
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA RSL

Lot coverage	50%
Density limit	1 unit per 2000 sq. ft. of lot area
FAR maximum	0.75
Height limit	30 feet
Setbacks	
Front	10 feet
Rear	10 feet
Sides	5 feet
Parking	1 per unit; no minimum in urban villages

## RSL Prototype

Lot size	4,000 sq. ft.
Lot coverage	30%
Total allowed gross area	3,000 sq. ft.
Efficiency factor	1
Total net sq. ft.	3,000 sq. ft.
Total units	2
Average net unit size	1,500 sq. ft.
Parking spaces provided	2



# stacked housing

## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	.21 = 1 unit
Medium MHA area (6%)	.18 = 1 unit
Low MHA area (5%)	.15 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$93,000
Med MHA area (\$13.25/sq. ft.)	\$60,000
Low MHA area (\$7/sq. ft.)	\$31,500

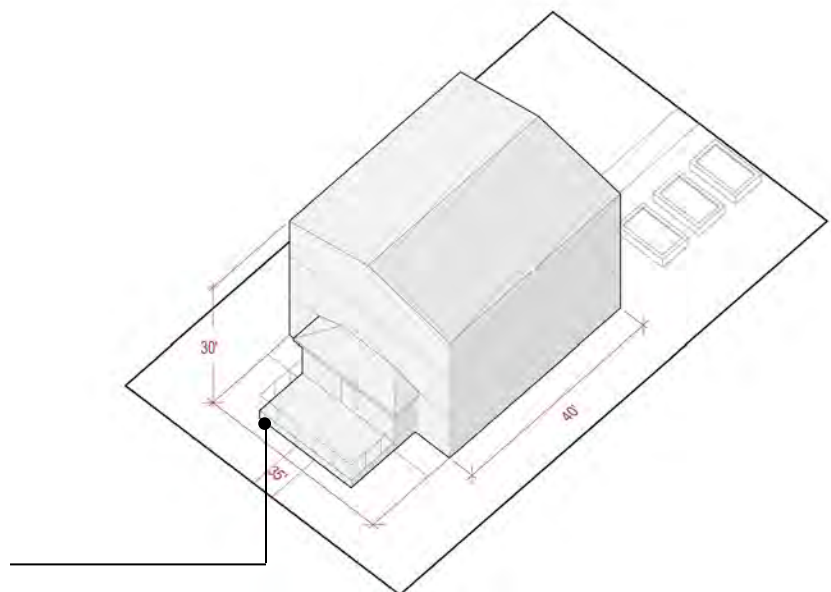
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA RSL

Lot coverage	50%
Density limit	1 unit per 2000 sq. ft. of lot area
FAR maximum	0.75
Height limit	30 feet
Setbacks	
Front	10 feet
Rear	10 feet
Sides	5 feet
Parking	1 per unit; no minimum in urban villages

## RSL Prototype

Lot size	6,000 sq. ft.
Lot coverage	25%
Total allowed gross area	4,500 sq. ft.
Efficiency factor	1
Total net sq. ft.	4,500 sq. ft.
Total units	3
Average net unit size	1,500 sq. ft.
Parking spaces provided	0



# tandem housing

## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	.07 = 1 unit
Medium MHA area (6%)	.06 = 1 unit
Low MHA area (5%)	.05 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$38,000
Med MHA area (\$13.25/sq. ft.)	\$25,000
Low MHA area (\$7/sq. ft.)	\$13,000

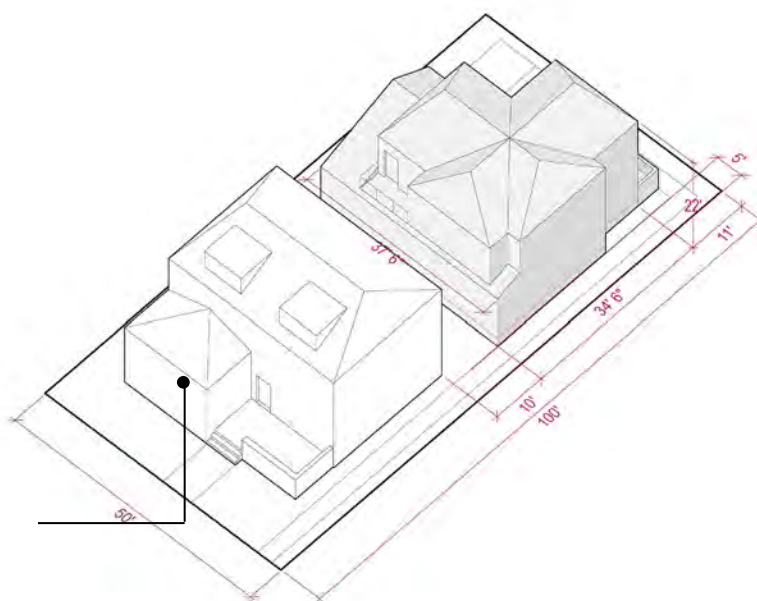
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA RSL

Lot coverage	50%
Density limit	1 unit per 2000 sq. ft. of lot area
FAR maximum	0.75
Height limit	30 feet
Setbacks	
Front	10 feet
Rear	10 feet
Sides	5 feet
Parking	1 per unit; no minimum in urban villages

## RSL Prototype

Lot size	5,000 sq. ft.
Lot coverage	45%
Total allowed gross area	3,750 sq. ft.
Efficiency factor	1
Total net sq. ft.	1,900 sq. ft. existing 1,850 sq. ft. new
Total units	1 existing, 1 new
Parking spaces provided	2





# RSL Zone - Urban Design and Neighborhood Character

## Livability Benefits

- Reflects traditional mixed-housing neighborhoods
- Allows a variety of housing types (e.g., cottages, small single family homes, and duplexes) at the scale of an existing single family area.
- Encourages modestly sized single family ownership homes (i.e., 1,500-2,000 sq. ft. in size)
- Provides a transition at the edges of urban villages
- Expands access for more people to live in single family neighborhoods
- Provides for on-site open spaces and yards



Provides for on-site open spaces and yards.

## Proposed Development and Urban Design Standards

The following table summarizes other proposed or modified development standards intended to improve an urban design outcome and improve livability with new development in the zone.

Issue	Proposed / Modified Development Standard
Retain compatibility of scale with Single Family zones	<ul style="list-style-type: none"> <li>Maximum FAR limit of 0.75</li> <li>Retain a density limit of 1 unit per 2,000 sq. ft. of lot area.</li> </ul>
Provide for a variety of infill housing types	<ul style="list-style-type: none"> <li>Allow for all housing types outright without a designated RSL suffix. (Currently an RSL zone must specify whether cottage, tandem, etc. is the allowed housing type.)</li> </ul>



The Residential Small Lot zone provides a transition at the edges of urban villages and maintains the scale of single family homes.

# Lowrise (LR)

## Community Input Themes

- Allowing more density within the Lowrise 1 zone with the existing height limit is a good approach.
- Look for ways to ensure the housing isn't exclusively studios and small units.
- Ensure a variety of housing unit sizes particularly in the Lowrise 1 zone.
- In general, the height limit and floor area increases are incremental and a good tradeoff for the affordable housing requirement.
- Retain building design standards, including side setbacks and other design standards to manage the transition between infill buildings and context.

- The Lowrise zones are often in neighborhoods that are changing from lower density to multifamily areas.
- Require a street-facing upper-level setback where height limits are increased in the Lowrise 2 and 3 zones.
- Building entrances should face the street to enhance resident accessibility and streetscape.

## Development Examples

The following pages discuss the nine prototypes within the Lowrise zones: Lowrise 1, Lowrise 2 and Lowrise 3.



Lowrise 1  
large site



Lowrise 2  
townhouses



Lowrise 1  
small site

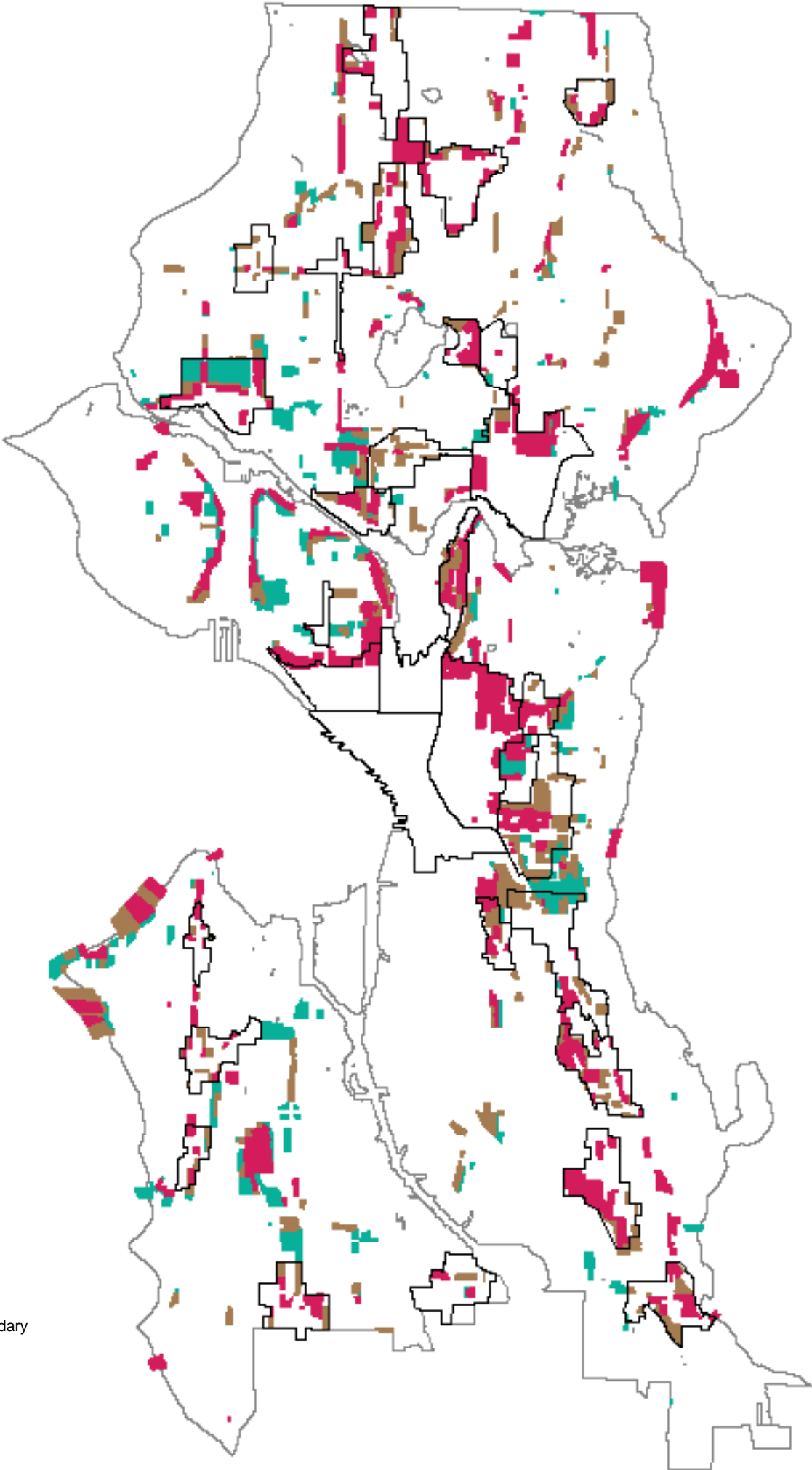


Lowrise 3  
small site



Location of existing  
Lowrise zones

- Urban Village Boundary
- Existing Lowrise 1
- Existing Lowrise 2
- Existing Lowrise 3



# LOWRISE 1

## apartments | small site

### Prototype Description

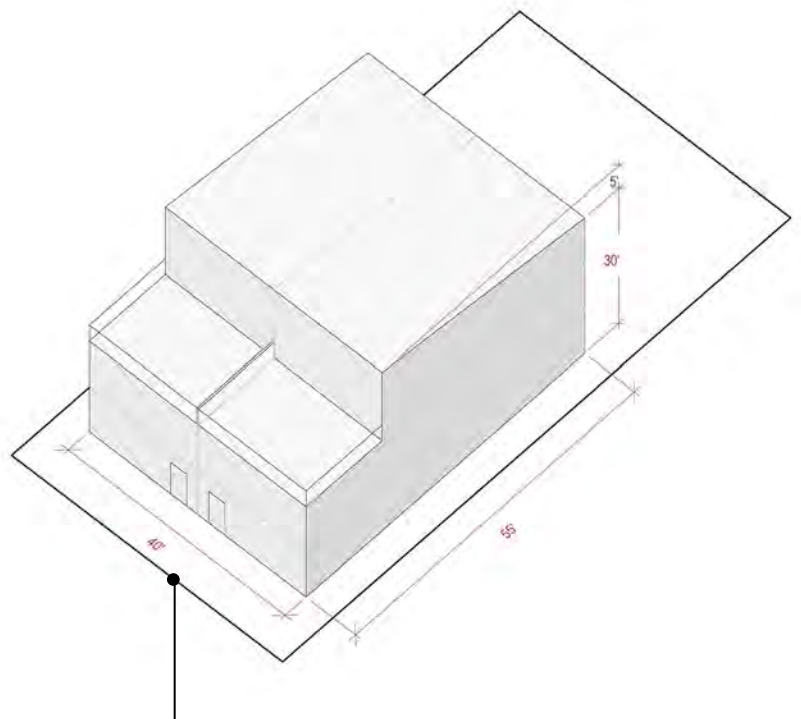
- A rental apartment or condominium housing product
- A commonly platted single 5,000-square-foot lot in a Lowrise zone
- No parking provided on site (urban village location)
- Considers adjacency to a mix of single family homes and small multifamily structures

### Existing LR1

Density limit	1 unit per 2000 sq. ft. of lot area
FAR maximum	1.2
Height limit	30 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

### LR1 Prototype – Existing

Lot size	5,000 sq. ft.
Total allowed gross area	6,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	4,800 sq. ft.
Maximum density	1 unit / 2,000 sq. ft. maximum 3 homes
Total units	2
Average net unit size	2,400 sq. ft.
Parking spaces provided	0



## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	.63 = 1 unit
Medium MHA area (6%)	.54 = 1 unit
Low MHA area (5%)	.45 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$135,000
Medium MHA area (\$13.25/sq. ft.)	\$86,000
Low MHA area (\$7/sq. ft.)	\$45,500

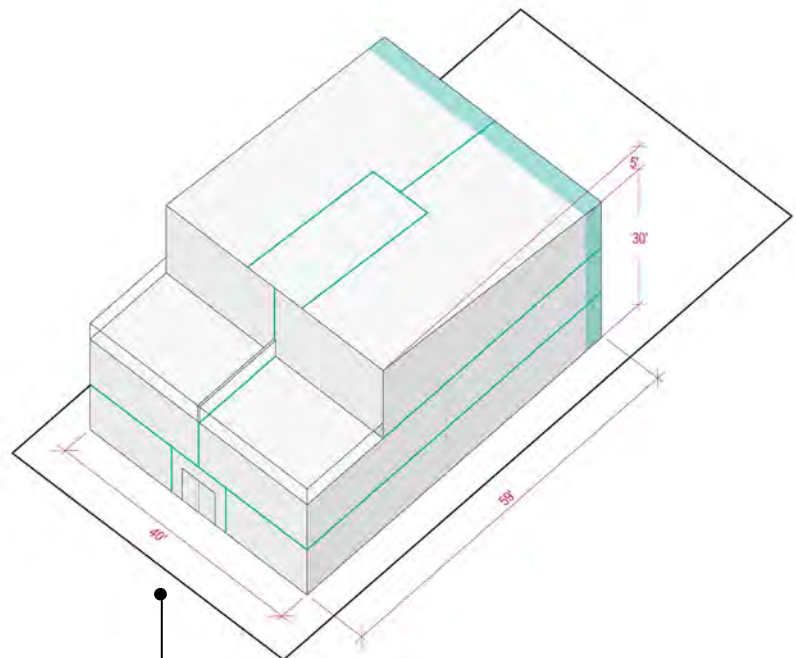
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA LR1

Density limit	Family-sized unit requirement*
FAR maximum	1.3
Height limit	30 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

## LR1 Prototype – Proposed

Lot size	5,000 sq. ft.
Total allowed gross area	6,500 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	5,200 sq. ft.
Maximum density	Family-sized unit requirement*
Total units	9
Average net unit size	578 sq. ft.
Parking spaces provided	0



\* For every 8 units, at least one 2-bedroom unit (min. 850 sq. ft.). For every 16 units, at least one 3-bedroom unit (min. 1,050 sq. ft.) or two 2-bedroom units (min. 850 sq. ft.)



# LOWRISE 1

## apartments | large site

### Prototype Description

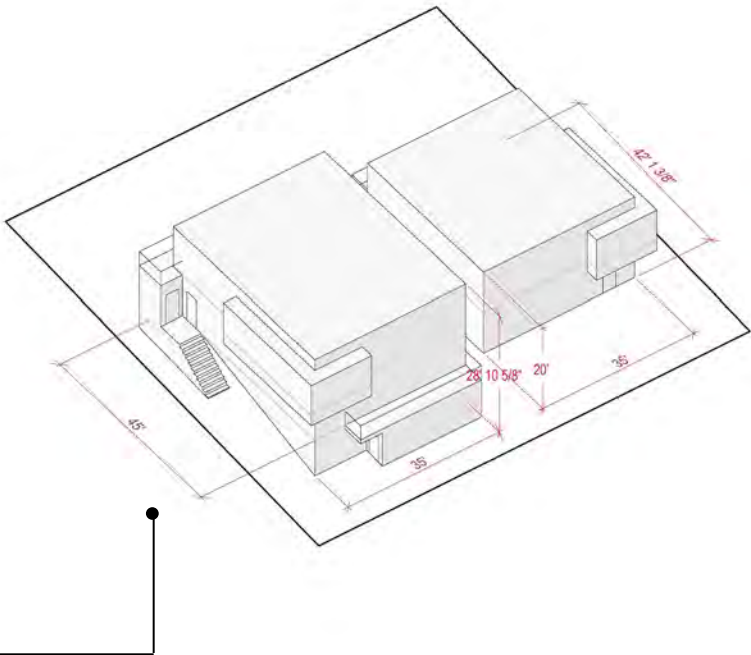
- A rental apartment or condominium housing product
- Two commonly platted lots in a Lowrise zone, for a total site size of 10,000 square feet
- Parking provided on site in a surface parking area accessed from the alley
- Considers adjacency to existing single family scaled structures in a Lowrise zone

### Existing LR1

Density limit	1 unit per 2000 sq. ft. of lot area
FAR maximum	1.2
Height limit	30 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

### LR1 Prototype – Existing

Lot size	5,000 sq. ft. x 2
Total allowed gross area	12,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	9,600 sq. ft.
Maximum density	1 unit / 2,000 sq. ft. maximum 3 homes per lot
Total units	5
Average net unit size	1,900 sq. ft.
Parking spaces provided	11



## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	1.05 = 2 units
Medium MHA area (6%)	.90 = 1 unit
Low MHA area (5%)	.75 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$299,000
Med MHA area (\$13.25/sq. ft.)	\$191,000
Low MHA area (\$7/sq. ft.)	\$101,000

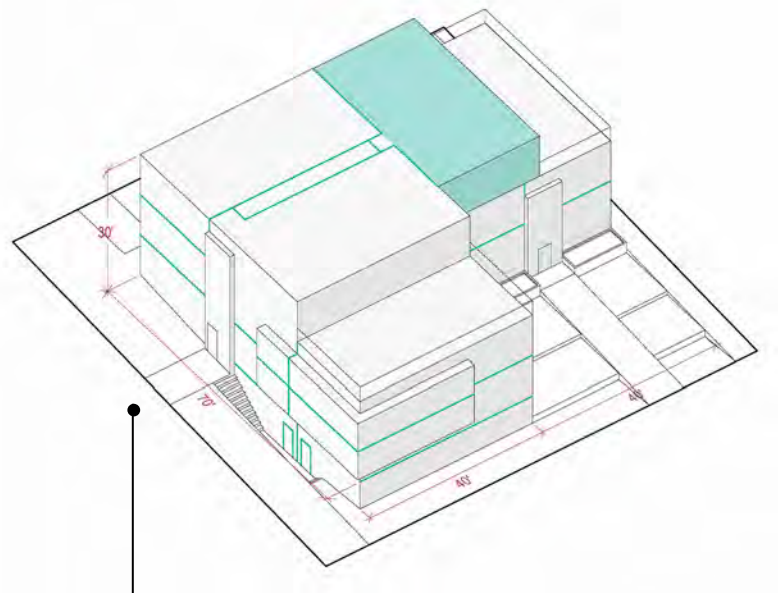
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA LR1

Density limit	Family-sized unit requirement*
FAR maximum	1.3
Height limit	30 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

## LR1 Prototype – Proposed

Lot size	10,000 sq. ft.
Total allowed gross area	13,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	10,400 sq. ft.
Area below grade	1,400 sq. ft.
Maximum density	Family-sized unit requirement*
Total units	15 (2 below grade)
Average net unit size	787 sq. ft.
Parking spaces provided	11



\* For every 8 units, at least one 2-bedroom unit (min. 850 sq. ft.). For every 16 units, at least one 3-bedroom unit (min. 1,050 sq. ft.) or two 2-bedroom units (min. 850 sq. ft.)

# LOWRISE 1

## townhouses

### Prototype Description

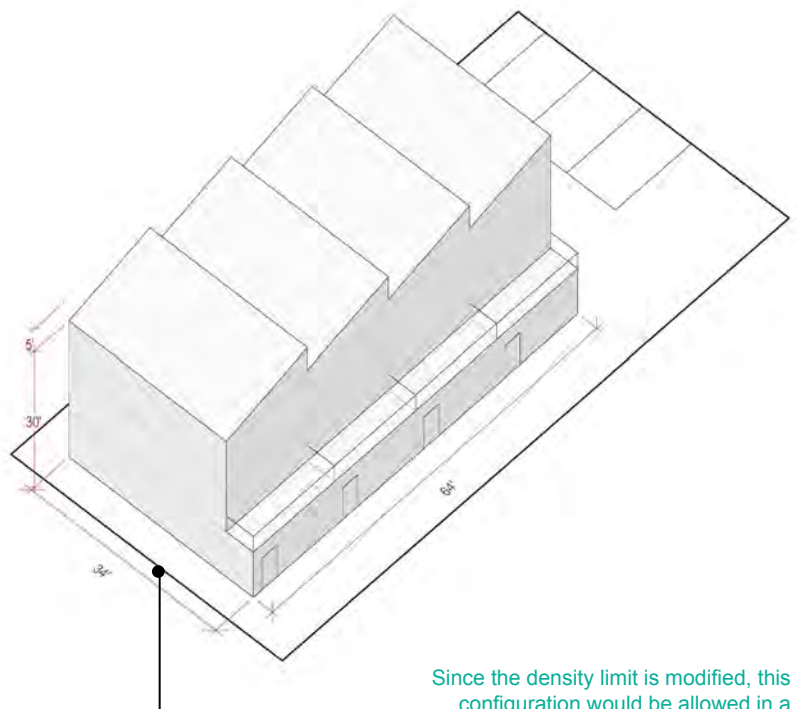
- An attached townhouse homeownership housing product
- A single 5,000-square-foot lot in an LR1 zone
- Parking provided for some units in a surface parking areas accessed from the alley
- Considers adjacency to existing single family scaled structures and other townhouses
- Increased FAR and new density limit requirements allow for variety of housing sizes

### Existing LR1

Density limit	1 unit per 1600 sq. ft. (townhouse) No limit (rowhouse)
FAR maximum	1.2
Height limit	30 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

### LR1 Prototype – Existing

Lot size	5,000 sq. ft.
Total allowed gross area	6,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	6,000 sq. ft.
Total units	4
Average net unit size	1,500 sq. ft.
Parking spaces provided	3



Since the density limit is modified, this configuration would be allowed in a rowhouse with unit entries facing the street in the existing zoning.

## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	.35 = 1 unit
Medium MHA area (6%)	.30 = 1 unit
Low MHA area (5%)	.25 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$135,000
Medium MHA area (\$13.25/sq. ft.)	\$86,000
Low MHA area (\$7/sq. ft.)	\$46,000

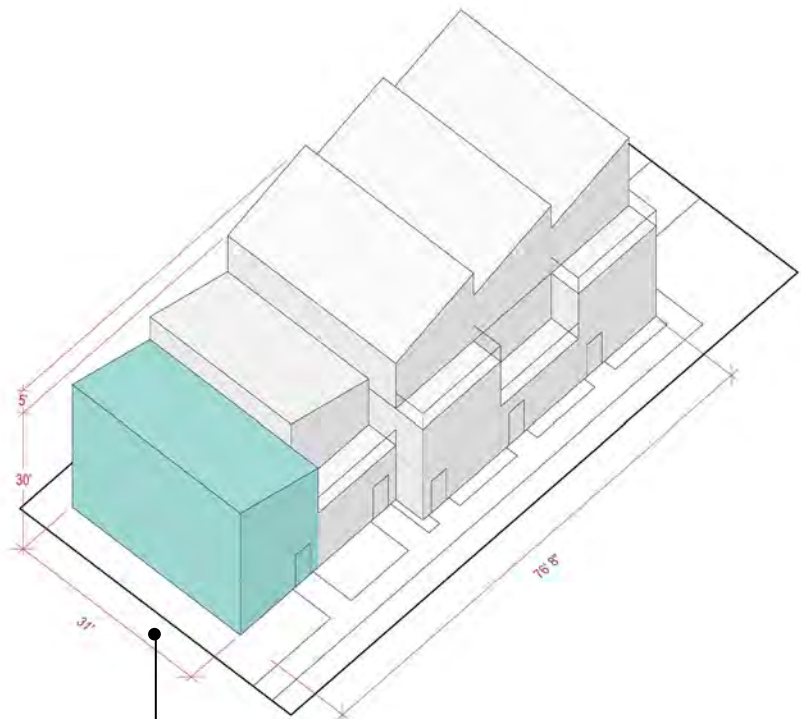
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA LR1

Density limit	Family-sized unit requirement*
FAR maximum	1.3
Height limit	30 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

## LR1 Prototype – Proposed

Lot size	5,000 sq. ft.
Total allowed gross area	6,500 sq. ft.
Efficiency factor	1
Total net sq. ft.	6,500 sq. ft.
Total units	5
Average net unit size	1,300 sq. ft.
Parking spaces provided	3



\* For every 8 units, at least one 2-bedroom unit (min. 850 sq. ft.). For every 16 units, at least one 3-bedroom unit (min. 1,050 sq. ft.) or two 2-bedroom units (min. 850 sq. ft.)



# LOWRISE 2

## apartments | small site

### Prototype Description

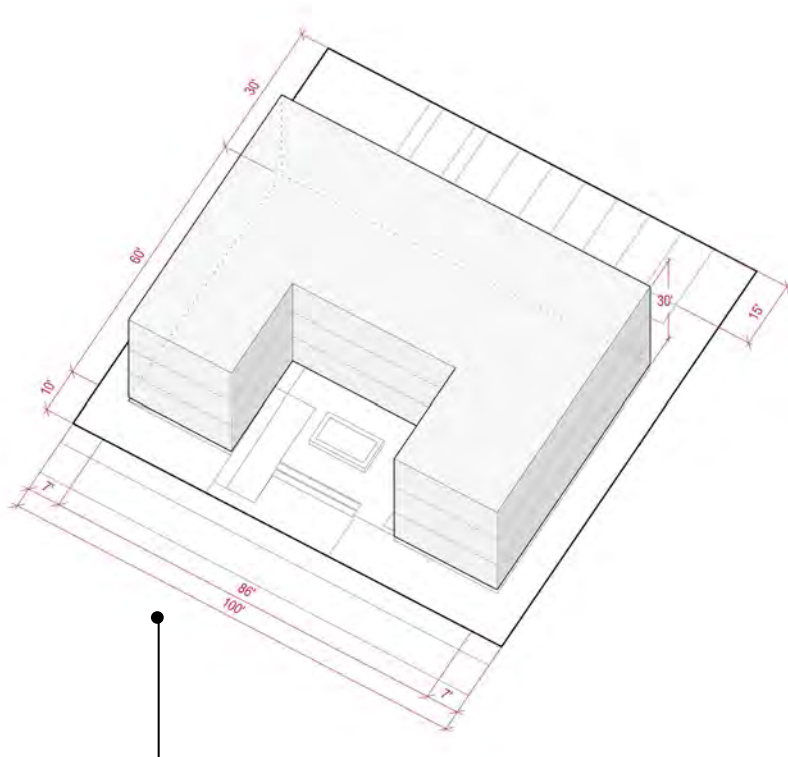
- An apartment or condominium housing product
- Two combined typically platted lots, for a total lot size of 10,000 square feet
- Parking provided for some units in a surface parking areas accessed from the alley
- Considers adjacency to smaller scale of existing single family structures and townhouses
- Upper level setbacks required when facing neighboring single family zones

### Existing LR2

FAR maximum	1.3
Height limit	30 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

### LR2 Prototype – Existing

Lot size	10,000 sq. ft.
Total allowed gross area	13,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	10,400 sq. ft.
Total units	16
Average net unit size	650 sq. ft.
Parking spaces provided	8



## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	1.4 = 2 units
Medium MHA area (6%)	1.2 = 2 units
Low MHA area (5%)	1.0 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$311,000
Med MHA area (\$13.25/sq. ft.)	\$199,000
Low MHA area (\$7/sq. ft.)	\$105,000

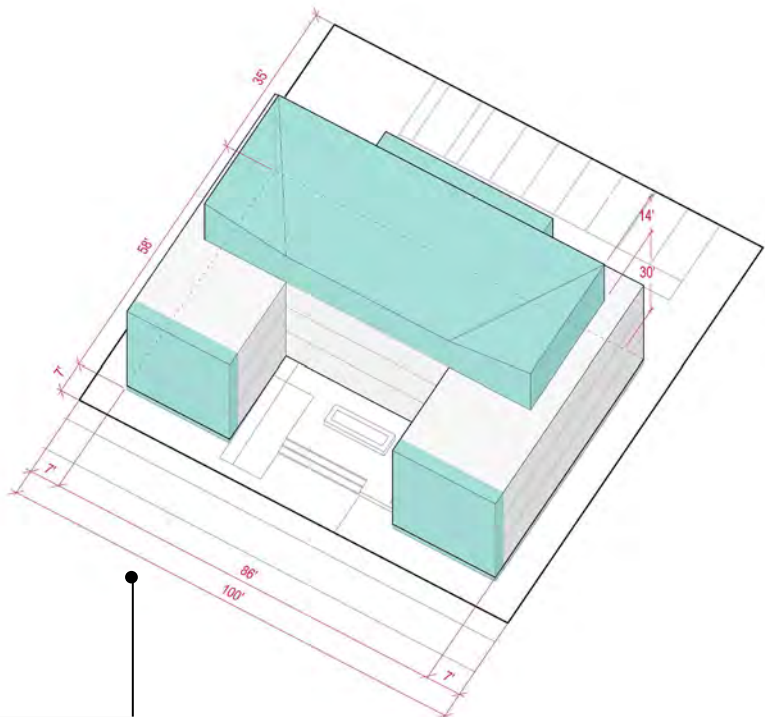
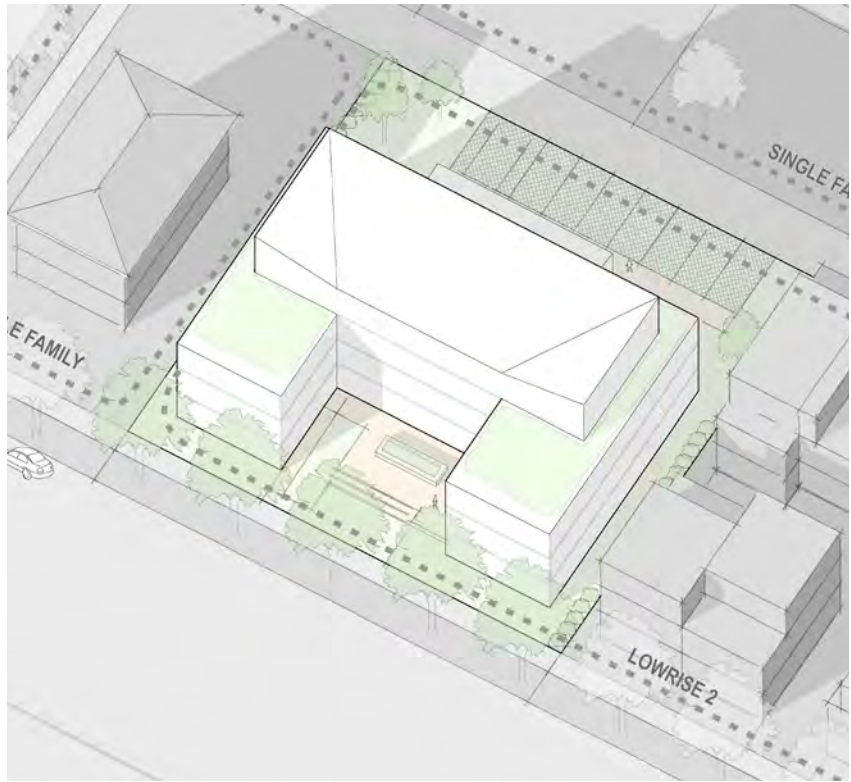
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA LR2

FAR maximum	1.5
Height limit	40 + 5 feet
Setbacks	
Front	5 feet
Upper	12 feet above 30 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

## LR2 Prototype – Proposed

Lot size	10,000 sq. ft.
Total allowed gross area	15,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	12,000 sq. ft.
Total units	20
Average net unit size	600 sq. ft.
Parking spaces provided	8





# LOWRISE 2

## apartments | large site

### Prototype Description

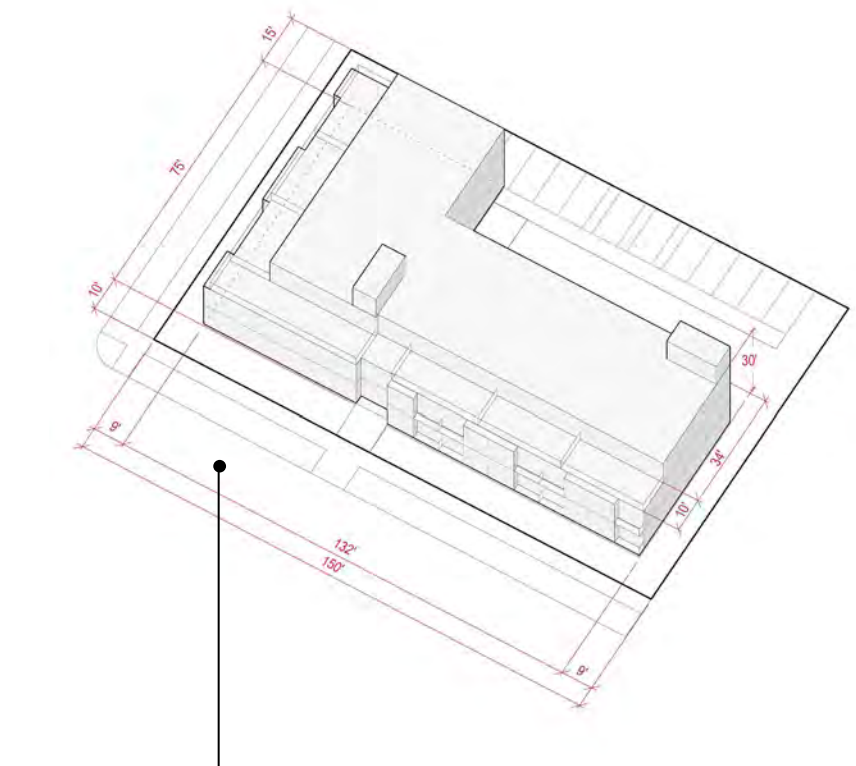
- An apartment or condominium housing product.
- Three combined typically platted lots, for a total lot size of 15,000 square feet.
- Parking is provided for some of the units in a surface parking areas accessed from the alley.
- Considers adjacency to smaller existing single family scaled structures and townhouses.

### Existing LR2

FAR maximum	1.3
Height limit	30 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

### LR2 Prototype – Existing

Lot size	15,000 sq. ft.
Total allowed gross area	19,500 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	15,600 sq. ft.
Total units	24
Average net unit size	650 sq. ft.
Parking spaces provided	16



## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	1.82 = 2 units
Medium MHA area (6%)	1.56 = 2 units
Low MHA area (5%)	1.30 = 2 units

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$467,000
Med MHA area (\$13.25/sq. ft.)	\$298,000
Low MHA area (\$7/sq. ft.)	\$158,000

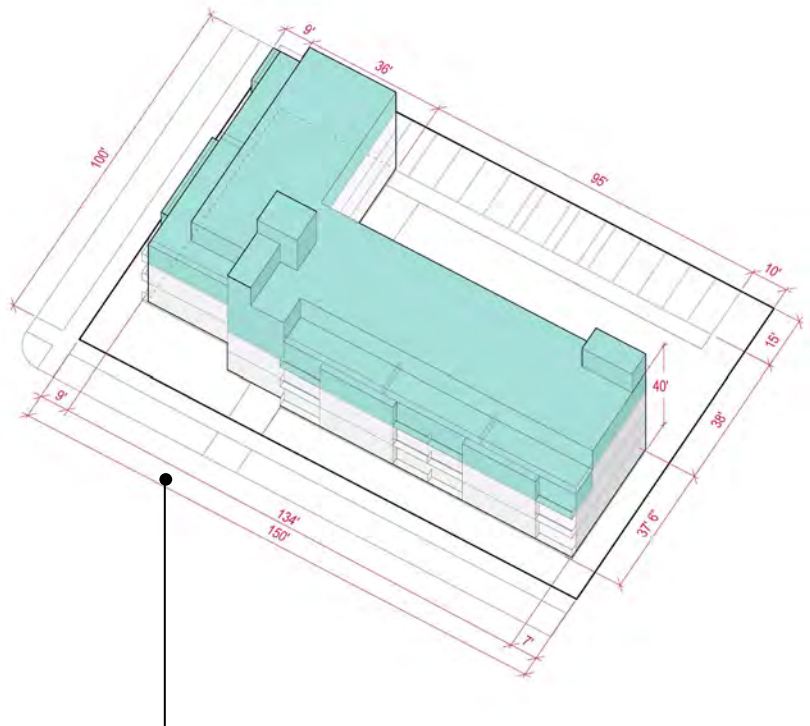
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA LR2

FAR maximum	1.5
Height limit	40 + 5 feet
Setbacks	
Front	5 feet
Upper	12 feet above 30 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

## LR2 Prototype – Proposed

Lot size	15,000 sq. ft.
Total allowed gross area	22,500 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	18,000 sq. ft.
Total units	26
Average net unit size	692 sq. ft.
Parking spaces provided	16



# LOWRISE 2 townhouses

## Prototype Description

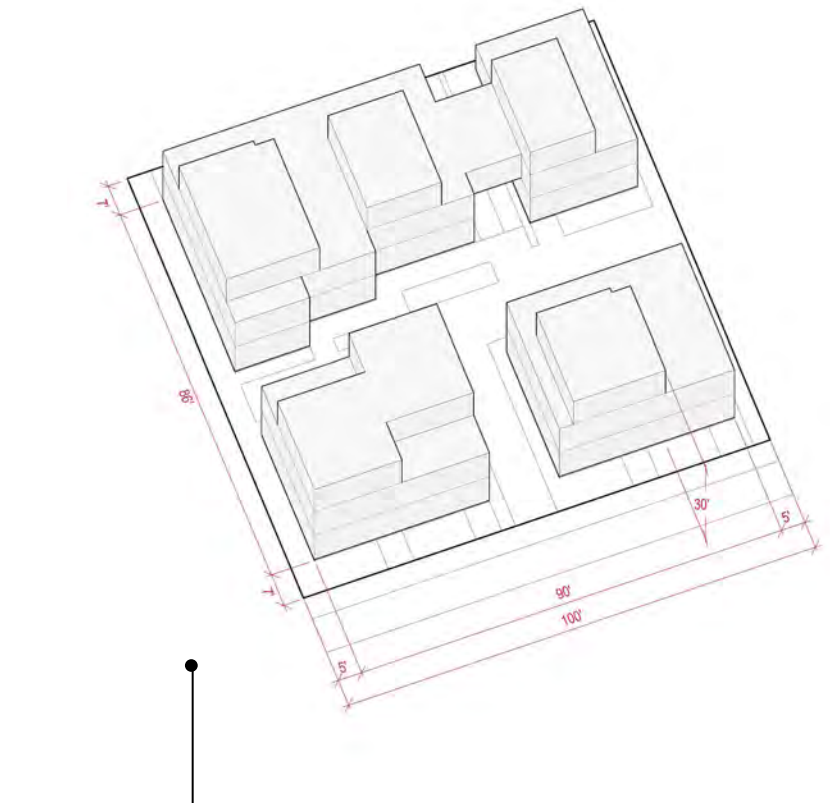
- An attached townhouse homeownership housing product.
- Two combined typically platted lots, for a total lot size of 10,000 square feet.
- Parking is provided for some of the units within structures accessed from the alley.
- Considers adjacency to smaller existing single family scaled structures and townhouses.

## Existing LR2

FAR maximum	1.3
Height limit	30 + 5 feet
Setbacks	
Front	7' avg, 5' min
Rear	7' avg, 5' min
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

## LR2 Prototype – Existing

Lot size	10,000 sq. ft.
Total allowed gross area	12,000 sq. ft.
Efficiency factor	1
Total net sq. ft.	12,000 sq. ft.
Total units	8
Average net unit size	1,500 sq. ft.
Parking spaces provided	6



## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	.56 = 1 unit
Medium MHA area (6%)	.48 = 1 unit
Low MHA area (5%)	.40 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$291,000
Med MHA area (\$13.25/sq. ft.)	\$186,000
Low MHA area (\$7/sq. ft.)	\$98,000

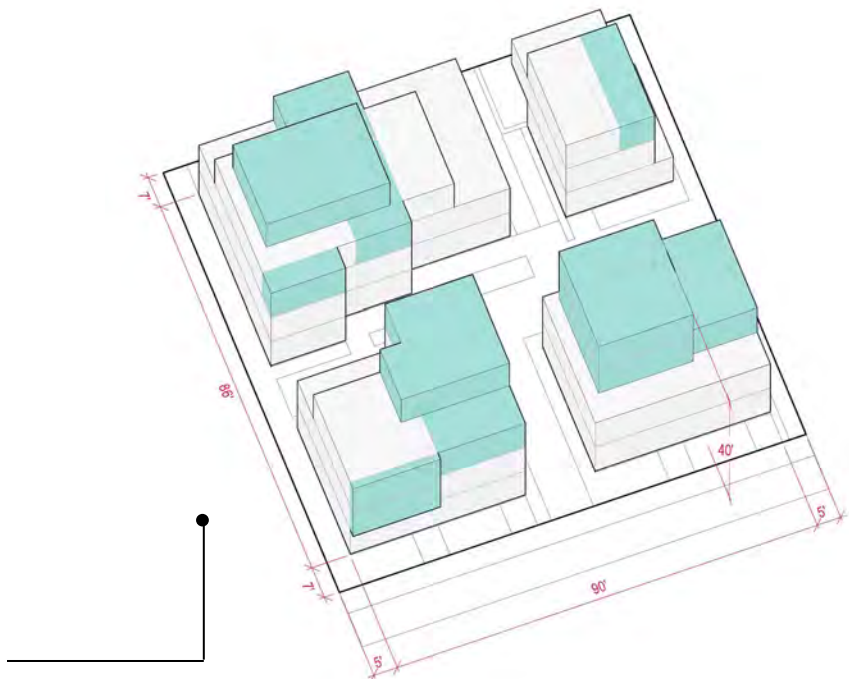
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA LR2

FAR maximum	1.4
Height limit	40 + 5 feet
Setbacks	
Front	7' avg, 5' min
Upper	12 feet above 30 feet
Rear	7' avg, 5' min
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

## LR2 Prototype – Proposed

Lot size	10,000 sq. ft.
Total allowed gross area	14,000 sq. ft.
Efficiency factor	1
Total net sq. ft.	14,000 sq. ft.
Total units	8
Average net unit size	1,750 sq. ft.
Parking spaces provided	6





# LOWRISE 3

## apartments | small site

### Prototype Description

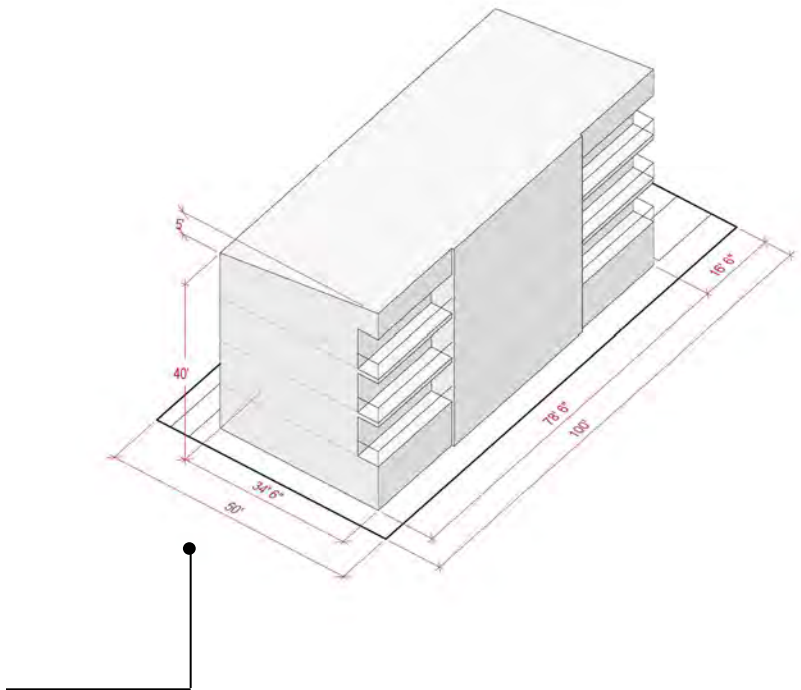
- An apartment or condominium housing product.
- A typically platted lot, for a total lot size of 5,000 square feet.
- Parking is provided for some of the units in a surface parking areas accessed from the alley.
- Considers adjacency to smaller existing single family scaled structures and townhouses.

### Existing LR3

FAR maximum	2.0
Height limit	40 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

### LR3 Prototype – Existing

Lot size	5,000 sq. ft.
Total allowed gross area	10,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	8,000 sq. ft.
Total units	10
Average net unit size	800 sq. ft.
Parking spaces provided	5



Affordable Homes

PERFORMANCE OPTION\*

High MHA area (7%)	.98 = 1 unit
Medium MHA area (6%)	.84 = 1 unit
Low MHA area (5%)	.70 = 1 unit

PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$228,000
Med MHA area (\$13.25/sq. ft.)	\$146,000
Low MHA area (\$7/sq. ft.)	\$77,000

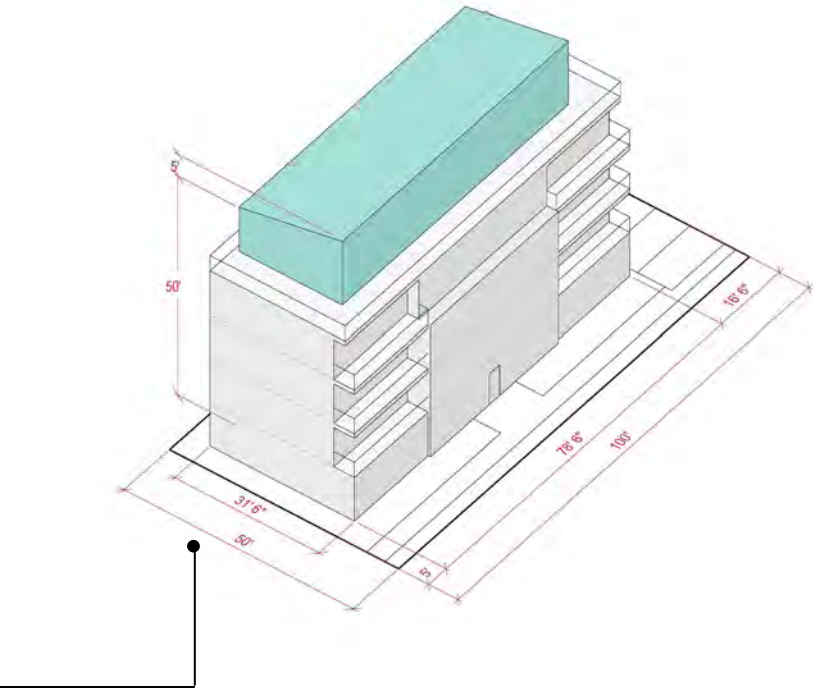
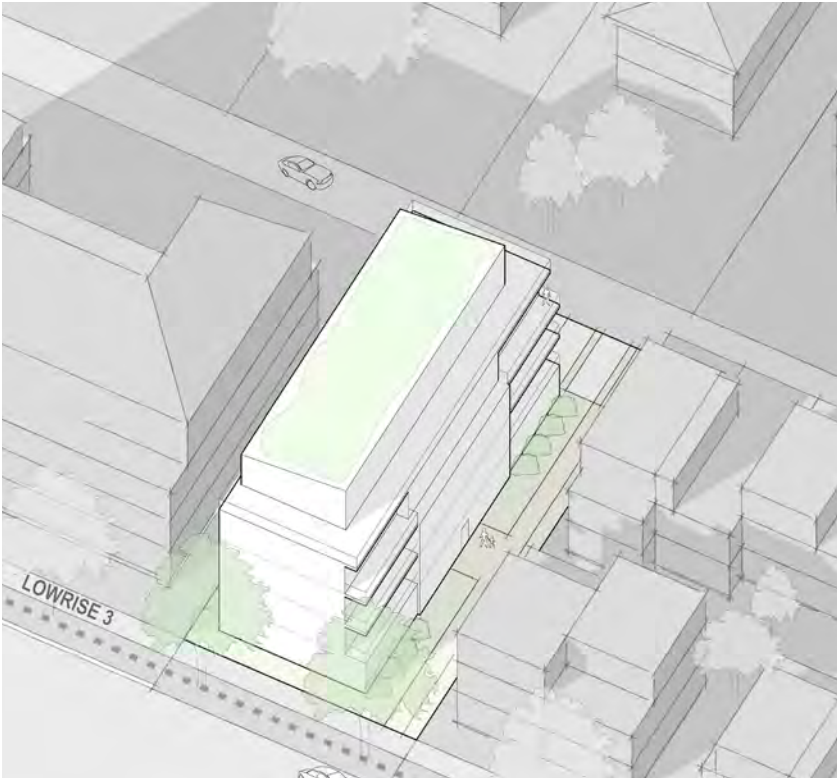
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

Proposed MHA LR3

FAR maximum	2.2
Height limit	50 feet
Setbacks	
Front	5 feet
Upper	12 feet above 40 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

LR3 Prototype – Proposed

Lot size	5,000 sq. ft.
Total allowed gross area	11,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	8,800 sq. ft.
Total units	14
Average net unit size	650 sq. ft.
Parking spaces provided	5





# LOWRISE 3

## apartments | large site

### Prototype Description

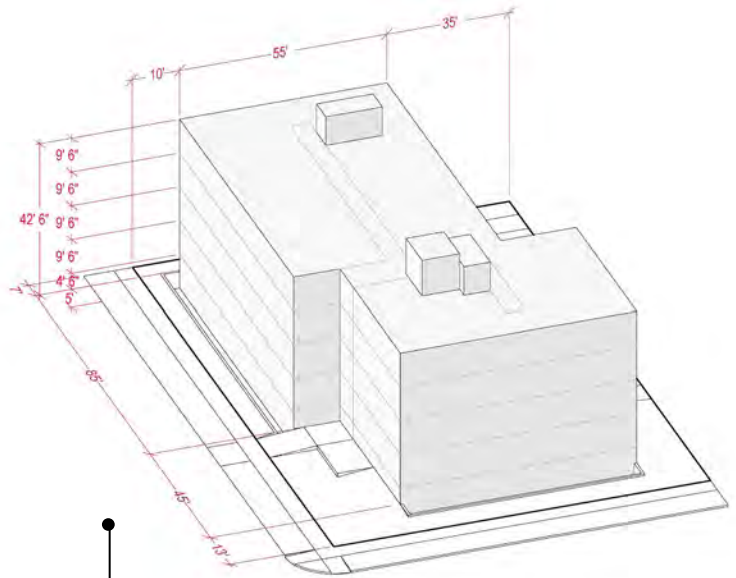
- An apartment or condominium housing product.
- Three combined typically platted lots, for a total lot size of 15,000 square feet.
- Parking is provided for some of the units in a surface parking areas accessed from the alley.
- Considers adjacency to smaller existing single family scaled structures and townhouses.

### Existing LR3

FAR maximum	2.0
Height limit	40 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

### LR3 Prototype – Existing

Lot size	15,000 sq. ft.
Total allowed gross area	30,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	24,000 sq. ft.
Area below grade	7,000 sq. ft.
Total units	48 (10 below)
Average net unit size	650 sq. ft.
Parking spaces provided	12



### PERFORMANCE OPTION\*

High MHA area (7%)	3,57 = 4 units
Medium MHA area (6%)	3.06 = 4 units
Low MHA area (5%)	2.55 = 3 units

High MHA area (\$20.75/sq. ft.)	\$830,000
Med MHA area (\$13.25/sq. ft.)	\$530,000
Low MHA area (\$7/sq. ft.)	\$280,000

## Proposed MHA LR3

This aerial view shows the proposed building footprint in white, situated on a green site. The building is rectangular with a central courtyard area. The surrounding context includes existing buildings, streets labeled 'LOWRISE 1' and 'LOWRISE 3', and a parking lot. The building footprint is outlined in black, and the surrounding area is shaded in light green.

LOWRISE (LR)

# LOWRISE 3

## apartment-style rowhouses

### Prototype Description

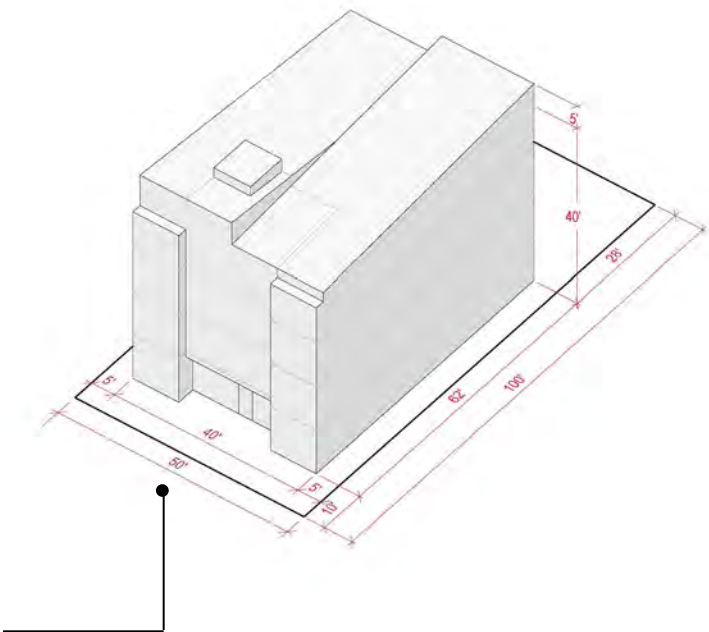
- An apartment or condominium housing product.
- A typically platted lot, for a total lot size of 5,000 square feet.
- Considers adjacency to smaller existing single family scaled structures and townhouses.
- Allows for a larger rear yard setback when facing single family houses

### Existing LR3

FAR maximum	2.0
Height limit	40 feet
Setbacks	
Front	5 feet
Rear	10 feet with alley 15 feet without alley
Sides	< 40' bldg: 5' > 40' bldg: 7' avg, 5' min.
Parking	1 per unit; no minimum in urban villages

### LR3 Prototype – Existing

Lot size	5,000 sq. ft.
Total allowed gross area	10,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	8,000 sq. ft.
Total units	10
Average net unit size	800 sq. ft.
Parking spaces provided	0



## Affordable Homes

### PERFORMANCE OPTION\*

High MHA area (7%)	0.98 = 1 unit
Medium MHA area (6%)	0.84 = 1 unit
Low MHA area (5%)	0.70 = 1 unit

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$228,000
Med MHA area (\$13.25/sq. ft.)	\$146,000
Low MHA area (\$7/sq. ft.)	\$77,000

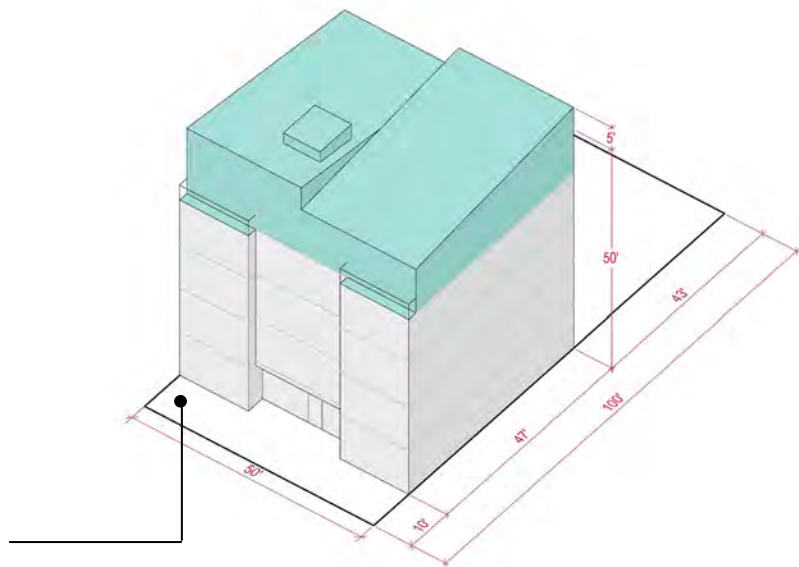
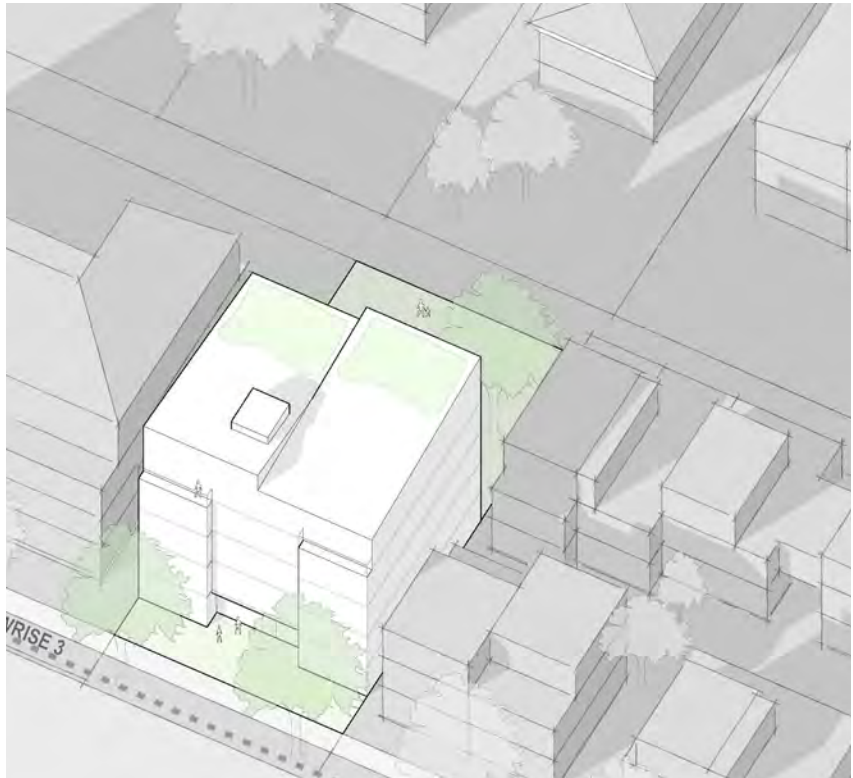
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

## Proposed MHA LR3

FAR maximum	2.2
Height limit	50 feet
Setbacks	
Front	5 feet
Upper	12 feet above 40 feet
Rear	10 feet with alley 15 feet without alley
Sides	n/a
Parking	1 per unit; no minimum in urban villages

## LR3 Prototype – MHA

Lot size	5,000 sq. ft.
Total allowed gross area	11,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	8,800 sq. ft.
Total units	14
Average net unit size	629 sq. ft.
Parking spaces provided	0



The alternative explores a rowhouse development type where side setbacks are removed. Design standards would ensure that the building is configured as a rowhouse development.

Includes form characteristics of a rowhouse but in stacked apartments

Light and air requirements are not compromised in the units facing the deeper rear yard when compared to units facing side yards.



# LR Zone - Urban Design and Neighborhood Character

## Livability Benefits

- LR zones provide a transition between higher intensity neighborhood commercial areas and RSL or Single Family zones.
- LR zones encourage ground-related housing in a variety of formats and densities close to transit and amenities.
- LR zones provide a mix of homeownership and rental housing opportunities.
- LR zones provide a range of multifamily and attached housing options in urban village locations.
- Urban design standards are proposed for privacy, and design interest to address the edges of LR zones.



Lowrise 2 provides a transition between higher-intensity areas and single family zones.





Lowrise zones are often located close to transit and amenities such as parks and shops.



Lowrise zones encourage ground-related housing in a variety of formats and densities.





Urban design standards are proposed for privacy and design interest to address the edges of Lowrise zones.

## Proposed Development and Urban Design Standards

The table below summarizes other proposed or modified development standards intended to improve an urban design outcome and improve livability with new development in the zone.

Issue / Intent	Lowrise Zone	Proposed / Modified Development Standard
Allow variety of housing options, and ensure variety of housing unit sizes.	LR1	Remove the density limit for apartment housing types in the LR1 zone. For every 7 small units of 400 sf or less, an eighth 2BR unit at least 850 sf; or Up to 13 small units of 400 sf or less can be built if a 3BR unit of at least 1,100 sf is included
Increase design flexibility and provide development capacity to implement MHA.	LR1, LR2, LR3	Projects would no longer be required to meet additional design standards for parking location and access to achieve higher FAR amounts and density limits in LR zones. Green building performance requirements would continue to apply.
Ensure light and air access to public rights of way, and compatibility of street facing building scale, as height limits are increased.	LR2, LR3	Retain an upper level setback of 12' feet from a street facing property line for portions of the facade at heights of 30' and above in the LR2 zone. Retain an upper level setback of 12' feet from a street facing property line for portions of the facade at heights of 40' and above in the LR3 zone.
Address transitions and adjacencies at zone edges.	LR1, LR2, LR3	Add minimum design standards for side facade configuration and design, for development on a zone edge between more intensive and less intensive zones, including adjacency to single family zones. The design standard would address two factors: 1.) privacy (i.e. window placement or screening), and 2.) minimum modulation or design interest to deter large blank facades. Standards are departable through design review.
Retain design flexibility and provide development capacity to implement MHA.	LR1, LR2, LR3	Retain the existing FAR exemption for residential uses in partially below grade basements in the LR2, and LR3 zones. Allow an FAR exemption for residential use in partially below grade basement in the LR1 zone.

# Neighborhood Commercial (NC)

## Community Input Themes

- In general, the height limit and floor area increases are incremental and a good tradeoff for the affordable housing requirement.
- Some of the largest buildings are bulky. Consider ways to keep buildings a manageable size and at human-scale.
- Incorporate open spaces and courtyards where possible.
- Neighborhood Commercial zones allow for large quantities of housing to be produced, they are a good tool for housing and affordable housing production.

## Zoning Prototypes

The following pages discuss the Neighborhood Commercial NC-40, NC-55, NC-75 and NC-95 zones.

## Commercial Zones

Neighborhood Commercial zones address scale and massing issues of Commercial zones, which have identical maximum FAR and height limits.



NC-40  
small site



NC-75  
small site



NC-95  
5-over-3  
construction

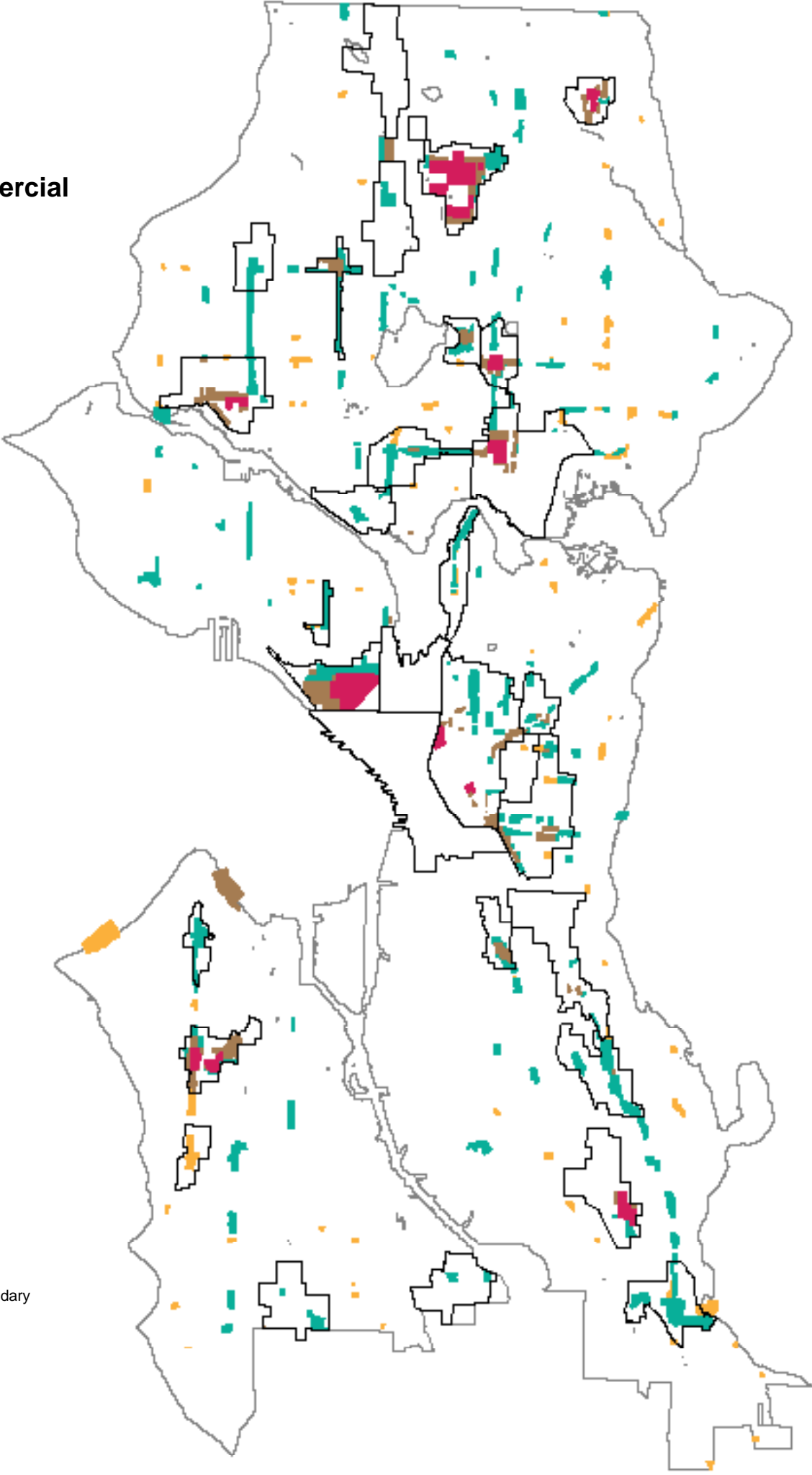


NC-75  
large site



**Location of existing  
Neighborhood Commercial  
zones**

- Urban Village Boundary
- Existing NC-30
- Existing NC-40
- Existing NC-65
- Existing NC-85



# Neighborhood Commercial 40 small site

## Prototype Description:

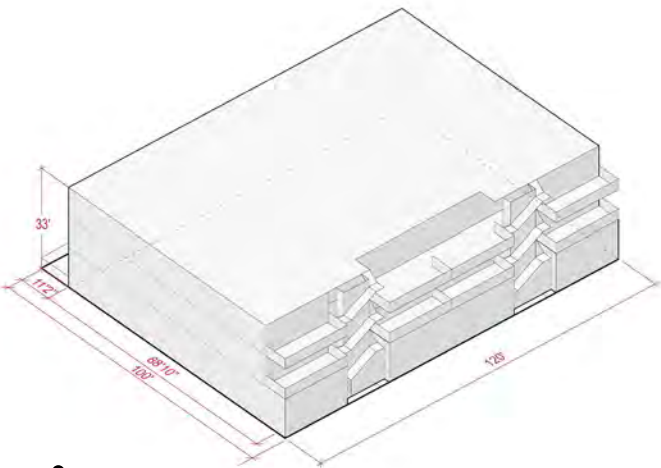
- An apartment or condominium housing product.
- Total lot size of 12,000 square feet.
- Considers adjacency to smaller Lowrise zones.
- Has street-level retail space.

