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Better Housing by Design:

Appendix

- Policy Analysis
- Zoning History
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- Block Patterns and Street Connectivity
- Focus Area Demographics and Housing Market Conditions
- Study Areas
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Policy Analysis: Comprehensive Plan Policies

This section focuses on the goals and policies of Portland's new Comprehensive Plan and assesses the performance of current zoning tools in terms of achieving the goals and policies. The purpose of this analysis is to document areas in which the current regulatory tools perform well and areas in which they need change to better meet new policy objectives. Overall, major policy directions for development and design in multi-dwelling zones are to:

- Accommodate housing growth, especially in and around centers, corridors, and transit station areas;
- Contribute to providing a diversity of housing types, including an adequate supply of affordable housing and physically-accessible housing;
- Provide healthy and safe environments for residents, with design that supports active living;
- Design buildings to enhance the pedestrian environment on streets;
- Contribute to providing a network of safe and accessible street and pedestrian connections, especially around centers and transit stations;
- Use design that responds to and enhances the positive qualities of context, including the distinct characteristics of Portland's five neighborhood pattern areas;
- Integrate nature and green infrastructure into the urban environment, avoid environmental impacts, and reduce impervious surfaces and urban heat island effects; and
- Use resource-efficient design and development approaches.

Policy-Zoning Summary Assessment

The following is a listing that provides a summary assessment of existing Zoning Code implementation of new Comprehensive Plan policy direction. This listing focuses on policies related to Zoning Code multi-dwelling development standards and street connectivity. As a summary listing, the policy directions paraphrase policy language and often combine multiple policies that provide similar direction (refer to the 2035 Comprehensive Plan for actual policy language).

The existing regulations for multi-dwelling zones (R3, R2, R1, RH, RX) do not generally present barriers to development and design that can contribute to meeting policy objectives and often help implement them. However, in some case, regulations may allow for outcomes that can contribute to meeting these policy objectives, but do not always require or incentivize these outcomes . Some examples include:

- Regulations do not always ensure that new street or pedestrian connections will be created in conjunction with new development.
- The same regulations mostly apply citywide, which does not ensure that development is responsive to context or to the distinct characteristics of the neighborhood pattern areas.
- Regulations do not include regulations specific to major corridors and do not ensure that residential development along busy corridors is designed to mitigate impacts to residents.
- Requirements for features supportive of healthy active living, such as spaces for outdoor recreation or for growing food, are limited and do not apply in higher-density zones.
- There are some gaps in requirements for pedestrian-oriented design, such as allowances for garages to be the primary ground-floor, street-facing elements of narrow-lot attached or detached houses.
- There are few incentives or requirements that implement policy objectives for accessible units (the building code requires adaptable units in some situations, but not for multi-floor units).

• Regulations do not allow for many urban green infrastructure approaches, such as ecoroofs or plantings in raised courtyards, to count toward landscaping requirements; and do not ensure that sufficient space is provided for mature tree canopy.
• Regulations do not do much to discourage large areas of impervious paving or to ensure that design minimizes urban heat island effects.

Policy Directions and Assessment of Zoning Code Implementation

Policy Direction	Policy Numbers	Zoning Code Implementation
Urban Form Policies (Chapter 3)		
Focus housing growth in and around centers, corridors, and transit station areas.	Goal 3.C, policies 3.2, 3.13	**Implements.** The majority of multi-dwelling zoning is located in and around these areas.
Provide a diversity of housing types and options in and around centers and corridors.	Goal 3.D, policies 3.33 and 3.37	**Implements.** The combination of multi-dwelling, mixed-use, and single-dwelling zoning in and around centers and corridors provides opportunities for a diverse range of housing.
Foster a built environment that provides a safe, healthy, and attractive environment for people of all ages and abilities.	Policy 3.4	**Some requirements.** Supported by building code and sidewalk accessibility standards, but some gaps in residential requirements for accessibility.
Create connected centers and transit station areas with safe and accessible pedestrian connections and bicycle routes, and prepare and adopt future street plans for centers that currently have poor street connectivity.	Policies 3.20 and 3.55	**Partially implements.** Street connectivity standards exist, but existing implementation tools are limited and street plans do not exist for most centers.
In the Inner Ring Districts, provide for a diversity of housing opportunities in residential areas, encouraging approaches that preserve or are compatible with existing historic properties and development patterns.	Policy 3.43	**Partially implements.** Multi-dwelling zoning contributes to housing diversity in Inner Ring Districts, but regulations do not ensure compatibility with existing characteristics.
Enhance Civic Corridors as distinctive places with transit-supportive densities of housing and that provide quality living environments for residents. Development is intended to be up to mid-rise in scale (typically up to 5 to 7 stories).	Policies 3.49 and 3.50	**Partially implements.** Multi-dwelling zoning along Civic Corridors helps implement, and mid-rise RH zoning applies along some corridors. Regulations do not include design approaches that mitigate negative impacts of corridor traffic on residents.
Enhance Neighborhood Corridors as places with quality multi-family housing.	Policy 3.53	**Partially implements.** Multi-dwelling zoning along Neighborhood Corridors help implement, but regulations do

Policy Direction	Policy Numbers	Zoning Code Implementation
		not ensure quality environments for residents along often busy corridors.
Transit Station Areas. Encourage transit-supportive concentrations of housing adjacent to high-capacity transit stations, especially in locations within centers and transit neighborhood station areas.	Policies 3.54, 3.57, 3.59	**Implements**. Multi-dwelling zoning provides opportunities for transit-supportive densities near many transit stations.
Integrate transit stations into surrounding communities and enhance pedestrian and bicycle facilities to provide safe and accessible connections to key destinations beyond the station area.	Policy 3.55	**Partially implements**. Regulations do not always result in street connections where greater street connectivity is needed.
Pattern Areas. General - encourage development and design approaches that respond to the distinctive, positive characteristics of Portland's pattern areas, including the Inner, Eastern, and Western neighborhoods. Within the Inner Neighborhoods this means continuity with Streetcar-Era development patterns, while the Eastern and Western neighborhoods have a greater emphasis on trees, landscaping, and response to natural features.	Policies 3.70 - 3.103	**Allows**. However, the same development standards apply across the city, with few requirements for area-specific variation.
Inner Neighborhood Residential Areas. Continue the patterns of small, connected blocks, regular lot patterns, and streets lined by planting strips and street trees in Inner Neighborhood residential areas.	Policy 3.92	**Allows**. However, development is not required to continue prevalent lot or development patterns, and narrow lot development with front driveways can limit opportunities for planting streets and street trees.
Eastern Neighborhoods Pattern Area. Guide the evolving street and block system in the Eastern Neighborhoods in ways that build on positive aspects of the area's large blocks, such as opportunities to continue mid-block open space patterns and create new connections through blocks that make it easier to access community destinations.	Policy 3.93	**Allows**. However, no regulations are specific to the area's block structure and do not require mid-block open spaces and usually do not result in new connections.
Require that land be aggregated into larger sites before land divisions and other redevelopment occurs. Require site plans which advance design and street connectivity goals.	Policy 3.94	**No requirements**. Regulations to do not require that small sites be combined before development can occur.
Encourage development and right-of-way design that preserves and incorporates Douglas fir trees and groves, and that protects the area's streams, forests, wetlands, steep slopes, and buttes.	Policy 3.95	**Partially implements**. Zoning code environmental regulations protect streams and steep slopes, but are lest oriented to protecting groves of trees in East Portland's flat lands.
Encourage landscaped building setbacks along residential corridors on major streets in Eastern Neighborhoods.	Policy 3.97	**Allows**, but not required.
Enhance access to centers, employment areas, and other community destinations in Eastern Neighborhoods by ensuring that	Policy 3.98	**Partially implements**. PBOT has jurisdiction over corridor improvements, but regulations do not

Policy Direction	Policy Numbers	Zoning Code Implementation
corridors have save and accessible pedestrian and bicycle facilities and creating additional secondary connections that provide low-stress pedestrian and bicycle access.		always ensure that new secondary connections will be created.
Western Neighborhoods Pattern Area. Increase opportunities for more people to live within walking distance of the area's small commercial districts, create additional pedestrian and trail connections, and encourage development and infrastructure to be designed to minimize impacts on the area's streams, ravines, and forested slopes.	Policies 3.99, 3.100, 3.101, 3.103.	**Partially implements.** Multi-dwelling zoning provides housing opportunities in and around centers, environmental regulations limit development impacts on streams and slopes, but regulations do not always ensure that additional public pedestrian connections will be created.
Design and Development Policies (Chapter 4)		
Context-Sensitive Design and Development. Encourage new development to be designed to respond to and enhance the distinct physical, historic, and cultural qualities of its location, while accommodating growth and change.	Goal 4.A; policies 4.1 - 4.3	**Allows.** However, the same development standards apply across the city, with few requirements for area-specific variation and no incentives for historic preservation.
Historic and Cultural Resources. Encourage the preservation of historic and cultural resources, including those in centers and corridors, and encourage development that fills in vacant and underutilized gaps within the established urban fabric.	Goal 4.B; policies 4.28, 4.46, 4.48	**Some requirements.** Regulations protect designated historic resources and allowances for transfer of development rights provide an incentive for preservation. However, regulations do not clearly guide development to underutilized sites, versus redevelopment of older buildings that are not designated historic resources.
Human and Environmental Health and Active Living. Encourage development designed to enhance human and environment health, encourage building and site design that promotes a healthy level of physical activity, and provide opportunities for growing food.	Goal 4.C, policies 4.10 and 4.87	**Some requirements.** Human health is supported by building code requirements, and the Zoning Code requires on-site pedestrian connections, but not all multi-dwelling zones require outdoor spaces for residents.
Integrate natural and green infrastructure, such as trees, green spaces, ecoroofs, gardens, green walls, and vegetated stormwater facilities, into the urban environment.	Policy 4.4	**Some requirements.** Multi-dwelling zones require some landscaping; BES regulations require on-site stormwater management. No incentives for ecoroofs or for providing additional greenspace beyond minimum requirements.
Manage building massing to provide for public access to light and air, and encourage building design that considers privacy and solar access for residents and neighbors.	Policies 4.11 and 4.12	**Some requirements.** Zoning regulations manage building mass and setbacks, but do not directly address privacy or solar access.
Encourage building and site design that helps prevent crime and improves fire prevention and life safety.	Policies 4.13 and 4.14	**Some requirements.** Some zoning regulations encourage design supportive of "eyes on the street,"

Policy Direction	Policy Numbers	Zoning Code Implementation
		but fire and life safety mostly addressed by building code.
Pedestrian-Oriented Design. Encourage pedestrian-oriented design that is accessible to people of all abilities.	Policy 4.5	**Some requirements**. Supported by building code and sidewalk accessibility standards, but some gaps in pedestrian-oriented standards and residential requirements for accessibility.
Encourage development designed with windows and entrances oriented to the street, and with building that frame, shape, and activate the public space of streets and parks.	Policy 4.6 and 4.7	**Some requirements**. Multi-dwelling zones require entrances and windows oriented to the street in most situations, but regulations allow front-facing garages to dominate the ground levels of narrow lot houses and rowhouses.
Encourage the continued use of alleys for parking access, while preserving pedestrian access.	Policy 4.8	**Allows**, but alley access for parking is not required in most areas that have existing alleys.
Residential areas. In areas outside of centers, encourage a diversity of housing options that accommodate a wide range of households, while encouraging design that complements the general scale and character of neighborhoods.	Policies 4.15 and 4.16	**Partially implements**. Medium-density multi-dwelling zones provide some of the housing diversity in residential area, but citywide regulations are not always responsive to differing neighborhood characteristics.
Encourage compact single-family homes and resource-efficient, healthy building design.	Policies 4.18 and 4.19	**Partially implements**. Medium-density multi-dwelling zones provide opportunities for compact houses and multi-dwelling housing is relatively resource-efficient, although there are no incentives for building small houses or highly resource-efficient buildings.
Centers and Corridors. Encourage centers and corridors as places with higher-density housing close to services, with amenities that create a pedestrian-oriented environment.	Policies 4.20 and 4.21	**Implements**. Multi-dwelling zoning allows for higher-density housing in and around centers and include requirements for pedestrian-oriented design.
Provide accessible sidewalks, high-quality bicycle access, and frequent street connections and crossings in centers and corridors.	Policy 4.23	**Some requirements**. Zoning code standards address pedestrian access and bicycle parking, but do not always result in new street connections in centers that lack street connectivity.
On busy streets, encourage design approaches that buffer residents from street traffic, such as through the use of landscaped front setbacks, street trees and other design approaches.	Policy 4.25	**Allows**, but regulations do not require design approaches that are responsive to locations on busy street corridors.
Transitions. Create transitions in development scale between higher-density areas and adjacent single-dwelling zoning.	Policy 4.30	**Some requirements**. Zoning providing scale transitions apply in some, but not all, areas.

Policy Direction	Policy Numbers	Zoning Code Implementation
Resource-Efficient Design. Encourage rehabilitation and adaptive reuse of buildings, especially those of historic or cultural significance, promote seismic and energy retrofits, and encourage compact housing.	Policies 4.60 - 4.62	**Allows**, but no requirements or incentives. Multi-dwelling zones support the creation of attached homes and multi-family housing that are inherently resource efficient.
Encourage development approaches and building materials and technologies that result in the least environmental impact, are resource efficient, and that produce energy on site.	Policies 4.63 - 4.72	**Allows**, but few requirements or incentives, other than building code requirements.
Designing with Nature. Encourage design and site development practices that avoid impacts on watershed and ecosystem health, and encourage low-impact and habitat-friendly development.	Policies 4.73, 4.74, 4.75, 4.77	**Some requirements**, particularly in areas with environmental overlay zoning.
Limit use of and strive to reduce impervious surfaces.	Policy 4.76	**Few requirements**. Multi-dwelling zones limit building coverage but not other types of impervious surfaces, such as vehicle areas, which can occupy large portions of site area.
Hazard-Resilient Design. Limit development in or near area prone to natural hazards and encourage development approaches that enhance the ability to respond to natural disasters.	Policies 4.79 and 4.81	**Requires**. Implemented through environmental overlays, and location of most multi-dwelling zoning avoids sensitive environmental areas.
Encourage development designed to reduce urban heat island effects.	Policy 4.83	**Few requirements** or incentives, other than some landscaping/tree requirements.
Housing Policies (Chapter 5)		
Diverse Housing Supply. Encourage a diversity of housing types that can support a broad range of households and contribute to income diversity, including in and around centers.	Goal 5.A., policies 5.4, 5.5, 5.7, 5.31, 5.32	**Implements**. The combination of multi-dwelling, mixed-use, and single-dwelling zoning in and around centers provides opportunities for a diverse range of housing.
Enable and encourage development of middle housing, such as multi-unit or clustered residential building that provide relatively smaller, less expensive units, and a scale transition between the core of centers and surrounding single-family areas.	Policy 5.6	**Partially implements**. Medium-density, multi-dwelling zoning provides middle housing opportunities around many centers, although this zoning is less extensive than single-dwelling zoning.
Support a diverse supply of affordable and physically-accessible housing that can meet the needs of older adults and people with disabilities, especially in and around centers and other locations close to services and transit.	Policies 5.8, 5.9, 5.19	**Allows**, but few requirements or incentives, other than building code accessibility requirements that apply to some multifamily development.
Housing Location. Locate higher-density and affordable housing in and around centers and other locations with good access to services, employment and amenities.	Goal 5.C, policies 5.22 and 5.23, 5.31, 5.32, 5.38	**Partially implements**. Multi-dwelling zoning provides opportunities for higher-density housing, but there are no incentives for affordable housing

Policy Direction	Policy Numbers	Zoning Code Implementation
		(until Inclusionary Housing requirements are adopted).
Housing Affordability. Provide an adequate supply of affordable housing units to meet the needs of residents vulnerable to increasing housing costs, utilizing a variety of regulatory and programmatic approaches, including inclusionary zoning.	Goal 5.D, multiple policies	**Allows**. Multi-dwelling zoning provides opportunities for affordable housing, but there are no requirements or incentives (until Inclusionary Housing requirements are adopted).
Evaluate how existing and new regulations affect private development of affordable housing, and minimize negative impacts.	Policy 5.36	Will be a consideration in the Improving Multi-Dwelling Development Project.
Encourage preservation of mobile home parks as a low/moderate-income housing option.	Policy 5.37	**Allows**, but no requirements for preservation of mobile home parks.
Encourage a variety of home ownership opportunities, including compact single-family options and a range of ownership arrangements.	Policies 5.39 and 5.43	**Allows**. Multi-dwelling zoning allows a variety of ownership opportunities, including land divisions that support "fee-simple" individual lots, and multiple other ownership arrangements.
Health and Safety. Encourage housing designed to: protect residents' health and safety, support active living, provide energy efficiency, incorporate green building strategies, provide indoor air quality, and that supports active living by providing usable open areas, recreation areas, community gardens, pedestrian and bicycle amenities, etc.	Goal 5.C, policies 5.47 - 5.54	**Some requirements**, notably building code and pedestrian/bicycle requirements, but some multi-dwelling zones have no requirements for open spaces for residents.
Transportation Policies (Chapter 9)		
Modal Policies - pedestrian transportation and networks. Encourage walking as the most attractive mode of transportation for most short trips, within neighborhoods and to centers, corridors, and major destinations, and as a means for accessing transit; creating more complete networks of pedestrian facilities, and improving the quality of the pedestrian environment.	Policies 9.17 and 9.18	**Partially implements**. Some centers, notably in Eastern and Western neighborhoods, lack frequent street or pedestrian connections, compromising the ability to walk to local destinations. Regulatory tools have had limited success in creating new connections.
System Management - Connectivity. Establish an interconnected, multimodal transportation system to serve centers and other significant locations. Promote a logical, direct, and connected street system through street spacing guidelines and district-specific street plans found in the Transportation System Plan.	Policy 9.47	**Partially implements**. See comments above.
Parking management. Reduce parking demand and manage supply to improve pedestrian, bicycle and transit mode share, neighborhood livability, safety, business	Policy 9.55	**Allows**, but no requirements for parking demand management related to development in the multi-dwelling zones.

Policy Direction	Policy Numbers	Zoning Code Implementation
vitality, vehicle miles traveled (VMT) reduction, and air quality.		
Off-street parking. Limit the development of new parking spaces to achieve land use, transportation, and environmental goals, especially in locations with frequent transit service. Regulate off-street parking to achieve mode share objectives, promote compact and walkable urban form, encourage lower rates of car ownership, and promote the vitality of commercial and employment areas. Use transportation demand management and pricing of parking in areas with high parking demand. Strive to provide adequate but not excessive off-street parking where needed.	Policy 9.59	**Partially implements**. Zoning code regulations include maximum parking ratios for the multi-dwelling zones, and have no or low minimum parking requirements in areas close to transit, although multi-dwelling zones do not have requirements for transportation demand management.

Zoning History

This section provides a brief history of zoning in Portland, focusing primarily on the zones that have evolved into today's Multi-Dwelling Residential zones. The City's first zoning code was implemented in 1924. Prior to 1924, the building code contained regulations that limited where certain uses, including apartment houses, could locate without first securing the approval of City Council. The City's building code contained height limitations beginning in 1911. Frame buildings were limited to two stories or 42 feet in height; ordinary construction was limited to four stories or 60 feet in height; semi fire-proof buildings were limited to six stories or 85 feet in height; and absolutely fire-proof buildings were limited to 12 stories or 160 feet in height. After the 1924 Zoning Code, major updates of the Zoning Code were implement in 1959 and 1991. Below is a brief overview of the evolution of the City's multi-dwelling zones since 1924.

Zoning and the Comprehensive Plan

Zoning can be characterized as a set of land use regulations that establish parameters for the current use and development of property, including all new construction, most alterations, commercial occupancy changes, property line changes and most site development activity including some tree cutting and landscaping.

In Portland, zoning is a regulatory tool used to help implement land development components of the Comprehensive Plan, which articulates the long range aspiration and direction for development of the city. The Comprehensive Plan includes a long-range map indicating what will be allowed up to 20 years from now, while the zoning map indicates what is allowed now. The Comprehensive Plan map may be more generalized than the zoning map. There may also be places in the city where the Comprehensive Plan map designates land uses and intensities different from what is allowed currently by the zoning map. These places may be subject to zoning changes either through future legislating planning/zoning processes, or by future quasi-judicial land use reviews initiated by the property owners/interests.

1924 Zoning Code

Portland's first zoning code was adopted by the Portland City Council on September 3, 1924, and was passed by the voters of Portland on November 4, 1924.
The 1924 zoning code contained four zones:

- Zone I – Single-Family
- Zone II – Multi-Family
- Zone III – Business-Manufacturing
- Zone IV – Unrestricted

Zone II – Multi-Family served as a general residential zones and was mapped very broadly in Portland. Most residential areas of the city, except for those of the "highest quality," and all vacant sections of the city were placed in Zone II. The large amount of multi-family zoning reflected expectations for Portland's rapid growth (the 1912 Bennett Plan was based on the assumption that Portland would have a population of two million people by 1940). A 1934 land use survey indicated that 15,440 acres were zoned for multi-family housing, compared to 6,195 acres zoned for single-family housing. This early extensive mapping of multi-family zoning, as well as the period before zoning was adopted in 1924, explains the diverse array of apartment buildings (such as duplexes, fourplexes and courtyard apartments) sometimes found in older neighborhoods that currently have single-dwelling zoning (see the Historic Examples sections of the Appendix).

The regulations for Zone II had few restrictions on the types or characteristics of residential development allowed. The zoning regulations did not control for density, included no requirements for front or rear yards, and did not differentiate between areas for tall or low-rise apartments. However, the zoning code was supplemented by Portland's housing code (first adopted in 1919), which placed limits on lot coverage (75 to 85 percent maximum coverage, reduced in 1933 for Zone II to 45 to 55 percent coverage for buildings two-stories or taller) and set requirements for side yards based on the depth of adjacent rooms. The 1924 Zoning Code also provide a Local Option, which allowed some uses normally prohibited in Zone II (such as hotels, commercial uses, and filling stations) when the applicant obtained approval from 75 percent of owners of property within 200 feet.

In the 1930s and 1940s, several large areas were taken out of the Zone II and put into the single-family zone (Zone I), including areas around Mt. Tabor and in North Portland. One reason for the rezoning was to ensure that homeowners and buyers could obtain Federal Housing Administration (FHA)-insured loans without penalty, as it was the practice of the FHA to reduce the size of mortgages provided for houses located in apartment zones (such approaches were also linked to racially-discriminatory policies). By 1951, while the amount of land in Zone II had been reduced, 50 percent of Portland's residential land remained in Zone II (currently about 14 percent of Portland's residential zoning is in the multi-dwelling zones). The area within Zone II included most of the eastside residential areas extending out to 39th Avenue, from SE Holgate north to Killingsworth (exceptions included Alameda and most of Irvington).

In 1945 a subcommittee of the Planning Commission proposed substantial changes to the Zoning Code. The proposed code included seven zones rather than four:

- Three residential zones,
- Two commercial zones, and
- Two industrial zones

The proposed code also included standards for lot size, setbacks, lot coverage, and height. This draft code was not adopted. Rather, the Planning Commission requested that City Council employ a professional planner to prepare a new code. City Council indeed hired a professional planner, and the subsequent process to develop a new code took 13 years, with the bulk of the time being focused on the proposed zoning map rather than the text of the zoning code. The new code was finally adopted in May, 1959, and became effective July 1, 1959.

1959 Zoning Code

The 1959 Zoning Code implemented a new numbering system and structure. Many of the zoning symbols, and to some degree the regulations, were revised to provide consistency between the City and County zoning codes, and to solve problems created by the 1924 code. The 1959 Zoning Code contained 14 zones:

- Three one-family zones,
- Three apartment zones,
- Four commercial zones, and
- Four manufacturing zones.

The multi-family zones, now termed Apartment Residential zones, consisted of the following:

- A2.5: duplexes and garden apartments
- A1: low-rise apartments
- A0: tall apartments in the central part of Portland

1959 Zoning Code - Apartment Residential Zones			
	A2.5	**A1**	**A0**
Housing Types	Single-family dwellings, duplexes, apartment buildings	Single-family dwellings, duplexes, apartment buildings, boarding and rooming houses, hotels/motels (when abutting a highway)	Single-family dwellings, duplexes, apartment buildings, boarding and rooming houses, hotels/motels
Maximum Density	1 unit per 2,500 square feet of site area	1 unit per 1,000 square feet of site area	Limited by floor-to-area ratios, which varied from 3:1 up to 6:1, depending on site size
Maximum Height	2 ½ stories or 35 feet	3 stories or 45 feet	No height limit
Maximum Lot Coverage	45%	45%	No limit for multi-family buildings.
Setbacks	15-foot front, side/rear 5-7 feet depending on building height	15-foot front, side/rear 6-9 feet depending on building height	10-foot front, side/rear setbacks from 6 feet and upwards, depending on number of stories
Parking	1 space per unit	1 space per unit	Varied: for apartment buildings of 5 or more units, ranged from 1 space per 5 units for small units to 2 spaces per 3 units for large multi-bedroom units); 1 space per unit for most other housing types.

A significant change undertaken in conjunction with the adoption of the 1959 Zoning Code was that the area zoned for multi-family development was greatly reduced to correspond to the predominance of single-family housing that had been built within most of Zone II. In the years between 1924 and 1959, roughly 7 ½ square miles had been taken out of Zone II and moved primarily into the single-family zone. With enactment of the 1959 Zoning Code, another 6 ¾ square miles were changed from Zone II and rezoned to R5, R7, or R10 single-family zoning. Areas that were changed from Zone II to the new single-family zones included most of the North Portland peninsula and large parts of southeast and northeast Portland.

1981 Zoning Code Rewrite

The 1981 Zoning Code followed from the adoption of Portland's first Comprehensive Plan, adopted in October 16, 1980. The 1981 Zoning Code expanded the multi-family zones to four zones, with labels similar to corresponding current zoning:

- R2 Multi-Family Residential Zone
- R1 Multi-Family Residential Zone
- RH High Density Multi-Family Residential Zone
- RX Downtown Multi-Family Residential Zone

(the new zoning code also introduced the R2.5 zone, similar in density to the former A2.5 zone, but classified as a one-family residential zone and limited to houses and attached houses, with duplexes or apartments not allowed)

1981 Zoning Code - Multi-Family Residential Zones				
	R2	**R1**	**RH**	**RX**
Housing Types	Single-family dwellings, duplexes, multi-family buildings	Single-family dwellings, duplexes, multi-family buildings, boarding and rooming houses	Single-family dwellings, multi-family buildings, boarding and rooming houses	Single-family dwellings, duplexes, multi-family buildings, boarding and rooming houses, hotels, commercial uses limited by size
Maximum Density	1 unit per 2,000 square feet of site area	1 unit per 1,000 square feet of site area (additional density provided for listed amenities)	Limited by floor-to-area ratios (FAR), which were generally 2:1, but with 3:1 and 4:1 in mapped locations.	Limited by floor-to-area ratios, prescribed in the Downtown Development Zone
Maximum Height	4 stories or 45 feet	4 stories or 45 feet	65 feet for areas with 2:1 FAR, and up to 460 feet for locations with higher FARs.	Varied, as prescribed in the Downtown Development Zone
Maximum Lot Coverage	45%	45%	80%	No limit
Setbacks	15-foot front, side/rear 5-12 feet depending on number of stories	15-foot front, side/rear 6-12 feet depending on number of stories	No front setback, side/rear setbacks from 5 feet and upwards, depending on number of stories	No base zone requirements
Parking	1 space per unit	1 space per unit	1 space per unit for buildings with 1-3 units. 1 space for every 2 dwellings for multi-family buildings.	No minimum off-street parking requirements

1991 Zoning Code Rewrite

The 1991 Zoning Code was a major reorganization, and was the result of a four year effort to update and make the regulations easier to read and understand. The 1991 Zoning Code achieved an organization and palate of zones essentially similar to what currently is in effect today. The multi-family zones were renamed as Multi-Dwelling Zones and retained a similar structure to what was included in the 1981 Zoning Code, with the addition of the R3 zone (which corresponded to a Multnomah County zone that applied to areas recently added to the City of Portland, primarily in what is now East Portland). The densities and regulations for heights, setbacks, and lot coverage were similar to current requirements (see Profiles of the Base Zones)

Evolution of Portland's Multi-Dwelling Zones from 1924 to 2016

1924	1959	1981	1991 - 2016
Zone II - Multi-Family	A2.5	R2 - Multi-Family Residential	R3 - Residential 3,000
	A1	R1 - Multi-Family Residential	R2 - Residential 2,000
	A0	RH - High Density Multi-Family Residential	R1 - Residential 1,000
		RX - Downtown Multi-Family Residential	RH - High Density Residential
			RX - Central Residential

Summary of Related Projects

The following recent past projects addressed issues related to multi-dwelling development and street connections. Some of these projects, such as the East Portland Action Plan and the "Healthy Housing" related projects, were the result of extensive community outreach and identified a range of issues related to multi-dwelling development, but were not regulatory projects and did not involve Zoning Code amendments. These past projects play a key role in identifying issues the Improving Multi-Dwelling Dwelling Development will address through implementation of Zoning Code regulations.

Infill Design Project (2008)

The Infill Design Project's objective was to improve the design of multi-dwelling and row-house development in neighborhoods outside Portland's Central City, focusing on development in the low- and medium-density multi-dwelling zones (R1, R2, and R3). Among the topics this project identified as key issues and sought to address were:

- Compatibility and desired community character;
- Differing patterns in inner neighborhoods versus eastern neighborhoods;
- Street frontages dominated by vehicle facilities;
- Scale contrasts between new and existing lower-density development;
- Desires for additional housing diversity, including courtyard options;
- Competing City regulations related to issues such as requirements for wide paved areas to accommodate vehicle and emergency access versus objectives for minimizing impervious surfaces.

The Infill Design Project emphasized facilitative approaches. It included prototypes and regulations that encouraged attached houses with rear parking (lower image), but did not prevent front garages (upper image).

The project's outcomes included a range of regulatory and non-regulatory implementation approaches that included Zoning Code amendments, an Infill Design Toolkit that highlighted strategies for achieving better infill design, a collection of "approvable" housing prototypes, and the Portland Courtyard Housing Design Competition, which explored how density, families, outdoor space and sustainable design could be accommodated on small infill sites in the form of courtyard housing.