## Existing NC-30

FAR maximum	2.5
Height limit	30 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

## NC-30 Prototype – Existing

Lot size	12,000 sq. ft.
Total allowed gross area	30,000 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	4,000 sq. ft.
Total net residential	20,800 sq. ft.
Total units	29
Average net unit size	711 sq. ft.
Parking spaces provided	0





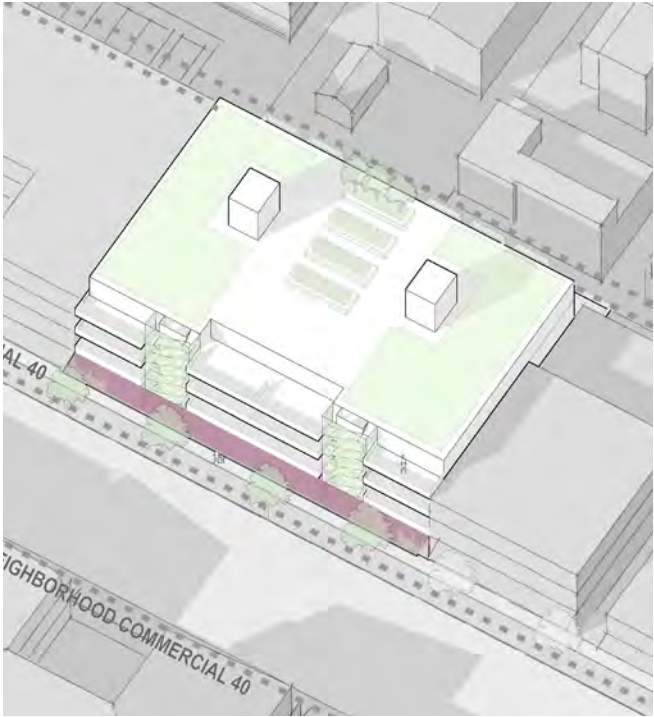
Affordable Homes

PERFORMANCE OPTION*	(+ commercial addition)
High MHA area (7%)	2.52 (+ 0) = 3 units
Medium MHA area (6%)	2.16 (+ 0) = 3 units
Low MHA area (5%)	1.80 (+ 0) = 2 units

PAYMENT OPTION	
High MHA area (\$20.75/sq. ft.)	\$664k (+ 0) = \$664,000
Med MHA area (\$13.25/sq. ft.)	\$424k (+ 0) = \$424,000
Low MHA area (\$7/sq. ft.)	\$224k (+ 0) = \$224,000

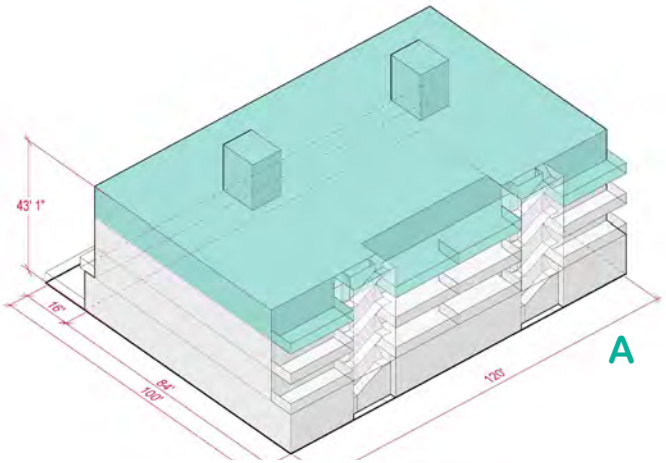
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

The first 4,000 sf of ground floor commercial does not count towards MHA requirements



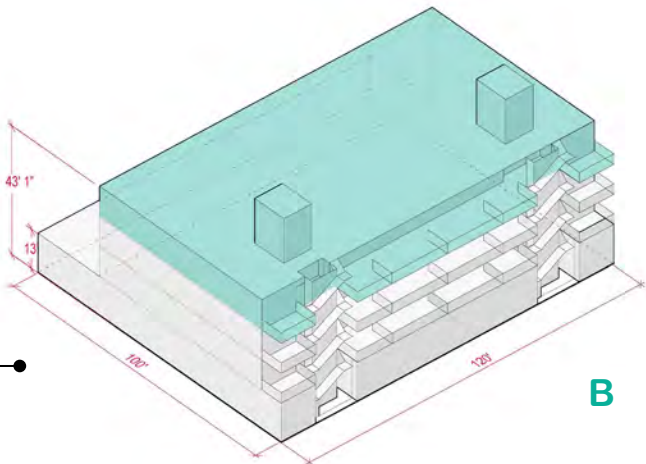
Proposed MHA NC-40

FAR maximum	3.0
Height limit	40 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages



NC-40 Prototype – Proposed

Lot size	12,000 sq. ft.
Total allowed gross area	36,000 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	4,000 sq. ft.
Total net residential	25,600 sq. ft.
Total units	36 (A) / 18 (B)
Avg. unit size	689 (A) / 1,108 (B) sq. ft.
Parking spaces provided	0



# Neighborhood Commercial 40 mixed-use | large site

## Prototype Description

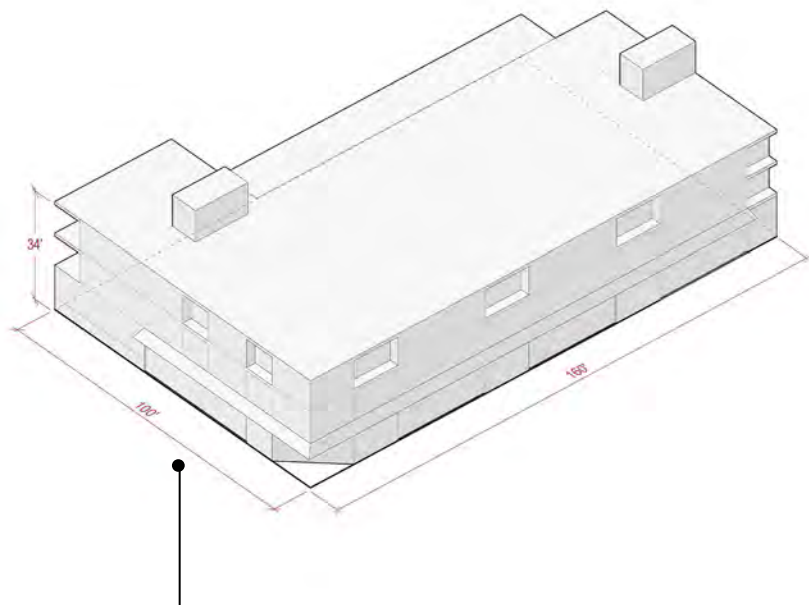
- An apartment or condominium housing product.
- Total lot size of 16,000 square feet.
- Underground parking provided for some of the units.
- Considers adjacency to smaller Lowrise zones.
- Has street-level retail space.
- Has a break in the building mass at the upper level.

## Existing NC-30

FAR maximum	2.5
Height limit	30 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

## NC-30 Prototype – Existing

Lot size	16,000 sq. ft.
Total allowed gross area	40,000 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	5,600 sq. ft.
Total net residential	27,520 sq. ft.
Total units	33
Average net unit size	827 sq. ft.
Parking spaces provided	underground



Affordable Homes

PERFORMANCE OPTION*	(+ commercial addition)
High MHA area (7%)	2.87 (+ .10) = 3 units
Medium MHA area (6%)	2.46 (+ .10) = 3 units
Low MHA area (5%)	2.05. (+ .10) = 3 units

PAYMENT OPTION	
High MHA area (\$20.75/sq. ft.)	\$880k (+ \$13k) = \$893,000
Med MHA area (\$13.25/sq. ft.)	\$562k (+ \$11k) = \$573,000
Low MHA area (\$7/sq. ft.)	\$297k (+ \$8k) = \$305,000

\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

The first 4,000 sf of ground floor commercial does not count towards MHA requirements

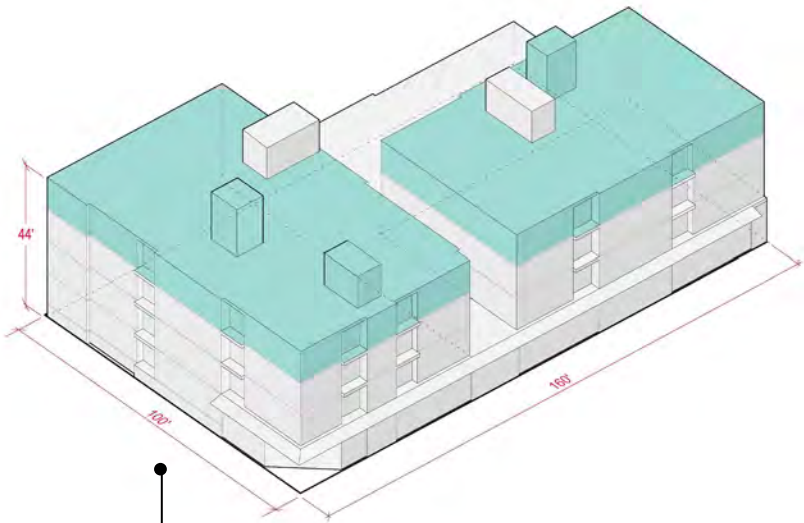


Proposed MHA NC-40

FAR maximum	3.0
Height limit	40 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

NC-40 Prototype – MHA

Lot size	16,000 sq. ft.
Total allowed gross area	48,000 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	5,600 sq. ft.
Total net residential	33,920 sq. ft.
Total units	41
Average net unit size	827 sq. ft.
Parking spaces provided	underground



# Neighborhood Commercial 55 mixed-use | small site

## Prototype Description

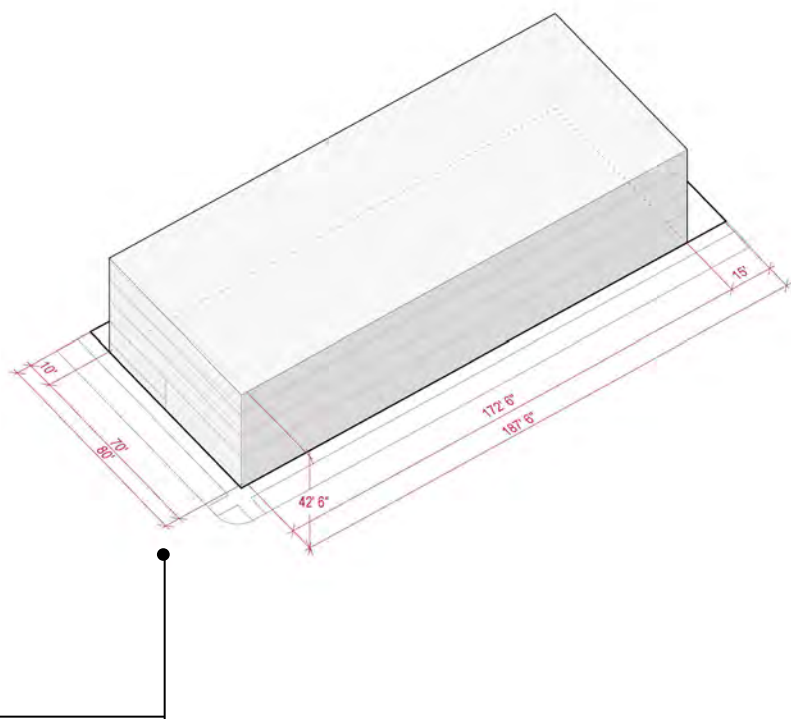
- An apartment or condominium housing product.
- Total lot size of 15,000 square feet.
- Underground parking provided for some of the units.
- Considers adjacency to smaller Lowrise zones.
- Has street-level retail space.

## Existing NC-40

FAR maximum	3.25
Height limit	40 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

## NC-40 Prototype – Existing

Lot size	15,000 sq. ft.
Total allowed gross area	48,750 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	5,000 sq. ft.
Total net residential	35,000 sq. ft.
Total units	40
Average net unit size	875 sq. ft.
Parking spaces provided	underground





## Affordable Homes

### PERFORMANCE OPTION\* (+ commercial addition)

High MHA area (7%)	3.64 (+ .09) = 4 units
Medium MHA area (6%)	3.12 (+ .09) = 4 units
Low MHA area (5%)	2.60 (+ .09) = 3 units

### PAYMENT OPTION

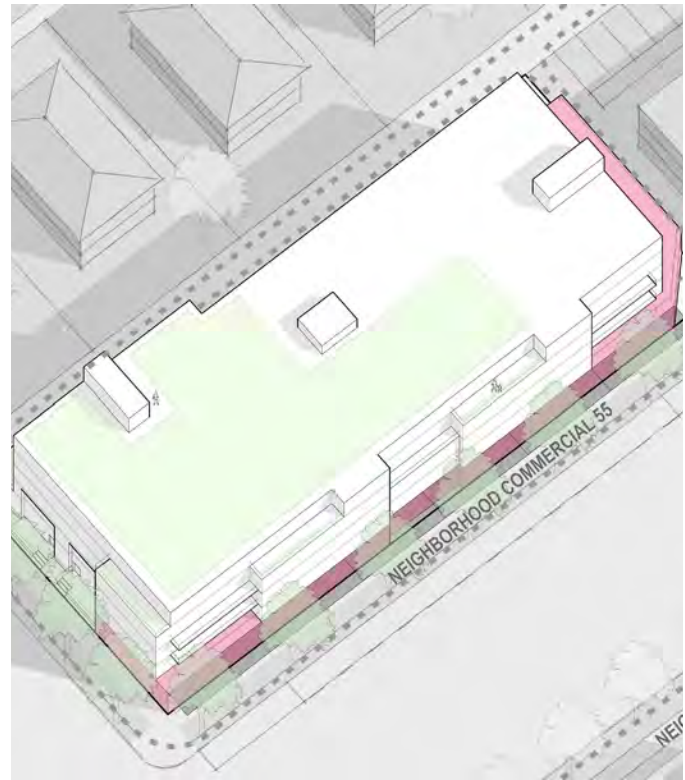
High MHA area (\$20.75/sq. ft.)	\$1,063k (+ \$8k) = \$1,071,000
Med MHA area (\$13.25/sq. ft.)	\$679k (+ \$7k) = \$686,000
Low MHA area (\$7/sq. ft.)	\$359k (+ \$5k) = \$364,000

## Proposed MHA NC-55

FAR maximum	3.75
Height limit	55 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Upper	Avg. depth of 5 feet, max. depth of 15 feet above 45 feet
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Façade modulation	Change of materials or a min. 18-inch-deep modulation at a min. of every 50 feet
Parking	1 per unit; no minimum in urban villages

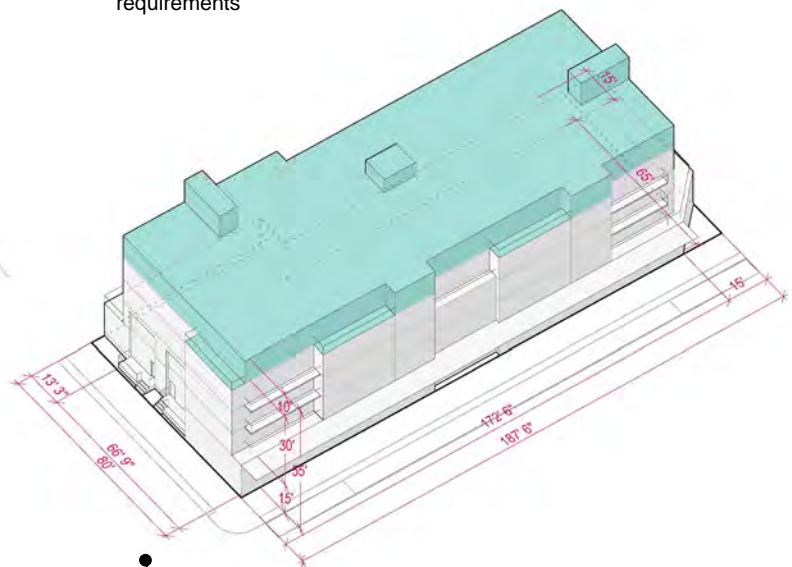
## NC-55 Prototype – MHA

Lot size	15,000 sq. ft.
Total allowed gross area	56,250 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	5,000 sq. ft.
Total net residential	41,000 sq. ft.
Total units	52
Average net unit size	788 sq. ft.
Parking spaces provided	underground



\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

The first 4,000 sf of ground floor commercial does not count towards MHA requirements





# Neighborhood Commercial 55 mixed-use | large site

## Prototype Description

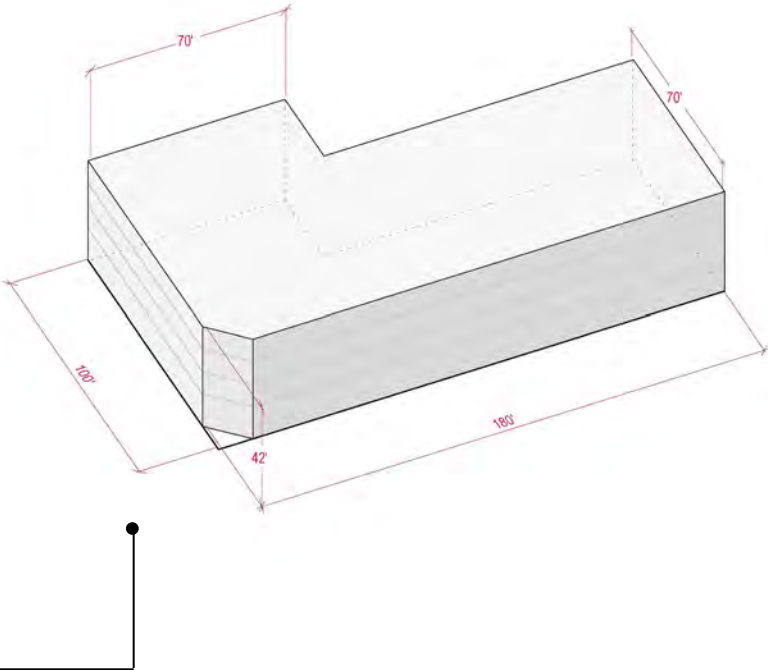
- An apartment or condominium housing product.
- Total lot size of 18,000 square feet.
- Underground parking provided for some of the units.
- Considers adjacency to smaller Lowrise zones.
- Has street-level retail space.

## Existing NC-40

FAR maximum	3.25
Height limit	40 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

## NC-40 Prototype – Existing

Lot size	18,000 sq. ft.
Total allowed gross area	58,500 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	7,500 sq. ft.
Total net residential	40,800 sq. ft.
Total units	54
Average net unit size	755 sq. ft.
Parking spaces provided	underground



## Affordable Homes

### PERFORMANCE OPTION\* (+ commercial addition)

High MHA area (7%)	4.48 (+ .33) = 5 units
Medium MHA area (6%)	3.84 (+ .33) = 5 units
Low MHA area (5%)	3.20 (+ .33) = 4 units

### PAYMENT OPTION

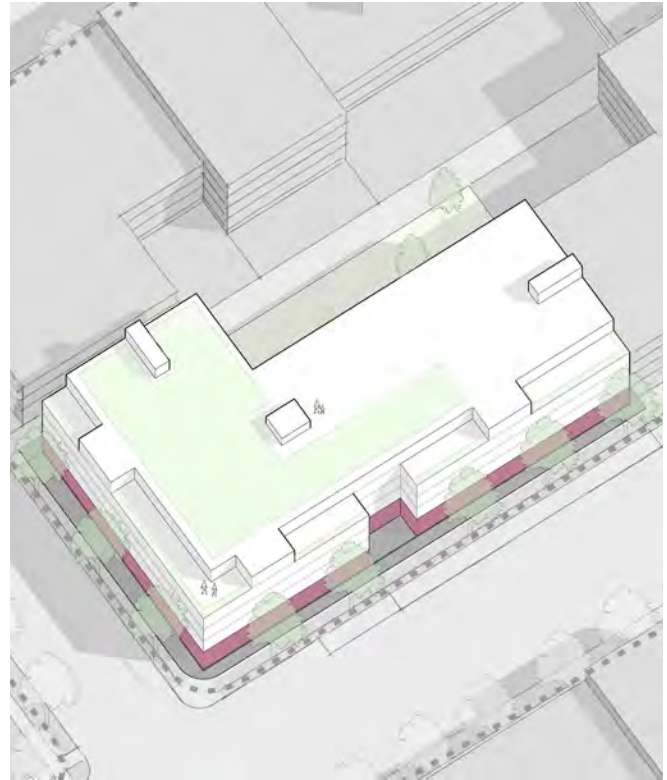
High MHA area (\$20.75/sq. ft.)	\$1,245k (+ \$28k) = \$1,273,000
Med MHA area (\$13.25/sq. ft.)	\$795k (+ \$25k) = \$820,000
Low MHA area (\$7/sq. ft.)	\$420k (+ \$18k) = \$438,000

## Proposed MHA NC-55

FAR maximum	3.75
Height limit	55 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Upper	Avg. depth of 5 feet, max. depth of 15 feet above 45 feet
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Façade modulation	Change of materials or a min. 18-inch-deep setback at a min. of every 50 feet
Parking	1 per unit; no minimum in urban villages

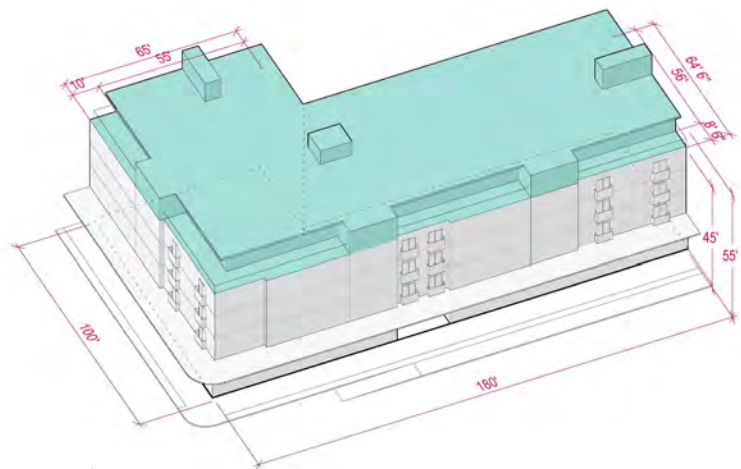
## NC-55 Prototype – MHA

Lot size	18,000 sq. ft.
Total allowed gross area	67,500 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	7,500 sq. ft.
Total net residential	48,000 sq. ft.
Total units	64
Average net unit size	750 sq. ft.
Parking spaces provided	underground



\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

The first 4,000 sf of ground floor commercial does not count towards MHA requirements



# Neighborhood Commercial 75 mixed-use | typical lot size

## Prototype Description

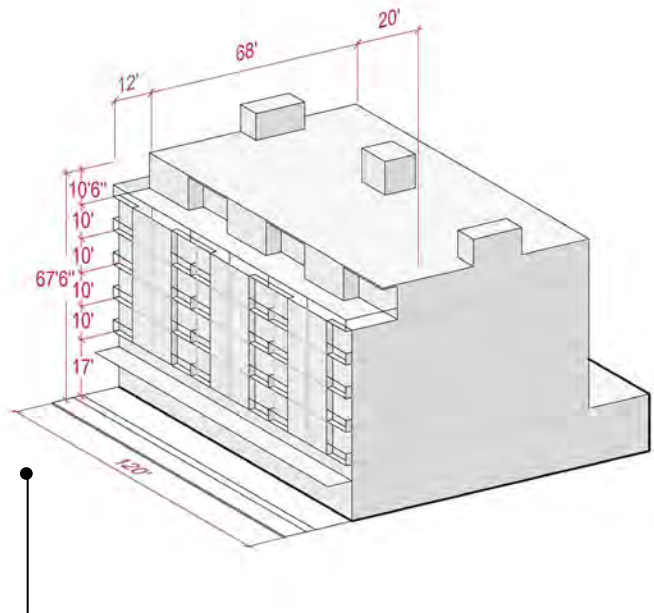
- An apartment or condominium housing product.
- Total lot size of 12,000 square feet.
- Underground parking is provided for some of the units.
- Considers adjacency to smaller Lowrise zones and similar or taller Midrise zones.
- Has street-level retail space.

## Existing NC-65

FAR maximum	4.75
Height limit	65 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

## NC-65 Prototype – Existing

Lot size	12,000 sq. ft.
Total allowed gross area	57,000 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	10,000 sq. ft.
Total net residential	37,600 sq. ft.
Total units	65
Average net unit size	575 sq. ft.
Parking spaces provided	underground



## Affordable Homes

### PERFORMANCE OPTION\* (+ commercial addition)

High MHA area (7%)	5.46 (+ .52) = 6 units
Medium MHA area (6%)	4.68 (+ .52) = 6 units
Low MHA area (5%)	3.90 (+ .52) = 5 units

### PAYMENT OPTION

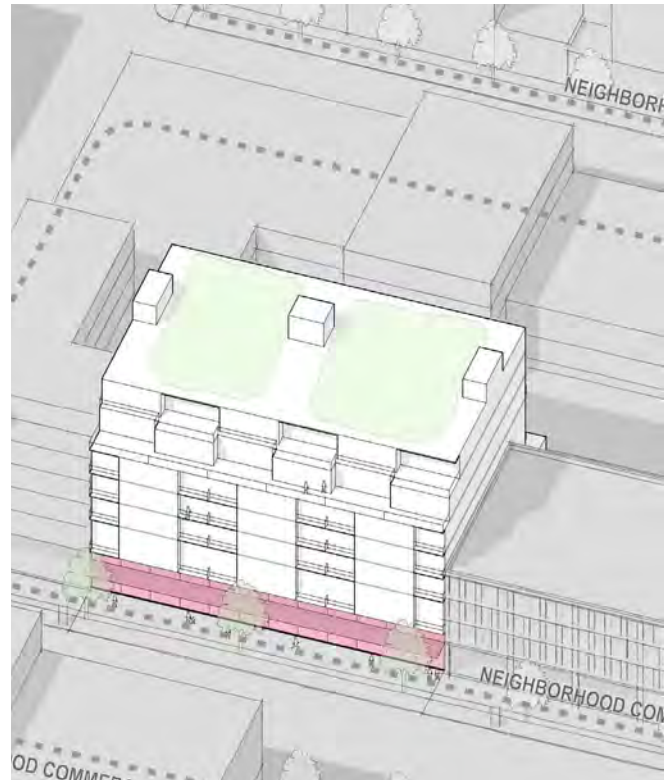
High MHA area (\$20.75/sq. ft.)	\$1,162k (+ \$48k) = \$1,210,000
Med MHA area (\$13.25/sq. ft.)	\$742k (+ \$42k) = \$784,000
Low MHA area (\$7/sq. ft.)	\$392k (+ \$30k) = \$422,000

## Proposed MHA NC-75

FAR maximum	5.5
Height limit	75 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Upper	Avg. depth of 10 feet, max. depth of 20 feet above 55 feet
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Façade modulation	Change of materials or a min. 18-inch-deep setback at a min. of every 50 feet
Parking	1 per unit; no minimum in urban villages

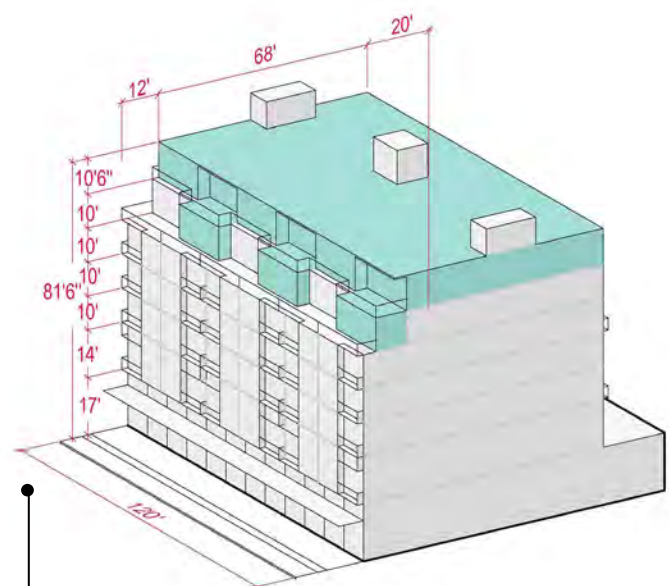
## NC-75 Prototype – MHA

Lot size	12,000 sq. ft.
Total allowed gross area	66,000 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	10,000 sq. ft.
Total net residential	44,800 sq. ft.
Total units	78
Average net unit size	575 sq. ft.
Parking spaces provided	underground



\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

The first 4,000 sf of ground floor commercial does not count towards MHA requirements



# Neighborhood Commercial 75 mixed-use | large site

## Prototype Description

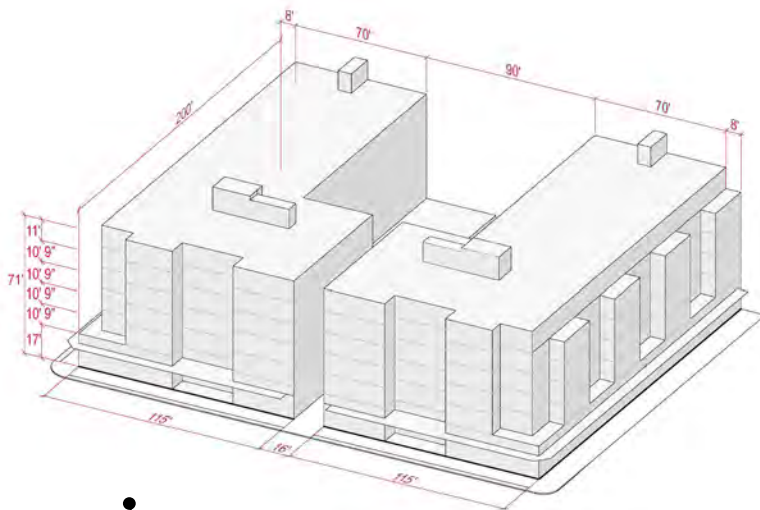
- An apartment or condominium housing product.
- Total lot size of 46,000 square feet.
- Underground parking provided for some of the units.
- Considers adjacency to smaller Lowrise zones and similar or taller zones.
- Explores a large site redevelopment

## Existing NC-65

FAR maximum	4.75
Height limit	65 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

## NC-65 Prototype – Existing

Lot size	46,000 sq. ft.
Total allowed gross area	218,500 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	40,000 sq. ft.
Total net residential	142,800 sq. ft.
Total units	201
Average net unit size	710 sq. ft.
Parking spaces provided	underground





## Affordable Homes

PERFORMANCE OPTION*	(+ commercial addition)
High MHA area (7%)	16.80 (+ 2.54) = 20 units
Medium MHA area (6%)	14.40 (+ 2.54) = 17 units
Low MHA area (5%)	12.00 (+ 2.54) = 15 units

### PAYMENT OPTION

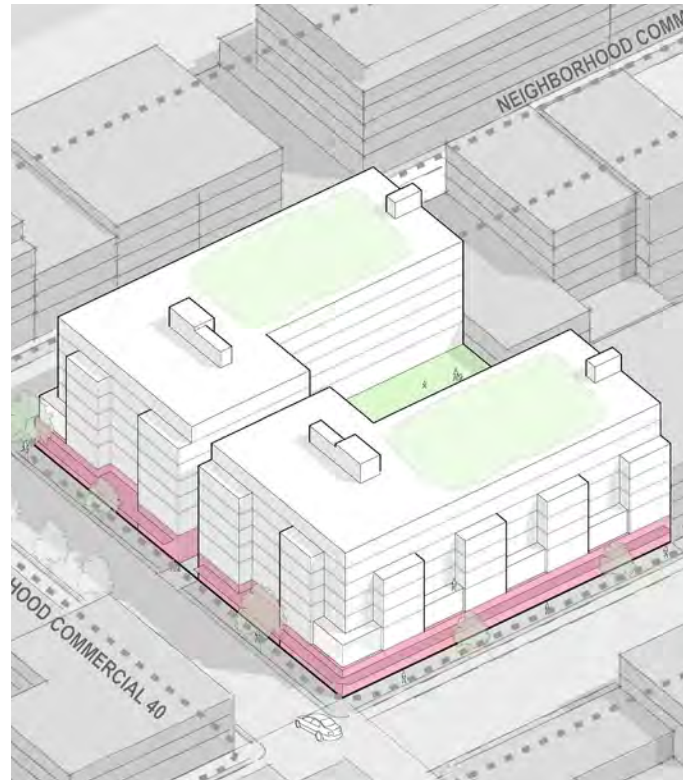
High MHA area (\$20.75/sq. ft.)	\$4,420k (+ \$288k) = \$4,708k
Med MHA area (\$13.25/sq. ft.)	\$2,822k (+ \$252k) = \$3,074k
Low MHA area (\$7/sq. ft.)	\$1,491k (+ \$180k) = \$1,671k

## Proposed MHA NC-75

FAR maximum	5.5
Height limit	75 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Upper	Avg. depth of 10 feet, max. depth of 20 feet above 55 feet
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Façade modulation	Change of materials or a min. 18-inch-deep setback at a min. of every 50 feet
Parking	1 per unit; no minimum in urban villages

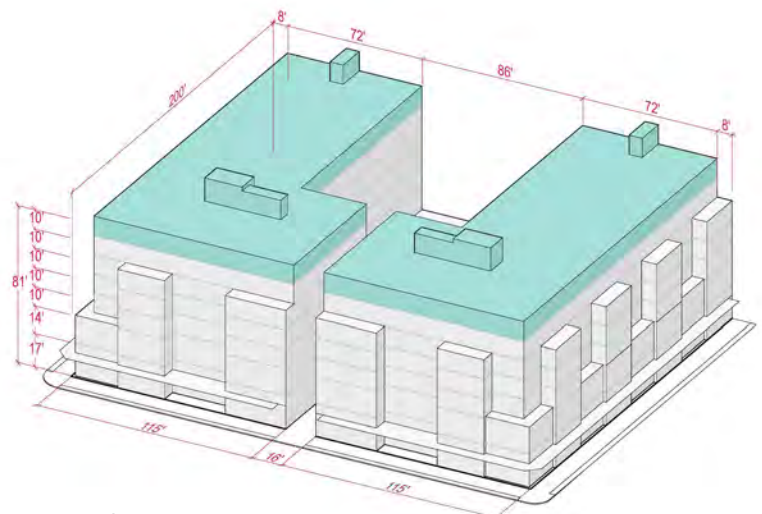
## NC-75 Prototype – MHA

Lot size	46,000 sq. ft.
Total allowed gross area	253,000 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	40,000 sq. ft.
Total net residential	170,400 sq. ft.
Total units	240
Average net unit size	710 sq. ft.
Parking spaces provided	underground



\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

The first 4,000 sf of ground floor commercial does not count towards MHA requirements



# Neighborhood Commercial 95 mixed-use | 5-over-3 construction

## Prototype Description

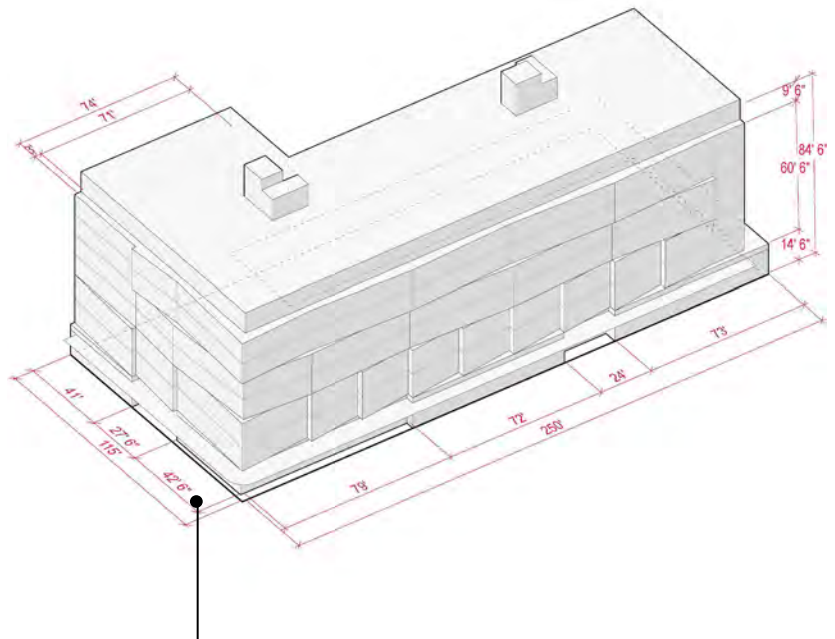
- An apartment or condominium housing product.
- Total lot size of 28,750 square feet.
- Underground parking provided for some of the units.
- Considers adjacency to smaller Lowrise zones and similar or taller Midrise zones.
- Reviews five stories of framed construction over three concrete levels.

## Existing NC-85

FAR maximum	4.5 for single use 6.0 for mixed-use
Height limit	85 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

## NC-85 Prototype – Existing

Lot size	28,750 sq. ft.
Total allowed gross area	172,500 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	43,125 sq. ft.
Total net residential	103,500 sq. ft.
Total units	95 (18 live/work)
Average net unit size	1,056 sq. ft.
Parking spaces provided	underground



## Affordable Homes

### PERFORMANCE OPTION\*

(+ commercial addition)

High MHA area (7%)	7.56 (+ 1.93) = 10 units
Medium MHA area (6%)	6.48 (+ 1.93) = 9 units
Low MHA area (5%)	5.40 (+ 1.93) = 8 units

### PAYMENT OPTION

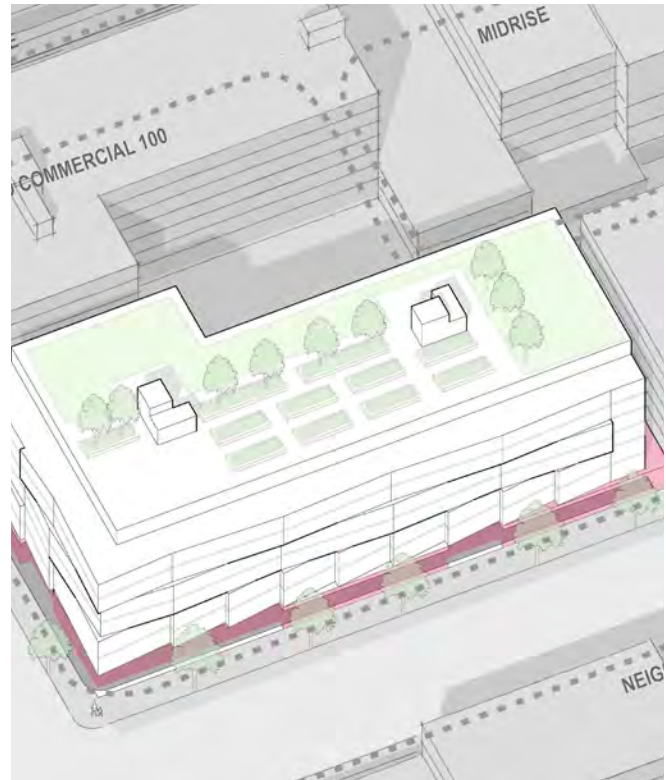
High MHA area (\$20.75/sq. ft.)	\$2,834k (+ \$313k) = \$3,147k
Med MHA area (\$13.25/sq. ft.)	\$1,809k (+ \$274k) = \$2,083k
Low MHA area (\$7/sq. ft.)	\$956k (+ \$196k) = \$1,152k

## Proposed MHA NC-95

FAR maximum	5.0 single use 6.25 mixed use
Height limit	95 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Upper	Avg. depth of 15 feet, max. depth of 25 feet above 75 feet
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Façade modulation	Change of materials or a min. 18-inch-deep setback at a min. of every 50 feet
Parking	1 per unit; no minimum in urban villages

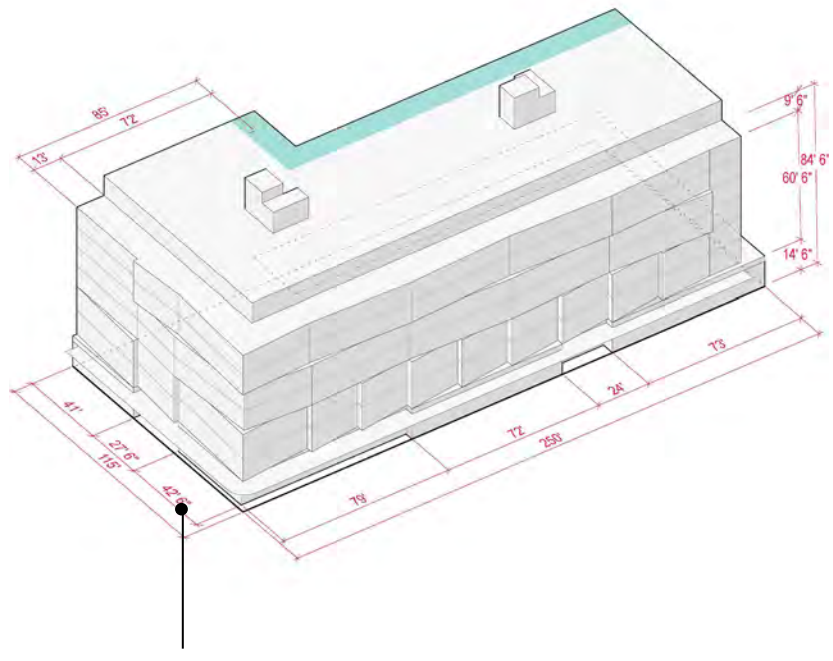
## NC-95 Prototype – MHA

Lot size	28,750 sq. ft.
Total allowed gross area	179,688 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	43,125 sq. ft.
Total net residential	109,250 sq. ft.
Total units	108 (18 live/work)
Average net unit size	1,012 sq. ft.
Parking spaces provided	underground



\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

The first 4,000 sf of ground floor commercial does not count towards MHA requirements



# Neighborhood Commercial 95 mixed-use 9-story highrise construction

## Prototype Description

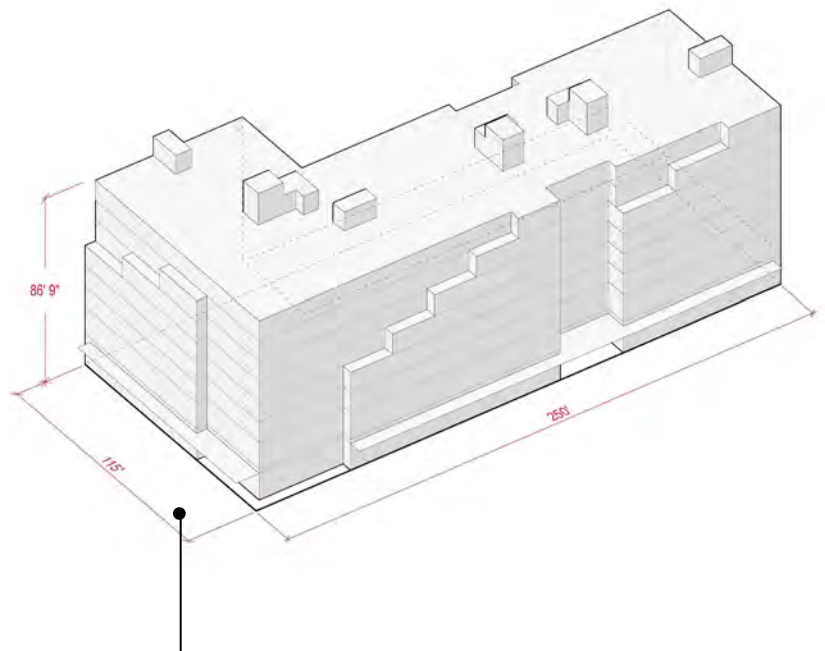
- An apartment or condominium housing product.
- Total lot size of 28,750 square feet.
- Underground parking provided for some of the units.
- Considers adjacency to smaller Lowrise zones and similar or taller Midrise zones.
- Reviews highrise concrete or steel construction

## Existing NC-85

FAR maximum	4.5 for single use 6.0 for mixed-use
Height limit	85 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Parking	1 per unit; no minimum in urban villages

## NC-85 Prototype – Existing

Lot size	28,750 sq. ft.
Total allowed gross area	172,500 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	43,125 sq. ft.
Total net residential	103,500 sq. ft.
Total units	116 (10 live/work)
Average net unit size	819 sq. ft.
Parking spaces provided	underground





## Affordable Homes

### PERFORMANCE OPTION\*

(+ commercial addition)

High MHA area (7%)	8.82 (+ 3.45) = 13 units
Medium MHA area (6%)	7.56 (+ 3.45) = 12 units
Low MHA area (5%)	6.30 (+ 3.45) = 10 units

### PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$2,536k (+ \$428k) = \$2,964k
Med MHA area (\$13.25/sq. ft.)	\$1,619k (+ \$375k) = \$1,994k
Low MHA area (\$7/sq. ft.)	\$855k (+ \$268k) = \$1,123k

## Proposed MHA NC-95

FAR maximum	5.0 single use 6.25 mixed use
Height limit	95 feet
Setbacks	
Front	First floor dwellings must be 4 feet above or 10 feet back from street
Upper	Avg. depth of 15 feet, max. depth of 25 feet above 75 feet
Rear	10 feet if next to residential zone
Sides	15 feet if next to residential zone
Façade modulation	Change of materials or a min. 18-inch-deep setback at a min. of every 50 feet
Parking	1 per unit; no minimum in urban villages

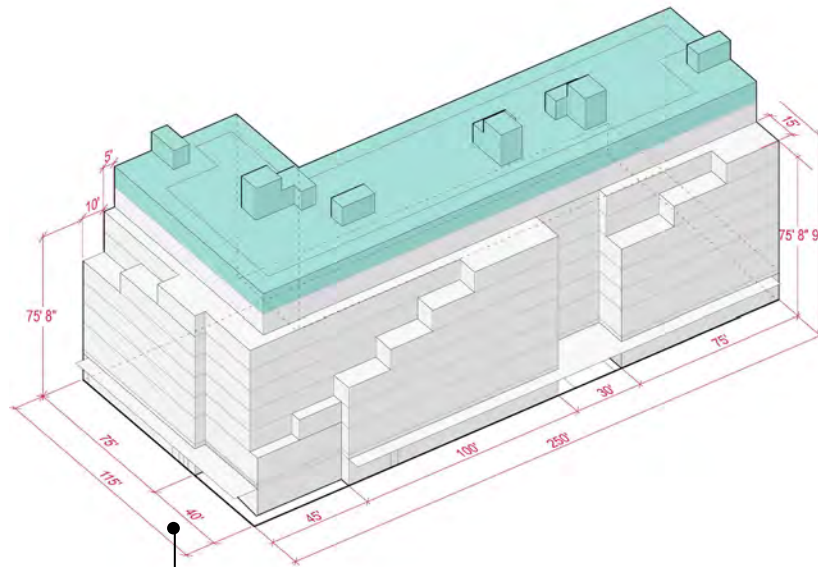
## NC-95 Prototype – MHA

Lot size	28,750 sq. ft.
Total allowed gross area	179,688 sq. ft.
Efficiency factor	0.8
Ground-floor commercial	57,500 sq. ft.
Total net residential	97,750 sq. ft.
Total units	126 (10 live/work)
Average net unit size	776 sq. ft.
Parking spaces provided	underground



\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

The first 4,000 sf of ground floor commercial does not count towards MHA requirements





# NC Zone - Urban Design and Neighborhood Character

## Livability Benefits

- Street-facing upper-level setback standards are added, ensuring light and air access at the street level, and mitigating the impact of additional height.
- Minimum façade modulation requirements encourage varied building design and greater façade interest.
- A maximum building façade width is added to ensure human scale of buildings.
- In some zones, the additional allowed height will result in more varied and modulated building masses and forms (e.g., NC-40 and NC-55 zones).
- An option for a highrise building form in the NC-95 zone would result in more livable units with higher ceiling-to-ceiling heights and larger windows.



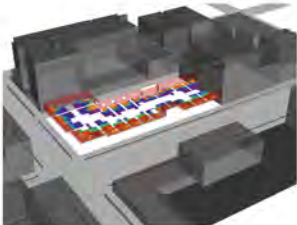
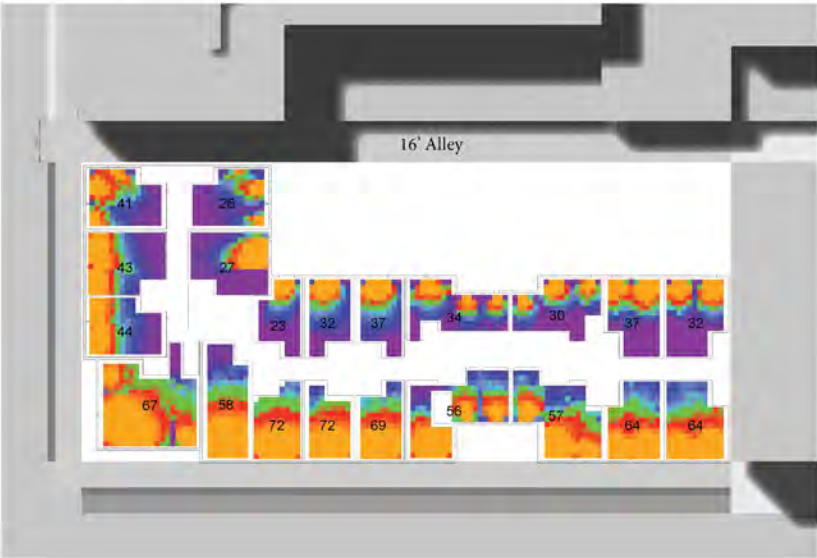
Minimum façade modulation requirements are added to encourage varied building design and greater façade interest as illustrated in the NC-95 zone.

Buildings in the NC-95 zone with higher ceiling-to-ceiling heights and larger windows allow improved daylight conditions in units.

Overall this configuration enjoys livability benefits of high rise construction. The building massing is more slender and provides more modulation than a non high-rise construction in the same zone.

HALA DAYLIGHT STUDY

E Level 2  
Wall Height: 12'-0"



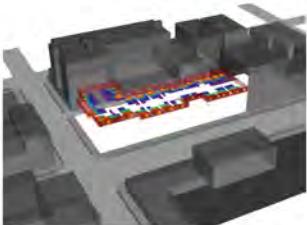
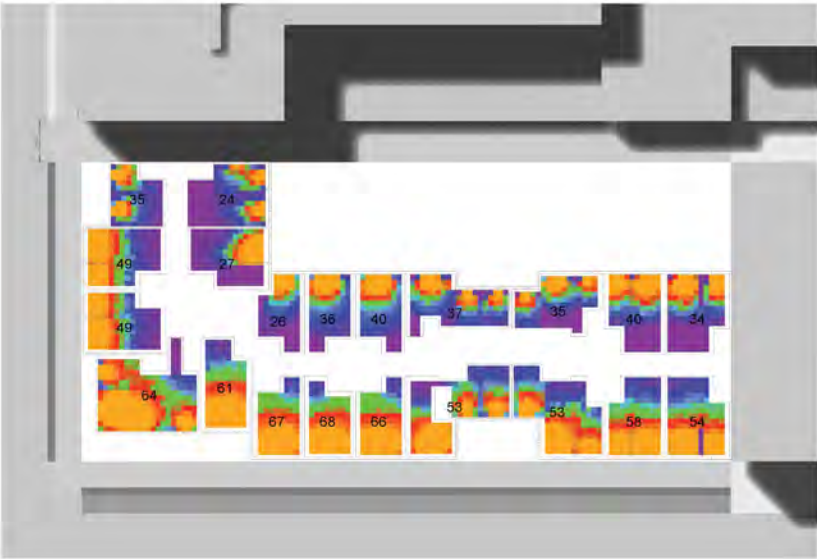
Study Assumptions:  
Windows are located in every habitable room. Window area is calculated at the code minimum of 8% of the habitable floor area

0% 100%

Daylight Autonomy:  
Percent of annual hours 8:00am - 6:00pm that exceeds 100 lux at 30" AFF

HALA DAYLIGHT STUDY

E Level 4  
Wall Height: 9'-0"



Study Assumptions:  
Windows are located in every habitable room. Window area is calculated at the code minimum of 8% of the habitable floor area

0% 100%

Daylight Autonomy:  
Percent of annual hours 8:00am - 6:00pm that exceeds 100 lux at 30" AFF



Proposed standards for the NC-40 zone supports a day care center among other amenities. FAR maximums relative to height limits support more open space in NC zones.



Neighborhood Commercial storefronts enhance the pedestrian experience.



## Proposed Development and Urban Design Standards

The table below summarizes other proposed or modified development standards intended to improve an urban design outcome and improve livability with new development in the zone.

Issue / Intent	Lowrise Zone	Proposed / Modified Development Standard
Increase design flexibility and provide opportunity for increased housing production. Discourage production of ineffective street level retail space.	NC-40 NC-55 NC-75	<ul style="list-style-type: none"> <li>Remove the use-based maximum FAR limits, so a single total maximum allowed FAR is provided.</li> </ul>
Ensure light and air access to public rights of way, and compatibility of street facing building scale, as height limits are increased.	NC-55 NC-75 NC-95	<ul style="list-style-type: none"> <li>In the NC-55 zone add a 5' average depth upper level setback at a height of 45'. the maximum setback depth is 15' for purposes of setback calculation.</li> <li>In the NC-75 zone add a 10' average depth upper level setback at a height of 55'. The maximum setback depth is 20' for purposes of setback calculation.</li> <li>In the NC-95 zone add a 15' average depth upper level setback at a height of 75'. The maximum setback depth is 25' for purposes of setback calculation.</li> </ul>
Encourage human scaled buildings, and compatibility of infill development with context.	NC-75 NC-95	<ul style="list-style-type: none"> <li>Require a break in building massing or pass-through, by adding a maximum building width standard of 240'.</li> </ul>
Encourage design interest and human scale in large scale building facades.	NC-55 NC-75 NC-95	<ul style="list-style-type: none"> <li>Provide facade modulation with minimum depth of 18", or change in material, texture, or color, at every 50' of facade width.</li> </ul>
Encourage effective street level retail spaces	NC-30 NC-40	<ul style="list-style-type: none"> <li>Retain an additional 4' height allowance for buildings that provide tall ground floor commercial spaces of at least 13'.</li> </ul>

# Midrise (MR)

## Community Input

In general, the height limit and floor area increases are incremental and a good tradeoff for the affordable housing requirement.

- Incorporate open spaces and courtyards where possible.
- Consider the Midrise zone in more locations that are very close to frequent transit hubs.
- Encourage a variety of housing sizes.

## Zoning Prototypes

The following pages discuss the three apartment prototypes in the Midrise zone on small and large sites.



Apartments  
small site  
additional height



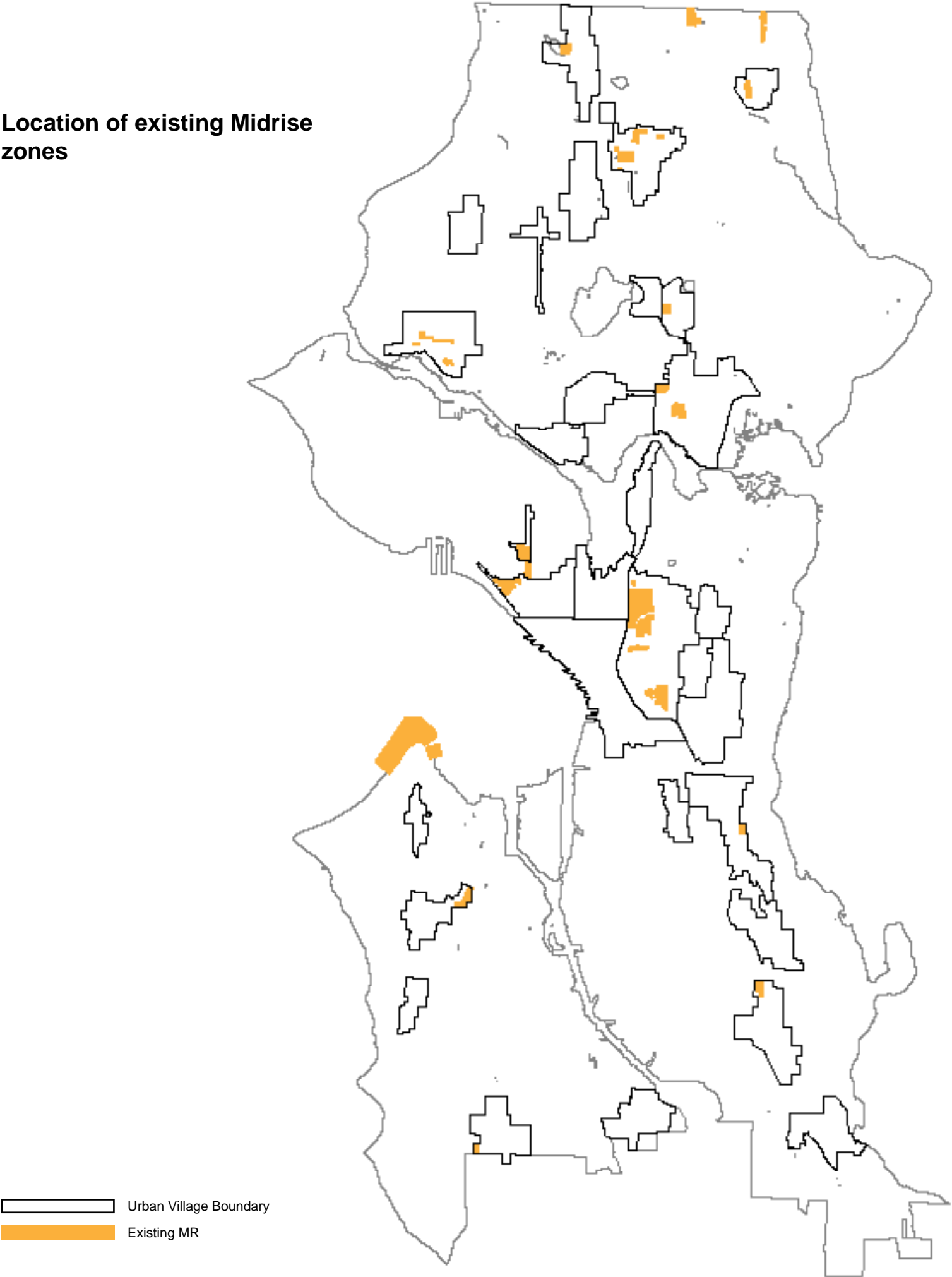
Apartments  
small site  
additional depth



Apartments  
large site



**Location of existing Midrise zones**



# MIDRISE

## rental apartments | additional depth

### Prototype Description

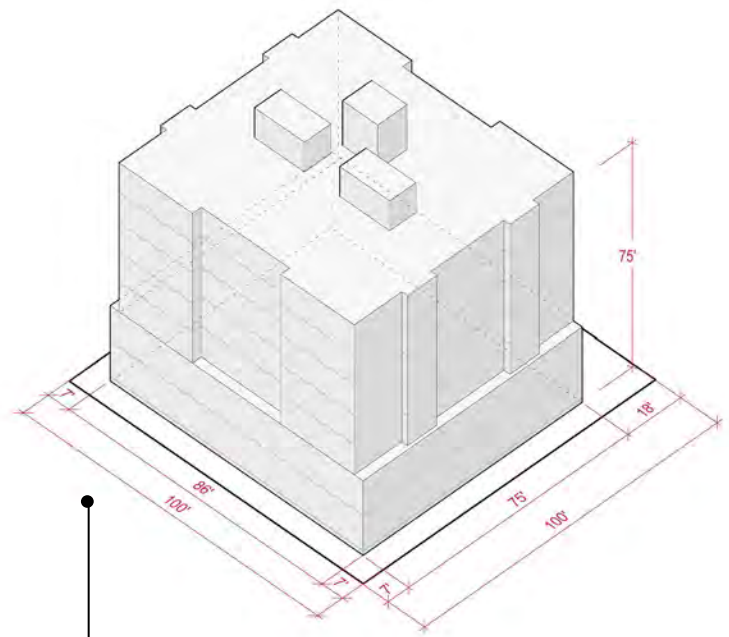
- An apartment or condominium housing product.
- Total lot size of 10,000 square feet.
- Underground parking is provided for some of the units.
- Considers adjacency to smaller Lowrise zones and similar or smaller Neighborhood Commercial zones.
- Additional floor area is achieved by greater building depth in a 7-story product.

### Existing MR

FAR maximum	3.2 base 4.25 bonus
Height limit	60 feet base 75 feet bonus
Setbacks	
Front	5 feet minimum 0 feet if courtyard
Rear	10 feet with alley 15 feet without alley
Sides	<42 ft.: 5 ft. min/7 ft. avg >42ft.: 7 ft. min
Max. depth	75% of lot depth
Parking	1 per unit; no minimum in urban villages

### MR Prototype – Existing

Lot size	10,000 sq. ft.
Total allowed gross area	42,500 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	34,000 sq. ft.
Total units	56
Average net unit size	607 sq. ft.
Parking spaces provided	underground



Affordable Homes

PERFORMANCE OPTION\*

High MHA area (7%)	4.90 = 5 units
Medium MHA area (6%)	4.20 = 5 units
Low MHA area (5%)	3.50 = 4 units

PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$934,000
Med MHA area (\$13.25/sq. ft.)	\$596,000
Low MHA area (\$7/sq. ft.)	\$315,000

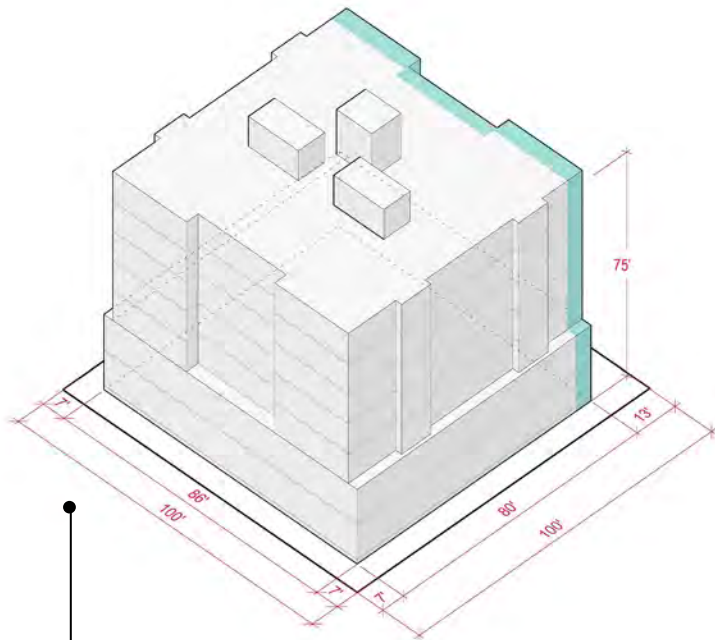
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

Proposed MHA MR

FAR maximum	4.5
Height limit	80 feet
Setbacks	
Front	5 feet minimum 0 feet if courtyard
Upper	Above 70 feet: 15 feet (front and rear) 5 feet (sides)
Rear	10 feet with alley 15 feet without alley
Sides	<42 ft.: 5 ft. min/7 ft. avg >42ft.: 7 ft. min
Max. depth	80% of lot depth
Parking	1 per unit; no minimum in urban villages

MR Prototype – Proposed

Lot size	10,000 sq. ft.
Total allowed gross area	45,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	36,000 sq. ft.
Total units	70
Average net unit size	514 sq. ft.
Parking spaces provided	underground



# MIDRISE

## rental apartments | additional height

### Prototype Description

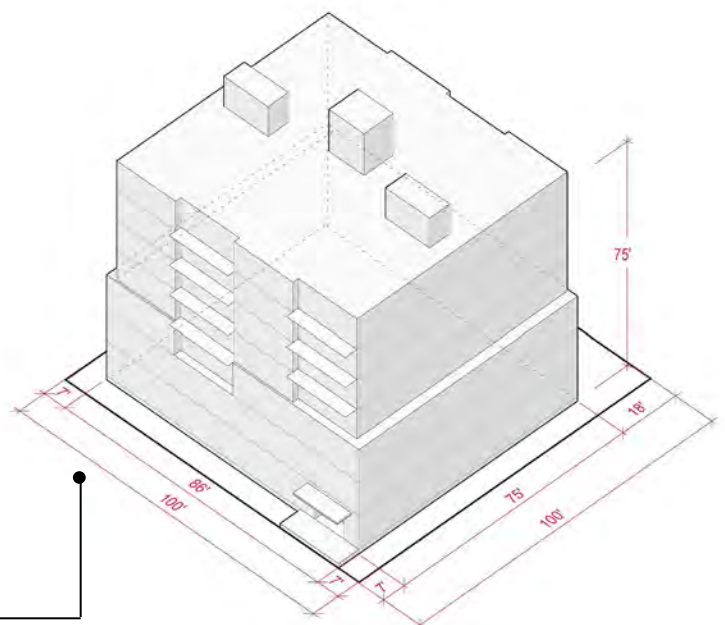
- An apartment or condominium housing product.
- Total lot size of 10,000 square feet.
- Underground parking is provided for some of the units.
- Considers adjacency to smaller Lowrise zones and similar or smaller Neighborhood Commercial zones.
- Greater building variation is achieved by greater building height in a 8-story product.

### Existing MR

FAR maximum	3.2 base 4.25 bonus
Height limit	60 feet base 75 feet bonus
Setbacks	
Front	5 feet minimum 0 feet if courtyard
Rear	10 feet with alley 15 feet without alley
Sides	<42 ft.: 5 ft. min/7 ft. avg >42ft.: 7 ft. min
Max. depth	75% of lot depth
Parking	1 per unit; no minimum in urban villages

### MR Prototype – Existing

Lot size	10,000 sq. ft.
Total allowed gross area	42,500 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	34,000 sq. ft.
Total units	56
Average net unit size	607 sq. ft.
Parking spaces provided	underground



Affordable Homes

PERFORMANCE OPTION\*

High MHA area (7%)	4.20 = 5 units
Medium MHA area (6%)	3.60 = 5 units
Low MHA area (5%)	3.00 = 3 units

PAYMENT OPTION

High MHA area (\$ 20.75/sq. ft.)	\$934,000
Med MHA area (\$13.25/sq. ft.)	\$596,000
Low MHA area (\$7/sq. ft.)	\$315,000

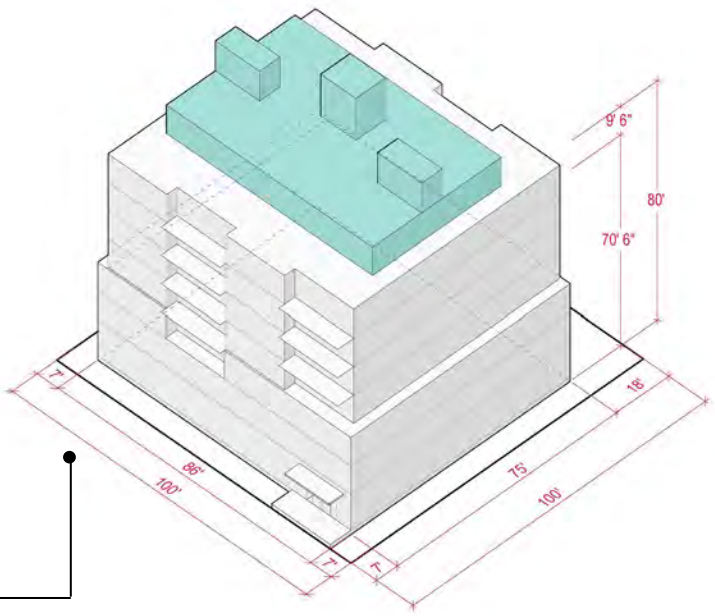
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

Proposed MHA MR

FAR maximum	4.5
Height limit	80 feet
Setbacks	
Front	5 feet minimum 0 feet if courtyard
Upper	Above 70 feet: 15 feet (front and rear) 5 feet (sides)
Rear	10 feet with alley 15 feet without alley
Sides	<42 ft.: 5 ft. min/7 ft. avg >42ft.: 7 ft. min
Max. depth	80% of lot depth
Parking	1 per unit; no minimum in urban villages

MR Prototype – Proposed

Lot size	10,000 sq. ft.
Total allowed gross area	45,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	36,000 sq. ft.
Total units	60
Average net unit size	600 sq. ft.
Parking spaces provided	underground





# MIDRISE

## rental apartments | large infill site

### Prototype Description

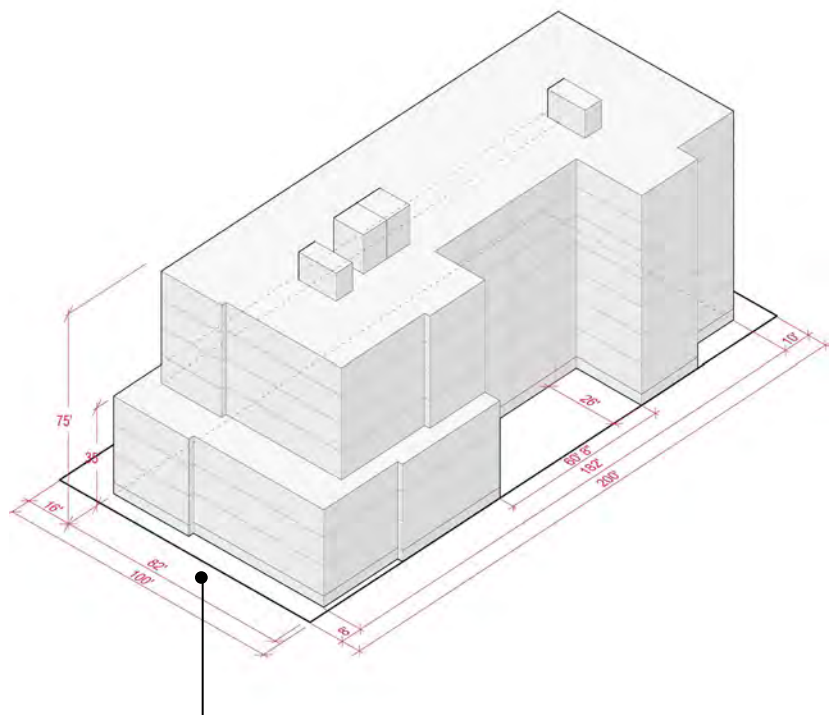
- An apartment or condominium housing product.
- Total lot size of 20,000 square feet.
- Underground parking is provided for some of the units.
- Considers adjacency to smaller Lowrise zones and similar or smaller Neighborhood Commercial zones.
- Explores a courtyard condition

### Existing Midrise

FAR maximum	3.2 base 4.25 bonus
Height limit	60 feet base 75 feet bonus
Setbacks	
Front	5 feet minimum 0 feet if courtyard
Rear	10 feet with alley 15 feet without alley
Sides	<42 ft.: 5 ft. min/7 ft. avg >42ft.: 7 ft. min
Max. depth	75% of lot depth
Parking	1 per unit; no minimum in urban villages

### Midrise Prototype –

Lot size	20,000 sq. ft.
Total allowed gross area	85,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	68,000 sq. ft.
Area below grade	5,000 sq. ft.
Total units	122
Average net unit size	598 sq. ft.
Parking spaces provided	underground



Affordable Homes

PERFORMANCE OPTION\*

High MHA area (7%)	8.82 = 9 units
Medium MHA area (6%)	7.56 = 8 units
Low MHA area (5%)	6.30 = 7 units

PAYMENT OPTION

High MHA area (\$20.75/sq. ft.)	\$1,971,000
Med MHA area (\$13.25/sq. ft.)	\$1,259,000
Low MHA area (\$7/sq. ft.)	\$665,000

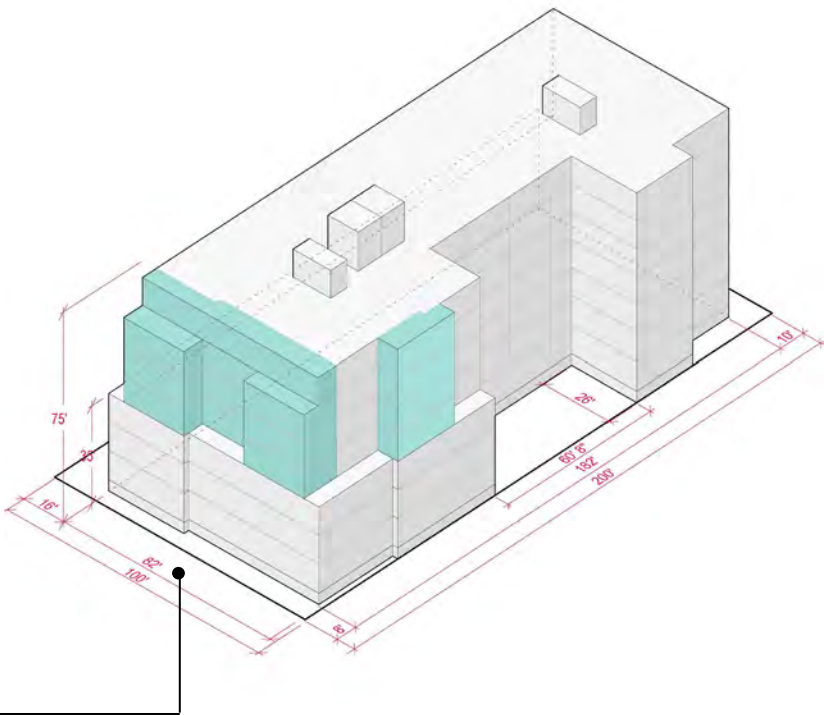
\* If rounding down to provide affordable performance unit, developer must pay for the fraction they are rounding off as payment housing.

Proposed MHA

FAR maximum	4.5
Height limit	80 feet
Setbacks	
Front	5 feet minimum 0 feet if courtyard
Upper	Above 70 feet: 15 feet (front and rear) 5 feet (sides)
Rear	10 feet with alley 15 feet without alley
Sides	<42 ft.: 5 ft. min/7 ft. avg >42ft.: 7 ft. min
Max. depth	80% of lot depth
Parking	1 per unit; no minimum in urban villages

Midrise Prototype – MHA

Lot size	20,000 sq. ft.
Total allowed gross area	90,000 sq. ft.
Efficiency factor	0.8
Total net sq. ft.	72,000 sq. ft.
Total units	126
Average net unit size	611 sq. ft.
Parking spaces provided	underground



# MR Zone - Urban Design and Neighborhood Character

## Livability Benefits

- Midrise zones provide for infill housing opportunities in locations with the best access to transit and services.
- Courtyard design and open space standards provide amenities for residents of the housing units.



As one of the most densest residential prototypes, Midrise zones have development standards requiring separation in the building mass to reduce the overall bulk of structures.



## Proposed Development and Urban Design Standards

Issue	Proposed / Modified Development Standard
Increase design flexibility and provide opportunity for increased housing production.	<ul style="list-style-type: none"> <li>To allow flexibility to achieve more housing, the maximum lot depth limit increases from 75% to 80% and the maximum height limit increases from 75' to 80' to allow variation in building form</li> </ul>
Provide usable open space amenities for residents.	<ul style="list-style-type: none"> <li>Standards for a courtyard housing option are retained.</li> </ul>
Ensure light and air access to public rights of way, and compatibility of street facing building scale, as height limits are increased.	<ul style="list-style-type: none"> <li>A new upper-level setback standard reduces the impact of the additional story on access to light at street level and in open spaces.</li> </ul>



MHA would retain standards for a courtyard housing option.

# Other Zones

## Limited Application outside of Downtown and South Lake Union

Several zones outside of Downtown and South Lake Union apply only in limited locations. These zones primarily allow highrise development, uncommon today in most of the study locations. We aren't proposing to expand where highrise development can occur as part of MHA. A few of these zones with limited locations outside of Downtown and South Lake Union are areas that have undergone a recent specific planning effort, such as the blocks around the Mt Baker Light Rail station.

Additional modeling and analysis of development capacity increases in these zones will be provided. The table below summarizes the draft proposed development capacity for the zones not included in the prototypes above.



No new highrise zones are proposed as part of MHA.



Existing Zone	Proposed Zone	Existing Development Standard	Proposed Capacity Increase
Highrise (HR)	Highrise (HR)	<ul style="list-style-type: none"> <li>Maximum FAR (with bonuses) for buildings 240' and less: 13</li> <li>Maximum FAR (with bonuses) for buildings over 240': 14</li> <li>Maximum Height: 300 feet</li> </ul>	<ul style="list-style-type: none"> <li>Maximum FAR (with bonuses) buildings 240' and less: 14</li> <li>Maximum FAR (with bonuses) buildings over 240': 15</li> <li>Maximum Height: 340 feet</li> </ul>
NC-125	NC-145	<ul style="list-style-type: none"> <li>Maximum FAR single use: 5</li> <li>Maximum FAR all uses: 6</li> <li>Height Limit: 125 feet</li> </ul>	<ul style="list-style-type: none"> <li>Maximum FAR single use: 6</li> <li>Maximum FAR all uses: 7</li> <li>Height Limit: 145 feet</li> </ul>
NC-160	NC-200	<ul style="list-style-type: none"> <li>Maximum FAR single use: 5</li> <li>Maximum FAR all uses: 7</li> <li>Height limit: 160 feet</li> </ul>	<ul style="list-style-type: none"> <li>Maximum FAR single use: 6.5</li> <li>Maximum FAR all uses: 8.25</li> <li>Height limit: 200 feet</li> </ul>
All Industrial Commercial Zones (IC)	IC	<ul style="list-style-type: none"> <li>Maximum FAR: 2.5</li> </ul>	<ul style="list-style-type: none"> <li>Maximum FAR: 2.75</li> </ul>

#### Seattle Mixed - North Rainier Zones (SM-NR)

SM-NR 65	SM-NR 75	<ul style="list-style-type: none"> <li>Maximum FAR (with bonus): 5.0</li> <li>Height Limit: 65 feet</li> </ul>	<ul style="list-style-type: none"> <li>Maximum FAR: 5.25</li> <li>Height Limit: 75 feet</li> </ul>
SM-NR 55/75	SM-NR 55/85	<ul style="list-style-type: none"> <li>Maximum FAR (with bonus): no limit</li> <li>Residential Height Limit (with bonus): 75 feet</li> </ul>	<ul style="list-style-type: none"> <li>Maximum FAR: no limit</li> <li>Residential Height Limit: 85 feet</li> </ul>
SM-NR 85	SM-NR 95	<ul style="list-style-type: none"> <li>Maximum FAR (with bonus): 6.0</li> <li>Height Limit: 85 feet</li> </ul>	<ul style="list-style-type: none"> <li>Maximum FAR: 6.25</li> <li>Height Limit: 95 feet</li> </ul>
SM-NR 125	SM-NR 145	<ul style="list-style-type: none"> <li>Maximum FAR (with bonus): 8.0</li> <li>Height Limit: 125 feet</li> </ul>	<ul style="list-style-type: none"> <li>Maximum FAR: 8.25</li> <li>Height Limit: 145 feet</li> </ul>

#### Seattle Mixed Dravus Zone (SM-D)

This zone does not have maximum FAR controls. The height limit and other dimensional standards govern the amount of development that can occur on a lot.

SM-D 40-85	SM-D 95	<ul style="list-style-type: none"> <li>Maximum height (with bonus): 85 feet</li> </ul>	<ul style="list-style-type: none"> <li>Maximum height: 95 feet</li> </ul>
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# Overlay Zones

## Addressing Overlay Zones

An overlay zone designation applies as a layer in addition to a base zoning designation. Overlay zones address conditions unique to an area or set of issues. Examples include Station Area Overlay Zones near light rail stations, or the Stadium Transition Area Overlay District near by the professional sports stadiums.

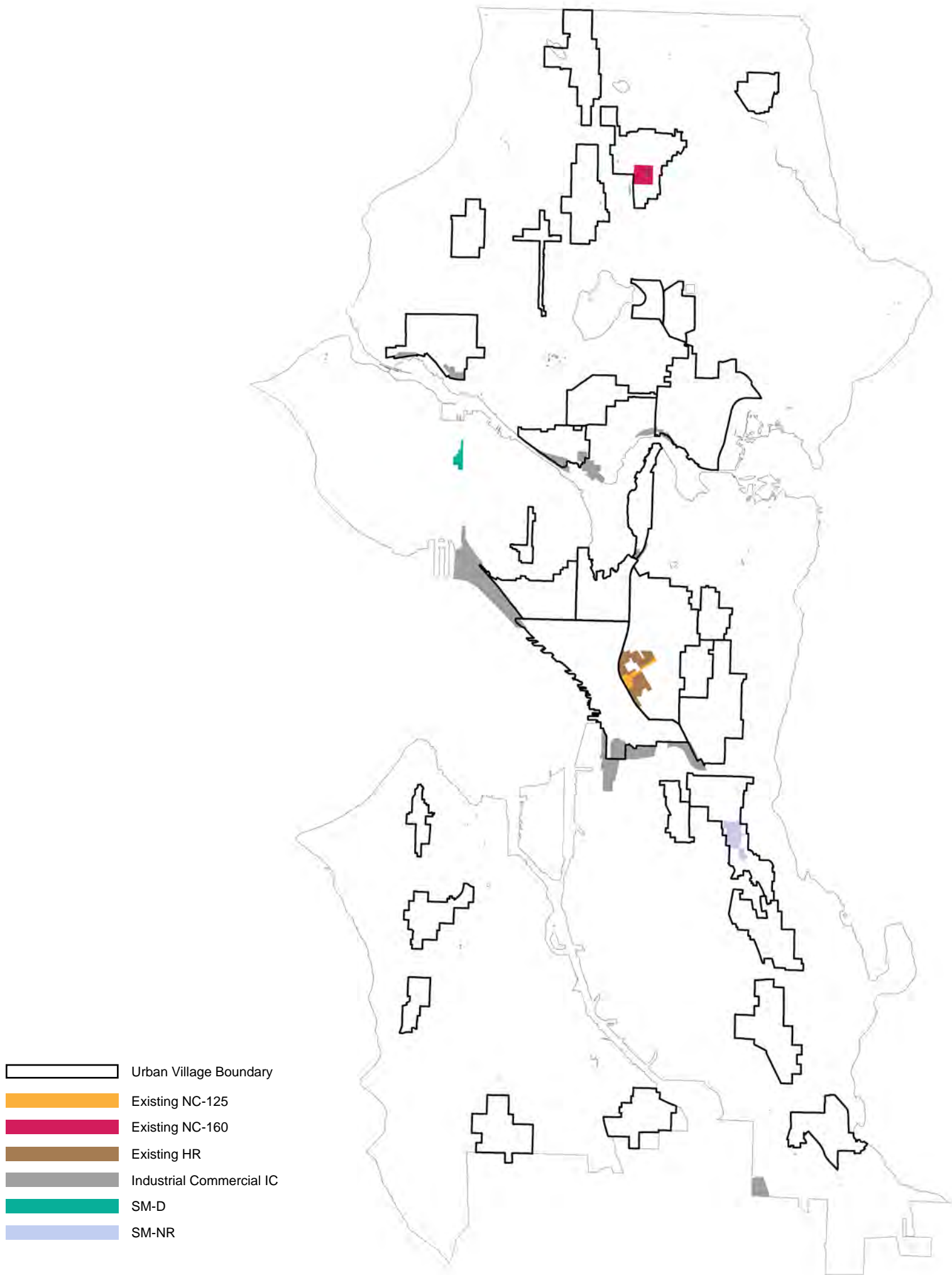
Since some overlay zones modify base developments standards such as the FAR limit, it is necessary to consider how increases in development capacity to implement MHA would be applied to overlay zones. Additional modeling and analysis of development capacity increases in overlay zones will be provided. The table at right summarizes the draft proposed development capacity increases for overlay zones.

## FAR Requirements in the Station Area Overlay District

	Existing FAR	Proposed MHA FAR
NC-40 (Currently NC-30)	3	3.25 <sup>1</sup>
NC-55 (Currently NC-40)	4	4.25 <sup>1</sup>
NC-75 (Currently NC-65)	5.75	6 <sup>1</sup>
NC-95 (Currently NC-85)	6	6.25 <sup>1</sup>
NC-145 (Currently NC-125)	6	7
NC-200 (Currently NC-160)	7	8.25

<sup>1</sup> In these zones, existing development capacity is generally limited by height rather than FAR so additional development capacity is primarily provided through additional height.

Name	Description	Proposal
Shoreline District	The Shoreline District applies to properties within 200 feet of the shorelines of Puget Sound, Lake Washington, and the Duwamish River. Properties in this district are generally subject to additional restrictions on height and building location under state and local regulations.	Most properties within the shoreline district would not receive additional development capacity and will be exempt from MHA due to the constraints of Shoreline District regulations and the City's policy to limit development adjacent to environmentally sensitive areas. However, properties that are within the shoreline district but are separated from the shoreline by a street or other right-of-way will receive additional capacity and be subject to MHA.
Historic Districts	The City has eight designated historic districts. Development in these areas is subject to additional review and requirements.	City-designated historic districts would not receive additional development capacity and will be exempt from MHA.
Pike/Pine	Properties in this area can achieve one additional floor of residential development if they meet certain requirements to retain existing buildings or to provide spaces for small businesses and arts facilities. Properties may also sell development rights to preserve existing character buildings.	This area would receive additional development capacity and be subject to MHA. Properties would continue to be able to achieve one extra floor above the height limit through the incentive program.
Major Institution Overlay Districts	These districts are areas where a major institution, such as a large hospital or university, has developed a major institution master plan. These plans must be approved by City Council, but provide tailored development standards that account for the unique needs and plans of the institution.	These areas would receive additional development capacity and be subject to MHA. Institutional uses are not subject to MHA, but commercial and residential development in these areas would contribute to affordable housing. Major Institutional Master Plans that allow additional development beyond the underlying zoning would not be changed.
Stadium Transition Area Overlay District	Development in this district is subject to additional requirements for parking and design, but is also subject to a higher floor area ratio.	Development in this district would receive the same amount of additional capacity as similar zones outside the district.
Station Area Overlay Districts	Development in this district is subject to additional land use and design requirements, but is also subject to a higher floor area ratio.	Development in this district would receive additional development capacity as shown in the table following this chart.
Northgate Overlay District	The purpose of the Northgate Overlay District is to: Create an environment that is more amenable to pedestrians and supportive of commercial development; protect the residential character of residential neighborhoods; and support Northgate as a regional high-capacity transportation center.	The area will receive additional development capacity through the capacity increase to the underlying MHA zones. Design and development standards specific to Northgate including: street level uses, parking location and screening etc. will be retained. Development standards at SMC 23.71.040 that limit housing production with Northgate Specific density limits will be removed.









HOUSING AFFORDABILITY  
AND LIVABILITY AGENDA



# APPENDIX G



## TECHNICAL MEMORANDUM: MHA EIS GROWTH ESTIMATES.

### OVERVIEW

The Mandatory Housing Affordability (MHA) Environmental Impact Statement (EIS) includes an estimate for each EIS alternative of potential residential and commercial growth that could occur and its distribution across the city. The EIS will compare environmental impacts from additional growth in the Action and No Action Alternatives. Because we don't know with certainty the amount and location of future development that will occur over a 20-year study time horizon, we developed estimates using a model that considers several variables, including the following key factors:

- The formally adopted Seattle 2035 Comprehensive Plan housing and job growth estimates citywide and in each urban village;
- The increment of land use change resulting from a specific parcel-based citywide zoning proposal for each alternative;
- Unique baseline conditions in each urban village (e.g., the existing proportions of multifamily and commercially zoned lands);
- The specific parcels most likely to redevelop considering their existing development; and
- Relative market strength in different geographic areas of the city.

This technical memo describes the modelling method and provides information about the assumptions. At a high level, the model involves the following steps for the EIS study area<sup>1</sup>:

1. Identify the Seattle 2035 growth estimates for Seattle and each urban village in the study area.
2. Create a unique zoning map for each EIS action alternative.

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<sup>1</sup> See Exhibit 2–1 on page 2.3 for a map of the EIS study area.

3. Identify the parcels where redevelopment could potentially occur in the future.
4. Calculate the increase in development capacity for urban villages between existing zoning and the EIS action alternative zoning maps.
5. Estimate overall housing and job growth for urban villages under each EIS alternative.
6. Estimate MHA affordable housing production for urban villages based on the alternative growth estimates.
7. Assign the urban village housing and job growth estimates to parcel locations.

## SEATTLE 2035 GROWTH ESTIMATES

To estimate potential growth under each EIS alternative, we began with the minimum estimates for future housing and job growth in each urban village in the [Seattle 2035 Comprehensive Plan](#). Adopted in 2016, these 20-year growth estimates are based on statewide population forecasts from the Washington State Office of Financial Management (OFM) and reflect policy guidance from regional and countywide growth management plans. By 2035, Seattle's comprehensive plan anticipates growth of 120,000 new residents, 70,000 net new housing units, and 115,000 jobs. The urban village growth estimates in Seattle 2035 represent the minimum growth the City must plan for and identify a distribution of those new housing units and jobs throughout the city. As part of the Seattle 2035 planning process, the City also conducted a sensitivity analysis that considered growth of 100,000 net new housing units. These adopted growth estimates are the product of extensive review, including formal adoption by the Seattle City Council and approval by the Washington State Department of Commerce.

The Seattle 2035 growth estimates consider several factors, including land use constraints in urban villages, the proportion of growth expected for different types of urban villages, physical factors such as transportation infrastructure, and historical growth patterns. The EIS model incorporates the amount and location of housing and job growth estimated in Seattle 2035 but adjusts the comprehensive plan estimates upward to acknowledge the possibility of additional growth resulting from zoning changes to implement MHA. By building on the comprehensive plan growth estimates, the many assumptions and analyses that informed the Seattle 2035 planning process are integrated into the estimation of additional growth due to MHA implementation.

## MHA ZONING MAPS FOR EIS ALTERNATIVES

For each action alternative in the MHA EIS, we developed a specific zoning proposal. Using GIS, we created a citywide zoning map for all parcels in the study area in Alternative 2 and Alternative 3 showing specific zoning changes to implement MHA. (See Chapter 2 for a full discussion of the EIS alternatives and how they vary.) Each alternative's map identifies the zoning designation and parcel square footage for all specific zoning changes where MHA requirements would apply.

## IDENTIFY POTENTIAL REDEVELOPMENT PARCELS

To estimate growth under each EIS alternative, we need to know where development could theoretically occur in the future. To identify these places, we used the City's analytical model that estimates development capacity citywide and in designated urban villages. Development capacity is an estimate of how much new development could occur theoretically over an unlimited time period. It represents the difference between the buildings and uses that exist today and the likely amount that could be built according to zoning regulations.

The City's development capacity model follows a method used by all jurisdictions in King County. First, the model identifies which vacant and underdeveloped parcels could be available for development.

Second, the model estimates the type of development likely to occur on that parcel based on zoning. Lastly, the model calculates the difference between potential and existing development. The analysis uses several specific assumptions about development in Seattle's various zones to identify the parcels considered likely to redevelop. We outline the most salient assumptions below. For a full discussion of methods and assumptions, see [Appendix 2 in this Development Capacity report](#).

1. To identify underdeveloped parcels that could be redeveloped, the model generally compares the current level of development on a parcel with the level that current zoning allows or proposed zoning would allow. When the difference between these levels exceeds a given threshold, the model considers the parcel susceptible to redevelopment. Depending on the type of land use, this threshold is either ratio of existing residential units to potential residential units, existing building floor area to potential building floor area, or the value of buildings on the parcel to its assessed land value.

2. Seattle has several mixed-use zones that allow both residential and commercial development. To estimate development capacity, the model applies an “observed” ratio assumption to each parcel based on the average split of residential and commercial floor area in new construction over the last ten years for each mixed-use zoning category. We apply the assumption to every parcel in that zoning category. In the EIS model, we used the same ratios from the City’s previous development capacity analyses. For new MHA zones, we used the same ratio as the existing zone, i.e., the same ratio applies to an existing NC-40 zone and an NC-55 zone under MHA.
3. The calculation of development capacity is based largely on floor area ratio (FAR) limits for each zone. The City’s development capacity model uses observed FARs (i.e., calculations of FARs from actual historical development projects in each zone) rather than the maximum FARs contained in the Land Use Code.<sup>2</sup> However, because we cannot create “observed” FARs for a set of proposed zones that do not yet exist anywhere in Seattle, we have calculated the change in development capacity in each EIS alternative based on the difference in existing and proposed code-maximum FARs. See Appendix 6 for detail on FAR assumptions.
4. Seattle’s Lowrise (LR) zones have different FAR limits for different housing types. For example, the maximum FAR limit for a townhouse development is different than the maximum for an apartment development. Because we cannot predict the type of housing development parcel by parcel in Lowrise zones, the City’s development capacity model typically uses a “blended” FAR limit that comprises a weighted average of the various observed FARs in each Lowrise zone. To analyze the change in development capacity in each EIS alternative, we must use corresponding blended FARs for MHA zones. To account for the possibility that a larger portion of Lowrise development under MHA is apartments rather than townhouses or rowhouses, we increased the weighting of the highest FAR limit for each Lowrise zone in the action alternatives.
5. In each action alternative, many parcels currently zoned Single Family Residential are proposed to be rezoned to Residential Small Lot (RSL), where the proposed FAR limit is 0.75. To identify where redevelopment is possible, the capacity model relies on a redevelopment threshold for every zone, calculated as ratio of existing to potential development for each zone. For RSL zones, we assumed that only those parcels

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<sup>2</sup> This is compliance with comprehensive planning policy outlined in the Growth Management Act (GMA).



where the existing FAR (i.e., the ratio of floor area in existing structures to the size of the parcel) is at most 0.375 would be identified as redevelopable. This is a higher threshold than other multifamily zones (i.e., it assumes redevelopment is possible on a larger number of parcels). Above this threshold, the largest new development allowed under RSL zoning would be less than twice the size of existing development. Due to the high value of the existing development, it is unlikely that demolition of the existing structure and redevelopment of a slightly larger structure would be profitable in most cases.

With these assumptions, the model identified the parcels susceptible to redevelopment based on existing zoning. For several reasons, we assume that the parcels identified using the City's development capacity model as most likely to redevelop under existing zoning are the best available estimation of the parcels that would be most likely to redevelop after zoning changes to implement MHA.<sup>3</sup> One reason is that MHA implementation involves both increases in development capacity (which add value to property owners) and a mandatory contribution to affordable housing (which adds a cost to new development). MHA requirements are proposed to be set so that the value of additional development capacity offsets, at least to some extent, the additional cost of the affordable housing payment or performance amount. To achieve this, we have proposed three tiers of MHA payment and performance amounts and proposed to apply higher MHA requirements for larger increases in development capacity. An [MHA economic feasibility analysis](#) concluded that, after MHA requirements and the proposed zoning increases, development on a particular site in some cases is feasible and in other cases is infeasible. Additionally, the study found that, in most cases, factors aside from the MHA requirement are a bigger determinant of a potential development's feasibility than the MHA requirement. Therefore, the analysis of all EIS alternatives includes these parcels.

However, we also recognized that certain zoning changes could, in some cases, make development possible on a parcel that wasn't identified as susceptible to redevelopment under existing zoning. For this reason, for all parcels that would receive an increase of more than one zoning category, we compared current development to potential development based on the proposed MHA zoning standards. These larger zoning changes are identified with an (M1) or (M2) suffix in the zone name, and higher tiers of MHA requirements apply to development in these

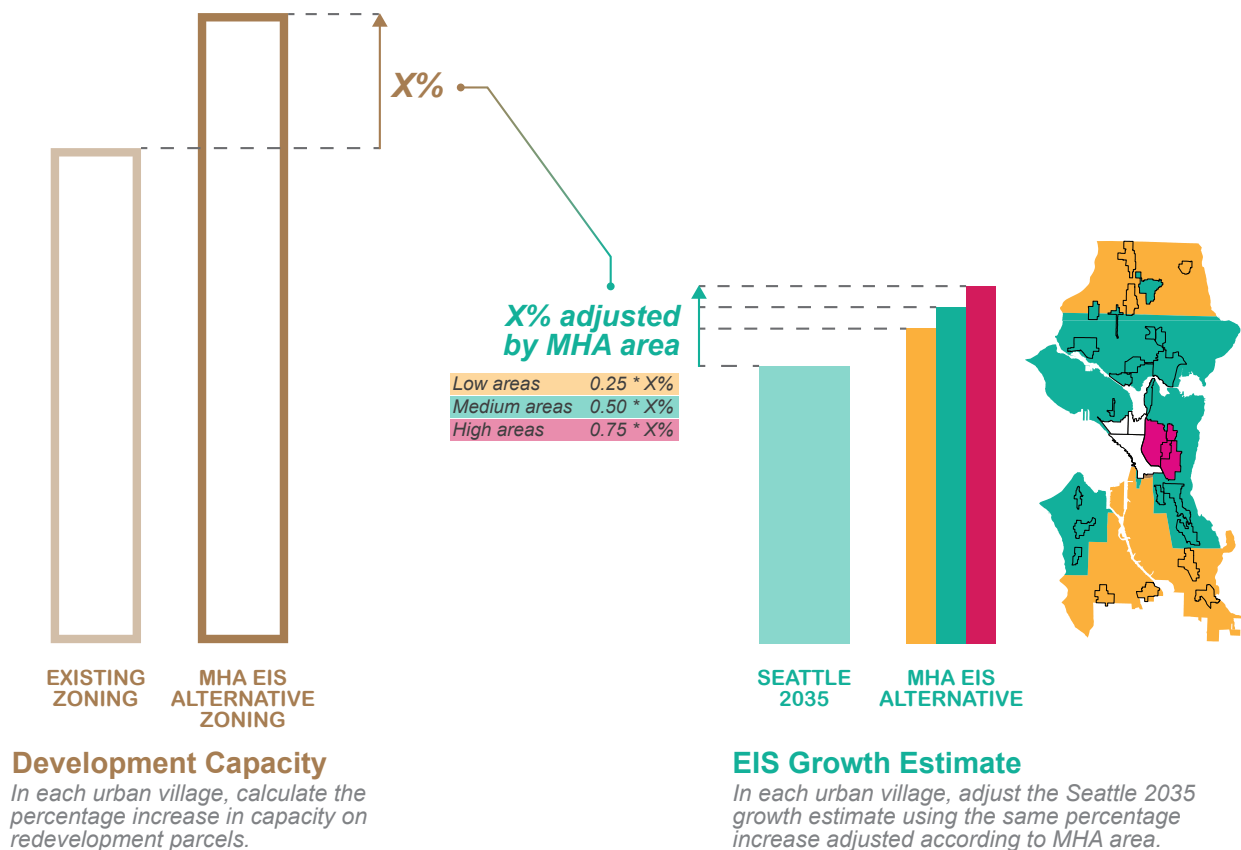
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<sup>3</sup> For parcels currently zoned Single Family Residential, we used the MHA zoning for each alternative to determine if a parcel is likely to redevelop.

zones. For example, consider a parcel with Lowrise 1 zoning today and Lowrise 3 (M1) zoning in an EIS alternative. Depending on its existing buildings, the parcel may not show up in the City's model as susceptible to redevelopment based on existing zoning. But for all parcels in (M1) and (M2) zones, we included in our analysis those redevelopment parcels meeting the model's thresholds based on the proposed zoning standards, irrespective of the higher MHA requirements in these zones.

## CALCULATE THE INCREASE IN DEVELOPMENT CAPACITY

After determining the potential redevelopment parcels, we calculated the increase in development capacity based on the proposed MHA zoning designations in Alternative 2 and Alternative 3. For all redevelopment parcels, we calculated the difference between potential development under existing zoning standards and under the proposed MHA zoning



**Exhibit G-1** Method of Calculating the Increase in Development Capacity

Source: City of Seattle, 2017.

standards.<sup>4</sup> This calculation incorporates land use regulations that govern how large a building can be, particularly FAR limits.<sup>5</sup>

We then summarized the difference in overall residential and commercial development capacity for each urban village, expressed as a percentage increase. For example, if an urban village has capacity for 1,000 homes under existing zoning and 1,500 homes under one of the EIS alternatives, residential development capacity has increased 50 percent. Where MHA implementation would expand an urban village boundary based on the Seattle 2035 Comprehensive Plan, we calculated the relative increase in capacity based on the expanded urban villages boundaries for each EIS action alternative.<sup>6</sup>

Several important caveats apply to the calculation of development capacity:

1. It does not estimate how much or how quickly development will occur in a specific time period.
2. It does not predict market demand.
3. It does not factor in financial feasibility, construction costs, or the willingness of a property owner to sell or redevelop.
4. It evaluates only the quantity of development that could theoretically eventually be produced for a given zoning scenario.

## ESTIMATE INCREASE IN HOUSING AND JOB GROWTH

To estimate potential growth under each EIS alternative, we estimated how the increase in development capacity due to MHA zoning changes could potentially increase growth beyond the adopted 20-year growth estimates in the Seattle 2035 Comprehensive Plan used for Alternative 1 No Action. For study purposes, the MHA EIS assumes that increasing development capacity could result in additional growth beyond the minimum of 70,000 households and 115,000 jobs anticipated in Seattle 2035.

Development capacity is only one factor that influences where and when housing is built. Market factors, such as the cost of housing, access

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<sup>4</sup> Some parcels have two or more zoning designations. For these “split-zone” parcels we calculated development capacity based on the zone containing the parcel’s centroid.

<sup>5</sup> See Appendix F for a full list of existing and proposed FARs used in the capacity analysis.

<sup>6</sup> See Appendix H for the zoning maps analyzed in each EIS alternative.

to jobs, local amenities, and overall regional demand, also influence housing growth.

While increases in development capacity will tend to increase the amount of development in an area, the overall demand for housing in a neighborhood also limits the effect of any development capacity changes there. The extent to which future growth will be influenced more by development capacity or by market demand varies. The influence of these factors can be summarized into two extreme viewpoints:

- 1. Capacity-limited development:** The view that demand for new housing across Seattle or in a specific neighborhood is so great that all potential redevelopment sites will develop with the maximum amount of development that zoning laws allow. In this view, zoning alone determines how much growth will occur. Additional development capacity provided in a given area will be developed at the same rate as existing capacity.
- 2. Market-limited development:** The view that there is a certain fixed amount of demand for housing in a given area determined by its general cost, location, school system, amenities, etc. In this view, increasing development capacity will not result in additional new development because demand determines how much development will occur.

This EIS assumes that the most probable and reasonable scenario is somewhere between these viewpoints. Therefore, the analysis assumes that additional development capacity would increase growth in the following proportions:

**Exhibit G-2** Method for Estimating Growth Based on Development Capacity Changes

MHA Area*	Method
<b>High MHA areas</b>	For every 1 percent increase in the urban village development capacity, the 20-year Comprehensive Plan growth estimate increases 0.75 percent.
<b>Medium MHA areas</b>	For every 1 percent increase in the urban village development capacity, the 20-year Comprehensive Plan growth estimate increases 0.5 percent.
<b>Low MHA areas</b>	For every 1 percent increase in the urban village development capacity, the 20-year Comprehensive Plan growth estimate increases 0.25 percent.

\* MHA requirements are proposed to vary geographically based in part on market conditions, as shown in [this map](#).

Source: City of Seattle, 2017.

In a growing region, new development generally occurs more quickly in strong market areas and more slowly in weak market areas. Where zoning envelopes constrain the amount that can be built in a strong market, an increase in the zoning envelope (i.e., additional development capacity) has a stronger effect on the resultant amount of growth. Where the market is weak, increased development capacity has a less direct relationship with growth. We consider market strength dynamics when we estimate how increased development capacity could result in additional growth, as seen in the table above.

This method reflects and balances the effects of the unique MHA zoning proposal for each urban village (expressed as a development capacity increase); market factors; and the statewide forecasting, countywide policy, and local planning of the Seattle 2035 growth estimate.

## ESTIMATE MHA AFFORDABLE HOUSING PRODUCTION

Using the methods above, we arrive at an estimate of residential and commercial growth for the study area overall and for each urban village. For residential growth, these estimates include market-rate housing and affordable housing created through the MHA performance option, because together these housing units represent residential growth that occurs through market-rate development.<sup>7</sup> Based on the residential and commercial growth estimates citywide and for each urban village, we calculate the number of affordable homes we can expect for each EIS alternative through the MHA payment and performance options. To do this, we used the following assumptions and steps:

- In the EIS study area, 50 percent of residential development will choose the performance option and 50 percent will choose the payment option. All commercial development will choose the payment option.
- New affordable housing funded by the Office of Housing (OH) requires a contribution of \$80,000 per unit from OH (based on a model project leveraging four percent low-income housing tax credits and no additional public funds).
- 10 percent of MHA payment revenue would go to program administration.

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<sup>7</sup> Likewise, this residential growth estimate also includes affordable housing created through the Multifamily Tax Exemption (MFTE) program.



- Four percent of growth outside of urban villages over the next 20 years will occur in Single Family Residential zones, where MHA does not apply. MHA payment and performance requirements will apply to the remaining growth outside of urban villages.
- For analysis purposes, MHA requirements for new development in each urban village are calculated as a weighted average of the (M), (M1), and (M2) requirements based on the relative proportion of parcel square footage in (M), (M1), and (M2) zones in that urban village.
- For analysis purposes, the distribution of affordable housing funded through MHA payments to each urban village is proportional to that urban village's share of the 20-year citywide residential growth estimate in each EIS alternative.

## ESTIMATE POTENTIAL DEMOLITION

A component of identifying how the alternatives could affect displacement is estimating the number of housing units that could be demolished as older buildings are replaced by newer ones through redevelopment. Demolitions associated with each alternative fall in two categories. First, there are demolitions already permitted by the City. Some of these housing units have already been demolished since 2015, and other demolitions are permitted to occur in the future. These demolitions will occur under all alternatives and are associated with building permits that have already been approved and therefore are not subject to MHA requirements. The number of demolitions in this category reflects the pace of growth in recent years and the pipeline of growth already permitted and underway.

Second, there are demolitions that have not already been permitted. Estimating the number of demolitions in this category is more difficult since we do not know which parcels will redevelop in the future. Therefore, we estimate the number of demolitions in this category using two different methods to provide a range of possible outcomes. One method allocates growth to parcels with the lowest development-to-capacity ratio based on Seattle's development capacity model. The other method assumes a continuation of the historic ratio of new units to demolished units. We describe each method in more detail below.

### Modeling Demolition by Allocating Growth to Parcels

Because the city has development capacity to accommodate more housing and job growth than is anticipated over the next 20 years, we

model redevelopment given each urban village's 20-year housing and job growth estimate. This requires assumptions about which parcels are most likely to redevelop. Using the City's development capacity model, we determined which parcels have the potential to redevelop, as previously described. We then ranked all redevelopment parcels based on the ratio of existing developed floor area to the maximum allowed developed floor area under proposed zoning. Parcels with the lowest ratios were ranked highest. For example, a parcel with an existing 5,000-square-foot commercial building with proposed zoning that would accommodate a 20,000-square-foot building has a ratio of 0.25. But if this same parcel had only a parking lot and no existing buildings, its ratio would be zero, the lowest possible. For parcels with residential uses, the ratio reflects the current number of housing units compared to the maximum allowable number of housing units, assuming an average unit size of 1,000 square feet.

To determine the total amount of growth to allocate to parcels in each urban village, we first subtracted the total amount of development currently in the pipeline (i.e., development already permitted but not yet completed by 2015) from the total growth estimated for that village. We then divided the remaining residential growth into three zoning categories: Residential Small Lot, Lowrise and Midrise, and Highrise and Commercial. For each urban village, the model assumes that the share of total units allocated to parcels in each of these categories matches the share of total residential capacity in each of these categories. This helped ensure that redevelopment occurred on parcels in various zones, including current Single Family zones, rather than only the empty parking lots and vacant parcels at the top of the ranked list for each urban village.

We then allocated four different categories of growth to parcels for each urban village: housing units (in three different categories) and jobs. Parcels with the lowest development-to-capacity ratio received growth first, proceeding down the ranked list until all remaining growth was allocated. The split between job and housing growth on parcels in mixed-use zones was proportional to the overall ratio of job growth to housing growth estimated for that urban village. Finally, with the allocation process complete, we summarized the total number of existing housing units on parcels that the model assumes will be redeveloped.

This method of estimating the number of demolitions has limitations. Many complex factors affect the exact timing and location of growth, making it exceedingly difficult to predict a parcel-specific distribution of growth over 20 years. Nonetheless this model identifies a plausible growth scenario detailed enough to generate a specific estimate for the

number of homes that could be demolished in each alternative. In the DEIS, the demolished unit counts from this model are represented as the “Low” estimate. We used a separate model to develop a “High” estimate.

## **Estimating Demolition Based on Historic Trends**

To develop a “High” estimate of demolished units for each alternative, we analyzed historic permit data to calculate the ratio of net new housing units developed to the number of housing units demolished. This ratio was calculated citywide in all zones except Single Family and Downtown since the study area excludes these zone categories. We found that, from 2010 to 2016, 13.4 net new housing units were created for every housing unit demolished. We used this ratio to estimate the number of housing units demolished based on the total remaining growth (after pipeline) estimated for each urban village. In almost all cases, this estimate was higher than the result of the allocation model.

Finally, we accounted for demolitions in some single-family areas in Alternative 1. The growth allocation exercise described above relies on parcels identified as redevelopable in our capacity model. This model identifies effectively zero single-family parcels as redevelopable because no net new housing can be built there. Yet demolitions in Single Family zones do occur under existing zoning. Since the demolition estimates for Alternatives 2 and 3 derive in part from rezoned Single Family land inside and outside urban villages, we also estimated the demolitions expected in these areas under Alternative 1 No Action. From 2007 to 2016, 10.4 demolitions occurred annually in the area where single-family parcels are rezoned in either Action Alternative. Extended over the 20-year time horizon of this EIS, this results in 208 demolitions in single-family areas under Alternative 1 in addition to the estimate generated from the growth allocation method.

The results of these calculations are in Section 3.1 Housing and Socioeconomics, Exhibit 3.1–38.

# APPENDIX H



## ZONING MAPS ALTERNATIVE 2 AND ALTERNATIVE 3.

### ACTION ALTERNATIVE ZONING MAPS

As described in Chapter 2 each action alternative includes a specific zoning proposal for all land parcels in the study area that are proposed to have zoning changes to implement MHA. This appendix contains a set of maps depicting the zoning changes.

Maps are organized so that each urban village and urban center has a proposed zoning map. Some zoning changes are proposed for areas outside of urban villages and urban centers, and those are summarized in maps following the urban center and urban village maps. In a large majority of instances zoning changes proposed for areas outside of urban villages and urban centers are (M) tier capacity increases. Any exception to this convention is annotated on the map.

The following notes assist with reading the zoning maps:

- All areas shaded with a color (not gray) have a proposed zoning change.
- Each proposed zone change is annotated with the existing zone designation listed before a “|” and the proposed zone designation listed after the “|”
- Each proposed zoning change has an (M), (M1), or (M2) MHA suffix
- Areas indicated with diagonal hatching have a selective zoning change often resulting in an (M1), or (M2) suffix

In addition to the static maps in this appendix, an interactive online webmap version of the maps is available at <http://tinyurl.com/HALA-MHA-EIS>.

## Summary Metrics

The tables below contain summary information about the Alternatives zoning maps. The first set of tables indicate how much land is proposed to be rezoned from each existing zoning designation to proposed MHA zoning designations. The second set of graphs indicate the quantity of redevelopable parcel area in (M), (M1) and (M2) designations within each urban village.

**Exhibit H-1** Land Area of Existing and Proposed MHA Zoning, Alternative 2

Sum of Parcel Area with Zoning Changes in Alternative 2 (Acres)		MHA Zoning →																					Grand Total	
		RSL	Lowrise 1	Lowrise 2	Lowrise 3	Midrise	Highrise	Commercial 40	Commercial 55	Commercial 75	Neighborhood Commercial 40	Neighborhood Commercial 55	Neighborhood Commercial 75	Neighborhood Commercial 95	Neighborhood Commercial 145	Neighborhood Commercial 200	SM/R-75	SM-D 95	SM-NR-145	SM-NR-75	SM-NR-95	SM-RB-95		Industrial Commercial
← Existing Zoning	Single Family	647.5	319.9	249.2	91.7						4.3	0.9					0.1					3.7		1,317.3
	RSL/TC		7.3																					7.3
	Lowrise 1		271.8	9.7	8.6	3.4																		293.5
	Lowrise 2			233.4	19.0	5.0					3.3	0.2		0.5										261.4
	Lowrise 3				206.4	95.3					0.9	2.3	6.8											311.8
	Midrise					62.9																		62.9
	Highrise						13.9																	13.9
	Commercial 30							3.1				0.2												3.2
	Commercial 40								142.3	6.9		51.9	12.4	1.9										215.4
	Commercial 65									244.3			48.0	14.1							2.0			308.4
	Neighborhood Commercial 30										71.3	9.3												80.6
	Neighborhood Commercial 40											433.0	21.5									2.4		456.9
	Neighborhood Commercial 65												167.8	6.3	2.1									176.2
	Neighborhood Commercial 85													71.7	12.3									84.0
	Neighborhood Commercial 125														2.2									2.2
	Neighborhood Commercial 160															2.9								2.9
	SM/R-65																1.6							1.6
	SM-D 40-85																	3.9						3.9
SM-NR-125																		12.9					12.9	
SM-NR-65																			0.4	1.3			1.7	
SM-NR-85																				11.1			11.1	
Industrial Commercial																						42.6	42.6	
Grand Total		647.5	599.1	492.2	325.7	166.6	13.9	3.1	142.3	251.3	79.9	497.8	256.5	94.5	16.5	2.9	1.7	3.9	12.9	0.4	14.4	6.1	42.6	3,671.7

Source: City of Seattle, 2017.



### Exhibit H-2 Land Area of Existing and Proposed MHA Zoning, Alternative 3

Sum of Parcel Area with Zoning Changes in Alternative 3 (Acres)		MHA Zoning →																						Grand Total
		RSL	Lowrise 1	Lowrise 2	Lowrise 3	Midrise	Highrise	Commercial 40	Commercial 55	Commercial 75	Neighborhood Commercial 40	Neighborhood Commercial 55	Neighborhood Commercial 75	Neighborhood Commercial 95	Neighborhood Commercial 145	Neighborhood Commercial 200	SM/R-75	SM-D 95	SM-NR-145	SM-NR-75	SM-NR-95	SM-RB-95	Industrial Commercial	
← Existing Zoning	Single Family	573.7	270.5	172.1	44.5						1.9	7.9	3.7				0.1					2.2		1,076.6
	RSL/TC		1.0	6.4																				7.3
	Lowrise 1		263.3	14.4	19.8																			297.5
	Lowrise 2			226.8	66.6						0.8	5.6	0.5											300.3
	Lowrise 3				231.3	17.4						6.3	3.4											258.3
	Midrise					62.8							0.1											62.9
	Highrise						13.9																	13.9
	Commercial 30							3.1					0.2											3.2
	Commercial 40								140.8	6.9		37.4	34.1											219.2
	Commercial 65									257.6			48.8								2.0			308.4
	Neighborhood Commercial 30										69.1	6.8	7.0											82.9
	Neighborhood Commercial 40											409.7	53.7											463.3
	Neighborhood Commercial 65												173.4	7.2										180.6
	Neighborhood Commercial 85													84.0										84.0
	Neighborhood Commercial 125														2.2									2.2
	Neighborhood Commercial 160															2.9								2.9
	SM/R-65																1.6							1.6
	SM-D 40-85																	3.9						3.9
	SM-NR-125																		12.9					12.9
	SM-NR-65																			0.4	1.3			1.7
SM-NR-85																				11.1			11.1	
Industrial Commercial																						42.6	42.6	
Grand Total		573.7	534.8	419.7	362.1	80.2	13.9	3.1	140.8	264.5	71.8	473.7	324.9	91.2	2.2	2.9	1.7	3.9	12.9	0.4	14.4	2.2	42.6	3,437.5

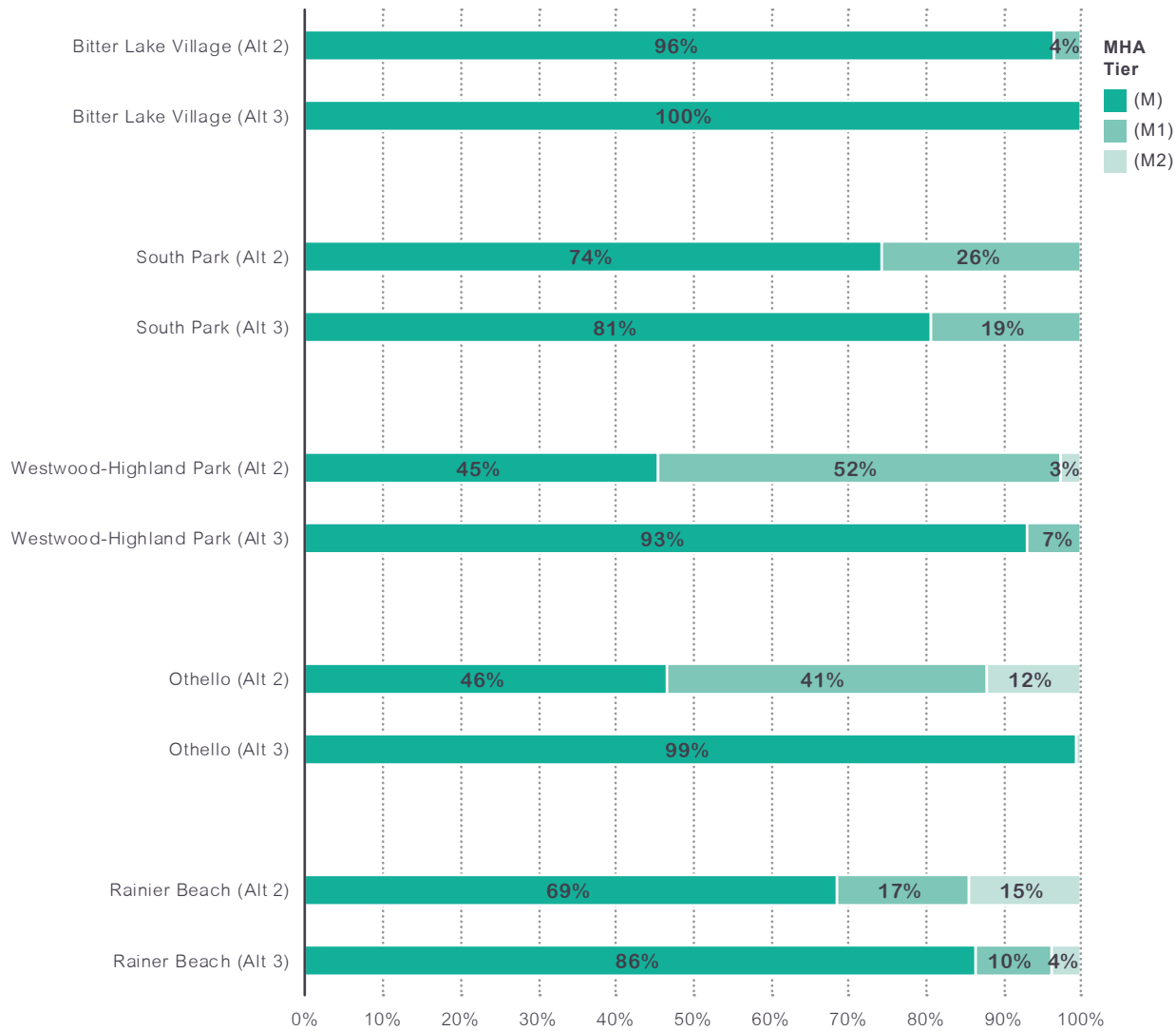
Source: City of Seattle, 2017.

## **Minor Mapping Modifications and Incremental Adjustments**

The alternative zoning maps include many individual parcels of land. This programmatic EIS evaluates overall and cumulative impacts of different amounts and patterns of growth that could occur due to the MHA zoning changes. Analysis of potential land use impacts are at a programmatic level. Minor corrections to individual parcel boundaries and extents of individual zoning designations may be made to maps as more information is gathered. Resulting minor map adjustments, are documented in the record by the lead agency. These minor adjustments are not significant in altering programmatic impacts in elements of the environment such as land use or housing and socioeconomics. In cases where a proposed MHA zoning change is adjusted to a lower intensity zone, that change would be likely to have a lesser environmental impact related to land use or other elements of the environment, and would also be likely to have a greater impact on housing and socioeconomics or other elements of the environment. In cases where a proposed MHA zoning change is adjusted to a higher intensity zone, that change would be likely to have a lesser environmental impact related to housing and socioeconomics as more housing and MHA would result, but could have minor increase in impacts to land use or other elements of the environment.

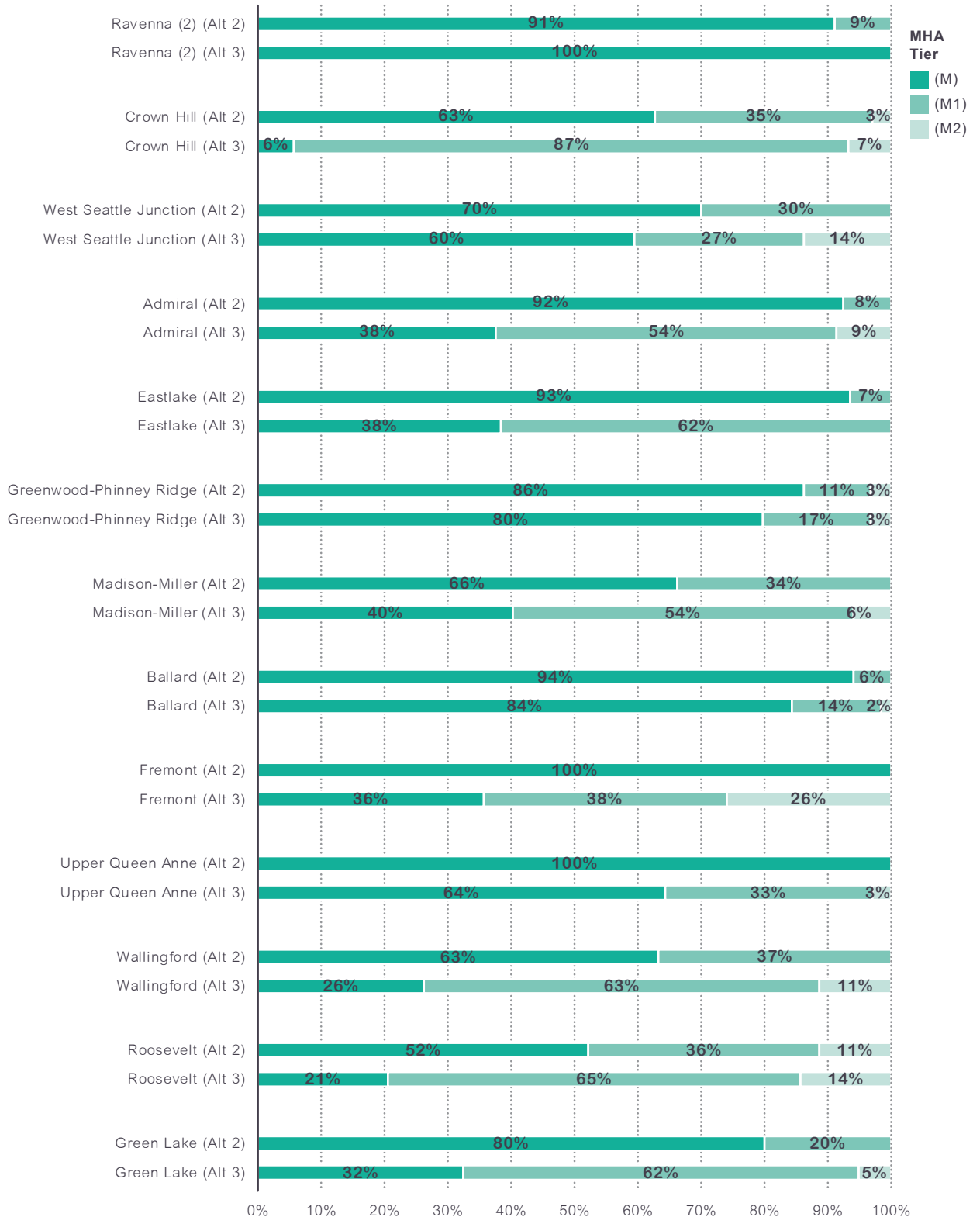
**Exhibit H-3**

**Redevelopable Parcel Land Area by MHA Tier: High Displacement  
Risk and Low Access to Opportunity Urban Villages**



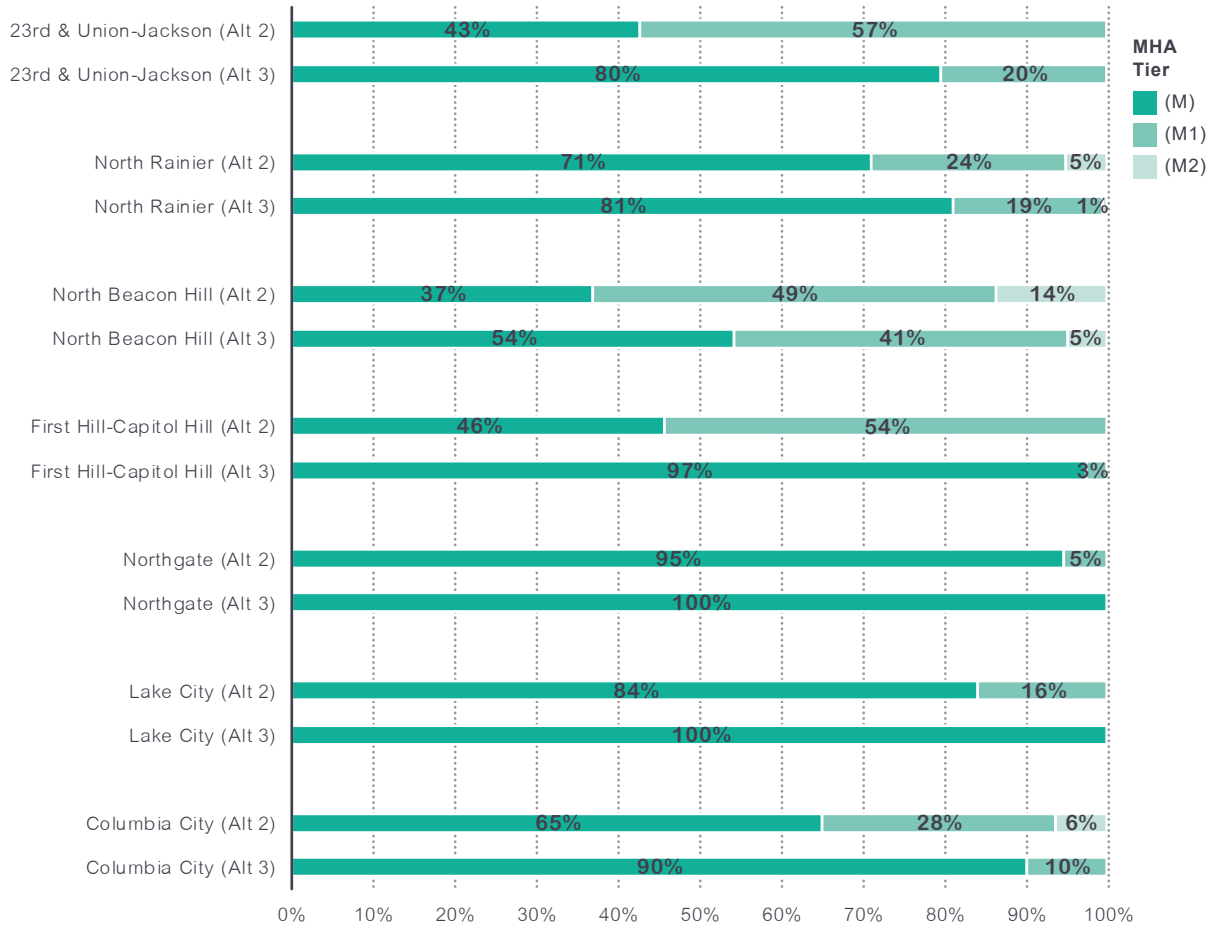
#### Exhibit H-4

#### Redevelopable Parcel Land Area by MHA Tier: Low Displacement Risk and High Access to Opportunity Urban Villages



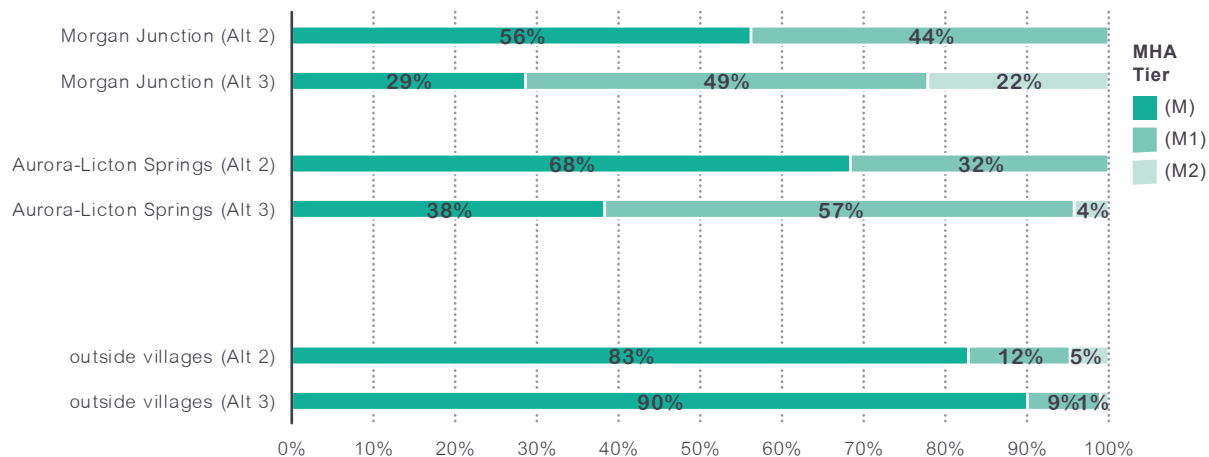
**Exhibit H-5**

**Redevelopable Parcel Land Area by MHA Tier: High Displacement Risk and High Access to Opportunity Urban Villages**



**Exhibit H-6**



**Redevelopable Parcel Land Area by MHA Tier: Low Displacement Risk and Low Access to Opportunity Urban Villages and Outside Urban Villages**


















## Exhibit H-7 Proposed Zoning, Alternative 2: 23rd & Union-Jackson Urban Village

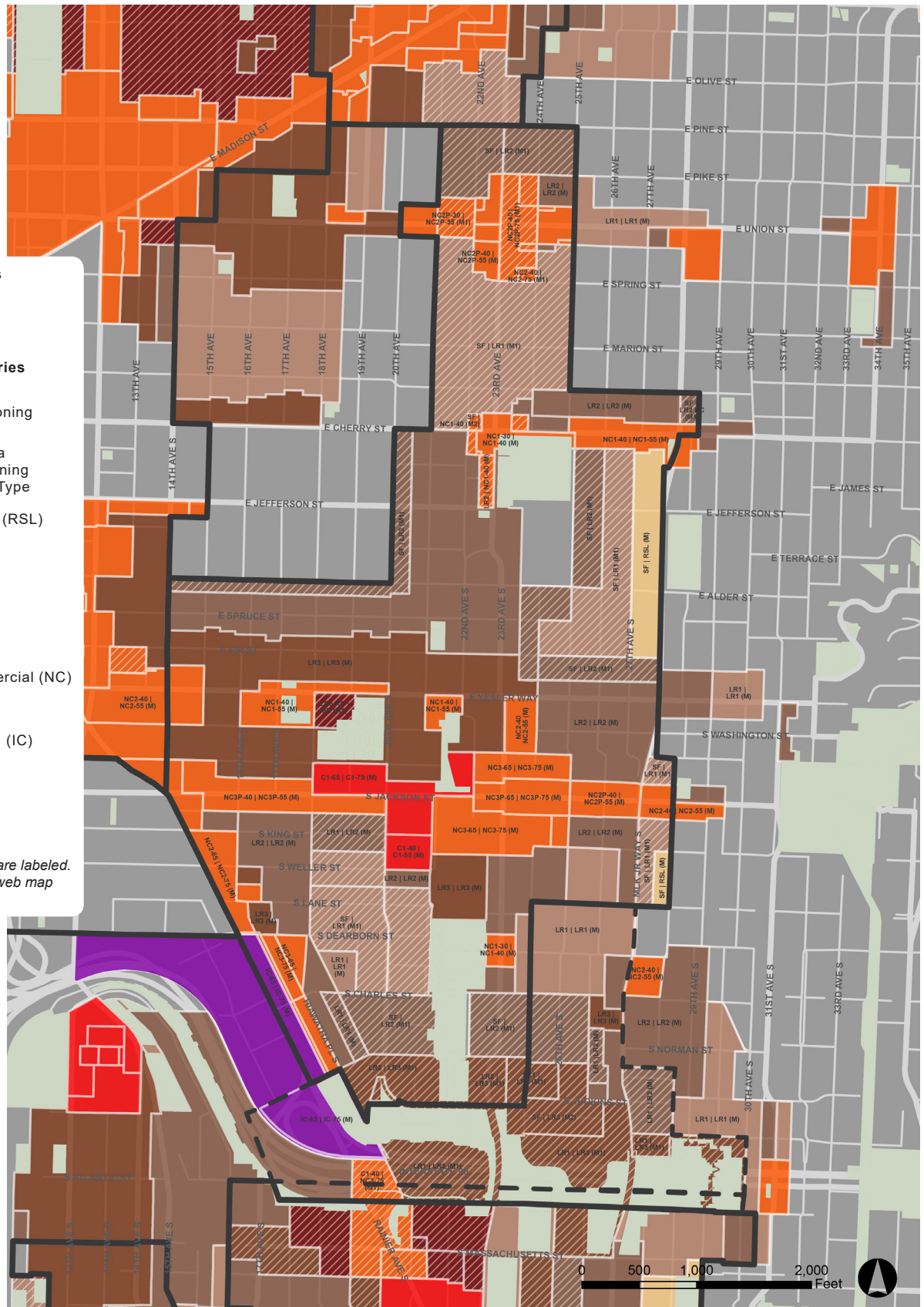
### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

### Proposed Zoning Categories

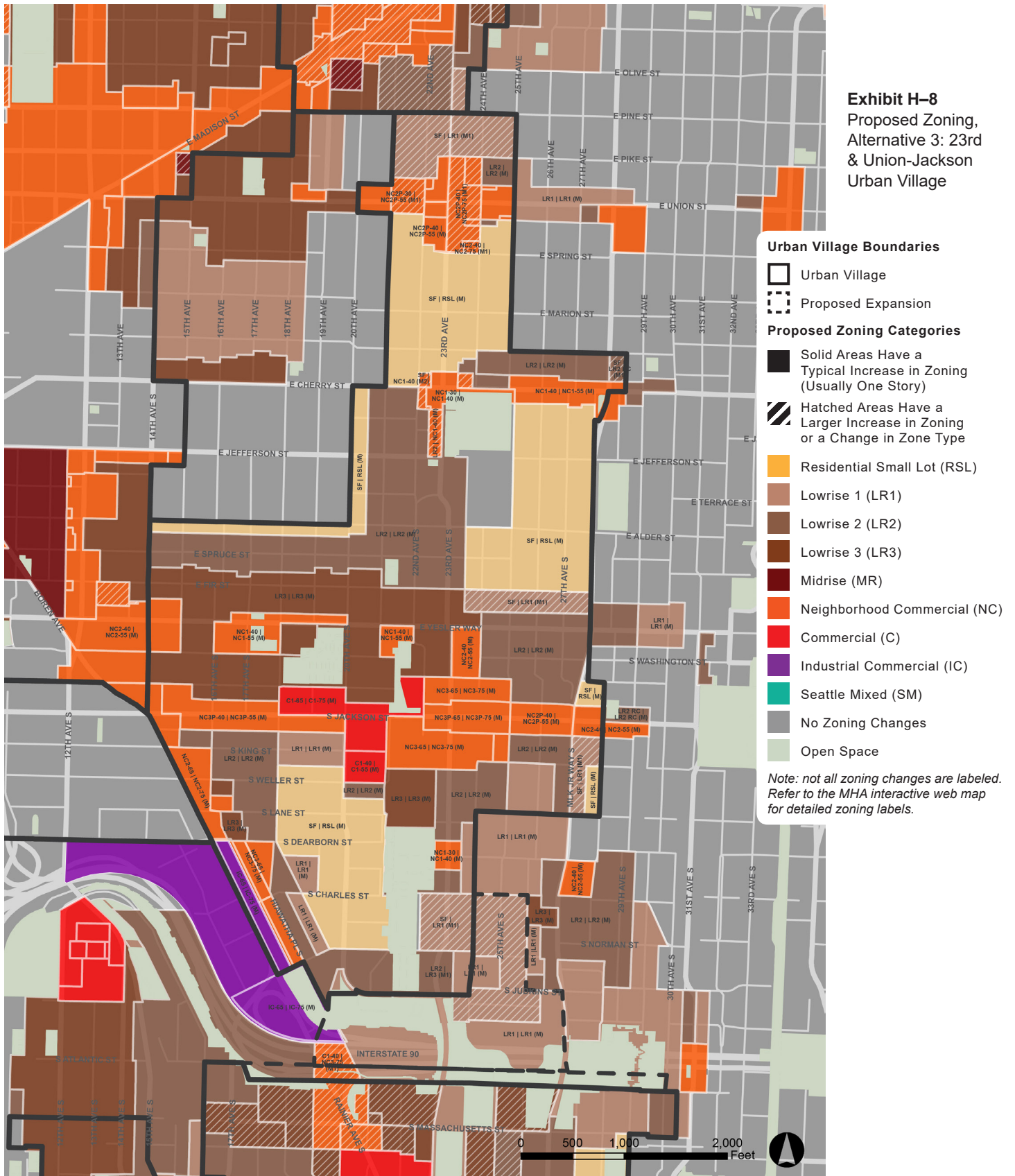
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled.  
Refer to the MHA interactive web map  
for detailed zoning labels.*



Source: City of Seattle, 2017.

**Exhibit H-8**  
Proposed Zoning,  
Alternative 3: 23rd  
& Union-Jackson  
Urban Village
















Source: City of Seattle, 2017.