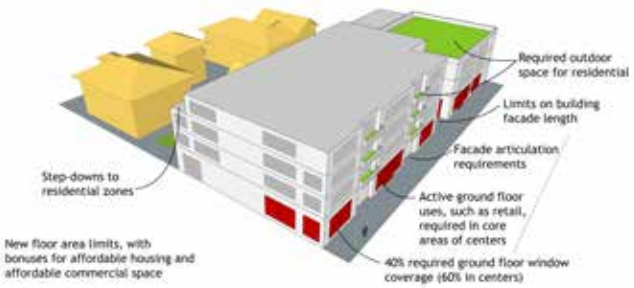
The emphasis of the Infill Design Project's Zoning Code amendments was on reducing barriers to desirable design features, such as regulations that facilitated courtyard housing arrangements and compact ownership housing, changes that allowed for narrower driveways to facilitate access to rear parking, and allowances for "shared" courts and driveways that accommodate pedestrians and vehicles within the same space. With this facilitative emphasis, the project did not do as much to prohibit less desirable configurations that do not meet the City's design priorities. Among the multi-dwelling zone topics the community identified as needing to be addressed, but that the Infill Design Project did not regulate, were:

- Differing development standards reflecting the distinct, positive characteristics of the Western, Inner, and Eastern neighborhoods.
- The prominence of front garages at the ground-level of rowhouses and narrow lot houses.
- The possibility of requiring front landscaped setbacks in the higher-density zones (such as R1 and RH) to provide greater continuity with existing patterns.
- Mid-block open space patterns (backyards) - should they be required to be continued?
- Large areas of paved surfaces - should they be limited?
- Design supportive of privacy and livability for ground-floor residents along busy corridors (including ideas for allowing small commercial or live/work uses in these locations).
- Shared open space (such as courtyards) – should this be required in larger projects, not just encouraged?

The Better Housing by Design project provides an opportunity for revisiting the possibility of creating regulations to address these issues.

Mixed Use Zones Project (2015 - 2016)

The Mixed Use Zones Project focused on revising Portland's Zoning Code for commercial/mixed use zones in centers and corridors outside of the Central City. Many of the code amendments address the fact that higher-density multi-dwelling housing has become a large part of the development taking place in the commercial zones, which was not the case when the zones were created more than 20 years ago. The project is introducing new Zoning Code regulations intended to help achieve Comprehensive Plan goals for affordable housing, pedestrian-oriented design, and green infrastructure. This project also addresses issues that arise with more intensive mixed use buildings, including building massing and design, transitions to lower density residential areas, and active ground floor uses. Some of the Zoning Code provisions that may be relevant for the multi-dwelling zones include:



- New requirements for residential outdoor space (36 to 48 square feet per unit) for projects that include residential units (among the multi-dwelling zones, the High-Density Residential [RH] zone currently has no requirements for residential outdoor space).
- Requirements that support privacy for the ground-floors of residential buildings – with options for units to have landscaped setbacks, raised above grade, or to have non-residential ground-floor spaces (these approaches were recommended by the Infill Design Toolkit for the multi-dwelling zones, but were not adopted as regulations).
- Requirements for front setbacks along major Civic Corridors in Eastern and Western neighborhoods.
- Allowances for "green options" that serve as alternatives to more conventional landscaping requirements, including ecoroofs, raised landscaped areas, tree courts, and pervious paving.
- Affordable housing bonuses.

East Portland Action Plan (2009)

The East Portland Action Plan (EPAP) was designed to identify gaps in policies, services and improvements in the East Portland area, and to identify opportunities to address these gaps. EPAP was the result of eight months of work by the East Portland Action Plan Committee, which worked to identify ways to strategically address community-identified issues and to allocate resources to improve livability for neighborhoods in the East Portland Neighborhood Office coalition area. EPAP includes a listing of strategies and specific actions to support the overall goals of the plan to improve the quality of life, help foster strong community connections, increase the area's regional significance, and improve equity for East Portland residents.
The following is a listing of strategies **(bold)** and accompanying actions especially relevant to multi-dwelling zoning development standards and street connectivity:

Housing and Development Policy

HD.1 Improve the design and quality of new housing structures

HD.1.1 Explore design tools and update Community Design standards tailored to East Portland development styles and neighborhoods.
HD.1.2 Explore design requirements and/or mandatory design overlays for multi-dwelling development in high-impact infill areas.
HD.1.3 Explore code provisions to improve corner-lot building orientation.
HD.1.4 Initiate pilot projects for development of high-quality housing compatible with existing development and natural features.
HD.1.5 Implement Courtyard Design Competition ideas and standards.
HD.1.6 Explore financial incentives or other mechanisms to upgrade materials and design quality of multi-dwelling development (MFR façade program).

HD.5 Improve regulations and implementation of City code to increase benefit and reduce impacts of new housing

HD.5.1 Explore mechanisms to provide on-site play areas and open space in multifamily housing developments.
HD.5.2 Amend zoning code to improve flag lot development and privacy issues.
HD.5.3 Improve/institute a tree preservation and replacement code.
HD.5.4 Review relationship of zoning density and lot size to address East Portland infill context.
HD.5.5 Develop better guidelines and regulations for transitions between relatively high and moderate intensity zones to mitigate decreased sunlight access and privacy impacts.
HD.5.6 Provide community amenities and improve design to encourage housing that is attractive to households with a range of incomes.

Transportation

T.2 Increase safety and convenience of walking throughout East Portland

T.2.3 Review policies and procedures to ensure pedestrian improvements concurrent with all new development.

T.2.4 Review policy: prioritize adding sidewalk connections over expanding/widening existing connections.

T.2.5 Improve landscaping, cleanliness, and patrolling of multi-use paths and neighborhood pedestrian paths.

T.6 Improve connectivity throughout East Portland

T.6.1 Develop a complete and more well-defined future street plan for East Portland.

T.6.2 Develop priorities for decision-making on transportation improvements; consider connections to parks/open space/schools, "green street" design, public safety needs.

T.6.3 Initiate a Powellhurst-Gilbert connectivity and urban form study.

T.6.5 Institute policy and develop plan to provide accessible transportation options (sidewalks, streets, connections) for people with physical disabilities.

T.6.6 Acquire property and develop streets in Central Gateway.

Eastside MAX Station Community Project (2009)

This report documents concepts for land use, urban design, and transportation system approaches for each of the Eastside MAX station areas (from the 60th Avenue to the 162nd Avenue station areas), and summarizes community responses to these concepts. The following summarizes concept components that are particularly relevant to multi-dwelling zoning and street connectivity issues in the station areas.

60th Avenue

- The Vision statement calls for new higher-density residential development to be designed to blend in with the surrounding established Rose City Park and North Tabor neighborhoods.
- There is a need to improve the quality of new infill development, including the use of better materials and design features to promote compatibility with the existing neighborhood as the area transitions to higher density housing types. Community input included suggestions for applying the Design Review overlay zone to enhance design quality.
- Provide a wider set of pedestrian and bicycle improvement through the area, and reconnect the street grid with new streets through the light industrial area near the station.

82nd Avenue

- The Vision statement relates that, while mixed-use development around the station should be tall and distinctive, new residential development should be designed to scale down in height to blend in with the established Montavilla and Madison South single-family neighborhoods.
- The scale of development in the multi-dwelling zones should provide a better transition to lower-density areas, and the Design Review overlay zone should be applied to higher-density areas.
- The primary transportation emphasis is for improving conditions on 82nd Avenue, but parallel bicycle routes are also needed.

Parkrose/Sumner

- The Vision statement calls for greater development intensity and a mix of uses close to the station, with well-designed townhomes and apartments further to the south located along improved neighborhood streets with sidewalks.
- Residential areas close to the station to the south should have higher-density zoning (R1), while residential areas further away should be designed to be more compatible with the surrounding single-family residential area.
- Transportation improvements are needed to existing streets, which sometimes are not fully improved or lack quality sidewalks.

122nd Avenue

- The Vision statement anticipates the commercial/mixed use areas around the station developing into an intensely urban hub with concentrations of community-serving business and housing.
- Nearby residential areas are expected to continue to develop and intensify, providing high density housing with quality building design.
- The transportation concept calls for a street master plan and the creation of new street connections to improve pedestrian and bicycle access, as well as improvements to existing substandard streets.

148th & 162nd Avenue

- The Vision statement anticipates having mixed use development clustered at the 148th and 162nd Avenue stations. Nearby residential areas include a diversity of housing, ranging from high-rise condos to townhouses and single-family homes. New housing is most intensely concentrated adjacent to the stations, transitioning to lower-scale apartment buildings and townhouses further from the station.
- The development framework for the station area identifies high-density density housing, up to 7-10 stories, as appropriate near the station. Further away, medium-density housing of 3-4 stories provides a transition to surrounding single-family (R5) neighborhood areas. The concept suggests that landscaped setbacks in the higher-density residential areas could help maintain some of the character of the existing neighborhood.
- The transportation concept calls for a street master plan that would identify new street connections that would be required concurrent with redevelopment in the area. The transportation diagram for the area illustrates ideas for creating an additional north-south connection through the existing 600-foot block widths, along with multiple east-west connections through the lengthier 1,000-foot dimensions of the blocks. The concept also identifies the need for a strategy for improving existing substandard streets, in order to avoid a disconnected patchwork of sidewalk and curbs.

Southeast 122nd Avenue Study (2010)

This study was a pilot project of the Portland Plan. The study's objective was to explore what a convenient, livable, and healthy community might be for a portion of the SE 122nd Avenue corridor, an area with large amounts of multi-dwelling zoning. The study built on the directions set out in the East Portland Action Plan. It also explored Portland Plan concepts for complete neighborhoods in the context of the 122nd Avenue Corridor, and included a focus on the health implication of planning issues. The study included four key topic areas, three of which are related to multi-dwelling development and connectivity. Listed below these topics are recommendations related to multi-dwelling development and street connections:

Topic 1: Accessibility, Connections, Pedestrian Comfort and Safety

Street Connections – Recommendations

1I — Support and ensure the creation of planned local street and pedestrian connections during the land development process.

1J —Study and implement a better mechanism to ensure street connections for new development that does not go through the subdivision process.

1K — Consider a larger minimum lot area threshold for residential subdivisions, to improve opportunity for connectivity and improve urban form.

Topic 3: Residential Infill Development and Design

Residential Land Use

3A — Explore alternative site development standards, or consider alternatives to the R1 multi-dwelling residential zone to improve the interface between development and busy streets. See also Recommen dation 2A.

3B — Consider changes to zoning map designations in areas over 400 feet away from arterial streets to reduce development impacts, improve compatibility, and preserve trees in neighborhood areas.

3C — Explore changes to minimum density and other development standards in R2 and R1 zones to improve compatibility and reduce impact of new development.

Residential Site Design

3D — Preserve a greater number of large trees in the development process: implement the Tree Code improvement project for this area.

3E — Develop and test special site development regulations for multi-dwelling residential development that require more usable open space, landscaping, and HEAL (healthy eating/ active living) amenities, such as bike storage, connections to larger pedestrian/bicycle network, and gardening opportunities.

3F — Consider larger mandatory landscaped building setbacks from major city traffic streets for multi-dwelling residential development.

Residential Building Design

3G — Improve residential design: explore use of the design overlay zone or special development design standards appropriate for R1 and R2 zone multi dwelling areas along and near SE 122nd Avenue.

Topic 4: Community Amenities and Livability

4C — Balance the mix of households in new development by encouraging smaller units as well as family-sized units in future developments.

4I — Coordinate green infrastructure with planned land uses and future parking needs, as well as pedestrian and bicycle safety plans, in the study area.

Healthy Active Communities for Portland's Affordable Housing Families Initiative (2010)

In 2010, the Oregon Public Health Institute led the "Healthy Active Communities for Portland's Affordable Housing Families" initiative. OPHI convened a consortium of partners, including Hacienda Community Development Corporation, Rose CDC, Community Cycling Center, Janus Youth Programs, Oregon Opportunity Network, Kaiser Permanente, the Northwest Health Foundation, and the Bureau of Planning and Sustainability to examine healthy eating and active living in affordable housing communities managed by community development corporations.

The goal of the OPHI led project was to enhance multi-family affordable housing sites to accommodate Healthy Eating Active Living (HEAL) amenities, increase connected pedestrian and bicycle networks in lower-income communities, and enhance healthy food retail options near multi-family housing sites. Under the Active Living category, bicycle storage, moving around the site, playing outdoors at the site, and indoor exercise was discussed; under the Healthy Eating category, food storage and preparation, vending machines, and gardening opportunities were examined.

In conversations about what HEAL meant to them, affordable housing residents identified the following topics and features in housing developments: Play and Physical Structures, Sidewalks and Connectivity, Bike Storage, Open Spaces, Lighting and Safety, Vandalism and Garbage, Negative Messages. Analysis of these elements and a scan of the Portland Zoning Code led to the following conclusion.

Different needs for HEAL features. Multi-family housing sites vary greatly in size, design and resident demographics. Understanding residents' concerns and priorities and how they would like to use their physical space is important for the design of new housing as well as upgrades/modifications to existing housing.

Safety. Lack of safety was identified as a significant barrier to physical activity. Inadequate lighting, speed of nearby traffic, and the condition of play equipment were also identified in this category.

Style of play equipment. The type of play equipment and whether it was perceived as safe for small children is of significant concern to families. The desire for equipment designed for all ages was also cited.

Property maintenance and management. The presence of a HEAL amenity may not be sufficient for ensuring that residents make the best use of it. Resident comments indicate that shared features such as long-term bicycle storage and play areas need to be managed or monitored to make sure they are used properly. If the site is not maintained (e.g., sidewalks repaired, trash removed, light bulbs replaced), zoning code requirements that encourage outdoor activity in the zoning code may not be effective.

Competing needs for outdoor space. Housing developers must accommodate site elements that compete with outdoor health-promoting features such as outdoor play areas and well-designed, pleasant pedestrian walkways. Some of the most significant competing features include required stormwater facilities, minimum parking areas (although often developers provide more parking than required by zoning code), required setbacks and required loading spaces. In residential zones, minimum density standards (that ensure Portland's land supply can meet its share of the regional housing needs) may limit site area that is available for usable open space.

Nonconforming development. Many of the city's affordable multi-dwelling sites have nonconforming development that does not meet the current zoning regulations. Common examples are substandard pedestrian walkways or a lack of bicycle parking. If a property owner makes a modification or improvement on a site (over an annually adjusted amount), then items out of compliance may need to be brought up to new standards.

Amenity bonuses for HEAL and crime prevention features are not widely used. Although there are many amenity bonuses in the City's zoning code today that encourage health-promoting features, historically developers have not taken advantage of them, more commonly outside of the Central City and in the outer neighborhoods. Often, the benefit of providing the amenity (usually additional development potential) is not needed in the project.

Promoting Health Through Multi-Family Housing Project (2013)

Recognizing that the non-profit community development corporations that were the focus of the previous project have a community mission and are charged with improving residents' lives, BPS then turned its attention to privately owned rental apartments, with the idea that improving renters' health and learning about issues in private rentals might be a different and greater challenge. The Community Alliance of Tenants, the Center for Intercultural Organizing (now Unite Oregon), Housing Development Center, OPHI, and BPS came together to examine housing design, construction and maintenance practices.
This partnership intensively engaged low-income refugee and immigrant renters to learn about what issues impacted them the most and assisted them in advocating to address safety hazards in their homes. Another distinguishing focal point of this project was that it centered on examining and analyzing how apartments could be retrofitted to better meet the health needs of renters. In addition to engaging renters, the project team convened private property owners, developers, and managers to collect their thoughts as well.

Renters from five apartments in East Portland emphasized overarching barriers in the physical and cultural infrastructure of their neighborhoods that made emotional, physical, and community health challenging. A deficiency of neighborhood parks, poor neighborhood pedestrian connectivity, few supermarkets, farmers' markets and culturally specific food centers, a lack of cultural and social amenities, like libraries, community centers and performance venues, and development pattern that prioritizes vehicles were some of the major concerns. The organizers and project team narrowed their concerns to six housing related health challenges that were of most concern to renters, that also met project goals:

Open Space. Youth expressed trepidation about using their schools and/or neighborhood parks as play areas or spaces to hang out. They also expressed unease when visiting local neighborhood parks adjacent to their homes because they were often harassed by other youth or people. Those that did play off site found that there were often not enough parks for recreation. When youth did play onsite, often the only spaces available were unused parking lots and driveways. This situation made it common for balls to hit windows. Youth found that playing in, around, and between cars could also be a safety hazard.

Food Security. Families found it hard to find culturally specific food at grocery stores. In addition, food stamps are not always enough to feed an entire family. Therefore, many renters started gardens, sometimes with seeds they brought from their homeland. Many renters had small gardens either in their apartment complex or nearby, at community gardens. However, there was not always enough space to grow food and some landlords were not in favor of allowing tenants to garden onsite.

Safety and Security. In addition to limiting their time in public space due to safety concerns, parents did not want their children far away from home. Older children oftentimes had the responsibility of watching their younger siblings. Even if there was a space for kids to play onsite, this interfered with the older child's ability to do homework. The interstitial spaces where children could play were not near areas where older children could study.

Relieving Overcrowding. Due to limited income, many families shared living quarters with two families sometimes living in a one bedroom. With tight indoor living conditions, outdoor space, especially with cover from the rain, became an even more important commodity. To avoid conflict, additional space proved to be very valuable. This was essential from both a physical and mental health perspective. Relieving overcrowding facilitates healthy sleep and good household hygiene.

Mold and Moisture Control. All of the apartment buildings in this project (as is common in East Portland) were built sometime between 1970 and 1990. Many of the materials and construction methods used during that time have not held up over time. For example, properties constructed during this period used aluminum windows and baseboard heating. These materials are prone to produce mold and moisture conditions. These conditions result in poor indoor air quality, which has oftentimes resulted in causing asthmatic condition in children.

Pest Management. Site design and building construction can have additional health impacts on residents. Renters identified pest infestation as a significant problem. Cockroaches and other insects can exacerbate asthma and spread disease. Building-envelope cracks, plumbing penetrations, and holes in outer walls and between separate units are spaces where insects can easily access. Additionally, holes and depressions in paved areas pose both safety hazards and are places where pests, such as mosquitoes can breed.

Division-Midway Neighborhood Street Plan (2015)

The Division-Midway Neighborhood Street Plan was intended to provide a framework for improving street connectivity in East Portland Neighborhoods. The plan was drafted by the staff of the Portland Bureau of Transportation, in conjunction with community stakeholder groups and local neighborhood residents. The area that was targeted by the project was located east of the Jade District, and southwest of the Rosewood Neighborhood, which are the Neighborhood Centers that are being studied in the Better Housing by Design Project and the Connected Centers Street Plan.

The primary focus of the plan was to identify locations of existing right of way that had not been improved to the standards of the City Code. The plan recommended a series of improvements that could be made; these improvements included paving gravel and dirt streets, widening road surfaces and constructing sidewalks on streets that had been paved, but which had substandard facilities, and building roads in segments of right-of-way that were currently being utilized as footpaths, but which had not been built into roadways.

The plan prioritized the recommended right-of-way improvements into three tiers based on their relative level of importance. The criteria that were used to prioritize improvements included:

- Whether they enhanced pedestrian or bicycle connections to transit stops.
- Whether they improved Neighborhood Greenways or Safe Routes to School, or provided a connection to one.
- Whether they provided service to underserved communities or neighborhoods with a high demand for active transit.

While the Division-Midway Neighborhood Street Plan was primarily focused on building new street connections in existing right-of-way, the plan also made recommendations for creating new street connections across properties that are currently owned privately. The plan envisioned that these new connections would be created gradually, over time, through the use of the City's development review process, as new properties are reviewed for redevelopment.

Tryon-Stephens Headwaters Neighborhood Street Plan (2015)

The Tryon-Stephens Headwaters Neighborhood Street Plan was a collaboration between the Portland Bureau of Transportation and the Bureau of Environmental Services. The plan was intended to provide innovative solutions that simultaneously address street connectivity and stormwater mitigation issues in Southwest Portland neighborhoods. While the geographic location of the area studied in the plan is removed from the areas that are being targeted in the BHD Project and the Connected Centers Neighborhood Street Plan, there are features of this plan which can help to inform strategies that can be implemented to address street connectivity issues in East Portland.

The plan included recommendations for a variety of different roadway footprints that incorporated paved surfaces of a variety of different widths. The various different street treatments allow for context dependent street designs that minimize the paved surface area, allow for the preservation of existing street trees and other natural features, and meet the needs of pedestrians, bicycles, and motor vehicles.

The types of street designs that were recommended in the plan may be useful templates for the types of private through-streets that could be implemented in new multi-dwelling developments in East Portland. Residents who are concerned that improving gravel and dirt streets could increase cut-through traffic in their neighborhoods might prefer roadways with reduced footprints. Other concerns, such as the preservation of large Douglas fir trees, which give character to many historical East Portland neighborhoods, can also be addressed through flexible street designs.

Concurrent Projects and Coordination

Better Housing by Design Project will be coordinated with several ongoing and related public planning projects, including:

Connected Centers Street Plan
This PBOT project will develop street access/circulation plans for two designed centers east of 82nd Avenue, the Jade District and Rosewood, to improve the ability of residents to reach local businesses, transit stops, schools and other neighborhood destinations. The plans and related implementation approaches will serve as models for subsequent street plans for other centers citywide. This project will be undertaken in conjunction with BPS's Improving Multi-Dwelling Development Project and will utilize the same public involvement opportunities.

Design Overlay Zone Assessment
BPS, in collaboration with the Bureau of Development Services (BDS), is undertaking a consultant-led assessment of Portland's Design Overlay zone. The project, called Design Overlay Zone Assessment (DOZA), is documenting and assessing how the tools that carry out the (d) overlay affect the outcomes for discretionary and nondiscretionary reviews. The final deliverable is a set of recommendations for practically and effectively improving the system.
The assessment has looked at several examples of projects throughout the city, including mixed use and multi-dwelling development. Though final recommendations will not be available until spring 2017, initial findings suggest some key takeaways for multi-dwelling projects, which are not necessarily limited to those within the d-overlay. Initial findings related to multi-dwelling development include the following:

- There is a need for criteria that address the ground level of residential-only buildings, as ground-floor windows close to sidewalks can create privacy issues for dwelling units.

- Many of the site examples evaluated did not exhibit a great level of concern for the public realm of streets. Nor did the context seem to influence the design greatly. This suggests that something may be lacking in the design guidelines to encourage design outcomes responsive to context.

A topic related to both the DOZA and the Better Housing by Design projects is determination of what types of standards are appropriate as base zone regulations, such as within the Multi-Dwelling Zoning Code chapter, versus what types of standards might be most appropriate as design standards applicable within the Design overlay zone (the Community Design Standards).

Growing Transit Communities Plan
This is a PBOT project, funded by a Transportation Growth Management Grant administered by the Oregon Department of Transportation (ODOT) in partnership with TriMet. The Plan is an effort to identify and prioritize the most beneficial improvements that would make getting to the bus and using the bus, a safer and more convenient option along sections of bus lines 87, 77, and 20, which includes the Rosewood area and connections to the Jade District.

Inclusionary Housing Zoning Code Project
This project is a collaborative effort between BPS and the Portland Housing Bureau to help meet the need for affordable housing in the city. This project is creating new Zoning Code regulations that address inclusionary housing requirements, following from recent state law that allows local jurisdictions to require that a portion of housing units in new buildings with 20 or more units to be affordable to households earning no more than 80% of area median family income. The Zoning Code amendments include density bonuses for development in the multi-dwelling zones to help offset the cost of providing the affordable units.

The Powell-Division Transit and Development Project
This is a multi-jurisdictional effort to bring enhanced bus-transit services and investments to the Powell-Division corridor. Besides transit enhancements, project goals are also about community well-being—growing healthier and safer neighborhoods and improving access to a broader range of opportunities; equity—ensuring that transit investments benefit current residents and businesses and enhance existing neighborhoods; efficiency—that this investment in enhanced bus-transit service is implemented and ultimately operated with ingenuity and flexibility and within a relatively constrained budget. The project also helped orchestrate a strategy for strengthening key places in the corridor. For Portland, this resulted in the Portland Local Action Plan. The Improving Multi-Dwelling Development Project shares the Jade District with this project as a focus area, which will necessitate close coordination.

Residential Infill Project
This BPS project is revising Zoning Code regulations for the single-dwelling zones and considering regulatory approaches to managing the scale of development in these zones and expanding housing options in areas close to centers and corridors. Some of the single-dwelling zones share characteristics and issues with the lower- and medium-density multi-dwelling zones. Improving Multi-Dwelling Development Project staff will coordinate with this project on regulatory approaches.

82nd Avenue Study – Understanding Barriers to Development Project
This BPS-led project, funded in part by a Metro grant, will investigate opportunities for development and improved outcomes along the 82nd Avenue corridor, including adjacent multi-dwelling zoned areas. The study area for this project includes portions of the Jade District, which will necessitate close coordination with the Improving Multi-Dwelling Development Project.

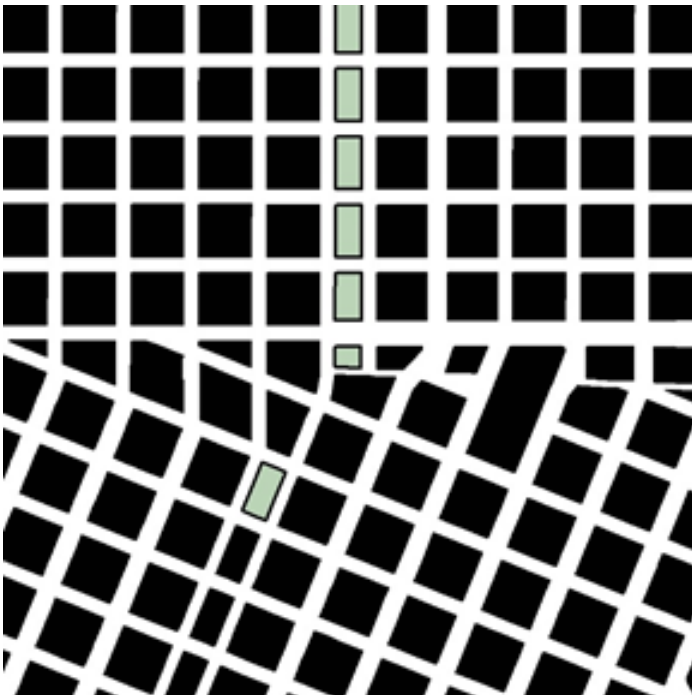
Block Patterns and Street Connectivity

This section provides examples that document the block structure and street connectivity in East Portland, with a focus on areas with multi-dwelling zoning. Together with the Connectivity Requirements section that follows, it provides background on some of the East Portland street connectivity issues that the Better Housing by Design Project and the Connected Centers Street Plan projects are intended to help address.

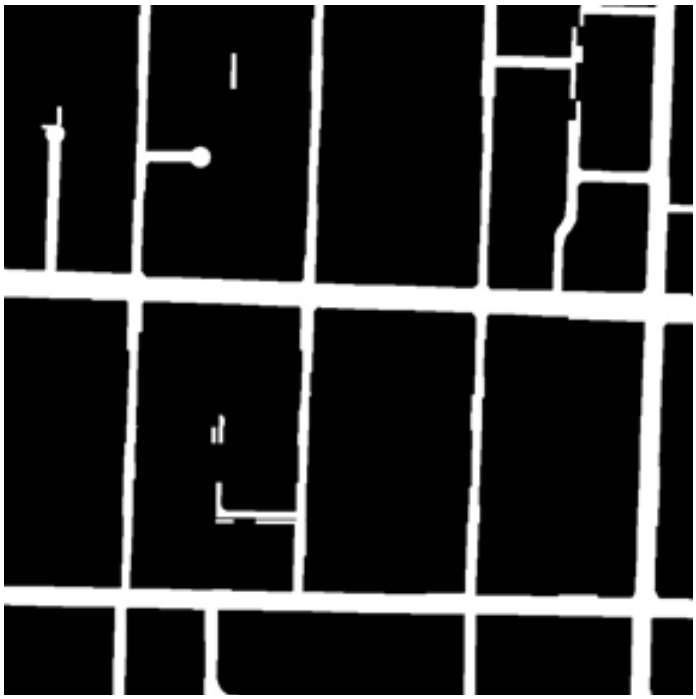
The City's Block Patterns

Block patterns noticeably vary from the Central City to East Portland. In downtown, the typical block pattern consists of 200' X 200' blocks. Across the river, in the inner neighborhoods that mostly developed during the streetcar era (early 1900s to 1940s), most blocks retain the pattern of 200'-deep blocks, at least along one edge of the block, providing a fine-grained grid pattern of development and connectivity. Further east from downtown and inner neighborhoods, generally beyond 82nd Ave, but especially east of I-205, a coarser-grained development pattern emerges.

The following images compare the typical block patterns of downtown and of East Portland. Each image represents a ½-mile square area.



Downtown



East Portland

Timing of Development in East Portland

The difference in the pattern of development in East Portland can be attributed to the timing of development in the area. Much of East Portland developed during the post-war period while still under Multnomah County jurisdiction. Development under the regulations of the time prioritized bigger blocks with little street connectivity, concentrating traffic on major arterial streets and limiting cut-through traffic in neighborhoods. Unlike within Portland, sidewalks were not required on secondary streets.

East Portland was not annexed into the city until the 1980s. With it came a pattern that lacked finer-grained connectivity for people walking or biking.

In subsequent years, in an era of regulation that has required more connectivity for people walking and biking, achieving a finer-grained system of connections via piecemeal private property development has yielded mixed results. In the three decades since annexation, much of East Portland still retains its auto-oriented development pattern that is dependent on a relatively small number of major streets for circulation, with few secondary connections to local destinations for pedestrians and bicycles. Private development, including within the multi-dwelling zones, continues to provide little additional pedestrian connectivity.

The following set of images focuses on that lack of connectivity in East Portland, a by-product of the automobile mobility that had been prioritized in that area in the post-war era. Many of these examples show that East Portland has been the location of a significant amount of development in its multi-dwelling zones, but has not been achieving the street and pedestrian connectivity intended for centers, light rail station areas, and other more urban locations.

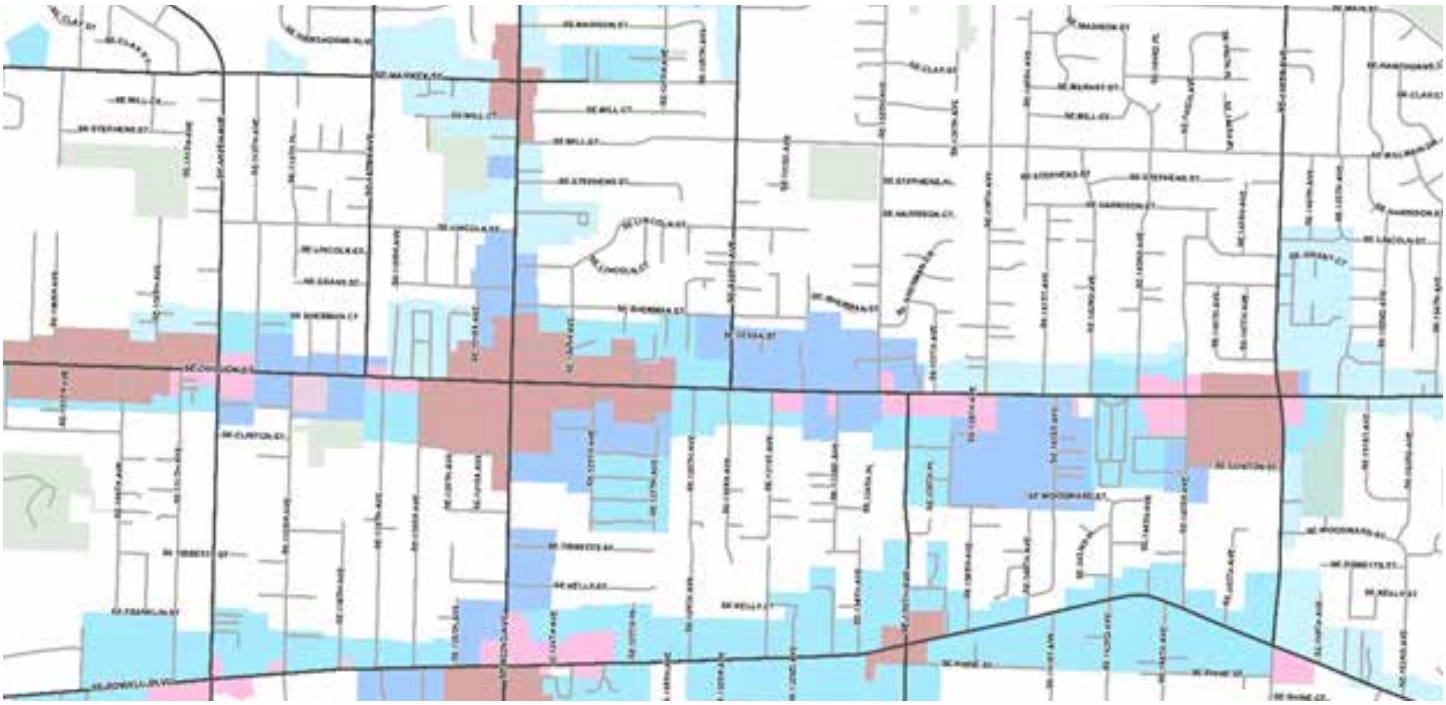
Lack of Connectivity in the Multi-Dwelling Zones in East Portland

Citywide, most multi-dwelling zones exist as narrow bands adjacent to major arterial streets or commercial streets. At a macro level, they create a linear form of multi-dwelling zones.