## Exhibit H-9 Proposed Zoning, Alternative 2: Admiral Urban Village

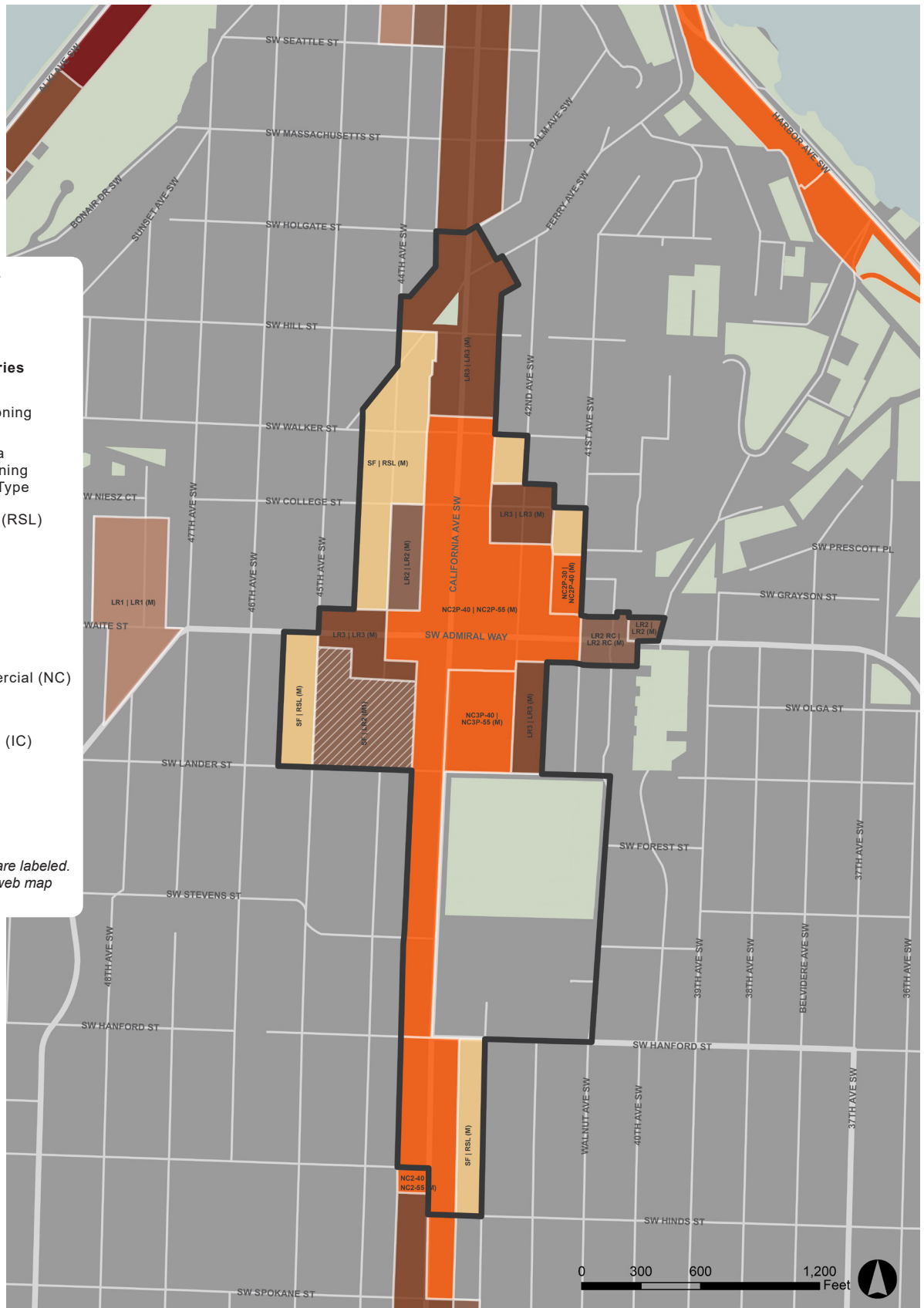
### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

### Proposed Zoning Categories

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

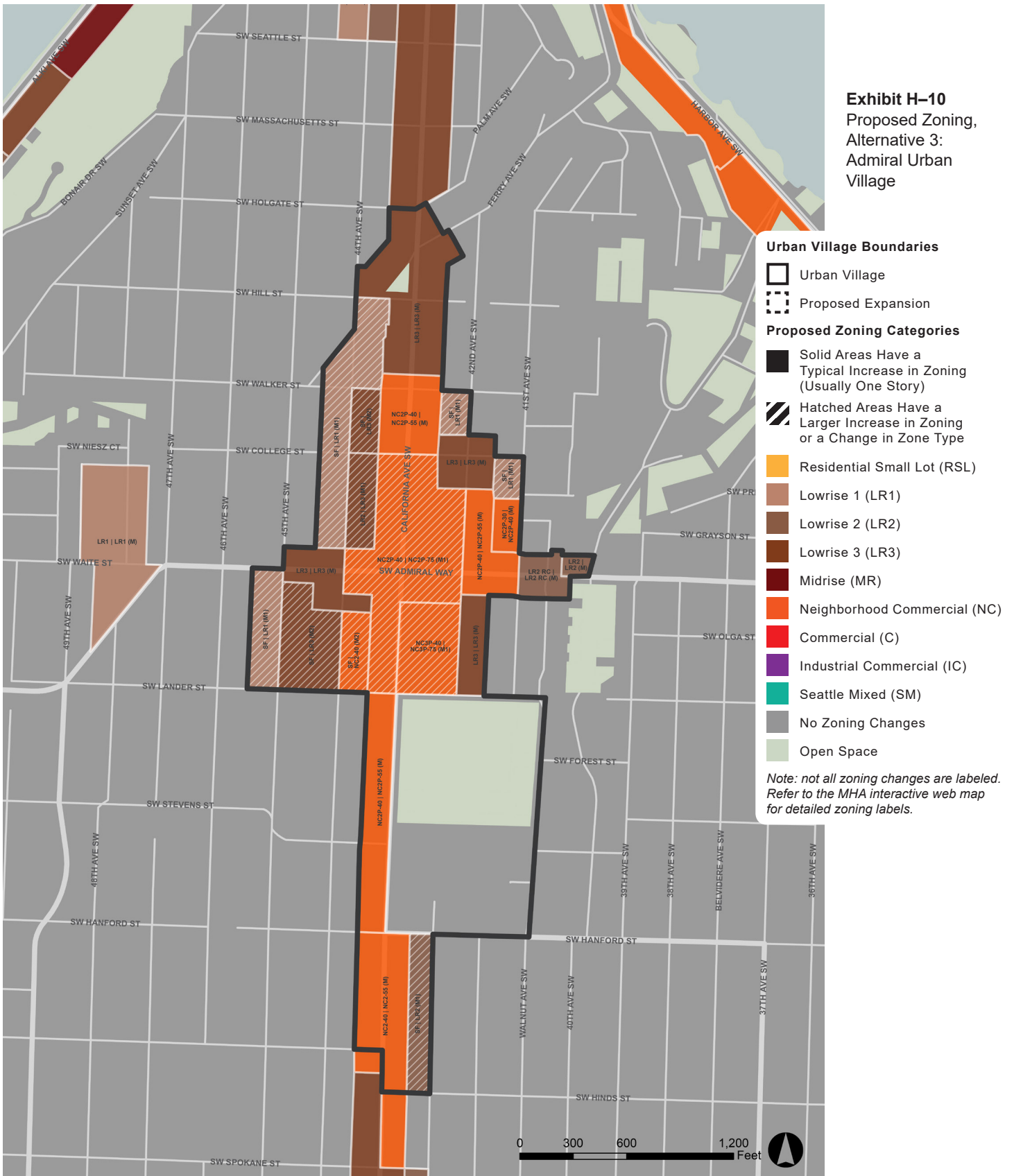
*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.




**Exhibit H-10**  
Proposed Zoning,  
Alternative 3:  
Admiral Urban  
Village
















Source: City of Seattle, 2017.

**Exhibit H-11**  
Proposed Zoning,  
Alternative 2: Aurora-  
Lifton Springs  
Urban Village

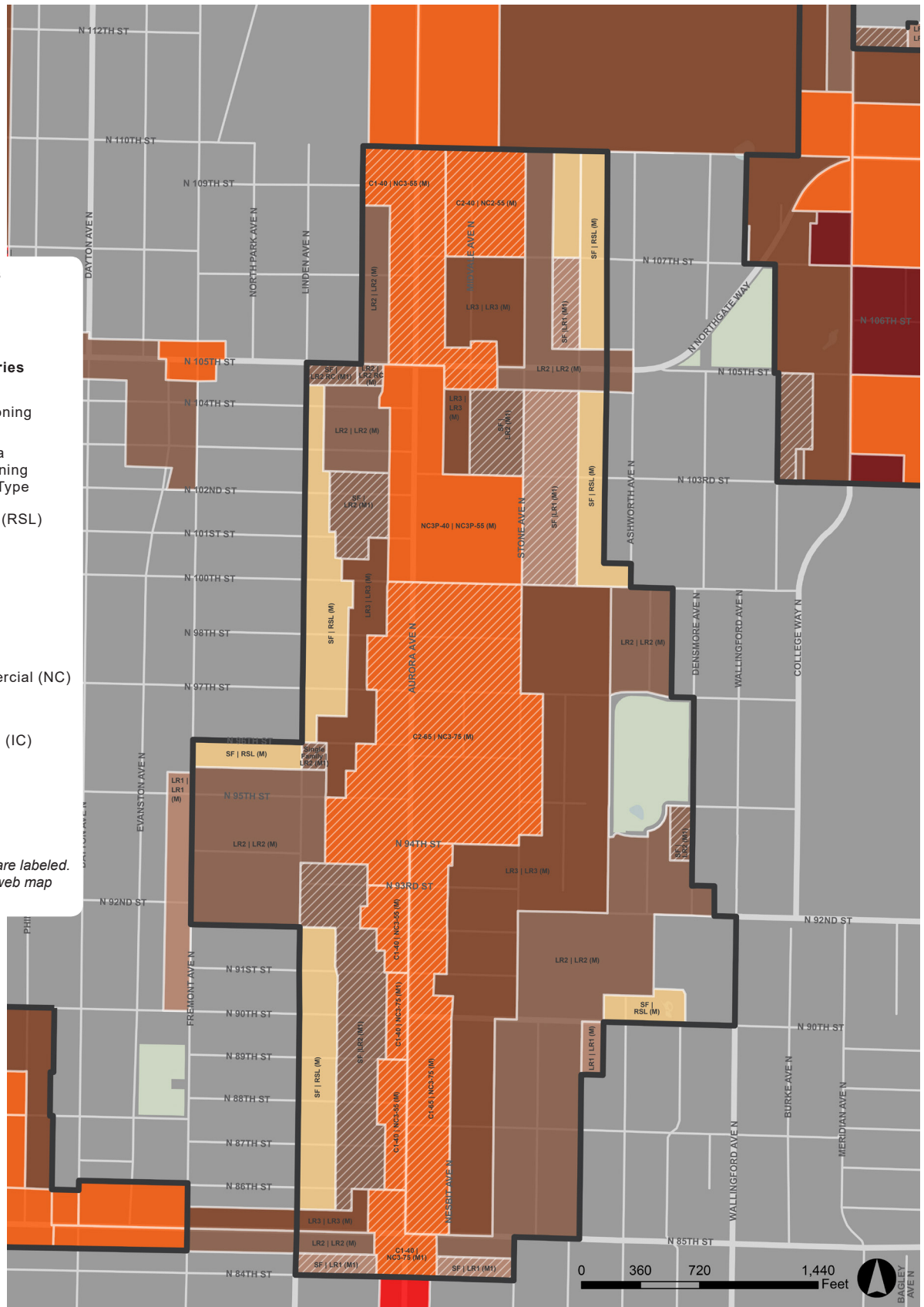
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

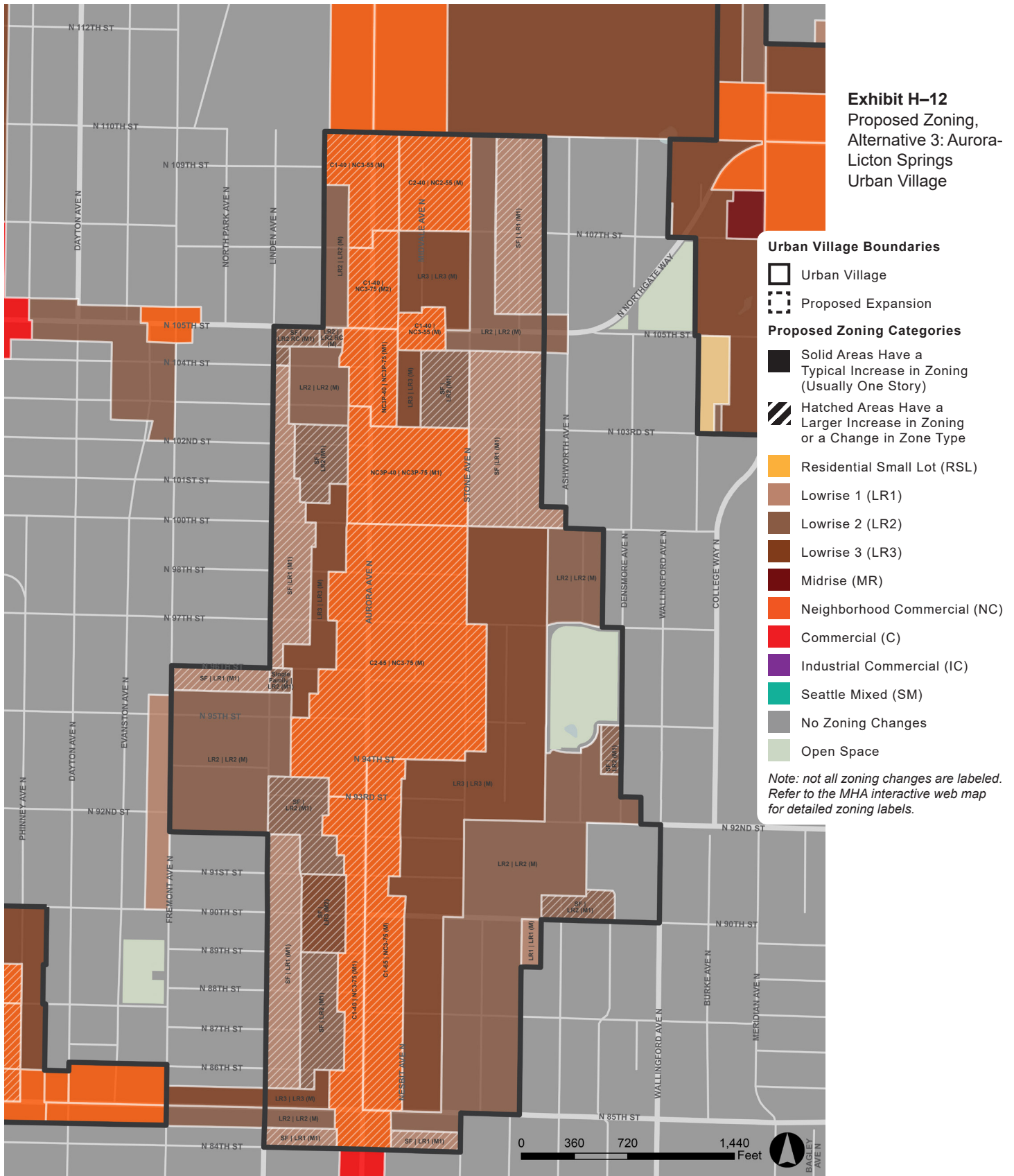
*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



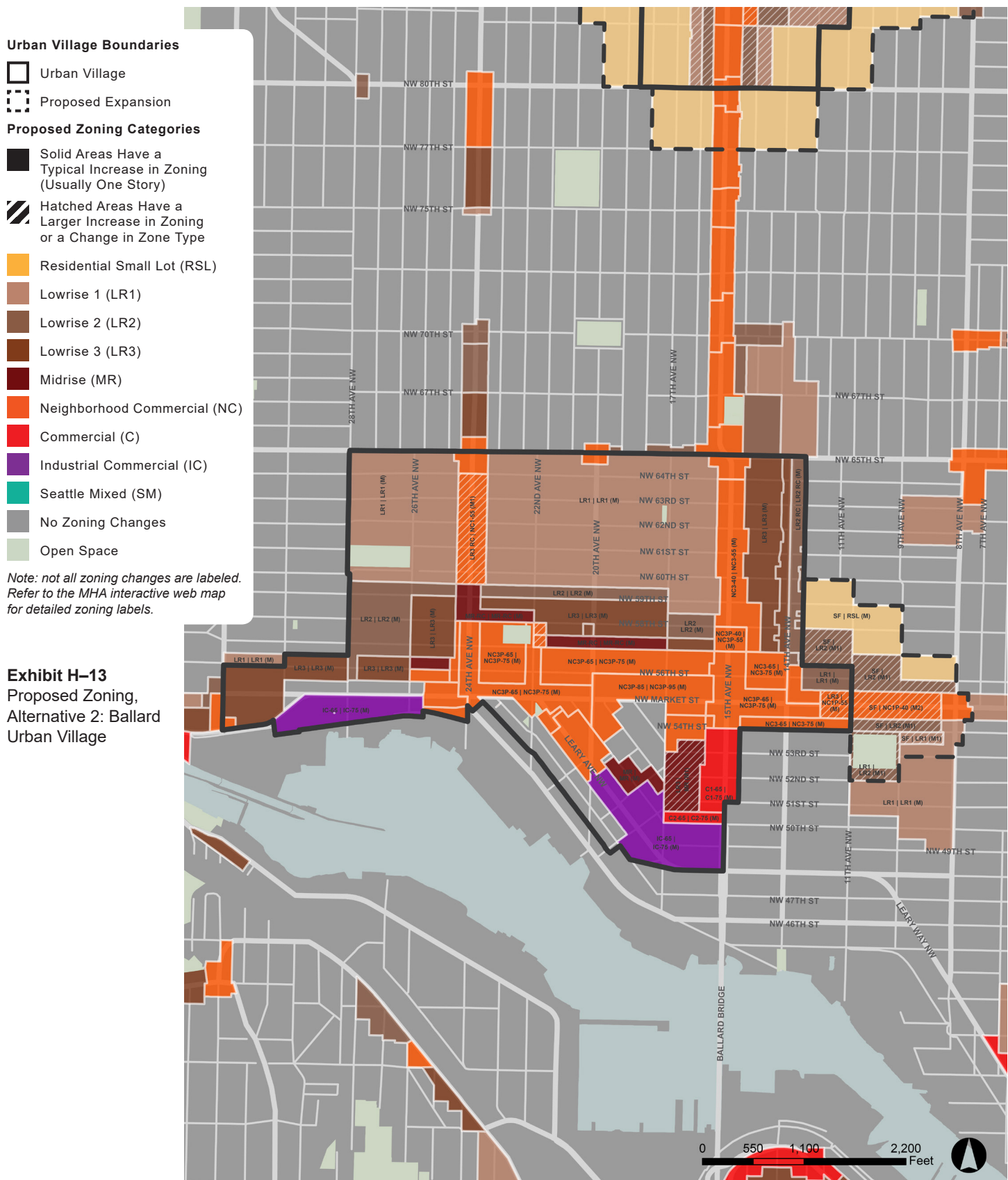
Source: City of Seattle, 2017.



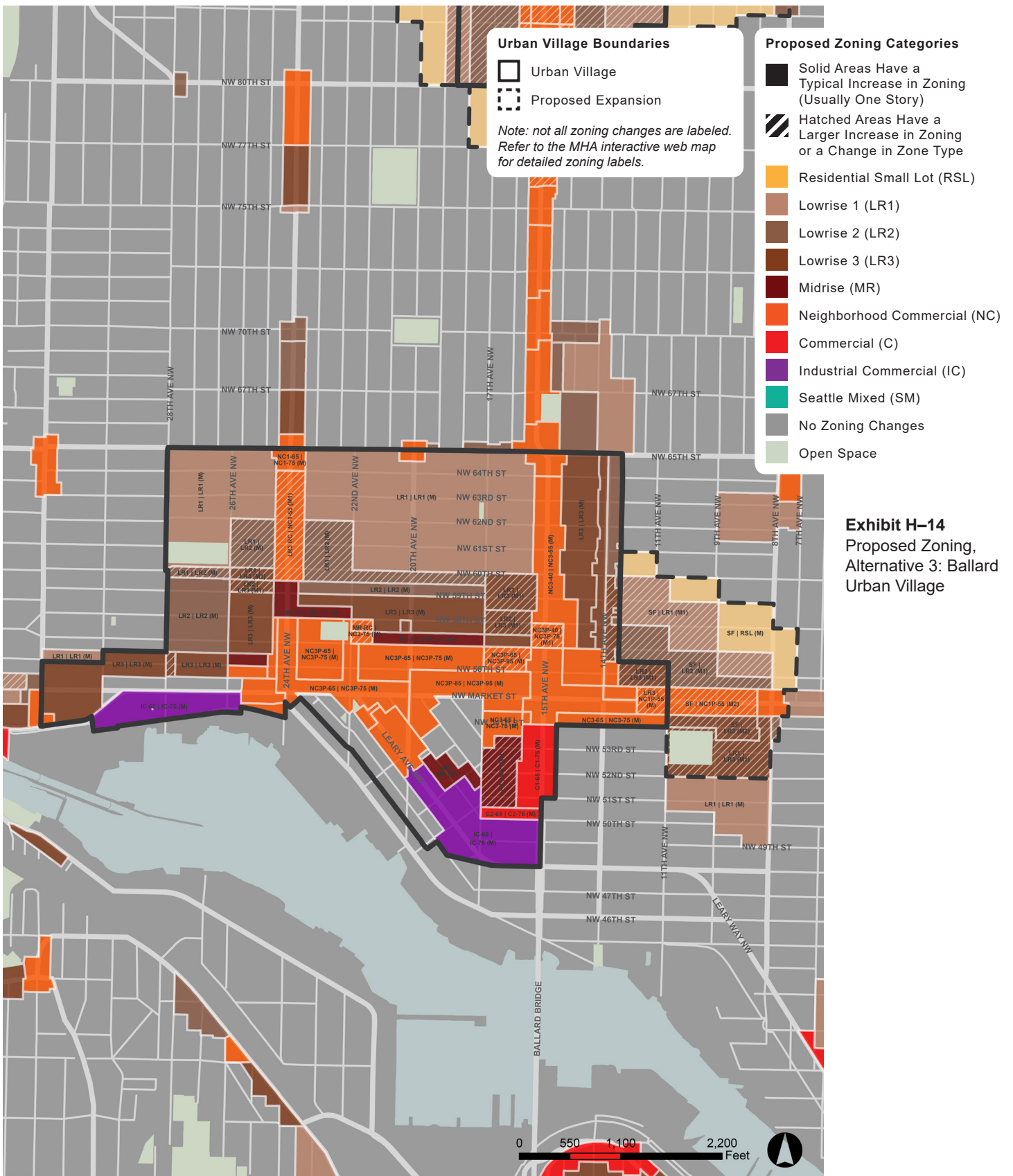
**Exhibit H-12**  
Proposed Zoning,  
Alternative 3: Aurora-  
Lifton Springs  
Urban Village



Source: City of Seattle, 2017.



Source: City of Seattle, 2017.





Source: City of Seattle, 2017.
















**Exhibit H-15**  
Proposed Zoning,  
Alternative 2:  
Bitter Lake Village  
Urban Village

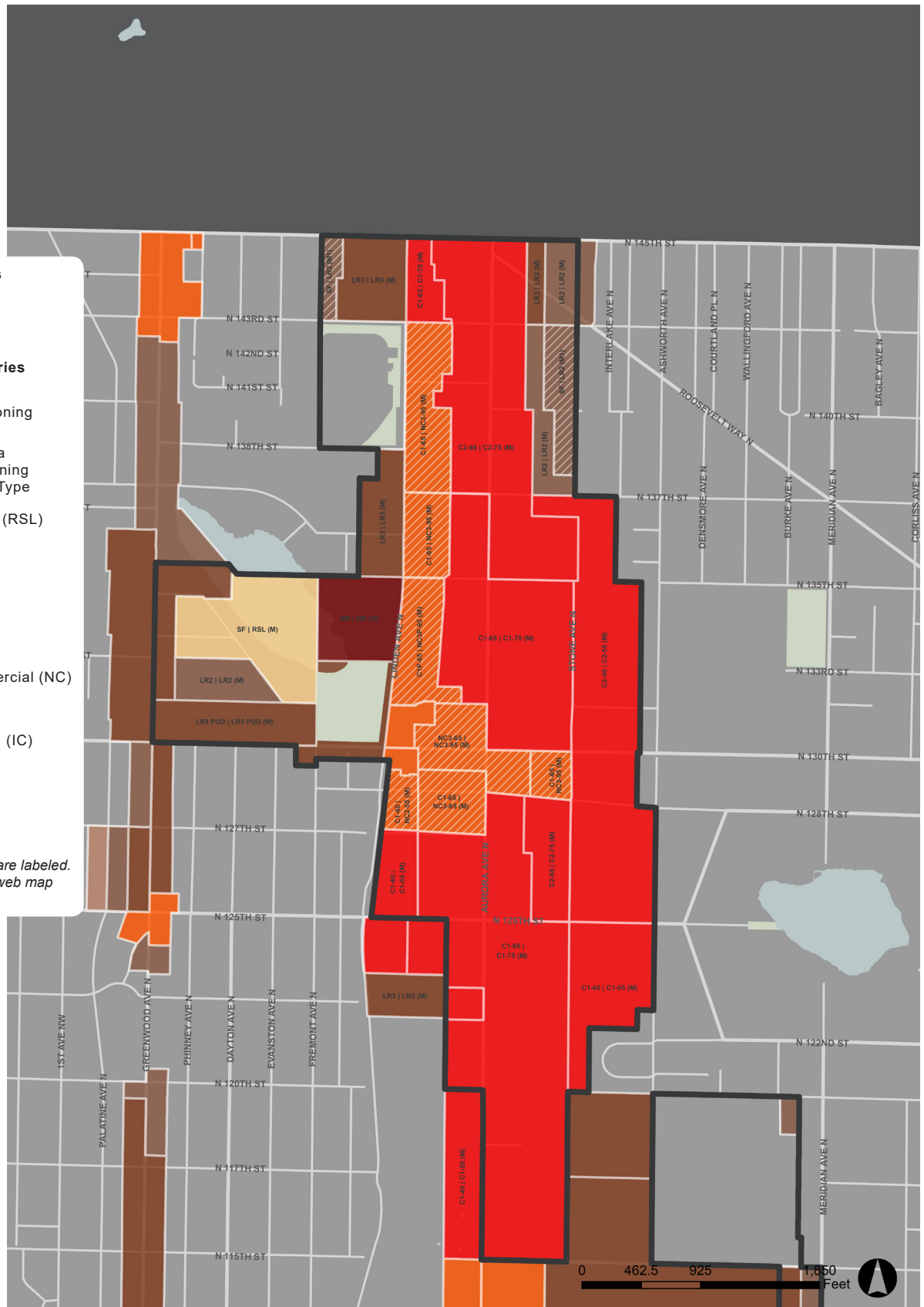
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

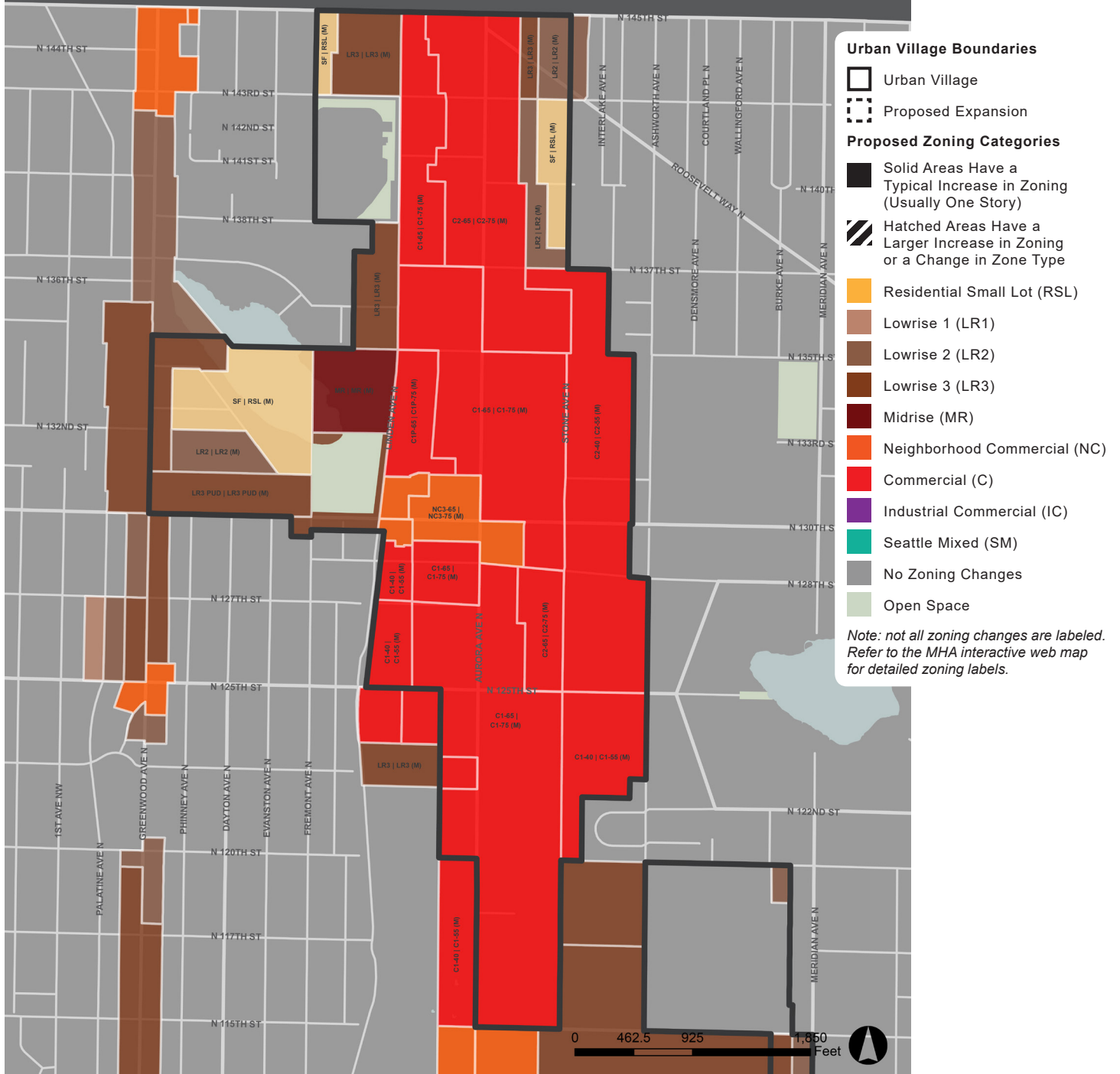
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.

**Exhibit H-16**  
Proposed Zoning,  
Alternative 3:  
Bitter Lake Village  
Urban Village





Source: City of Seattle, 2017.
















**Exhibit H-17**  
Proposed Zoning,  
Alternative 2:  
Columbia City  
Urban Village

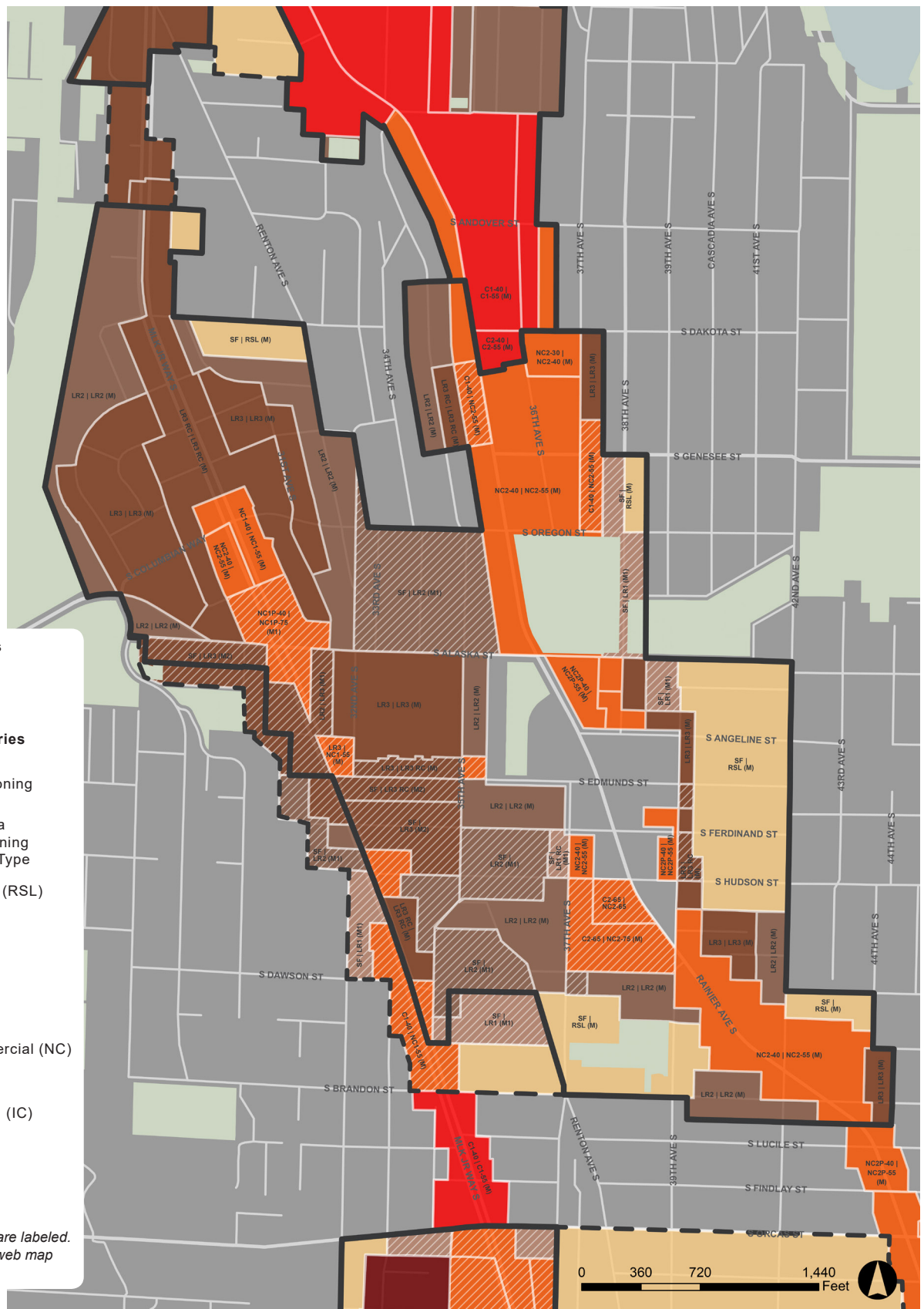
## Urban Village Boundaries

-  Urban Village  
 Proposed Expansion

## Proposed Zoning Categories

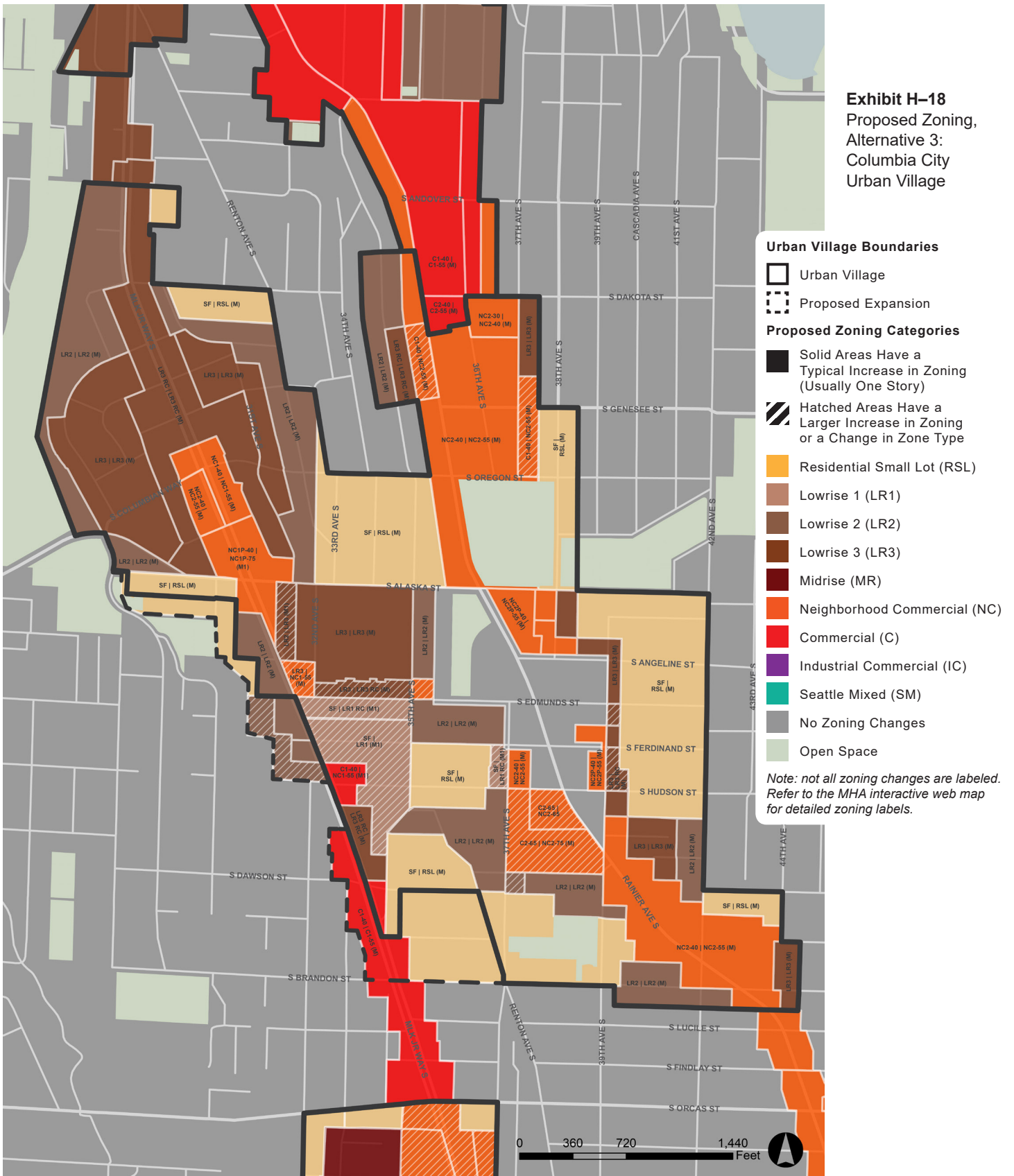
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*





Source: City of Seattle, 2017.

**Exhibit H-18**  
Proposed Zoning,  
Alternative 3:  
Columbia City  
Urban Village
















Source: City of Seattle, 2017.

**Urban Village Boundaries**

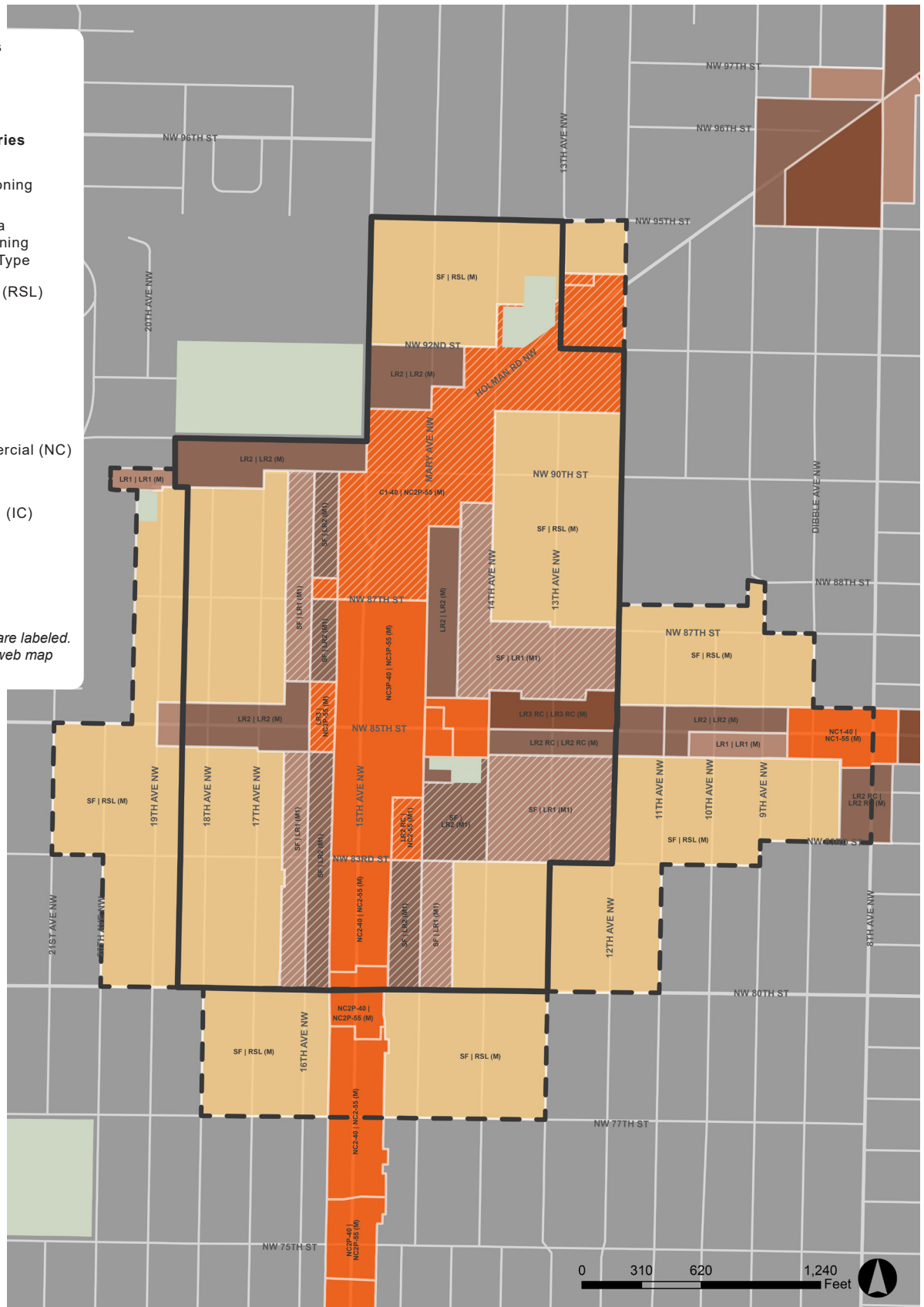
-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

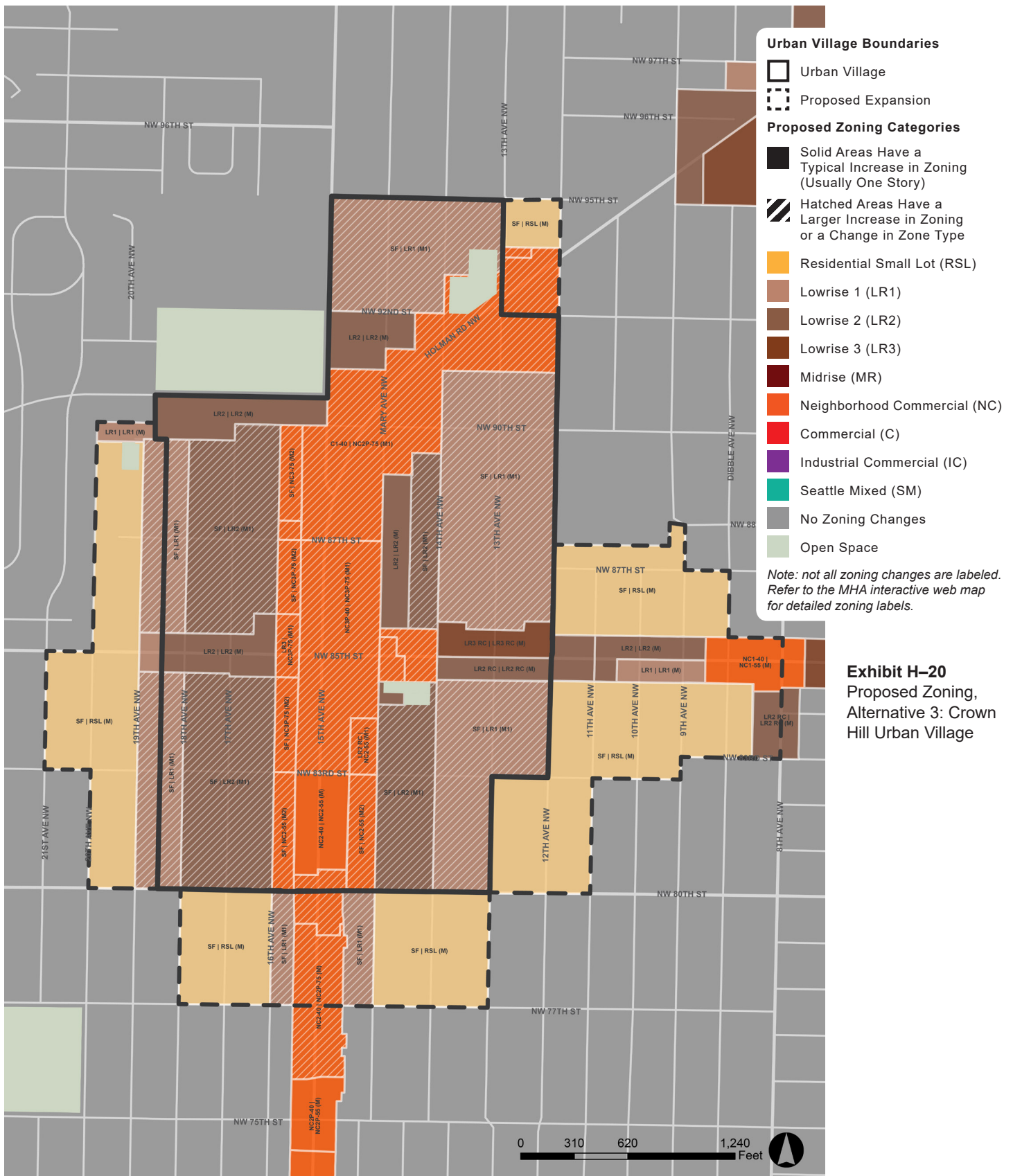
*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*

**Exhibit H-19**  
Proposed Zoning,  
Alternative 2: Crown  
Hill Urban Village



Source: City of Seattle, 2017.


















Source: City of Seattle, 2017.

## Exhibit H-21 Proposed Zoning, Alternative 2: Eastlake Urban Village

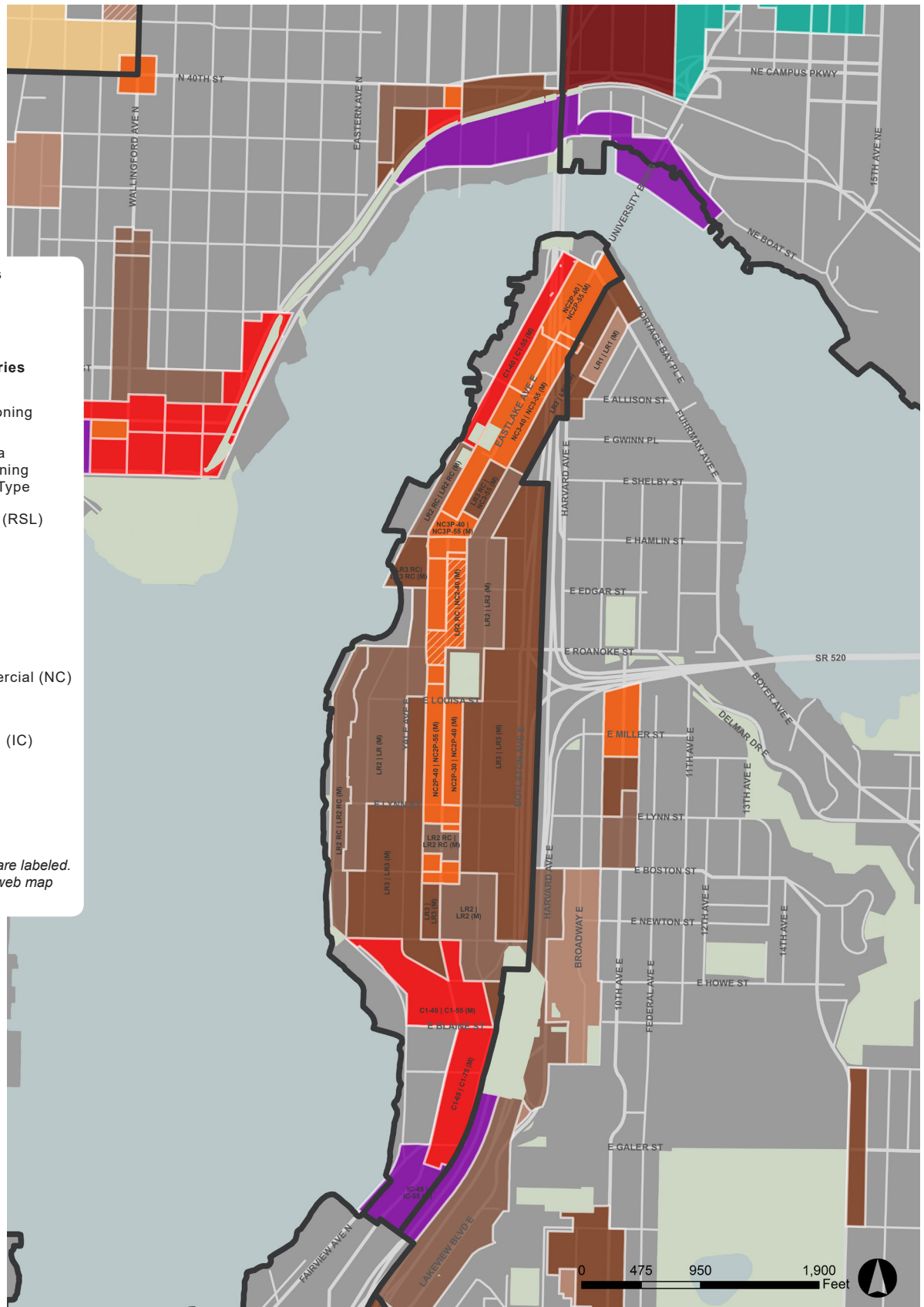
### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

### Proposed Zoning Categories

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

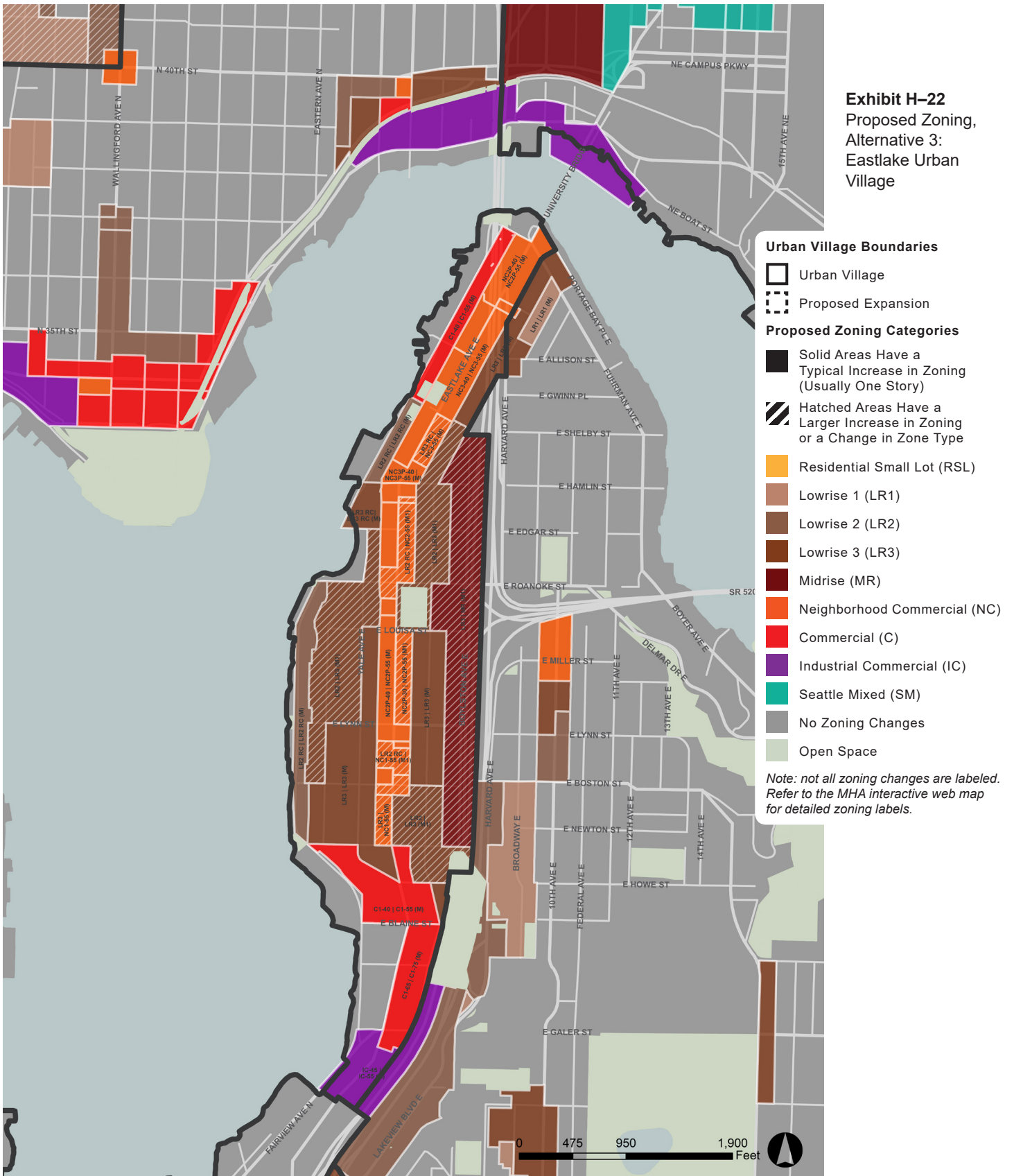
*Note: not all zoning changes are labeled.  
Refer to the MHA interactive web map  
for detailed zoning labels.*



Source: City of Seattle, 2017.



**Exhibit H-22**  
**Proposed Zoning,**  
**Alternative 3:**  
**Eastlake Urban**  
**Village**
















Source: City of Seattle, 2017.

## Exhibit H-23 Proposed Zoning, Alternative 2: First Hill-Capitol Hill Urban Village

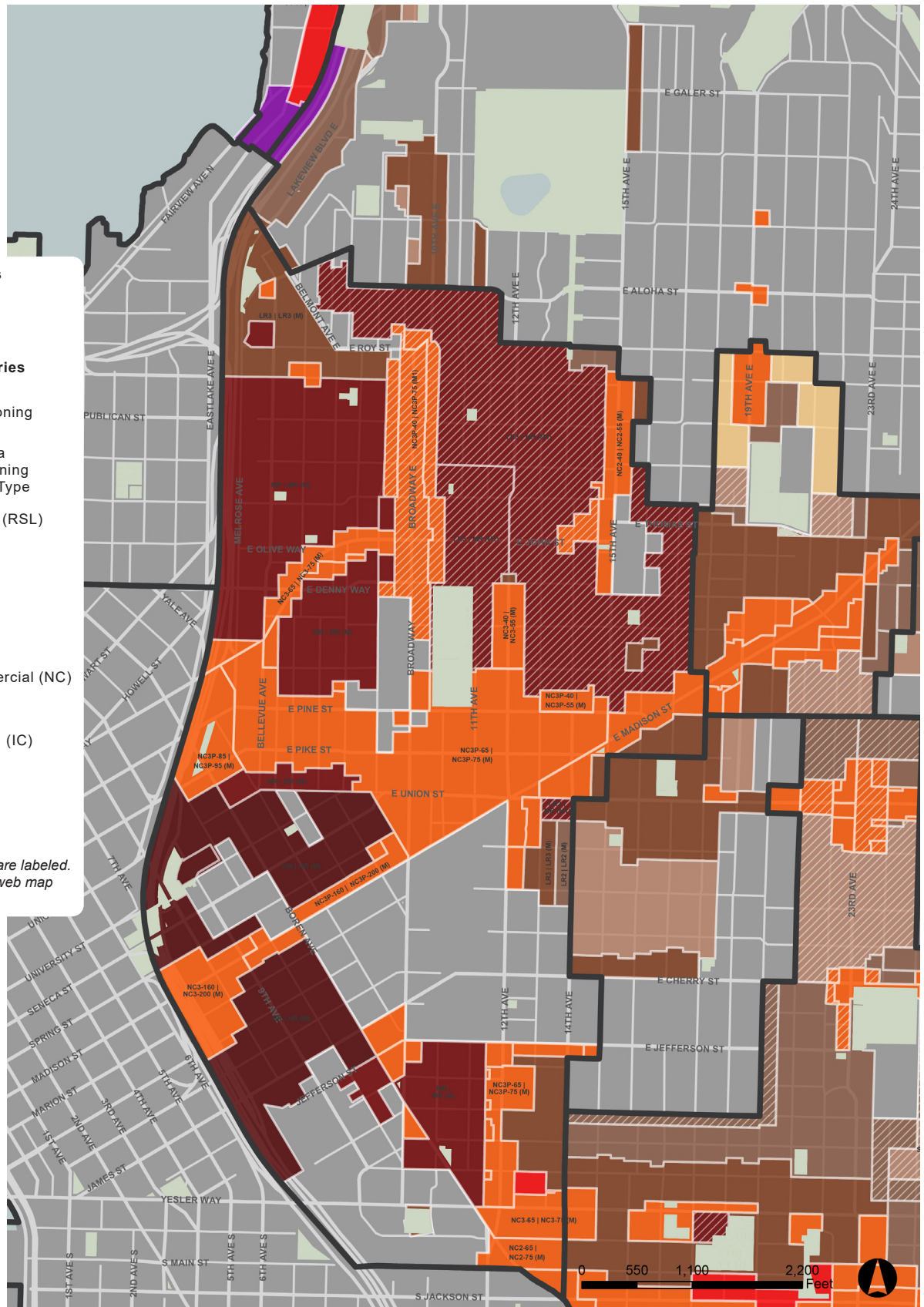
### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

### Proposed Zoning Categories

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

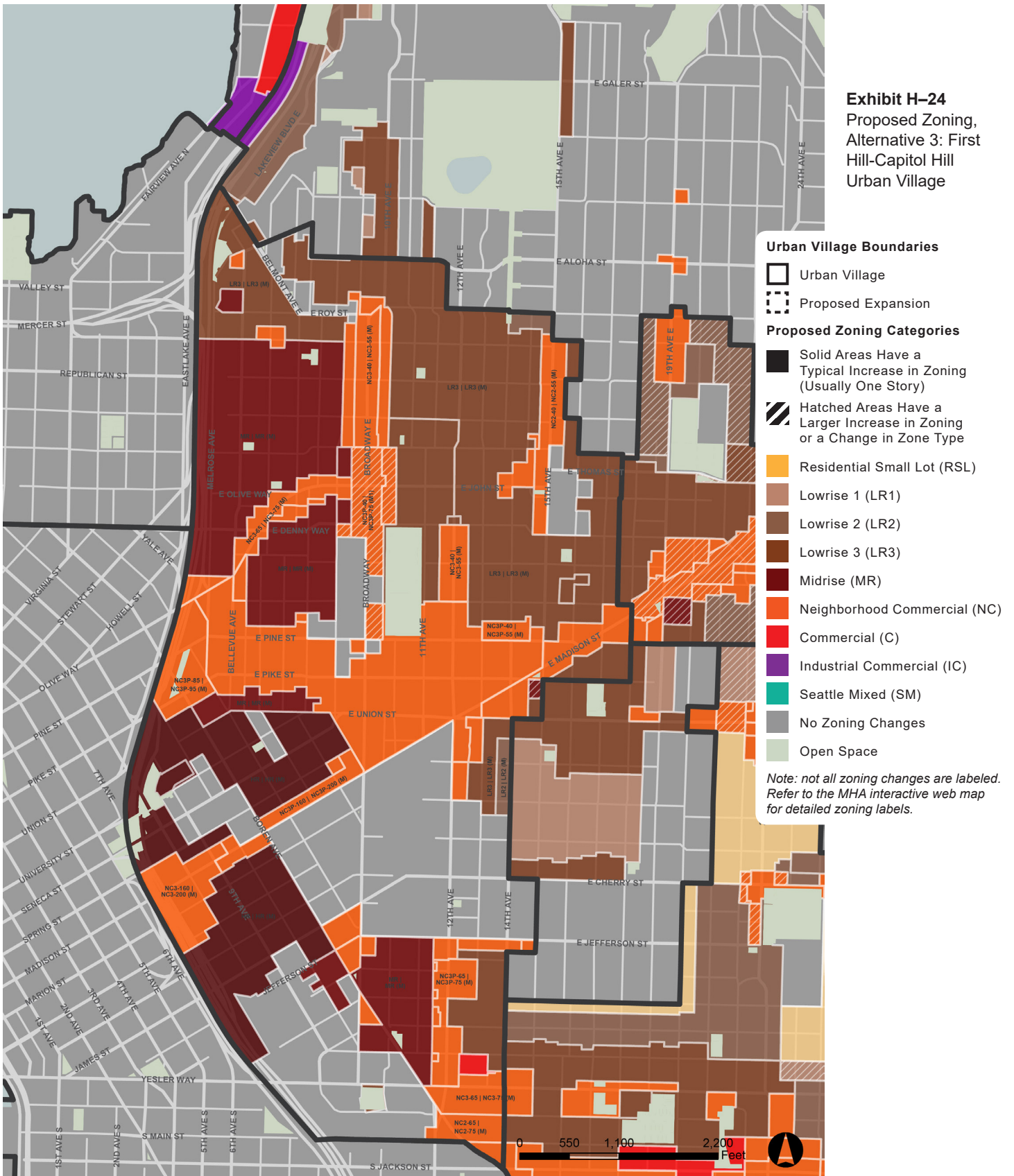
*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.





**Exhibit H-24**  
Proposed Zoning,  
Alternative 3: First  
Hill-Capitol Hill  
Urban Village
















Source: City of Seattle, 2017.

**Exhibit H-25**  
Proposed Zoning,  
Alternative 2:  
Fremont Urban  
Village

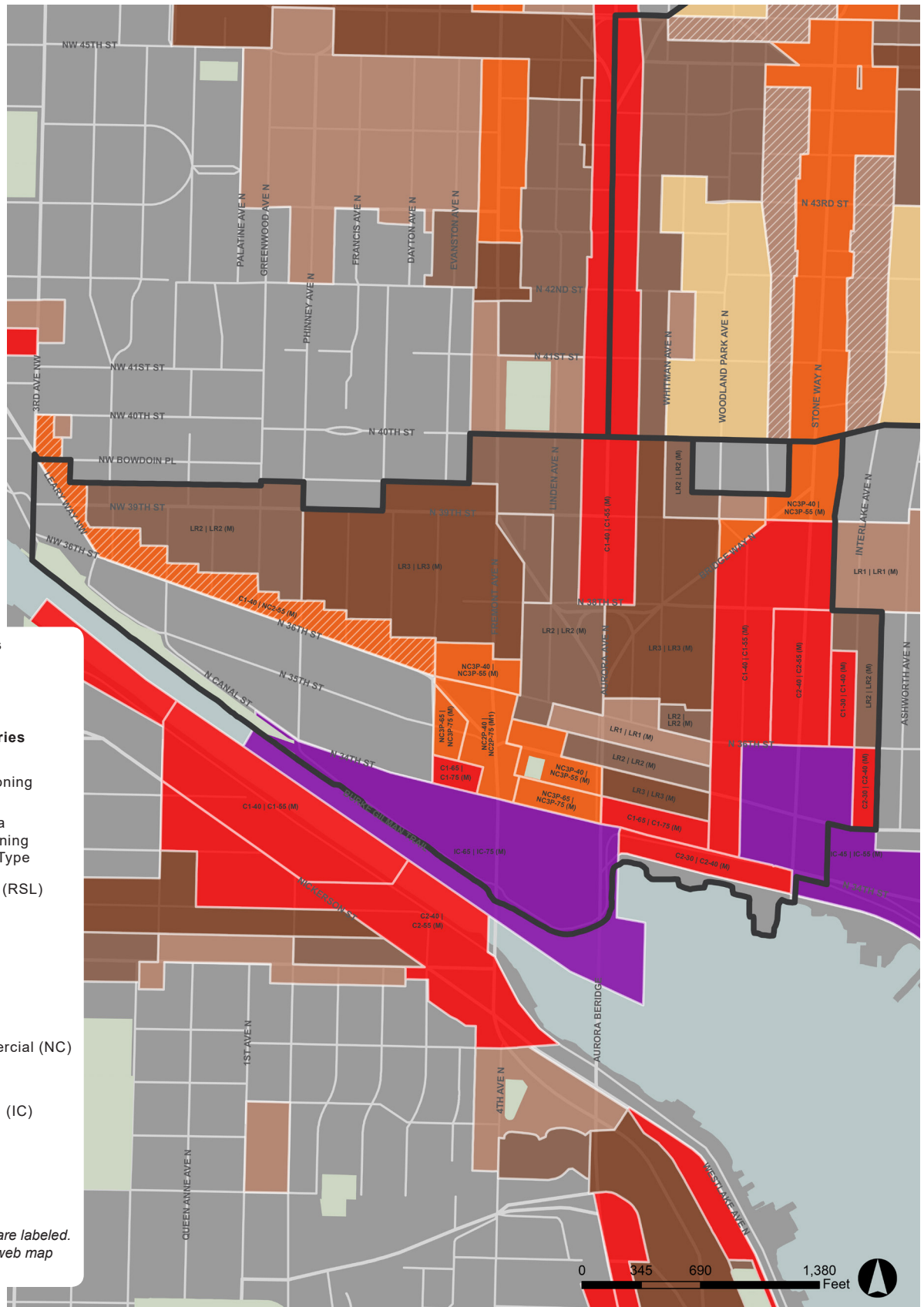
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

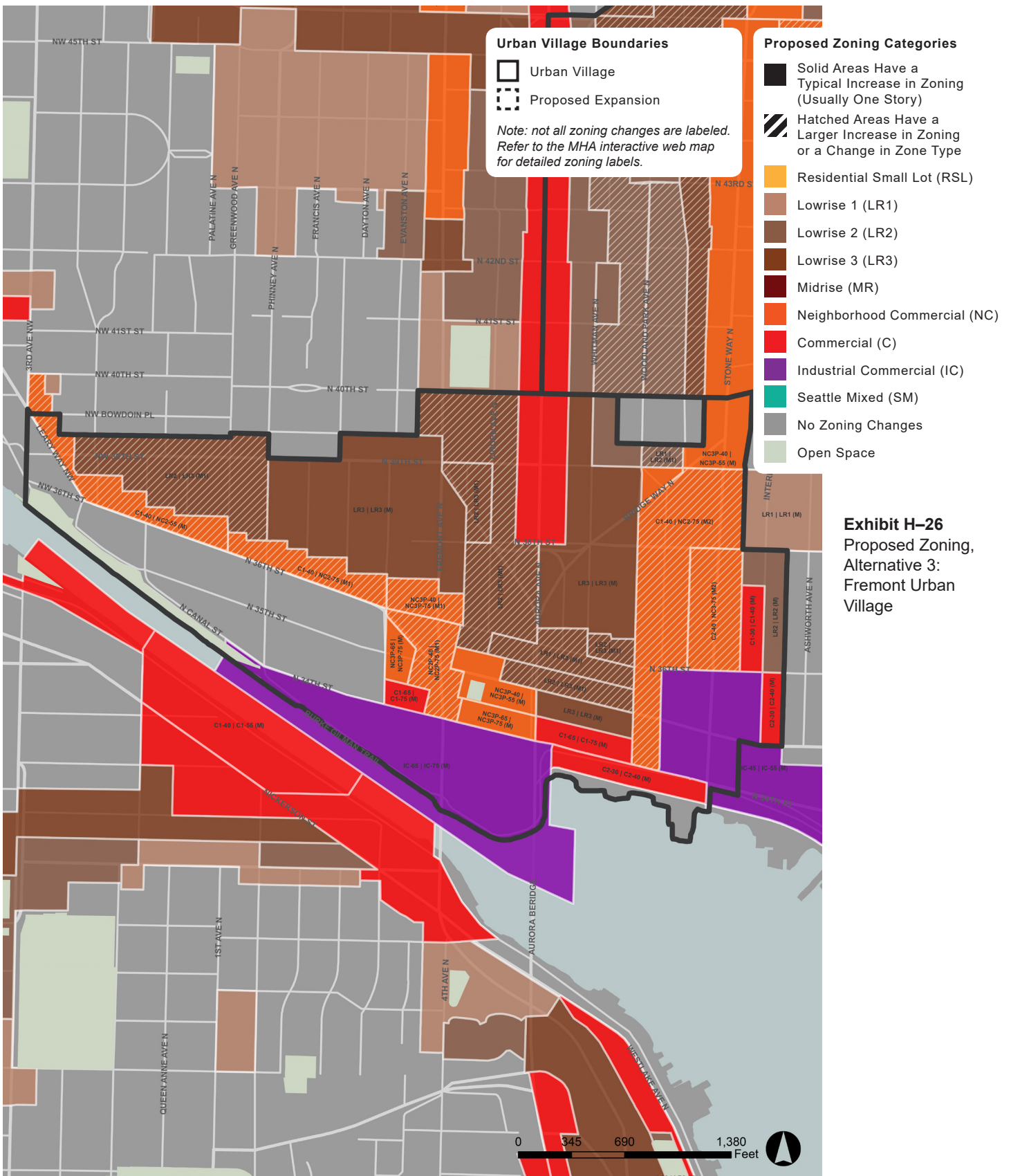
**Proposed Zoning Categories**

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled.  
Refer to the MHA interactive web map  
for detailed zoning labels.*



Source: City of Seattle, 2017.



Source: City of Seattle, 2017.
















**Exhibit H-27**  
Proposed Zoning,  
Alternative 2: Green  
Lake Urban Village

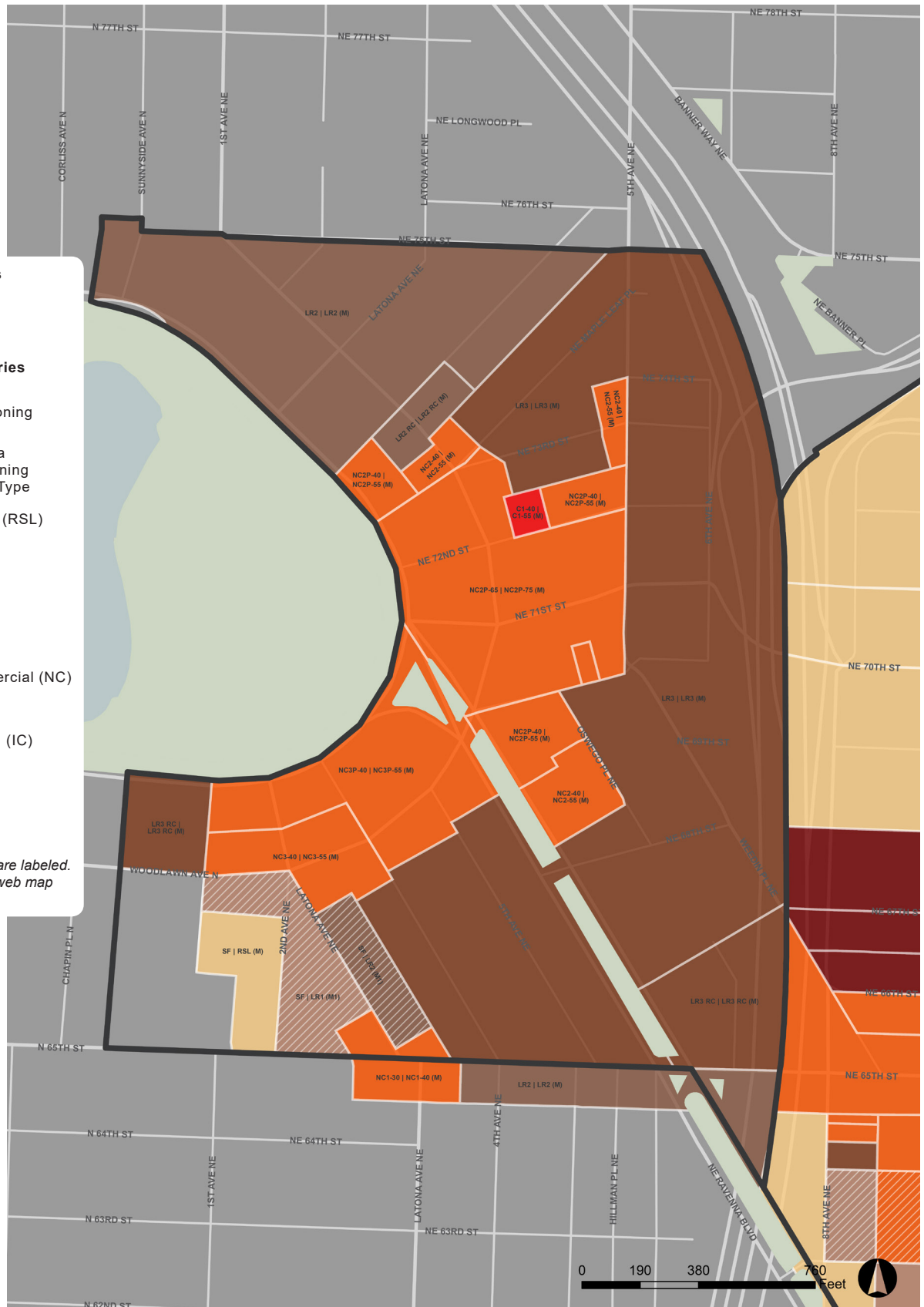
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

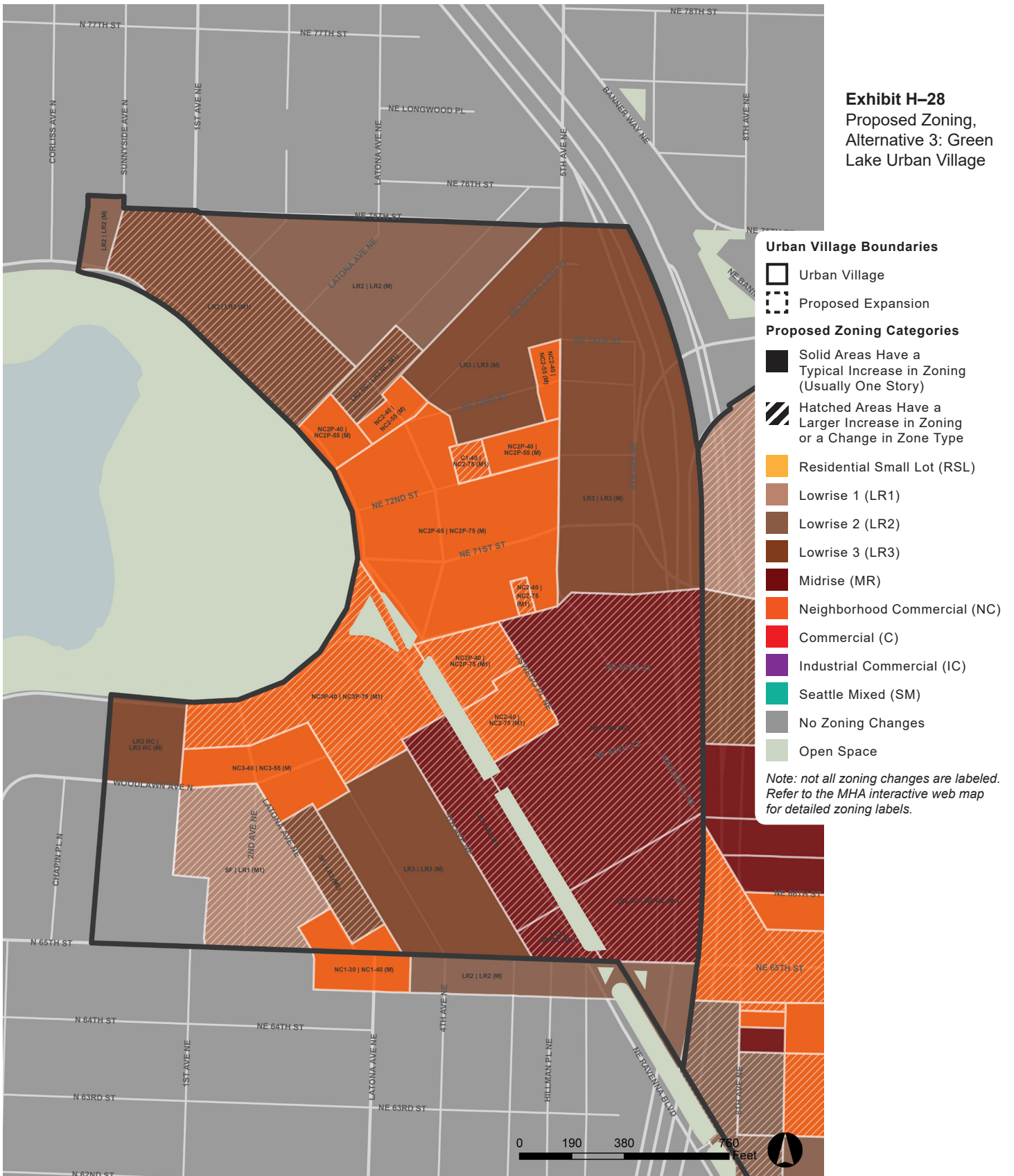
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.



**Exhibit H-28**  
**Proposed Zoning,**  
**Alternative 3: Green**  
**Lake Urban Village**
















Source: City of Seattle, 2017.

**Exhibit H-29**  
Proposed Zoning,  
Alternative 2:  
Greenwood-Phinney  
Ridge Urban Village

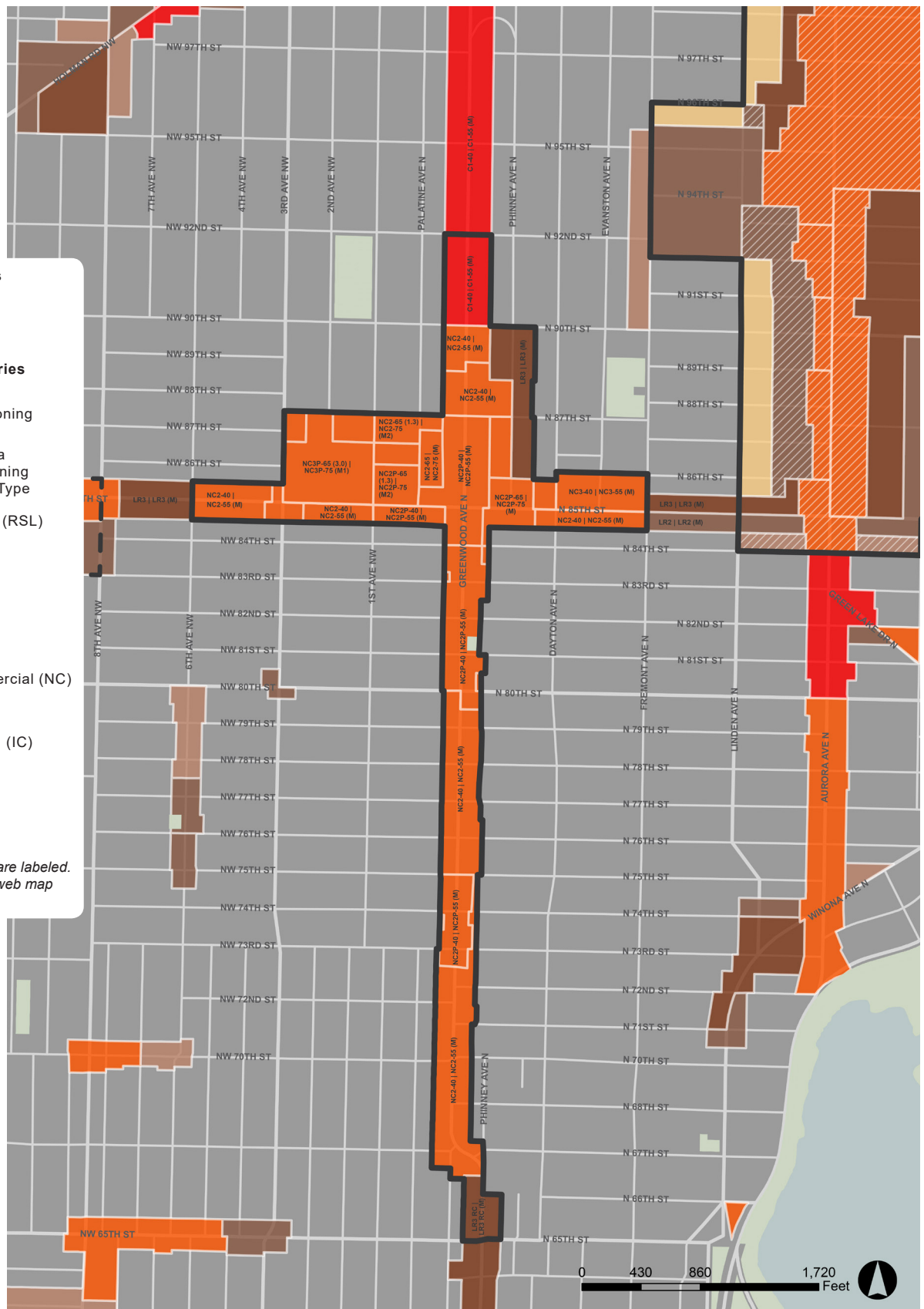
## Urban Village Boundaries

-  Urban Village  
 Proposed Expansion

## Proposed Zoning Categories

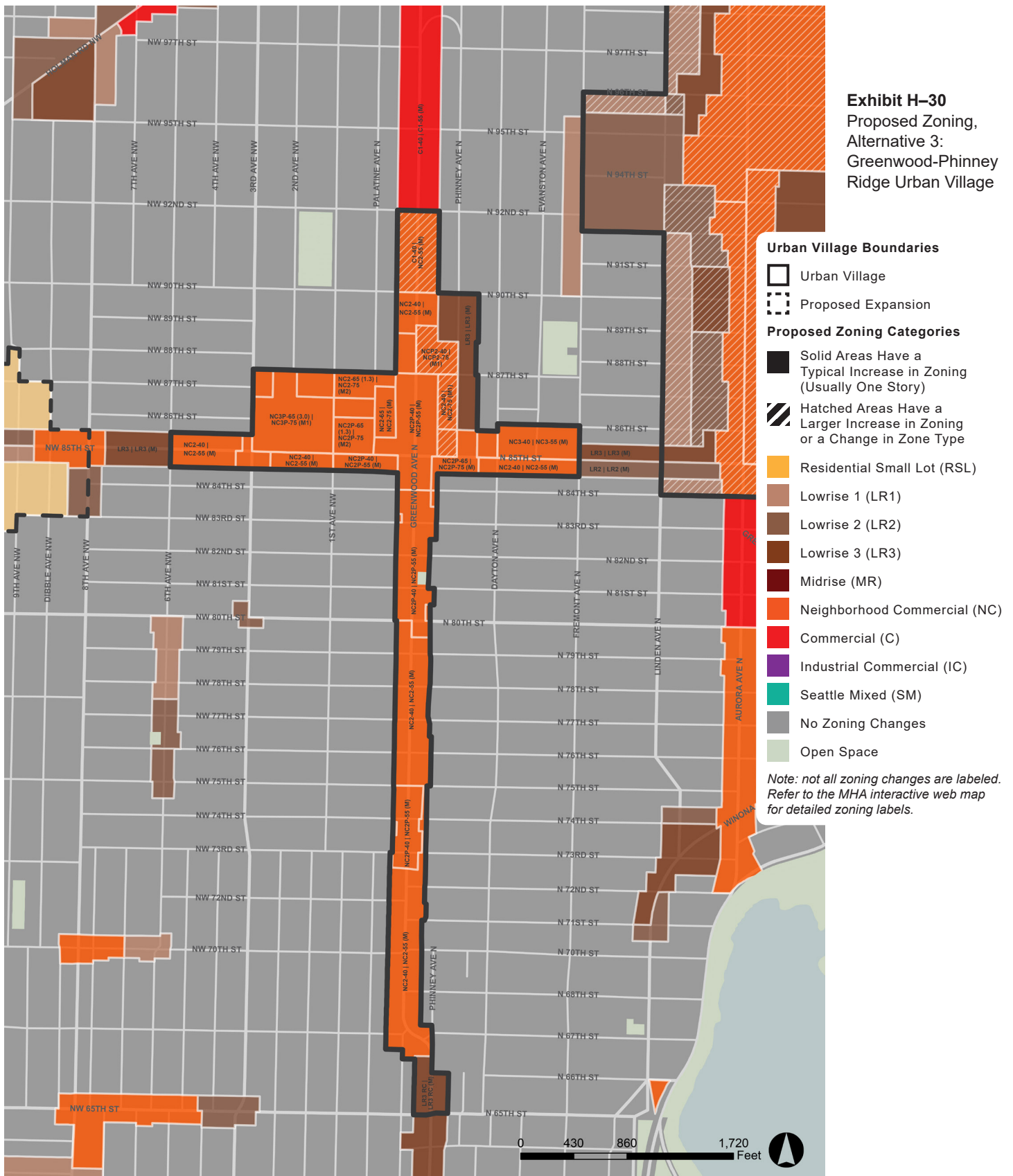
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.




















Source: City of Seattle, 2017.

**Exhibit H-31**  
Proposed Zoning,  
Alternative 2: Lake  
City Urban Village

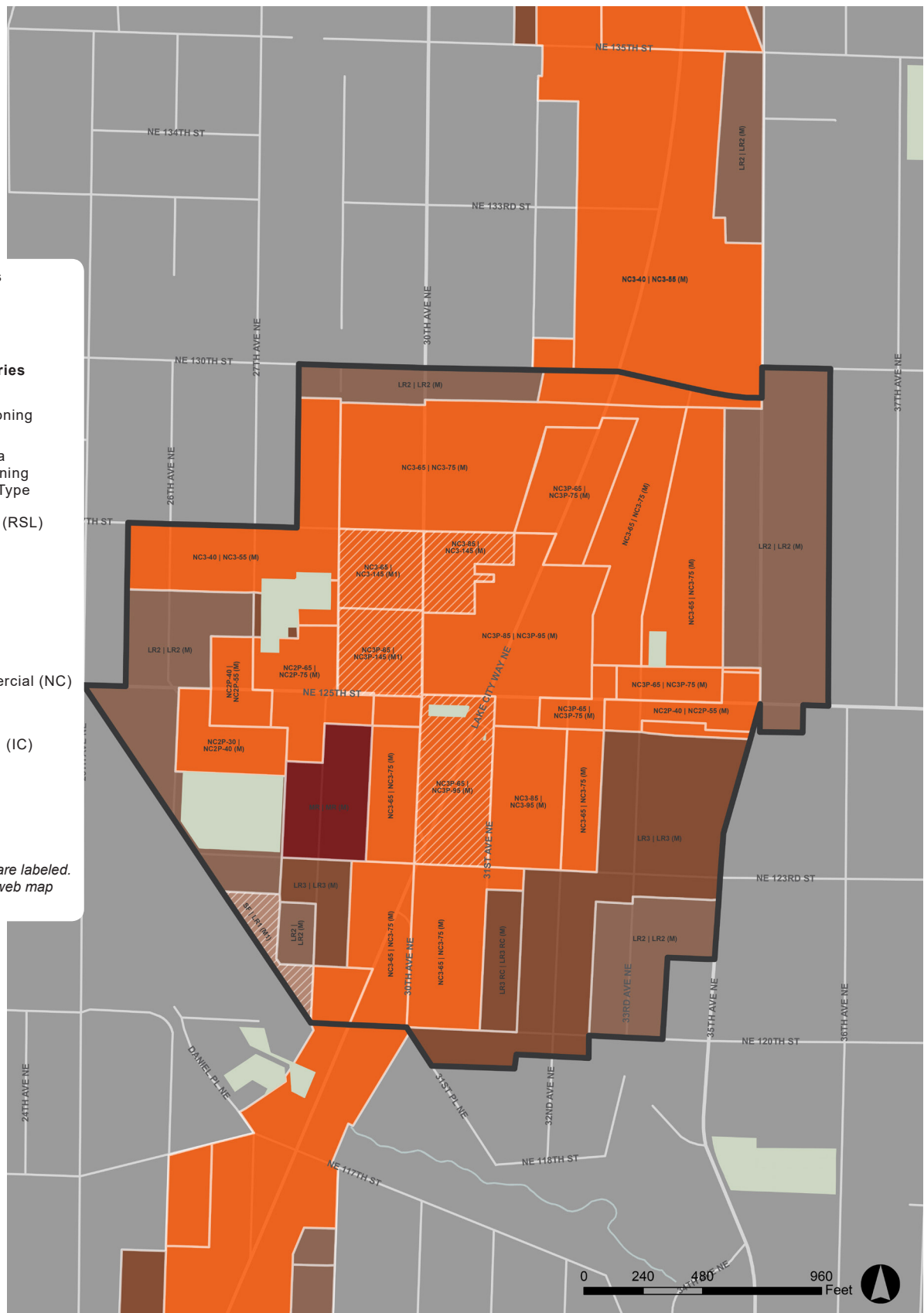
## Urban Village Boundaries

-  Urban Village  
 Proposed Expansion

### Proposed Zoning Categories

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.




*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*
















## Exhibit H-33 Proposed Zoning, Alternative 2: Madison-Miller Urban Village

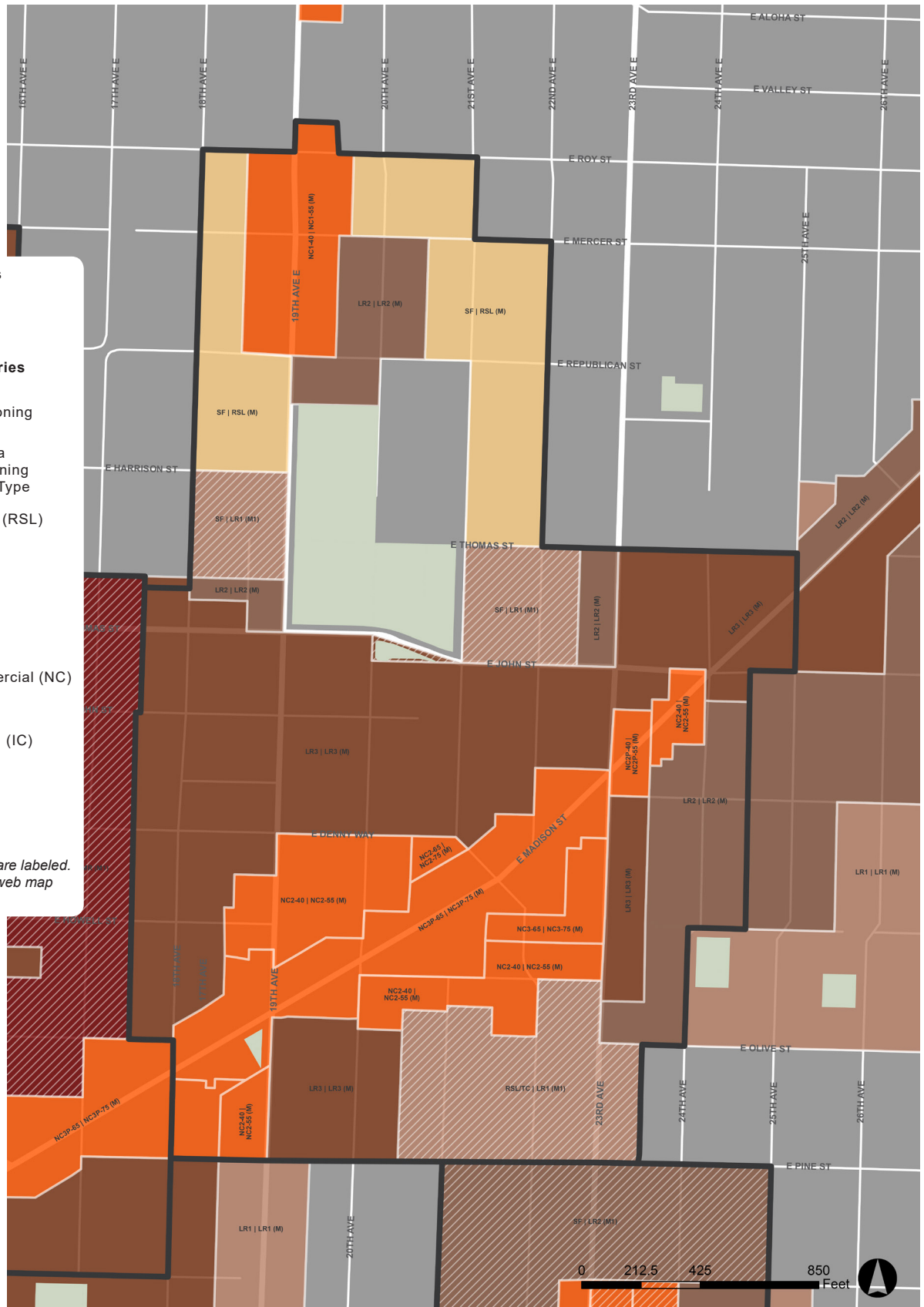
### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

### Proposed Zoning Categories

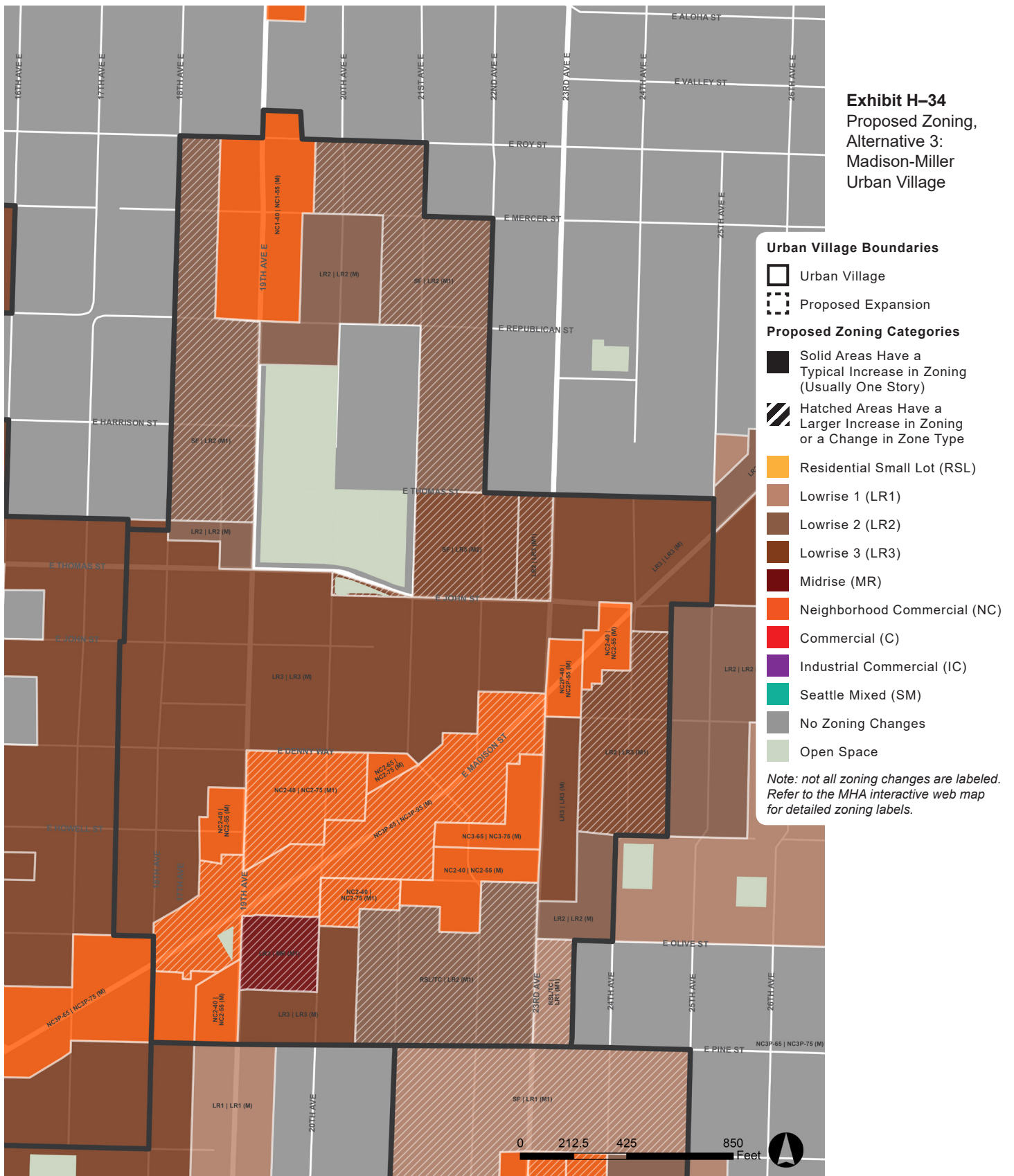
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled.  
Refer to the MHA interactive web map  
for detailed zoning labels.*



Source: City of Seattle, 2017.

**Exhibit H-34**  
**Proposed Zoning,**  
**Alternative 3:**  
**Madison-Miller**  
**Urban Village**





Source: City of Seattle, 2017.
















**Exhibit H-35**  
Proposed Zoning,  
Alternative 2:  
Morgan Junction  
Urban Village

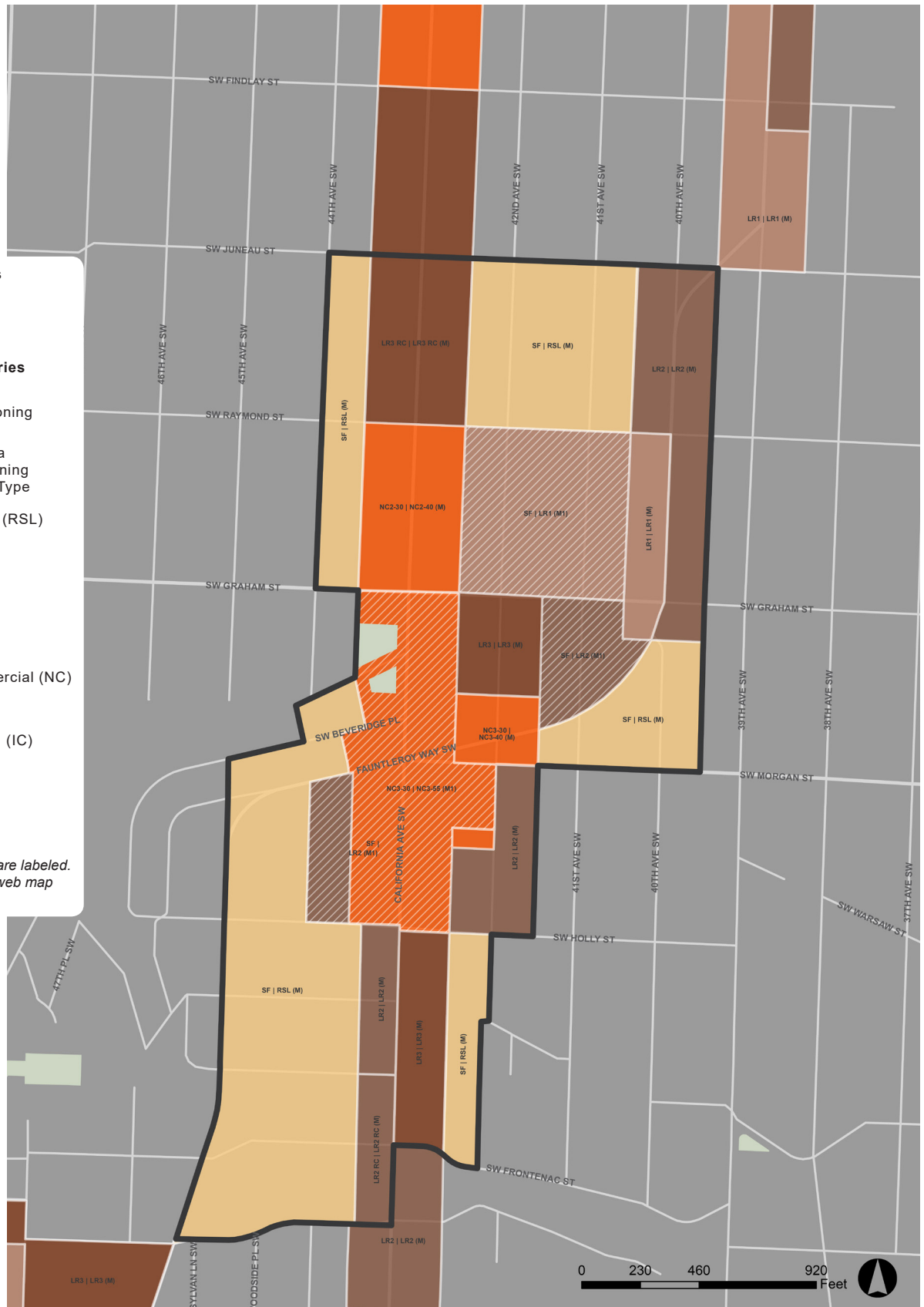
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

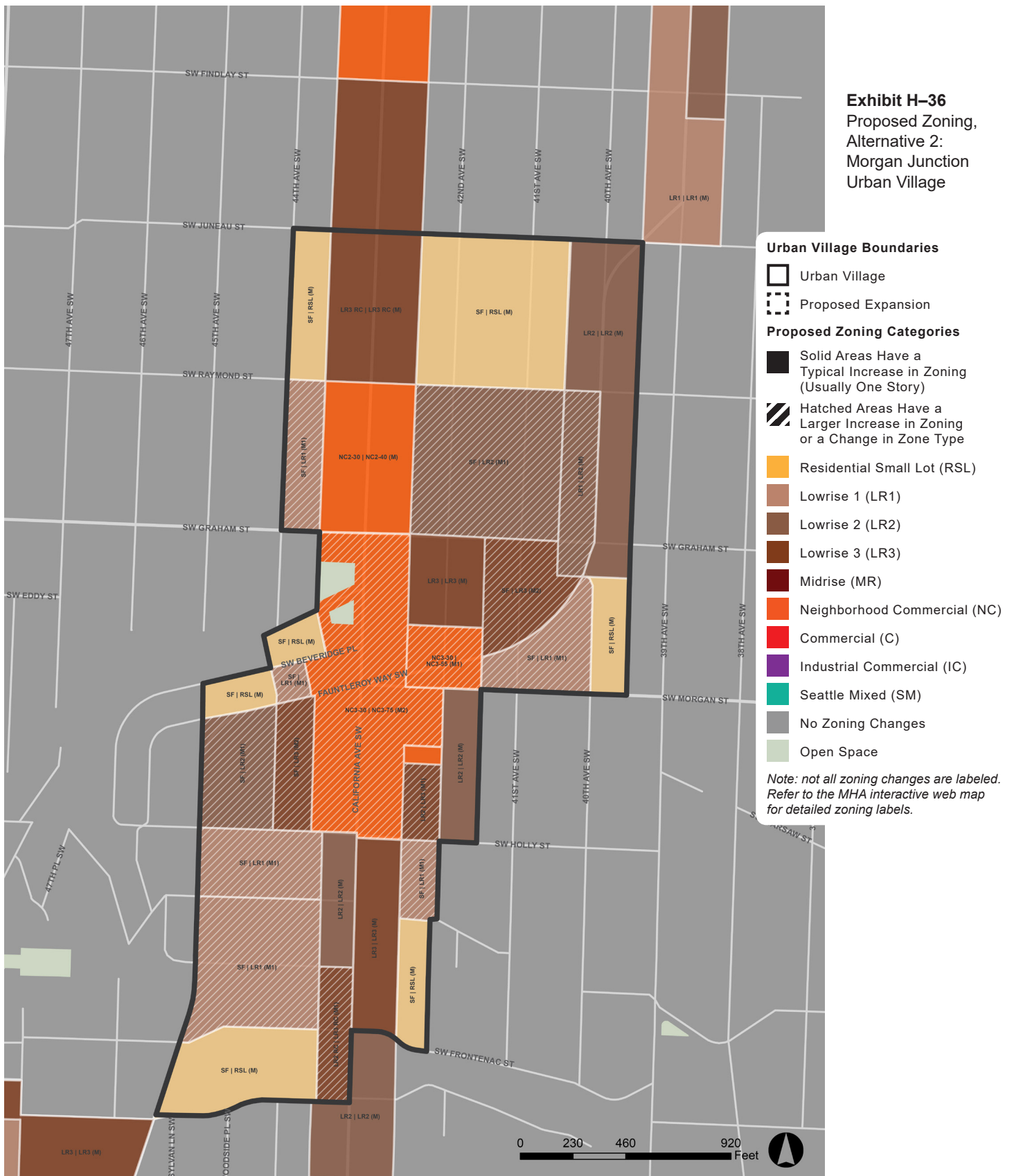
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.

**Exhibit H-36**  
Proposed Zoning,  
Alternative 2:  
Morgan Junction  
Urban Village





Source: City of Seattle, 2017.
















## Exhibit H-37 Proposed Zoning, Alternative 2: North Beacon Hill Urban Village

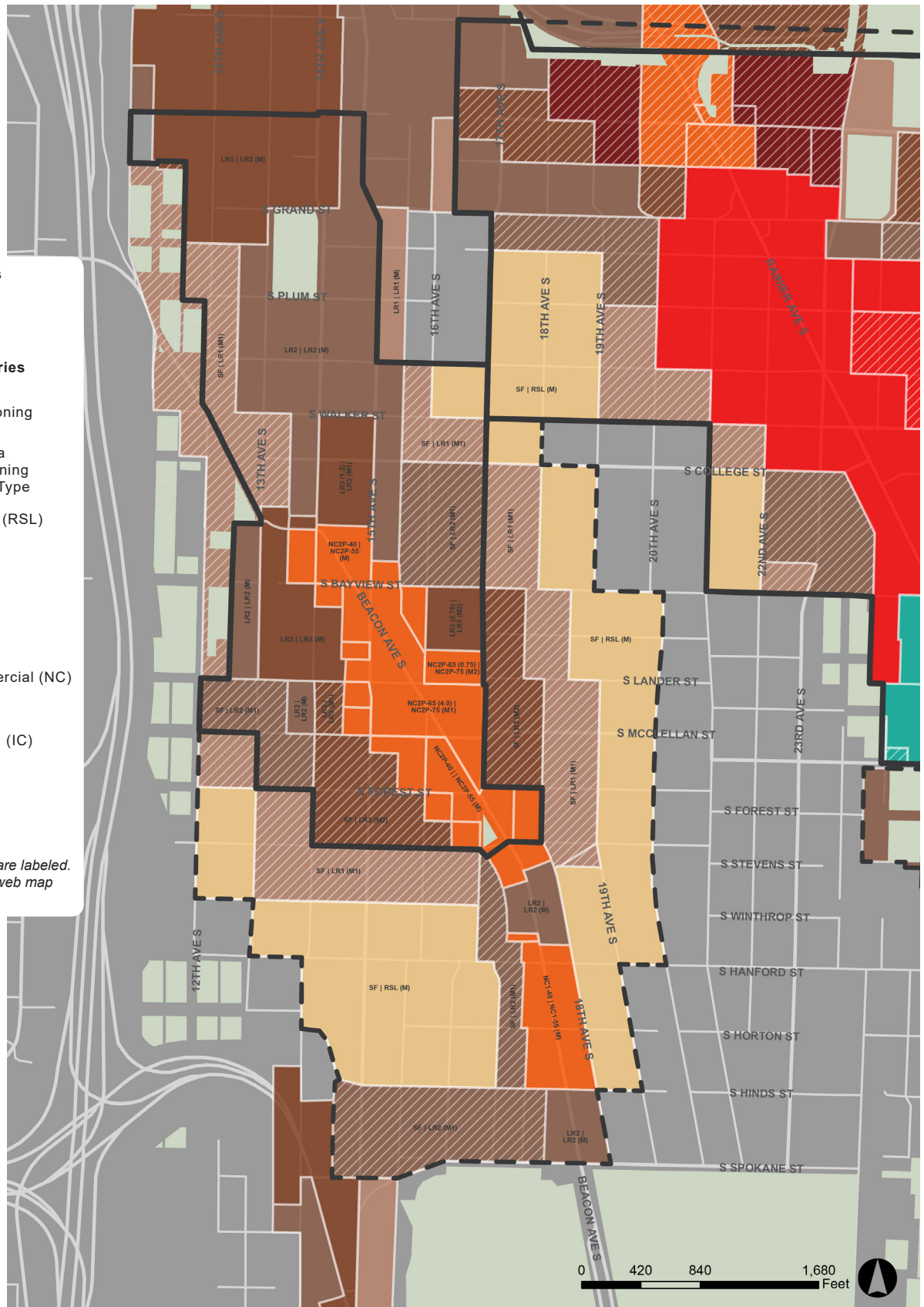
### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

### Proposed Zoning Categories

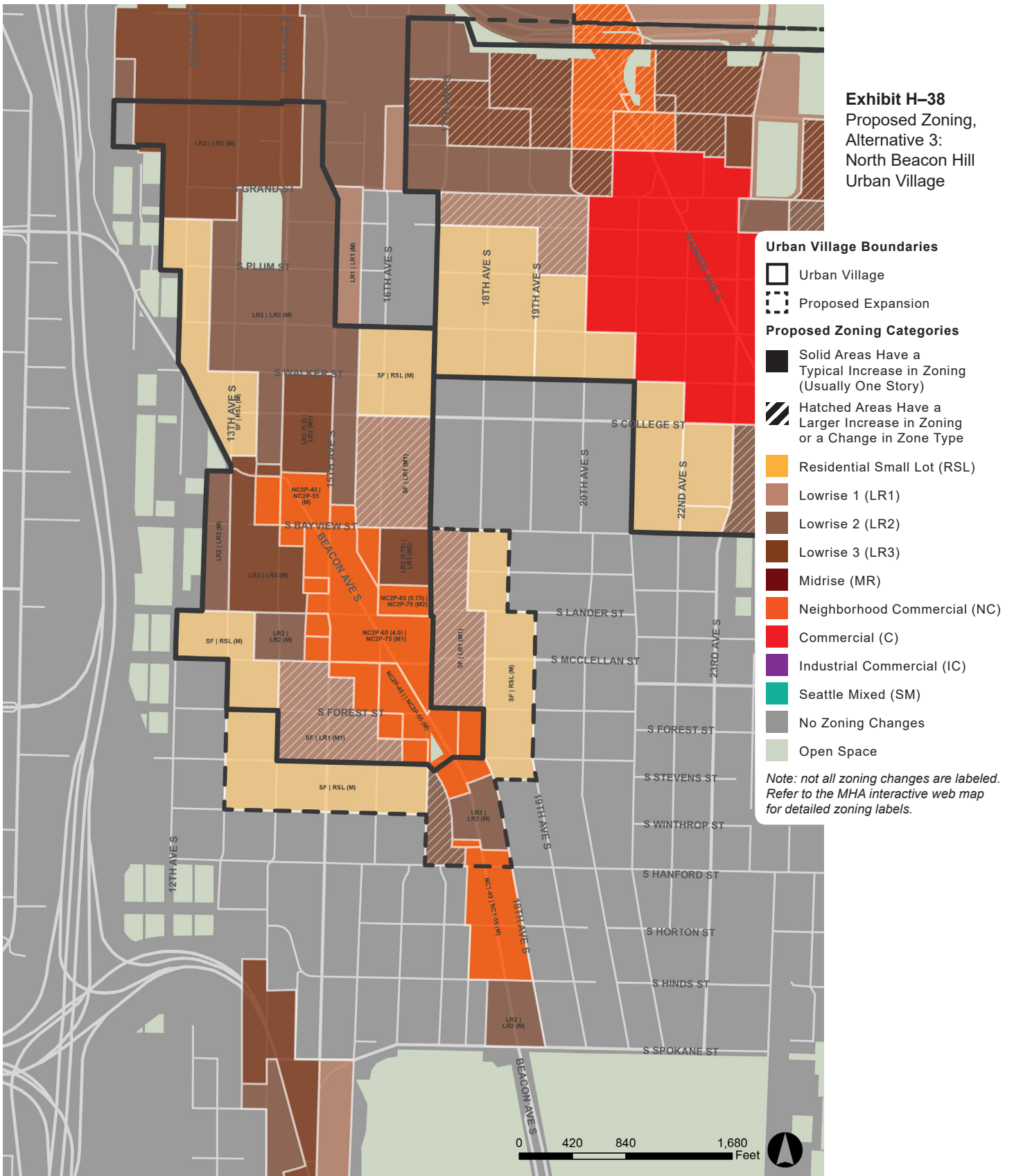
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.

**Exhibit H-38**  
Proposed Zoning,  
Alternative 3:  
North Beacon Hill  
Urban Village





Source: City of Seattle, 2017.
















**Exhibit H-39**  
Proposed Zoning,  
Alternative 2:  
North Rainier  
Urban Village

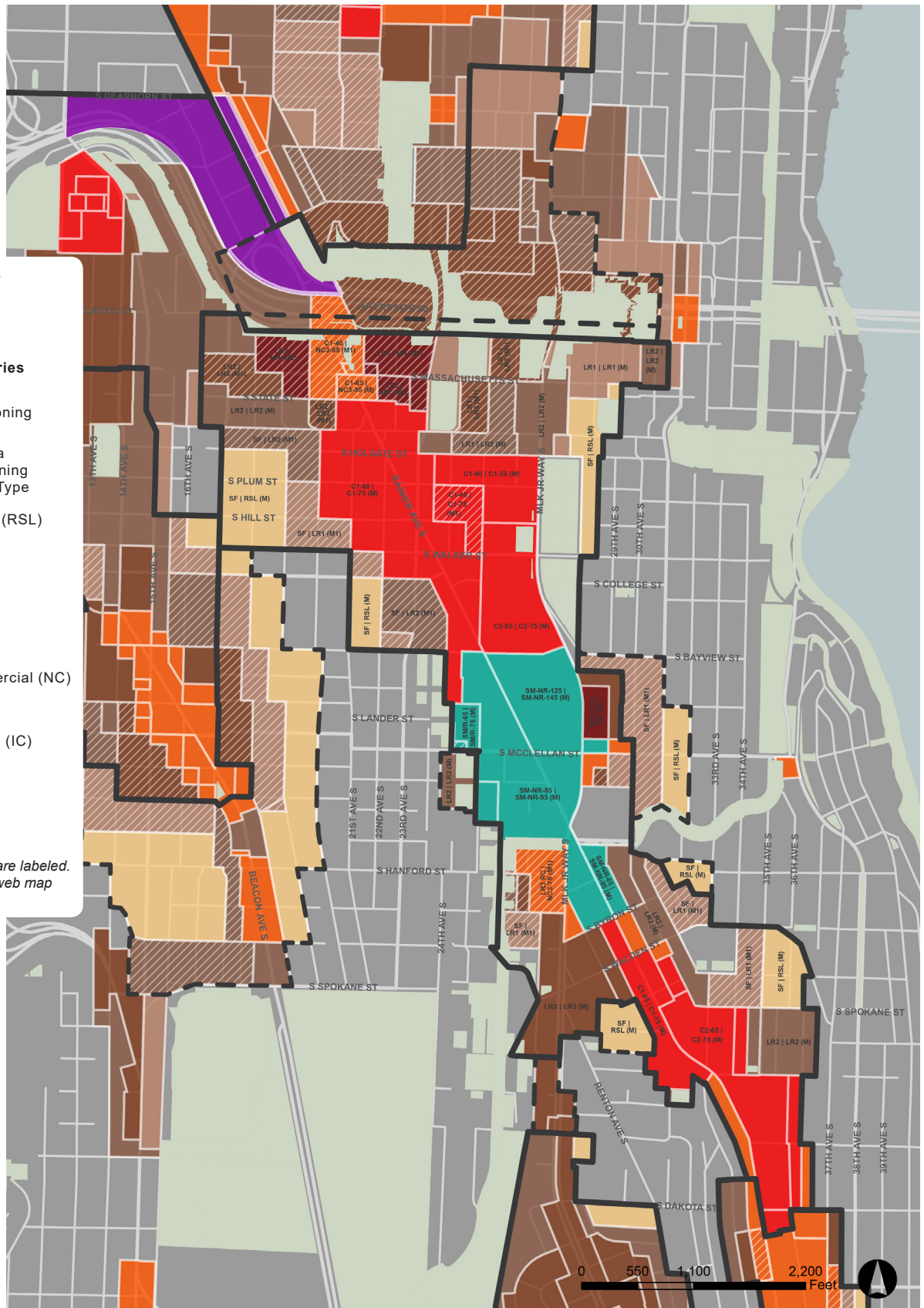
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

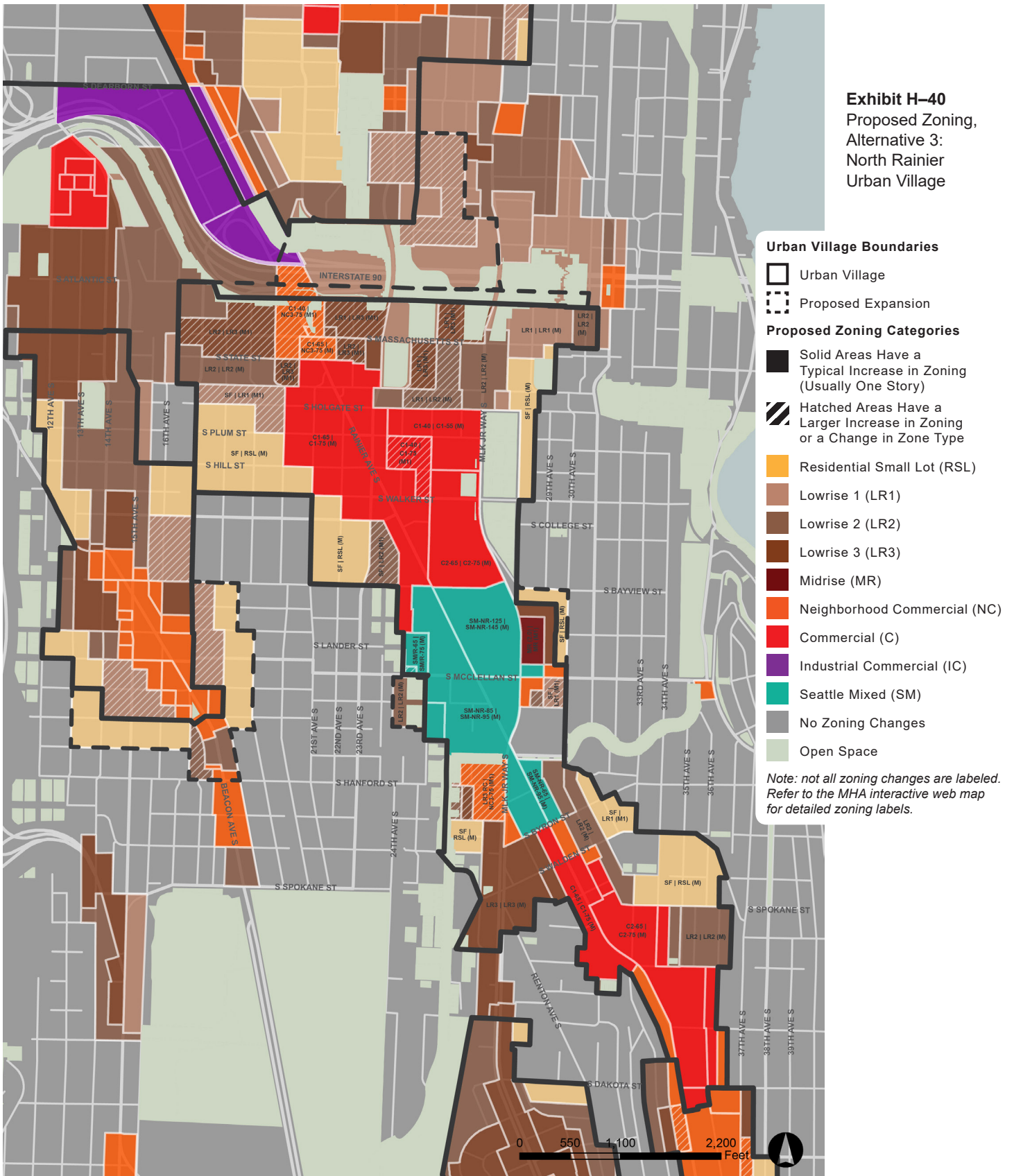
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.














**Exhibit H-40**  
Proposed Zoning,  
Alternative 3:  
North Rainier  
Urban Village





Source: City of Seattle, 2017.

**Exhibit H-41**  
Proposed Zoning,  
Alternative  
2: Northgate  
Urban Village

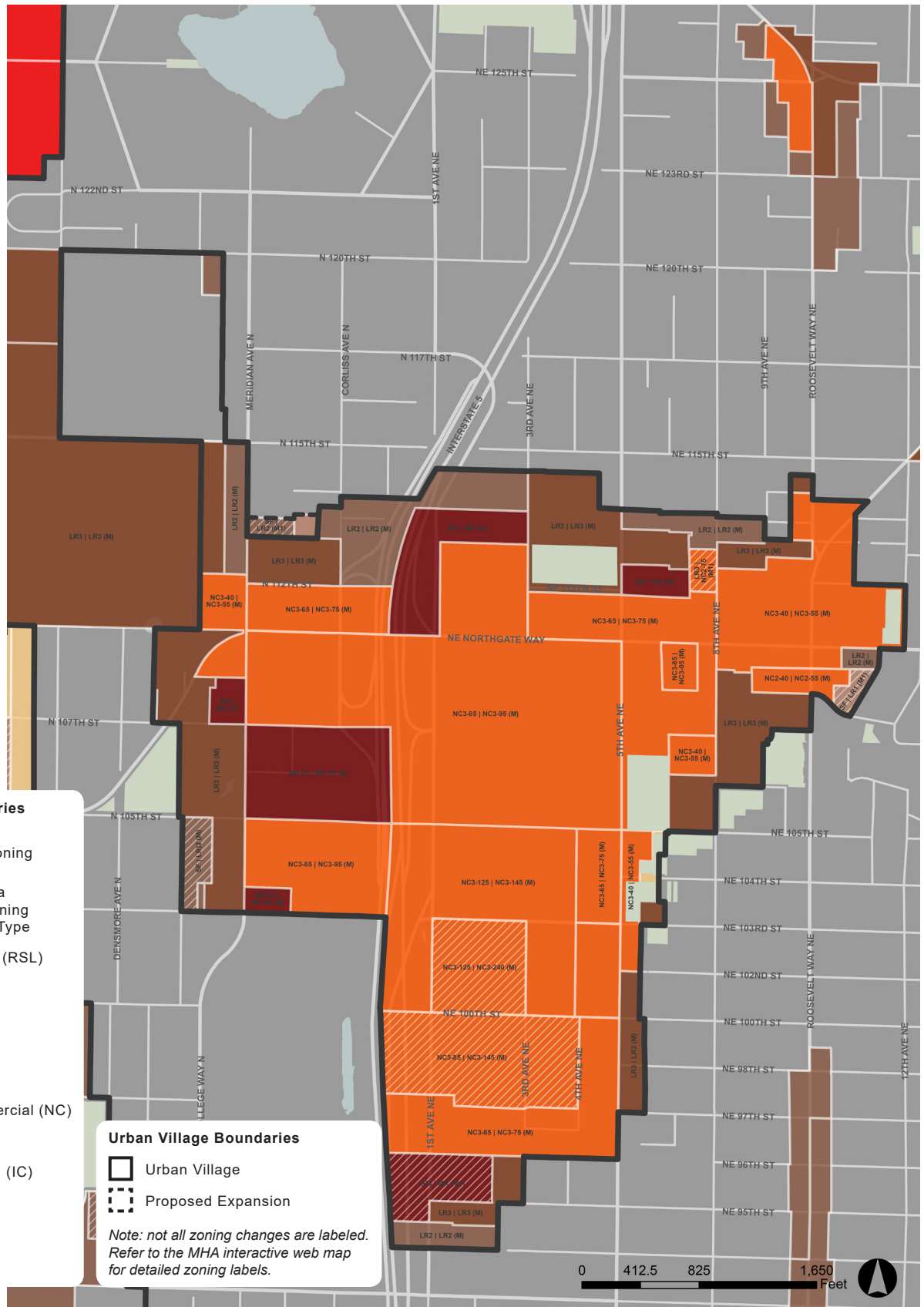
**Proposed Zoning Categories**

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

**Urban Village Boundaries**

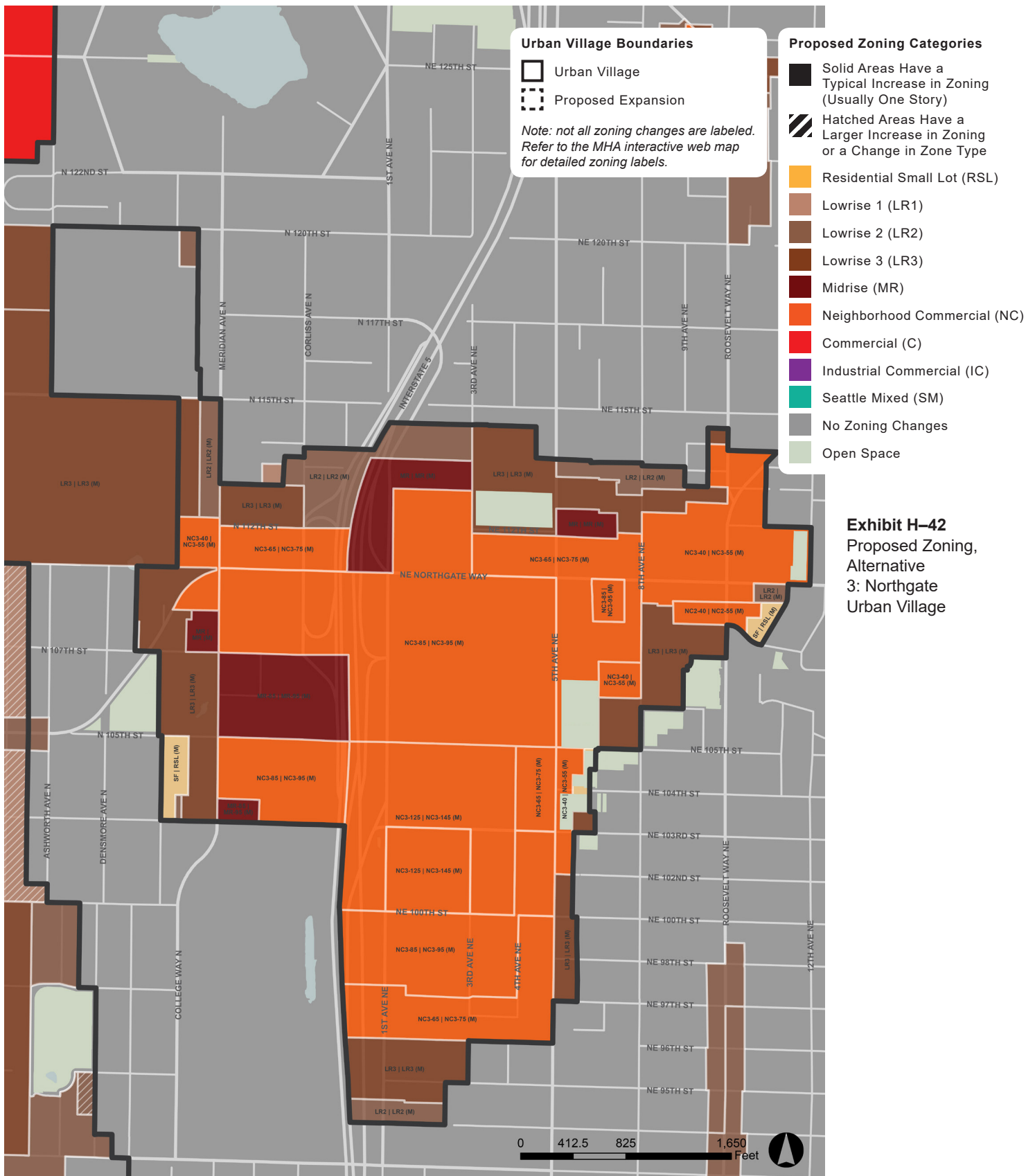
-  Urban Village
-  Proposed Expansion

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.




















Source: City of Seattle, 2017.

## Exhibit H-43 Proposed Zoning, Alternative 2: Othello Urban Village

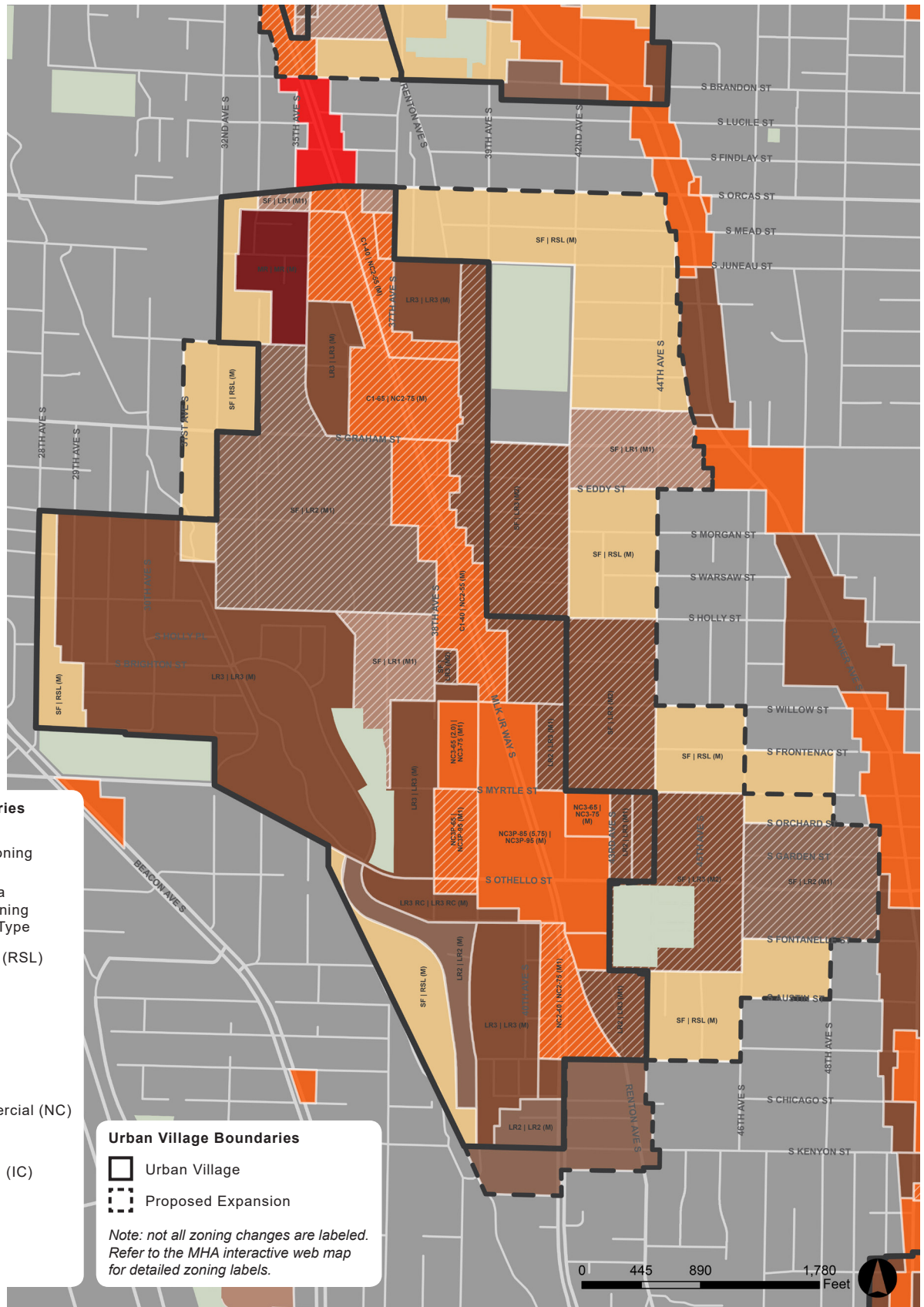
### Proposed Zoning Categories

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

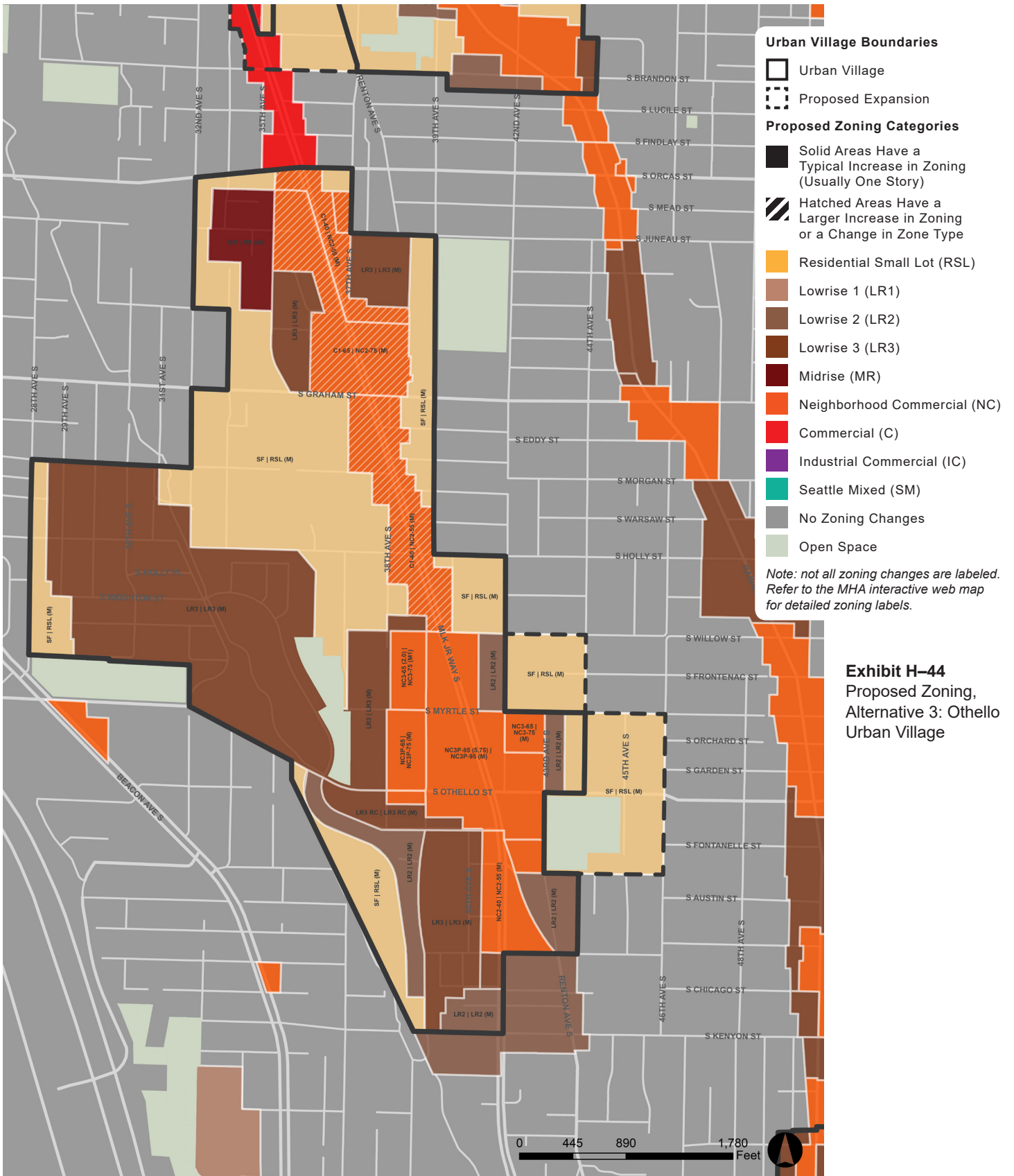
### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.





Source: City of Seattle, 2017.
