In East Portland, this linear pattern of multi- dwelling zones is starkly evident along east-west arterials. But several stretches can also be found on north-south arterials, especially on the southern end of 122nd Avenue, and several segments along 148th and 162nd Avenues between Division and Sandy. Notable east-west stretches of multi-dwelling zoning line Division Street, in and near the Midway town center; and also along Powell Blvd; Stark Street; Burnside; and Sandy Blvd.

The Jade District reflects an unusual pattern: It is one of the largest contiguous areas in the city of multi-dwelling zones—mostly R1 and R2—bounded by major arterial commercial streets, rather than bisected by one.

SE Division Street, in the Midway town center – linear band of multi-dwelling zones.



The Jade district – broad area of multi-dwelling zones.

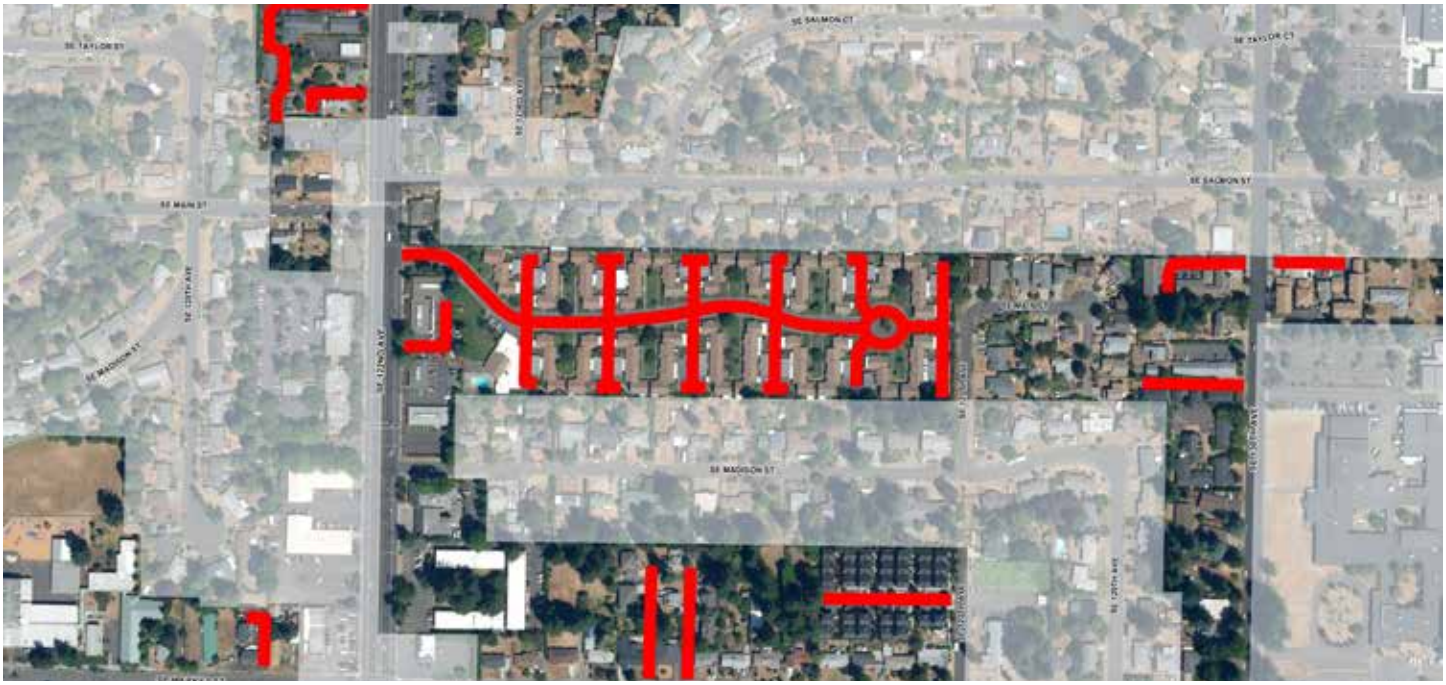
The following set of images focuses on that lack of connectivity in East Portland, a by-product of the automobile mobility that has been prioritized in that area since the post-war era.

The Jade District encompasses a large area of R1 and R2 zoning bounded by SE Division Street and Powell Blvd and 82nd Ave to the west and I-205 to the east. The area contains several unpaved streets and numerous dead-end private streets or driveways (red). Development of multi-dwelling projects that require automobile access often result in dead-end private driveways—not optimal for connectivity.

Near Powell Blvd at 136th Avenue, large properties developed into multi-dwelling projects lack connectivity. Without a street plan, development of deep lots often results in a large portion of the property devoted to automobile access and circulation (also often required for fire access). As in the Jade District, this usually results in dead-end private streets or driveways.

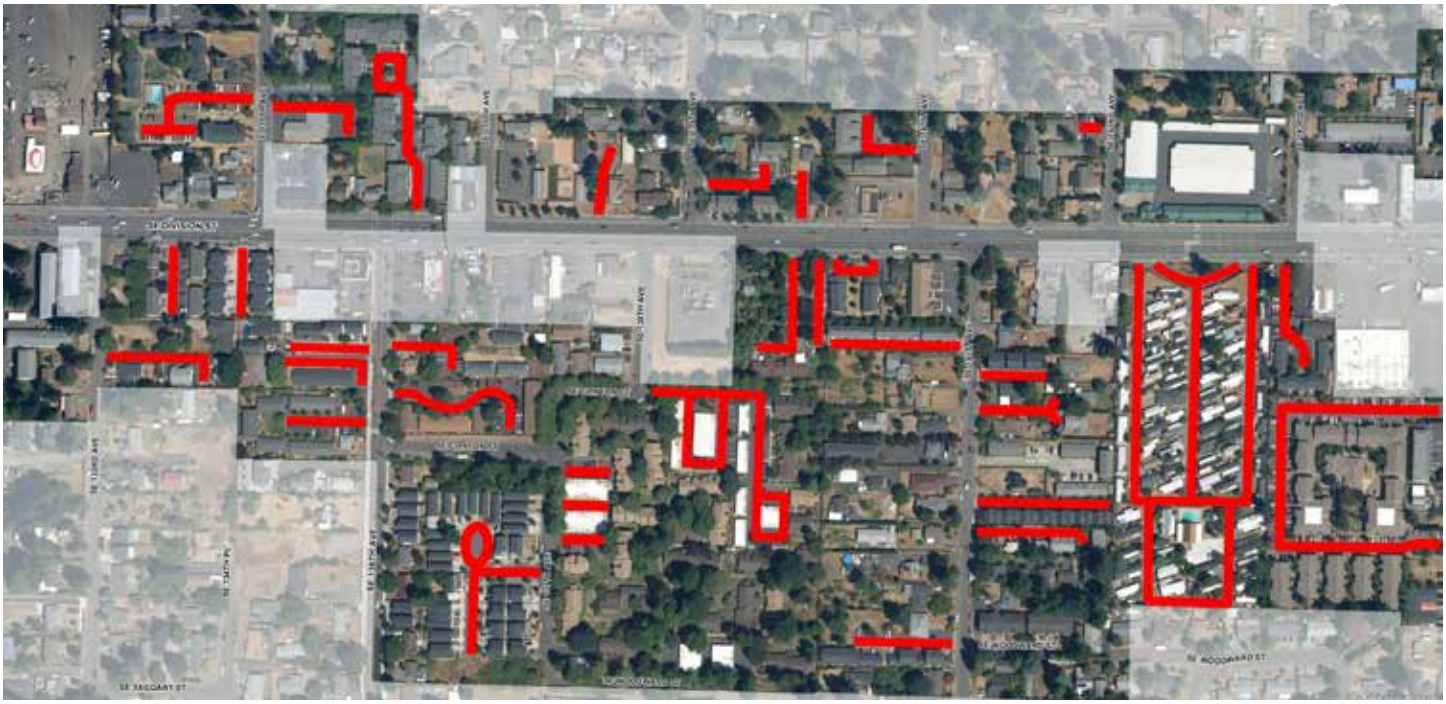
Burnside and Stark near 148th Avenue, the dead-end driveway pattern often repeats itself with each multi-dwelling project.

Along 162nd Avenue in R3 zones, the pattern is familiar: disconnected private driveways.



At 122nd Avenue near Main and Salmon Street, a private street stops short of connecting to a public street. It forms a daisy chain of de facto cul-de-sacs. And not unlike other neighborhoods of East Portland, the majority of multi-dwelling projects in this area result in dead-end private driveways.

125th Ave, just south of Division Street, serves as the only access to multiple blocks of multi-dwelling units. These multi-dwelling units face either a public street or private street. But it is difficult to tell the difference between the public and private street here; they essentially look and feel the same. Altogether, these properties essentially comprise one large disconnected multi-dwelling development complex.



Near 136th Avenue, just south of Division Street, access to multi-dwelling housing is typically in the form of a dead-end private driveway. Larger multi-dwelling properties often have loops within the property, but generally still only one entrance/outlet from the property.

Connectivity Requirements

There are a number of provisions that require the establishment of a connected street network in Portland City Code, the Portland Transportation Plan, which is part of the Portland Comprehensive Plan, and in the Metro Regional Transportation Functional Plan (RTFP). In practice these rules are most often implemented in one of the following ways:

1. When new developments or land divisions are proposed, the creation of new street connections may be required through the development review permitting process.
2. Local Improvement District projects may create new street connections. While these projects most commonly are used to pave or improve existing streets that do not meet stormwater, pedestrian, or width standards, they can also be used to construct new streets.

In the Portland City Code, Title 17.88 and Title 33.654, specifically dictate the spacing of street connections. Title 17.88 focuses on ensuring that there is an adequate level of street connections to serve a variety of functions. It mandates that all buildings must be built in close proximity to through streets, or that they have access to streets through roadway connections. This chapter requires that new residential developments must provide for the establishment of full street connections that are spaced no further than 530 feet apart. Pedestrian and bicycle connections are also required with a spacing of no greater than 330 feet in areas where full street connections are not possible. This chapter also requires that new developments limit the use of cul-de-sacs or closed street systems.

Title 33.654 of the Portland Zoning Code mandates the establishment of a connected street grid for development proposals that include land divisions. It requires that streets provide for the movement of pedestrians, bicycles, and motor vehicles. Title 33.654 also includes the requirement for spacing of through streets that are no further than 530 feet apart and pedestrian connections that are no more than 330 feet apart. This chapter also requires that new developments must adopt the street pattern of the surrounding area if the existing street pattern meets connectivity standards. It states that dead-end streets should be no greater than 200 feet in length, and that they should serve no more than 18 dwelling units.

Under Title 33.654, land divisions must meet a variety of criteria for connectivity and/or location of rights-of-way. These regulations are intended to provide “efficient access to as many lots as possible, and enhance direct movement by pedestrians, bicycles, and motor vehicles between destinations”— provided in some cases by new public or private rights-of-way. Rights-of-way that provide connections between streets must be dedicated to the public. Various types of rights-of-way that are typically created with land divisions include:

1. Standard street
2. Dead-end street (may be private when abutting eight or fewer units)
3. Partial street
4. Easement
5. Common green
6. Shared court
7. Pedestrian connection
8. Alley

However, properties that do not go through a land division are not subject to the rights-of-way regulations in Title 33.654. In the multi-dwellings zones, many types of projects are developed without a land division, such as apartment complexes, townhouses, or clusters of detached houses built on a single property. Instead, on-site vehicle access for these developments are provided by private driveways, courts, or parking lots. In some situations, private driveways are extensive, serving multiple buildings and providing the appearance of streets.

Without the clear requirements of Title 33.654 that serve as a regulatory trigger for street connectivity, few multi-dwelling development projects have resulted in new public street or pedestrian connections. When public street connections have been provided as part of multi-dwelling development, this has typically been for large, multi-acre development projects. It has proven problematic to obtain street connections for multi-dwelling development on small sites, especially since small sites often do not have enough site area to provide space for new street connections.

At the regional level, The Metro RTFP contains street connectivity standards in chapter 3.08. The requirements for the spacing of full street connections is identical to that which is mandated in the Portland City Code; 530 feet between full street connections and 330 feet between bicycle and pedestrian connections. Chapter 3.08 also prohibits cul-de-sacs or other dead-end streets that are greater than 200 feet in length.

Street Plans

Through the planning process, neighborhoods and locations that are substandard in terms of street connectivity are identified. Master street plan maps are created to prioritize the locations where new street connections are needed. These maps are utilized by the Portland Bureau of Transportation during the permit review process to determine when new street connections should be required.

The application of these connectivity standards has led to the establishment of a compact street grid in the Portland Central City, with street spacing at intervals of 200 feet. Inner neighborhoods also typically achieve the street connectivity standards that are required in the City Code, though many blocks are larger than those of the Central City. But many blocks in outer East Portland neighborhoods have spacing of through-street connections that greatly exceed the City's connectivity standards.

The lack of street connectivity in outer neighborhoods, both eastern and western, is largely a remnant of the pattern of development that occurred there. Much of East Portland was not annexed by the City until recent decades. In these areas, development was governed by Multnomah County regulations, rather than the more stringent Portland regulations. The Jade District and Rosewood/Glenfair centers are examples of relatively recently annexed areas that have poor street connectivity. Figure 1 is representative of the existing street grid in the Jade District. The figure is intended to highlight the large number of private driveways and private streets that serve multiple dwelling units. The figure also features the construction dates of many of the driveways and private streets, demonstrating that despite the fact that the inadequate street grid is a legacy of historical development patterns, many recently developed properties have also been built as cul-de-sacs or flag lots, which exacerbates the street connectivity issues.

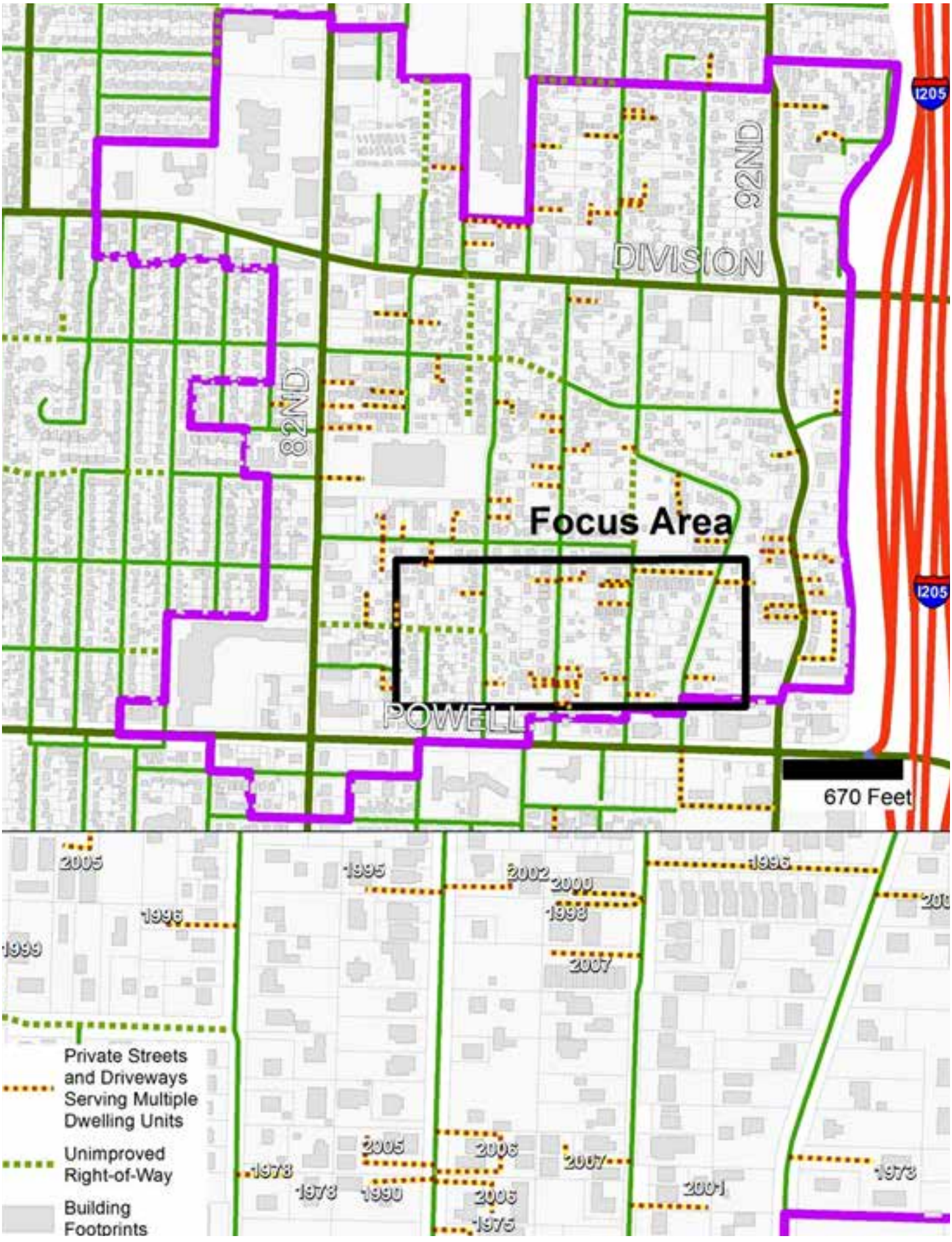


Figure 1. Jade District street grid, highlighting private streets and driveways that serve multiple dwelling units

The following diagrams, figures 2 through 5, are intended to illustrate the lack of connectivity that exists in the street networks of the Jade District and the Rosewood/Glenfair areas, both of which are designated Neighborhood Centers in East Portland. The highlighted properties in these maps are all located more than 265 feet away from either a connector street that is running in the North-South direction, or the East-West direction. These highlighted parcels represent priority locations for future street connections in the respective neighborhoods.

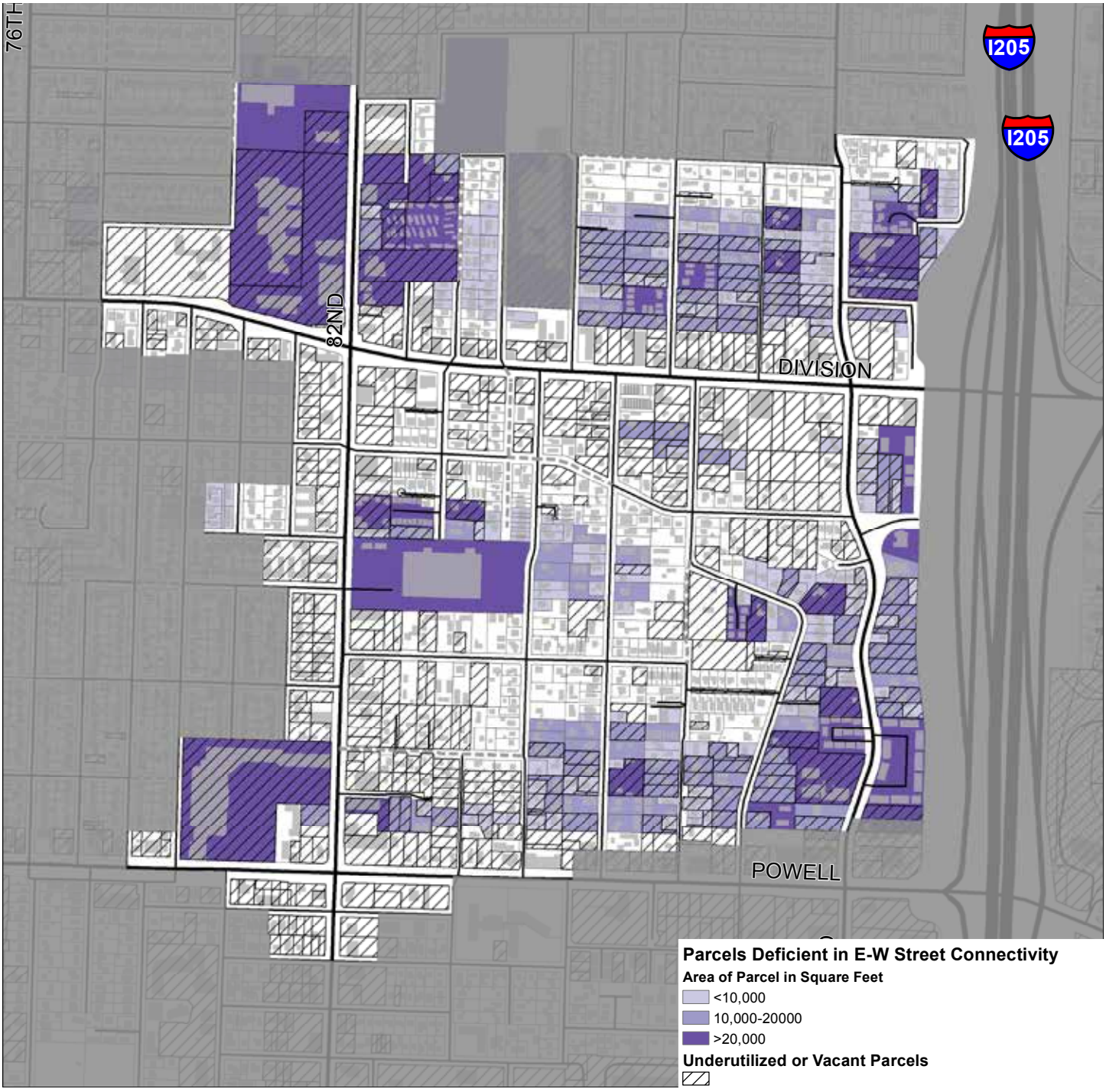


Figure 2. Deficiencies in connectivity of East-West through-streets in the Jade District.

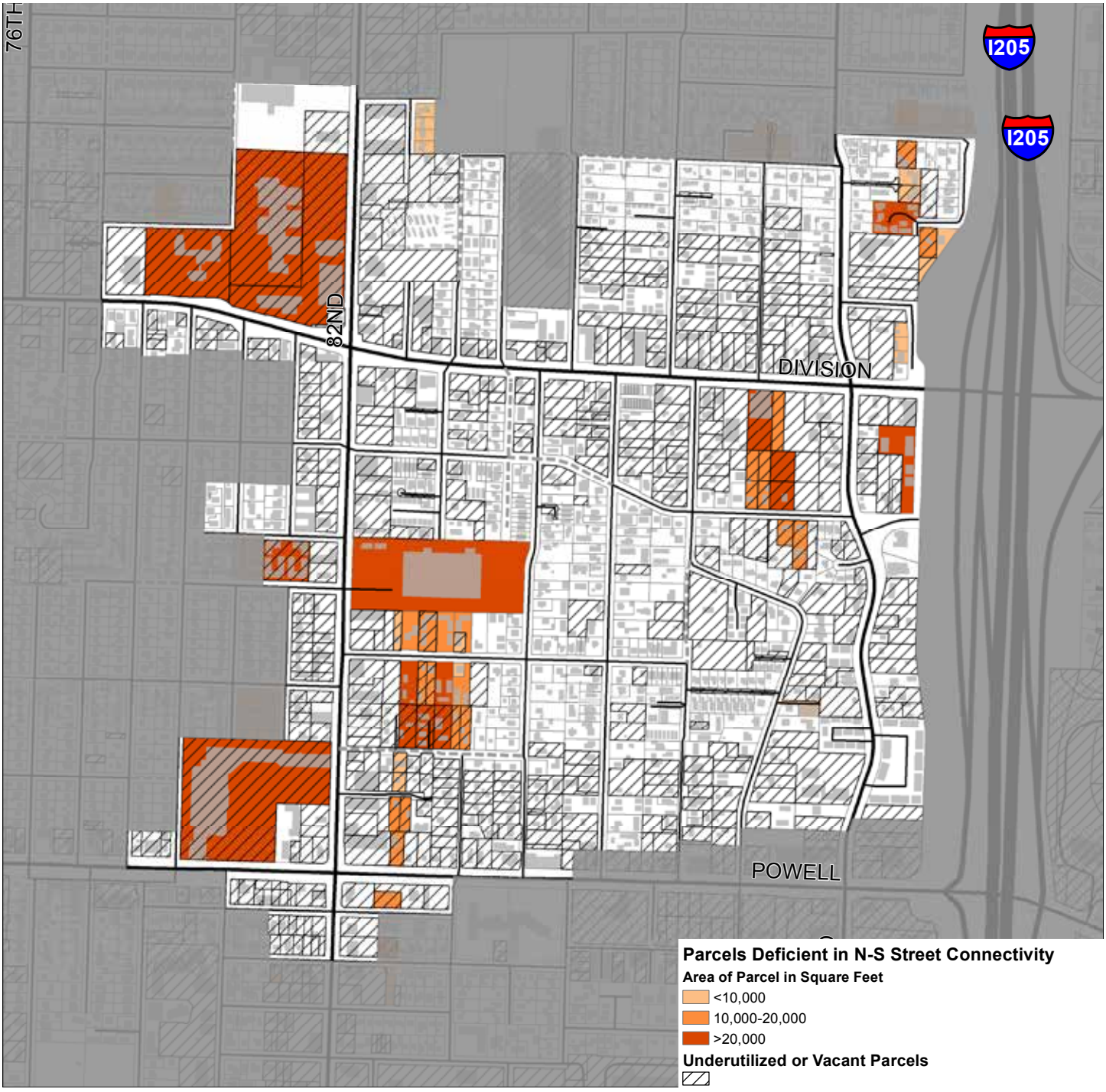


Figure 3. Deficiencies in connectivity of North-South through-streets in the Jade District.

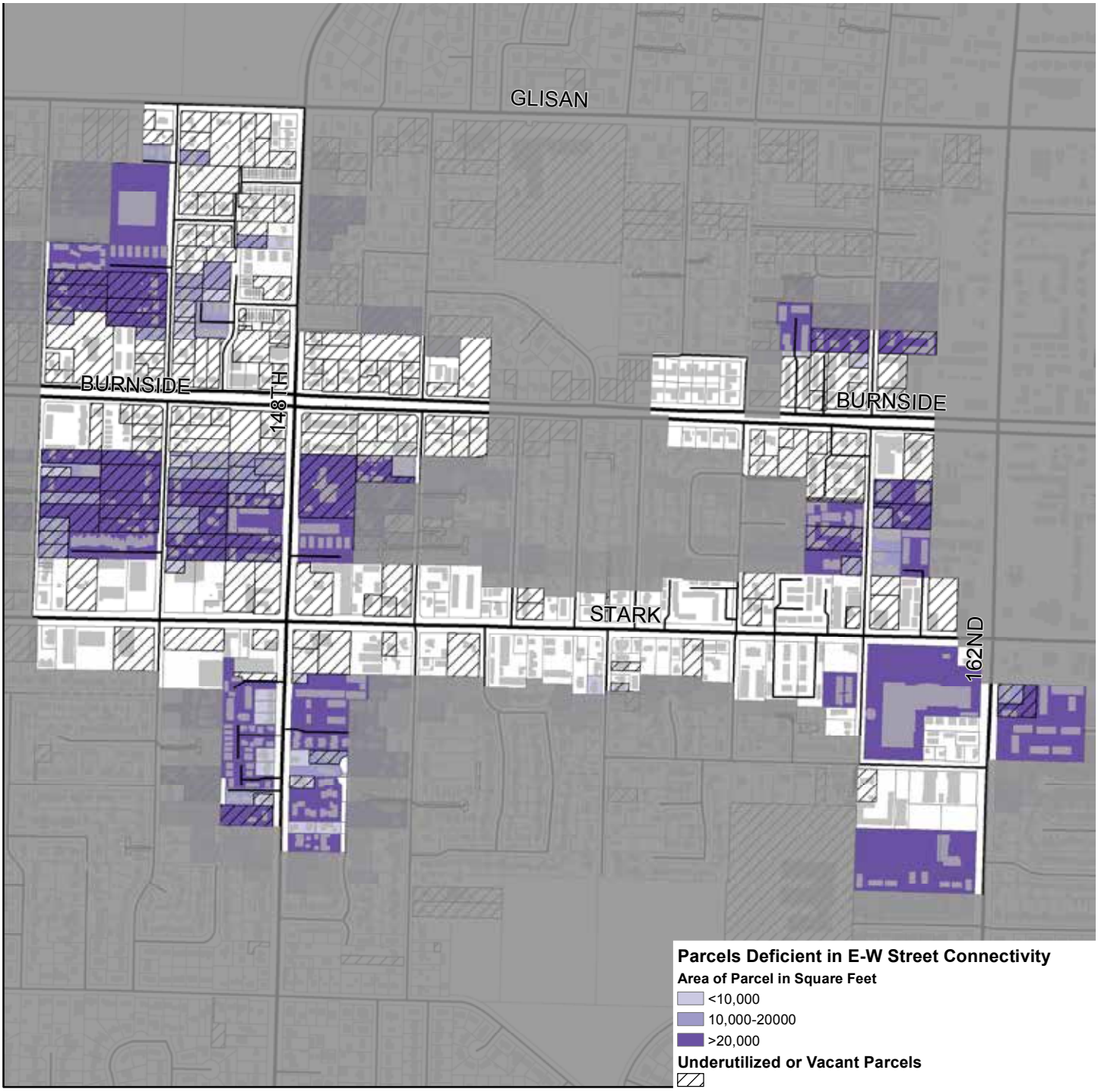


Figure 4. Deficiencies in connectivity of East-West through-streets in the Rosewood/Glenfair area.