## Exhibit H-45 Proposed Zoning, Alternative 2: Rainier Beach Urban Village

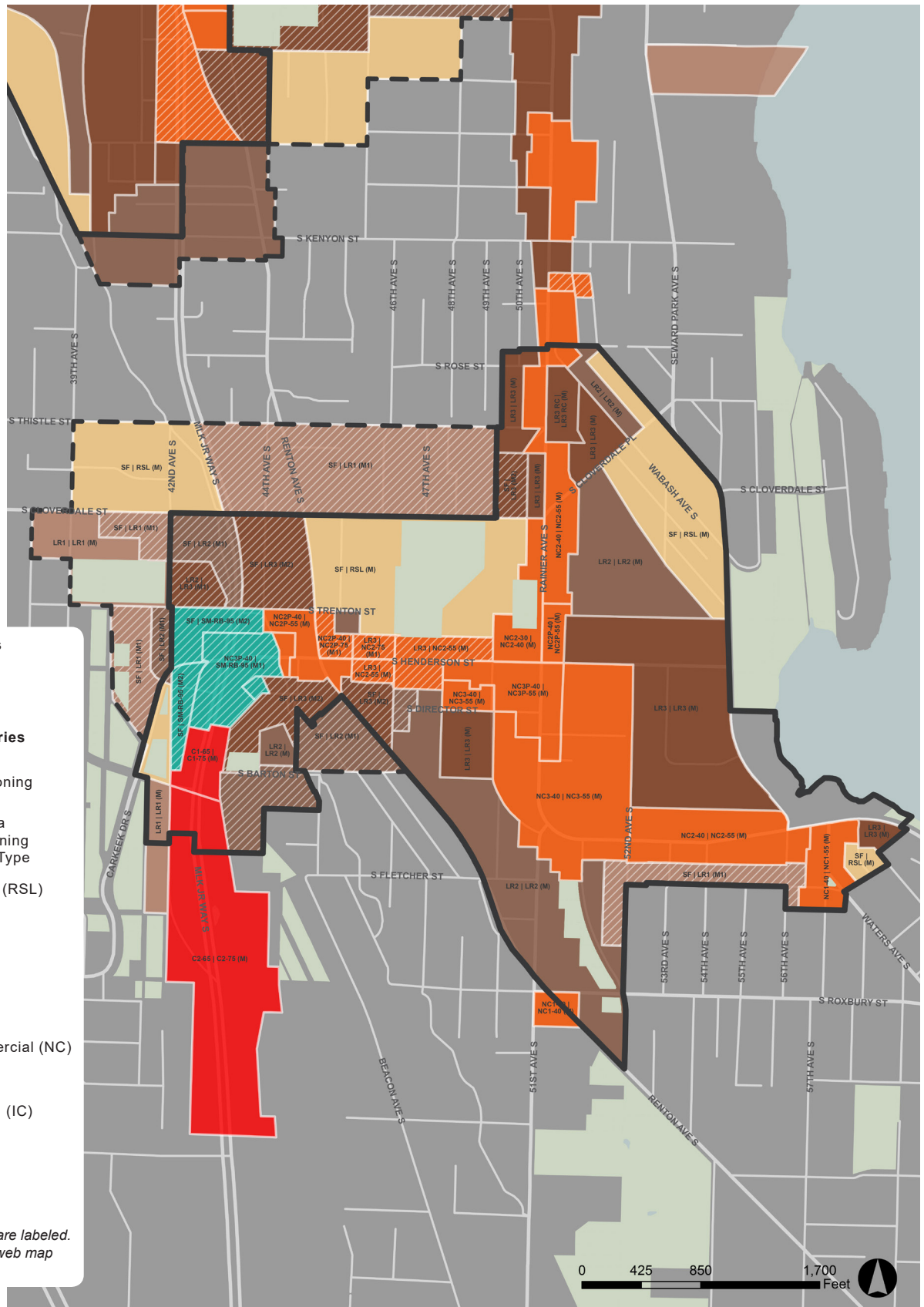
### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

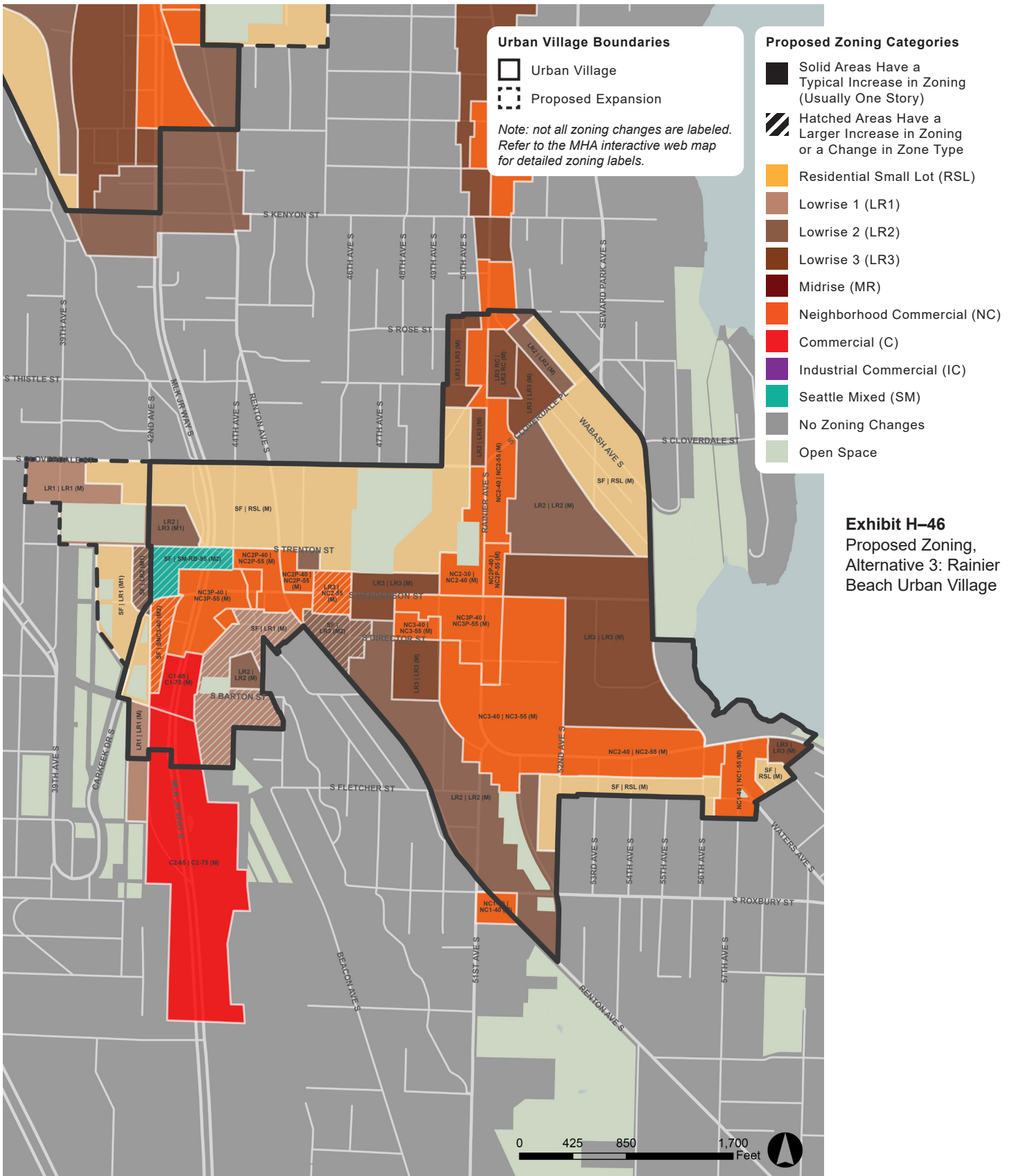
### Proposed Zoning Categories

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.



Source: City of Seattle, 2017.
















**Exhibit H-47**  
Proposed Zoning,  
Alternative  
2: Roosevelt  
Urban Village

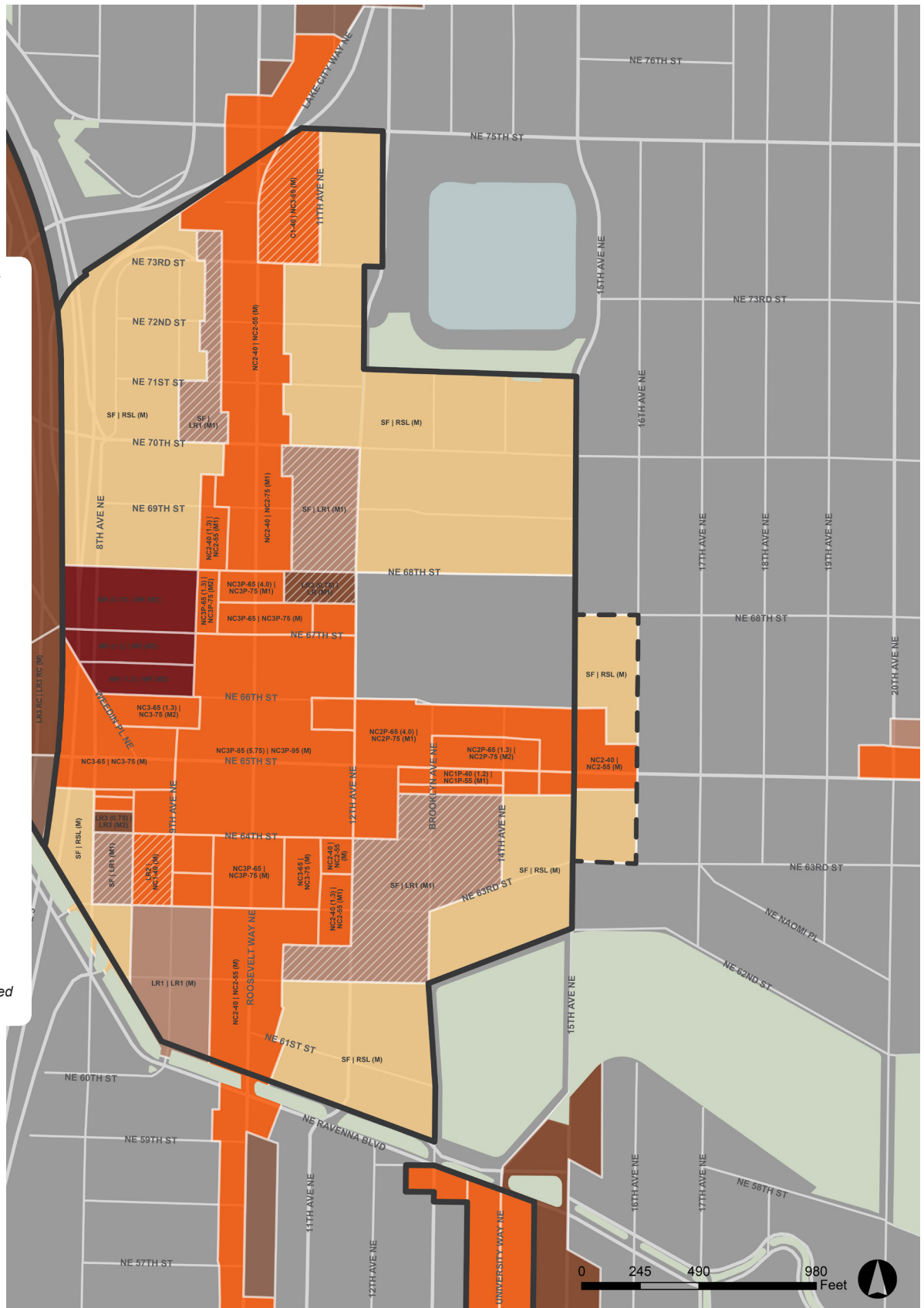
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

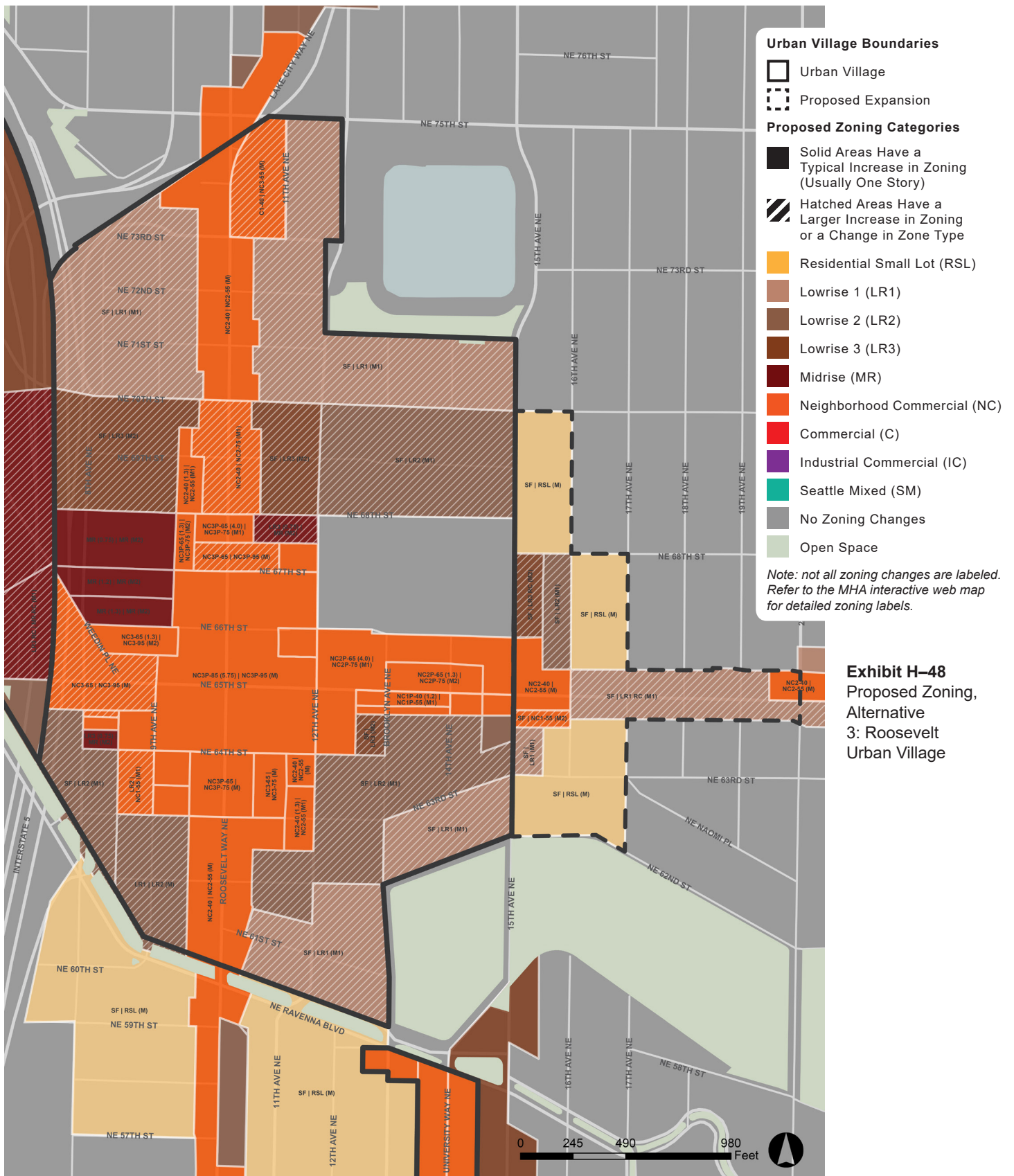
**Proposed Zoning  
Categories**

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*





Source: City of Seattle, 2017.
















Source: City of Seattle, 2017.

## Urban Village Boundaries

-  Urban Village  
 Proposed Expansion

## Proposed Zoning Categories

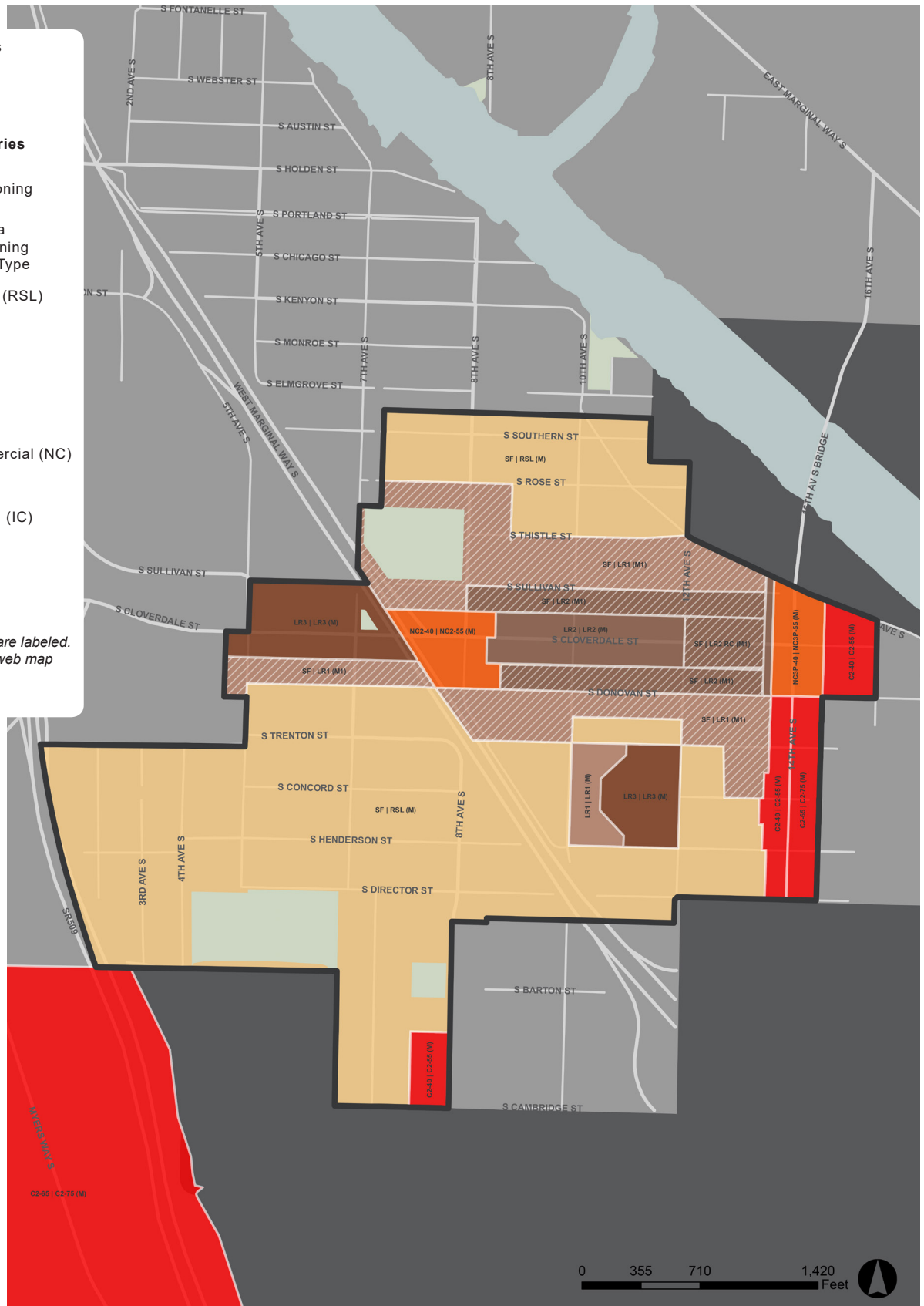
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*

Source: City of Seattle, 2017.

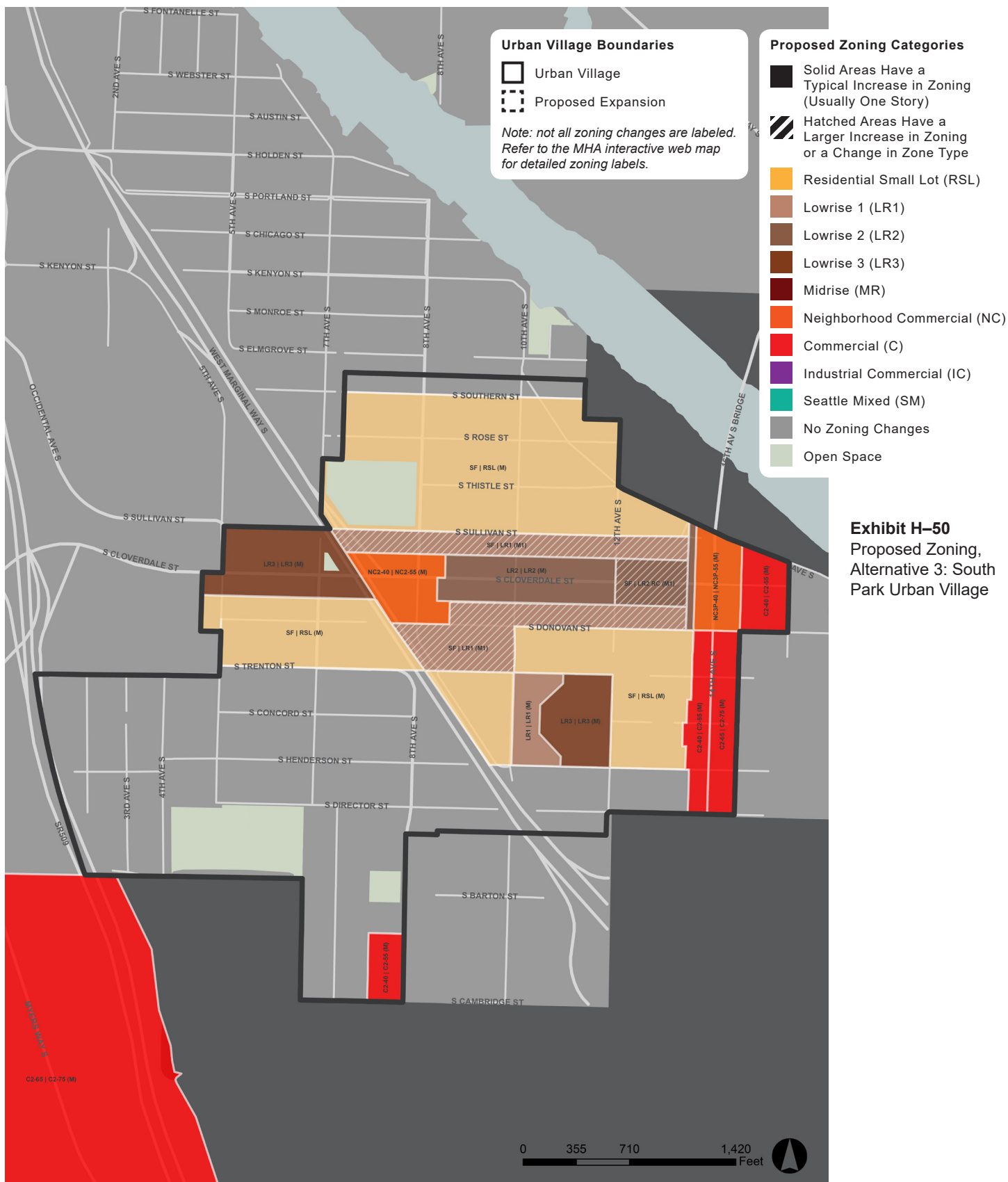
## Exhibit H-49

### Proposed Zoning, Alternative 2: South Park Urban Village



Source: City of Seattle, 2017.


















Source: City of Seattle, 2017.

**Exhibit H-51**  
Proposed Zoning,  
Alternative 2:  
Upper Queen Anne  
Urban Village

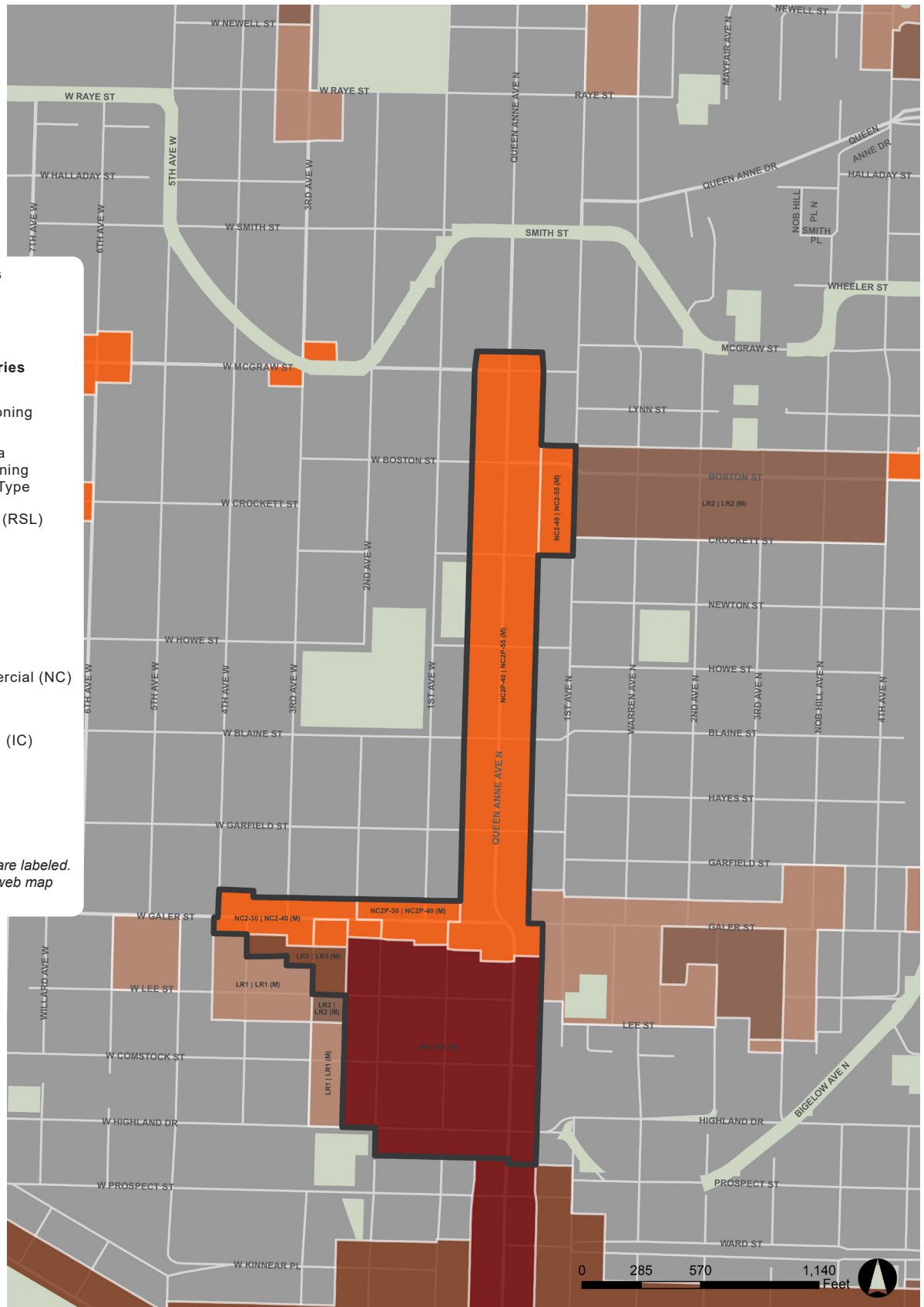
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

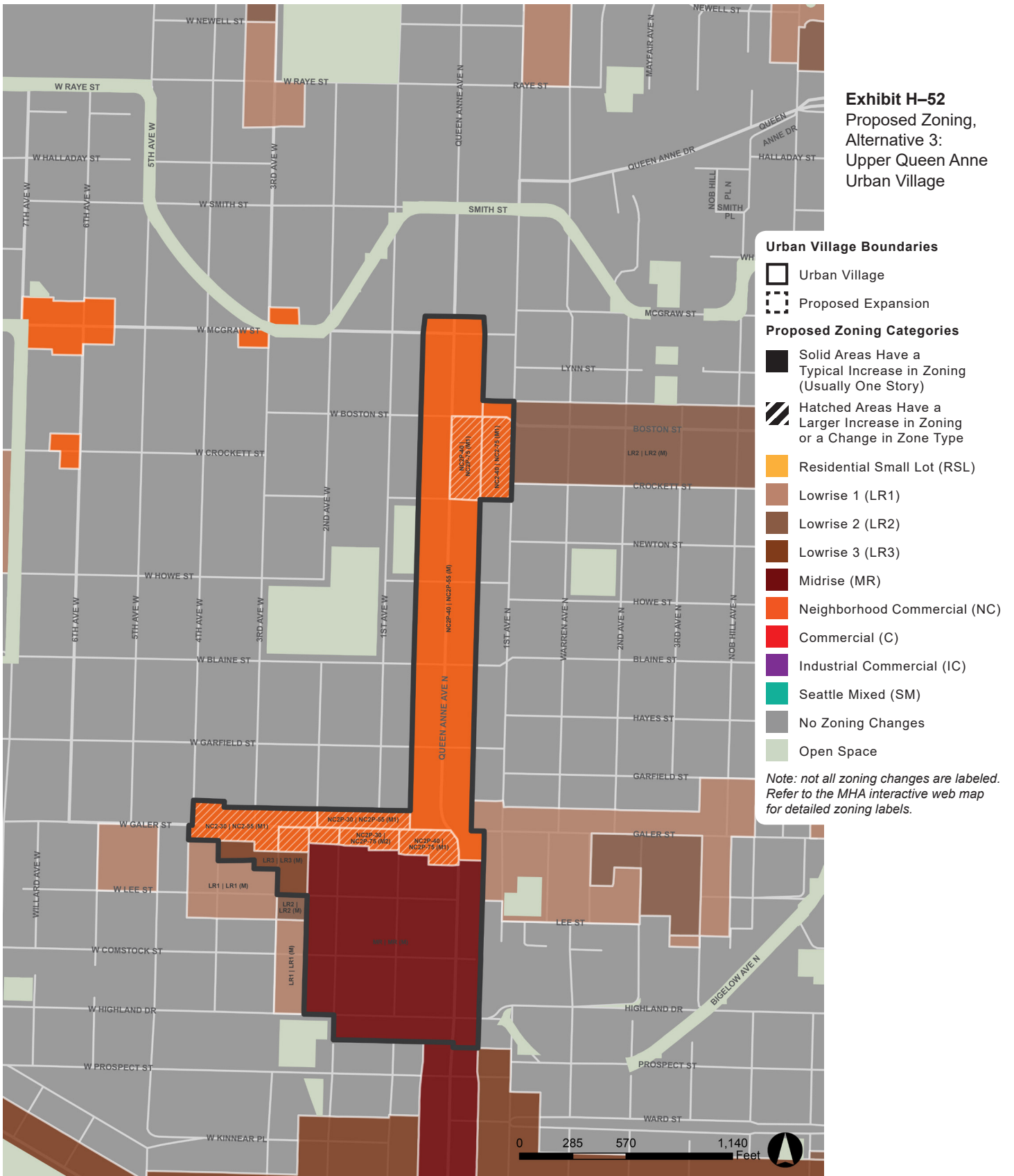
*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.
















**Exhibit H-52**  
**Proposed Zoning,**  
**Alternative 3:**  
**Upper Queen Anne**  
**Urban Village**





Source: City of Seattle, 2017.

## Proposed Zoning Categories

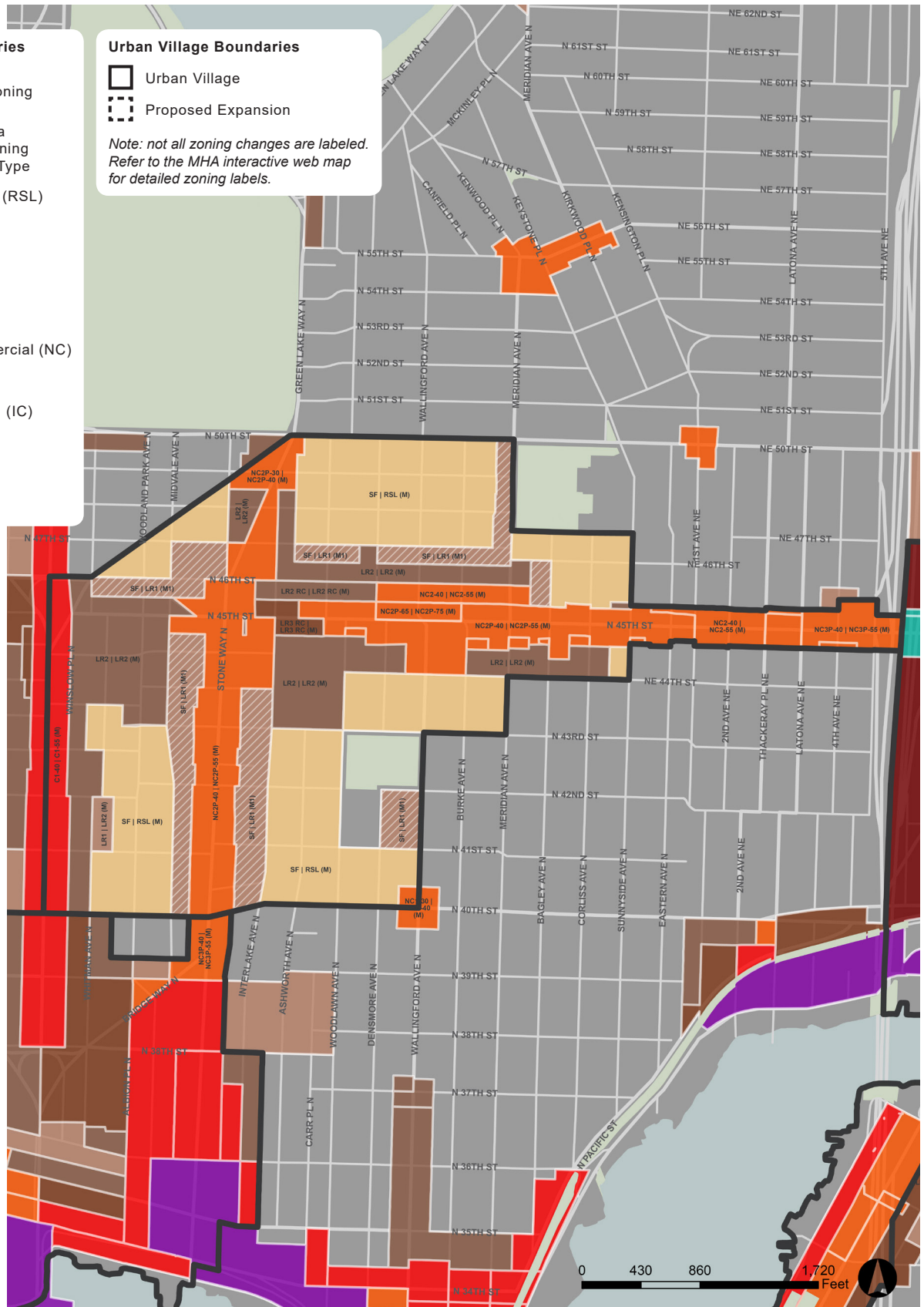
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

## Urban Village Boundaries

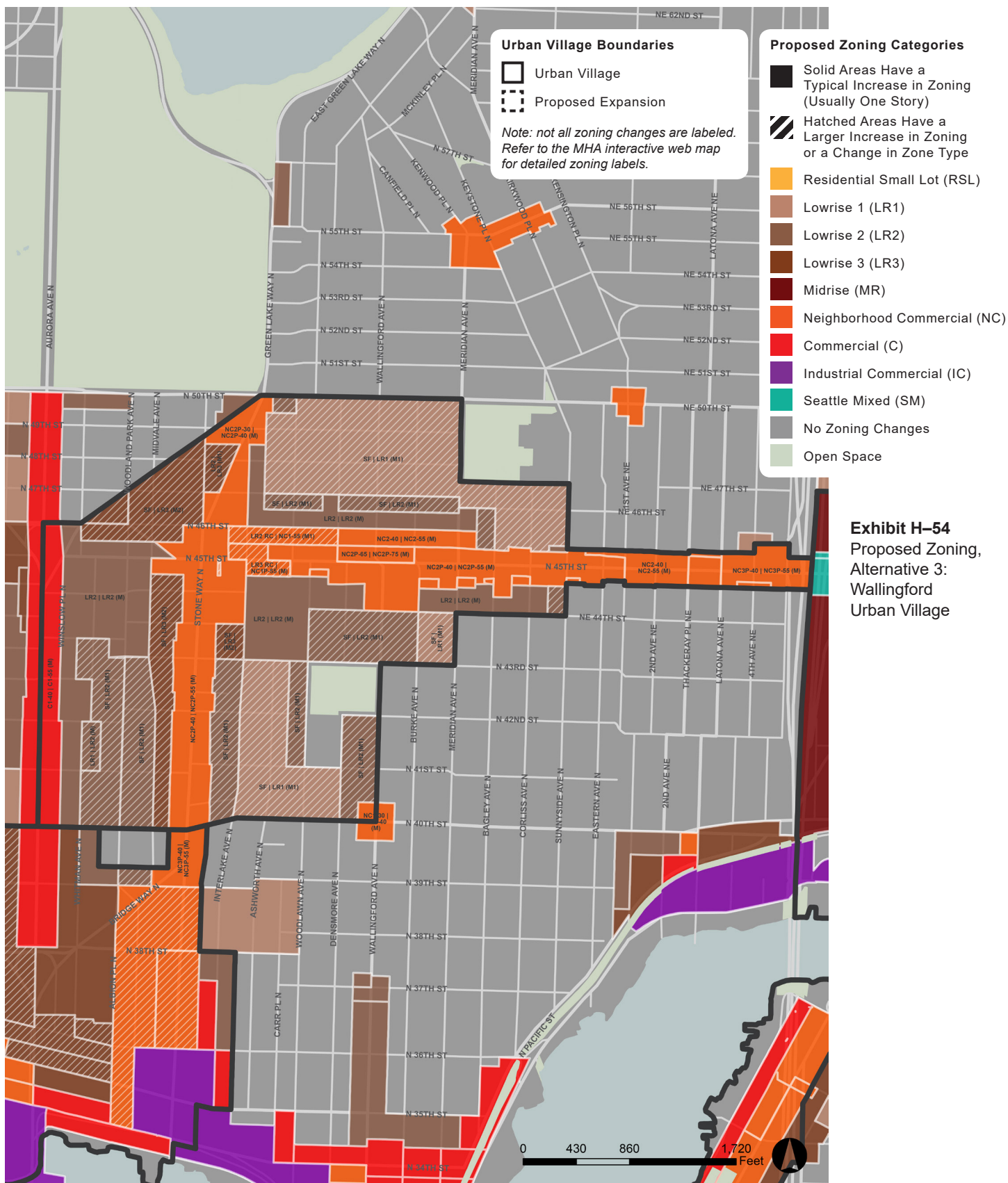
-  Urban Village
-  Proposed Expansion

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*

## Exhibit H-53 Proposed Zoning, Alternative 2: Wallingford Urban Village
















Source: City of Seattle, 2017.





Source: City of Seattle, 2017.



### Proposed Zoning Categories

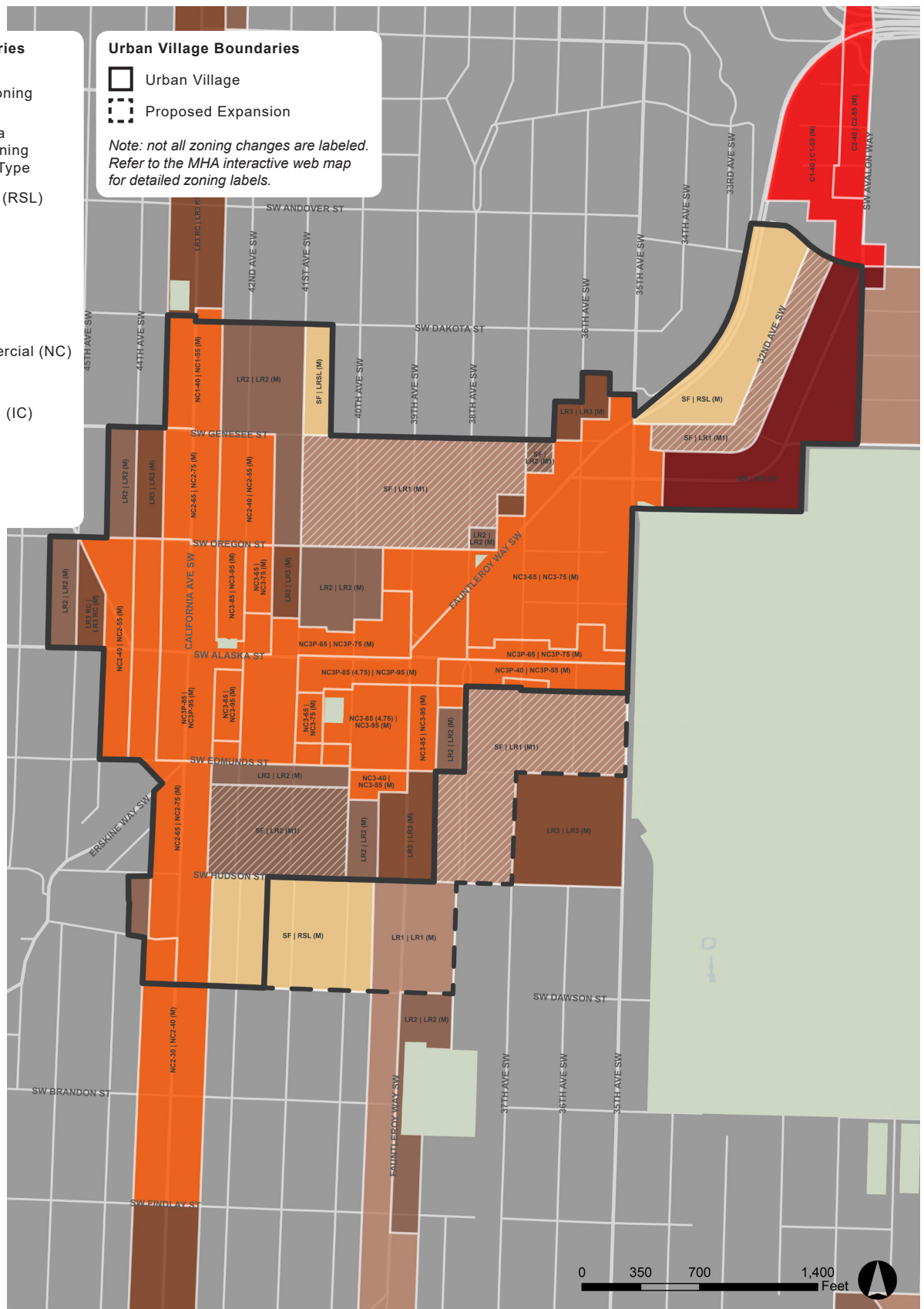
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

### Urban Village Boundaries

-  Urban Village
-  Proposed Expansion

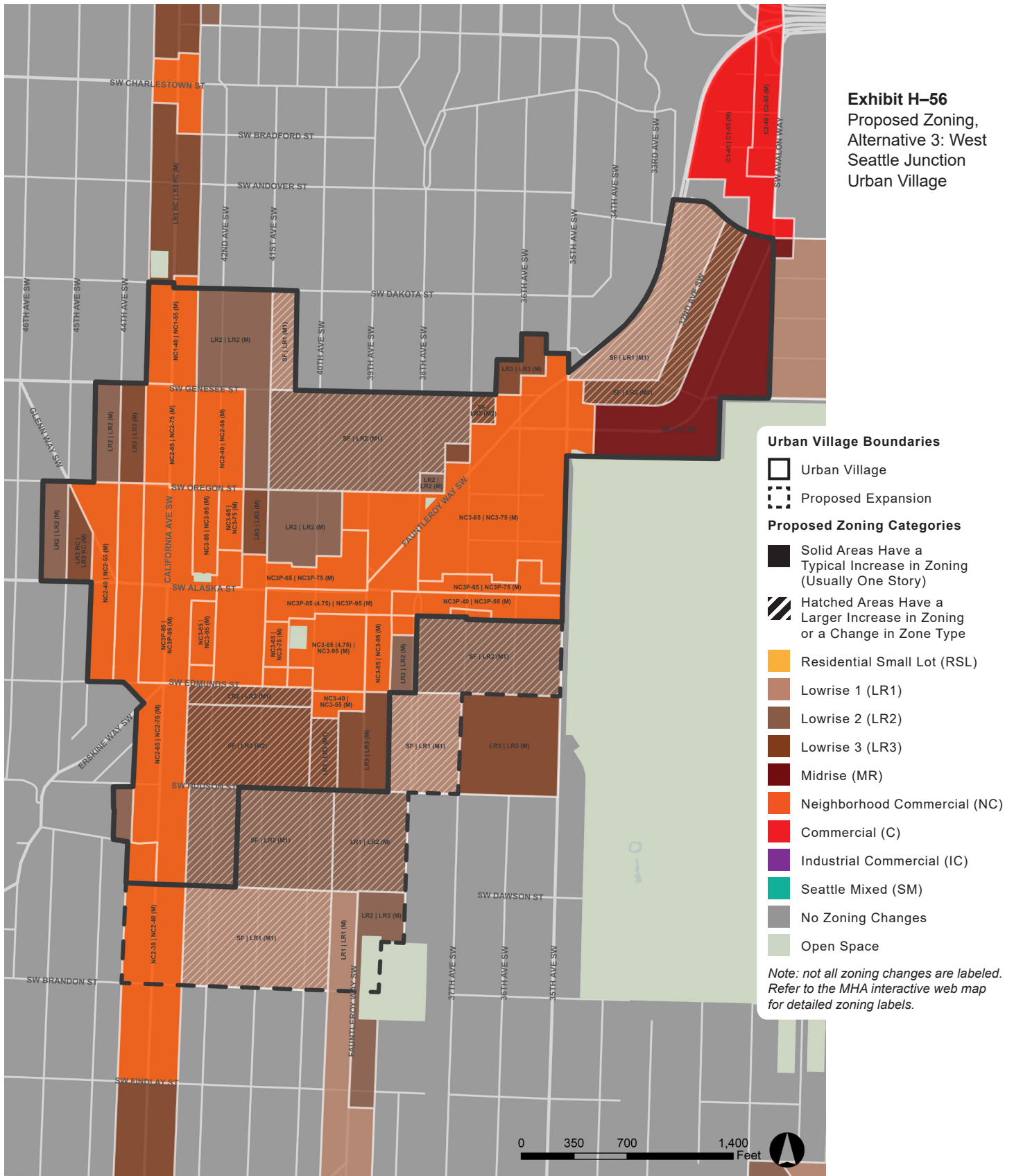
*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*

### Exhibit H-55 Proposed Zoning, Alternative 2: West Seattle Junction Urban Village



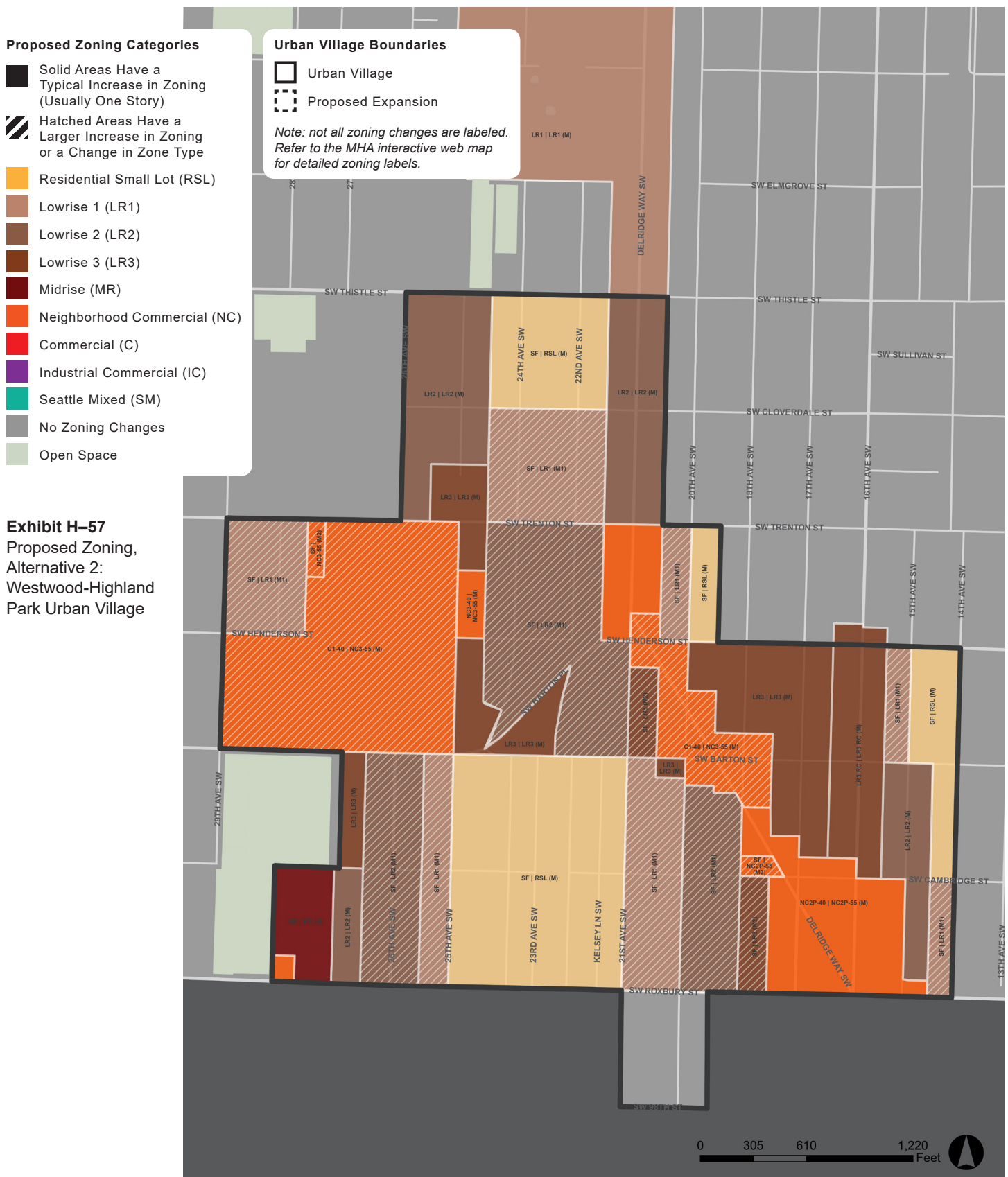
Source: City of Seattle, 2017.

**Exhibit H-56**  
Proposed Zoning,  
Alternative 3: West  
Seattle Junction  
Urban Village

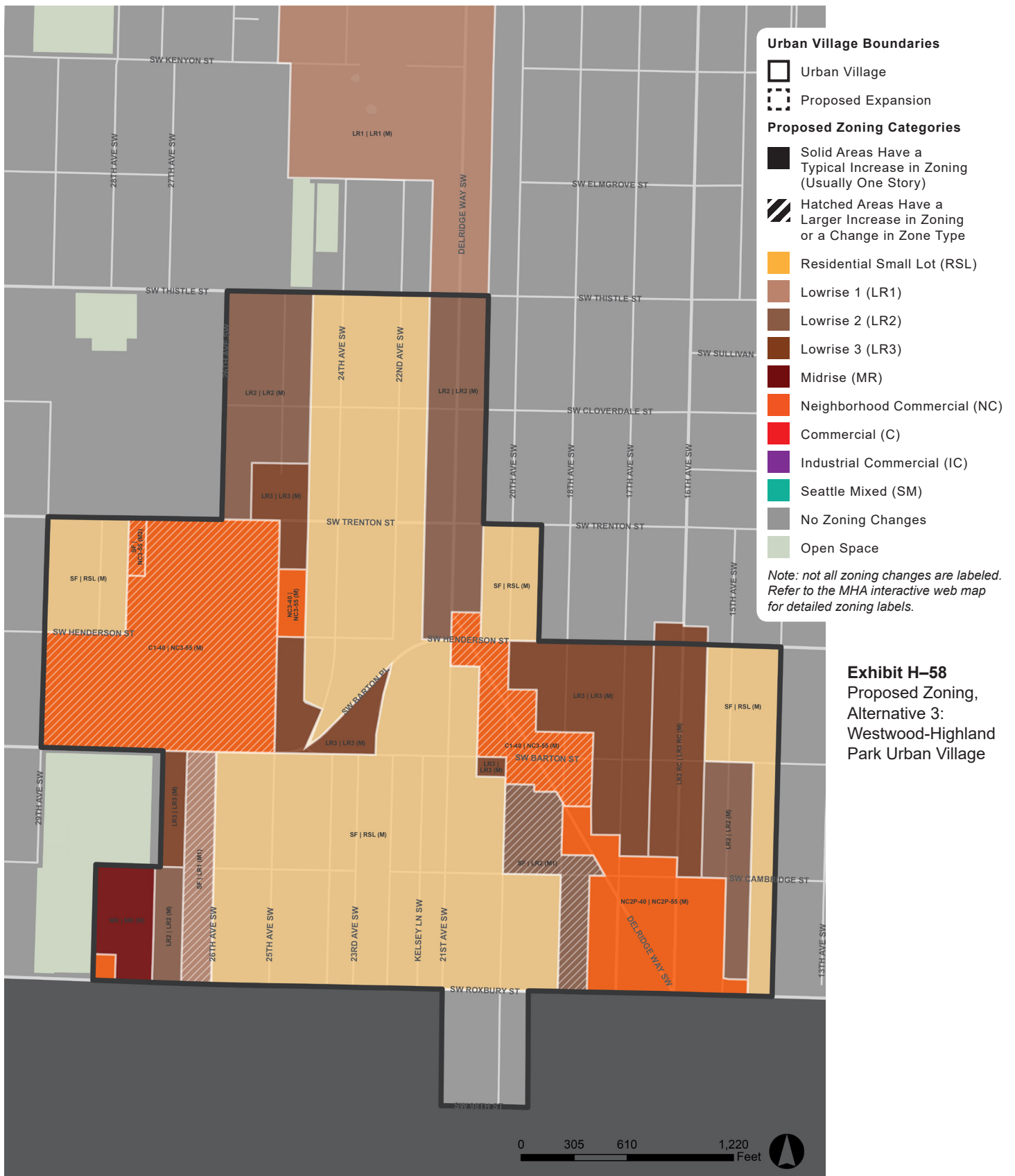


Source: City of Seattle, 2017.


















Source: City of Seattle, 2017.





Source: City of Seattle, 2017.

#### Proposed Zoning Categories

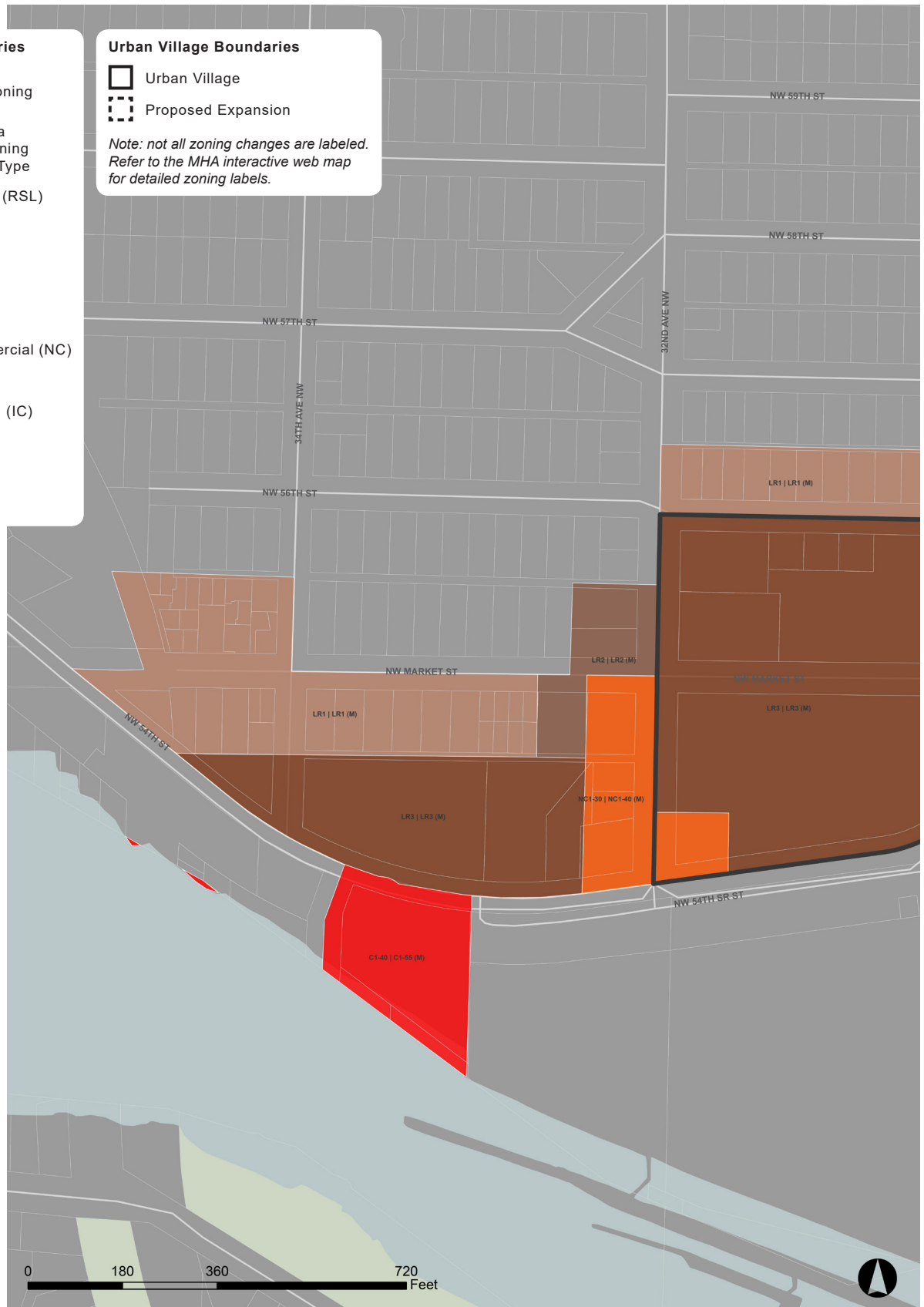
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

#### Urban Village Boundaries

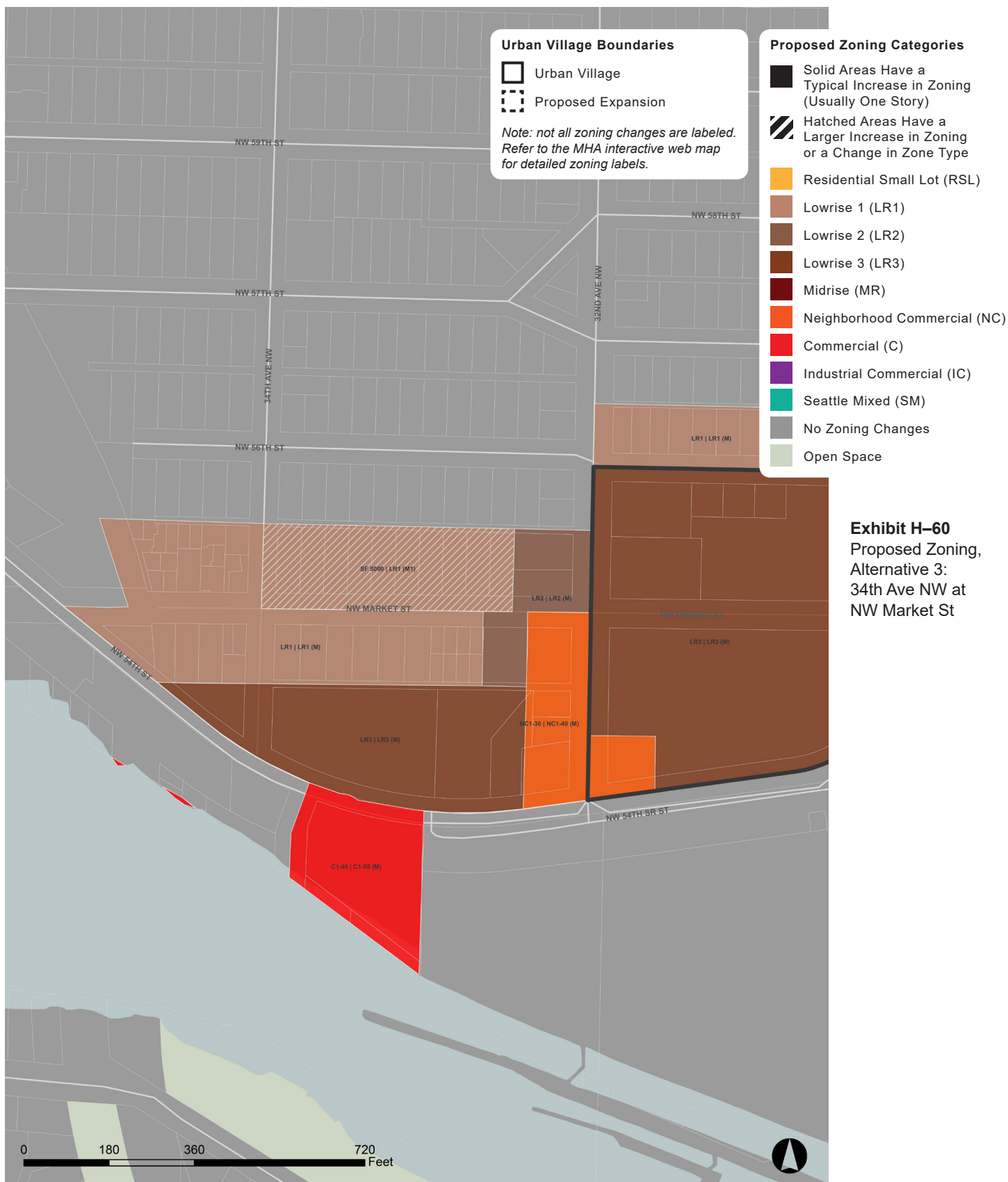
-  Urban Village
-  Proposed Expansion

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*

#### Exhibit H-59 Proposed Zoning, Alternative 2: 34th Ave NW at NW Market St



Source: City of Seattle, 2017.





Source: City of Seattle, 2017.
















**Exhibit H-61**  
Proposed Zoning,  
Alternative 2:  
16th Ave SW at  
SW Holden St

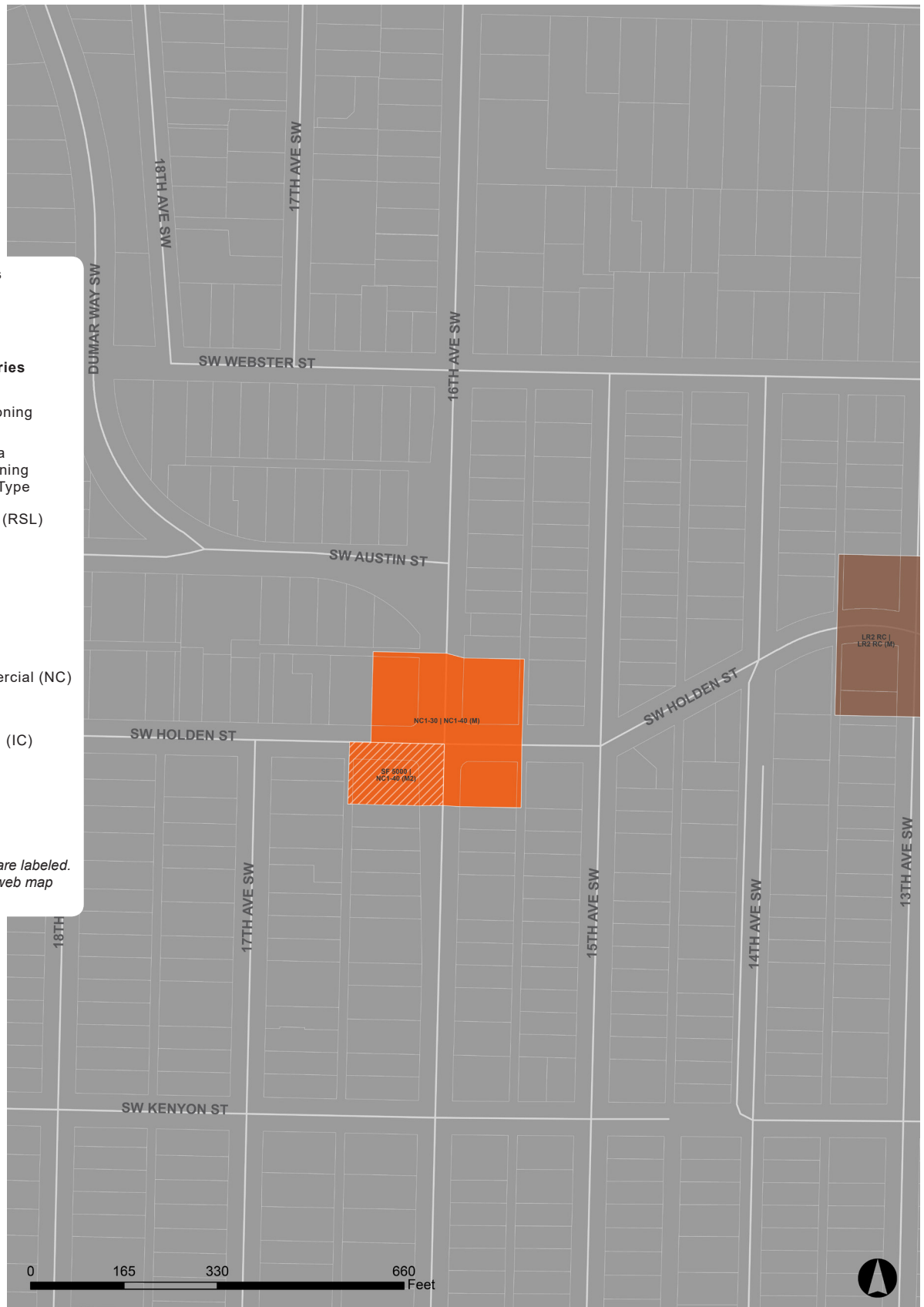
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.
















**Exhibit H-62**  
Proposed Zoning,  
Alternative 3:  
16th Ave SW at  
SW Holden St





Source: City of Seattle, 2017.

### Proposed Zoning Categories

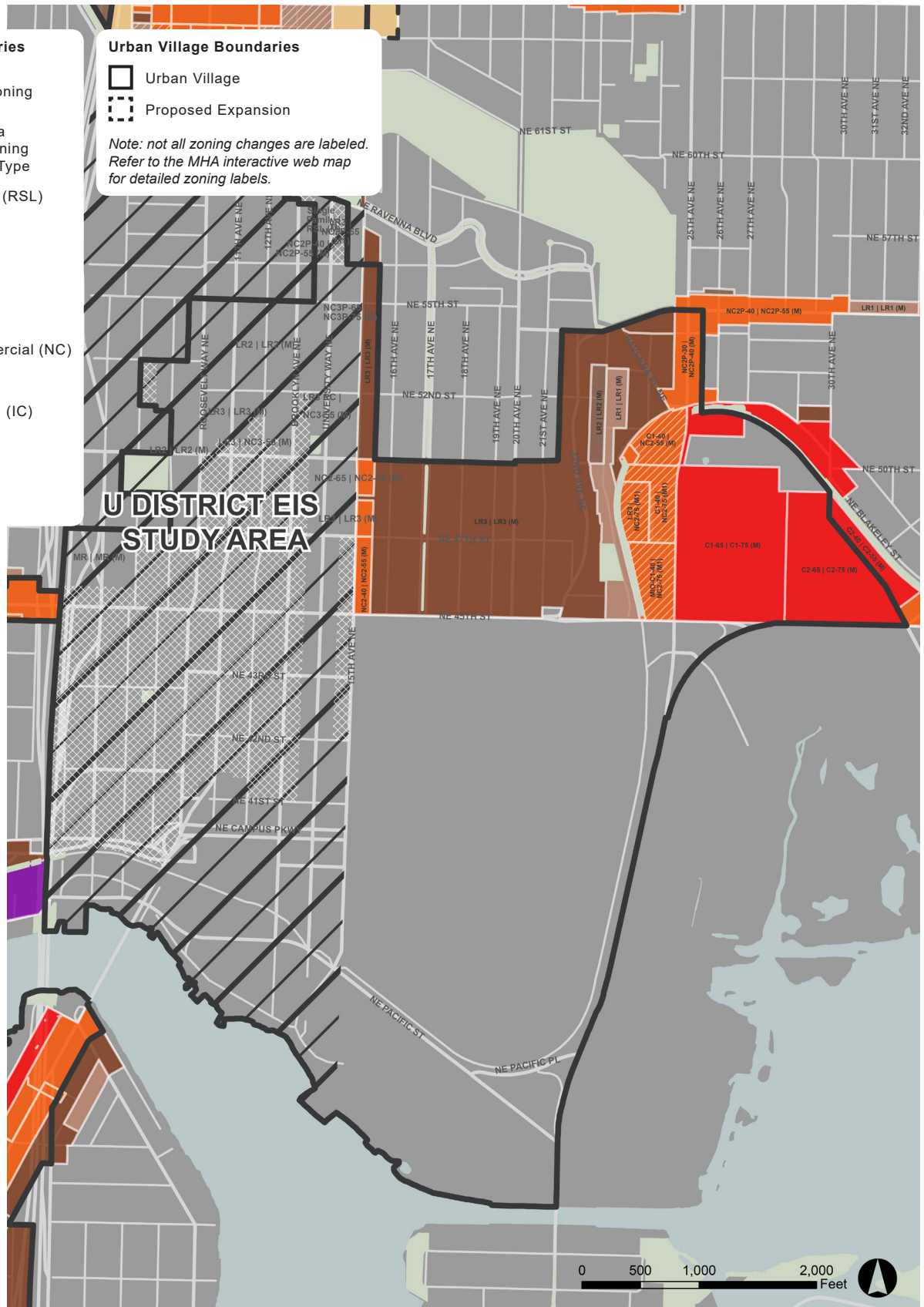
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

### Urban Village Boundaries

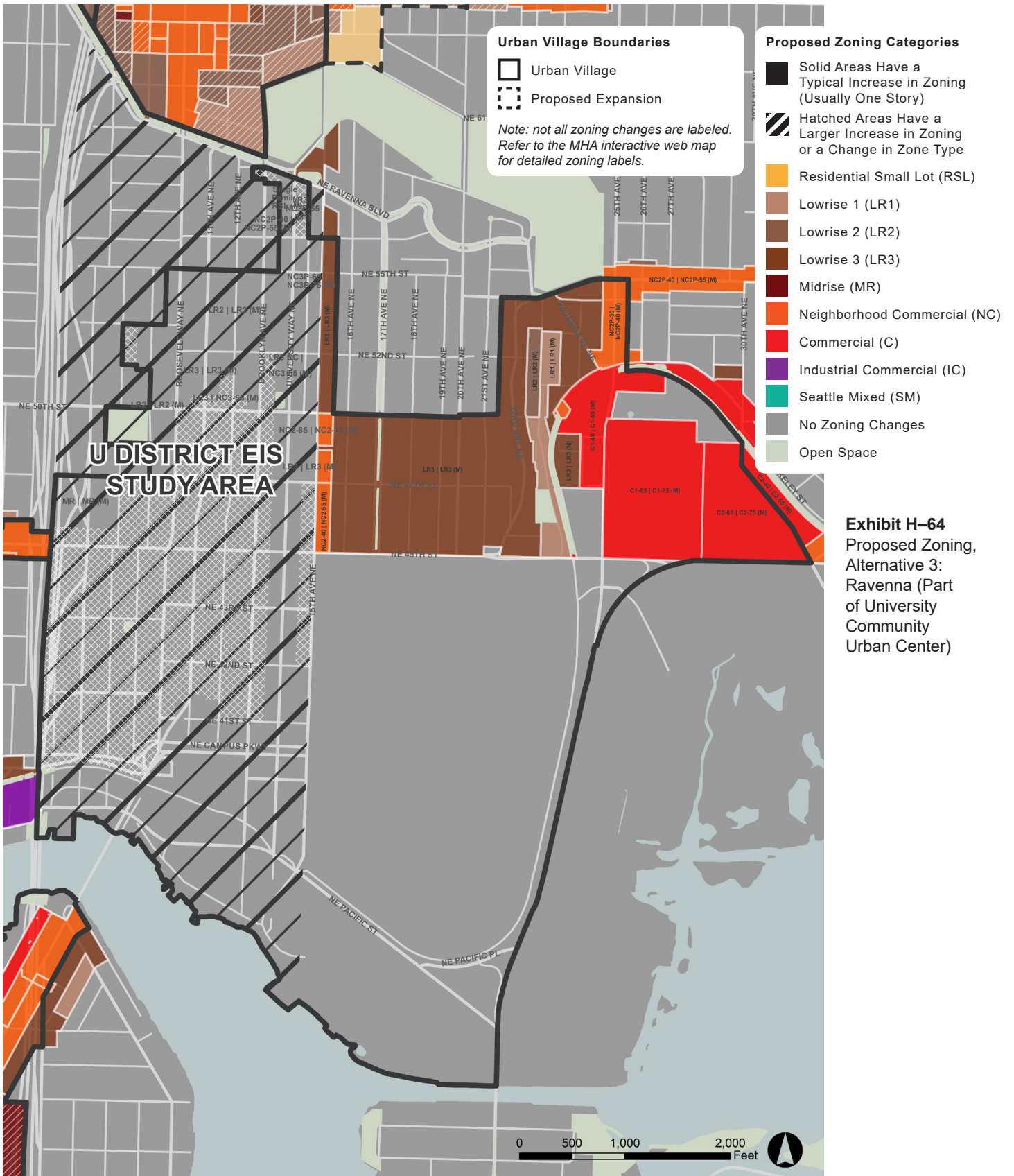
-  Urban Village
-  Proposed Expansion

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*

### Exhibit H-63 Proposed Zoning, Alternative 2: Ravenna (Part of University Community Urban Center)



Source: City of Seattle, 2017.