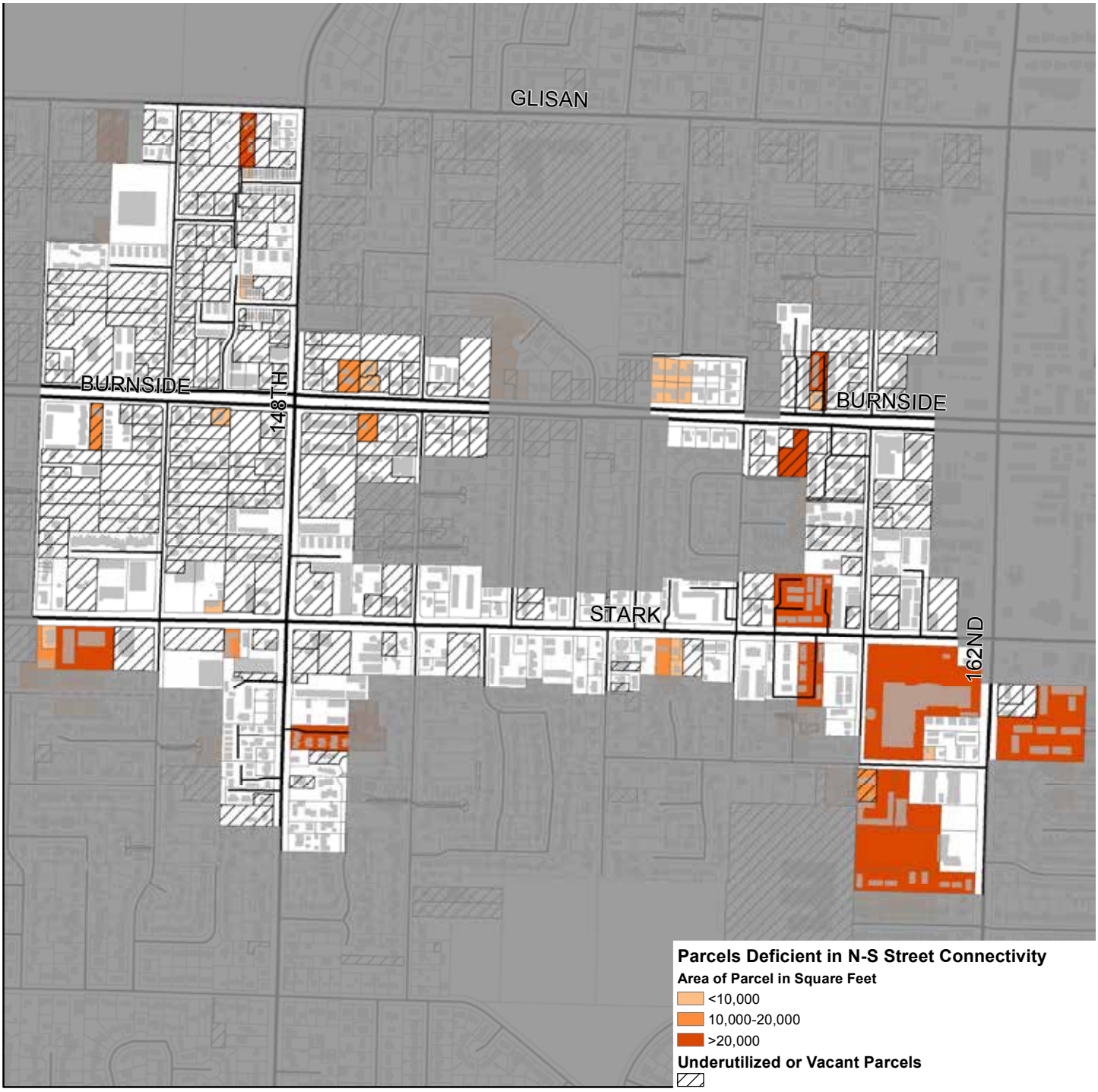


Figure 4. Deficiencies in connectivity of North-South through-streets in the Rosewood/Glenfair area.

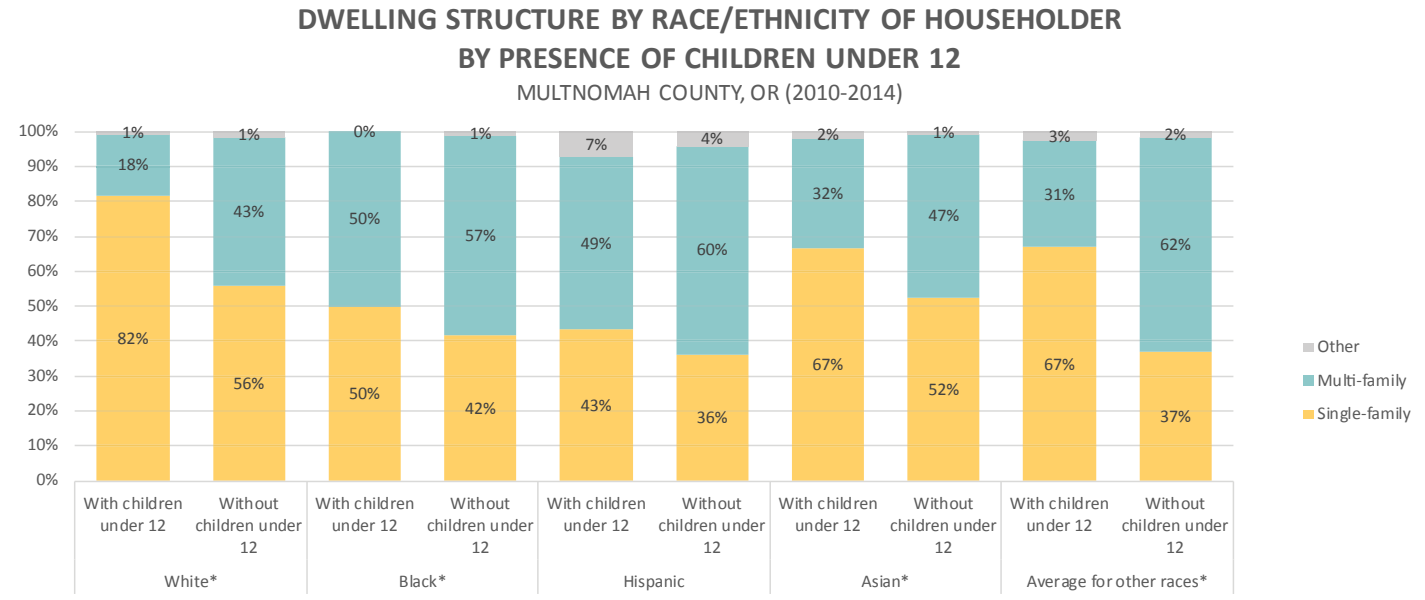
Focus Area Demographics and Housing Market Conditions

This section includes demographic and housing market information for a number of study areas that include large amounts of multi-dwelling zoning (center designation indicated in parentheses):

- **122nd and East Burnside (neighborhood center)**
- **NE 60th & Glisan (neighborhood center)**
- **Jade District (neighborhood center)**
- **Killingsworth-Interstate (town center)**
- **Midway – SE 122nd & Division (town center)**
- **Northwest District (town center)**
- **Rosewood-Glenfair (neighborhood center)**
- **St. Johns (town center)**

Two of these areas, the Jade District and the Rosewood-Glenfair areas, will be a focus of the Better Housing by Design project and of street plans to be undertaken through PBOT's Connected Centers Street Plan Project.

The East Portland centers tend to have larger proportions of families with children, as well as larger proportions of rental housing and multi-family housing, than the citywide average. This, together with the greater proportions of communities of color and lower-income households in these areas, highlights that multi-dwelling housing serves as family housing for many of Portland's communities. The chart below indicates how the percentage of households living in multi-family housing varies by race/ethnicity. For some populations, the majority of households live in multi-family housing, in contrast to the situation for white households, for whom single-family housing is the predominant housing.



* Denotes not Hispanic or Latino.
Source: IPUMS-USA, University of Minnesota. 2010-2014 ACS 5-year estimates. Portland Bureau of Planning and Sustainability.

SE 122nd Avenue and East Burnside Street

This neighborhood center, focused around the 122nd Avenue transit station, contains a large area of commercial/mixed use zoning and substantial amounts of higher-density multi-dwelling zoning (primarily R1 and RH).

Table 1: Demographic snapshot, 122nd & East Burnside.

	122nd & E Burnside					City of Portland				
	1990	2000	2010	2016	CAGR	1990	2000	2010	2016	CAGR
Area	0.79 sq. mi.					136	145	145	145	sq.mi.
Population	N/A	N/A	5,972	6,381	1.1%	486,600	529,121	583,794	620,564	1.0%
Density (per sq. mi.)	N/A	N/A	7,559	8,077	1.1%	3,578	3,649	4,026	4,280	1.0%
Households	N/A	N/A	2,295	2,423	0.9%	206,105	223,737	248,551	261,709	1.0%
Average household size	N/A	N/A	2.50	2.54	0.3%	2.30	2.30	2.28	2.31	0.0%
Income										
Median household †	N/A	N/A	N/A	$39,333	N/A	$47,310	$55,855	$54,422	$53,733	-0.2%
Per capita income	N/A	N/A	N/A	$21,107	N/A	$26,291	$31,500	$32,557	$33,118	0.3%
Age characteristics										
< 20	N/A	N/A	25.8%	25.0%	-0.5%	24.9%	23.7%	21.5%	21.0%	-0.8%
> 64	N/A	N/A	13.3%	14.7%	1.7%	14.4%	11.6%	10.4%	12.6%	0.5%
Race										
White	N/A	N/A	68.7%	66.8%	-0.5%	82.9%	77.9%	76.1%	74.7%	-0.3%
Black	N/A	N/A	7.5%	7.3%	-0.4%	6.9%	6.6%	6.3%	6.1%	-0.5%
Native American	N/A	N/A	1.4%	1.3%	-1.1%	1.2%	1.1%	1.0%	1.0%	-0.5%
Asian	N/A	N/A	8.7%	9.8%	2.2%	4.8%	6.3%	7.1%	8.0%	1.5%
Hawaiian/Pacific Islander	N/A	N/A	1.0%	1.2%	3.2%	0.3%	0.4%	0.5%	0.6%	3.3%
Some other race	N/A	N/A	7.5%	7.9%	0.9%	1.1%	3.5%	4.2%	4.5%	1.5%
Multi-racial	N/A	N/A	5.3%	5.8%	1.3%	2.7%	4.1%	4.7%	5.1%	1.3%
Ethnicity										
Hispanic/Latino	N/A	N/A	16.0%	16.9%	0.9%	3.2%	6.8%	9.4%	10.0%	2.4%
Not Hispanic/Latino	N/A	N/A	84.0%	83.1%	-0.2%	96.8%	93.2%	90.6%	90.0%	-0.2%

† Median household income and per-capita income reflect estimated 2012 values for 2010. All dollar amounts are adjusted for inflation in 2015 chained dollars. CAGR is compound annual growth rate for 2000-2016, except for two centers at 122nd/Burnside and 60th/Glisan, which are for 2010-2016.

Source: U.S. Census Bureau; Esri Business Analyst, 2014 & 2016; Analysis by Bureau of Planning and Sustainability, 2016.

Historic demographic data for this geography is not available prior to 2010 (N/A in Table 1). In 2016, there were about 6,400 residents, which has grown by about 400 residents since 2010. The average household size of 2.5 is larger than the citywide average, which is reflective of the higher presence of children under 20 in this area. The median household income is also considerably lower than the citywide average. This area is also more racially diverse, with a third of residents identifying as a person of color. Relative to other centers, this area has a slightly higher share of residents over 64.

Table 2: Housing profile, 122nd & East Burnside.

	122nd & E Burnside	City of Portland
Total housing units (2010)	2,458	265,444
Vacancy rate	6.6%	6.4%
Occupied units	2,295	248,551
Owner-occupied	47%	54%
Renter-occupied	53%	46%
Multi-family share of units	54%	40%
Current rental market (Nov 2016) †		
1-bedroom	$900	$1,150
2-bedroom	$1,223	$1,310
3-bedroom	$1,695	$1,420
Single-family residential market ‡		
Median sale price		
2007 (peak)	$215,000	$285,992
2011 (trough)	$148,275	$243,900
2016 (current/peak)	$269,950	$375,000
Annual growth rate 2007-2016	2.6%	3.1%
Median price per square foot		
2007 (peak)	$168	$194
2011 (trough)	$103	$150
2016 (current/peak)	$191	$253
Annual growth rate 2007-2016	1.4%	3.0%

All dollar amounts are in current dollars. † Rental market for Portland reflects stable rates for Q3 2016. ‡ Single-family home market captures annual sales, except for 2016, which captures sales through October 2016. Grayed text reflects low sample size and should be used with caution. *Source:* U.S. Census Bureau, Census 2010; Esri Business Analyst, 2016; Trulia.com, 2016; CoStar Realty & Portland Development Commission, 2016; City of Portland and Multnomah County Assessment and Taxation, October 2016; Buildable Lands Inventory (BLI); Analysis by Bureau of Planning and Sustainability, 2016.

Housing values are generally more affordable in this area than in the rest of the city and other Centers, but appreciation coming out of the recession has been lower-than-average at 2.6% (Table 2). There are also fewer occupied housing units in this area, and vacancy rates are higher relative to other centers (about 6.6% in 2010). The current rental market for 1- and 2-bedroom units are lower, but asking rent for two-bedroom units has increased considerably starting 2014 (Figure 1).

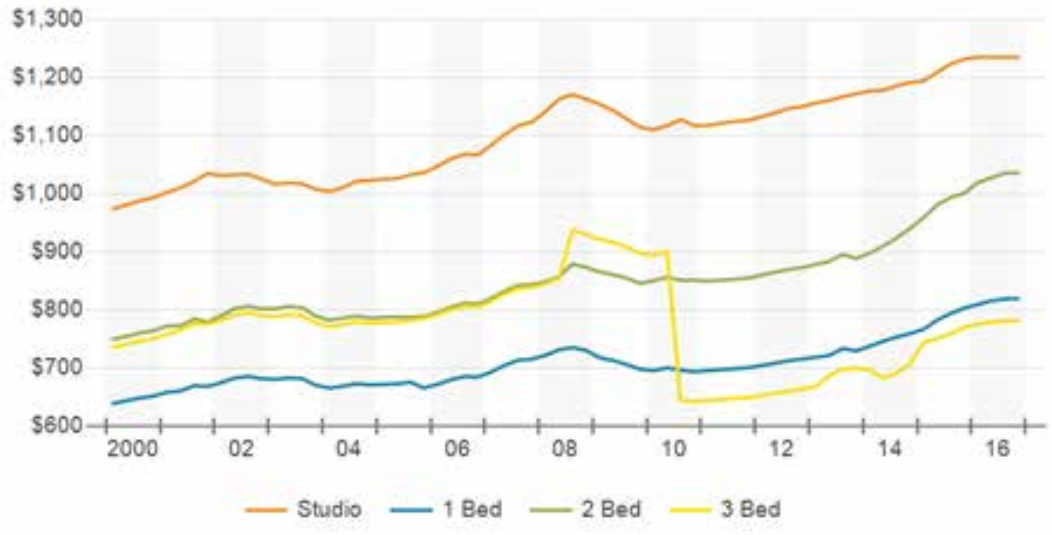


Figure 1: Asking rent by number of bedrooms, 122nd & East Burnside. Source: CoStar, PDC.

NE 60th Avenue and Glisan Street

The 60th Avenue neighborhood center is focused around a light rail station and includes large amounts of medium-density multi-dwelling zoning (R2 and R1). A major employer, Providence Medical Center, is located adjacent to the area.

Table 3: Demographic snapshot, Center (NE 60th & Glisan).

	Center (NE 60th & Glisan)					City of Portland				
	1990	2000	2010	2016	CAGR	1990	2000	2010	2016	CAGR
Area	0.79 sq. mi.					136	145	145	145	sq.mi.
Population	N/A	N/A	6,519	6,691	0.4%	486,600	529,121	583,794	620,564	1.0%
Density (per sq. mi.)	N/A	N/A	8,252	8,470	0.4%	3,578	3,649	4,026	4,280	1.0%
Households	N/A	N/A	3,174	3,214	0.2%	206,105	223,737	248,551	261,709	1.0%
Average household size	N/A	N/A	2.02	2.05	0.2%	2.30	2.30	2.28	2.31	0.0%
Income										
Median household †	N/A	N/A	N/A	$49,206	N/A	$47,310	$55,855	$54,422	$53,733	-0.2%
Per capita income	N/A	N/A	N/A	$30,051	N/A	$26,291	$31,500	$32,557	$33,118	0.3%
Age characteristics										
< 20	N/A	N/A	17.9%	17.3%	-0.5%	24.9%	23.7%	21.5%	21.0%	-0.8%
> 64	N/A	N/A	9.8%	11.5%	2.8%	14.4%	11.6%	10.4%	12.6%	0.5%
Race										
White	N/A	N/A	80.3%	79.0%	-0.3%	82.9%	77.9%	76.1%	74.7%	-0.3%
Black	N/A	N/A	5.6%	5.4%	-0.6%	6.9%	6.6%	6.3%	6.1%	-0.5%
Native American	N/A	N/A	1.2%	1.2%	-0.6%	1.2%	1.1%	1.0%	1.0%	-0.5%
Asian	N/A	N/A	5.5%	6.4%	2.4%	4.8%	6.3%	7.1%	8.0%	1.5%
Hawaiian/Pacific Islander	N/A	N/A	0.1%	0.2%	3.0%	0.3%	0.4%	0.5%	0.6%	3.3%
Some other race	N/A	N/A	2.5%	2.7%	1.1%	1.1%	3.5%	4.2%	4.5%	1.5%
Multi-racial	N/A	N/A	4.8%	5.2%	1.4%	2.7%	4.1%	4.7%	5.1%	1.3%
Ethnicity										
Hispanic/Latino	N/A	N/A	6.7%	7.2%	1.3%	3.2%	6.8%	9.4%	10.0%	2.4%
Not Hispanic/Latino	N/A	N/A	93.3%	92.8%	-0.1%	96.8%	93.2%	90.6%	90.0%	-0.2%

†Median household income and per-capita income reflect estimated 2012 values for 2010. All dollar amounts are adjusted for inflation in 2015 chained dollars. CAGR is compound annual growth rate for 2010-2016

Source: U.S. Census Bureau; Esri Business Analyst, 2014 & 2016; Analysis by Bureau of Planning and Sustainability, 2016.

Historic demographic data for this geography is not available prior to 2010 (N/A in Table 3). In 2016, there were about 6,700 residents, which has grown by about 200 residents since 2010. The average household size of 2.0 is smaller than the citywide average. The area has slightly lower-than-average median incomes and has slightly less racial diversity (compared to the city as a whole). Relative to other Centers, this area has a slightly higher share of residents over 64.

Table 4: Housing profile, Center (NE 60th & Glisan).

	Center (NE 60th & Glisan)	City of Portland
Total housing units (2010)	3,313	265,444
Vacancy rate	4.2%	6.4%
Occupied units	3,174	248,551
Owner-occupied	43%	54%
Renter-occupied	57%	46%
Multi-family share of units	37%	40%
Current rental market (Nov 2016) †		
1-bedroom	$1,129	$1,150
2-bedroom	$1,468	$1,310
3-bedroom	$2,029	$1,420
Single-family residential market ‡		
Median sale price		
2007 (peak)	$279,000	$285,992
2011 (trough)	$252,400	$243,900
2016 (current/peak)	$399,500	$375,000
Annual growth rate 2007-2016	4.1%	3.1%
Median price per square foot		
2007 (peak)	$222	$194
2011 (trough)	$178	$150
2016 (current/peak)	$284	$253
Annual growth rate 2007-2016	2.8%	3.0%

All dollar amounts are in current dollars. † Rental market for Portland reflects stable rates for Q3 2016. ‡ Single-family home market captures annual sales, except for 2016, which captures sales through October 2016. Grayed text reflects low sample size and should be used with caution. *Source:* U.S. Census Bureau, Census 2010; Esri Business Analyst, 2016; Trulia.com, 2016; CoStar Realty & Portland Development Commission, 2016; City of Portland and Multnomah County Assessment and Taxation, October 2016; Buildable Lands Inventory (BLI); Analysis by Bureau of Planning and Sustainability, 2016.

Home values and trends in this area are similar to the citywide average, but they have appreciated faster from 2007 to 2016 at 4.1% per year (Table 4). The vacancy rate is much lower than other Centers at 4.2%, and the share of multi-family units is also lower at 37%. Rents are more expensive than the citywide average, and they have spiked starting 2015 (Figure 2).

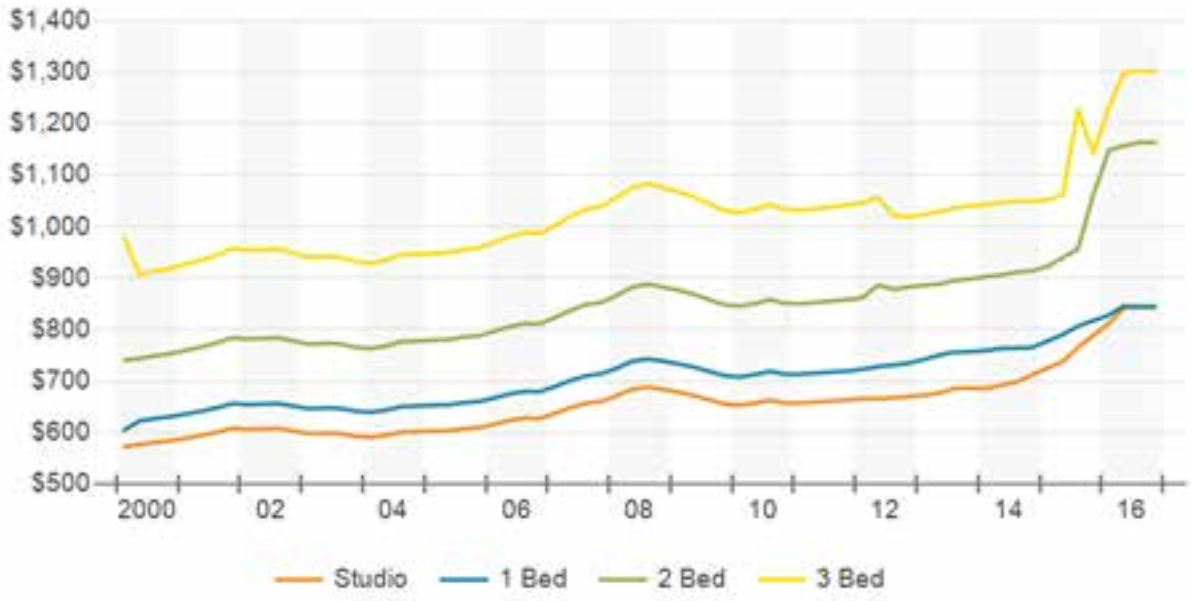


Figure 2: Asking rent by number of bedrooms, Center (NE 60th & Glisan). Source: CoStar, PDC.

Jade District

The Jade District neighborhood center, anchored by commercial areas along its major corridors, is marked by higher rates of population growth and considerable diversity, with a relatively large Asian population. The area includes large amounts of medium-density multi-dwelling zoning (R2 and R1)

Table 5: Demographic snapshot, Jade District.

	Jade District					City of Portland				
	1990	2000	2010	2016	CAGR	1990	2000	2010	2016	CAGR
Area	0.79 sq. mi.					136	145	145	145	sq.mi.
Population	4,276	4,967	6,681	6,859	2.0%	486,600	529,121	583,794	620,564	1.0%
Density (per sq. mi.)	5,413	6,287	8,457	8,682	2.0%	3,578	3,649	4,026	4,280	1.0%
Households	1,812	2,022	2,629	2,654	1.7%	206,105	223,737	248,551	261,709	1.0%
Average household size	2.29	2.41	2.54	2.58	0.4%	2.30	2.30	2.28	2.31	0.0%
Income										
Median household †	$39,392	$48,527	$44,847	$33,103	-2.4%	$47,310	$55,855	$54,422	$53,733	-0.2%
Per capita income	$19,570	$23,095	$20,935	$17,842	-1.6%	$26,291	$31,500	$32,557	$33,118	0.3%
Age characteristics										
< 20	23.9%	24.6%	25.5%	25.0%	0.1%	24.9%	23.7%	21.5%	21.0%	-0.8%
> 64	21.1%	14.8%	11.6%	12.9%	-0.8%	14.4%	11.6%	10.4%	12.6%	0.5%
Race										
White	83.3%	69.4%	55.1%	52.6%	-1.7%	82.9%	77.9%	76.1%	74.7%	-0.3%
Black	1.3%	2.8%	8.1%	7.6%	6.4%	6.9%	6.6%	6.3%	6.1%	-0.5%
Native American	1.3%	1.1%	1.6%	1.4%	1.6%	1.2%	1.1%	1.0%	1.0%	-0.5%
Asian	10.9%	18.1%	22.9%	25.4%	2.1%	4.8%	6.3%	7.1%	8.0%	1.5%
Hawaiian/Pacific Islander	0.1%	0.4%	1.3%	1.5%	8.1%	0.3%	0.4%	0.5%	0.6%	3.3%
Some other race	1.1%	3.5%	6.0%	6.2%	3.6%	1.1%	3.5%	4.2%	4.5%	1.5%
Multi-racial	2.1%	4.7%	5.0%	5.3%	0.8%	2.7%	4.1%	4.7%	5.1%	1.3%
Ethnicity										
Hispanic/Latino	2.9%	8.0%	11.5%	11.9%	2.5%	3.2%	6.8%	9.4%	10.0%	2.4%
Not Hispanic/Latino	97.1%	92.0%	88.5%	88.1%	-0.3%	96.8%	93.2%	90.6%	90.0%	-0.2%

†Median household income and per-capita income reflect estimated 2012 values for 2010. All dollar amounts are adjusted for inflation in 2015 chained dollars. CAGR is compound annual growth rate for 2000-2016. *Source:* U.S. Census Bureau; Esri Business Analyst, 2014 & 2016; Analysis by Bureau of Planning and Sustainability, 2016.

The Jade District is most notable for its racial and ethnic diversity, with almost half of all residents identifying as a person of color in 2016 (Table 5). The area has seen a moderate increase in diversity since 1990, with over 2,500 persons of color moving to the area by 2016, about half of whom were Asian or Asian American. The Jade District is also lower income, and the median household income is $20,000 less per year than the citywide average.

Table 6: Housing profile, Jade District.

	Jade District	City of Portland
Total housing units (2010)	2,764	265,444
Vacancy rate	4.9%	6.4%
Occupied units	2,629	248,551
Owner-occupied	43%	54%
Renter-occupied	57%	46%
Multi-family share of units	45%	40%
Current rental market (Nov 2016) †		
1-bedroom	$925	$1,150
2-bedroom	$1,100	$1,310
3-bedroom	$1,560	$1,420
Single-family residential market ‡		
Median sale price		
2007 (peak)	$234,000	$285,992
2011 (trough)	$180,000	$243,900
2016 (current/peak)	$320,000	$375,000
Annual growth rate 2007-2016	3.5%	3.1%
Median price per square foot		
2007 (peak)	$171	$194
2011 (trough)	$129	$150
2016 (current/peak)	$229	$253
Annual growth rate 2007-2016	3.3%	3.0%

All dollar amounts are in current dollars. †Rental market for Portland reflects stable rates for Q3 2016. ‡Single-family home market captures annual sales, except for 2016, which captures sales through October 2016. Grayed text reflects low sample size and should be used with caution. *Source:* U.S. Census Bureau, Census 2010; Esri Business Analyst, 2016; Trulia.com, 2016; CoStar Realty & Portland Development Commission, 2016; City of Portland and Multnomah County Assessment and Taxation, October 2016; Buildable Lands Inventory (BLI); Analysis by Bureau of Planning and Sustainability, 2016.

The value of single-family homes in the Jade District is slightly less than the citywide average, but it has appreciated at a slightly faster rate since 2007 (Table 6). Rents in the area are low, but there are few available units, which is confirmed by its high vacancy rate. Asking rent for two-bedroom units has increased considerably starting in 2015 (Figure 3).

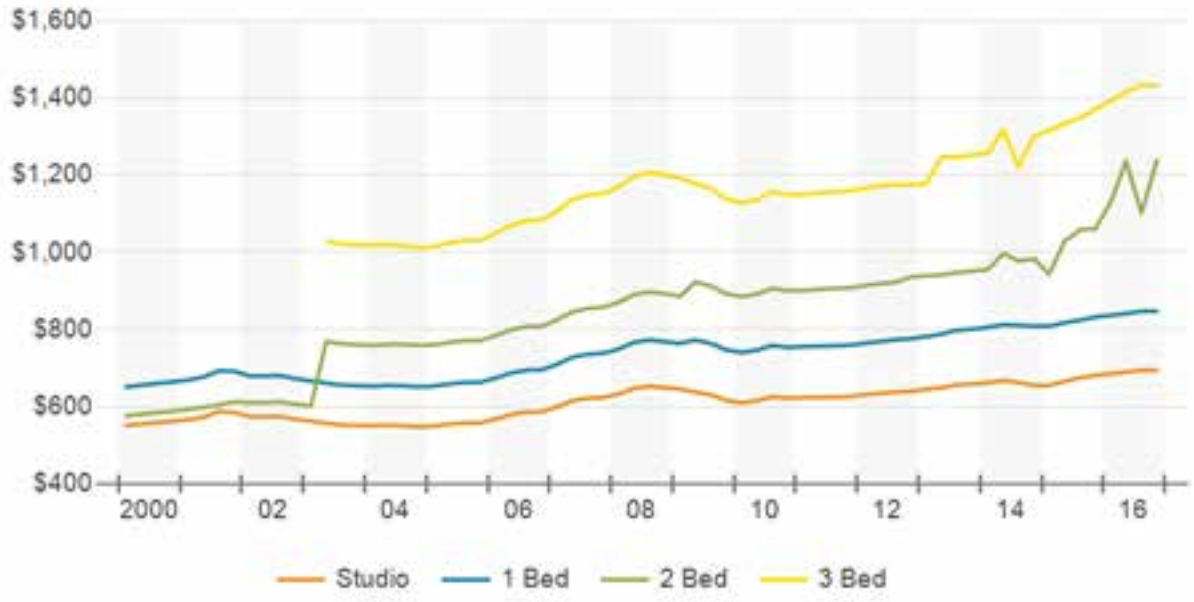


Figure 3: Asking rent by number of bedrooms, Jade District. Source: CoStar, PDC.

Killingsworth-Interstate

The Killingsworth-Interstate town center, centered around the Killingsworth commercial corridor and a Portland Community College campus, has been experiencing gentrification since the 1990s, particularly since installing the Yellow MAX line. The area includes large amounts of high-density multi-dwelling zoning (primarily RH) along the Interstate light rail corridor.

Table 7: Demographic snapshot, Killingsworth-Interstate.

	Killingsworth-Interstate					City of Portland				
	1990	2000	2010	2016	CAGR	1990	2000	2010	2016	CAGR
Area	0.79 sq. mi.					136	145	145	145	sq.mi.
Population	6,460	6,631	6,577	7,218	0.5%	486,600	529,121	583,794	620,564	1.0%
Density (per sq. mi.)	8,177	8,394	8,325	9,137	0.5%	3,578	3,649	4,026	4,280	1.0%
Households	2,449	2,587	2,903	3,146	1.2%	206,105	223,737	248,551	261,709	1.0%
Average household size	2.59	2.54	2.24	2.28	-0.7%	2.30	2.30	2.28	2.31	0.0%
Income										
Median household †	$31,471	$41,380	$39,028	$46,509	0.7%	$47,310	$55,855	$54,422	$53,733	-0.2%
Per capita income	$18,433	$21,957	$22,481	$28,516	1.6%	$26,291	$31,500	$32,557	$33,118	0.3%
Age characteristics										
< 20	31.8%	29.2%	20.7%	20.9%	-2.1%	24.9%	23.7%	21.5%	21.0%	-0.8%
> 64	11.7%	7.4%	6.8%	8.3%	0.7%	14.4%	11.6%	10.4%	12.6%	0.5%
Race										
White	52.6%	47.0%	63.7%	62.9%	1.8%	82.9%	77.9%	76.1%	74.7%	-0.3%
Black	35.5%	33.0%	20.6%	20.1%	-3.0%	6.9%	6.6%	6.3%	6.1%	-0.5%
Native American	1.7%	1.4%	1.3%	1.3%	-0.4%	1.2%	1.1%	1.0%	1.0%	-0.5%
Asian	4.5%	3.8%	3.6%	4.2%	0.7%	4.8%	6.3%	7.1%	8.0%	1.5%
Hawaiian/Pacific Islander	0.8%	1.0%	0.6%	0.6%	-2.8%	0.3%	0.4%	0.5%	0.6%	3.3%
Some other race	2.3%	6.5%	4.4%	4.7%	-2.1%	1.1%	3.5%	4.2%	4.5%	1.5%
Multi-racial	2.6%	7.3%	5.7%	6.2%	-1.1%	2.7%	4.1%	4.7%	5.1%	1.3%
Ethnicity										
Hispanic/Latino	5.9%	11.4%	10.6%	11.3%	-0.1%	3.2%	6.8%	9.4%	10.0%	2.4%
Not Hispanic/Latino	94.1%	88.6%	89.4%	88.7%	0.0%	96.8%	93.2%	90.6%	90.0%	-0.2%

† Median household income and per-capita income reflect estimated 2012 values for 2010. All dollar amounts are adjusted for inflation in 2015 chained dollars. CAGR is compound annual growth rate for 2000-2016. *Source:* U.S. Census Bureau; Esri Business Analyst, 2014 & 2016; Analysis by Bureau of Planning and Sustainability, 2016.

The Killingsworth-Interstate area was identified as having ongoing gentrification and displacement pressures. Indeed, between 1990 and 2016 the area lost over 800 Black residents while it gained over 1,100 white residents (Table 7). Despite the loss in diversity, the area is still a strong Black community, with 20% of the population identifying as Black. The area has few older adults, at only 8% over 64.

Table 8: Housing profile, Killingsworth-Interstate.

	Killingsworth-Interstate	City of Portland
Total housing units (2010)	3,043	265,444
Vacancy rate	4.6%	6.4%
Occupied units	2,903	248,551
Owner-occupied	43%	54%
Renter-occupied	57%	46%
Multi-family share of units	35%	40%
Current rental market (Nov 2016) †		
1-bedroom	$1,328	$1,150
2-bedroom	$1,629	$1,310
3-bedroom	$1,962	$1,420
Single-family residential market ‡		
Median sale price		
2007 (peak)	$298,500	$285,992
2011 (trough)	$252,500	$243,900
2016 (current/peak)	$427,500	$375,000
Annual growth rate 2007-2016	4.1%	3.1%
Median price per square foot		
2007 (peak)	$211	$194
2011 (trough)	$171	$150
2016 (current/peak)	$298	$253
Annual growth rate 2007-2016	3.9%	3.0%

All dollar amounts are in current dollars. †Rental market for Portland reflects stable rates for Q3 2016. ‡Single-family home market captures annual sales, except for 2016, which captures sales through October 2016. Grayed text reflects low sample size and should be used with caution. *Source:* U.S. Census Bureau, Census 2010; Esri Business Analyst, 2016; Trulia.com, 2016; CoStar Realty & Portland Development Commission, 2016; City of Portland and Multnomah County Assessment and Taxation, October 2016; Buildable Lands Inventory (BLI); Analysis by Bureau of Planning and Sustainability, 2016.

The Killingsworth-Interstate housing market is characterized by low vacancy rates (4.6%) and a much higher share of single-family units at 65% (Table 8). Home values have increased faster here than other places coming out of the recession, growing at 4.1% per year between 2011 and 2016. For two-bedroom units, stable asking rents increased almost $200 in two years (Figure 4).

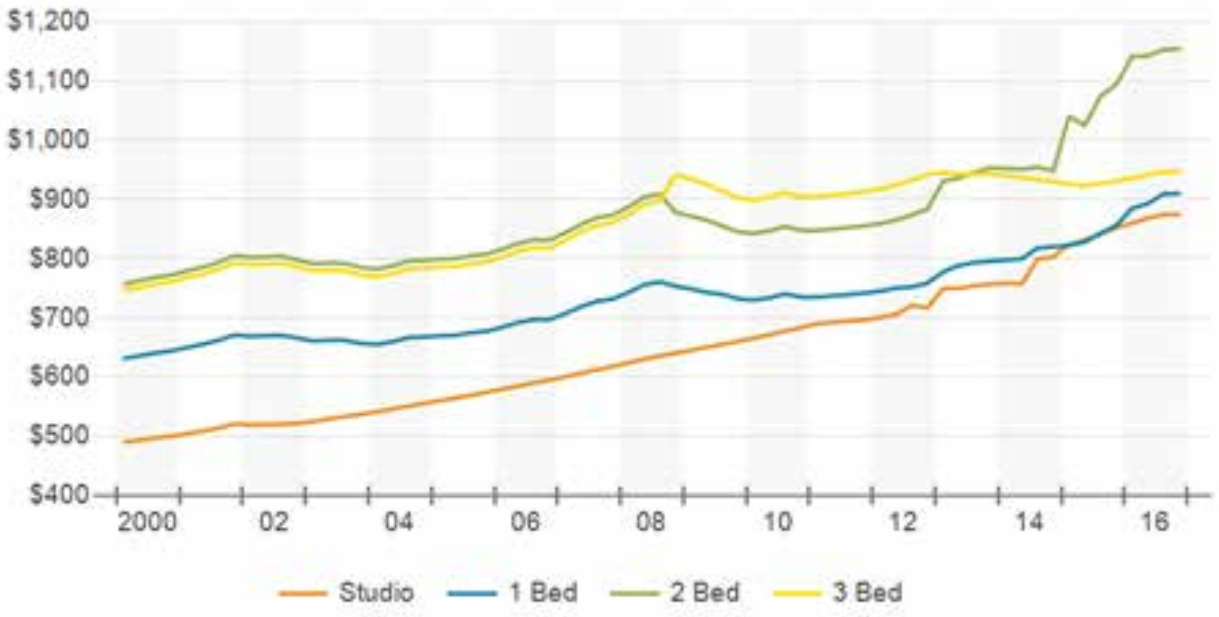


Figure 4: Asking rent by number of bedrooms, Killingsworth-Interstate. Source: CoStar, PDC.

Midway [SE 122nd and Division]

The Midway town center lies east of I-205 and is anchored by shopping centers at SE 122nd and Division. This area has become increasingly diverse since 1990 and includes substantial amounts of medium-density multi-dwelling zoning (R2 and R1). along its major corridors

Table 9: Demographic snapshot, Midway (SE 122nd & Division).

	Midway (SE 122nd & Division)					City of Portland				
	1990	2000	2010	2016	CAGR	1990	2000	2010	2016	CAGR
Area	0.79 sq. mi.					136	145	145	145	sq.mi.
Population	5,085	6,242	8,055	8,661	2.1%	486,600	529,121	583,794	620,564	1.0%
Density (per sq. mi.)	6,437	7,901	10,196	10,963	2.1%	3,578	3,649	4,026	4,280	1.0%
Households	2,098	2,281	2,771	2,931	1.6%	206,105	223,737	248,551	261,709	1.0%
Average household size	2.38	2.70	2.85	2.90	0.4%	2.30	2.30	2.28	2.31	0.0%
Income										
Median household †	$39,953	$46,255	$43,109	$37,106	-1.4%	$47,310	$55,855	$54,422	$53,733	-0.2%
Per capita income	$18,406	$20,664	$19,742	$16,099	-1.5%	$26,291	$31,500	$32,557	$33,118	0.3%
Age characteristics										
< 20	28.9%	31.8%	31.7%	30.4%	-0.3%	24.9%	23.7%	21.5%	21.0%	-0.8%
> 64	13.0%	10.2%	8.8%	10.1%	0.0%	14.4%	11.6%	10.4%	12.6%	0.5%
Race										
White	87.9%	75.7%	62.5%	60.2%	-1.4%	82.9%	77.9%	76.1%	74.7%	-0.3%
Black	1.2%	3.1%	7.7%	7.4%	5.5%	6.9%	6.6%	6.3%	6.1%	-0.5%
Native American	1.4%	1.1%	1.2%	1.1%	0.1%	1.2%	1.1%	1.0%	1.0%	-0.5%
Asian	4.9%	8.6%	12.7%	14.5%	3.3%	4.8%	6.3%	7.1%	8.0%	1.5%
Hawaiian/Pacific Islander	0.1%	0.3%	1.2%	1.4%	11.2%	0.3%	0.4%	0.5%	0.6%	3.3%
Some other race	1.5%	6.7%	9.9%	10.3%	2.7%	1.1%	3.5%	4.2%	4.5%	1.5%
Multi-racial	3.0%	4.5%	4.8%	5.1%	0.8%	2.7%	4.1%	4.7%	5.1%	1.3%
Ethnicity										
Hispanic/Latino	3.4%	11.2%	17.6%	18.3%	3.1%	3.2%	6.8%	9.4%	10.0%	2.4%
Not Hispanic/Latino	96.6%	88.8%	82.4%	81.7%	-0.5%	96.8%	93.2%	90.6%	90.0%	-0.2%

†Median household income and per-capita income reflect estimated 2012 values for 2010. All dollar amounts are adjusted for inflation in 2015 chained dollars. CAGR is compound annual growth rate for 2000-2016. *Source:* U.S. Census Bureau; Esri Business Analyst, 2014 & 2016; Analysis by Bureau of Planning and Sustainability, 2016.

Midway is a quickly growing center, adding over 3,000 residents between 1990 and 2010 (Table 9). The area has a much higher average household size (2.9 in 2016) and share of children (30% in 2016). Median household income is slightly lower in this area, at $37,000 in 2016. Midway is more diverse than other centers, with about 40% persons of color. There is a higher share of Asians/Asian-Americans (15%) and those identifying with some other race (10%).

Table 10: Housing profile, Midway (SE 122nd & Division).

	Midway (SE 122nd & Division)	City of Portland
Total housing units (2010)	2,930	265,444
Vacancy rate	5.4%	6.4%
Occupied units	2,771	248,551
Owner-occupied	42%	54%
Renter-occupied	58%	46%
Multi-family share of units	56%	40%
Current rental market (Nov 2016) †		
1-bedroom	$800	$1,150
2-bedroom	$1,115	$1,310
3-bedroom	N/A	$1,420
Single-family residential market ‡		
Median sale price		
2007 (peak)	$224,000	$285,992
2011 (trough)	$150,000	$243,900
2016 (current/peak)	$258,000	$375,000
Annual growth rate 2007-2016	1.6%	3.1%
Median price per square foot		
2007 (peak)	$149	$194
2011 (trough)	$108	$150
2016 (current/peak)	$169	$253
Annual growth rate 2007-2016	1.4%	3.0%

All dollar amounts are in current dollars. †Rental market for Portland reflects stable rates for Q3 2016. ‡Single-family home market captures annual sales, except for 2016, which captures sales through October 2016. Grayed text reflects low sample size and should be used with caution. *Source:* U.S. Census Bureau, Census 2010; Esri Business Analyst, 2016; Trulia.com, 2016; CoStar Realty & Portland Development Commission, 2016; City of Portland and Multnomah County Assessment and Taxation, October 2016; Buildable Lands Inventory (BLI); Analysis by Bureau of Planning and Sustainability, 2016.

The housing market in Midway is undervalued compared to the citywide average as well as other centers, with the current 2016 market for single-family detached homes at $258,000—over $100,000 less than Portland overall (Table 10). The rate of annual appreciation in Midway is also about half of the citywide average. A two-bedroom unit costs between $950 and $1,120 per month (Table 10 & Figure 5).

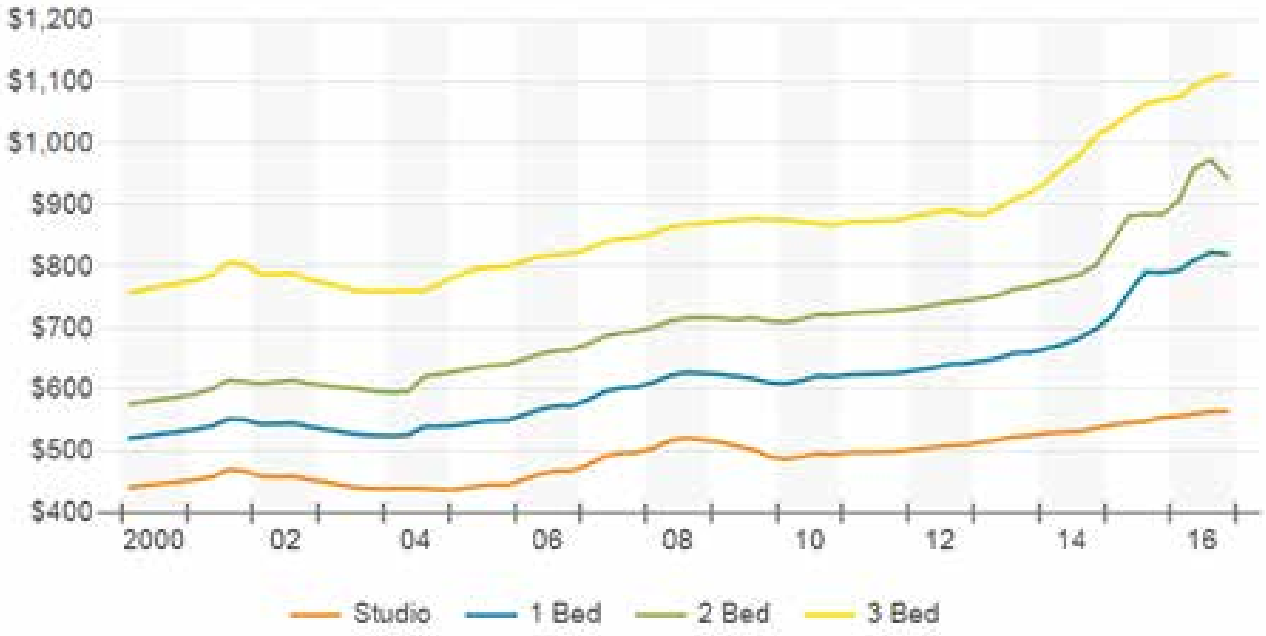


Figure 5: Asking rent by number of bedrooms, Midway (SE 122nd & Division). Source: CoStar, PDC.

Northwest District

The Northwest District town center is the densest part of Portland outside the Central City. The area is anchored by a series of main street commercial corridors and includes concentrations of older apartment buildings, with a large amount of high-density multi-dwelling zoning (primarily RH).

Table 11: Demographic snapshot, Northwest District.

	Northwest District					City of Portland				
	1990	2000	2010	2016	CAGR	1990	2000	2010	2016	CAGR
Area	0.79 sq. mi.					136	145	145	145 sq.mi.	
Population	9,355	9,648	11,129	12,157	1.5%	486,600	529,121	583,794	620,564	1.0%
Density (per sq. mi.)	11,842	12,213	14,087	15,389	1.5%	3,578	3,649	4,026	4,280	1.0%
Households	6,184	6,535	7,336	7,921	1.2%	206,105	223,737	248,551	261,709	1.0%
Average household size	1.43	1.45	1.49	1.51	0.3%	2.30	2.30	2.28	2.31	0.0%
Income										
Median household †	$32,244	$43,012	$42,703	$51,894	1.2%	$47,310	$55,855	$54,422	$53,733	-0.2%
Per capita income	$36,097	$45,335	$47,094	$53,060	1.0%	$26,291	$31,500	$32,557	$33,118	0.3%
Age characteristics										
< 20	8.7%	7.9%	7.8%	8.2%	0.3%	24.9%	23.7%	21.5%	21.0%	-0.8%
> 64	16.4%	10.0%	10.5%	12.3%	1.3%	14.4%	11.6%	10.4%	12.6%	0.5%
Race										
White	91.0%	88.9%	87.3%	86.0%	-0.2%	82.9%	77.9%	76.1%	74.7%	-0.3%
Black	2.5%	2.2%	1.5%	1.5%	-2.2%	6.9%	6.6%	6.3%	6.1%	-0.5%
Native American	1.0%	1.1%	0.6%	0.6%	-4.1%	1.2%	1.1%	1.0%	1.0%	-0.5%
Asian	2.4%	3.7%	4.9%	5.7%	2.6%	4.8%	6.3%	7.1%	8.0%	1.5%
Hawaiian/Pacific Islander	0.2%	0.2%	0.2%	0.2%	1.1%	0.3%	0.4%	0.5%	0.6%	3.3%
Some other race	0.7%	1.4%	1.6%	1.7%	1.0%	1.1%	3.5%	4.2%	4.5%	1.5%
Multi-racial	2.4%	2.6%	4.0%	4.4%	3.4%	2.7%	4.1%	4.7%	5.1%	1.3%
Ethnicity										
Hispanic/Latino	2.7%	3.9%	5.2%	5.6%	2.3%	3.2%	6.8%	9.4%	10.0%	2.4%
Not Hispanic/Latino	97.3%	96.1%	94.8%	94.4%	-0.1%	96.8%	93.2%	90.6%	90.0%	-0.2%

† Median household income and per-capita income reflect estimated 2012 values for 2010. All dollar amounts are adjusted for inflation in 2015 chained dollars. CAGR is compound annual growth rate for 2000-2016. *Source:* U.S. Census Bureau; Esri Business Analyst, 2014 & 2016; Analysis by Bureau of Planning and Sustainability, 2016.

Northwest District's demographic profile is characterized by a high population density (about 15,400 people per mi2, which compares to San Francisco at 17,200), very little diversity (about 9 out of 10 people are white), many one- and two-person households, and very few children (less than 9% of the population is a child under 20) (Table 11). The number of people and households moving to the area is increasing faster than the citywide average, and there are more retired persons in this area.

Table 12: Housing profile, Northwest District.

	Northwest District	City of Portland
Total housing units (2010)	8,093	265,444
Vacancy rate	9.4%	6.4%
Occupied units	7,336	248,551
Owner-occupied	23%	54%
Renter-occupied	77%	46%
Multi-family share of units	87%	40%
Current rental market (Nov 2016) †		
1-bedroom	$1,527	$1,150
2-bedroom	$2,350	$1,310
3-bedroom	$2,463	$1,420
Single-family residential market ‡		
Median sale price		
2007 (peak)	$754,311	$285,992
2011 (trough)	$681,250	$243,900
2016 (current/peak)	$975,000	$375,000
Annual growth rate 2007-2016	2.9%	3.1%
Median price per square foot		
2007 (peak)	$303	$194
2011 (trough)	$230	$150
2016 (current/peak)	$378	$253
Annual growth rate 2007-2016	2.5%	3.0%

All dollar amounts are in current dollars. †Rental market for Portland reflects stable rates for Q3 2016. ‡Single-family home market captures annual sales, except for 2016, which captures sales through October 2016. Grayed text reflects low sample size and should be used with caution. *Source:* U.S. Census Bureau, Census 2010; Esri Business Analyst, 2016; Trulia.com, 2016; CoStar Realty & Portland Development Commission, 2016; City of Portland and Multnomah County Assessment and Taxation, October 2016; Buildable Lands Inventory (BLI); Analysis by Bureau of Planning and Sustainability, 2016.

Northwest District has a very expensive real estate market (Table 12 & Figure 6). The median sale price of single-family homes in 2016 was almost $1 million, and the price per ft2 was about $380. The area has a high vacancy rate (9.4%) and there are many new developments that have broken ground in the past two years. A two-bedroom unit will cost a renter between $2,000 and $2,400 typically. The area also has a very high share of renters (77%) and of multi-family units (87%).

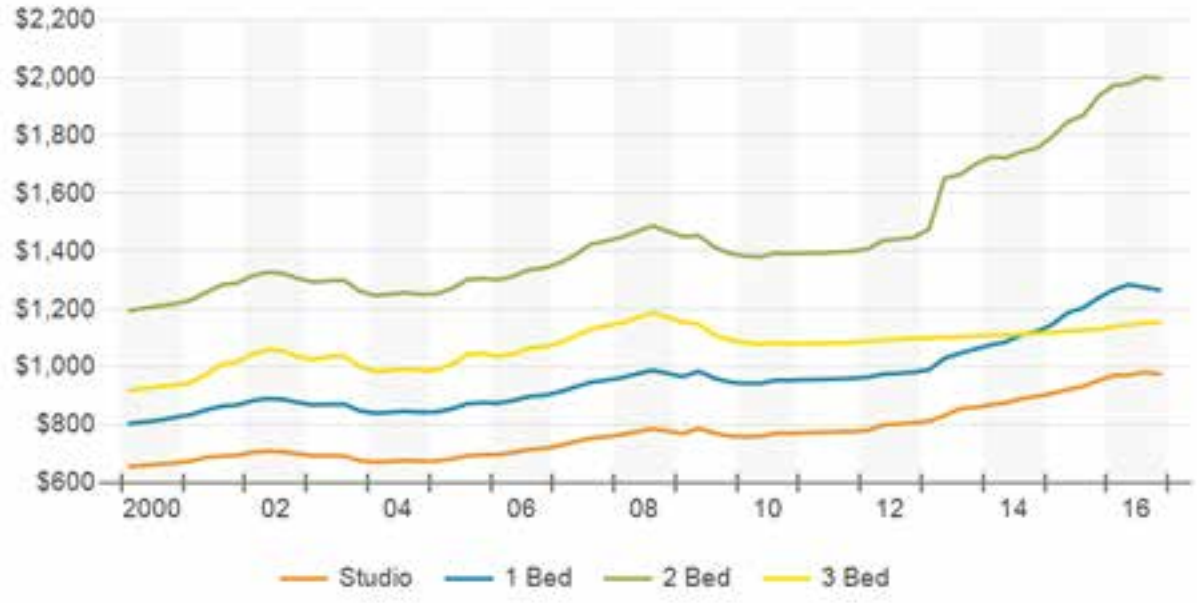


Figure 6: Asking rent by number of bedrooms, Northwest District. Source: CoStar, PDC.

Rosewood-Glenfair

The Rosewood-Glenfair neighborhood center has a diverse population and is located at the edge of Portland's eastern boundary with Gresham. The area's high-density residential zoning (primarily RH) is centered around the 148th Avenue and 162nd Avenue light rail stations.

Table 13: Demographic snapshot, Rosewood-Glenfair.

	Rosewood-Glenfair					City of Portland				
	1990	2000	2010	2016	CAGR	1990	2000	2010	2016	CAGR
Area	0.79 sq. mi.					136	145	145	145	sq.mi.
Population	5,204	6,562	8,062	8,478	1.6%	486,600	529,121	583,794	620,564	1.0%
Density (per sq. mi.)	6,587	8,306	10,205	10,732	1.6%	3,578	3,649	4,026	4,280	1.0%
Households	2,084	2,453	2,885	2,993	1.3%	206,105	223,737	248,551	261,709	1.0%
Average household size	2.50	2.67	2.74	2.78	0.3%	2.30	2.30	2.28	2.31	0.0%
Income										
Median household †	$44,524	$47,322	$44,549	$31,766	-2.5%	$47,310	$55,855	$54,422	$53,733	-0.2%
Per capita income	$19,685	$21,968	$20,341	$16,025	-2.0%	$26,291	$31,500	$32,557	$33,118	0.3%
Age characteristics										
< 20	29.5%	31.5%	31.8%	30.7%	-0.2%	24.9%	23.7%	21.5%	21.0%	-0.8%
> 64	9.7%	8.6%	7.6%	8.5%	-0.1%	14.4%	11.6%	10.4%	12.6%	0.5%
Race										
White	89.2%	71.6%	59.0%	57.1%	-1.4%	82.9%	77.9%	76.1%	74.7%	-0.3%
Black	1.2%	3.5%	9.9%	9.5%	6.4%	6.9%	6.6%	6.3%	6.1%	-0.5%
Native American	1.2%	1.6%	1.9%	1.8%	0.6%	1.2%	1.1%	1.0%	1.0%	-0.5%
Asian	2.7%	7.2%	7.7%	8.6%	1.1%	4.8%	6.3%	7.1%	8.0%	1.5%
Hawaiian/Pacific Islander	0.3%	0.3%	0.8%	0.9%	7.6%	0.3%	0.4%	0.5%	0.6%	3.3%
Some other race	2.1%	10.6%	14.7%	15.6%	2.4%	1.1%	3.5%	4.2%	4.5%	1.5%
Multi-racial	3.3%	5.0%	6.0%	6.4%	1.5%	2.7%	4.1%	4.7%	5.1%	1.3%
Ethnicity										
Hispanic/Latino	6.0%	17.5%	26.3%	28.0%	3.0%	3.2%	6.8%	9.4%	10.0%	2.4%
Not Hispanic/Latino	94.0%	82.5%	73.7%	72.0%	-0.8%	96.8%	93.2%	90.6%	90.0%	-0.2%

†Median household income and per-capita income reflect estimated 2012 values for 2010. All dollar amounts are adjusted for inflation in 2015 chained dollars. CAGR is compound annual growth rate for 2000-2016. *Source:* U.S. Census Bureau; Esri Business Analyst, 2014 & 2016; Analysis by Bureau of Planning and Sustainability, 2016.

Rosewood has undergone significant change in the past 20 years, which can be characterized by a high population growth rate (1.6% per year since 2000), a larger household size (2.8 in 2016), a high proportion of the population under 20 (31% in 2016), and considerable racial/ethnic diversity (more than 43% persons of color) (Table 13). The area has a very high Hispanic/Latino population—almost one in three people—as well as a higher share of Native Americans—about 2%.

Table 14: Housing profile, Rosewood-Glenfair.

	Rosewood-Glenfair	City of Portland
Total housing units (2010)	3,080	265,444
Vacancy rate	6.3%	6.4%
Occupied units	2,885	248,551
Owner-occupied	35%	54%
Renter-occupied	65%	46%
Multi-family share of units	61%	40%
Current rental market (Nov 2016) †		
1-bedroom	$893	$1,150
2-bedroom	$1,164	$1,310
3-bedroom	$1,499	$1,420
Single-family residential market ‡		
Median sale price		
2007 (peak)	$258,000	$285,992
2011 (trough)	$160,474	$243,900
2016 (current/peak)	$250,000	$375,000
Annual growth rate 2007-2016	-0.3%	3.1%
Median price per square foot		
2007 (peak)	$153	$194
2011 (trough)	$107	$150
2016 (current/peak)	$180	$253
Annual growth rate 2007-2016	1.9%	3.0%

All dollar amounts are in current dollars. †Rental market for Portland reflects stable rates for Q3 2016. ‡Single-family home market captures annual sales, except for 2016, which captures sales through October 2016. Grayed text reflects low sample size and should be used with caution. *Source:* U.S. Census Bureau, Census 2010; Esri Business Analyst, 2016; Trulia.com, 2016; CoStar Realty & Portland Development Commission, 2016; City of Portland and Multnomah County Assessment and Taxation, October 2016; Buildable Lands Inventory (BLI); Analysis by Bureau of Planning and Sustainability, 2016.

The housing market in Rosewood-Glenfair has struggled relative to other parts of the city. This is one of only a few parts of the city where home prices actually decreased between 2007 and 2016 (Table 14). However, the cost per ft2 of homes increased by 2%. Rents are relatively affordable, and a three-bedroom unit costs between $1,000 and $1,500 (Table 14 & Figure 7).

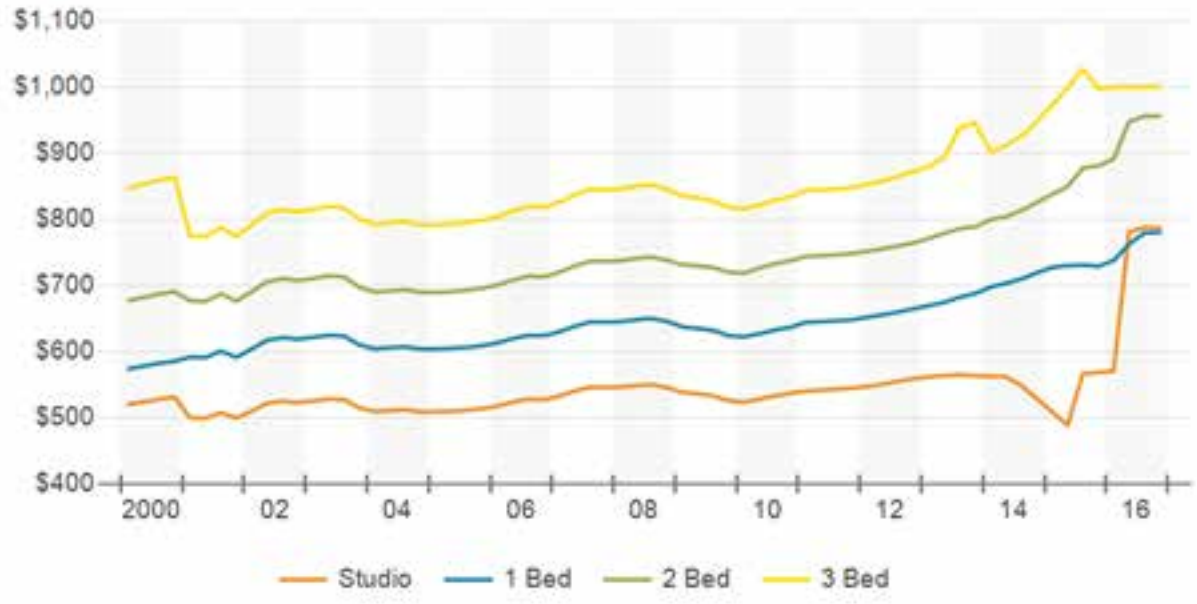


Figure 7: Asking rent by number of bedrooms, Rosewood-Glenfair. Source: CoStar, PDC.

St. Johns

The St. Johns town center, anchored by its commercial main street, is located on the far northwest part of the North Portland peninsula. Its demographic and housing profile trends are generally representative of the city as a whole. The area's medium-density multi-dwelling zoning (primarily R1) is focused around its core commercial area.

Table 15: Demographic snapshot, St. Johns.