Source: City of Seattle, 2017.
















**Exhibit H-65**  
Proposed Zoning,  
Alternative 2:  
Wedgewood

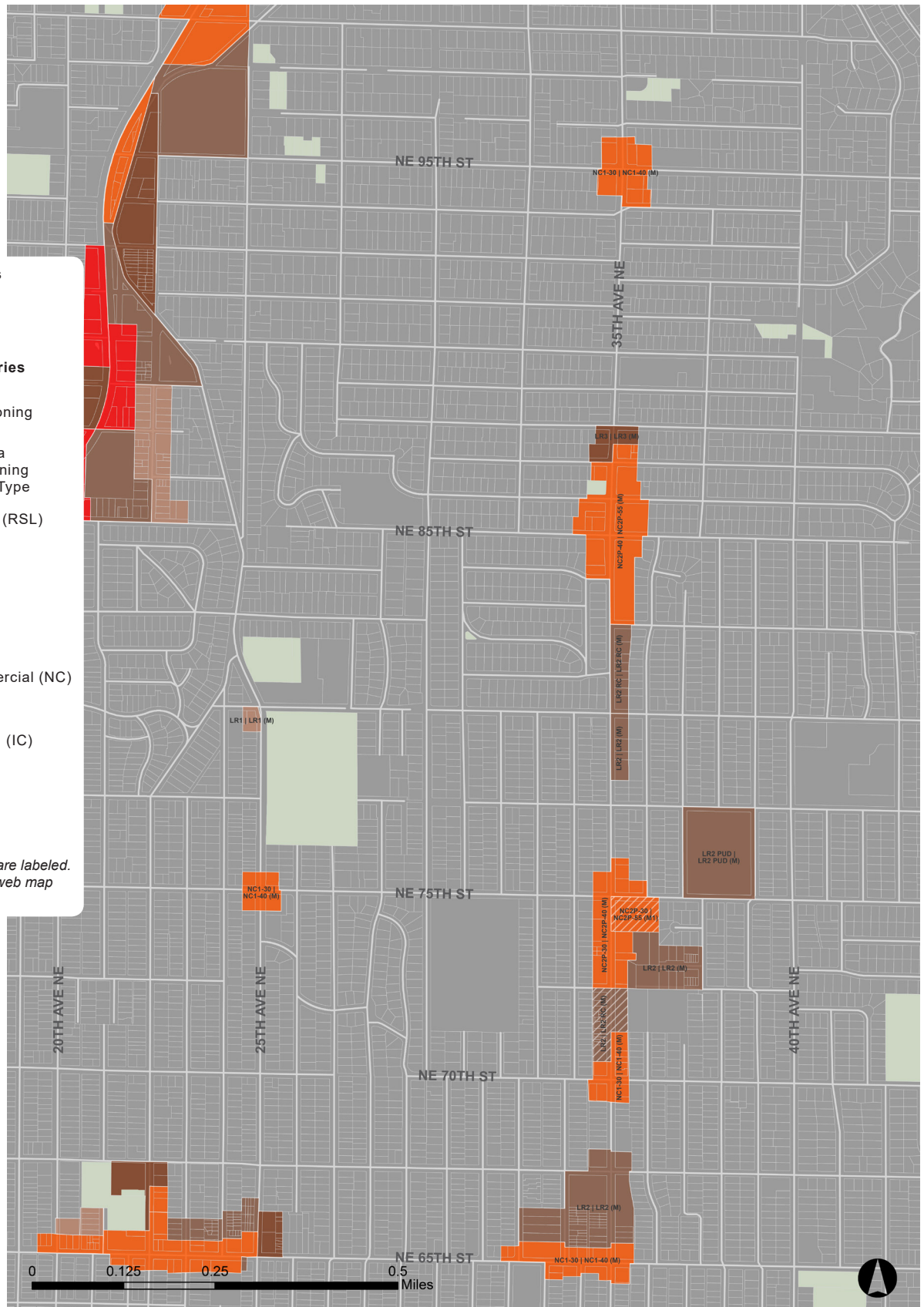
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

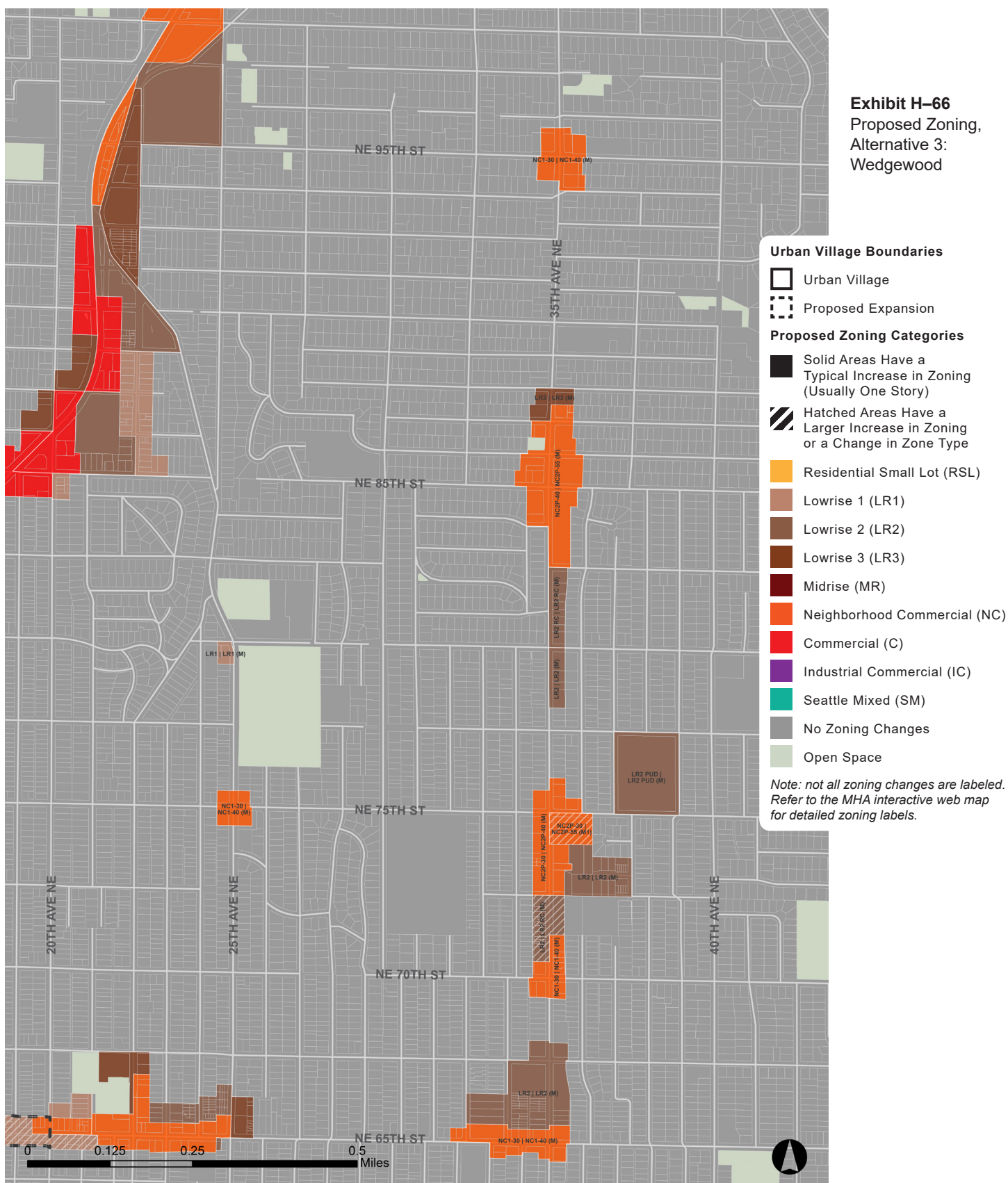
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled.  
Refer to the MHA interactive web map  
for detailed zoning labels.*



Source: City of Seattle, 2017.

## Exhibit H-66 Proposed Zoning, Alternative 3: Wedgewood





Source: City of Seattle, 2017.
















**Exhibit H-67**  
Proposed Zoning,  
Alternative 2:  
Central Seattle

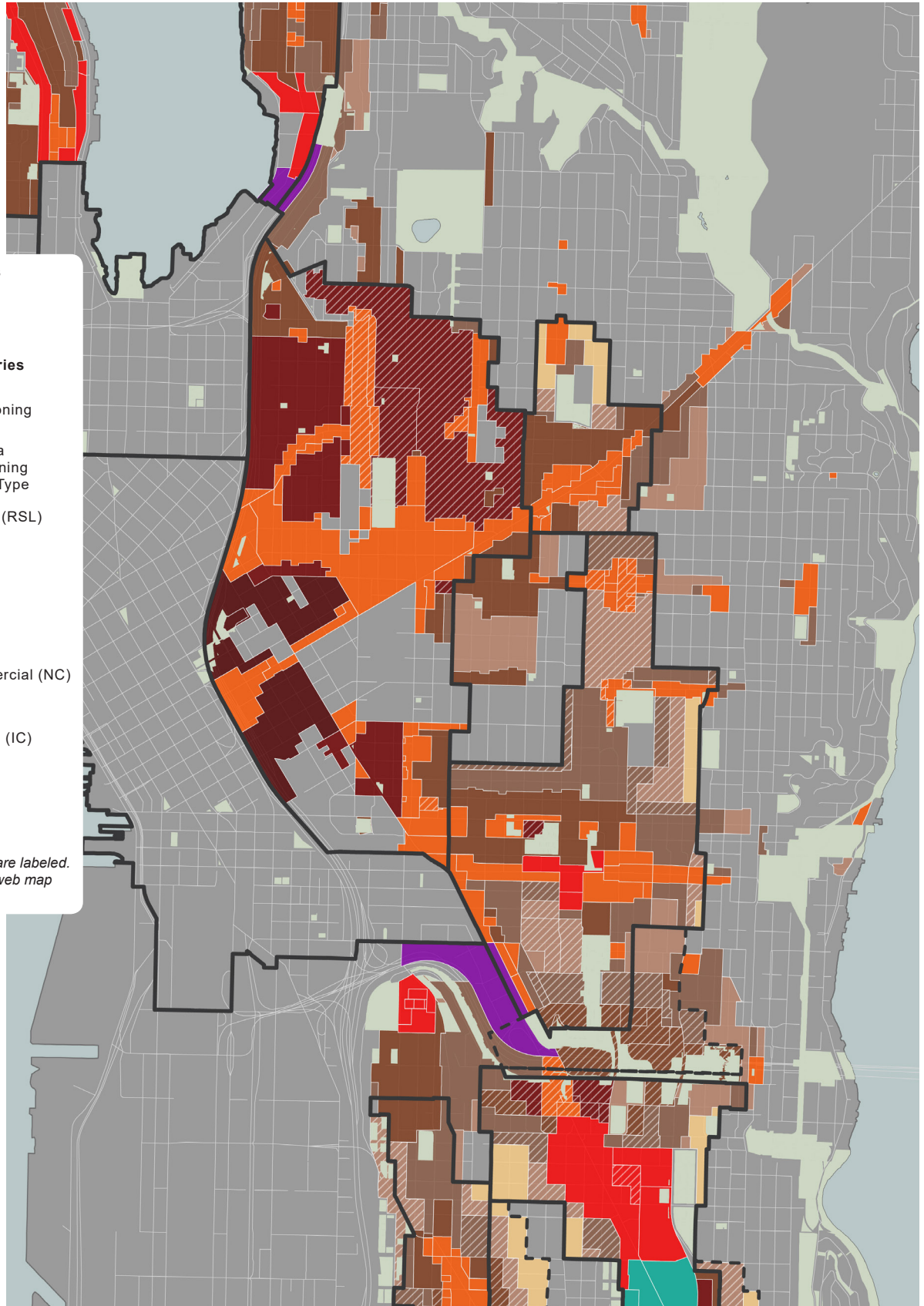
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

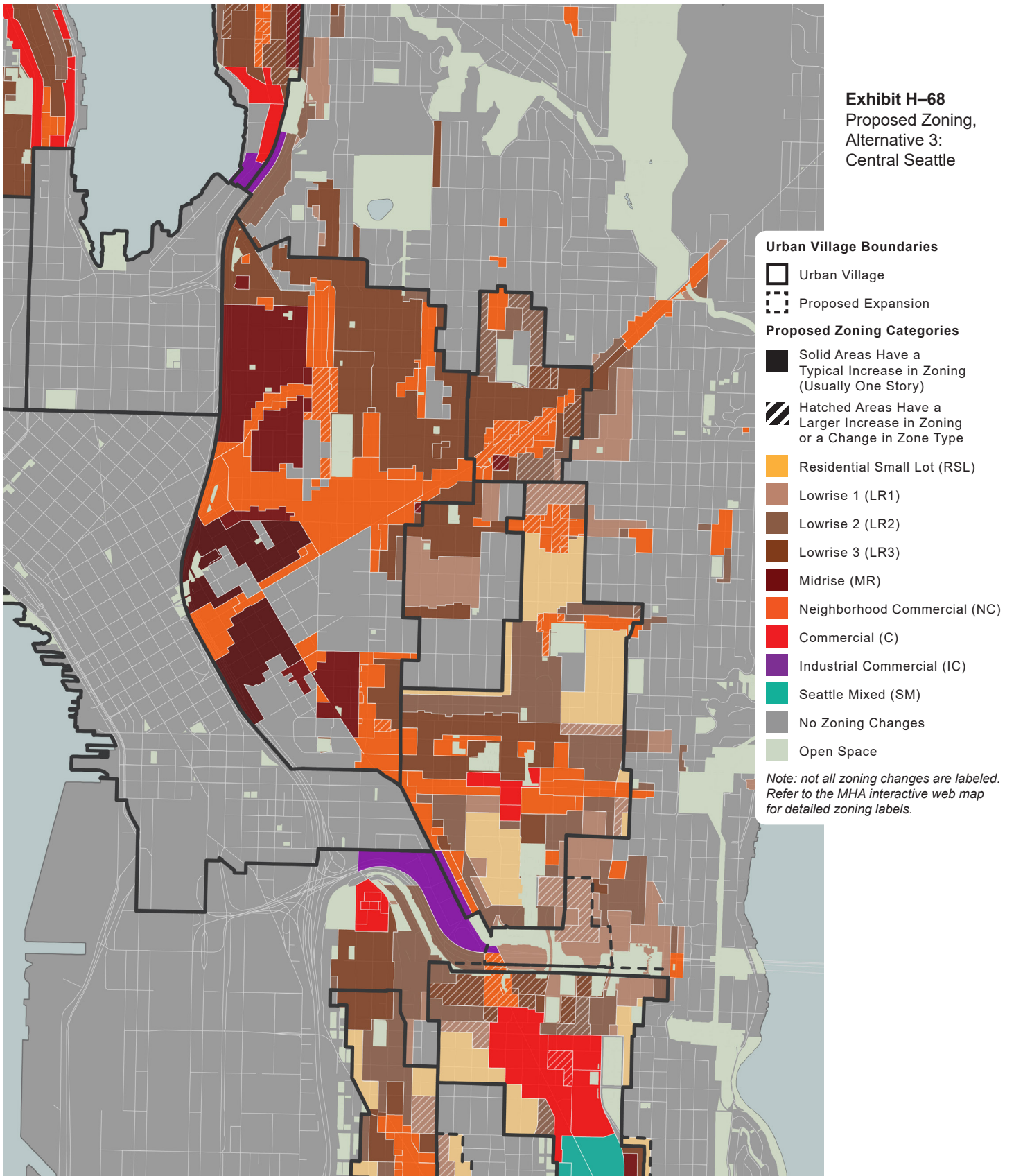
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.

**Exhibit H-68**  
Proposed Zoning,  
Alternative 3:  
Central Seattle





Source: City of Seattle, 2017.
















**Exhibit H-69**  
Proposed Zoning,  
Alternative 2:  
Northeast Seattle

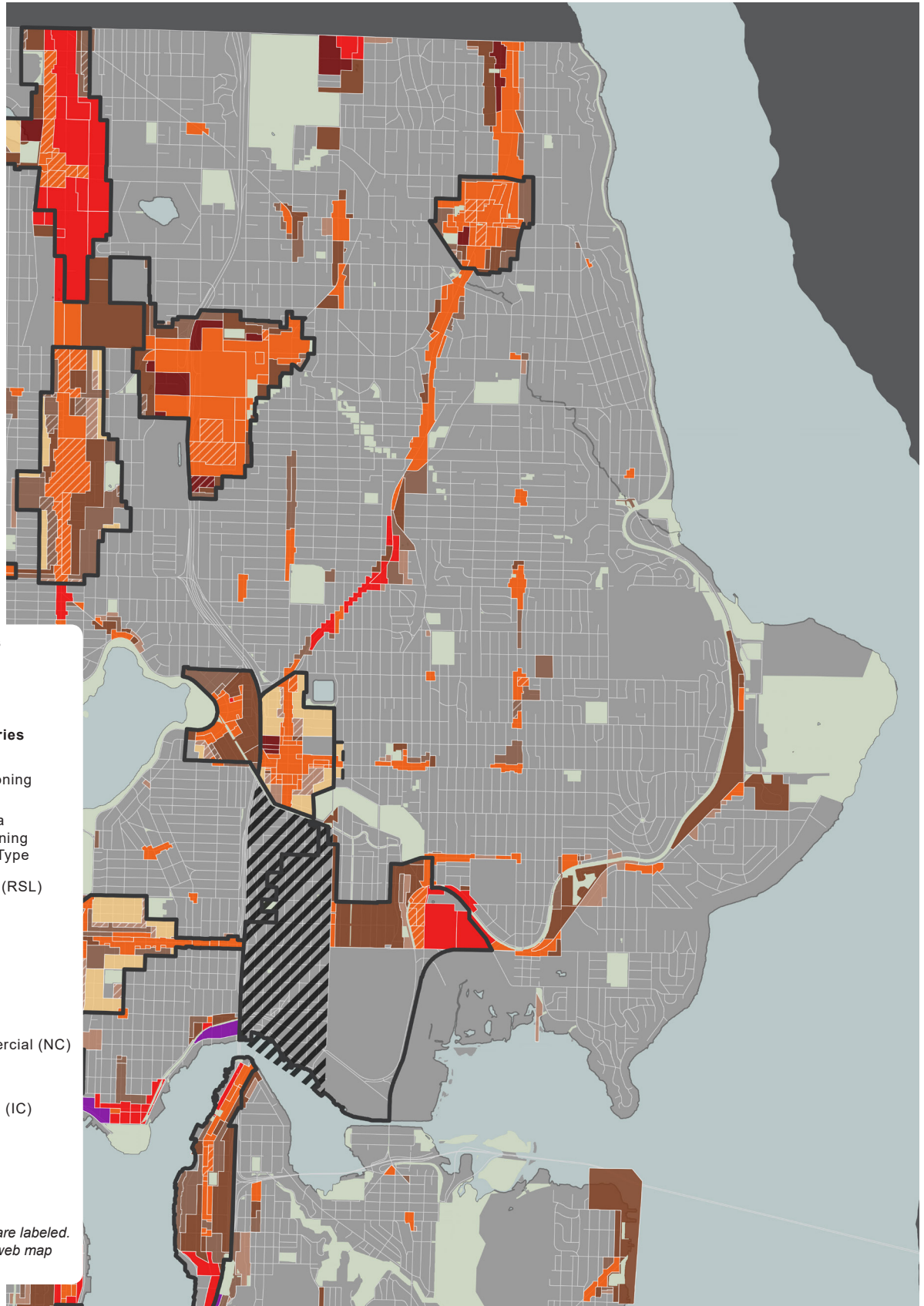
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

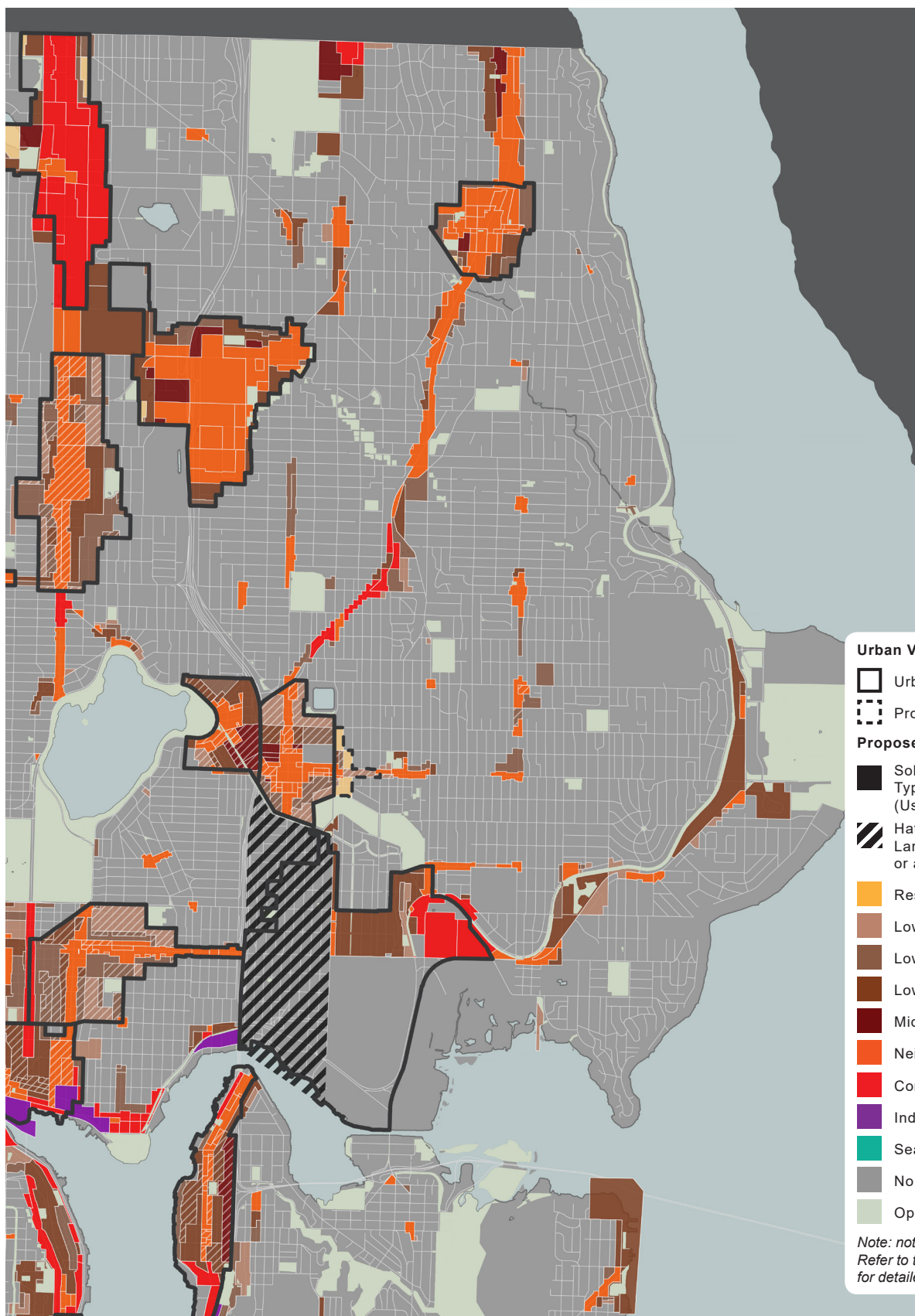
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled.  
Refer to the MHA interactive web map  
for detailed zoning labels.*



Source: City of Seattle, 2017.

**Exhibit H-70**  
Proposed Zoning,  
Alternative 3:  
Northeast Seattle



Source: City of Seattle, 2017.



**Proposed Zoning Categories**

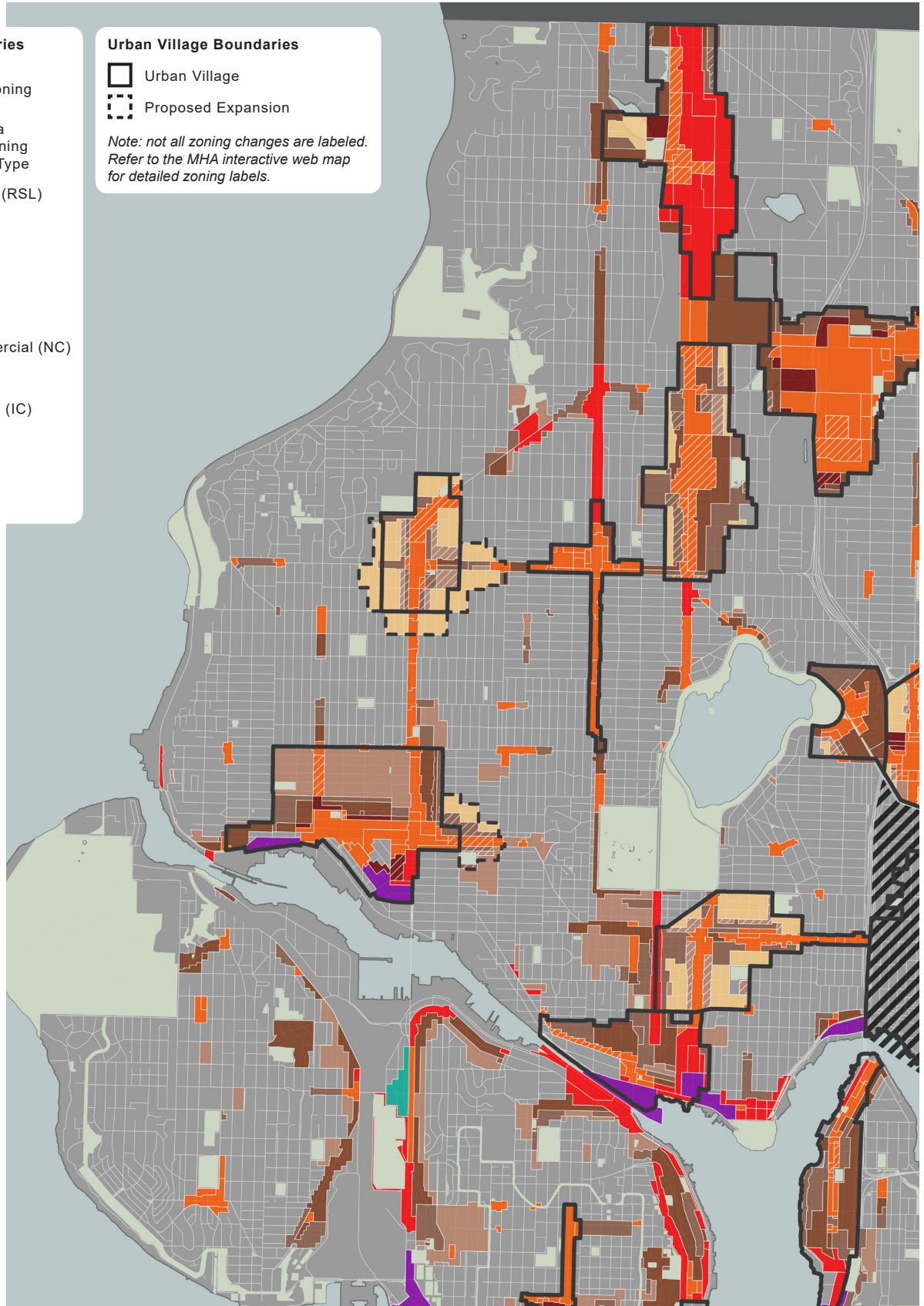
- Solid Areas Have a Typical Increase in Zoning (Usually One Story)
- Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
- Residential Small Lot (RSL)
- Lowrise 1 (LR1)
- Lowrise 2 (LR2)
- Lowrise 3 (LR3)
- Midrise (MR)
- Neighborhood Commercial (NC)
- Commercial (C)
- Industrial Commercial (IC)
- Seattle Mixed (SM)
- No Zoning Changes
- Open Space

**Urban Village Boundaries**

- Urban Village
- Proposed Expansion

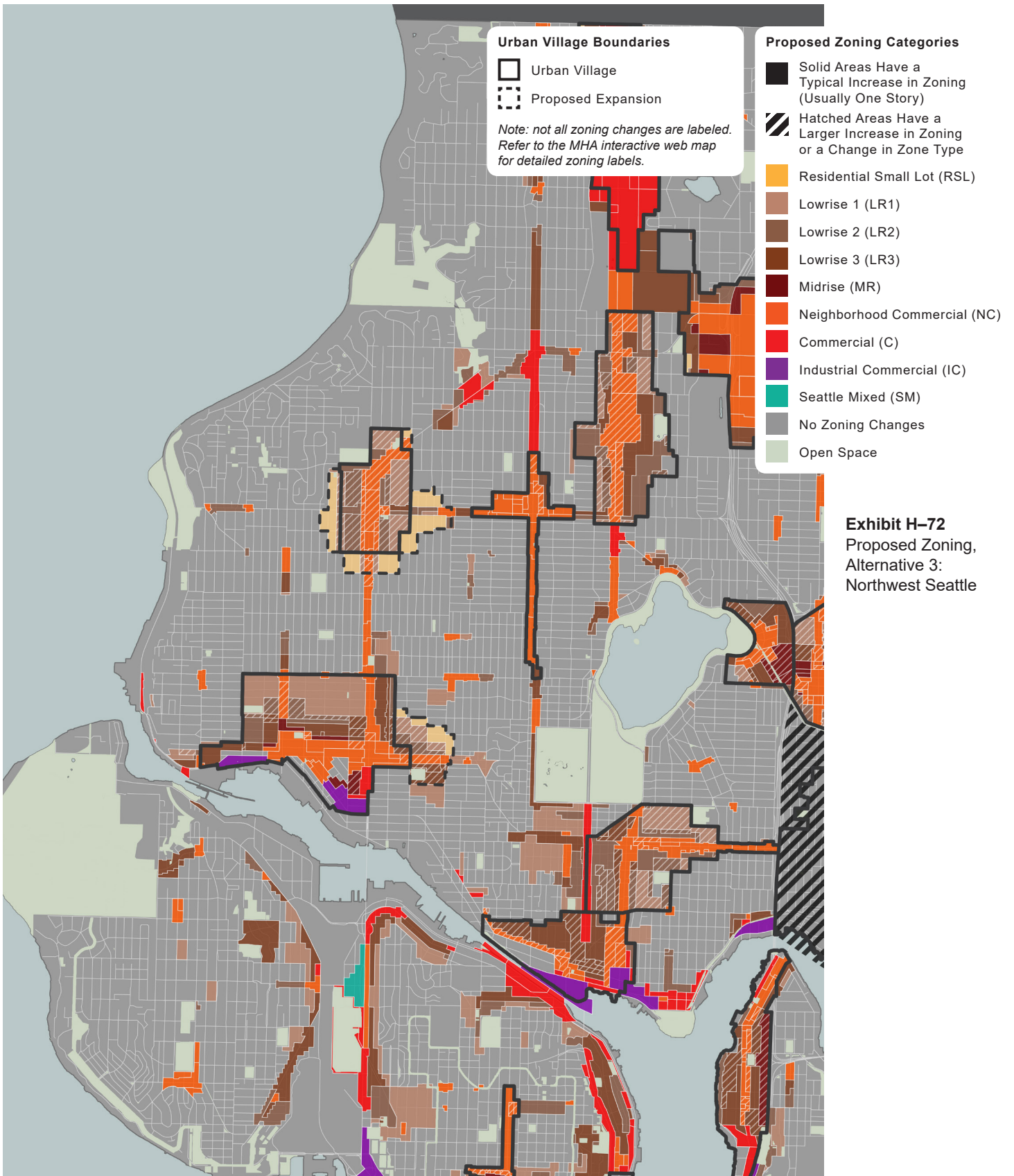
*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*

**Exhibit H-71**  
Proposed Zoning,  
Alternative 2:  
Northwest Seattle



Source: City of Seattle, 2017.




















Source: City of Seattle, 2017.

**Exhibit H-73**  
Proposed Zoning,  
Alternative 2:  
Southeast Seattle

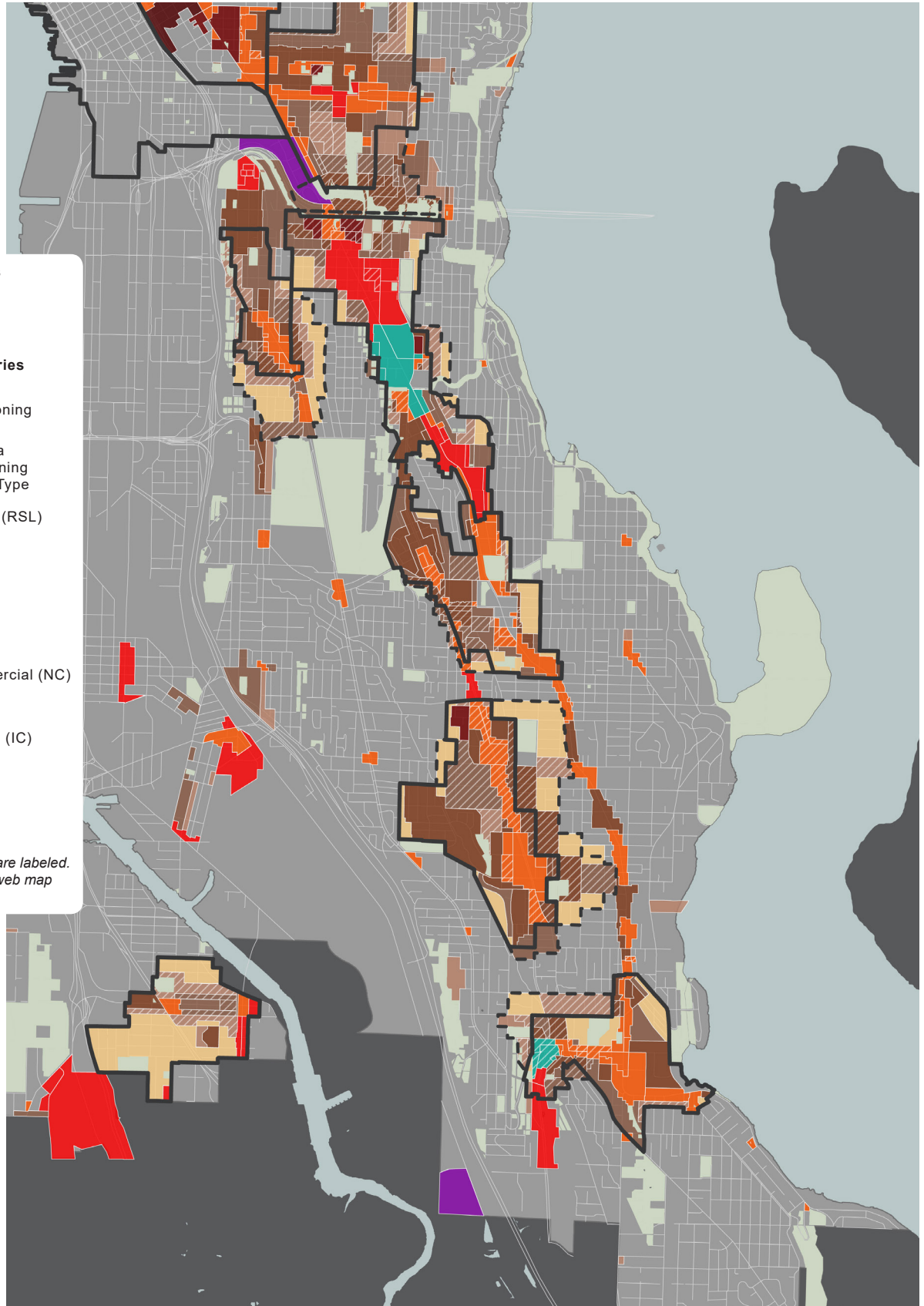
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

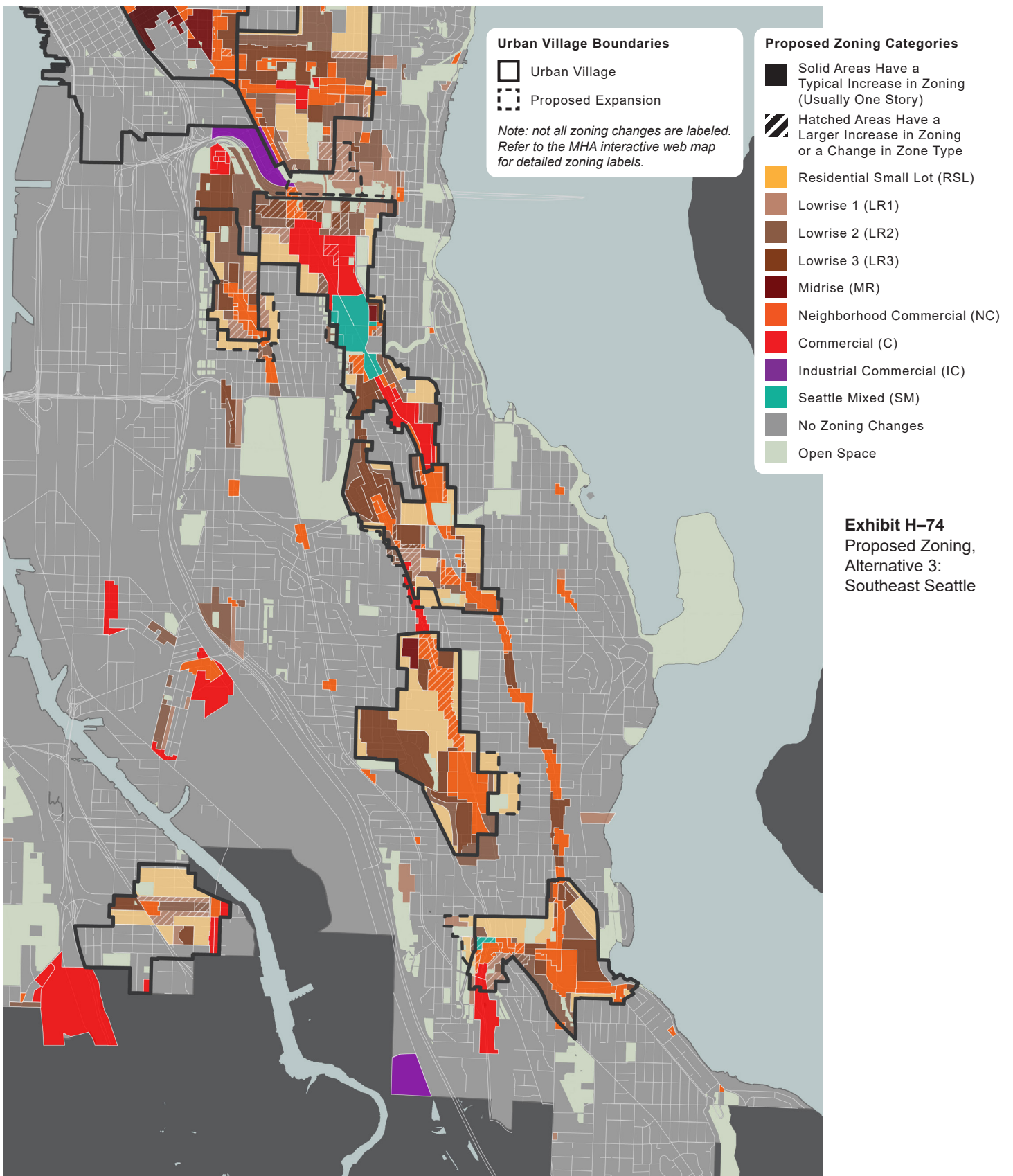
**Proposed Zoning Categories**

-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled.  
Refer to the MHA interactive web map  
for detailed zoning labels.*



Source: City of Seattle, 2017.



Source: City of Seattle, 2017.
















**Exhibit H-75**  
Proposed Zoning,  
Alternative 2:  
Southwest Seattle

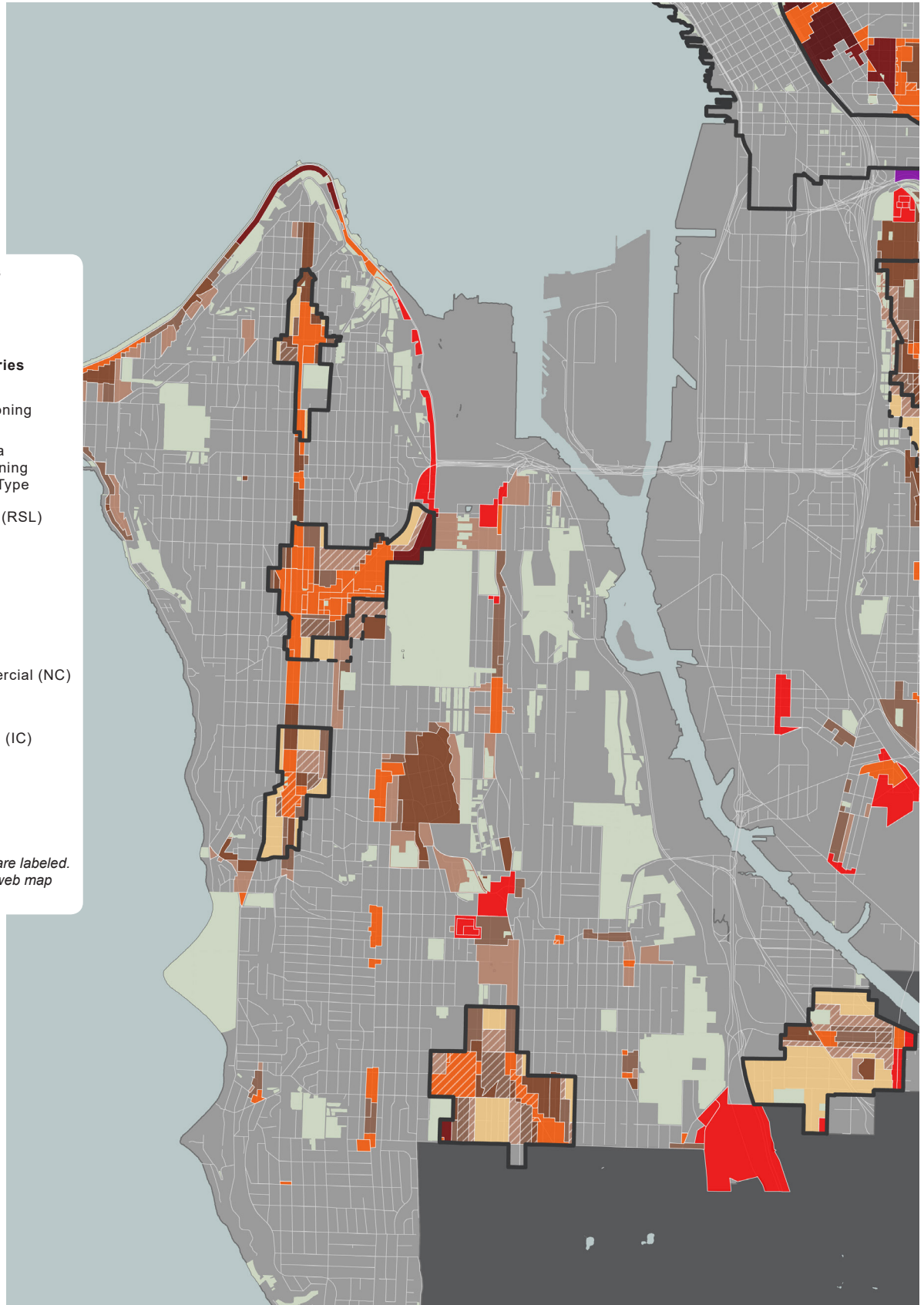
**Urban Village Boundaries**

-  Urban Village
-  Proposed Expansion

**Proposed Zoning Categories**

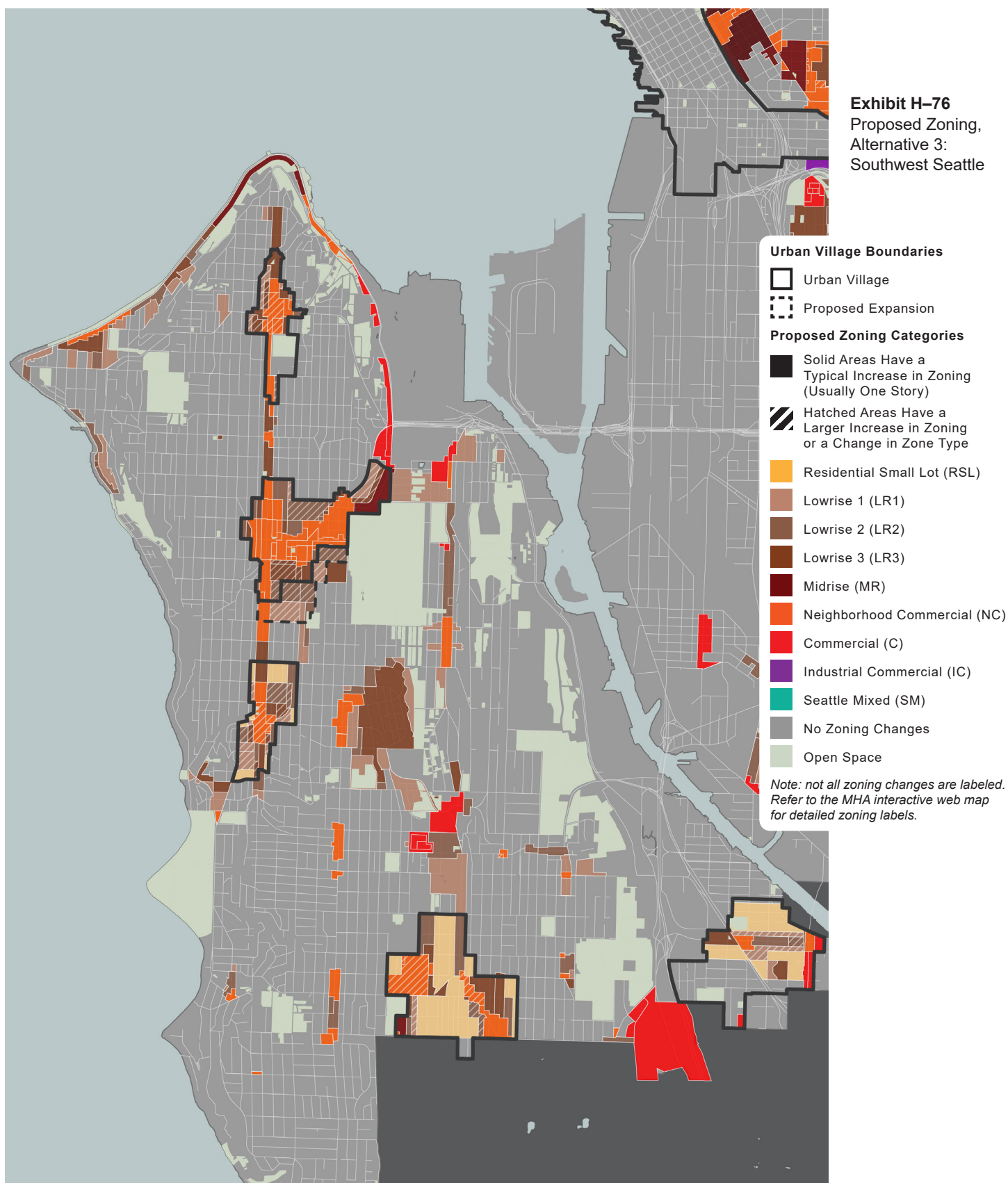
-  Solid Areas Have a Typical Increase in Zoning (Usually One Story)
-  Hatched Areas Have a Larger Increase in Zoning or a Change in Zone Type
-  Residential Small Lot (RSL)
-  Lowrise 1 (LR1)
-  Lowrise 2 (LR2)
-  Lowrise 3 (LR3)
-  Midrise (MR)
-  Neighborhood Commercial (NC)
-  Commercial (C)
-  Industrial Commercial (IC)
-  Seattle Mixed (SM)
-  No Zoning Changes
-  Open Space

*Note: not all zoning changes are labeled. Refer to the MHA interactive web map for detailed zoning labels.*



Source: City of Seattle, 2017.

**Exhibit H-76**  
Proposed Zoning,  
Alternative 3:  
Southwest Seattle



Source: City of Seattle, 2017.





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# APPENDIX I



## HOUSING PRODUCTION AND COST: A REVIEW OF THE RESEARCH LITERATURE.

### INTRODUCTION

The housing affordability challenges in Seattle have many similarities to those faced in other rapidly growing cities with high housing demand such as San Francisco, Los Angeles, New York, and Boston. Local policy debates over how to respond to these challenges often focus on the relative importance of two different strategies. The first strategy emphasizes preserving existing affordable housing and the development of new subsidized affordable housing. The second strategy focuses on reducing barriers to the production of new market-rate housing in order to increase both the diversity of the housing stock and total housing supply.

The Action Alternatives considered in this DEIS include each of these two broad strategies. Section 3.1.2 presents an analysis of the potential impacts that new affordable housing production will have on the supply of affordable units. This section also includes estimates of low income households that may be physically displacement due to redevelopment. What that analysis did not address was the potential impacts that an increased supply of housing (as projected in the Action Alternatives) could have on market-rate housing costs. The housing market in Seattle is much too complex to predict such impacts with confidence. However, there has been a great deal of scholarly research that explores the relationships between housing production and housing costs in cities and regions similar to Seattle. This appendix summarizes key findings in this research literature and their relevance to Seattle's affordability challenges.

### RELATIONSHIPS BETWEEN HOUSING SUPPLY CONSTRAINTS AND HOUSING COSTS

Nearly all research into housing market economics begin with the assumption that housing costs are determined, in large part, by the interaction of housing supply and housing demand. For instance, if strong job growth in a city is creating high demand for housing, and the supply of housing does not keep

pace with that demand, then housing prices will rise as an increasing number of households compete for a limited number of available homes. Many research studies explore this assumption by examining housing costs in different cities or regions that place different kinds of constraints on the supply of new housing. One kind of constraint is land use controls, or limitations on the allowable uses, heights, and/or density of new development on privately owned land. Economic theory suggests that if constraints reduce the quantity of housing that developers can provide below that of demand, housing prices will increase (Brueckner, 1990; Glaeser and Ward, 2009). Glaeser and Gyourko (2003) and Glaeser, Gyourko, and Saks (2005) argue that the dramatic rise in housing costs in cities such as Seattle is largely due to planning, zoning, and permitting regulations such as designated historic districts and imposing impact fees. By raising hurdles to new development, they argue, local and state governments have made building supply less elastic, or less responsive to increases in housing demand and costs (Cunningham, 2007).

One large body empirical research on this topic focuses at the scale of metropolitan regions and the impacts of regional growth management practices, such as urban growth boundaries. Growth management constrains the amount of land within a metropolitan region that is available for new housing development. In a review of the planning research literature, Addison et al. (2012) found, with few exceptions, growth management is associated with either increased housing prices or decreased housing affordability.<sup>1</sup> However, research by Aurand (2010) indicates these price impacts can be countered by policies to encourage greater density and variety of housing types within the urban growth area—characteristics he found to be associated with greater housing affordability in both Seattle and Portland at the neighborhood scale. Cunningham (2007) also examined the effects of urban growth boundaries in the Seattle area, and while the paper generally supports the economic theory (p. 357), Cunningham also found that urban growth boundaries increased construction inside the boundary and reduced price volatility.<sup>2</sup>

Growth management is only one kind of constraint that can create barriers to housing construction and housing supply. Gyourko and Molloy

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<sup>1</sup> Relevant papers reviewed by Addison et al include (Nelson, 2000; Carruthers, 2002; Downs, 2002; Anthony, 2003; Anthony, 2006; Woo and Guldman, 2011). An earlier review of empirical research on the effects of land use regulation on housing by Quigley and Rosenthal (2005, p. 70) finds variation in quality and findings. However, their own research also supports the same conclusion.

<sup>2</sup> It is important to note that Cunningham did not examine the net effect on construction in the region, only the distribution of construction inside and outside the boundary.

(2015) conducted a comprehensive review of the research literature on the causes and effects of local regulation on housing supply. They define regulation as “any form of government that restricts the number, location, quality, or shape of residential development” (p. 4). According to Gyourko and Molloy, “the vast majority of studies have found that locations with more regulation have higher house prices and less construction” (p. 42). Key studies that examine this theme at the city-scale include Katz and Rosen (1987), Malpezzi (1996), Mayer and Somerville (2000), Quigley and Rosenthal (2005), Glaeser and Ward (2009), and Jackson (2014). These studies vary primarily by type of data available, jurisdictional scale, and location. Gyourko and Molloy identify one of the overall weaknesses in the literature on housing supply regulation to be a lack of “good time series with which to measure changes in regulation” (p. 5); because much of the economic literature on housing and regulation, especially those empirical studies of the effects of regulations on housing supply, uses data from multiple different housing markets taken at a single point in time.

## MEASURING THE IMPACTS OF REGULATION ON HOUSING PRICES

Glaeser, Gyourko, and Saks (2005) took a very different approach than the previously reviewed studies in their examination of high housing costs in Manhattan. Between 1960 and 2000, Manhattan experienced a decline in the number of permitted residential units while the borough and region both experienced a sharp increase in real housing prices. They note many other rapidly growing regions experienced flat or declining housing costs during the same time period and argue that Manhattan’s rising housing costs cannot be explained by increased demand alone (p. 332). To understand what else may be contributing to the rising housing costs, the authors use an unusual methodology based on the classic economic assumption that competition reduces prices and profits. They compare the marginal cost of construction to the selling price of multi-family housing in Manhattan. Under economic theory, these numbers should be relatively close in a competitive market. However, the authors found that while estimated construction costs for high-rise housing in Manhattan were relatively high at approximately \$275 per square foot (p. 346), housing sold for an estimated \$500 per square foot (p. 339: Table 1). This is an 80 percent increase in price over marginal production cost.

To identify the source of the difference between the construction cost and selling price, the authors worked to rule out potential explanations.

Any major differences between cost and price, they contend, suggest one or more of the following: measurement errors, non-competitive markets, or external factors are affecting demand and/or supply.<sup>3</sup> To rule out measurement error, the authors compared several sources of data on construction costs, including materials, labor, equipment, and soft costs such as architect fees and engineering. To evaluate whether the Manhattan residential construction market is competitive, the authors quantified the number of developers competing in the marketplace for new home development. They identified 100 multi-family housing developers headquartered in Manhattan and 329 located elsewhere in New York City. As the authors note, construction companies do not have to be located in a city to build there, so this underestimates the likely number of multifamily housing construction companies operating in Manhattan. They also consider another possibility, that the technology necessary to build high-rises is concentrated in a small number of developers that could collude to distort the market and drive up profits. The authors also argue against technological limitations based on the almost hundred-year history of building high-rises in Manhattan. In the end, they conclude “all the available evidence suggests that the housing production industry is highly competitive” (p. 337).

After ruling out measurement error and market competitiveness as explanations, the authors conclude that external factors must be restricting the supply of housing compared to market demand. Unlike much of the other research reviewed for this Appendix, the authors do not attempt separate out individual constraint types or measure the level of constraints present in Manhattan. Instead, they suggest that these external factors “could include a wide variety of quantity controls, zoning rules, taxes, or fees” (p. 336). The authors also consider where the excess amount paid above construction costs is distributed:

*“ [A] high ratio of sales prices to construction costs does not imply that developers are making excess profits. On the margin, the benefits of the very high prices should be competed away via legal bills, lobbying fees, the carry costs of invested capital during long delays, or any of the myriad other expenses associated with navigating the city’s regulatory maze. Regulatory barriers essentially function as a tax that*

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<sup>3</sup> Because the analysis considered only the marginal cost of high-rise units, considerations like financing, land value, land preparation, and changes to community character were not included as factors. While land value is a large component of housing costs, it does not contribute to the marginal cost of adding additional floors and additional units to a multi-family building.



*adds to the fixed costs of building. While this should not affect the margin concerning how high to build (conditional on building in the first place), it could change the decision of whether to build if the fixed costs are not covered by the return on the building. This is why our evidence is most convincing in accounting for why there are not additional taller buildings in Manhattan. Because we cannot be sure that other, nonregulatory fixed costs also did not rise, we do not claim that all of the sharp drop in construction levels is explained by regulation. (p. 334 fn. 4) 🏠*

Glaeser and Gyourko (2017) use a similar approach of comparing construction costs and sales prices to identify locations with possible market distortions. Their insight is that if housing is competitively supplied, sales prices should largely reflect the production cost of housing plus the consumption value of the land itself. Their estimate of the regulatory “tax” on homes is quite large for West Coast cities, including Seattle, as well as New York and Boston. Of the 98 metropolitan areas included in their study, Seattle the ninth highest ratio of housing price to minimum profitable production cost, putting Seattle in an “expensive market” and very similar to New York (p. 7 and 37 Figure 8).

## THE IMPACTS OF HOUSING PRODUCTION AT THE NEIGHBORHOOD SCALE

While reducing constraints on housing production may help reduce housing costs at a regional or city scale, it does not necessarily follow that the same relationship is present at the neighborhood scale. This is because market mechanisms work differently at these different scales. At the regional scale, demand for new housing is determined, primarily, by regional employment growth. Increasing housing supply reduces competition for available housing, pushing down housing costs. However, demand for housing can vary significantly by city and neighborhood based on the kinds of services and amenities available, proximity to employment centers, perceptions of safety. New development in a neighborhood, therefore, has potential to impact demand for housing in that neighborhood by adding amenities and changing the demographic composition. Therefore, by inducing more demand in a neighborhood, more market-rate development could, potentially, also increase housing costs and induce more economic displacement relative to other neighborhoods. This theory is consistent with the findings of an empirical study of urban revitalization in New York City, where the city built more than 180,000 housing units in distressed neighborhoods (Schill, Ellen, Schwartz, A., and Voicu, 2002).

The authors found an increased in housing values and increased housing cost burdens among renters in affected neighborhoods.

Zuk and Chapple (2016) explore the relationship between market rate housing production and affordability at the neighborhood scale in a study of the San Francisco Bay Area housing market. They find increased housing market production is associated with reduced displacement in an analysis of all census tracts regionwide. However, when they compared findings to an analysis of census block groups in the City of San Francisco only, they found market-rate housing production has no significant effect on the likelihood displacement. They conclude that in cities with very high levels of housing demand, such as San Francisco and Seattle, increased market rate housing production is an important but insufficient strategy for improving housing affordability and reducing displacement pressure. Their study also examined the role of subsidized housing production and found that increased subsidized housing reduces the displacement of low income households at the neighborhood scale.

Other studies have examined the role that increasing the density of housing in neighborhoods can have on housing affordability. In a study of the Seattle and Portland regions referenced above, Aurand (2010) found that neighborhoods with greater density were more likely to include rental units affordable to households earning 50 percent AMI. However, he found that diversity of housing stock had an even stronger relationship to housing affordability. Neighborhoods with a greater variety of different housing types (single family, townhouses, small multi-unit structures, and larger multi-unit structures) were even more likely to include affordable rental units. The study concludes that cities should allow for and encourage a greater variety of housing unit types in areas that are receiving new growth.

## CONCLUSIONS

Previous research in the planning and housing economics literature suggests that if housing production in Seattle were to increase, as projected in the Action Alternatives, it would have a positive impact on housing affordability citywide when compared to the No Action alternative. However, these impacts may vary by neighborhood. It is possible increased development in some neighborhoods with relatively lower housing costs and lower housing demand could change the character of those neighborhoods, influencing the level of housing demand. This could, in some cases, result in a situation where housing costs increase more rapidly in that neighborhood than would be the case if the neighborhood experienced significantly less new growth, assuming no change in the amount of housing growth citywide.

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# APPENDIX J



## 2035 SCREENLINE V/C RATIOS.

### VEHICLE VOLUME-TO-CAPACITY SCREENLINES

The Seattle Department of Transportation provided existing traffic volumes collected between 2015 and 2017. Traffic volumes at each location were averaged over all available counts collected to reach representative average weekday conditions. Traffic counts from 2012 to 2014 were used if 2015 to 2017 data were not available for a location. The screenline capacities are the same used in the Seattle 2035 Comprehensive Plan EIS. Existing screenline results are summarized in Exhibit J–1.

**Exhibit J–1** Existing PM Screenline Results

LOS Screen Line #	Location	Arterial Crossing Screenline	2015 Capacity		Existing PM Peak Volume	
			EB/NB	WB/SB	EB/NB	WB/SB
1.11	North City Limit - 3rd Ave NW to Aurora Ave N	3rd Ave NW, s/o NW 145th St	770	770	480	380
		Greenwood Ave N, s/o N 145th St	1940	1940	1310	950
		Aurora Ave N, s/o N 145th St	2100	2000	1770	1270
		Screenline V/C Ratio	4810	4710	0.74	0.55
1.12	North City Limit - Meridian Ave N to 15th Ave NE	Meridian Ave N, s/o NE 145th ST	770	770	480	110
		1st Ave NE, s/o 145th St	770	770	420	250
		5th Ave NE, s/o I-5 145th St off-ramp	770	770	470	260
		15th Ave NE, s/o 145th St	2040	2040	890	690
		Screenline V/C Ratio	4350	4350	0.76	0.45



LOS Screen Line #	Location	Arterial Crossing Screenline	2015 Capacity		Existing PM Peak Volume	
			EB/NB	WB/SB	EB/NB	WB/SB
1.13	North City Limit - 30th Ave NE to Lake City Way NE	30th Ave NE, s/o 145th St	770	770	480	260
		Lake City Way NE, s/o NE 145th St	2150	2040	2220	1420
		Screenline V/C Ratio	2920	2810	0.92	0.6
2	Magnolia	Magnolia Br, w/o Garfield St off-ramp	770	1540	620	1100
		W Dravus St, e/o 20th Ave W	1540	1540	440	920
		W Emerson Pl, se/o 21st Ave W	1540	1540	780	850
		Screenline V/C Ratio	3850	4620	0.48	0.62
3.11	Duwamish River - W Seattle Fwy and Spokane St	SW Spokane Br, w/o SW Spokane E St	770	770	410	560
		EB West Seattle Bridge, w/o Alaskan Way Viaduct NB on ramp	6380	NA	3860	NA
		W. Seattle Br., w/o Alaskan Way Viaduct NB on ramp	NA	5380	NA	4680
		Screenline V/C Ratio	7150	6150	0.6	0.85
3.12	Duwamish River - 1st Ave S and 16th Ave S	1st Ave S Br, S/O Point A	8220	8220	2990	2890
		16th Ave S, N/O 16th Ave S BR	1540	1540	480	730
		Screenline V/C Ratio	9760	9760	0.36	0.37
4.11	South City Limit - M L King Jr Wy to Rainier Ave S	Martin Luther King Jr Way S, s/o Norfolk	2040	2040	1190	1260
		51st Ave S, s/o Bangor St	770	770	200	490
		Renton Ave S, se/o Bangor St	770	770	430	690
		Rainier Ave S, se/o 75th Ave SE	1460	1460	790	1130
		Screenline V/C Ratio	5040	5040	0.52	0.71
4.12	South City Limit - Marine Dr SW to Meyers Wy S	Marine View Drive SW, N/O 46th Ave SW	770	770	226	205
		35th Ave SW, N/O SW Roxbury St	1940	1940	697	727
		26th Ave SW, N/O SW Roxbury St	770	770	342	397
		Delridge Wy, NW/o SW Cambridge St	770	770	559	628
		16th Ave SW, n/o SW Cambridge St	770	770	224	216
		8th Ave SW, N/O SW Roxbury St	770	770	297	252
		Olson Pl SW, SW/o 1st Ave S	2040	2040	1070	1442
		Myers Way S, S/O Olson Pl SW	1540	1540	190	312
		Screenline V/C Ratio	9370	9370	0.38	0.45
4.13	South City Limit - SR 99 to Airport Wy S	SR 99 (W Marginal Way S, SE/O Cloverdale St on ramp for NW flow; W Marginal Way S, SE/O Kenyon on ramp for SE flow)	2000	2000	850	1470
		8th Ave S, s/o Director St	770	770	60	170
		East Marginal Way S, SE/O Boeing Dr, S 81st	2040	2040	660	630
		14th Ave S, n/o Director St	1540	1540	560	860
		Airport Way S, N/O S Norfolk St	2000	2000	280	800
		Screenline V/C Ratio	8350	8350	0.29	0.47
5.11	Ship Canal Ballard Bridge	Ballard Bridge	2870	3410	2840	1880
		Screenline V/C Ratio	2870	3410	0.99	0.55
5.12	Ship Canal Fremont Bridge	Fremont Bridge	2210	2210	1950	1390
		Screenline V/C Ratio	2210	2210	0.88	0.63

LOS Screen Line #	Location	Arterial Crossing Screenline	2015 Capacity		Existing PM Peak Volume	
			EB/NB	WB/SB	EB/NB	WB/SB
	Ship Canal Aurora Ave N	Aurora Bridge	5380	5380	4360	3330
5.13	Screenline V/C Ratio		5380	5380	0.81	0.62
	Ship Canal University and Montlake Bridges	University Bridge, SW/O Point A	2210	2210	1400	1810
		Montlake Bridge, S/O Point A	2210	2210	2220	2130
5.16	Screenline V/C Ratio		4420	4420	0.82	0.89
	South of NW 80th St - Seaview Ave NW to 15th Ave NW	Seaview Ave NW, N/O NW 67th St	1010	1010	160	150
		32nd Ave NW, S/O NW 80th St	770	770	220	230
		24th Ave NW, S/O NW 80th St	1010	1010	540	450
		15th Ave NW, S/O NW 80th St	3070	2040	1490	1200
6.11	Screenline V/C Ratio		5860	4830	0.41	0.42
	South of NW 80th St - 8th Ave NW to Greenwood Ave N	8th Ave NW, S/O NW 80th St	1010	1010	1080	900
		3rd Ave NW, S/O NW 80th St	770	770	430	370
		Greenwood Ave N, S/O N 80th St	1010	1010	540	540
6.12	Screenline V/C Ratio		2790	2790	0.74	0.65
	South of NE 80th St - Linden Ave N to 1st Ave NE	Linden Ave N, S/O N 80th St	770	770	320	150
		Aurora Ave N, S/O N 80th St	2150	2150	1870	1580
		Green Lake Drive N, SE/O N 80th St	1010	1010	320	180
		Wallingford Ave N, S/O N 80th St	770	770	250	240
		Stroud Ave N, SW/O N 80th St	770	770	240	160
		1st Ave NE, S/O NE 80th St	770	770	90	270
6.13	Screenline V/C Ratio		6240	6240	0.49	0.41
	South of NE 80th St - 5th Ave NE to 15th Ave NE	5th Ave NE, S/O NE 78th St	770	770	380	290
		Roosevelt Way NE (one-way), N/O NE 73rd St	NA	1840	NA	990
		Lake City Way NE, SW/O NE 80th St	2040	2040	1460	950
		15th Ave NE, S/O NE 75th St	1540	770	530	460
6.14	Screenline V/C Ratio		4350	5420	0.55	0.5
	South of NE 80th St - 20th Ave NE to Sand Point Way NE	20th Ave NE, S/O NE 75th St	770	770	170	130
		25th Ave NE, S/O NE 75th St	1540	770	700	410
		35th Ave NE, S/O NE 75th St	1540	770	890	630
		40th Ave NE, S/O NE 75th St	770	770	420	240
		Sand Point Way NE, S/O NE 74th St	1540	1540	750	690
6.15	Screenline V/C Ratio		6160	4620	0.47	0.45

LOS Screen Line #	Location	Arterial Crossing Screenline	2015 Capacity		Existing PM Peak Volume	
			EB/NB	WB/SB	EB/NB	WB/SB
	West of Aurora Ave - Fremont Pl N to N 65th St	Fremont Pl N, NW/O Fremont Ave N	1940	1940	960	1000
		N 39th St, W/O Fremont Ave N	770	770	540	840
		N 46th St, W/O Phinney Ave N	1540	1540	850	890
		N 50th St, W/O Fremont Ave N	770	770	360	640
		N 65th St, W/O Linden Ave N	770	770	310	450
7.11	Screenline V/C Ratio		5790	5790	0.52	0.66
	West of Aurora Ave - N 80th St to N 145th St	N 80th St, W/O Linden Ave N	960	960	580	670
		N 85th St, W/O Linden Ave N	1540	1540	690	970
		N 105th St w/O Evanston	1540	1540	750	1050
		N 125th St, W/O Aurora Ave N	1010	1010	390	380
		N 130th St, W/O Linden Ave N	960	960	520	600
		N 145th St, W/O Linden Ave	1540	1540	520	690
7.12	Screenline V/C Ratio		7550	7550	0.46	0.58
	South of Lake Union	Valley St, W/O Fairview Ave N				
		Mercer St, W/O Fairview Ave N for E flow; E/O Boren Ave N for W flow	6150	6150	3040	2610
		Republican St, W/O Eastlake Ave				
		Denny Way, E/O Minor Ave				
8	Screenline V/C Ratio		6150	6150	0.49	0.42
	South of Spokane St - Beach Dr SW to W Marginal Way SW	Beach Dr SW, SE/O 61st Ave SW	770	770	200	230
		55th Ave SW, S/O SW Charlestown St	770	770	120	80
		California Ave SW, S/O SW Charlestown St	1010	1010	570	850
		Fauntleroy Wy SW (West Seattle Br, NE/O Fauntleroy Wy SW for NE flow; NE/O 35th Ave SW for SW flow)	3590	3590	1370	2510
		SW Avalon Wy, N/O 30th Ave SW	1010	1010	510	730
		Delridge Wy, S/O SW Andover St	1010	1010	640	350
		W Marginal Way SW	2000	2000	640	330
9.11	Screenline V/C Ratio		10160	10160	0.4	0.5
	South of Spokane St - E Marginal Way S to Airport Way S	E Marginal Way SW, N/O Alaskan Wy Vi SB	1150	1150	480	970
		Alaskan Wy, N/O East Marginal Way S	3590	3590	2530	2050
		1st Ave S, S/O S Spokane SR St	2040	2040	690	980
		4th Ave S, S/O S Spokane SR St	2040	2040	1440	1340
		6th Ave S, S/O S Forest St	1540	1940	480	630
		Airport Way S, N/O S Spokane St for SB flow; S/O S Spokane St for NB flow	2040	2040	600	740
9.12	Screenline V/C Ratio		12400	12800	0.5	0.52

LOS Screen Line #	Location	Arterial Crossing Screenline	2015 Capacity		Existing PM Peak Volume	
			EB/NB	WB/SB	EB/NB	WB/SB
	South of Spokane St - 15th Ave S to Rainier Ave S	15th Ave S, S/O S Bradford St	2920	1540	1160	790
		Beacon Ave S, S/O S Spokane St	1010	1010	520	650
		Martin Luther King Jr Way S, N/O S Andover St	2040	2040	790	1110
		Rainier Ave S, SE/O M LK	2040	2040	1000	1360
9.13	Screenline V/C Ratio		8010	6630	0.43	0.59
	South of S Jackson St - Alaskan Way S to 4th Ave S	Alaskan Wy S, N of S King St	1540	1540	380	620
		SR 99 Tunnel	6080	6080	5190	5440
		1st Ave S, N/O S King St	2040	2040	370	540
		2nd Ave S, N/O S King St	1540	1540	280	290
		4th Ave S, S/O 2nd Ave ET S	2920	1940	1390	1150
10.11	Screenline V/C Ratio		14120	13140	0.54	0.61
	South of S Jackson St - 12th Ave S to Lakeside Ave S	12th Ave S, S/O S Weller St	1540	1540	970	670
		Rainier Ave S, SE/O Boren Ave S	2040	2040	1500	1410
		23rd Ave S, S/O S Jackson St	1540	1540	420	820
		Martin Luther King Jr Way S, S/O S Jackson St	1010	1010	610	710
		31st Ave S, S/O S Jackson St	960	960	210	490
		Lakeside Ave S	770	770	350	570
10.12	Screenline V/C Ratio		7860	7860	0.52	0.59
	East of CBD	S Jackson St, E/O 5th Ave S	1010	1010	480	400
		Yesler Way, W/O 6th Ave	770	770	190	440
		James St, NE/O 6th Ave	2040	2040	590	1200
		Cherry St, NE/O 6th Ave	1150	NA	760	NA
		Madison St, SW/O 7th Ave	1540	1630	170	1540
		Spring St, SW/O 6th Ave	2760	NA	1120	NA
		Seneca St, NE/O 6th Ave	NA	2760	NA	560
		University, SW/O 6th Ave	2330	NA	710	NA
		Union St, NE/O 7th Ave	NA	3500	NA	710
		Pike St, SW/O Terry Ave	1540	1540	730	200
		Pine St, NE/O 9th Ave	770	960	130	470
		Olive Way, NE/O 9th Ave	3500	NA	1180	NA
		Howell St, NE/O 9th Ave	3940	NA	1190	NA
12.12	Screenline V/C Ratio		21350	14210	0.41	0.41
	East of I-5 NE Northgate Way to NE 145th St	NE Northgate Way, E/O 5th Ave NE	2040	2040	1350	1170
		NE 125th St (Roosevelt Way NE, SE/O NE 130th St N)	1010	1010	760	980
		NE 145th St, E/O 5th Ave NE	1540	1540	720	500
13.11	Screenline V/C Ratio		4590	4590	0.62	0.58

LOS Screen Line #	Location	Arterial Crossing Screenline	2015 Capacity		Existing PM Peak Volume	
			EB/NB	WB/SB	EB/NB	WB/SB
	East of I-5 NE 65th St to NE 80th St	NE 80th St, E/O 5th Ave NE	770	770	1100	490
		NE 75th St, W/O Roosevelt Way NE	2040	2040	720	1050
		NE 70th St, W/O Roosevelt Way NE	770	770	370	330
		NE 65th St, W/O Roosevelt Way NE	1540	1540	570	690
13.12	Screenline V/C Ratio		5120	5120	0.54	0.5
	East of I-5 NE Pacific St to NE Ravenna Blvd	NE Pacific St, NW/O NE Boat St	1010	1010	1020	750
		NE 40th St, E/O 7th Ave NE	770	770	510	290
		NE 42nd St, E/O 7th Ave NE	770	770	330	190
		NE 45th St W/O Roosevelt Way NE	2040	2040	1210	1210
		NE 50th St W/O Roosevelt Way NE	1540	1540	800	910
		NE Ravenna Blvd, W/O Roosevelt Way	1010	1010	390	400
13.13	Screenline V/C Ratio		7140	7140	0.6	0.53

Source: *Toward a Sustainable Seattle, 2005 Comprehensive Plan*; *SDOT 2015-2017 Traffic Counts*; *Fehr & Peers, 2017*.