	St. Johns					City of Portland				
	1990	2000	2010	2016	CAGR	1990	2000	2010	2016	CAGR
Area	0.79 sq. mi.					136	145	145	145 sq.mi.	
Population	4,773	5,243	5,509	6,070	0.9%	486,600	529,121	583,794	620,564	1.0%
Density (per sq. mi.)	6,042	6,637	6,973	7,684	0.9%	3,578	3,649	4,026	4,280	1.0%
Households	2,080	2,211	2,528	2,756	1.4%	206,105	223,737	248,551	261,709	1.0%
Average household size	2.29	2.37	2.18	2.20	-0.5%	2.30	2.30	2.28	2.31	0.0%
Income										
Median household †	$32,970	$42,301	$39,269	$41,967	0.0%	$47,310	$55,855	$54,422	$53,733	-0.2%
Per capita income	$18,186	$21,441	$23,424	$27,170	1.5%	$26,291	$31,500	$32,557	$33,118	0.3%
Age characteristics										
< 20	28.0%	27.4%	20.7%	20.3%	-1.9%	24.9%	23.7%	21.5%	21.0%	-0.8%
> 64	14.6%	10.5%	8.5%	9.5%	-0.6%	14.4%	11.6%	10.4%	12.6%	0.5%
Race										
White	84.4%	72.8%	77.1%	76.0%	0.3%	82.9%	77.9%	76.1%	74.7%	-0.3%
Black	4.4%	8.2%	6.4%	6.2%	-1.7%	6.9%	6.6%	6.3%	6.1%	-0.5%
Native American	2.8%	2.2%	1.3%	1.3%	-3.4%	1.2%	1.1%	1.0%	1.0%	-0.5%
Asian	1.8%	3.9%	2.4%	2.8%	-2.0%	4.8%	6.3%	7.1%	8.0%	1.5%
Hawaiian/Pacific Islander	0.4%	0.6%	0.9%	1.1%	3.7%	0.3%	0.4%	0.5%	0.6%	3.3%
Some other race	2.1%	5.8%	6.9%	7.2%	1.4%	1.1%	3.5%	4.2%	4.5%	1.5%
Multi-racial	4.1%	6.4%	5.0%	5.4%	-1.1%	2.7%	4.1%	4.7%	5.1%	1.3%
Ethnicity										
Hispanic/Latino	4.9%	11.8%	13.6%	14.4%	1.2%	3.2%	6.8%	9.4%	10.0%	2.4%
Not Hispanic/Latino	95.1%	88.2%	86.4%	85.6%	-0.2%	96.8%	93.2%	90.6%	90.0%	-0.2%

†Median household income and per-capita income reflect estimated 2012 values for 2010. All dollar amounts are adjusted for inflation in 2015 chained dollars. CAGR is compound annual growth rate for 2000-2016. *Source:* U.S. Census Bureau; Esri Business Analyst, 2014 & 2016; Analysis by Bureau of Planning and Sustainability, 2016.

St. Johns serves as a good representation of the "average" neighborhood in terms of its current demographic composition (Table 15). Its population of 6,100 has grown at 0.9% per year since 2000, while its household size has decreased at about 0.5% per year since 2000, currently at 2.20 persons per household. The neighborhood is becoming more racially diverse. The population of color in 1990 was 15.6% of the total population. This increased to 24.0% of the population in 2016.

Table 16: Housing profile, St. Johns.

	St. Johns	City of Portland
Total housing units (2010)	2,689	265,444
Vacancy rate	6.0%	6.4%
Occupied units	2,528	248,551
Owner-occupied	54%	54%
Renter-occupied	46%	46%
Multi-family share of units	39%	40%
Current rental market (Nov 2016) †		
1-bedroom	$1,361	$1,150
2-bedroom	$1,448	$1,310
3-bedroom	$1,613	$1,420
Single-family residential market ‡		
Median sale price		
2007 (peak)	$233,450	$285,992
2011 (trough)	$190,375	$243,900
2016 (current/peak)	$345,000	$375,000
Annual growth rate 2007-2016	4.4%	3.1%
Median price per square foot		
2007 (peak)	$180	$194
2011 (trough)	$141	$150
2016 (current/peak)	$283	$253
Annual growth rate 2007-2016	5.1%	3.0%

All dollar amounts are in current dollars. †Rental market for Portland reflects stable rates for Q3 2016. ‡Single-family home market captures annual sales, except for 2016, which captures sales through October 2016. Grayed text reflects low sample size and should be used with caution. *Source:* U.S. Census Bureau, Census 2010; Esri Business Analyst, 2016; Trulia.com, 2016; CoStar Realty & Portland Development Commission, 2016; City of Portland and Multnomah County Assessment and Taxation, October 2016; Buildable Lands Inventory (BLI); Analysis by Bureau of Planning and Sustainability, 2016.

The housing market in St. Johns is hot. The value of single-family detached homes has increased considerably faster here than other parts of the city (4.4% vs 3.1% per year citywide between 2007 and 2016), and the price per ft2 has increased even faster at 5.1% and remains at $280 per ft2 (Table 16). There is little variation by number of bedrooms for asking rents in St. Johns, and a two-bedroom unit will cost between $875 and $1,450 per month (Table 16 & Figure 8).

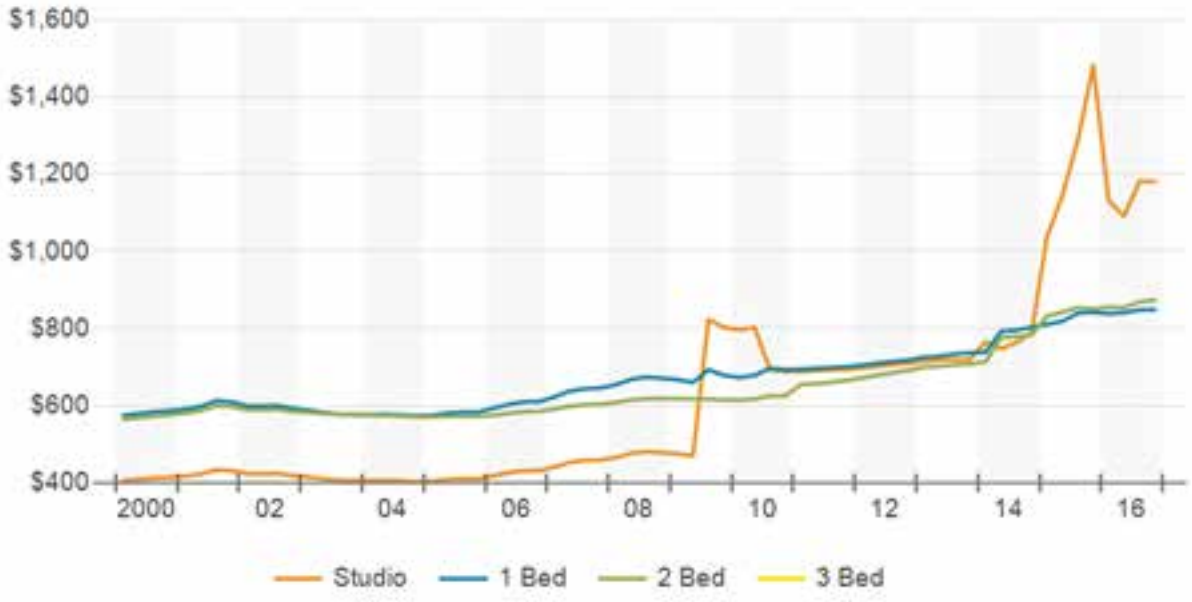


Figure 8: Asking rent by number of bedrooms, St. Johns. Source: CoStar, PDC.

Study Areas

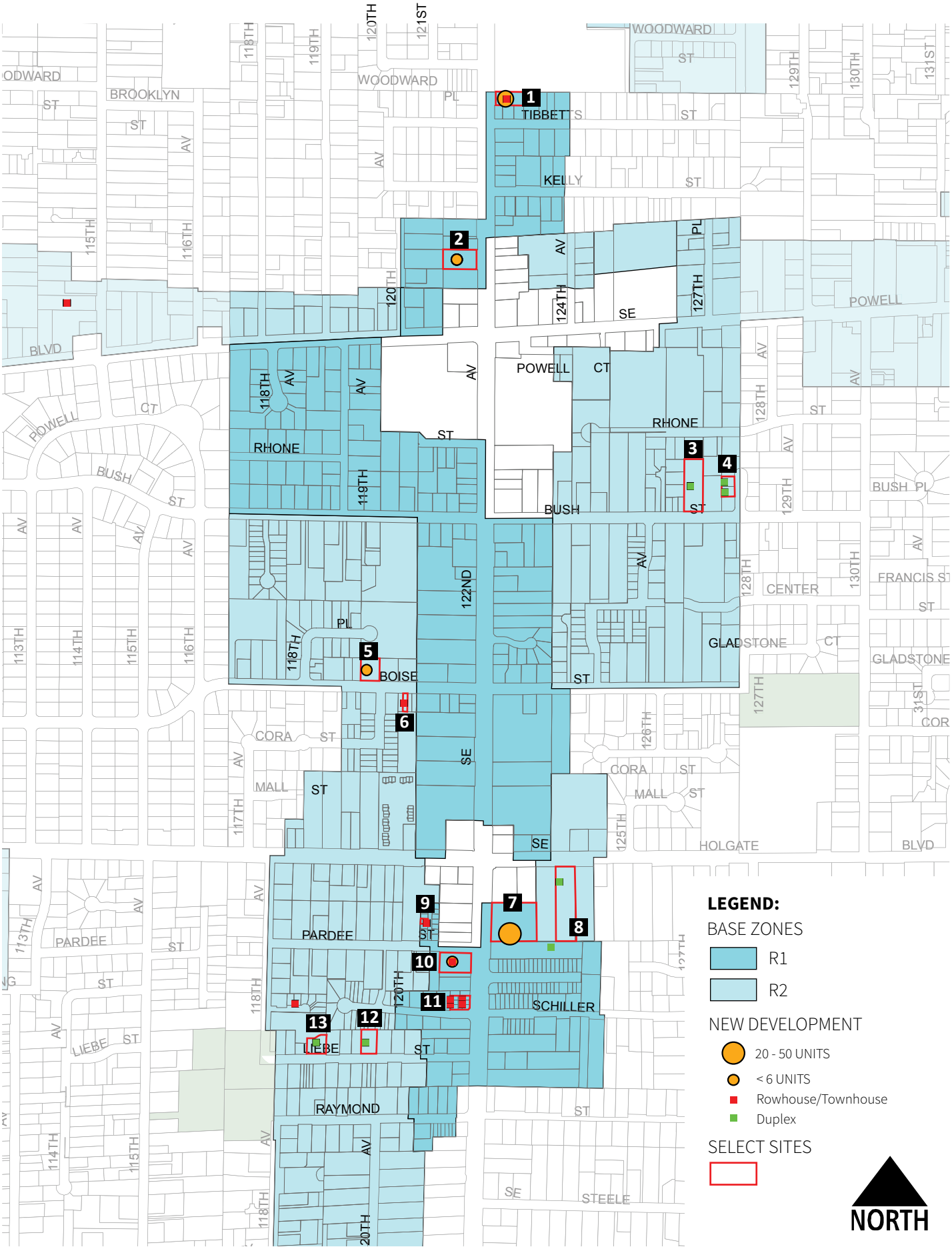
This section shows development activity that has taken place over the past 10 years (2006 - 16) within the multi-dwelling zones of several study areas that include relatively large areas of multi-dwelling zoning. For each study area, this section provides examples of recent development to support the analysis and assessment of built outcomes (summarized in the Development and Design Issues section of the Project Summary). The study areas' designations in the Comprehensive Plan Urban Design Framework are indicated in parentheses.

- **122nd Avenue (civic corridor)**
- **Gateway and 122nd & East Burnside (regional center and neighborhood center)**
- **Interstate Avenue (civic corridor/town center)**
- **Jade District (neighborhood center)**
- **Martin Luther King, Jr. Blvd (civic corridor/neighborhood center)**
- **Rosewood-Glenfair (neighborhood center)**
- **St. Johns (town center**)

2

Note on figures for maximum units allowed: For RH and RX zones, based on assumption of 1 unit per 1000 ft of maximum allowed floor area, since densities in these zones are based on floor-to-area ratios, not unit density.

122nd Avenue: Study Area Map



122nd Avenue: Select Sites

1

Address: 3010 SE 122nd Ave.
Zone: R1
Number of Units: 7
Maximum Units Allowed: 10
Year: 2006

2

Address: 3317 SE 122nd Ave.
Zone: R1
Number of Units: 6
Maximum Units Allowed: 17
Year: 2006

3

Address: 12625 SE Bush St.
Zone: R2
Number of Units: 12
Maximum Units Allowed: 13
Year: 2007

4

Address: 3745 SE 127th Ave.
Zone: R2
Number of Units: 2
Maximum Units Allowed: 2
Year: 2008

5

Address: 11943 SE Boise St.
Zone: R2
Number of Units: 4
Maximum Units Allowed: 4
Year: 2006

6

Address: 12028 SE Boise St.
Zone: R2
Number of Units: 2
Maximum Units Allowed: 2
Year: 2009

7

Address: 4620 SE 122nd Ave.
Zone: R1
Number of Units: 37
Maximum Units Allowed: 46
Year: 2006

8

Address: 12332 SE Holgate Blvd.
Zone: R2
Number of Units: 6
Maximum Units Allowed: 24
Year: 2006

9

Address: 4552 SE 121st Ave.
Zone: R1
Number of Units: 10
Maximum Units Allowed: 18
Year: 2011

10

Address: 12132 SE Pardee St.
Zone: R1
Number of Units: 11
Maximum Units Allowed: 16
Year: 2008

11

Address: 4778 SE 121st Ave
Zone: R1
Number of Units: 8
Maximum Units Allowed: 10
Year: 2009

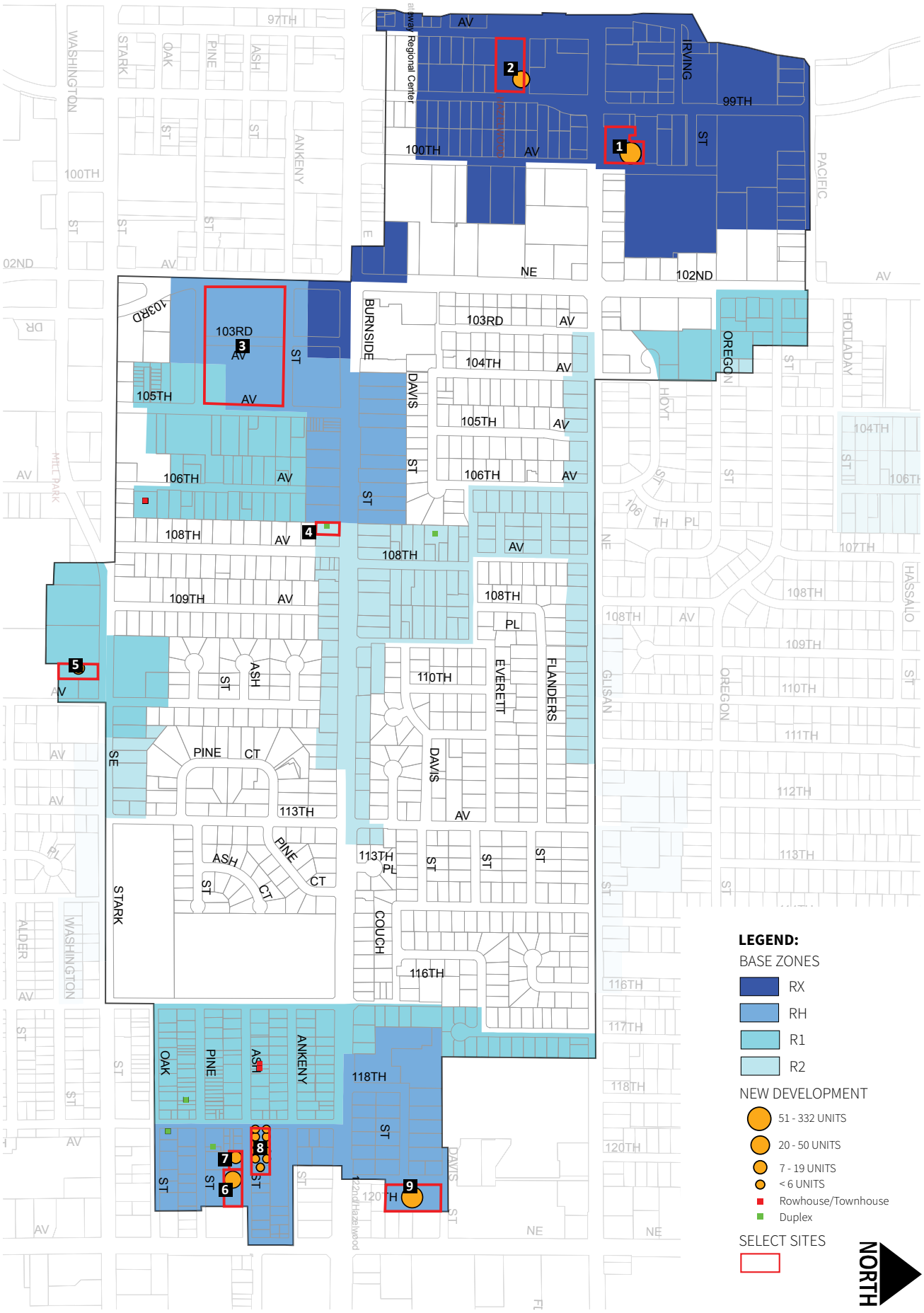
12

Address: 11945 SE Liebe St.
Zone: R2
Number of Units: 4
Maximum Units Allowed: 4
Year: 2008

13

Address: 11853 SE Liebe St.
Zone: R2
Number of Units: 4
Maximum Units Allowed: 4
Year: 2014

Gateway and 122nd and East Burnside Street: Study Area Map



Gateway and 122nd and East Burnside Street: Select Sites

1

Address: 555 NE 100th Ave.
Zone: RX
Number of Units: 67
Maximum Units Allowed: 145
Year: 2012

2

Address: 9850 NE Everette Pl.
Zone: RX
Number of Units: 45
Maximum Units Allowed: 176
Year: 2014

3

Address: Russellville
Zone: RH
Number of Units: 100+
Maximum Units Allowed: 100+
Year: Various

4

Address: 1074 E Burnside
Zone: R2
Number of Units: 3
Maximum Units Allowed: 4
Year: 2006

5

Address: 11016 SE Stark St
Zone: R1
Number of Units: 13
Maximum Units Allowed: 17
Year: 2006

6

Address: 12026 SE Ash St
Zone: RH
Number of Units: 47
Maximum Units Allowed: 78 Units
Year: 2010

7

Address: 11940 SE Ash St.
Zone: RH
Number of Units: 12
Maximum Units Allowed: 28
Year: 2008

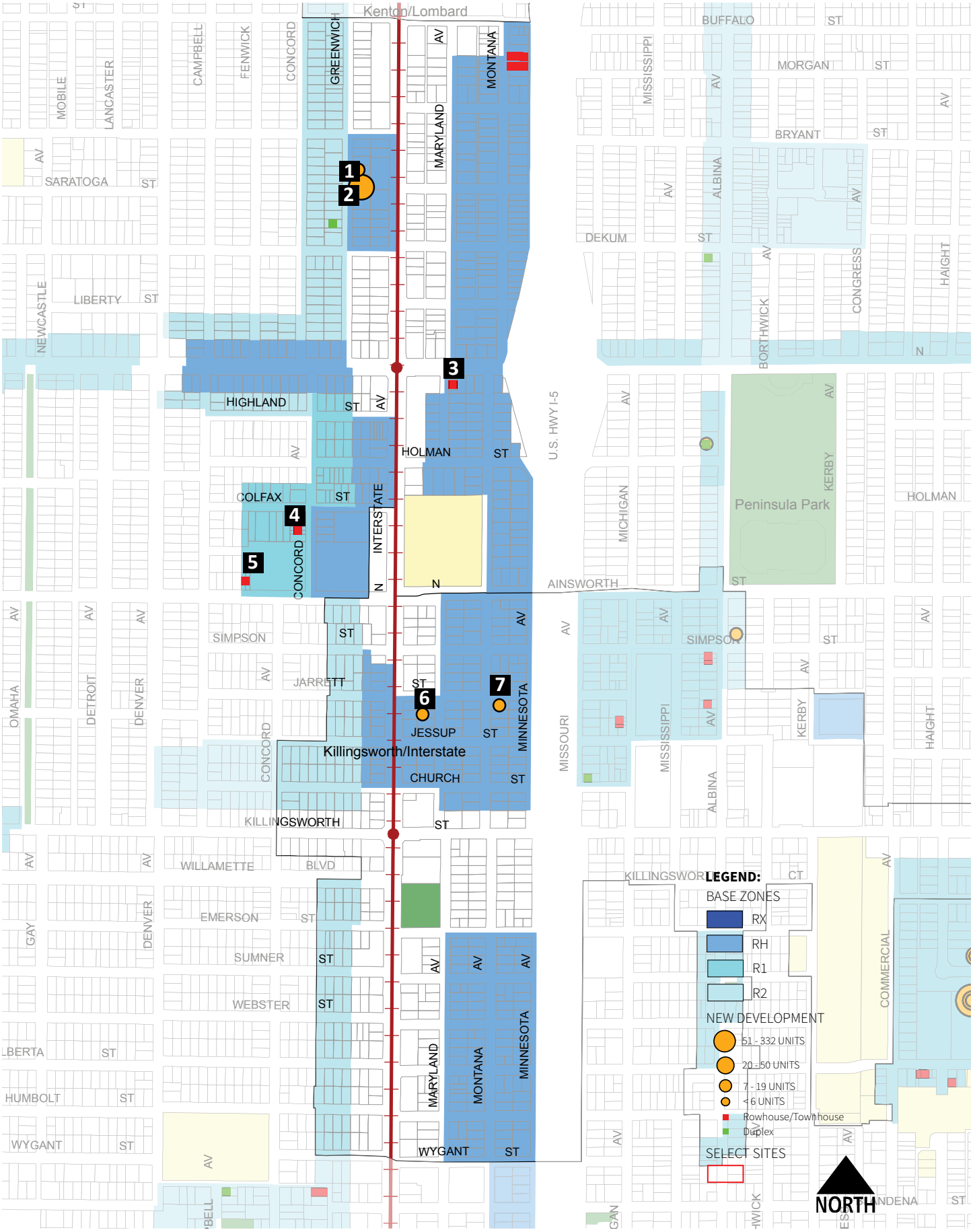
8

Address: 11935 SE Ash St.
Zone: RH
Number of Units: 33
Maximum Units Allowed: 102
Year: 2007

9

Address: 100 NE 120th Ave
Zone: RH
Number of Units: 61
Maximum Units Allowed: 88
Year: 2009

Interstate Avenue: Study Area Map



Interstate Avenue: Select Sites

1

Address:	6928 N Greenwich Ave
Zone:	RH
Number of Units:	5
Maximum Units Allowed:	21
Year:	2011

2

Address:	6906 N Greenwich Ave
Zone:	RH
Number of Units:	23
Maximum Units Allowed:	84
Year:	2014

3

Address:	1346 N Rosa Parks Way
Zone:	RH
Number of Units:	5
Maximum Units Allowed:	19
Year:	2013

4

Address:	6113 N Concord Ave
Zone:	R1
Number of Units:	2
Maximum Units Allowed:	2
Year:	2015

5

Address:	1777 N Ainsworth St.
Zone:	R1
Number of Units:	2
Maximum Units Allowed:	2
Year:	2013

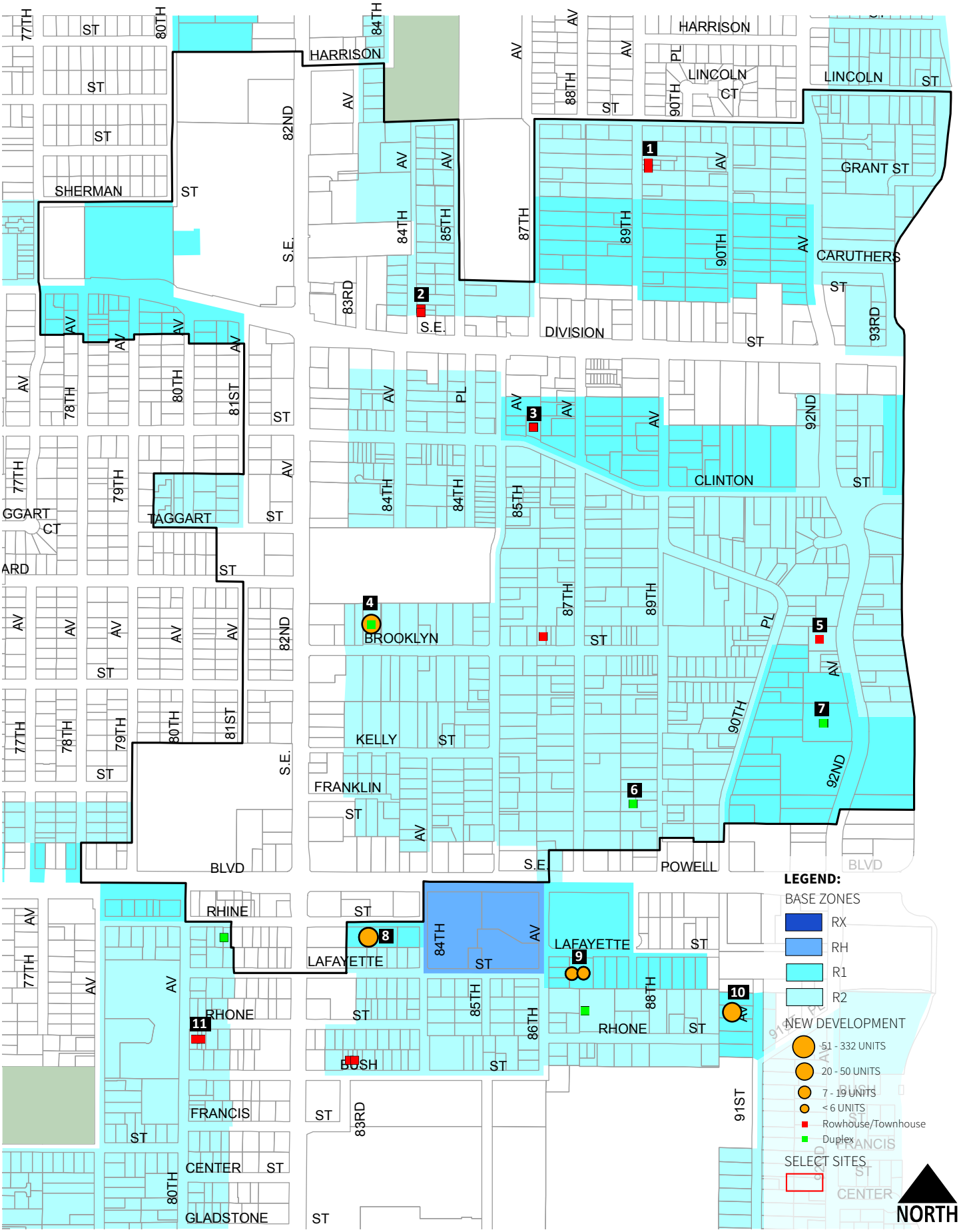
6

Address:	5727 N Maryland Ave
Zone:	RH
Number of Units:	5
Maximum Units Allowed:	18
Year:	2009

7

Address:	5734 N Montana Ave
Zone:	RH
Number of Units:	6
Maximum Units Allowed:	20
Year:	2015

Jade District: Study Area Map



Jade District: Select Sites

1

Address:	2208 SE 89th Ave
Zone:	R2
Number of Units:	2
Maximum Units Allowed:	2
Year:	2012

2

Address:	2456 SE 84th Ave
Zone:	R2
Number of Units:	2
Maximum Units Allowed:	2
Year:	2006

3

Address:	8535 SE Clinton St.
Zone:	R1
Number of Units:	7
Maximum Units Allowed:	7
Year:	2015

4

Address:	8307 SE Brooklyn St.
Zone:	R2
Number of Units:	12 (Amenity Bonus)
Maximum Units Allowed:	8
Year:	2015

5

Address:	2959 SE 92nd Ave
Zone:	R2
Number of Units:	12
Maximum Units Allowed:	16
Year:	2008

6

Address:	3313 SE 89th Ave
Zone:	R2
Number of Units:	6
Maximum Units Allowed:	6
Year:	2014

7

Address:	3107 SE 92nd Ave
Zone:	R1
Number of Units:	24
Maximum Units Allowed:	47
Year:	2008

8

Address:	8324 SE Rhine St.
Zone:	R1
Number of Units:	30
Maximum Units Allowed:	25
Year:	2008

9

Address:	8614 SE Lafayette
Zone:	R1
Number of Units:	12
Maximum Units Allowed:	17
Year:	2007

10

Address:	3659 SE 91st Ave
Zone:	R1
Number of Units:	7
Maximum Units Allowed:	10
Year:	2007

11

Address:	8629 SE Rhone St.
Zone:	R2
Number of Units:	12
Maximum Units Allowed:	12
Year:	2008

Martin Luther King Blvd: Study Area Map

Martin Luther King Blvd: Select Sites

1

Address: 375 NE Shaver St.
Zone: RH
Number of Units: 87
Maximum Units Allowed: 87
Year: 2008

2

Address: 3918 NE Garfield Ave
Zone: RH
Number of Units: 2
Maximum Units Allowed: 14
Year: 2015

3

Address: 3650 NE Mallory Ave
Zone: R1
Number of Units: 48
Maximum Units Allowed: 48
Year: 2014

4

Address: Ivy St./Rodney St.
Zone: R2
Number of Units: 18
Maximum Units Allowed: 18
Year: 2015

5

Address: 3250 NE MLK Blvd
Zone: RH
Number of Units: 50
Maximum Units Allowed: 91
Year: 2008

6

Address: 3225 NE MLK Blvd
Zone: RH
Number of Units: 14
Maximum Units Allowed: 30
Year: 2013

7

Address: 312 NE Monroe St.
Zone: RH
Number of Units: 12
Maximum Units Allowed: 20
Year: 2008

8

Address: 3035 NE MLK Blvd.
Zone: RH
Number of Units: 46
Maximum Units Allowed: 46
Year: 2013

9

Address: 313 NE Morris St.
Zone: RH
Number of Units: 11
Maximum Units Allowed: 48
Year: 2016

10

Address: 2955 NE MLK Blvd.
Zone: RH
Number of Units: 14
Maximum Units Allowed: 35
Year: 2007

11

Address: 2845 NE MLK Blvd.
Zone: RH
Number of Units: 2
Maximum Units Allowed: 25
Year: 2007

12

Address: 614 NE Graham St.
Zone: R2
Number of Units: 3
Maximum Units Allowed: 3
Year: 2012

13

Address: 617 NE Knott St.
Zone: R2
Number of Units: 2
Maximum Units Allowed: 3
Year: 2006

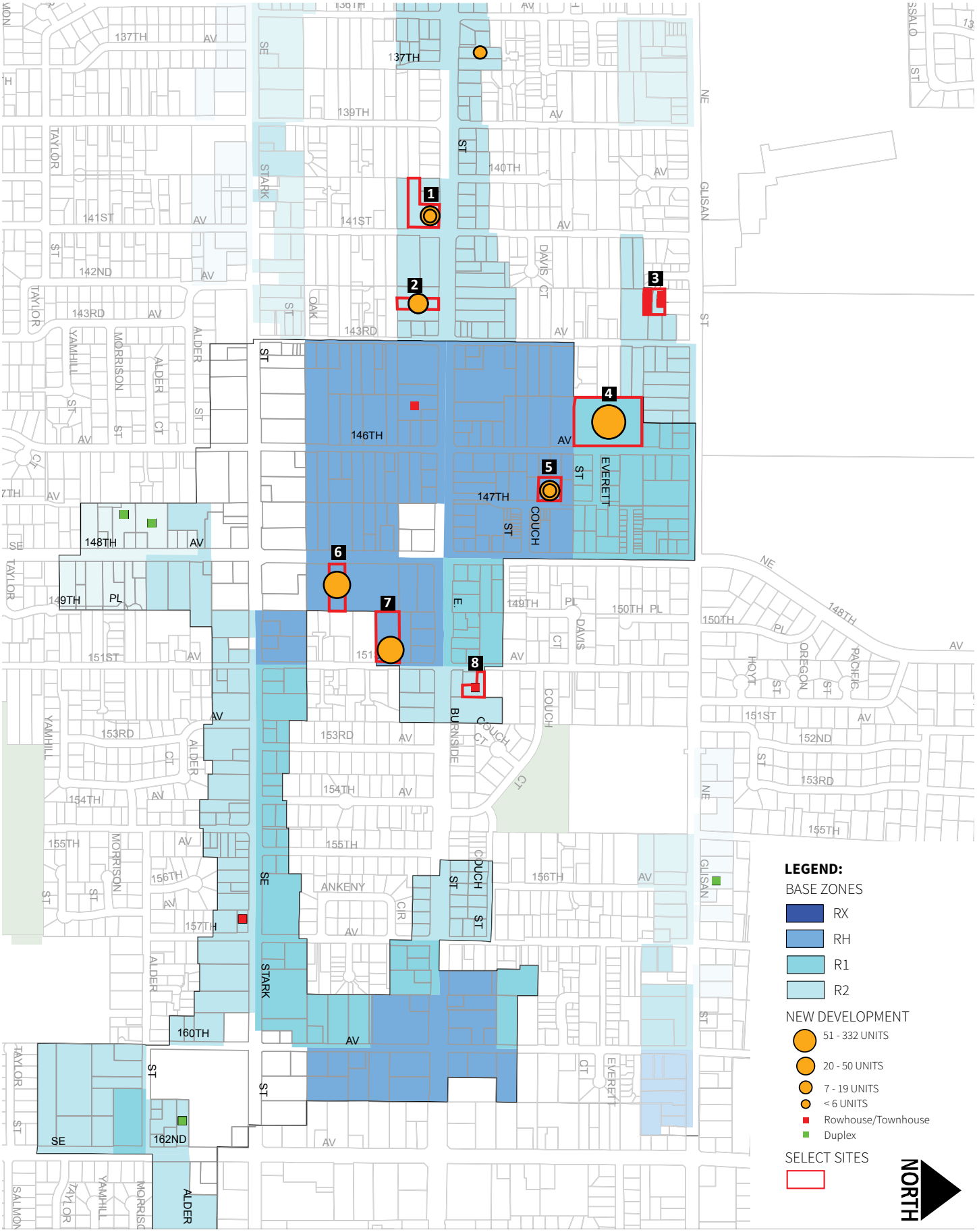
14

Address: 2645 NE 7th Ave
Zone: RH
Number of Units: 13
Maximum Units Allowed: 50
Year: 2012

15

Address: 2621 NE 7th Ave
Zone: RH
Number of Units: 68
Maximum Units Allowed: 73
Year: 2016

Rosewood / Glenfair: Study Area Map



Rosewood / Glenfair: Select Sites

1

Address:	14050 E Burnside St.
Zone:	R2
Number of Units:	27 (Amenity Bonus)
Maximum Units Allowed:	19
Year:	2014

2

Address:	141 SE 143rd Ave
Zone:	R2
Number of Units:	32 (Amenity Bonus)
Maximum Units Allowed:	21
Year:	2015

3

Address:	14163- 14176 NE Flanders St.
Zone:	R2
Number of Units:	12
Maximum Units Allowed:	12
Year:	2013

4

Address:	333 NE 146th Ave
Zone:	R1
Number of Units:	112
Maximum Units Allowed:	125
Year:	2014

5

Address:	177 NE 147th Ave
Zone:	RH
Number of Units:	38
Maximum Units Allowed:	80
Year:	2015

6

Address:	300 SE 148th Ave
Zone:	RH
Number of Units:	30
Maximum Units Allowed:	50
Year:	2010

7

Address:	117SE 151st Ave
Zone:	RH
Number of Units:	27
Maximum Units Allowed:	30
Year:	2012

8

Address:	28 NE 151st Ave
Zone:	R2
Number of Units:	6
Maximum Units Allowed:	6
Year:	2013

St. Johns: Study Area Map

St. Johns: Select Sites

1

Address: 9112 N Hudson St
Zone: R1
Number of Units: 3
Maximum Units Allowed: 3
Year: 2013

2

Address: 7216 N New York Ave
Zone: R1
Number of Units: 4
Maximum Units Allowed: 4
Year: 2011

3

Address: 8905 N EDISON ST
Zone: R1
Number of Units: 7
Maximum Units Allowed: 7
Year: 2014

4

Address: 7529 N Oswego Ave
Zone: R1
Number of Units: 4
Maximum Units Allowed: 5
Year: 2010

5

Address: 7150 N Burlington Ave
Zone: R1
Number of Units: 4
Maximum Units Allowed: 5
Year: 2008

6

Address: 8332 N Willamette Blvd
Zone: R1
Number of Units: 6
Maximum Units Allowed: 6
Year: 2016

7

Address: 8320 N Princeton St
Zone: R1
Number of Units: 8
Maximum Units Allowed: 10
Year: 2013

8

Address: 690 N Charleston Ave
Zone: R1
Number of Units: 8
Maximum Units Allowed: 8
Year: 2006

9

Address: 8114 N Willamette Blvd
Zone: R1
Number of Units: 2
Maximum Units Allowed: 2
Year: 2006

10

Address: 7128 N Richmond Ave
Zone: R1
Number of Units: 6
Maximum Units Allowed: 6
Year: 2014

Historic Examples of Multi-Dwelling Development

Numerous Comprehensive Plan policies and adopted neighborhood plan policies call for infill development to complement the general scale and characteristics of residential neighborhoods, especially in locations outside of centers and corridors. Accommodating density to help meet Portland's housing needs is an important policy objective that is a core part of the policy basis for multi-dwelling zoning. The additional scale often associated with greater density can present challenges to meeting policy objectives for contextual development, especially given that single-family homes and duplexes remain the predominant context in the lower- and medium-density multi-dwelling zones.

This section presents historic examples of multi-dwelling development that can serve as precedents for how higher density development can be integrated with the scale of residential neighborhoods. Most of these examples are two, and sometimes three stories, not very different in height from that of large houses. In many cases, these low-rise multi-dwelling examples have densities that could only be built today in the R1 or RH zones, which – especially the RH zone – are mapped in relatively limited locations (the latter currently allows building heights of 65 feet). These examples date from the Streetcar-Era before World War II, when most residential neighborhoods were zoned to allow multi-family development (see Zoning History section). They are also located in the close-in "Inner Ring Districts," whose Comprehensive Plan policies call for providing a diversity of housing opportunities that preserve or are compatible with existing historic characteristics and development patterns.

Many of the historic examples located on neighborhood side streets included house-like features, such as landscaped setbacks and porches, while some of the examples along corridors (such as SE Hawthorne and SE Belmont) contribute to a more urban street edge with minimal setbacks and larger building massing.

Mix of duplexes and single-family houses on a southeast Portland street.

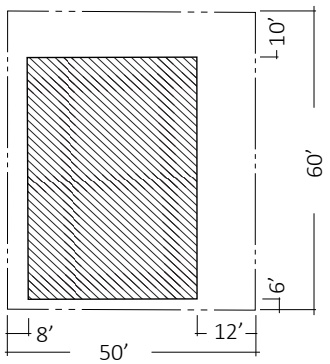
Pair of duplexes on a site smaller than 5,000 square feet (R1 density, but current zone is R5)

Type Stacked Duplex - Small Lot

Description

Housing Type: Stacked Duplex
Frontage: Projecting Porch
Lot Size: 3,000 SF
Zoning: R1
Units/Acre: 28
Year Built: 1910

Lot Disposition



General Zoning Code Criteria

	Existing Condition
Height	35 ft
Density	2 units
Front Setback	6 ft
Side/Rear Setback	5-10 ft
Lot Coverage	45%
Building Length	28 ft
Landscaping	55%
Outdoor Area	100 sq ft/unit

R3		R2		R1		RH	
Yes	No	Yes	No	Yes	No	Yes	No
X		X		X		X	
	X		X	X		X	
	X		X	X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	

Summary

This stacked duplex on a small lot achieves a density of 28 units per acre. The small lot is zoned single-family and was created by splitting a standard 100' deep corner lot at the 60/40' mark, a common condition in Portland. The unit utilizes a two-story projecting porch frontage type with a small setback. The projecting front porch also acts as the primary outdoor space for residents. No off-street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

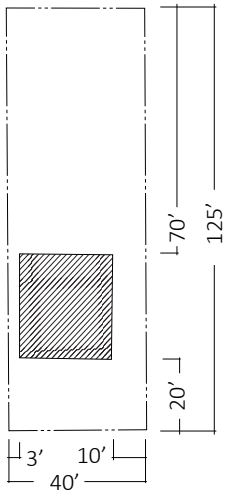
A similar project could only be built in the R1 zone. General scale is allowed in the R2 and R3 zones, but exceeds allowed density. This project would not meet minimum density requirements for the RH zone.

Type Side-by-Side Duplex - Standard Lot

Description

Housing Type:
Side-by-Side Duplex
Frontage:
Landscape/Stoop
Lot Size: 5,000 SF
Zoning: R5
Units/Acre: 17
Year Built: 1927

Lot Disposition



General Zoning Code Criteria

	Existing Condition	Yes	No	Yes	No	Yes	No	Yes	No
Height	20 ft	X		X		X		X	
Density	2 units		X	X		X		X	
Front Setback	20 ft	X		X		X		X	
Side/Rear Setback	3-10 ft	X		X		X		X	
Lot Coverage	16%	X		X		X		X	
Building Length	27 ft	X		X		X		X	
Landscaping	84%	X		X		X		X	
Outdoor Area	2100 sq ft/unit	X		X		X		X	

Summary

This side-by-side duplex on a standard lot zoned single-family achieves a density of 17 units per acre. Although slightly deeper and more narrow, it is a standard 5,000 square foot lot. The unit utilizes a shared stoop frontage type with a medium setback. The projecting front porch also acts as the primary outdoor space for residents. No off-street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

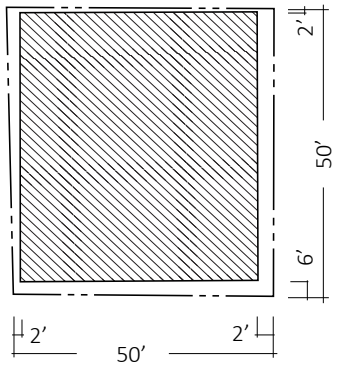
Considering mainly density and scale, a similar project could only be built in the R2 zone. Building height and lot coverage are allowed in all the multidwelling zones. While meeting general zoning criteria, this project would not meet minimum density requirements for the R1 and RH zones.

Type Fourplex - Small Lot

Description

Housing Type: Fourplex
Frontage: Engaged Porch
Lot Size: 2,500 SF
Zoning: R2
Units/Acre: 70
Year Built: 1886

Lot Disposition



General Zoning Code Criteria

	Existing Condition	R3		R2		R1		RH	
		Yes	No	Yes	No	Yes	No	Yes	No
Height	25 ft	X		X		X		X	
Density	4 units		X	X		X		X	
Front Setback	6 ft		X		X	X		X	
Side/Rear Setback	3-5 ft	X		X		X		X	
Lot Coverage	82%		X		X		X	X	
Building Length	42 ft	X		X		X		X	
Landscaping	5%		X		X		X		X
Outdoor Area	0 sq ft/unit		X		X		X	X	

Summary

This stacked fourplex on a small lot achieves a density of 70 units per acre. The small lot was created by splitting a relatively standard corner lot, as commonly found in Portland. The unit utilizes a single-story engaged porch frontage type with a very small setback. The engaged front porch also acts as covered entry space for residents. No off-street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

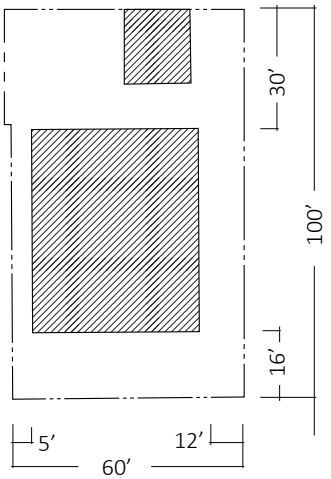
Considering mainly density and scale, a similar project could only be built in the RH zone. Building height is allowed in the R1, R2, and R3 zones, but exceeds allowed density and lot coverage.

Type Fourplex- Standard Lot

Description

Housing Type: Fourplex
Frontage: Stoop
Lot Size: 5,750 SF
Zoning: R1
Units/Acre: 30
Year Built: 1923

Lot Disposition



General Zoning Code Criteria

	Existing Condition
Height	30 ft
Density	4 units
Front Setback	16 ft
Side/Rear Setback	5-10 ft
Lot Coverage	37%
Building Length	42 ft
Landscaping	52%
Outdoor Area	325 sq ft/unit

R3		R2		R1		RH	
Yes	No	Yes	No	Yes	No	Yes	No
X		X		X		X	
	X		X	X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	

Summary

This fourplex on a fairly standard lot achieves a density of 30 units per acre. The 5,750 square foot lot is standard in depth and slightly larger in width. The building type utilizes a shared stoop frontage type with a medium setback of 16 feet. The shared stoop is elevated above the sidewalk to ensure privacy at the ground floor. Some off -street garage parking is provided at the rear of the lot and is accessed by the side street.

Could a project of similar density and scale be built today in the multi-dwelling zones?

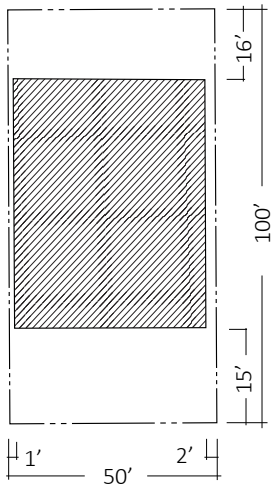
Considering mainly density and scale, a similar project could only be built in the R1 zone. Building height is allowed in the R1, R2, and R3 zones, but exceeds allowed density in the R2 and R3 zones. While meeting general zoning criteria, this project would not meet minimum density requirements for the RH zone.

Type Apartment House

Description

Housing Type:
Apartment House
Frontage:
Landscape Projecting Porch
Lot Size: 5,000 SF
Zoning: R5
Units/Acre: 52
Year Built: 1910

Lot Disposition



General Zoning Code Criteria

	Existing Condition	R3		R2		R1		RH	
		Yes	No	Yes	No	Yes	No	Yes	No
Height	40 ft		X	X		X		X	
Density	6 units		X		X		X	X	
Front Setback	15 ft	X		X		X		X	
Side/Rear Setback	2-5 ft		X		X		X		X
Lot Coverage	56%		X		X	X		X	
Building Length	47 ft	X		X		X		X	
Landscaping	40%	X		X		X		X	
Outdoor Area	188 sq ft/unit	X		X		X		X	

Summary

This apartment house, sometimes called mansion apartments due to the building looking like a large house, achieves a density of 52 units per acre. The lot is a standard 5,000 square foot lot yet contains six units. The building utilizes a 3-story projecting front porch frontage type with a medium setback. The projecting front porches offer substantial outdoor space. No off street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

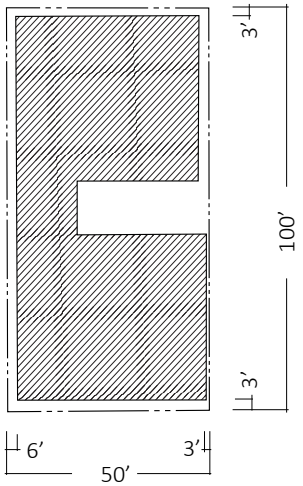
Considering mainly density and scale, a similar project could only be built in the RH zone. Building height is allowed in the R1 and R2 zones, but exceeds allowed density in the R1, R2, and R3 zones.

Type Stacked Flats- Standard Lot

Description

Housing Type: Stacked Flats
Frontage: Engaged Stoop
Lot Size: 5,000 SF
Zoning: RH
Units/Acre: 78
Year Built: 1913

Lot Disposition



General Zoning Code Criteria

	Existing Condition	R3		R2		R1		RH	
		Yes	No	Yes	No	Yes	No	Yes	No
Height	30 ft	X		X		X		X	
Density	9 units		X		X		X	X	
Front Setback	3 ft		X		X	X		X	
Side/Rear Setback	3-6 ft		X		X		X		X
Lot Coverage	80%		X		X		X	X	
Building Length	40 ft	X		X		X		X	
Landscaping	8%		X		X		X		X
Outdoor Area	22 sq ft/unit		X		X		X	X	

Summary

These stacked flats on a standard 5,000 square foot lot achieves a density of 78 units per acre. The building type utilizes an engaged stoop frontage type with a very small paved setback. The engaged stoop is elevated above the sidewalk to ensure privacy at the ground floor and provide access to the units through a central corridor. No off-street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

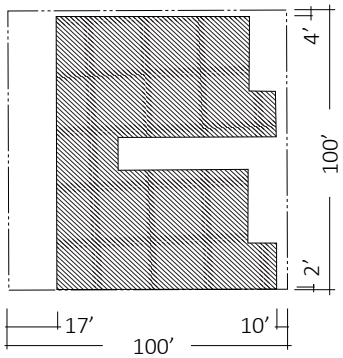
Considering mainly density and scale, a similar project could only be built in the RH zone. Building height is allowed in the R3, R2, and R1 zones, but exceeds allowed density in these zones.

Type Stacked Flats- Large Lot

Description

Housing Type:
Stacked Flats
Frontage:
Landscape/Projecting Porch
Lot Size: 10,000 SF
Zoning: R1
Units/Acre: 39
Year Built: 1913

Lot Disposition



General Zoning Code Criteria

	Existing Condition	R3		R2		R1		RH	
		Yes	No	Yes	No	Yes	No	Yes	No
Height	30 ft	X		X		X		X	
Density	9 units		X		X	X		X	
Front Setback	10 ft	X		X		X		X	
Side/Rear Setback	4-17 ft	X		X		X		X	
Lot Coverage	65%		X		X		X	X	
Building Length	26 ft	X		X		X		X	
Landscaping	30%		X	X		X		X	
Outdoor Area	0 sq ft/unit		X		X		X	X	

Summary

These stacked flats on a large 10,000 square foot lot achieves a density of 39 units per acre. The building type utilizes a projecting stoop frontage type with a medium sized landscaped setback. The projecting stoop is elevated above the sidewalk to ensure privacy at the ground floor and provide access to the units through a central corridor. No off-street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

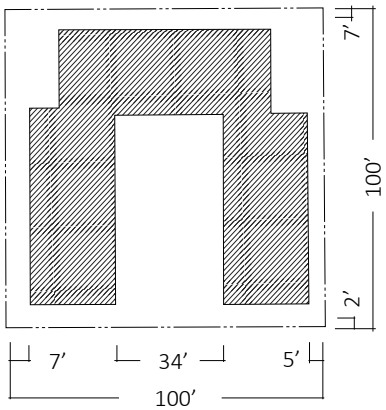
Considering mainly density and scale, a similar project could only be built in the R1 and RH zones. Building height is allowed in all the multidwelling zones, but exceeds allowed density in the R3 and R2 zones.

Type Stacked Courtyard Apts - Large Lot

Description

Housing Type: Stacked Flats
Frontage: Courtyard
Lot Size: 10,000 SF
Zoning: R2.5
Units/Acre: 52
Year Built: 1947

Lot Disposition



General Zoning Code Criteria

	Existing Condition
Height	25 ft
Density	12 units
Front Setback	2 ft
Side/Rear Setback	5-7 ft
Lot Coverage	50%
Building Length	27 ft
Landscaping	20%
Outdoor Area	167 sq ft/unit

R3		R2		R1		RH	
Yes	No	Yes	No	Yes	No	Yes	No
X		X		X		X	
	X		X		X	X	
	X		X		X	X	
X		X		X		X	
	X	X		X		X	
X		X		X		X	
	X		X	X		X	
X		X		X		X	

Summary

These stacked flats on a large 10,000 square foot lot achieve a density of 52 units per acre. The building type utilizes a courtyard entry frontage type with a small setback. The courtyard is elevated above the sidewalk to ensure privacy at the ground floor. The units are accessed through a central corridor. Four off-street parking spaces are provided and accessed via the side street.

Could a project of similar density and scale be built today in the multi-dwelling zones?

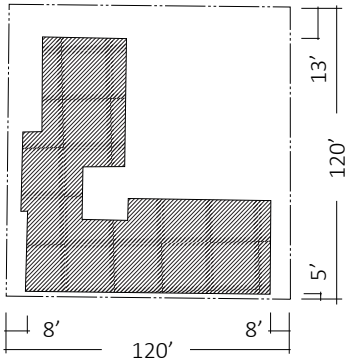
Considering mainly density and scale, a similar project could only be built in the RH zone. Overall, building height is allowed in all multi-dwelling, but exceeds allowed density in all but the RH zone.

Type Townhomes- Large Lot

Description

Housing Type: Townhomes
Frontage:
Landscape/Stoop
Lot Size: 14,000 SF
Zoning: R5
Units/Acre: 37
Year Built: 1929

Lot Disposition



General Zoning Code Criteria

	Existing Condition	R3		R2		R1		RH	
		Yes	No	Yes	No	Yes	No	Yes	No
Height	25 ft	X		X		X		X	
Density	12 units		X		X	X		X	
Front Setback	5 ft		X		X	X		X	
Side/Rear Setback	8-23 ft	X		X		X		X	
Lot Coverage	43%	X		X		X		X	
Building Length	100 ft	X		X		X		X	
Landscaping	30%		X	X		X		X	
Outdoor Area	213/unit sq ft	X		X		X		X	

Summary

These townhomes, located on a transit street, on a very large 14,000 square foot lot zoned single-family achieves a density of 37 units per acre. The building type utilizes a projecting stoop frontage type with a medium sized landscaped setback. The projecting stoop is elevated above the sidewalk to ensure privacy at the ground floor. Eight off-street surface parking spaces are provided at the rear of the lot.

Could a project of similar density and scale be built today in the multi-dwelling zones?

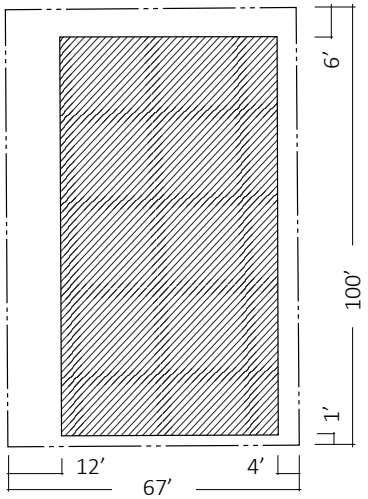
Considering mainly density and scale, a similar project could only be built in the R1 zone. Overall, building height is allowed in all multi-dwelling zones, but exceeds allowed density in the R3 and R2 zones. While meeting general zoning criteria, this project would not meet minimum density requirements for the RH zone.

Type Corridor Apartments

Description

Housing Type: Corridor Apts
Frontage: Engaged Stoop
Lot Size: 6,700 SF
Zoning: R2.5
Units/Acre: 93
Year Built: 1928

Lot Disposition



General Zoning Code Criteria

	Existing Condition
Height	35 ft
Density	14 units
Front Setback	1 ft
Side/Rear Setback	4-7 ft
Lot Coverage	67%
Building Length	50 ft
Landscaping	<1%
Outdoor Area	0 sq ft

R3		R2		R1		RH	
Yes	No	Yes	No	Yes	No	Yes	No
X		X		X		X	
	X		X		X	X	
	X		X		X	X	
	X		X		X		X
	X		X		X	X	
X		X		X		X	
	X		X		X		X
	X		X		X	X	

Summary

Corridor apartments are so called because the individual units are accessed by a common interior hallway corridor. This corridor apartment building on a 6,700 square foot lot zoned single-family, achieves a density of 93 units per acre. The building type utilizes an engaged stoop frontage type with a very small setback. The first floor of residential units sit over tuck-under parking garages. Having these units raised offers increased privacy. Nine off-street tuck-under parking spaces are provided and accessed via the side street.

Could a project of similar density and scale be built today in the multi-dwelling zones?

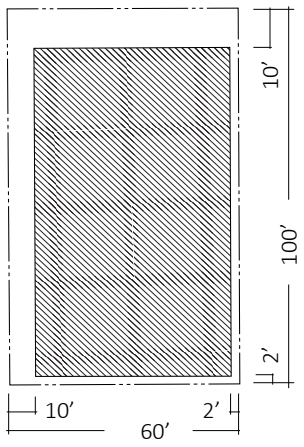
Considering mainly density and scale, a similar project could only be built in the RH zone. Overall, building height is allowed in the R1 and R2 zones, but exceeds allowed density and lot coverage.

Type Corridor Apartments

Description

Housing Type: Corridor Apts
Frontage: Engaged Stoop
Lot Size: 6,000 SF
Zoning: R2.5 (CM2)
Units/Acre: 114
Year Built: 1927

Lot Disposition



General Zoning Code Criteria

	Existing Condition	R3		R2		R1		RH	
		Yes	No	Yes	No	Yes	No	Yes	No
Height	35 ft	X		X		X		X	
Density	16 units		X		X		X		X
Front Setback	2 ft		X		X		X		
Side/Rear Setback	10 ft	X		X		X		X	
Lot Coverage	70%		X		X		X	X	
Building Length	87 ft	X		X		X		X	
Landscaping	4%		X		X		X		X
Outdoor Area	0 sq ft		X		X		X	X	

Summary

Similarly, these corridor apartments, located on a transit street, are accessed by a common interior hallway corridor. These apartments on a relatively standard 6,000 square foot lot achieve a density of 114 units per acre with a 2.3:1 FAR. The building type utilizes an engaged stoop frontage type with a very small setback. The ground floor units are not elevated and windows are at eye level of passerbys. No off-street parking spaces are provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

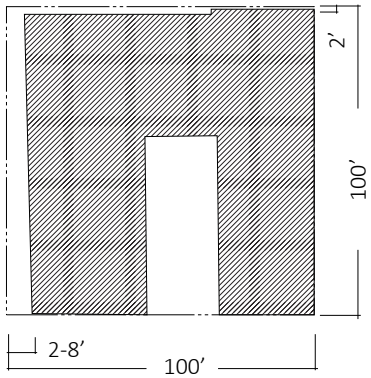
Considering mainly density and scale, a similar project could not be built in any of the multidwelling zones. This project in particular exceeds the assumption of the RH limit of 2:1 FAR. Overall, building height is allowed in all the multi-dwelling zones, but it exceeds lot coverage in all but the RH zone.

Type Stacked Courtyard Apartments

Description

Housing Type: Corridor Apts
Frontage: Courtyard
Lot Size: 10,000 SF
Zoning: RH
Units/Acre: 74
Year Built: 1930

Lot Disposition



General Zoning Code Criteria

	Existing Condition
Height	25 ft
Density	17 units
Front Setback	2 ft
Side/Rear Setback	2-8 ft
Lot Coverage	80%
Building Length	87 ft
Landscaping	14%
Outdoor Area	82 sq ft/unit

R3		R2		R1		RH	
Yes	No	Yes	No	Yes	No	Yes	No
X		X		X		X	
	X		X		X	X	
	X		X		X	X	
	X		X		X		X
	X		X		X	X	
X		X		X		X	
	X		X		X		X
X		X		X		X	

Summary

These courtyard apartments on a 10,000 square foot lot achieve a density of 74 units per acre. The building type utilizes a landscaped courtyard frontage type and little to no setback with the first floor units utilizing projecting stoops within the courtyard. No off-street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

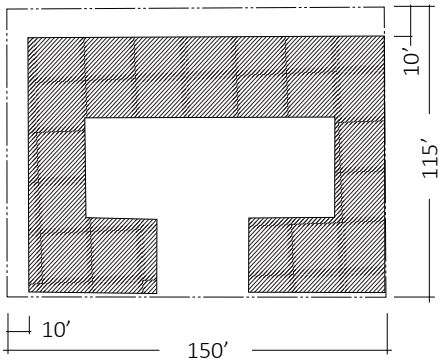
Considering mainly density and scale, a similar project could only be built in the RH zone. Building height is allowed in all the multi-dwelling zones, but exceeds allowed density and lot coverage in all but the RH zone.

Type Courtyard Townhomes

Description

Housing Type:
Courtyard Townhomes
Frontage: Courtyard
Lot Size: 17,000 SF
Zoning: R1
Units/Acre: 47
Year Built: 1928

Lot Disposition



General Zoning Code Criteria

	Existing Condition	R3		R2		R1		RH	
		Yes	No	Yes	No	Yes	No	Yes	No
Height	35 ft	X			X	X		X	
Density	19 units		X		X		X	X	
Front Setback	0 ft		X		X		X	X	
Side/Rear Setback	10 ft		X		X		X		X
Lot Coverage	70%		X		X		X	X	
Building Length	40 ft	X		X		X		X	
Landscaping	25%		X		X	X		X	
Outdoor Area	95 sq ft/unit	X		X		X		X	

Summary

These courtyard townhomes are accessed by a common landscaped courtyard. These apartments on a very large 17,000 square foot lot achieve a density of 47 units per acre. The building type utilizes a raised courtyard frontage type with no setback. The ground floor units are elevated over tuck-under garages.

Could a project of similar density and scale be built today in the multi-dwelling zones?

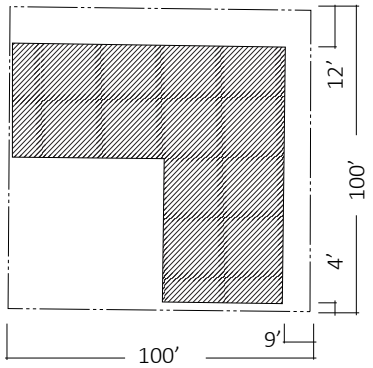
Considering mainly density and scale, a similar project could only be built in the RH zone. Building height is allowed in the R2 and R1 zones, but exceeds allowed density and lot coverage in all but the RH zone.