## 2035 Screenline V/C Ratios

The arterial volumes for each of the future year alternatives were calculated using the difference method. Results are summarized in Table A.3.4-2. The capacities of some screenlines are different from the base year due to the completion of future roadway projects that add or remove capacity (e.g. new lanes, road diets, BRT lanes). Capacity changes were based on the roadway capacities set in the travel model. Based on the Bicycle Master Plan's planned cycle track and bicycle lane locations, road diets were assumed on the following roadways:

- 15th Ave NE (NE 117th St–NE 145th St, Pacific Place)
- Pinehurst Way (Roosevelt Way NE–15th Ave NE)
- Sand Point Way NE (NE 65th St–NE 75th St)
- N 130th St (Linden Ave N–5th Ave NE)
- Harvard Ave E (E Roanoke St–E Shelby St)
- Westlake Ave N (Valley St–south of Aurora Ave N)
- Fairview Ave N (Valley St–Eastlake Ave E)
- Eastlake Ave (Stewart St–Fairview Ave)
- 1st Ave (Roy St–Broad St)
- Broad St (Alaskan Way–2nd Ave)
- Dexter Ave (Mercer St–Denny Way)
- 5th Ave N (Roy St–Denny Way, Seneca St–S Jackson St)
- S Jackson St (20th Ave S–ML King Jr Way S)



- S Dearborn St (7th Ave S to Rainier Ave S)
- 12th Ave S ( S Dearborn St–E Yesler Way)
- 15th Ave S ( S Oregon St–S Spokane St)
- Rainier Ave S (12th Ave S–S Massachusetts St, S McClellan St–ML King Jr Way S)
- ML King Jr Way S (Rainier Ave S–S Norfolk St)
- Airport Way S (4th Ave–S Norfolk St)
- East Marginal Way (1st Ave–S 81st Pl)
- SW Admiral Way (Fairmount Ave SW–Harbor Ave SW)
- Fauntleroy Way SW ( SW Alaska St–36th Ave SW)
- 16th Ave SW (SW Roxbury St–SW Avalon Way)
- Delridge Way SW (SW Andover St–Chelan Ave SW)
- Olson Pl SW ( SW Roxbury St–S Cloverdale St)

## Exhibit J–2 2035 PM Screenline V/C Ratio Results

LOS Screen Line #	Location	Arterial Crossing Screenline	2035 Capacity		2035 Alt 1 Model (No Action)		2035 Alt 2 Model		2035 Alt 3 Model	
			EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB
1.11	North City Limit - 3rd Ave NW to Aurora Ave N	3rd Ave NW, s/o NW 145th St	770	770	820	680	810	720	820	710
		Greenwood Ave N, s/o N 145th St	1940	1940	1830	1300	1850	1310	1830	1330
		Aurora Ave N, s/o N 145th St	2100	2000	2500	1850	2520	1870	2510	1880
		Screenline V/C Ratio	4810	4710	1.07	0.81	1.08	0.83	1.07	0.83
1.12	North City Limit - Meridian Ave N to 15th Ave NE	Meridian Ave N, s/o NE 145th St	770	770	780	350	790	350	790	350
		1st Ave NE, s/o 145th St	770	770	750	360	750	360	750	370
		5th Ave NE, s/o I-5 145th St off-ramp	770	770	690	390	690	380	660	390
		15th Ave NE, s/o 145th St	1010	1010	890	760	890	760	890	760
1.13	North City Limit - 30th Ave NE to Lake City Way NE	30th Ave NE, s/o 145th St	770	770	660	400	660	400	660	410
		Lake City Way NE, s/o NE 145th St	2150	2040	2670	1800	2650	1770	2650	1780
		Screenline V/C Ratio	2920	2810	1.14	0.78	1.14	0.78	1.14	0.78
		Screenline V/C Ratio	2920	2810	1.14	0.78	1.14	0.78	1.14	0.78
2	Magnolia	Magnolia Br, w/o Garfield St off-ramp	770	1540	620	1240	620	1250	620	1270
		W Dravus St, e/o 20th Ave W	1540	1540	640	920	640	920	640	920
		W Emerson Pl, se/o 21st Ave W	1540	1540	830	790	830	850	830	850
		Screenline V/C Ratio	3850	4620	0.54	0.64	0.54	0.65	0.54	0.66
3.11	Duwamish River - W Seattle Fwy and Spokane St	SW Spokane Br, w/o SW Spokane E st	770	770	660	890	670	890	670	920
		EB West Seattle Bridge, w/o Alaskan Way Viaduct NB on ramp	6380		4230	NA	4270	NA	4280	NA
		W. Seattle Br., w/o Alaskan Way Viaduct NB on ramp		5380	NA	6080	NA	6150	NA	6140
		Screenline V/C Ratio	7150	6150	0.68	1.13	0.69	1.14	0.69	1.15
3.12	Duwamish River - 1st Ave S and 16th Ave S	1st Ave S Br, S/O Point A	8220	8220	2990	2890	2990	2890	2990	2890
		16th Ave S, N/O 16th Ave S BR	1540	1540	880	1020	930	1030	920	1040
		Screenline V/C Ratio	9760	9760	0.4	0.4	0.4	0.4	0.4	0.4
		Screenline V/C Ratio	9760	9760	0.4	0.4	0.4	0.4	0.4	0.4
4.11	South City Limit - M L King Jr Wy to Rainier Ave S	Martin Luther King Jr Way S, s/o Norfolk	2040	2040	1190	1710	1240	1860	1230	1830
		51st Ave S, s/o Bangor St	770	770	270	880	320	890	320	900
		Renton Ave S, se/o Bangor St	770	770	540	1110	560	1110	560	1110
		Rainier Ave S, se/o 75th Ave SE	1460	1460	1150	1600	1190	1600	1190	1600
4.11	Screenline V/C Ratio	Screenline V/C Ratio	5040	5040	0.63	1.05	0.66	1.08	0.66	1.08
		Screenline V/C Ratio	5040	5040	0.63	1.05	0.66	1.08	0.66	1.08
		Screenline V/C Ratio	5040	5040	0.63	1.05	0.66	1.08	0.66	1.08
		Screenline V/C Ratio	5040	5040	0.63	1.05	0.66	1.08	0.66	1.08



LOS Screen Line #	Location	Arterial Crossing Screenline	2035 Capacity		2035 Alt 1 Model (No Action)		2035 Alt 2 Model		2035 Alt 3 Model	
			EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB
	South City Limit - Marine Dr SW to Meyers Wy S	Marine View Drive SW, N/O 46th Ave SW	770	770	380	240	390	230	400	230
		35th Ave SW, N/O SW Roxbury St	1010	1010	890	950	900	950	900	950
		26th Ave SW, N/O SW Roxbury St	770	770	410	550	420	550	410	540
		Delridge Wy, NW/o SW Cambridge St	770	770	750	750	780	780	790	790
		16th Ave SW, N/O SW Cambridge St	770	770	240	550	250	550	250	550
		8th Ave SW, N/O SW Roxbury St	770	770	350	440	370	440	370	440
		Olson PI SW, SW/O 1st Ave S	1010	1010	1070	1440	1070	1440	1070	1440
		Myers Way S, S/O Olson PI SW	1540	1540	210	730	200	720	200	710
4.12	Screenline V/C Ratio		7410	7410	0.58	0.76	0.59	0.76	0.59	0.76
	South City Limit - SR 99 to Airport Wy S	SR 99 (W Marginal Way S, SE/O Cloverdale St on ramp for NW flow; W Marginal Way S, SE/O Kenyon on ramp for SE flow)	2000	2000	910	2210	950	2230	940	2210
		8th Ave S, s/o Director St	770	770	70	350	70	340	70	350
		East Marginal Way S, SE/O Boeing Dr, S 81st	2040	2040	770	980	720	970	730	970
		14th Ave S, n/o Director St	1540	1540	830	1210	880	1200	890	1210
		Airport Way S, N/O S Norfolk St	1000	1000	820	1200	860	1190	870	1210
4.13	Screenline V/C Ratio		7350	7350	0.46	0.81	0.47	0.81	0.48	0.81
	Ship Canal Ballard Bridge	Ballard Bridge	2870	3410	3650	2540	3680	2560	3710	2570
5.11	Screenline V/C Ratio		2870	3410	1.27	0.74	1.28	0.75	1.29	0.75
	Ship Canal Fremont Bridge	Fremont Bridge	2210	2210	2150	1760	2160	1790	2170	1790
5.12	Screenline V/C Ratio		2210	2210	0.97	0.8	0.98	0.81	0.98	0.81
	Ship Canal Aurora Ave N	Aurora Bridge	5380	5380	5090	4510	5150	4560	5200	4580
5.13	Screenline V/C Ratio		5380	5380	0.95	0.84	0.96	0.85	0.97	0.85
	Ship Canal University and Montlake Bridges	University Bridge, SW/O Point A	2210	2210	1720	2200	1750	2230	1770	2240
		Montlake Bridge, S/O Point A	2210	2210	2580	2360	2620	2390	2630	2400
5.16	Screenline V/C Ratio		4420	4420	0.97	1.03	0.99	1.05	1	1.05
	South of NW 80th St - Seaview Ave NW to 15th Ave NW	Seaview Ave NW, N/O NW 67th St	1010	1010	160	150	160	150	160	150
		32nd Ave NW, S/O NW 80th St	770	770	280	290	270	280	270	290
		24th Ave NW, S/O NW 80th St	1010	1010	540	490	540	490	540	500
		15th Ave NW, S/O NW 80th St	3070	2040	1830	1340	1830	1340	1830	1350
6.11	Screenline V/C Ratio		5860	4830	0.48	0.47	0.48	0.47	0.48	0.47
	South of NW 80th St - 8th Ave NW to Greenwood Ave N	8th Ave NW, S/O NW 80th St	1010	1010	1510	1320	1510	1370	1530	1400
		3rd Ave NW, S/O NW 80th St	770	770	570	570	580	560	580	570
		Greenwood Ave N, S/O N 80th St	1010	1010	660	690	650	700	650	710
6.12	Screenline V/C Ratio		2790	2790	0.98	0.93	0.98	0.95	0.99	0.96
	South of NE 80th St - Linden Ave N to 1st Ave NE	Linden Ave N, S/O N 80th St	770	770	500	280	490	270	500	270
		Aurora Ave N, S/O N 80th St	2150	2150	2120	2030	2130	2080	2140	2090
		Green Lake Drive N, SE/O N 80th St	1010	1010	350	180	370	180	360	180
		Wallingford Ave N, S/O N 80th St	770	770	340	360	340	360	350	370
		Stroud Ave N, SW/O N 80th St	770	770	350	210	350	220	330	230
		1st Ave NE, S/O NE 80th St	770	770	200	370	200	390	200	390
6.13	Screenline V/C Ratio		6240	6240	0.62	0.55	0.62	0.56	0.62	0.57
	South of NE 80th St - 5th Ave NE to 15th Ave NE	5th Ave NE, S/O NE 78th St	770	770	540	490	550	530	550	540
		Roosevelt Way NE (one-way), N/O NE 73rd St		1840	NA	1150	NA	1190	NA	1200
		Lake City Way NE, SW/O NE 80th St	2040	2040	1710	1190	1720	1230	1720	1260
		15th Ave NE, S/O NE 75th St	1540	770	610	580	600	590	600	600
6.14	Screenline V/C Ratio		4350	5420	0.66	0.63	0.66	0.65	0.66	0.66
	South of NE 80th ST - 20th Ave NE to Sand Point Way NE	20th Ave NE, S/O NE 75th St	770	770	420	170	440	170	440	170
		25th Ave NE, S/O NE 75th St	1540	770	920	610	940	620	940	630
		35th Ave NE, S/O NE 75th St	1540	770	1020	720	1020	760	1030	760
		40th Ave NE, S/O NE 75th St	770	770	490	270	490	260	490	270
		Sand Point Way NE, S/O NE 74th St	1540	1540	960	780	960	780	960	790
6.15	Screenline V/C Ratio		6160	4620	0.62	0.55	0.62	0.56	0.62	0.57

LOS Screen Line #	Location	Arterial Crossing Screenline	2035 Capacity		2035 Alt 1 Model (No Action)		2035 Alt 2 Model		2035 Alt 3 Model	
			EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB
	West of Aurora Ave - Fremont Pl N to N 65th St	Fremont Pl N, NW/O Fremont Ave N	1010	1010	1030	1000	1030	1000	1040	1000
		N 39th St, W/O Fremont Ave N	770	770	540	880	540	880	540	890
		N 46th St, W/O Phinney Ave N.	1540	820	860	890	860	890	860	890
		N 50th St, W/O Fremont Ave N	770	770	710	790	710	800	710	810
		N 65th St, W/O Linden Ave N	770	770	350	510	350	530	350	530
7.11	Screenline V/C Ratio		4860	4140	0.72	0.98	0.72	0.99	0.72	1
	West of Aurora Ave - N 80th St to N 145th St	N 80th St, W/O Linden Ave N	960	960	770	840	760	860	770	860
		N 85th St, W/O Linden Ave N	1540	1540	990	1210	960	1240	970	1260
		N 105th St W/O Evanston	820	820	750	1050	750	1050	750	1050
		N 125th St, W/O Aurora Ave N	1010	1010	490	420	510	420	500	430
		N 130th St, W/O Linden Ave N	960	960	600	680	600	680	600	670
		N 145th St, W/O Linden Ave	1540	1540	720	920	770	970	740	950
7.12	Screenline V/C Ratio		6830	6830	0.63	0.75	0.64	0.76	0.63	0.77
	South of Lake Union	Valley St, W/O Fairview Ave N								
		Mercer St, W/O Fairview Ave N for E flow; E/O Boren Ave N for W flow	6150	6150	4320	5130	4340	5220	4330	5230
		Republican St, W/O Eastlake Ave								
		Denny Way, E/O Minor Ave								
8	Screenline V/C Ratio		6150	6150	0.64	0.49	0.65	0.5	0.64	0.49
	South of Spokane St - Beach Dr SW to W Marginal Way SW	Beach Dr SW, SE/O 61st Ave SW	770	770	200	260	200	250	200	260
		55th Ave SW, S/O SW Charlestown St	770	770	180	90	180	90	180	90
		California Ave SW, S/O SW Charlestown St	1010	1010	640	990	650	1000	660	1010
		Fauntleroy Wy SW (West Seattle Br, NE/O Fauntleroy Wy SW for NE flow; NE/O 35th Ave SW for SW flow)	3590	3590	1670	3080	1700	3140	1710	3150
		SW Avalon Wy, N/O 30th Ave SW	1010	1010	700	1000	730	1000	730	1010
		Delridge Wy, S/O SW Andover St	1010	1010	640	350	640	350	640	350
		W Marginal Way SW	2000	2000	840	1010	900	990	910	950
9.11	Screenline V/C Ratio		10160	10160	0.48	0.67	0.49	0.67	0.5	0.67
	South of Spokane St - E Marginal Way S to Airport Way S	E Marginal Way SW, N/O Alaskan Wy Vi SB	1150	1150	530	1120	510	1120	520	1130
		Alaskan Wy, N/O East Marginal Way S	3590	3590	2870	2780	2930	2790	2940	2820
		1st Ave S, S/O S Spokane SR St	2040	2040	1120	1470	1150	1470	1150	1480
		4th Ave S, S/O S Spokane SR St	2040	2040	1890	2050	1920	2060	1920	2060
		6th Ave S, S/O S Forest St	1540	1940	590	1030	600	1040	590	1010
		Airport Way S, N/O S Spokane St for SB flow; S/O S Spokane St for NB flow	2040	2040	880	740	900	740	890	740
9.12	Screenline V/C Ratio		12400	12800	0.64	0.72	0.65	0.72	0.65	0.72
	South of Spokane St - 15th Ave S to Rainier Ave S	15th Ave S, S/O S Bradford St	2920	1540	1160	960	1160	960	1160	950
		Beacon Ave S, S/O S Spokane St	1010	1010	940	1060	970	1050	980	1050
		Martin Luther King Jr Way S, N/O S Andover St	1010	1010	790	1110	790	1110	790	1110
		Rainier Ave S, SE/O M LK	2040	2040	1370	1960	1430	1970	1430	1960
9.13	Screenline V/C Ratio		6980	5600	0.61	0.91	0.62	0.91	0.62	0.91
	South of S Jackson St - Alaskan Way S to 4th Ave S	Alaskan Wy S, N of S King St	2140	2040	710	1770	720	1760	710	1760
		SR 99 Tunnel	3940	3940	3960	3960	3960	3960	3960	3960
		1st Ave S, N/O S King St	2040	2040	1210	1640	1220	1660	1220	1640
		2nd Ave S, N/O S King St	1540	1540	620	570	620	570	610	560
		4th Ave S, S/O 2nd Ave ET S	2920	1940	1390	1510	1390	1500	1390	1500
10.11	Screenline V/C Ratio		12580	11500	0.63	0.82	0.63	0.82	0.63	0.82
	South of S Jackson St - 12th Ave S to Lakeside Ave S	12th Ave S, S/O S Weller St	1010	1010	1200	990	1240	1000	1230	1000
		Rainier Ave S, SE/O Boren Ave S	1010	1010	1500	1410	1500	1410	1500	1410
		23rd Ave S, S/O S Jackson St	1060	1060	420	820	420	820	420	820
		Martin Luther King Jr Way S, S/O S Jackson St	1010	1010	1030	1080	1060	1080	1060	1080
		31st Ave S, S/O S Jackson St	960	960	330	830	330	830	330	830
		Lakeside Ave S	770	770	360	760	360	770	360	760
10.12	Screenline V/C Ratio		5820	5820	0.83	1.01	0.84	1.02	0.84	1.02

LOS Screen Line #	Location	Arterial Crossing Screenline	2035 Capacity		2035 Alt 1 Model (No Action)		2035 Alt 2 Model		2035 Alt 3 Model	
			EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB
	East of CBD	S Jackson St, E/O 5th Ave S	1010	1010	580	430	600	430	600	440
		Yesler Way, W/O 6th Ave	770	770	190	450	190	450	190	450
		James St, NE/O 6th Ave	2040	2040	590	1440	610	1470	610	1450
		Cherry St, NE/O 6th Ave	1150		800	NA	840	NA	860	NA
		Madison St, SW/O 7th Ave	1540	1630	170	1750	170	1750	170	1760
		Spring St, SW/O 6th Ave	2760		1220	NA	1230	NA	1200	NA
		Seneca St, NE/O 6th Ave		2760	NA	670	NA	690	NA	690
		University, SW/O 6th Ave	2330		820	NA	830	NA	830	NA
		Union St, NE of 7th Ave		3500	NA	710	NA	710	NA	710
		Pike St, SW/O Terry Ave	1540	1540	910	360	940	400	930	390
		Pine St, NE/O 9th Ave	770	960	260	590	290	640	260	620
		Olive Way, NE/O 9th Ave	3500		1470	NA	1480	NA	1460	NA
		Howell St, NE/O 9th Ave	3940		1210	NA	1210	NA	1220	NA
12.12	Screenline V/C Ratio		21350	14210	0.39	0.45	0.39	0.46	0.39	0.46
	East of I-5 NE Northgate Way to NE 145th St	NE Northgate Way, E/O 5th Ave NE	2040	2040	1590	1370	1590	1390	1580	1430
		NE 125th St (Roosevelt Way NE, SE/O NE 130th St N)	1010	1010	890	1280	870	1280	870	1320
		NE 145th St, E/O 5th Ave NE	1540	1540	940	740	940	720	940	730
13.11	Screenline V/C Ratio		4590	4590	0.74	0.74	0.74	0.74	0.74	0.76
	East of I-5 NE 65th St to NE 80th St	NE 80th St, E/O 5th Ave NE	770	770	1210	640	1210	670	1190	690
		NE 75th St, W/O Roosevelt Way NE	2040	2040	730	1340	740	1380	750	1400
		NE 70th St, W/O Roosevelt Way NE	770	770	520	420	580	450	550	440
		NE 65th St, W/O Roosevelt Way NE	1540	1540	650	810	610	800	610	800
13.12	Screenline V/C Ratio		5120	5120	0.61	0.63	0.61	0.64	0.61	0.65
	East of I-5 NE Pacific St to NE Ravenna Blvd	NE Pacific St, NW/O NE Boat St	1010	1010	1150	1080	1160	1100	1160	1110
		NE 40th St, E/O 7th Ave NE	770	770	630	440	630	460	640	460
		NE 42nd St, E/O 7th Ave NE	770	770	380	260	370	260	370	260
		NE 45th St W/O Roosevelt Way NE	1010	1010	1210	1210	1210	1210	1210	1210
		NE 50th St W/O Roosevelt Way NE	1540	1540	1030	1120	1050	1150	1060	1150
		NE Ravenna Blvd, W/O Roosevelt Way	1010	1010	490	490	490	510	500	510
13.13	Screenline V/C Ratio		6110	6110	0.8	0.75	0.8	0.77	0.81	0.77

Source: Fehr &amp; Peers, 2017.

## TRANSIT DAILY BOARDINGS AND CROWDING

The growth in daily boardings was estimated based on the growth in the AM period in the base year and horizon year models. Model results are in Exhibit J-3.

**Exhibit J-3** AM 3-hour Model Transit Boardings Analysis

	Total 3 Hour Boardings	2015 - 2035 Growth	% Growth
<b>2015</b>	76,200		
<b>2035 Alt 1</b>	132,500	56,300	74%
<b>2035 Alt 2</b>	136,700	60,500	79%
<b>2035 Alt 3</b>	136,700	60,500	79%

Source: Fehr &amp; Peers, 2017.

Fall 2016 transit passenger load data and crowd thresholds were provided by King County Metro. Equivalent route data was provided for future RapidRide lines. A summary of existing transit crowding is in Exhibit J-4.

**Exhibit J-4** Existing AM Period Transit Crowding Ratio

BRT Route	Equivalent Route	Crowd Threshold (number of people)	Max Average Load	Ratio of Existing Max Passenger Load to Crowd Threshold
C – West Seattle/Downtown		75	50	0.67
D – Ballard/Downtown		75	38	0.51
E – Aurora/Downtown		75	57	0.76
RR 1 - Madison	Route 12	53	25	0.47
RR 2 – West Seattle/Downtown	Route 120	80	40	0.5
RR 3 – Mt Baker/Downtown	Route 7	80	22	0.28
RR 4 – Rainier/23rd Ave	Route 7/48	80	22	0.28
RR 5 – Ballard/45th/UW	Route 44	80	44	0.55
RR 6 – Northgate/Ballard/Westlake	Route 40	80	48	0.6
RR 7 – Northgate/Roosevelt/ Eastlake/Downtown	Route 70	80	35	0.44

Source: Fehr & Peers, 2017.

The forecasted passenger load ratio to crowding threshold is in Exhibit J-5 for each 2035 alternative. It is assumed that the crowding threshold for all routes is the same as the current C, D, and E RapidRide lines.

**Exhibit J-5** 2035 AM Period Transit Crowding Ratio

BRT Route	2035 Model Headway	# of Buses in 1 Hr	No Action Alt 1		Alt 2		Alt 3	
			Additional riders per peak hour trip	Passenger Load to Crowd Threshold Ratio	Additional riders per peak hour trip	Passenger Load to Crowd Threshold Ratio	Additional riders per peak hour trip	Passenger Load to Crowd Threshold Ratio
C – West Seattle/Downtown	6	10	6	0.75	6	0.75	8	0.77
D – Ballard/Downtown	6	10	0	0.51	0	0.51	0	0.51
E – Aurora/Downtown	6	10	10	0.89	10	0.89	10	0.89
RR 1 - Madison	6	10	12	0.49	13	0.51	13	0.5
RR 2 – West Seattle/Downtown	6	10	40	1.06	43	1.11	43	1.11
RR 3 – Mt Baker/Downtown	6	10	0	0.3	1	0.31	1	0.31
RR 4 – Rainier/23rd Ave	6	10	0	0.3	0	0.3	0	0.3
RR 5 – Ballard/45th/UW	6	10	24	0.91	27	0.94	29	0.97
RR 6 – Northgate/Ballard/Westlake	6	10	60	1.45	67	1.53	72	1.59
RR 7 – Northgate/Roosevelt/ Eastlake/Downtown	6	10	43	1.03	43	1.03	48	1.1

Source: Fehr & Peers, 2017.



## STATE FACILITIES

**Exhibit J-6** State Facilities AADT and V/C ratios

State Facility	Location	Capacity	Existing		2035 Forecast			2035 Forecasted V/C Ratios		
			AADT	V/C Ratio	Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 3
I-5	Between NE Northgate Way and NE 130th St	204,225	213,000	1.04	249,000	249,000	248,000	1.22	1.22	1.22
I-5	Ship Canal Bridge	162,015	206,000	1.27	226,000	228,000	229,000	1.39	1.41	1.41
I-5	Between I-90 and W Seattle bridge (north of S Forest St ramp)	194,500	242,000	1.24	263,000	262,000	262,000	1.35	1.35	1.35
I-5	North of Boeing Access Rd ramp	194,500	206,000	1.06	240,000	239,000	239,000	1.23	1.23	1.23
I-90	East of Rainer Ave S	116,600	132,000	1.13	156,000	157,000	157,000	1.34	1.35	1.35
SR 509	Between S 112th St and Cloverdale St	93,100	57,000	0.61	78,000	77,000	77,000	0.84	0.84	0.84
SR 519	West of 4th Ave	32,400	28,000	0.86	32,000	32,000	32,000	0.99	0.99	0.99
SR 520	Bridge	77,900	68,000	0.87	86,000	88,000	88,000	1.1	1.13	1.13

Source: WSDOT Community Planning Portal; Fehr & Peers, 2017.

## EXISTING CORRIDOR TRAVEL TIMES

Corridor travel times were estimated using Google Map search results for each study corridor during a weekday PM peak hour. Each travel time corridor was mapped and the “depart at” time was set to 5:00 PM, 5:15 PM, 5:30 PM, and 5:45 PM for a Wednesday in March. The lower and upper travel times reported by Google were recorded, and the travel time was calculated as the average of the minimum times plus 75 percent of the difference between the minimum and maximum times. This methodology accounts for the higher travel times experienced during the PM peak hour.

## SPEED AND TRAVEL TIME THRESHOLDS

The 2010 Highway Capacity Manual (HCM) defines level of service (LOS) thresholds for speed along urban streets. LOS is a concept used to describe traffic operations by assigning a letter grade of A through F, where A represents free-flow conditions and F represents highly congested conditions.

Since speed is the inverse of travel time, these thresholds can be communicated in terms of travel time as shown in Exhibit J-7. In simple terms, if you are traveling at half the free-flow speed, your travel time will be twice that of the free-flow travel time.

**Exhibit J-7** LOS Thresholds for Travel Speeds and Travel Time

LOS	Speed Thresholds – Percent of Free-Flow Speed	Travel Time Thresholds – Ratio between PM Peak Hour Travel Time and Travel Time at Free-Flow Speed
A-C	>50%	<2.0
D	>40-50%	2.0 to <2.5
E	>30-40%	2.5 to <3.33
F	≤30%	≥3.33

Source: Highway Capacity Manual 2010, Transportation Research Board.

## FREE-FLOW TRAVEL TIME ADJUSTMENTS

The HCM criteria were developed for segments between intersections, rather than including intersections. In general, the corridors used in this study span multiple blocks and thus incorporate the delay experienced at intersections. Therefore, adjustments to the free-flow travel time were made based on the number of signalized intersections to account for the number of mid-segment intersections and to more accurately represent observed conditions.

## THE DIFFERENCE METHOD

To reduce model error, a technique known as the difference method was applied for traffic volumes and travel times. Rather than take the direct output from the 2035 model, the difference method calculates the growth between the base year and 2035 models, and adds that growth to an existing count or travel time. For example, assume a road has an existing travel time of 1.5 minutes. If the base year model showed a travel time of 1.6 minutes and the future year model showed a travel time of 2.0 minutes, 0.4 minutes would be added to the existing travel time for a future expected travel time of 1.9 minutes.

The existing corridor travel times, ratio to free-flow speed, and LOS results are in Exhibit J–8. Forecasted 2035 corridor travel times are in Exhibit J–9.

**Exhibit J–8** Existing Auto Corridor Travel Times

ID	Road	Segment	2015					
			Auto TT		Ratio to Free-Flow Speed		LOS	
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	N 105th St	Greenwood Ave N to SR 522	17:30	20:00	2.43	2.72	D	E
2	NW 85th	32nd Ave NW to Greenwood Ave N	12:30	11:00	2.66	2.29	E	D
3	NW 85th	Greenwood Ave N to SR 522	11:30	15:30	2.47	3.24	D	E
4	NW Market St	24th Ave NW to Stone Way N	18:00	20:00	2.78	3.07	E	E
5	N 45th St	Stone Way N to 25th Ave NE	18:00	18:30	3.03	3.15	E	E
6	E Madison St	I5 to 23rd Ave	15:00	15:00	2.56	2.56	E	E
7	West Seattle Bridge	35th Ave SW to I5	8:30	9:30	2.02	2.26	D	D
8	Swift Ave S	S Graham St to Seward Park Ave S	10:00	9:30	1.9	1.76	A-C	A-C
9	SW Roxbury St	35th Ave SW to E Marginal Way S	16:00	16:30	1.66	1.69	A-C	A-C
10	SR 99	SR 523 to N 80th St	21:30	17:30	3.01	2.44	E	D
11	SR 522	SR 523 to I5	26:00:00	17:30	3.06	2.06	E	D
12	SR 99	N 80th St to Denny Way	16:30	16:30	2.21	2.21	D	D
13	Roosevelt Way NE/Eastlake	NE 75th St to Denny Way	NA	34:30:00	NA	2.93	NA	E
13	12th Ave NE/Eastlake	NE 75th St to Denny Way	32:00:00	NA	2.68	NA	E	NA
14	25th Ave NE	NE 75th St to S Grand St	41:30:00	48:30:00	2.41	2.81	D	E
15	15th Ave/Elliott Ave	Market St to Denny Way	20:00	14:30	2.23	1.6	D	A-C
16	California Ave SW	SW Hanford St to SW Thistle St	15:00	16:30	1.99	2.19	A-C	D
17	1st Ave S	S Royal Brougham Way to E Marginal Way S	16:30	17:00	2.15	2.22	D	D
18	Rainier Ave S	E Yesler Way to Renton Ave S	34:30:00	41:30:00	2.01	2.42	D	D
19	MLK Jr Way S	Rainier Ave S to S Boeing Access Rd	22:00	24:00:00	1.67	1.82	A-C	A-C

Source: Google Maps, 2017; Fehr & Peers, 2017.

**Exhibit J-9** 2035 Auto Corridor Travel Times

ID	Road	Segment	2035 Alt 1 (No Action)					
			Auto TT		Ratio to Free-Flow Speed		LOS	
			NB/EB	SB/ WB	NB/ EB	SB/WB	NB/EB	SB/WB
1	N 105th St	Greenwood Ave N to SR 522	18:00	20:30	2.49	2.83	D	E
2	NW 85th	32nd Ave NW to Greenwood Ave N	13:00	11:30	2.77	2.39	E	D
3	NW 85th	Greenwood Ave N to SR 522	12:00	16:00	2.58	3.36	E	F
4	NW Market St	24th Ave NW to Stone Way N	19:30	22:30	2.95	3.4	E	F
5	N 45th St	Stone Way N to 25th Ave NE	19:00	19:30	3.25	3.3	E	E
6	E Madison St	I5 to 23rd Ave	15:30	15:30	2.64	2.64	E	E
7	West Seattle Bridge	35th Ave SW to I5	9:00	15:00	2.14	3.56	D	F
8	Swift Ave S	S Graham St to Seward Park Ave S	10:30	10:00	2	1.85	A-C	A-C
9	SW Roxbury St	35th Ave SW to E Marginal Way S	17:00	20:30	1.74	2.1	A-C	D
10	SR 99	SR 523 to N 80th St	26:00:00	19:00	3.7	2.67	F	E
11	SR 522	SR 523 to I5	31:00:00	19:30	3.63	2.26	F	D
12	SR 99	N 80th St to Denny Way	20:00	20:00	2.67	2.64	E	E
13a	Roosevelt Way NE/Eastlake	NE 75th St to Denny Way	NA	38:30:00	NA	3.28	NA	E
13b	12th Ave NE/Eastlake	NE 75th St to Denny Way	37:00:00	NA	3.06	NA	E	NA
14	25th Ave NE	NE 75th St to S Grand St	47:00:00	56:30:00	2.71	3.29	E	E
15	15th Ave/Elliott Ave	Market St to Denny Way	24:30:00	17:00	2.7	1.89	E	A-C
16	California Ave SW	SW Hanford St to SW Thistle St	15:30	17:00	2.06	2.26	D	D
17	1st Ave S	S Royal Brougham Way to E Marginal Way S	17:00	21:00	2.22	2.77	D	E
18	Rainier Ave S	E Yesler Way to Renton Ave S	36:00:00	53:00:00	2.1	3.09	D	E
19	MLK Jr Way S	Rainier Ave S to S Boeing Access Rd	23:30	33:30:00	1.77	2.53	A-C	E

ID	2035 Alt 2						2035 Alt 3					
	Auto TT		Ratio to Free-Flow Speed		LOS		Auto TT		Ratio to Free-Flow Speed		LOS	
	NB/EB	SB/ WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/ WB	NB/EB	SB/WB	NB/EB	SB/WB
1	18:00	21:00	2.5	2.86	D	E	18:00	20:30	2.49	2.85	D	E
2	13:00	11:30	2.77	2.42	E	D	13:00	11:30	2.77	2.44	E	D
3	12:00	16:00	2.58	3.39	E	F	12:00	16:00	2.58	3.4	E	F
4	19:30	22:30	2.95	3.42	E	F	19:30	22:30	2.95	3.44	E	F
5	19:30	19:00	3.27	3.34	E	F	19:30	20:00	3.28	3.35	E	F
6	15:30	15:30	2.64	2.66	E	E	15:30	15:30	2.64	2.65	E	E
7	9:00	15:30	2.14	3.69	D	F	9:00	15:30	2.14	3.71	D	F
8	10:30	10:00	2	1.85	A-C	A-C	10:30	10:00	2	1.85	A-C	A-C
9	17:00	20:30	1.75	2.14	A-C	D	17:00	20:30	1.74	2.14	A-C	D
10	26:00:00	19:00	3.7	2.7	F	E	26:00:00	19:00	3.7	2.69	F	E
11	31:00:00	19:30	3.63	2.29	F	D	31:00:00	19:30	3.63	2.3	F	D
12	20:30	20:00	2.73	2.66	E	E	21:00	20:00	2.76	2.67	E	E
13a	NA	39:00:00	NA	3.32	NA	E	NA	39:00:00	NA	3.32	NA	E
13b	37:00:00	NA	3.1	NA	E	NA	37:30:00	NA	3.11	NA	E	NA
14	47:30:00	57:00:00	2.75	3.31	E	E	47:30:00	57:30:00	2.75	3.32	E	E
15	24:30:00	17:00	2.75	1.9	E	A-C	25:00:00	17:00	2.78	1.9	E	A-C
16	15:30	17:00	2.06	2.26	D	D	15:30	17:00	2.06	2.26	D	D
17	17:00	21:30	2.22	2.82	D	E	17:00	21:00	2.22	2.77	D	E
18	36:30:00	53:30:00	2.13	3.11	D	E	36:30:00	53:30:00	2.12	3.11	D	E
19	23:30	33:30:00	1.78	2.54	A-C	E	23:30	33:30:00	1.78	2.55	A-C	E

Source: Google Maps, 2017; Fehr &amp; Peers, 2017.

## TRAVEL DEMAND MODEL

The City of Seattle updated its travel demand model in 2007 to be reflective of the Puget Sound Regional Council's (PSRC) Regional Travel Demand Model, Version 1.00b. The PSRC model has a relatively coarse TAZ structure since the model is regional in nature and is focused on generating travel forecasts across all of Snohomish, King, Pierce and Kitsap Counties. To provide more refined travel forecasts in Seattle, the PSRC zones were split as part of the citywide model development (Seattle went from 218 zones to 517 zones). The finer TAZ structure allows for traffic forecasts to be generated on a denser roadway network, improves the estimates of non-auto trips and provides the ability to extract turning movement forecasts at key intersections.

The City's model was initially used for the Seattle Surface and Transit Project and the Alaskan Way Viaduct Replacement Project. During the course of those projects, a team of consultants updated key aspects of the model to improve its performance, including:

- Arterial speeds
- Development of a parking cost model
- Modifications to the trip distribution and mode choice models to better reflect active transportation modes

Since that time, Fehr & Peers has used the model on subsequent City of Seattle projects including Elliott Bay Seawall Project, South Lake Union Height and Density Rezone EIS, University District Urban Design EIS,



Seattle Comprehensive Plan EIS, and now the Citywide MHA EIS. With each of these projects, the model roadway, transit and non-motorized networks were revised to correct errors carried over from the PSRC model and to reflect updated conditions (e.g., road diet projects, revised transit routing, etc.) as appropriate. Future year assumptions have also been reviewed with City staff throughout the course of each project to incorporate the latest knowledge of upcoming transportation projects, such as the SR 99 Tunnel, the City's modal master plans and major regional projects.

Trip generation rates and mode split output in 12 sample locations throughout the City were examined by evaluating TAZ-level trip generation by mode and by land use category. The results of the trip generation/mode split analysis followed expected trends based on research and travel behavior theory. For example, urban centers have lower vehicle trip generation and higher bike/pedestrian/transit trip generation when compared to less dense areas of the City. Based on the analysis, one change was made to apply the Central Business District mode choice factors to the Lower Queen Anne area. This adjustment increased non-auto mode share to a level that is closer to observed conditions. Trip generation rates and mode choice in areas that have had recent subarea plans such as South Lake Union and the U District were also reviewed and found to be appropriate for this citywide analysis.

## Citywide MHA Modeling Assumptions

Exhibit J–10 summarizes major projects included in each model year.

**Exhibit J–10** Travel Demand Model Network Assumptions

Project	2015	2035
SR 99 tunnel		x
SR 99 tunnel (tolling)		x
Mercer Corridor Project (east/west)	x	x
SR 520 HOV lanes to Montlake	x	x
SR 520 HOV lanes between Montlake and I-5		
Second Montlake Bascule Bridge		
SR 520 Tolling	x	x
I-90 HOV lanes	x	x
I-405 Widening		x
(SR 167 to SR 527)		
Buses in DT Seattle 3rd Avenue Tunnel	x	
Passenger-only Ferries (Kingston, Southworth, Juanita)		
South Lander Street Overpass		x
SB Montlake Blvd NE HOV Lane and ITS Improvements		x

### **Sound Transit 3 Assumptions for 2035 Model**

- LINK—Lynnwood TC to Downtown Redmond, Tacoma to Ballard, West Seattle to Lynnwood TC. Infill stations at 130th St, S Graham St and S Boeing Access Rd were included. Headway is every 6 min in AM peak and 10 min in midday.
- I-405 BRT (Lynnwood to Burien)—Separated lines into Burien–Bellevue, and Bellevue–Lynnwood with each line operating at 12 min headways.
- SR 522 BRT from Woodinville/UW Bothell to 145th Link Station, operating at 12 minutes headways.

### **Other 2035 Assumptions**

- First Hill streetcar extended to Volunteer Park/Roy Street
- Center City streetcar implemented from Westlake to King St Station on 1st Ave
- All-day transit-only restrictions on the 3rd Ave Transit Mall extended north to Denny

## Seattle BRT Routes

The 10 BRT routes identified in the amended Seattle Transit Master Plan were incorporated into the model. The routes and assumed operating headways are below.

**Exhibit J-11** Travel Demand Model Network Assumptions

	Rapid Ride Route	2035 Headway	
		Peak	Off-peak
1	Madison BRT	6	10
2	Burien TC - SLU via Delridge	6	10
3	Mt Baker - SLU via Rainier	6	10
4	Rainier Valley - U District via 23rd	6	10
5	Ballard- U District - Laurelhurst via Market/45th	6	10
6	Northgate - Ballard - Fremont - SLU - Downtown via Westlake	6	10
7	Northgate - Roosevelt - U District - SLU - Downtown via Roosevelt/11th Ave & Eastlake	6	10
	RR C to West Seattle	6	10
	RR D to Ballard	6	10
	RR E to Aurora	6	10

Source: Fehr & Peers, 2017.

Network coding involved modifying lane capacity where BAT lanes or transit-only lanes are planned. Assumed network changes that affected street capacity are in Exhibit J-12.

**Exhibit J-12** Assumed Model Network Capacity Changes

Road	Treatment	Extent	Existing	Model Network Edits
Delridge	BAT	West Seattle Br ramp - Genesee St	BAT lane in NB direction already	Change to 1 lane each direction
Jackson	Transit Only	3rd Ave - Rainier Ave	5 lanes	Reduce capacity 40%
Rainier Ave	Transit Only	Jackson - MLK Wy	5 lanes	Reduce capacity 40%
Pacific St	BAT EB only	15th - Pacific Pl	2 lanes EB	EB Only - reduce 40% (15th - Pacific Pl)
24th/23rd Ave	BAT	SR 520 - Madison	4 lanes	Reduce capacity 40% (Miller to Madison)
23rd Ave	BAT	Jackson - Rainier	4 lanes	Reduce capacity 40%
Market	BAT	30th Ave NW - 3rd Ave	4 lanes	Reduce capacity 40%
45th St	BAT - WB Only	3rd Ave - Phinney Ave	1 lane WB/2 lane EB	Reduce capacity 40%
45th ST	BAT	I-5 - 21st Ave	5 lanes	Reduce capacity 40%
45th ST	BAT - WB only	21st Ave - Montlake	existing 2 lanes WB	Reduce capacity 40%
45th St	BAT	Montlake - NE 50th St	5 lanes	Reduce capacity 40%
Holman Rd	BAT	Aurora - NW 85th ST	5 lanes	Reduce capacity 40%
Leary Ave	BAT	Market - 15th Ave	4 lanes + parking	Reduce capacity 40%
Leary Ave	Peak BAT	NW 46th St - Fremont Br	5/6 lanes	Reduce capacity 40%
Westlake	Peak BAT	Aurora - Valley	4 lanes	Reduce capacity 40%
Fairview	Peak BAT	Eastlake - Boren	5 lanes	Reduce capacity 40%

Source: Fehr & Peers, 2017.



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# APPENDIX K



## ENVIRONMENTALLY CRITICAL AREAS.

The following tables include ECA and Shoreline District land area by MHA zone and tier (acres) for the action alternatives.



**Exhibit K-1** ECA and Shoreline District Land Area by MHA Zone and Tier (Acres), Alternative 2

	ALT. 2	MHA ZONE CATEGORY						MHA TIER		
	Total*	RSL	LR	MR/HR	C/NC/SM	IC	Other	M	(M1)	(M2)
<b>Wetland Area</b>	<b>41.1</b>	3.3	26.7	1.4	9.4	0.3	0.0	39.6	1.4	0.1
<b>Wildlife Habitat Area</b>	<b>218.6</b>	9.2	147.4	1.5	19.5	41.0	0.0	195.1	19.8	3.7
<b>Riparian Corridor</b>	<b>199.3</b>	16.3	114.7	6.0	62.4	0.0	0.0	199.3	0.0	0.0
<b>Steep Slope Area</b>	<b>595.4</b>	32.3	366.0	30.3	156.0	10.8	0.0	541.5	48.2	5.7
<b>Known Slide Area</b>	<b>53.2</b>	1.4	31.7	6.7	12.7	0.9	0.0	49.3	2.8	1.1
<b>Potential Slide Area</b>	<b>637.5</b>	11.2	500.2	13.2	105.4	7.5	0.0	582.8	50.2	4.4
<b>Peat Settlement-Prone Area</b>	<b>346.0</b>	0.6	81.6	15.9	242.1	5.8	0.0	278.5	65.5	2.0
<b>Liquefaction-Prone Area</b>	<b>1,313.6</b>	69.2	394.5	26.5	534.1	289.2	0.0	1,180.0	126.9	6.7
<b>Flood-Prone Area</b>	<b>57.3</b>	0.4	18.0	0.0	10.1	28.8	0.0	57.0	0.2	0.0
<b>Shoreline District</b>	<b>290.2</b>	0.0	111.8	12.4	55.6	110.4	0.0	290.2	0.0	0.0

\*Total is the sum of acres by MHA zone category or by MHA tier.

Source: City of Seattle, 2017.

**Exhibit K-2** ECA and Shoreline District Land Area by MHA Zone and Tier (Acres), Alternative 3

	ALT. 3	MHA ZONE CATEGORY						MHA TIER		
	Total*	RSL	LR	MR/HR	C/NC/SM	IC	Other	M	(M1)	(M2)
<b>Wetland Area</b>	<b>39.4</b>	2.4	25.9	1.4	9.4	0.3	0.0	38.8	0.7	0.0
<b>Wildlife Habitat Area</b>	<b>207.6</b>	13.7	131.9	1.5	19.5	41.0	0.0	199.6	8.0	0.0
<b>Riparian Corridor</b>	<b>196.4</b>	12.1	116.0	6.0	62.4	0.0	0.0	195.1	1.3	0.0
<b>Steep Slope Area</b>	<b>580.3</b>	41.7	340.4	31.0	156.5	10.8	0.0	549.2	27.5	3.6
<b>Known Slide Area</b>	<b>51.7</b>	0.7	31.4	6.0	12.7	0.9	0.0	48.5	2.7	0.5
<b>Potential Slide Area</b>	<b>616.0</b>	26.7	463.5	13.1	105.4	7.5	0.0	598.4	16.1	1.5
<b>Peat Settlement-Prone Area</b>	<b>341.1</b>	10.6	75.0	13.3	236.3	5.8	0.0	321.3	17.7	2.0
<b>Liquefaction-Prone Area</b>	<b>1,275.9</b>	83.1	356.7	21.8	525.1	289.2	0.0	1,220.5	55.1	0.4
<b>Flood-Prone Area</b>	<b>57.3</b>	0.4	18.0	0.0	10.1	28.8	0.0	57.0	0.2	0.0
<b>Shoreline District</b>	<b>290.2</b>	0.0	111.8	12.4	55.6	110.4	0.0	287.5	2.5	0.1

\*Total is the sum of acres by MHA zone category or by MHA tier.

Source: City of Seattle, 2017.

# APPENDIX L



## AIR QUALITY AND GREENHOUSE GAS EMISSIONS CALCULATIONS.



MHA Draft EIS  
June 2017

**City of Seattle Mandatory Housing Affordability  
Air Pollutant of Concern Emissions**

**MOVES2014 Emission Factors**

<b>Year</b>	<b>Vehicle Type</b>	<b>Pollutant</b>	<b>Emission Factor, g/mi</b>
2015	Auto and Light Trucks	Carbon Monoxide (CO)	3.4347417803953
2015	Auto and Light Trucks	Oxides of Nitrogen (NOx)	0.4400546875743
2015	Auto and Light Trucks	PM2.5	0.0130365944704
2015	Auto and Light Trucks	VOC	0.1012908073651
2035	Auto and Light Trucks	Carbon Monoxide (CO)	1.1813150598788
2035	Auto and Light Trucks	Oxides of Nitrogen (NOx)	0.0572159525128
2035	Auto and Light Trucks	PM2.5	0.0074742771692
2035	Auto and Light Trucks	VOC	0.0224383543354
2015	Medium and Heavy Trucks	Carbon Monoxide (CO)	6.6874681780743
2015	Medium and Heavy Trucks	Oxides of Nitrogen (NOx)	5.0258978903930
2015	Medium and Heavy Trucks	PM2.5	0.2300680434034
2015	Medium and Heavy Trucks	VOC	0.5300218405968
2035	Medium and Heavy Trucks	Carbon Monoxide (CO)	0.9614989730936
2035	Medium and Heavy Trucks	Oxides of Nitrogen (NOx)	0.8260670920110
2035	Medium and Heavy Trucks	PM2.5	0.0345687988499
2035	Medium and Heavy Trucks	VOC	0.0554789906588

Note: PM10 and PM2.5 emission factors include exhaust, brakewear, and tirewear.

Emission factors proportioned based on population of source type in King County.

Auto and light truck vehicle type is average of MOVES source types 11, 21, 31, and 32.

Medium and heavy truck vehicle type is average of MOVES source types 41, 42, 43, 51, 52, 53, 54, 61, and 62.

**City of Seattle Mandatory Housing Affordability**  
**Air Pollutant of Concern Emissions**

**Vehicle Miles Traveled Annually**

Vehicle Type	2015	2035 Alt 1	2035 Alt 2	2035 Alt 3
Auto and Light Duty Truck VMT	19,130,652	22,096,823	22,188,229	22,221,217
Medium & Heavy Truck VMT	957,759	1,170,154	1,170,039	1,170,244
Total VMT	20,088,411	23,266,977	23,358,268	23,391,461
Auto and Light Duty Truck VMT, %	95.2%	95.0%	95.0%	95.0%
Medium & Heavy Truck VMT, %	4.8%	5.0%	5.0%	5.0%

Source: GHG Appendix.

**2015**

Pollutant	Auto and Light Duty Trucks		Medium and Heavy Duty Trucks		Total Emissions, tpy
	Emission Factor, g/mi	Emissions Rate, tpy	Emission Factor, g/mi	Emissions Rate, tpy	
Carbon Monoxide (CO)	3.43474178	72.43	6.68746818	7.06	79.49
Oxides of Nitrogen (NOx)	0.44005469	9.28	5.02589789	5.31	14.59
PM2.5	0.08043877	1.70	0.29747022	0.31	2.01
VOC	0.10129081	2.14	0.53002184	0.56	2.70

Note: PM2.5 emission factors are the sum of the MOVES emission factor (exhaust, brakewear, tirewear) and a Seattle-area specific AP-42 road dust emission factor for PM2.5.

**2035 Alternative 1**

Pollutant	Auto and Light Duty Trucks		Medium and Heavy Duty Trucks		Total Emissions, tpy
	Emission Factor, g/mi	Emissions Rate, tpy	Emission Factor, g/mi	Emissions Rate, tpy	
Carbon Monoxide (CO)	1.18131506	28.77	0.96149897	1.24	30.01
Oxides of Nitrogen (NOx)	0.05721595	1.39	0.82606709	1.07	2.46
PM2.5	0.07487645	1.82	0.10197097	0.13	1.96
VOC	0.02243835	0.55	0.05547899	0.07	0.62

Note: PM2.5 emission factors are the sum of the MOVES emission factor (exhaust, brakewear, tirewear) and a Seattle-area specific AP-42 road dust emission factor for PM2.5.

**2035 Alternative 2**

Pollutant	Auto and Light Duty Trucks		Medium and Heavy Duty Trucks		Total Emissions, tpy
	Emission Factor, g/mi	Emissions Rate, tpy	Emission Factor, g/mi	Emissions Rate, tpy	
Carbon Monoxide (CO)	1.18131506	28.89	0.96149897	1.24	30.13
Oxides of Nitrogen (NOx)	0.05721595	1.40	0.82606709	1.07	2.46
PM2.5	0.07487645	1.83	0.10197097	0.13	1.96
VOC	0.02243835	0.55	0.05547899	0.07	0.62

Note: PM2.5 emission factors are the sum of the MOVES emission factor (exhaust, brakewear, tirewear) and a Seattle-area specific AP-42 road dust emission factor for PM2.5.

**2035 Alternative 3**

Pollutant	Auto and Light Duty Trucks		Medium and Heavy Duty Trucks		Total Emissions, tpy
	Emission Factor, g/mi	Emissions Rate, tpy	Emission Factor, g/mi	Emissions Rate, tpy	
Carbon Monoxide (CO)	1.18131506	28.94	0.96149897	1.24	30.18
Oxides of Nitrogen (NOx)	0.05721595	1.40	0.82606709	1.07	2.47
PM2.5	0.07487645	1.83	0.10197097	0.13	1.97
VOC	0.02243835	0.55	0.05547899	0.07	0.62

Note: PM2.5 emission factors are the sum of the MOVES emission factor (exhaust, brakewear, tirewear) and a Seattle-area specific AP-42 road dust emission factor for PM2.5.

**Summary**

Pollutant	2015	2035 Alternative 1	2035 Alternative 2	2035 Alternative 3
Carbon Monoxide (CO)	79.49	30.01	30.13	30.18
Oxides of Nitrogen (NOx)	14.59	2.46	2.46	2.47
PM2.5	2.01	1.96	1.96	1.97
VOC	2.70	0.62	0.62	0.62



City of Seattle Manadatory Housing Affordability  
Air Pollutant of Concern Emissions

Road Dust Calculations

Source: AP-42 Handbook, Chapter 13.2.1, page 5

Equation:  
E equals [k (sL)<sup>0.91</sup> x (W)<sup>1.02</sup>]\*(1-P/4N)

where:

- k = particle size multiplier for particle size range and units of interest. k = particle size multiplier. The AP-42 value for PM10 is 1.00 g/mile and that for PM2.5 is 0.25 g/mile. ☒
- sL = road surface silt loading (grams per square meter)
- W = average weight (tons) of *all the vehicles* traveling the road (2.4 tons)
- P = number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period, and
- N = number of days in the averaging period (e.g., 365 for annual, 91 for seasonal, 30 for monthly)

For the Seattle Area):

For PM<sub>10</sub>

k	=	1
sL	=	0.1
W	=	2.4
P	=	150
N	=	365

Therefore:  
E = 0.269609

For PM<sub>2.5</sub>

k	=	0.25
sL	=	0.1
W	=	2.4
P	=	150
N	=	365

Therefore:  
E = 0.067402 gm/mile

**City of Seattle Mandatory Housing Affordability**  
**Air Pollutant of Concern Emissions**

**Natural Gas Usage**

Parameter	Existing	Alternative 1	Alternative 2	Alternative 3
Residential natural gas usage, MMBtu/yr	2,322,628	262,044	349,999	353,822
Commercial natural gas usage, MMBtu/yr	285,357	76,653	85,854	84,953
Total natural gas usage, MMBtu/yr	2,607,985	338,697	435,853	438,775

Note: Based on residential building calculated natural gas usage.

**Natural Gas Usage Criteria Pollutant of Concern Emissions**

Pollutant	Emission Factor, lb/MMBtu	Emissions Rate, tpy			
		Existing	Alternative 1	Alternative 2	Alternative 3
NOX	0.092	120.17	15.61	20.08	20.22
CO	0.039	51.14	6.64	8.55	8.60
VOC	0.005	7.03	0.91	1.18	1.18
PM2.5	0.006	7.29	0.95	1.22	1.23

Note: Based on AP-42, Chapter 1.4, Tables 1.4-1 and 1.4-2. PM2.5 assumed to be condensable fraction emission factor.

City of Seattle Manadatory Housing Affordability  
Air Pollutant of Concern Emissions

Air Pollutant of Concern Summary in Tons Per Year

Pollutant	Existing			Alternative 1			Alternative 2			Alternative 3		
	Transportation	Natural gas	Total	Transportation	Natural gas	Total	Transportation	Natural gas	Total	Transportation	Natural gas	Total
NOX	14.59	120.17	134.76	2.46	15.61	18.07	2.46	20.08	22.55	2.47	20.22	22.69
CO	79.49	51.14	130.63	30.01	6.64	36.66	30.13	8.55	38.68	30.18	8.60	38.78
PM2.5	2.01	7.29	9.30	1.96	0.95	2.90	1.96	1.22	3.18	1.97	1.23	3.19
VOC	2.70	7.03	9.73	0.62	0.91	1.53	0.62	1.18	1.80	0.62	1.18	1.80

**City of Seattle Mandatory Housing Affordability  
Greenhouse Gas Emissions Calculations**

**GHG Emissions Summary**

Source	Alternative 1	Alternative 2	Alternative 3
Transportation (Citywide)	-118,000	-90,000	-90,000
Building Energy - Residential	9,565	12,775	12,915
Building Energy - Commercial	2,252	2,522	2,495
Solid Waste	20,263	25,165	25,076
<b>Total</b>	<b>-85,921</b>	<b>-49,538</b>	<b>-49,515</b>

Note: Transportation values from GHG appendix.

City of Seattle Mandatory Housing Affordability  
Greenhouse Gas Emissions Calculations

Building - Residential: Natural Gas Usage and Emission Factors

Parameter	Value	Source/Notes
Single-family households, kBTU/DU/day	27,463	CalEEMod land use subtype: Single Family Housing; Average of all Climate Zones with extremes removed)
Multi family large, kBTU/DU/day	8,797	CalEEMod land use subtype: Apartments Mid Rise; Average of all Climate Zones with extremes removed)
Multi family small, kBTU/DU/day	13,233	CalEEMod land use subtype: Apartments Low Rise; Average of all Climate Zones with extremes removed)
CO2 emission factor (natural gas), lb/MMBTU	117.647059	CalEEMod Appendix D, Default Data Tables
CH4 emission factor (natural gas), lb/MMBTU	0.0022549	CalEEMod Appendix D, Default Data Tables
N2O emission factor (natural gas), lb/MMBTU	0.00215686	CalEEMod Appendix D, Default Data Tables
Residential target reduction	32%	Climate Action Plan, page 34

Building - Residential: Natural Gas Use GHG Emissions

Parameter	2015	Alternative 1	Alternative 2	Alternative 3	Source/Notes
Total households	290,576	45,361	62,363	62,107	
Single-family households	188,122	11,500	14,259	14,236	Assumed to be all outside villages units
Multi family large	35,775	10,361	15,607	12,408	Assumed to be total housing units in Urban Centers (First Hill-Capitol Hill, Northgate, Ravenna (U District 2) [Source: Land Use Chapter 20170508]
Multi family small	66,679	23,500	32,497	35,463	Assumed to be all other house units
Total natural gas use, MMBTU/yr	2,322,628	262,044	349,999	353,822	
Single-family households	1,885,708	115,274	142,930	142,700	
Multi family large	114,869	33,268	50,112	39,841	
Multi family small	322,051	113,502	156,956	171,282	
Total CO2e emissions, MT CO2e/yr	124,671	14,066	18,787	18,992	
Single-family households	101,219	6,188	7,672	7,660	
Multi family large	6,166	1,786	2,690	2,139	
Multi family small	17,287	6,092	8,425	9,194	
Total CO2e emissions (with reduction), MT CO2e/yr	84,777	9,565	12,775	12,915	
Single-family households (with reduction)	68,829	4,208	5,217	5,209	
Multi family large (with reduction)	4,193	1,214	1,829	1,454	
Multi family small (with reduction)	11,755	4,143	5,729	6,252	



City of Seattle Mandatory Housing Affordability  
Greenhouse Gas Emissions Calculations

Building - Commercial: Jobs Information and Assumptions

Parameter	2015	Alternative 1	Alternative 2	Alternative 3	Notes
Total jobs	211,148	51,734	57,262	57,099	
By Location					
Outside Villages	85,478	20,790	22,848	22,879	
Inside Villages/Centers	69,226	18,710	20,635	21,005	
Urban Center	56,444	12,234	13,779	13,215	Urban Center in EIS scope includes First Hill-Capitol Hill, Northgate, and Ravenna [U District (2)]
By Type					
Warehouse jobs	83,934	9,000	9,000	9,000	
Commercial jobs	127,214	42,734	48,262	48,099	

Building - Commercial: Assumptions Used

Parameter	Value	Notes
Warehouse natural gas usage, kBTU/sf	3.5	CalEEMod Appendix D, Default Data Tables (Unrefrigerated Warehouse-No Rail, Average of all Climate Zones)
Commercial natural gas usage, kBTU/scf	12.1	CalEEMod Appendix D, Default Data Tables (General Office Space, Average of all Climate Zones)
Warehouse, sf/job	450	From Seattle Comprehensive Plan GHG Calculations
Commercial (general), sf/job	300	From Seattle Comprehensive Plan GHG Calculations
Commercial (downtown), sf/job	275	From Seattle Comprehensive Plan GHG Calculations
CO2 emission factor (natural gas), lb/MMBTU	117.647059	CalEEMod Appendix D, Default Data Tables
CH4 emission factor (natural gas), lb/MMBTU	0.0022549	CalEEMod Appendix D, Default Data Tables
N2O emission factor (natural gas), lb/MMBTU	0.00215686	CalEEMod Appendix D, Default Data Tables
Commercial target reduction	45%	Climate Action Plan, page 34

Building - Commercial: GHG Emissions

Parameter	2015	Alternative 1	Alternative 2	Alternative 3	Notes
Warehouse building area, ksf	37,770	4,050	4,050	4,050	
Total commercial, ksf	53,686	16,185	18,268	18,064	
General commercial building area, ksf	38,164	12,820	14,479	14,430	
Downtown commercial building area, ksf	15,522	3,364	3,789	3,634	
Total natural gas usage, MMBTU/yr	285,357	76,653	85,854	84,953	
Warehouse natural gas usage, MMBTU/yr	48,252	5,174	5,174	5,174	
Commercial natural gas usage, MMBTU/yr	237,106	71,479	80,680	79,779	
Total CO2e emissions, MT CO2e/yr	15,258	4,094	4,585	4,537	
CO2e emissions (warehouse natural gas usage), MT CO2e/yr	2,590	278	278	278	
CO2e emissions (commercial natural gas usage), MT CO2e/yr	12,668	3,816	4,307	4,259	
Total CO2e emissions (with reduction), MT CO2e/yr	15,258	2,252	2,522	2,495	
CO2e emissions (warehouse natural gas usage with reduction), MT CO2e/yr	2,590	153	153	153	
CO2e emissions (commercial natural gas usage with reduction), MT CO2e/yr	12,668	2,099	2,369	2,342	

**City of Seattle Mandatory Housing Affordability  
Greenhouse Gas Emissions Calculations**

**Solid Waste Related GHG Emissions**

From Appendix D of the Climate Action Plan:

Parameter	Alternative 1	Alternative 2	Alternative 3	Source/Notes
Residential waste per capita, tons/resident	0.18	0.18	0.18	
Commercial waste per capita, tons/employee	0.32	0.32	0.32	
Emissions per ton disposed, MT CO <sub>2</sub> e/ton	0.85	0.85	0.85	
Household size assumption, persons/household	2.06	2.06	2.06	From Transportation GHG analysis
Households	45,361	62,363	62,107	
Population	93,444	128,468	127,940	
Employee increases, persons	51,734	57,262	57,099	
Residential waste generation, tons	16,820	23,124	23,029	
Commercial waste generation, tons	16,555	18,324	18,272	
Total waste generation, tons	33,375	41,448	41,301	
Seattle Current Diversion Rate	58%	58%	58%	Source: Seattle Public Utilities 2015 Recycling Rate Report (Year 2015; Overall)
2030 Diversion Rate Goal	70%	70%	70%	
Total Waste adjusted for diversion, tons	23,839	29,606	29,501	
Waste Emissions, MT CO <sub>2</sub> e/yr	20,263	25,165	25,076	