Type Courtyard Corridor Apartments

Description

Housing Type: Corridor Apts
Frontage: Courtyard
Lot Size: 10,000 SF
Zoning: R2 (RH)
Units/Acre: 95
Year Built: 1929

Lot Disposition



General Zoning Code Criteria

	Existing Condition
Height	40 ft
Density	22 units
Front Setback	4 ft
Side/Rear Setback	9-12 ft
Lot Coverage	54%
Building Length	40 ft
Landscaping	46%
Outdoor Area	114 sq ft/unit

R3		R2		R1		RH	
Yes	No	Yes	No	Yes	No	Yes	No
	X	X		X		X	
	X		X		X	X	
	X		X	X		X	
	X		X		X		X
	X		X	X		X	
X		X		X		X	
X		X		X		X	
X		X		X		X	

Summary

These courtyard corridor apartments on a 10,000 square foot lot achieve a density of 95 units per acre. The building type utilizes a raised and landscaped courtyard frontage type with a small setback. Some first floor units have doors opening directly onto the courtyard. Privacy is offered by the ground floor units being raised to the same elevation as the courtyard. No off-street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

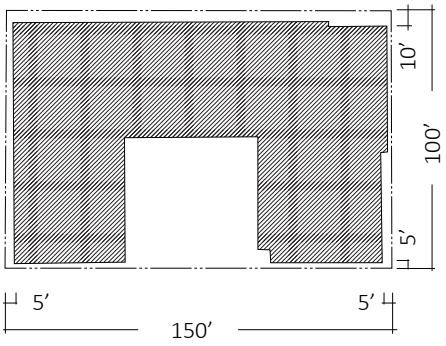
Considering mainly density and scale, a similar project could only be built in the RH zone. Building height is allowed in the R2 and R1 zones, but exceeds allowed density in all but the RH zone and lot coverage in the R3 and R2 zones.

Type Large Lot Courtyard Apartments

Description

Housing Type:
Courtyard Apartments
Frontage: Courtyard
Lot Size: 15,000 SF
Zoning: RH
Units/Acre: 114
Year Built: 1926

Lot Disposition



General Zoning Code Criteria

	Existing Condition	R3		R2		R1		RH	
		Yes	No	Yes	No	Yes	No	Yes	No
Height	32 ft	X		X		X		X	
Density	39 units		X		X		X	X	
Front Setback	5 ft		X		X		X		X
Side/Rear Setback	5-10 ft		X		X		X		X
Lot Coverage	70%		X		X		X	X	
Building Length	44 ft	X		X		X		X	
Landscaping	20%		X	X		X		X	
Outdoor Area	64 sq ft/unit	X		X		X		X	

Summary

This large lot coutyard apartment building contains 39 stacked units. The ground floor is partially submerged resulting in the 3-story building only reaching a height of 32 feet. The building wings have minimal setback, but the courtyard landscaping helps to provide privacy. No off-street parking is provided.

Could a project of similar density and scale be built today in the multi-dwelling zones?

Considering mainly density and scale, a similar project could only be built in the RH zone. Overall, building height is allowed in all the zones, but exceeds allowed density and lot coverage in all but the RH zone.

Recent Multi-Family Case Studies (built in the last 10 years)

The purpose of the following case studies is to provide a snapshot description of various projects that have been built within the last ten years under Portland's current zoning code regulations. This selection focuses on examples of developments that contribute to city policy goals for housing supportive of healthy active living, such as by including spaces for recreation or growing food, contributing to pedestrian connections, and other HEAL (Healthy Eating Active Living) approaches.

R2 Zoning

Name:	**Miraflores**
Address:	**8901 N. Newell**
Developer:	**Hacienda CDC**
Pattern Area:	**Inner**
Neighborhood:	**Portsmouth**
Typology:	**Stacked Courtyard Multiplex**
Height:	**Three Stories**
Market Rate or Affordable:	**Affordable**
Tenure:	**Rental**
Number of Buildings:	**3**
Number of Units:	**32**
Lot Size:	**1.15 ac (50,094 sf)**
Density:	**28 u/ac**
HEAL Amenities:	**Courtyard, Play Area, Connection to active transportation**
Parking:	**Off-street, Surface**

Miraflores, Portsmouth Neighborhood, Portland, Oregon.

Planning Context

Miraflores is an affordable housing multi-plex development consisting of 32 stacked units on an R2 zoned lot in the Portsmouth neighborhood. This development sits on a mostly square lot slightly larger than an acre at the end of a cul-de-sac and achieves a density of 28 units per acre.

Site Configuration and Amenities

The site plan wraps three buildings around a central L-shaped courtyard providing active, outdoor space for residents. The short leg of the courtyard provides the primary access from the surface parking lot found along the edge of the property to the interior of the project. The long leg of the courtyard terminates at an improved pedestrian connection providing access to the Peninsula Crossing Multi-Use Trail. Each entry to the courtyard is punctuated with wooden arbors and the most centrally located feature is child play equipment.

The courtyard space, including walking paths, is 33 feet across with the structures setback behind landscaping 8-15 feet depending on façade articulation. This condition works to improve privacy for ground floor units. The number of units and outdoor amenities on this size of lot is mainly accomplished by stacking the units.

R1 Zoning

Name:	**Kah San Chako Haws or "East House"**
Address:	**9707 SE Holgate Blvd**
Developer:	**Rey Espana, NAYA Family Center**
Pattern Area:	**Eastern Neighborhoods**
Neighborhood:	**Lents**
Typology:	**Stacked Courtyard Apartments**
Height:	**Three Stories**
Market Rate or Affordable:	**Affordable**
Tenure:	**Rental**
Number of Buildings:	**1**
Number of Units:	**9**
Lot Size:	**0.19ac (8,139 sf)**
Density:	**47 u/ac**
HEAL Amenities:	**Courtyard, Bike Storage**
Parking:	**No off-street parking provided**

Planning Context

Kah San Chako Haws, or “East House” is a single 9-unit stacked affordable housing apartment building on an 8,139 square foot lot zoned R1 in the eastern Portland neighborhood of Lents.

Site Configuration and Amenities

The site plan places the structure to the east side of the lot in order to provide additional common courtyard space on the west. Access to the units is provided through paved and landscaped walkways on each side of the building that lead to open air covered stairways. A landscaped 15-foot setback makes room for a rain garden stormwater facility that is traversed by a bridge. This creates a sense of entry that also identifies the transition from the public street to semi private zones within the lot.

R1 Zoning

Name:	**Stephens Creek Crossing**
Address:	**6715-6861 SW 26th Way**
Developer:	**Home Forward**
Pattern Area:	**Western Neighborhoods**
Neighborhood:	**Multnomah Village/Hillsdale**
Typology:	**Large Multi-plex**
Height:	**Three Stories**
Market Rate or Affordable:	**Affordable**
Tenure:	**Rental/Ownership**
Number of Buildings:	**20**
Number of Units:	**122**
Lot Size:	**6.6 ac (287,436 sf) over 3 lots**
Density:	**19.5 u/ac**
HEAL Amenities:	**Courtyard/Play Space/Child Care**
Parking:	**Off-street, Surface**

Planning Context
Stephens Creek Crossing is a large scale complete redevelopment of a previous affordable housing development that had suffered from significant deferred maintenance. This redevelopment resulted in an increase of total number of dwelling units and a broader mix of incomes.

The R2 zoning across the three lots that comprise the project allows 143 units by-right. It is worth noting that the lot abutting the main entrance corridor is used for community uses, including a community center and children's center.

Stephens Creek Crossing, Hillsdale Neighborhood, Portland, Oregon.

Site Configuration and Amenities

The site is ringed with buildings facing onto a private loop drive that provides access and parking. In the interior of the block created by the loop drive are four buildings arranged in a canted position perpendicular to the perimeter buildings. These canted buildings frame five individual courtyard spaces. Each courtyard space is programmed differently with two offering child play equipment where the remaining three are open sodded areas acting as attached greens. The buildings demonstrate a preferred arrangement as they face many of the windows and doors onto the loop road and internal courtyards offering supervision of the outdoor spaces from residents within. A large community garden space is offered in partnership with the neighboring church.

The various courtyards offer ample opportunity for pedestrian connectivity within the site itself. While pedestrian connections create access to streets beyond the project site, the cul-de-sac was not connected to the adjacent street grid network, a missed opportunity for improved connectivity.

Detailing of the buildings and use of color are consistent based on placement within the project. This helps create a sense of place and contributes to wayfinding and mental mapping. The open air stairwells of the outer perimeter buildings are punctuated by using a bold color. The inner perimeter buildings are detailed such that the façade facing into the courtyards present a similar bold color that surrounds private patio space and the second floor. The remaining canted buildings are relatively muted in comparison, yet offer dynamism and movement to the properly sized courtyard spaces.

R1 Zoning

Name:	**Daybreak Cohousing**
Address:	**2525 N. Killingsworth**
Developer:	**Multiple Partners**
Pattern Area:	**Inner Neighborhoods**
Neighborhood:	**Overlook**
Typology:	**Stacked Courtyard Housing**
Height:	**Two to Four Stories**
Market Rate or Affordable:	**Market Rate**
Tenure:	**Rental/Ownership**
Number of Buildings:	**4**
Number of Units:	**30**
Lot Size:	**0.62ac (27,000 sf)**
Density:	**48.4 u/ac**
HEAL Amenities:	**Courtyard/Play Space/Secure Bike Storage/Community Center/Guest Room/Gardens**
Parking:	**One ADA Off-Street Space**

Daybreak Cohousing, Arbor Lodge Neighborhood, Portland, Oregon.

Planning Context

Daybreak is a stacked unit courtyard cohousing development consisting of 30 units on a lot zoned R1. This lot was created by aggregating multiple lots.

Site Configuration and Amenities

Stacking the units allowed the creation of a central courtyard that preserves a large maple tree. The units vary from one, two, and three bedrooms. One configuration offers a two-story arrangement with bedrooms upstairs like that of a townhouse.

The ground floor and basement of one of the buildings is the Common House, which offers a variety of community amenities. The basement of the Common House offers utilitarian space, such as additional storage, secure bicycle storage and repair, a general workshop, and laundry room. The ground floor provides large group meal prep and eating space, a great room, a family room, a kid's room, spiritual space, and two guest rooms which residents of the development may reserve.

RX Zoning

Name:	**The Rose Apartments**
Address:	**9850 NE Everett**
Developer:	**Gordon Jones, Rose Holdings LLC**
Pattern Area:	**Eastern Neighborhoods**
Neighborhood:	**Hazelwood**
Typology:	**Large Lot Multiplex**
Height:	**Four Stories**
Market Rate or Affordable:	**Market Rate / Affordable**
Tenure:	**Rental**
Number of Buildings:	**2**
Number of Units:	**45**
Lot Size:	**1.02ac (44,431 sf)**
Density:	**44u/ac**
HEAL Amenities:	**Bike Storage, Raised Garden Beds**
Parking:	**Off-street, Surface**

The Rose Apartments, Gateway Regional Center, Portland, Oregon.

Planning Context

The Rose Apartments are two buildings totaling 45 units on a lot slightly larger than an acre in the Gateway Regional Center. This large lot was created by assembling a handful of smaller lots.

Site Configuration and Amenities

The lot that the two buildings sits on extends through the block the full depth. The structures on the lot are positioned with a reduced setback in order to front the adjacent streets and screen the surface parking lot. The landscaped setback offers some separation from those passing by on the sidewalk. The interior of the lot is raised garden beds and bike storage facilities. The project provides easy access with a crosswalk to connect across the street to the I-205 Multi-Use Path. A one-way private street (from NE 97th to 99th) provides vehicular and bicycle/pedestrian access to the parking lot.

Best Practices Research

Highlights

The purpose of the following best practices research is to gather ideas, strategies, and policies applicable to the physical development of new multifamily zoning code regulations and that have demonstrated, or have the potential to produce desirable results, in regards to the Better Housing by Design topic areas.

- **Missing Middle Housing** is a range of multi-unit building types that can fit seamlessly into residential neighborhoods.
- **Form-Based Codes** regulate by desired built form outcomes, instead of focusing on uses or density.
- **Lean Development Codes** look to reduce barriers to economic, community, and real estate development.
- **Cottage Cluster** housing arrangements offer an innovative housing model that creates the potential for homeownership in medium density development.
- **Courtyard housing** is a development model that often complements the built and natural context while accomodating density and providing amenities desired by potential tenants.
- **Development oriented to pedestrian streets** provide opportunity for necessary pedestrian connections without the level of engineering and cost of a standard street.
- **Individual projects of note** demonstrate creative and positive design outcomes by private design practitioners.

Missing Middle Housing

Current best practices regarding multi-dwelling regulations tend to revolve around Form-Based Codes (see section below) and modifying regulations to allow a broader range of multi-dwelling building types that fall into the 'Missing Middle' housing category.

Daniel Parolek, of Opticos Design, coined the term '"Missing Middle' Middle" and defines it as as, "a range of multi-unit or clustered housing types compatible with single-family homes that help meet the growing demand for walkable urban living." Missing Middle building types range from duplexes, tri-plexes and four-plexes to courtyard apartment and bungalow courts, to townhouses, multi-plexes, and live-work buildings. They tend to be built within an existing or newly created walkable urban context. The buildings often fall into a medium-density range, between 16 dwelling units per acre (du/acre) up to 35 du/acre, but visually fit into the neighborhood. These densities correspond to what is allowed in Portland's R3, R2, and R1 multi-dwelling zones. An area of middle-density-housing that provides 16 du/acre tends to be the bare minimum density needed to be transit-supportive and help make neighborhood-serving, walkable commercial areas attainable. At 16 du/acre, off-street parking may need to be limited to one parking space per unit.

Missing Middle Housing types diagram (via Opticos Design, Berkeley, CA)

Form-Based Codes

Around the country, Form-Based Codes are increasingly being applied to deliver more "predictable built results and high-quality public realm by using physical form rather than focusing on separation of uses as the organizing principle for the code." (Form-Based Code Institute). Form-Based Codes are also helping to generate more and better middle housing building types that could be appropriate in Portland's multi-dwelling zones and that accommodate a broad diversity of household types.

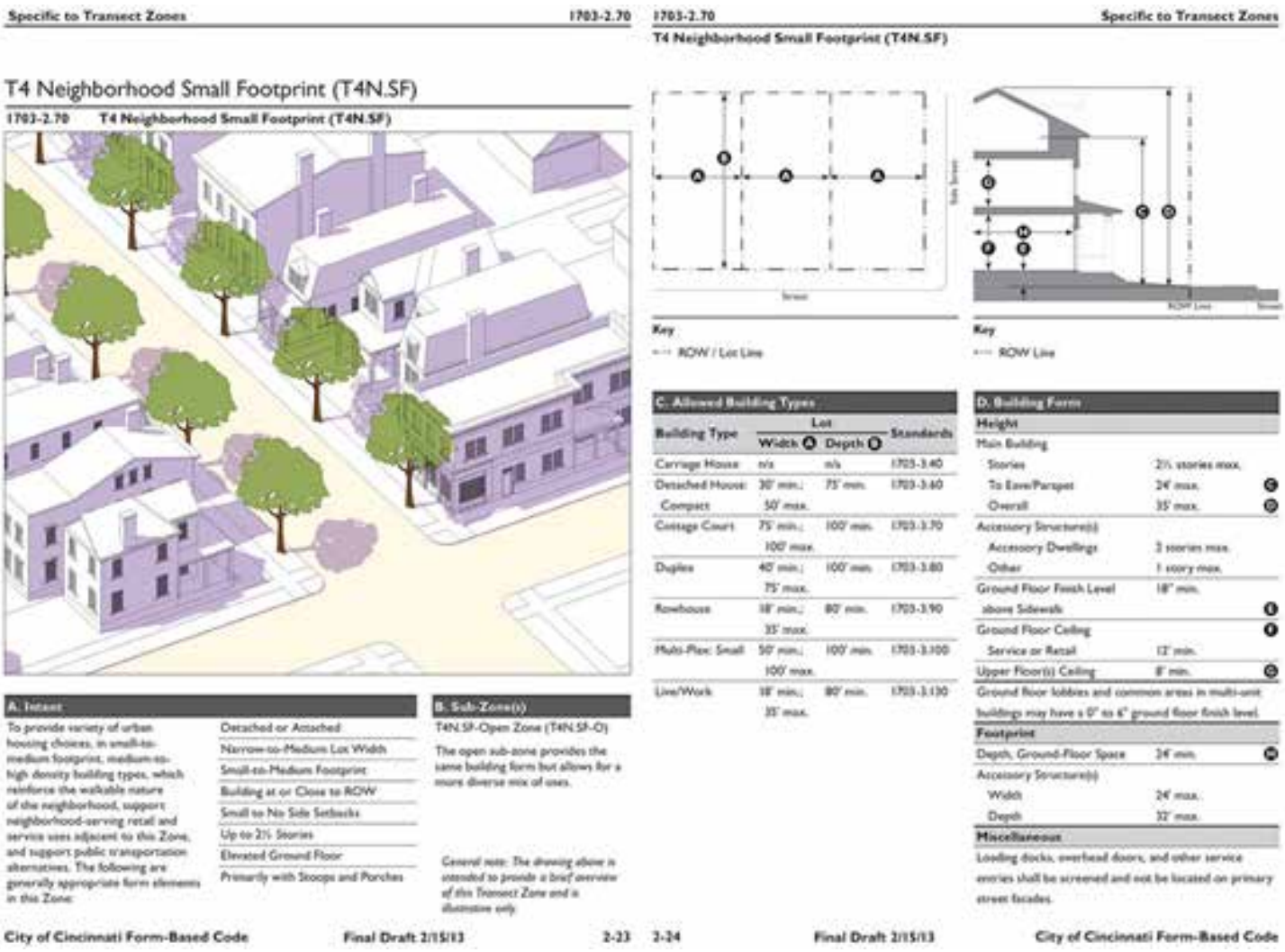
In contrast, many existing current zoning tools—Euclidean zoning tools that define and sometimes separate zones by use - utilize approaches originally based on auto-oriented, suburban development. Not surprisingly, these tools often produce auto-dependent patterns of development and often tend to undermine communities' and cities' climate and social equity policies.

In contrast to conventional zoning codes that focus on the separation of land uses and the control of development by regulating out undesirable conditions, Form-Based Codes often tend to lean focus on preferred outcomes, determined by the community and the context of new development, and use visual guides to provide clarity regarding intended outcomes.

Responses from private developers and builders are have generally been positive toward Form-Based Codes, due in part to their reliance on graphic communication to set clear expectations. Site constraints and preferred outcomes are readily ascertained in one or two locations within the code.

Though Form-Based Codes have been around since the 1980s, very few jurisdictions have adopted a complete city-wide Form-Based Code approach. Generally, most municipalities that have implemented this approach have done so in smaller areas that require heightened sensitivity due to historic or predominantly single-family character, where architecture and scale/density transitions are of high importance. It is more common for codes to include a mix of form-based and use-based regulations.

An example of the visual quality of form-based code prepared for the City of Cincinnati by Opticos Design can be seen below:



Example of visual format of form-based code (via missingmiddlehousing.com)

Form-Based Codes used around the country; some locations include:

- Nashville, TN
- Cincinnati, OH
- Livermore, CA
- Ithaca, NY
- Denver, CO
- Fremont, CA

The Community Character Manual in Nashville, Tennessee, provides detailed policy guidance for the built environment with design principles to address access, building form and site design, connectivity (for pedestrians, bicycles, and vehicles), landscaping and lighting, parking, and signage and wayfinding.
In Cincinnati, Ohio, the city's Form-Based Code, regulates for placemaking rather than for separate uses. This Form-Based Code includes a palette of preferable building types for a range of place contexts, from more urban to less urban. For each context area, visual details of lot depth and width, building orientation and placement, height, setbacks for various building types complement the narrative describing intent and desired forms.
Similarly, in Livermore, California, on the eastern edge of the San Francisco Bay Area, the city's Form-Based Code graphically describes a palette of preferable or allowable building types. A range of multi-dwelling types are described, from duplexes to multi-plexes—the full range of missing middle housing types.

In Ithaca, New York, the Form-Based Code for the Collegetown Area similarly regulates form, but also addresses activation of the street—street façade standards, location and number of doors and entry-ways.
In 2010, Denver, Colorado adopted a new form-based zoning code applied city-wide. This new zoning code is based on a series of contexts where form-based elements regulate all building types. The Denver Zoning Code is organized by neighborhood contexts which sets standards for compatible development. The neighborhood contexts are distinguished from one another by their physical and functional characteristics including but not limited to:

- Street, alley and block patterns
- Building placement and height
- Diversity, distribution and intensity of land uses
- Diversity of mobility options

The neighborhood contexts are categorized as: Suburban Neighborhood, Urban Edge Neighborhood, Urban Neighborhood, General Urban Neighborhood, Urban Center Neighborhood, Downtown Neighborhood, and Special Context & Districts.

Fremont, California applied a Form-Based Codes approach specifically to areas surrounding Downtown called City Center Sub-Areas and as a supporting Multi-Family Design Guidelines document. These efforts are relevant to the Better Housing by Design Project focus areas in Portland's eastern neighborhoods, as Fremont similarly has a stated goal of evolving from an "auto-oriented suburb into a sustainable, strategically urban, modern city".

Lean Development Codes

The Department of Housing and Urban Development has found that unnecessary government regulations increase the cost of constructing housing by up to 25 percent. The Project for Lean Urbanism, a cadre of practitioners and governmental and private organizations, looks to make small-scale development and entrepreneurship faster and more affordable by providing tools and reducing the burden of government regulations.

According to this website, Lean Urbanism is an approach to community-building that requires fewer resources and reduces obstacles to economic, community, and real estate development. It is a response to the requirements, complexities and costs that disproportionately burden small-scale developers, builders, and entrepreneurs.

In an attempt to encourage infill development in targeted areas, some municipalities are working to reduce barriers to development by reducing the amount of "red tape" in the code and application processes through the creation of what are being called Pink Zones. Pink Zones are an area where the red tape is reduced and where new protocols are pre-negotiated and experiments are conducted, all with the goal of removing impediments to economic, community, and real estate development.

Suggestions for creating leaner codes include:

- Adopt simplified codes that enable small-scale development and business and that demystify and simplify requirements.

- Lean Reuse and Renovation: Identifying and removing barriers to bringing abandoned or ill-used buildings back to productive life, avoiding the trap of spending more to meet building codes than the rehabbed value of the building.

- Cities that use the International Building Code can adopt the Existing Building Code to encourage renovation.

- Live-Work – Make provisional changes to existing codes that can facilitate the building of live-work units as a flexible, low-cost way to provide housing and work space in combination.

- Lean Code Tool: When overhaul of a city's zoning code is not an option, this tool can be used to identify how the code addresses issues that affect Lean Urbanism, such as maximum lot size, building height and size, fees, and parking. The tool then advises tweaks that will allow small-scale development.

- Neighborhood Code Generator: A forthcoming tool to be developed with a Knight Cities Challenge grant that allows neighborhood groups to create locally determined overlays that define and protect neighborhood character and provide guidance and certainty to developers.

Large municipalities experimenting with this approach include Phoenix and Detroit. In addition, four small to mid-size cities have been selected to implement pilot projects where the project team will work with city authorities, entrepreneurs, activists, and nonprofits to select a neighborhood, identify impediments to small-scale projects, create an action plan of projects to begin the revitalization, and develop a custom kit of tools to make them possible. These cities include Lafayette, Louisiana; Chattanooga, Tennessee; Saint Paul, Minnesota; and Savannah, Georgia.

Locally, Tigard, Oregon is employing this process in the revitalization of Tigard Triangle, a 450-acre area within the city that lacks a clear identity. The goal is to reposition this area as a vibrant, mixed-use district.

Cottage Cluster Housing Codes

Another set of codes, Cottage Housing Zoning Codes, have generated opportunities for higher-density housing developments that do not necessarily fit the traditional mold of multi-dwelling building types. The cottage housing type preserves the personal space and privacy of a detached house, but in a smaller and less costly unit. These smaller units, often between 700 sf and 900 sf, are usually clustered around a shared or common open space feature or in the form of a shared parking court. This approach serves as another way to integrate higher-density with a lower profile into a predominantly single-family residential neighborhood context.

Cottage Clusters, sometimes called Pocket Neighborhoods, have proved a desirable arrangement in allowing opportunity for home ownership in areas zoned for multifamily by providing more housing choice. The smaller footprints of the units allow for increased density over single-family homes, yet offer a tradeoff by providing child play space, gardens, and sometimes a common house for communal activities. A large number of these types of developments are found in the Puget Sound area where new codes have been developed specifically to address and encourage these housing types. In Washington, cottage cluster zoning codes have been implemented in

larger cities (Seattle) to smaller suburban cities (Kirkland) and town and villages (Langley). It should be noted that units may be detached or attached.

In Kirkland's planning processes, these types of developments showed the most promise as models for garnering community support while also providing additional housing choice. As a result of this, the Kirkland Planning Commission adopted an interim ordinance to test these ideas (which later became permanent).

The goals of this cottage cluster ordinance were to:

- Increase the housing supply and housing style choices in ways that are compatible with existing single-family communities
- Promote housing affordability by encouraging smaller homes
- Amend codes with language that encourages innovative housing projects, and to
- Regulate innovative housing projects through a permanent ordinance

Code specifics vary across jurisdictions in the Puget Sound Region, but key commonalities include minimum lot sizes, variability in allowable density, architectural design guidelines, and open space requirements. The amount of required open space across jurisdictions is comparable at 400 square feet per unit. Additional incentives and bonus units are often provided for the creation of an affordable unit within the project. These cottage cluster codes typically apply as options in single-family zones, providing greater allowances for density in exchange for limits on the size of the cottage units.

Danielson Grove Site Plan (via The Cottage Company) shows home clustered around central open space.

Homes clustered around shared open space in Kirkland, WA (via The Cottage Company)

Third Street Cottages, Langley WA cluster around common green. (Image via The Cottage Company)

High density apartments in Pasadena, CA are arranged around a central courtyard. (Image via HotPads.com).

Courtyard Housing Ordinance

Concerned about the type of multi-family being built, in 1989, the City of Pasadena, California implemented the "City of Gardens" Ordinance. This approach was intended to break a pattern of long, narrow multi-family units built in rows, with asphalt dominating the open space.

This ordinance was intended to respond to the most noticeable and important qualities of Pasadena neighborhood character, identified as being courtyards, lawns, and flowers.

The standards require all new multi-family projects consisting of three or more units to have a garden or landscaped court as their focus. This main garden takes up 17-20 percent of a lot. To offset the increase in open space requirements, the standard allows buildings in some cases to be constructed at the side and rear property lines without a setback.

The City of Gardens standards only apply in the city's medium to high density multi-family zones. It does not apply to downtown districts or to mixed use zones. Contemporary reviews of the decades old code update have been positive. Reviews state that the development built under the ordinance has successfully mediated the differing residential densities of the single-family house and the stacked flat apartment building through an urban form focused on human scale and gardens, and that the code has revived a traditional courtyard dwelling type.

Housing oriented to a pedestrian street in Gresham, Oregon.

Pedestrian Streets

A pedestrian street, sometimes called a Rosewalk, is a pedestrian-only street defined by building frontages and providing the primary pedestrian access to those buildings. This typology could be considered a derivative of courtyard housing, but where cottage clusters and courtyard housing tend to be insular, pedestrian streets serve a connectivity function. A pedestrian street may be formal with a central focal point and seating area, or may be more naturalistic in design. Pedestrian streets present builders and developers the opportunity to improve pedestrian connectivity and reduce the need for vehicular right-of-ways. Additionally, these connections can serve to provide linkages that offer connections between larger community open or civic spaces. In a location with steep topography, the units can be arranged to step up the slope with a pedestrian staircase in the center.

Narrower pedestrian streets are sometimes called Paseos. The difference between a Rosewalk and a Paseo is largely the width and number of homes facing the space. A Paseo is likely to be narrower and more functional in how connectivity is provided. Paseos are narrow pedestrian ways that cut through blocks offering an opportunistic pass through, shortening a route in a location containing longer vehicular blocks. The treatment and landscaping of a Paseo vary based on context.

A local example includes the pedestrian street found within the Belmont Dairy Townhomes in inner southeast Portland (see image). This pedestrian accessway provides connection through to a shared parking court from surrounding streets.

Belmont Dairy Townhomes Pedestrian Street, Portland, Oregon.

Innovative Design Solutions

While the variety of innovative new housing codes may not resolve the all the challenges Portland encounters related to multi-dwelling development, especially in East Portland, there are promising new tools and opportunity to regulate for better multi-dwelling outcomes. At the design level, some private design practitioners have successfully demonstrated an ability to rethink lot configurations through site and building design, particularly by having elements of the site plan perform multiple functions.

Living Streets and Shared Space

Recent notable multi-dwelling development projects, both internationally and nationally, provide examples of how parking access, common space, and stormwater functions might take place within the same space.

Wallingford Townhomes, Seattle, WA. A cluster of townhomes around a garden courtyard. (Image via b9 Architects).

Wallingford Townhouses, Seattle, Washington

The Wallingford townhome project has multiple “fronts”- to Wallingford Avenue, internally between the structures, and to each side along the shared parking access. The true front of the project is the one internal to the site, defining a centrally located outdoor space that is terraced and sheltered with direct views to and from each of the eleven homes. Accessed between the structures, the courtyard space connects to the lower outdoor shared parking access.

A variety of paving types for various functions within a singular shared space. (Image via Payton Chung, ULI.)

Sofia Lofts, San Diego, California

The Sofia Lofts, in the Golden Hill neighborhood in San Diego, California, integrates contemporary design with an historic three-bedroom house on the site. It consists of 16 units varying from studios, to one- and two-bedroom rentals, to the three-bedroom house. Its common areas serve primarily as social spaces—BBQ grill area, a lounge area, and space for outdoor movies and other activities—and secondarily as driveway access to several garages.

Blackbirds, Echo Park, California

Blackbirds, in the Echo Park neighborhood in Los Angeles, California, is a cluster of 18 homes (attached and detached) built around a “living street”, an interior courtyard that is made up of landscaping and parking areas yet still provides space for a variety of social and play functions.

2/3rds Project site plan via Guerilla Development, interlocking courtyards colored green.

2/3rds Project, St. Johns, Portland, Oregon

The 2/3rds Project is a mixed-use development that integrates open space and private, semi-public courtyard spaces into the design. Each dwelling unit has direct access to outdoor courtyard space and pavers are used to delineate primary site circulation area.

Parking Lot Conversion

New paving material provides permeability for rain water runoff and turns an auto-dominated parking lot into shared courtyard space. Portland, Oregon.

This 1960's apartment building in Portland's Northwest District was originally fronted by an asphalt parking lot. The asphalt was replaced by permeable pavers, and highlights possibilities for converting surface parking lots into spaces that can provide a stormwater management function, while potentially serving as multi-functional courtyard space. The courtyard perimeter has been reconfigured with wood slat screens to delineate circulation paths, create zones of semi-private space, and add warmth to the palate of materials.

This project was also provided additional architectural interest and functionality through a zinc rain screen cladding system. Windows were enlarged to provide better daylight, while the interiors feature sliding translucent glass doors to both allow for light and to provide privacy when needed.

A Pedestrianized Village in a Suburban Context

The NaerHeden master planned community offers housing choice, car-share, and common use parking courts.

The residential master planned community of NaerHeden is 20-minutes by train outside of Copenhagen Denmark. It was designed to reframe suburban living by giving residents opportunities for affordable housing, with individuality, diversity, and community. The project contains a variety of housing choices, private gardens, public spaces, and walking paths.

Common use parking courts enable better use of limited ground area by efficient grouping of parking at the project perimeter, leaving the interior of the project prioritized for pedestrians and community space. The project partnered with a car-share company to eliminate the need for private automobile storage for households that only drive occasionally. Nearby transit also allows residents the option to live without needing to own an automobile.